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**Jennifer C. Sedlachek**  
Project Manager



July 28, 2016

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

**RE: Former Mobil RAS #10MHG/160 14<sup>th</sup> Street, Oakland, California.**

Dear Ms. Detterman:

Attached for your review and comment is a letter report entitled *Soil and Groundwater Investigation Report* dated July 28, 2016, for the above-referenced site. The letter was prepared by Cardno, of Petaluma, California, and details proposed 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,

A handwritten signature in black ink, appearing to read "J Sedlachek".

Jennifer C. Sedlachek  
Project Manager

Attachment: Cardno's *Soil and Groundwater Investigation Report*, dated July 28, 2016

cc: Ms. Janice A. Jacobson, Cardno

July 28, 2016  
Cardno 287202.R01

Ms. Jennifer C. Sedlachek  
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**SUBJECT      Soil and Groundwater Investigation Report**  
Former Mobil Service Station 10MHG  
160 14<sup>th</sup> Street, Oakland, California

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno prepared this soil and groundwater investigation report for the subject site. The purpose of the work was to delineate off-site petroleum hydrocarbon and chlorinated solvent concentrations in groundwater. The work was conducted in accordance with Cardno's *Sensitive Receptor Survey and Work Plan for Soil Borings (Work Plan)*, dated April 25, 2016 (Cardno, 2016), which was approved by Alameda County Environmental Health (ACEH) in electronic correspondence dated April 12, 2016 (Appendix A). A report deadline extension was granted for this document in electronic correspondence dated June 3, 2016 (Appendix A).

## **SITE DESCRIPTION**

Former Mobil Service Station 10MHG (Assessor's Parcel Number 08-0628-5-1) is located on the southeastern corner of Madison Street and 14<sup>th</sup> Street in Oakland, California, as shown on the Site Vicinity Map (Plate 1). A service station operated at the site from 1964 to 1986, when the station was decommissioned (AAC, 2001a).

Currently, the site is located in a mixed-use commercial and residential area and is occupied by a multi-story building. The upper floors of the building are comprised of residential apartments while the lower floor is occupied by a restaurant, a café, and parking. The neighboring properties include a dry cleaner and office building to the west, the Islamic Center of Northern California to the northeast, retail and residential buildings to the east, a public

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library to the south, and a preschool to the southwest. Select site features and neighboring properties are illustrated on the Generalized Site Plan (Plate 2) and Extended Site Plan (Plate 3).

## **GEOLOGY AND HYDROGEOLOGY**

The site is located along the eastern margin of the San Francisco Bay within the East Bay Plain (Hickenbottom and Muir, 1988). The surficial deposits in the site vicinity are mapped as Merritt Sand consisting of fine-grained, very well sorted, well-drained eolian deposits of the Pleistocene and Holocene age (Graymer, 2000). The active northwest trending Hayward fault is located east of the site. Boring logs indicate that the site is underlain primarily by silts and sands.

The East Bay Plain is regionally divided into two major groundwater basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The San Francisco Basin is further divided into seven sub-areas. The site is located in the Oakland Sub-Area, which is filled primarily by alluvial deposits that range from 300 to 700 feet thick without well-defined aquitards (CRWQCB, 1999). Under natural conditions, the direction of groundwater flow in the East Bay Plain is east to west towards San Francisco Bay and correlates with topography.

The site is located approximately 850 feet west of Lake Merritt, which is connected to the Oakland Inner Harbor to the west, which connects to the San Francisco Bay, located approximately 3.3 miles to the west and 0.8 mile to the south of the site. The groundwater flow direction at the site is presumably east towards Lake Merritt. Groundwater recharge of the East Bay Plain occurs by infiltration from precipitation, irrigation, pipe leakage, and stream flow. First-encountered groundwater at the site is present between 12 and 20 feet bgs.

## **PREVIOUS WORK**

Groundwater and soil sampling results are summarized in Tables 1A and 1B and Tables 2A through 2C, respectively. The locations of the former USTs and sampling locations are illustrated on Plates 2 and 3.

### **Fueling System Activities**

In May 1986, one 10,000-gallon gasoline UST, one 6,000-gallon gasoline UST, and one 550-gallon used-oil UST were removed from the site in conjunction with the demolition of a Mobil gasoline service station. Concentrations of TPHg and used oil were not reported in soil samples collected from the gasoline USTs excavation or the used-oil UST excavation, respectively (Blaine, 1986).

### **Site Assessment Activities**

Site assessment activities have been conducted since 2001, including a Phase I environmental site assessment (ACC, 2001a); a Tier 1 risk evaluation (ACC, 2006b); the drilling and sampling soil borings SB1 through SB3 and B-1 through B-6 (ACC, 2001b; ACC, 2006a; AAC, 2007); and the collection of discrete composite soil samples and excavation sidewall samples (AAC, 2007).

### **Remediation Activities**

Between 2006 and 2008, the site was redeveloped. During redevelopment activities, approximately 6,528 tons of soil were excavated and removed from the site. During construction, a vapor barrier was installed to eliminate potential soil vapor intrusion concerns (ACC, 2006c; ACC, 2008).

### **SOIL AND GROUNDWATER INVESTIGATION**

To delineate the extent of petroleum hydrocarbons and chlorinated solvents in groundwater, Cardno drilled eight soil borings around the site perimeter. The work was conducted under the direction of a professional geologist and in accordance with the field protocol included in Appendix B, a site-specific health and safety plan, and applicable regulatory guidelines.

### **Pre-Field Activities**

Cardno obtained an access agreement with the off-site property owner(s), soil boring permits from the Alameda County Public Works Agency (County), and encroachments permit from the City of Oakland (City) prior to initiating field activities (Appendix C).

Cardno visited the site to check for underground and overhead obstructions and to mark the proposed boring and well locations. In addition, a private utility location company was employed to identify potential underground utilities or other obstructions in the proposed well locations. Cardno notified Underground Service Alert (USA North), the ACEH, the County, and the property owner at least 48 hours prior to the onset of field activities.

### **Soil Boring Activities**

From June 8 to 10, 2016, Cardno observed Cascade Drilling, L.P. (Cascade) clear borings B7 to B14 to a minimum of 5 feet bgs using hand tools in accordance with EMES subsurface clearance procedures. A direct-push drill rig was then used to advance the borings to total depth. Continuous soil samples were collected from

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the base of the cleared boreholes to total depth. Grab groundwater samples were collected at first-encountered groundwater in each boring at depths ranging from 16 to 21 feet bgs. Boring logs are included in Appendix D.

### **Laboratory Analyses**

Cardno submitted the groundwater and soil samples for analysis to Eurofins Calscience, Inc., of Garden Grove, California, a California state-certified laboratory, under COC protocol. Laboratory analytical results, methods, and select chromatograms are detailed in the laboratory reports (Appendix E) and summarized in Tables 1, 2A, and 2B. Select results are illustrated on Plates 4 and 5.

### **Survey**

On June 30, 2016, Cardno observed Morrow Surveying survey the boring locations and select site features. The survey report is included in Appendix F.

### **Waste Containment and Disposal**

Soil and rinsate water generated during field activities were stored in 55-gallon drums and transported for disposal to EMES-approved disposal facilities. Waste documentation is included in Appendix G.

## **DISCUSSION**

The distribution of petroleum hydrocarbons and chlorinated solvents suggests that there are multiple sources. Borings B7 and B8 (in the sidewalk along 14<sup>th</sup> Street) have concentrations of PCE at 110 µg/L with concentrations of BTEX below the reporting limit. Based on the inferred groundwater flow direction towards Lake Merritt, it appears likely that the PCE reported in borings B7 and B8 originates from an upgradient source, west of the site.

Many of the reported TPHg and TPHd concentrations in samples were footnoted by the laboratory to state that the chromatographic pattern does not match the specified standard. Based on a review of select chromatograms (W-16-B12), it appears that much of the reported concentrations occur within the overlapping carbon range of diesel and gasoline. Many of the reported constituents in sample W-16-B12 are consistent with the overlap between gasoline and diesel with C9 compounds trimethylbenzene, isopropyl benzene, and n-propyl benzene and C10 compound naphthalene. The *Leaking Underground Fuel Tank Guidance Manual* (LUFT Manual) lists a carbon range for gasoline of approximately C4 to C12 and a carbon range for diesel of approximately C9 to C24 (SWRCB, 2012b). Based on the presence of these compounds as well as BTEX compounds, it appears that the

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concentrations in borings B11 and B12 may be weathered gasoline. The chromatograms are included in Appendix E.

The maximum reported petroleum hydrocarbon concentrations (B11 and B12) are lower than the maximum concentrations reported during previous investigations (B3), showing that dissolved-phase concentrations are decreasing with time, distance from the source, or both.

## **RESULTS AND CONCLUSIONS**

Sediments observed during this investigation consisted largely of silts and sands to 24 feet bgs, the maximum depth explored. Groundwater was encountered between 17 and 20 feet bgs in the borings.

Petroleum hydrocarbon and solvent concentrations were near or below reporting limits in soil samples collected from the site vicinity. Concentrations of benzo (a) pyrene (0.028 mg/kg) reported in boring B12 at 5 feet bgs, concentrations of naphthalene (0.064 mg/kg) reported in boring B11 at 15 feet bgs, and select reporting limits for MTBE and naphthalene exceeded Tier 1 ESLs. It should be noted that naphthalene was analyzed using EPA Method 8260B (VOCs) as well as EPA Method 8310 (PAHs).

Petroleum hydrocarbon and solvent concentrations were reported at concentrations exceeding Tier 1 ESLs in the groundwater samples collected from the site. Maximum petroleum hydrocarbon concentrations were reported beneath the sidewalk along Madison Street (west of the former USTs) and maximum solvent concentrations were reported beneath the sidewalk along 14<sup>th</sup> Street (east and southeast of the former USTs as well as along Madison Street).

## **LOW-THREAT CLOSURE**

In a meeting between the ACEH and Cardno on February 4, 2016, the media-specific criteria for groundwater was identified as the remaining data gap to meeting the requirements of the State Water Resources Control Board's *Low-Threat Underground Storage Tank Case Closure Policy* (SWRCB, 2012a). Based on the results of this investigation, Cardno concludes that the site does not meet this criterion for closure as the extent of concentrations exceeding water quality objectives has not been delineated.

## **RECOMMENDATIONS**

Based on discussions at the February 4, 2016 meeting, Cardno recommends having a meeting with the ACEH to discuss the next steps.

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## CONTACT INFORMATION

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services Company, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Ms. Janice A. Jacobson, Cardno, 601 N. McDowell Boulevard, Petaluma, California, 94954. The agency contact is Ms. Karel Detterman, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Alameda, California, 94502.

## LIMITATIONS

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

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

Please contact Ms. Janice A. Jacobson, Cardno's project manager for this site, at [janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com) or at (707) 766-2000 with any questions regarding this report.

Sincerely,

SCANNED  
 IMAGE  
 Christine M. Capwell

SCANNED  
 IMAGE  
 David R. Daniels



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Enclosures:

References

Acronym List

Plate 1	Site Vicinity Map
Plate 2	Generalized Site Plan
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Plate 4	Select Groundwater Analytical Results
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Table 1A	Cumulative Groundwater Analytical Results
Table 1B	Cumulative Groundwater Analytical Results – Additional VOCs
Table 2A	Cumulative Soil Analytical Results
Table 2B	Cumulative Soil Analytical Results – PAHs
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Appendix A	Correspondence
Appendix B	Field Protocol
Appendix C	Permits
Appendix D	Boring Logs
Appendix E	Laboratory Analytical Reports
Appendix F	Survey Data
Appendix G	Waste Disposal Documentation

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



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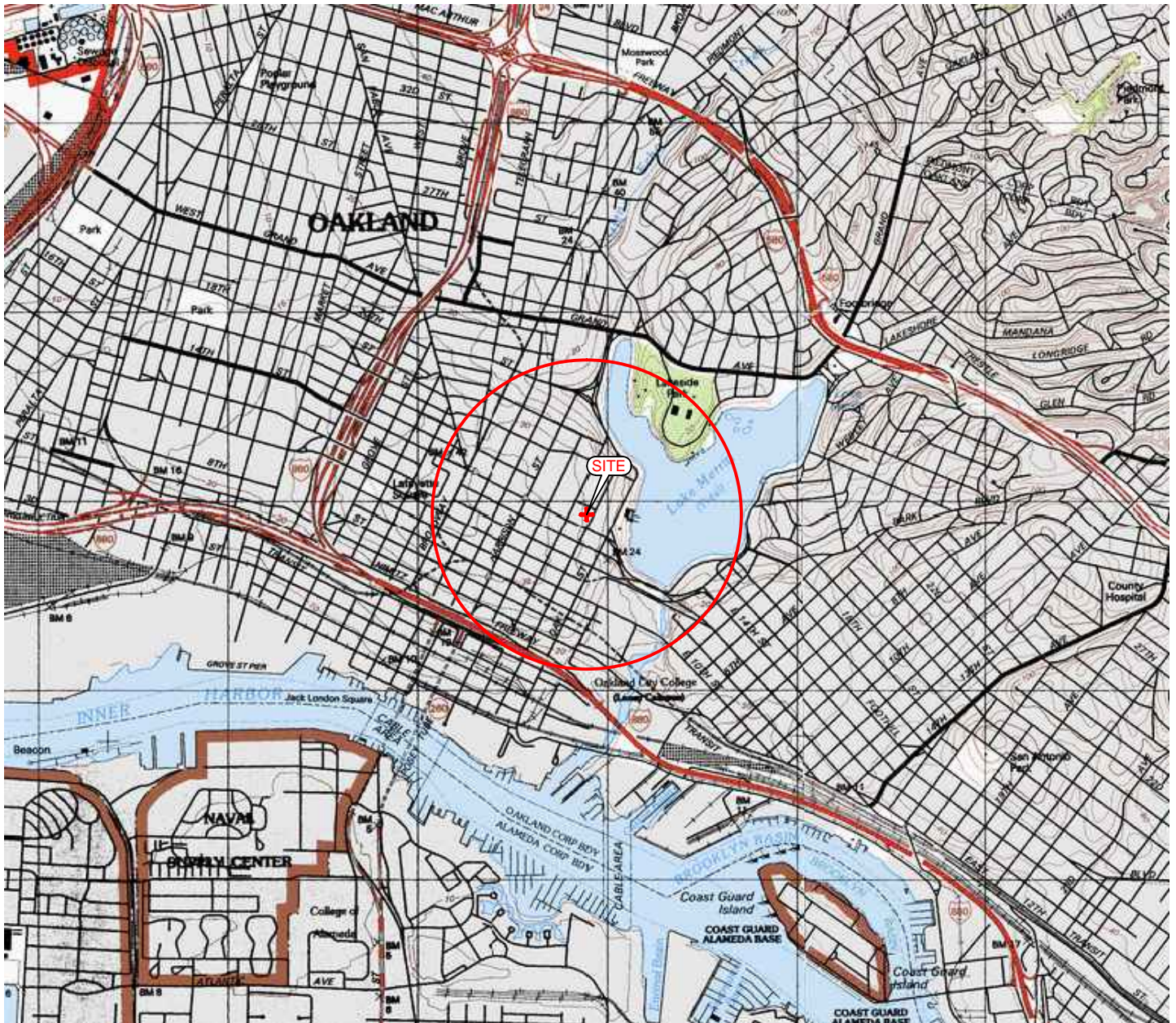
State Water Resources Control Board (SWRCB). September 2012b. *Leaking Underground Fuel Tank Guidance Manual*

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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	Semi-volatile organic compound
J	Estimated value between MDL and PQL (RL)	TAME	Tertiary amyl methyl ether
LEL	Lower explosive limit	TBA	Tertiary butyl alcohol
LPC	Liquid-phase carbon	TCE	Trichloroethene
LRP	Liquid-ring pump	TOC	Top of well casing elevation; datum is msl
LUFT	Leaking underground fuel tank	TOG	Total oil and grease
LUST	Leaking underground storage tank	TPHd	Total petroleum hydrocarbons as diesel
MCL	Maximum contaminant level	TPHg	Total petroleum hydrocarbons as gasoline
MDL	Method detection limit	TPHmo	Total petroleum hydrocarbons as motor oil
mg/kg	Milligrams per kilogram	TPHs	Total petroleum hydrocarbons as stoddard solvent
mg/L	Milligrams per liter	TRPH	Total recoverable petroleum hydrocarbons
mg/m <sup>3</sup>	Milligrams per cubic meter	UCL	Upper confidence level
MPE	Multi-phase extraction	USCS	Unified Soil Classification System
MRL	Method reporting limit	USGS	United States Geologic Survey
msl	Mean sea level	UST	Underground storage tank
MTBE	Methyl tertiary butyl ether	VCP	Voluntary Cleanup Program
MTCA	Model Toxics Control Act	VOC	Volatile organic compound
NAI	Natural attenuation indicators	VPC	Vapor-phase carbon
NAPL	Non-aqueous phase liquid		



**EXPLANATION**

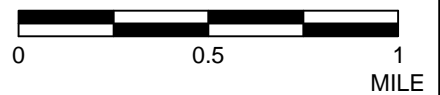


0.5-mile radius circle

SOURCE: Modified from a map provided by [www.topoquest.com](http://www.topoquest.com)



APPROXIMATE SCALE



FN 2872TOPO

**SITE VICINITY MAP**

Former Mobil Service Station 10MHG  
 160 14th Street  
 Oakland, California

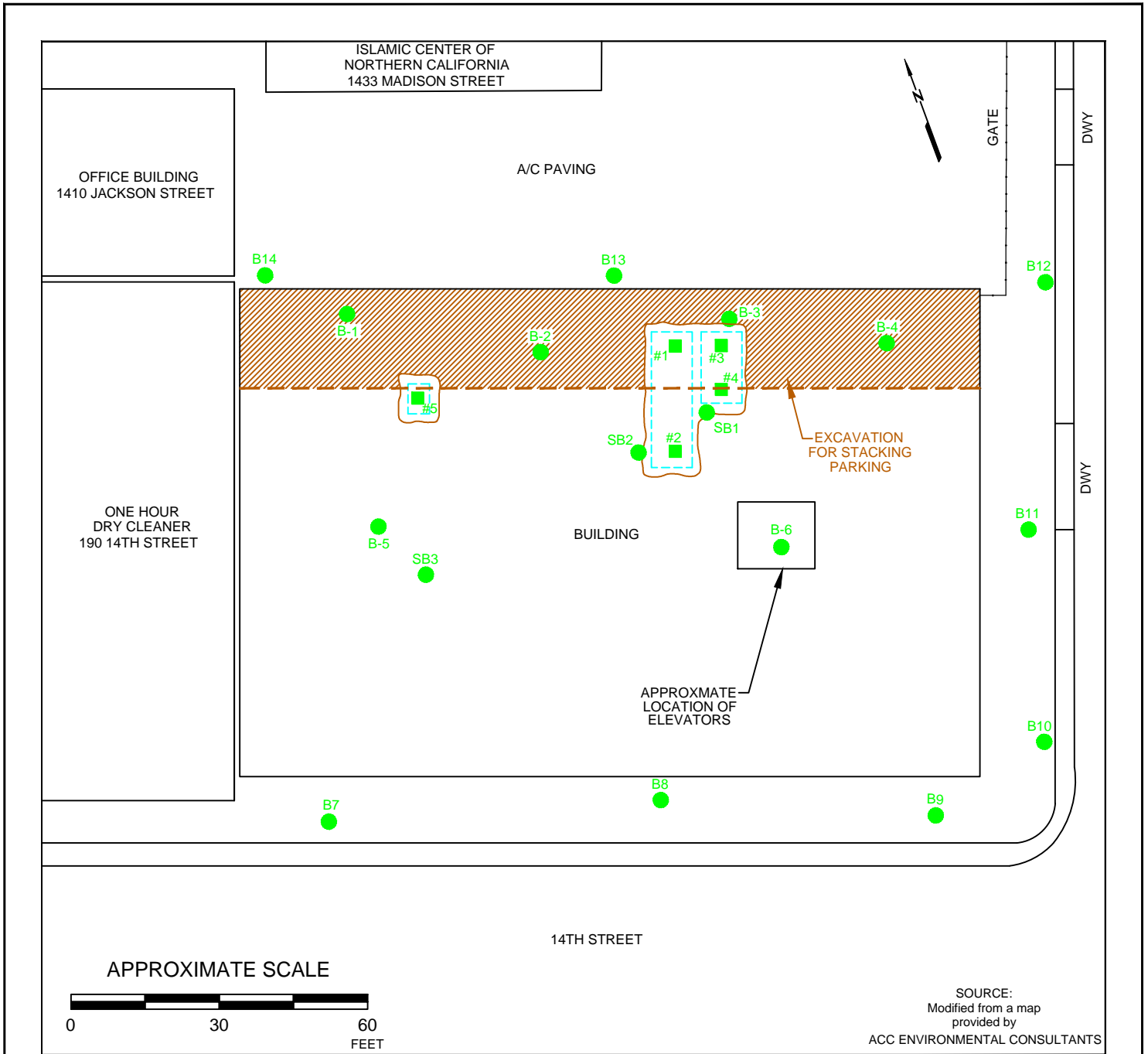


PROJECT NO.

2872

PLATE

1



FN 28720003 R01

**EXPLANATION**

- B14  
● Soil Boring
- #5  
■ Excavation Soil Sample
- Former UST



**GENERALIZED SITE PLAN**

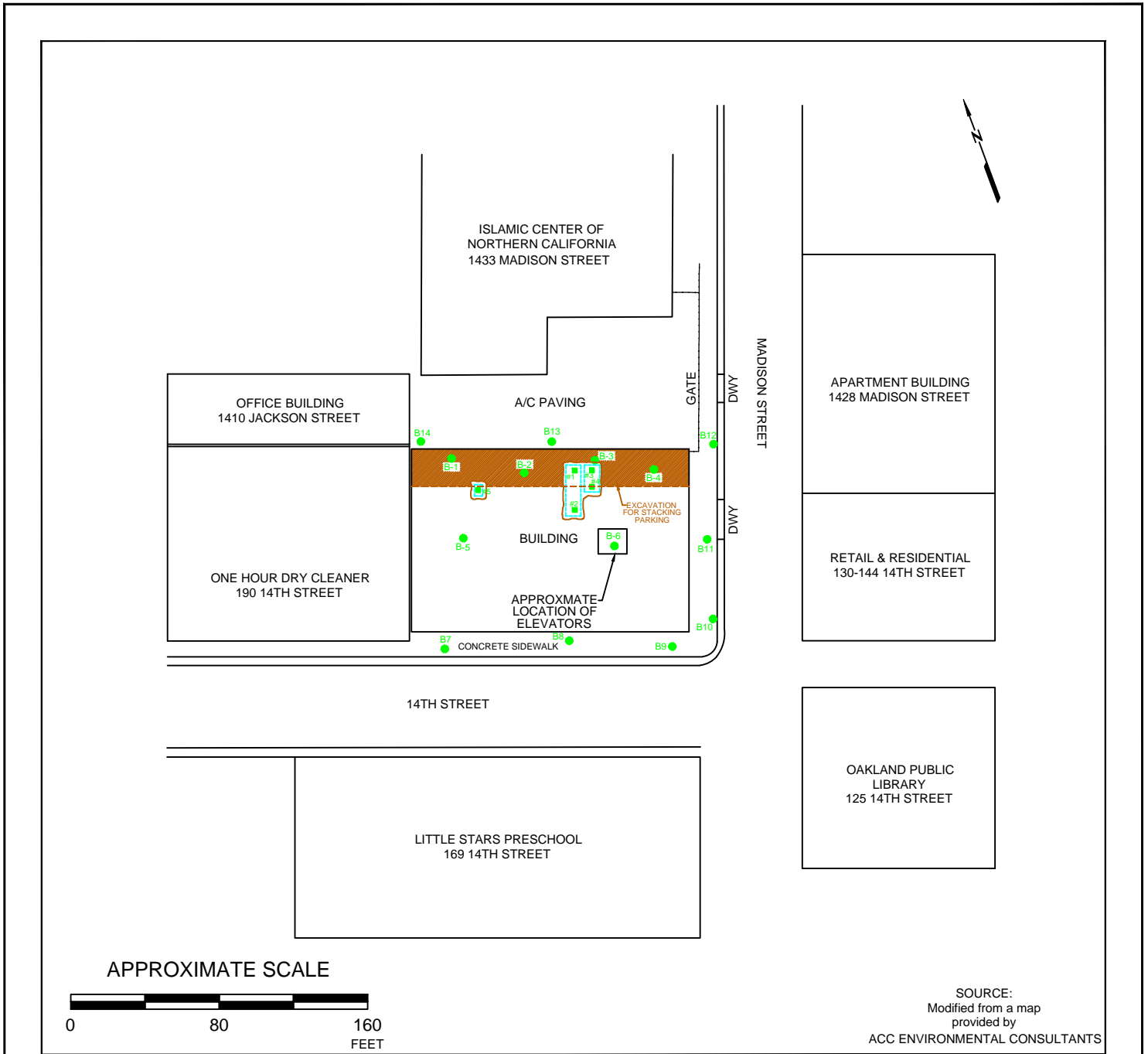
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California

**PROJECT NO.**

2872

**PLATE**

2



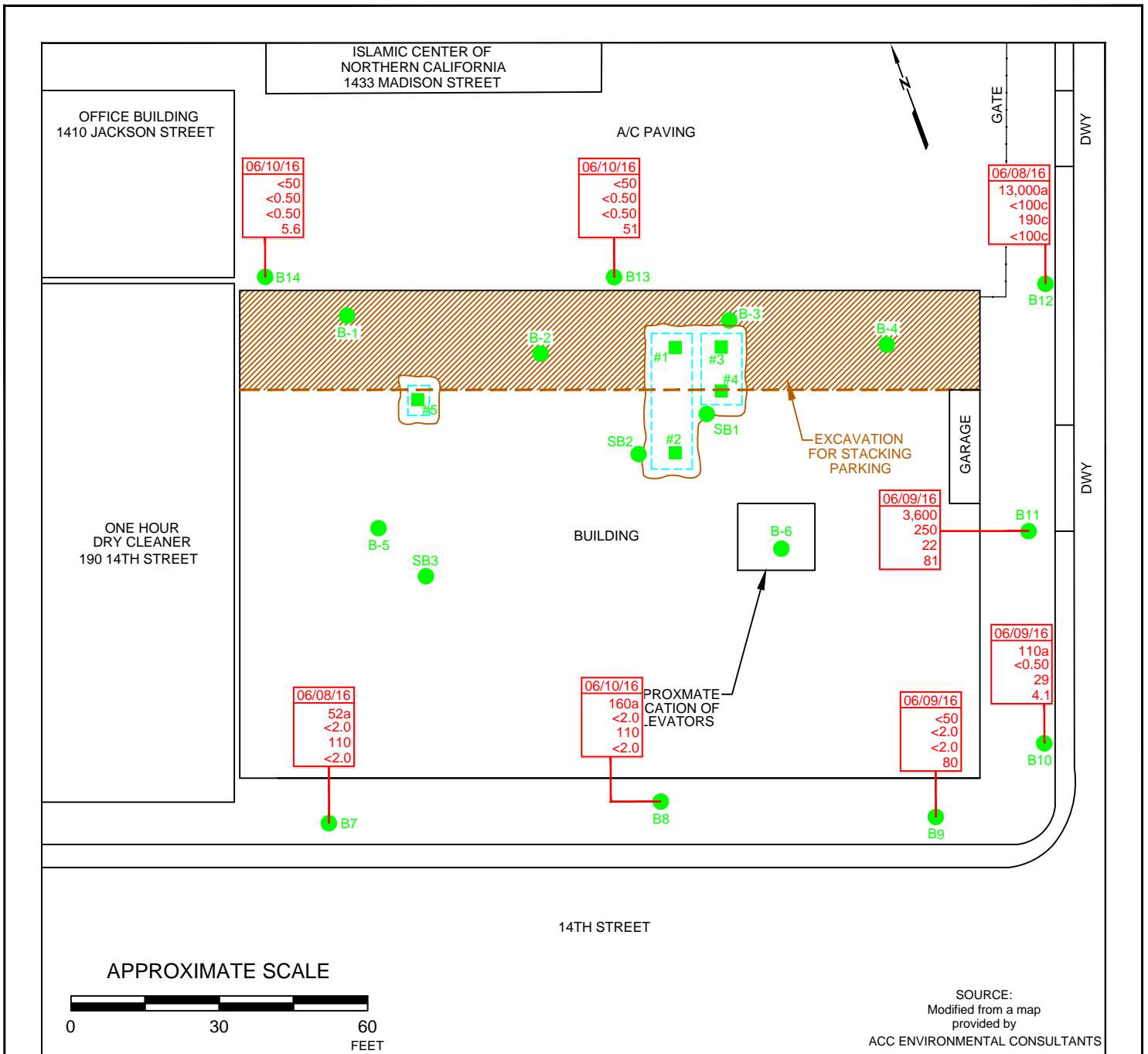
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FN 28720002 R01

**EXPLANATION**

- B14  
● Soil Boring
- #5  
■ Excavation Soil Sample
- Former UST

	EXTENDED SITE PLAN	PROJECT NO.
	Former Mobil Service Station 10MHG 160 14th Street Oakland, California	2872
		PLATE
		3



FN 28720004 R01

**EXPLANATION**

- B14
- Soil Boring
- #5
- Excavation Soil Sample
- Former UST

Sample Date
Total Petroleum Hydrocarbons as gasoline
Benzene
Tetrachloroethene
Trichloroethene

- < Less than the stated laboratory reporting limit.
- ug/L Micrograms per liter
- a The chromatographic pattern does not match that of the specified standard.
- c Sample taken from VOA vial with air bubble > 6mm diameter.



**SELECT GROUNDWATER ANALYTICAL RESULTS**

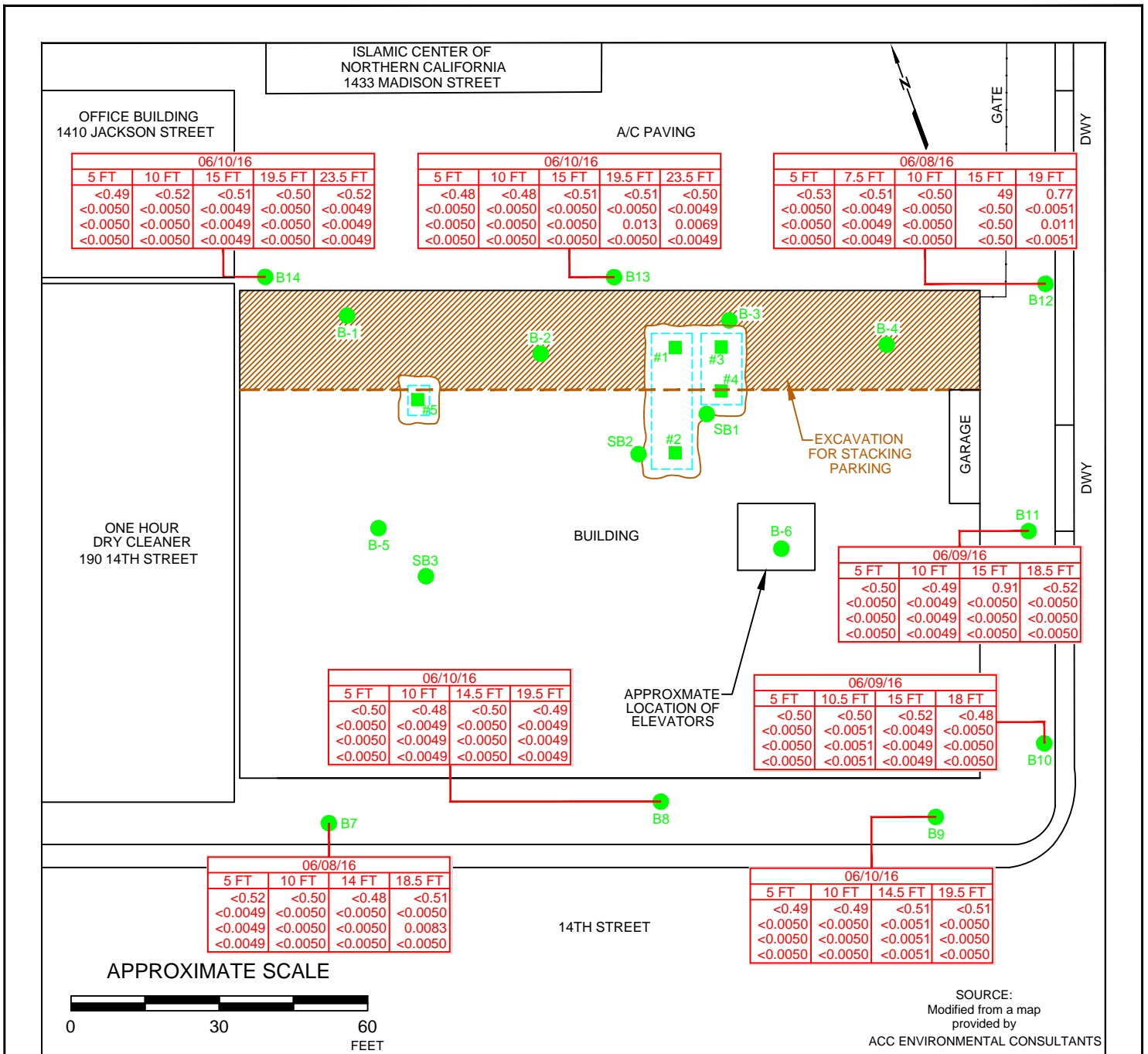
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California

**PROJECT NO.**

2872

**PLATE**

4



FN 28720004 R01

## EXPLANATION

- B14 ● Soil Boring
- #5 ■ Excavation Soil Sample
- Former UST

Sample Date	<	Less than the stated laboratory reporting limit.
Sample Depth		
Total Petroleum Hydrocarbons as gasoline	mg/kg	Milligrams per kilogram
Benzene		
Tetrachloroethene		
Trichloroethene		



## SELECT SOIL ANALYTICAL RESULTS

Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California

PROJECT NO.

2872

PLATE

5



**TABLE 1A**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 1 of 2)

Sample ID	Sampling Date	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
<b>Environmental Screening Levels (February 2016)</b>													
Tier 1		---	100	100	1.0	40	13	20	5.0	0.17	0.42	0.46	6.0
<b>2001 Soil Boring Investigation</b>													
SB1-W	07/23/01	<690	<b>340</b>	78	<b>5.7</b>	<0.50	1.9	<0.50	---	---	<b>6.1</b>	<b>&lt;0.50</b>	<0.50
SB3-W	07/23/01	---	---	---	---	---	---	---	---	---	<b>2.6</b>	<b>&lt;0.50</b>	<0.50
<b>2006 Groundwater Sampling</b>													
B-1	04/04/06	---	---	<b>960</b>	<b>&lt;2.0</b>	18	<2.0	2.8	<2.0	b	<b>780</b>	<b>33</b>	<2.0
B-3	04/04/06	---	---	<b>18,000</b>	<b>690</b>	<b>82</b>	<b>990</b>	<b>2,070</b>	<3.6	b	<b>68</b>	<b>5.3</b>	<b>16</b>
B-5	04/04/06	---	---	<b>1,100</b>	<b>&lt;5.0</b>	<5.0	<5.0	6.6	<5.0	b	<b>820</b>	<b>42</b>	<5.0
<b>2016 Groundwater Sampling</b>													
W-17.5-B7	06/08/16	---	<50	52a	<b>&lt;2.0</b>	<2.0	<2.0	<2.0	<2.0	<b>&lt;4.0</b>	<b>110</b>	<b>&lt;2.0</b>	<2.0
W-16-B8	06/10/16	---	<51	<b>160a</b>	<b>&lt;2.0</b>	<2.0	<2.0	<2.0	<2.0	<b>&lt;4.0</b>	<b>110</b>	<b>&lt;2.0</b>	<2.0
W-16-B9	06/10/16	---	<47	<50	<b>&lt;2.0</b>	<2.0	<2.0	<2.0	<2.0	<b>&lt;4.0</b>	<b>&lt;2.0</b>	<b>80</b>	<2.0
W-16.5-B10	06/09/16	---	<50	<b>110a</b>	<0.50	<0.50	<0.50	<0.50	<0.50	<b>&lt;1.0</b>	<b>29</b>	<b>4.1</b>	<b>3.8</b>
W-16-B11	06/09/16	---	<b>2,100a</b>	<b>3,600</b>	<b>250</b>	<b>150</b>	<b>790</b>	<b>2,400</b>	<b>&lt;20</b>	<b>220</b>	<b>22</b>	<b>81</b>	<b>92</b>
W-16-B12	06/08/16	---	<b>16,000a</b>	<b>13,000a</b>	<b>&lt;100c</b>	<b>&lt;100c</b>	<b>550c</b>	<b>460c</b>	<b>&lt;100c</b>	<b>1000c</b>	<b>190c</b>	<b>&lt;100c</b>	<b>170c</b>
W-19-B13	06/10/16	---	<46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>51</b>	<0.50
W-21-B14	06/10/16	---	<46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>5.6</b>	<0.50

**TABLE 1A**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 2 of 2)

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Notes:	
TPHmo	= Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015M.
TPHd	= Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
TPHg	= Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	= Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
BTEX	= Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
PCE	= Tetrachloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
TCE	= Trichloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
cis-1,2-DCE	= cis-1,2-Dichloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B
VOCs	= Additional volatile organic compounds analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
µg/L	= Micrograms per liter.
ND	= Not detected.
<	= Less than the laboratory reporting limit.
---	= Not analyzed/Not applicable/Not sampled.
a	= The chromatographic pattern does not match that of the specified standard.
b	= Previous consultant reported VOCs below reporting limits, but did not specify which analytes were included in the VOC analysis.
c	= Sample taken from VOA vial with air bubble >6 mm diameter.



**TABLE 1B**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS - ADDITIONAL VOCS**  
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 2 of 2)

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Notes:	=	
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015M.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
PCE	=	Tetrachloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
TCE	=	Trichloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
cis-1,2-DCE	=	cis-1,2-Dichloroethene analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B
VOCs	=	Additional volatile organic compounds analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8021B.
µg/L	=	Micrograms per liter.
ND	=	Not detected.
<	=	Less than the laboratory reporting limit.
---	=	Not analyzed/Not applicable/Not sampled.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Previous consultant reported VOCs below reporting limits, but did not specify which analytes were included in the VOC analysis.
c	=	Sample taken from VOA vial with air bubble >6 mm diameter.

**TABLE 2A  
CUMULATIVE SOIL ANALYTICAL RESULTS**

Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 1 of 3)

Sample ID	Sampling Date	Depth (feet bgs)	Used Oil (mg/kg)	TPHmo (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	o-X (mg/kg)	pm-X (mg/kg)	X (mg/kg)	MTBE (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Naphthalene (mg/kg)	n-Butylbenzene (mg/kg)	n-Propylbenzene (mg/kg)	Tetra-chloro-ethene (mg/kg)	Tri-chloro-ethene (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)
<b>Environmental Screening Levels (February 2016)</b>																						
Tier 1			---	100	240	100	0.044	2.9	1.4	---	---	2.3	0.023	---	---	0.033	---	---	0.42	0.42	---	---
<b>1986 UST Removals</b>																						
<i>10,000-Gallon Gasoline UST</i>																						
#1	05/08/86	15.5-16	---	---	---	<2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
#2	05/08/86	15.5	---	---	---	<2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<i>6,000-Gallon Gasoline UST</i>																						
#3	05/08/86	12	---	---	---	<2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
#4	05/08/86	12	---	---	---	<2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<i>550-Gallon Used-Oil UST</i>																						
#5	05/08/86	8	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>2001 Soil Investigation</b>																						
SB1-13.0	07/23/01	13	---	---	---	<1.0	0.014	<0.0050	<0.0050	---	---	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
SB1-15.5	07/23/01	15	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	---	---	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
SB2-8.0	07/23/01	8	---	<b>650</b>	100a	87	<b>1.8</b>	<0.62	<b>2.0</b>	---	---	<0.62	<b>&lt;0.62</b>	---	---	---	---	---	---	---	---	---
SB2-13.0	07/23/01	13	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	---	---	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
<b>2006 Soil Investigation</b>																						
B-1@10.5'	04/04/06	10.5	---	---	---	<0.94	<0.0047	<0.0047	<0.0047	---	---	<0.0047	<0.0047	---	---	---	---	---	---	---	---	---
B2-COMP	04/04/06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-4@3'	04/04/06	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-4@6'	04/04/06	6	---	---	---	<0.98	<0.0049	<0.0049	<0.0049	---	---	<0.0049	<0.0049	---	---	---	---	---	---	---	---	---
B-5@2'	04/04/06	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-6@4'	04/04/06	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-6@8'	04/04/06	8	---	---	---	<0.0049	<0.0049	<0.0049	0.0064	---	---	0.022	<0.0049	---	---	---	---	---	---	---	---	---
SW-S-16.0	09/01/06	16	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
SW-W-21.0	09/01/06	21	---	---	---	1.9c	0.041	<0.0048	0.34	<0.0048	<0.0048	---	<0.0048	---	---	---	---	---	---	---	---	---
SW-E-14.5	09/06/06	14.5	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---	---	---	---	---
EB-13W-14.0	09/06/06	14	---	---	---	<0.94	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	---	<0.0047	---	---	---	---	---	---	---	---	---
<b>2016 Soil Investigation</b>																						
S-5-B7	06/08/16	5	---	---	<5.0	<0.52	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<b>&lt;0.049</b>	<0.0049	<0.0049	<0.0049	<0.0049	ND	---
S-10-B7	06/08/16	10	---	---	<4.9	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>&lt;0.050</b>	<0.0050	<0.0050	<0.0050	<0.0050	ND	---
S-14-B7	06/08/16	14	---	---	<5.0	<0.48	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>&lt;0.050</b>	<0.0050	<0.0050	<0.0050	<0.0050	ND	---
S-18.5-B7	06/08/16	18.5	---	---	<5.0	<0.51	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>&lt;0.050</b>	<0.0050	<0.0050	0.0083	<0.0050	ND	---
S-5-B8	06/10/16	5	---	---	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>&lt;0.050</b>	<0.0050	<0.0050	<0.0050	<0.0050	ND	---
S-10-B8	06/10/16	10	---	---	<5.0	<0.48	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<b>&lt;0.049</b>	<0.0049	<0.0049	<0.0049	<0.0049	ND	---
S-14.5-B8	06/10/16	14.5	---	---	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<b>&lt;0.050</b>	<0.0050	<0.0050	<0.0050	<0.0050	ND	---
S-19.5-B8	06/10/16	19.5	---	---	<5.0	<0.49	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<b>&lt;0.049</b>	<0.0049	<0.0049	<0.0049	<0.0049	ND	---



**TABLE 2A**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Former Mobil Service Station 10MHG

160 14th Street

Oakland, California

(Page 3 of 3)

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Notes:

Used Oil	=	Used oil analyzed using modified EPA Method 3510.
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015M.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
VOCs	=	Additional volatile organic compounds analyzed using EPA Method 8260B.
SVOCs	=	Semi-volatile organic compounds analyzed using EPA Method 8270C.
PAHs	=	Polyaromatic hydrocarbons analyzed using EPA Method 8310.
Metals	=	Total metals analyzed using EPA Method 6010B.
STLC	=	Soluble Threshold Limit Concentration.
mg/kg	=	Milligrams per kilogram.
mg/L	=	Milligrams per liter.
feet bgs	=	Feet below ground surface.
ND	=	Not detected.
	=	Sample removed from site and not representative of current conditions.
<	=	Less than the laboratory reporting limit.
---	=	Not analyzed/Not applicable/Not sampled.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Heavy hydrocarbons contributed to the quantitation.
c	=	Unknown single peak(s).





**TABLE 2B**  
**CUMULATIVE SOIL ANALYTICAL RESULTS - PAHs**  
Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 2 of 2)

Sample ID	Sampling Date	Depth (feet bgs)	Acenaph-thene (mg/kg)	Acenaph-thylene (mg/kg)	Anthra-cene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (b) Fluor-anthene (mg/kg)	Benzo (k) Fluor-anthene (mg/kg)	Benzo (g,h,i) Perylene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) Anthracene (mg/kg)	Fluor-anthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-c,d) Pyrene (mg/kg)	Naph-thalene (mg/kg)	Phen-anthrene (mg/kg)	Pyrene (mg/kg)
<b>Environmental Screening Levels (February 2016)</b>																		
Tier 1			16	13	2.8	0.16	0.16	1.6	2.5	0.016	3.8	0.016	60	8.9	0.16	0.033	11	85
S-5-B13	06/10/16	5	<0.015	<0.030	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.015	<0.0099	<0.0099
S-10-B13	06/10/16	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-15-B13	06/10/16	15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-19.5-B13	06/10/16	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-23.5-B13	06/10/16	23.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B14	06/10/16	5	<0.015	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.010	<0.010
S-10-B14	06/10/16	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-15-B14	06/10/16	15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-19.5-B14	06/10/16	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-23.5-B14	06/10/16	23.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**Soil Stockpile Samples**

Not analyzed for these analytes.

**Notes:**

- Used Oil = Used oil analyzed using modified EPA Method 3510.
- TPHmo = Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015M.
- TPHd = Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
- TPHg = Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
- MTBE = Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
- VOCs = Additional volatile organic compounds analyzed using EPA Method 8260B.
- SVOCs = Semi-volatile organic compounds analyzed using EPA Method 8270C.
- PAHs = Polycyclic aromatic hydrocarbons analyzed using EPA Method 8310.
- Metals = Total metals analyzed using EPA Method 6010B.
- STLC = Soluble Threshold Limit Concentration.
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- feet bgs = Feet below ground surface.
- ND = Not detected.
- █ = Sample removed from site and not representative of current conditions.
- < = Less than the laboratory reporting limit.
- = Not analyzed/Not applicable/Not sampled.
- a = The chromatographic pattern does not match that of the specified standard.
- b = Heavy hydrocarbons contributed to the quantitation.
- c = Unknown single peak(s).



**TABLE 2C**  
**CUMULATIVE SOIL ANALYTICAL RESULTS - METALS**

Former Mobil Service Station 10MHG  
160 14th Street  
Oakland, California  
(Page 2 of 2)

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Notes:

Used Oil	=	Used oil analyzed using modified EPA Method 3510.
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015M.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B; prior to 2016, analyzed using EPA Method 8020/8021.
VOCs	=	Additional volatile organic compounds analyzed using EPA Method 8260B.
SVOCs	=	Semi-volatile organic compounds analyzed using EPA Method 8270C.
PAHs	=	Polyaromatic hydrocarbons analyzed using EPA Method 8310.
Metals	=	Total metals analyzed using EPA Method 6010B.
STLC	=	Soluble Threshold Limit Concentration.
mg/kg	=	Milligrams per kilogram.
mg/L	=	Milligrams per liter.
feet bgs	=	Feet below ground surface.
ND	=	Not detected.
	=	Sample removed from site and not representative of current conditions.
<	=	Less than the laboratory reporting limit.
---	=	Not analyzed/Not applicable/Not sampled.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Heavy hydrocarbons contributed to the quantitation.
c	=	Unknown single peak(s).

**APPENDIX A**  
**CORRESPONDENCE**

**From:** Detterman, Karel, Env. Health [<mailto:Karel.Detterman@acgov.org>]

**Sent:** Tuesday, April 12, 2016 2:40 PM

**To:** [jennifer.c.sedlachek@exxonmobil.com](mailto:jennifer.c.sedlachek@exxonmobil.com)

**Cc:** Janice Jacobson <[janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)>; James Chappell <[jim.chappell@cardno.com](mailto:jim.chappell@cardno.com)>

**Subject:** Fuel Leak Case No. RO0002922 and Geotracker Global ID T06019782296, Mobil #10-MHG, 160 14th St., Oakland, CA 94612

Hello Jennifer:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the Draft *Sensitive Receptor Survey and Work Plan for Soil Borings* (Work Plan) prepared and submitted by e-mail on your behalf by Cardno on March 22, 2016 in conjunction with the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). The draft Work Plan was submitted in response to our February 4, 2016 meeting and February 9, 2016 Directive Letter. Thank you for submitting the draft Work Plan.

Based on ACEH staff review of the draft Work Plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. Submittal of a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or these technical comments is proposed. We request that you address the following technical comments in the draft work plan, upload the final work plan by the date provided below, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: [karel.detterman@acgov.org](mailto:karel.detterman@acgov.org)) prior to the start of field activities.

#### **TECHNICAL COMMENTS**

- 1. Soil Boring Depths to First Groundwater:** Please ensure that grab groundwater samples are obtained from all soil borings to fulfill the remaining data gaps related to the LTCP's Media Specific Criteria for Groundwater identified during the February 4, 2016 meeting.
- 2. Sensitive Receptor Survey:** Please include the Sensitive Receptor Survey figure and table including the information shown in the attached table in the Soil and Groundwater Investigation Report requested below.
- 3. Distances in feet:** Please ensure that all units of length are in feet instead of meters.
- 4. Pre-Field Activities and Waste Management Plan:** Please additionally notify the current property owner prior to conducting these activities.

#### **REVISED TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **April 26, 2016 – Final Data Gap Investigation Work Plan**  
File to be named: RO2922\_WP\_R\_yyyy-mm-dd
- **June 27, 2016 – Soil and Groundwater Investigation Report**  
File to be named: RO2922\_SWI\_R\_yyyy-mm-dd

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.

Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at [karel.detterman@acgov.org](mailto:karel.detterman@acgov.org) or call me at (510) 567-6708.

Thank you,

Karel Detterman, PG  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502  
Direct: 510.567.6708  
Fax: 510.337.9335  
Email: [karel.detterman@acgov.org](mailto:karel.detterman@acgov.org)

PDF copies of case files can be downloaded at:

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

**From:** Detterman, Karel, Env. Health [<mailto:Karel.Detterman@acgov.org>]  
**Sent:** Friday, June 03, 2016 1:56 PM  
**To:** Janice Jacobson <[janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)>  
**Cc:** [jennifer.c.sedlachek@exxonmobil.com](mailto:jennifer.c.sedlachek@exxonmobil.com); James Chappell <[jim.chappell@cardno.com](mailto:jim.chappell@cardno.com)>  
**Subject:** RE: Fuel Leak Case No. RO0002922 and Geotracker Global ID T06019782296, Mobil #10-MHG, 160 14th St., Oakland, CA 94612

Hello Janice:

Thank you for providing the status update of the off-site access agreement. The report due date for the Soil and Groundwater Investigation Report is extended as follows:

#### **REVISED TECHNICAL REPORT REQUEST**

Please submit the following documents to Alameda County Environmental Health (Attention: Karel Detterman) and Geotracker, according to the following schedule:

- July 29, 2016 ~~June 27, 2016~~ – Soil and Groundwater Investigation Report  
File to be named: RO2922\_SWI\_R\_YYYY-mm-dd

Thank you,

Karel Detterman, PG  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502  
Direct: 510.567.6708  
Fax: 510.337.9335  
Email: [karel.detterman@acgov.org](mailto:karel.detterman@acgov.org)

PDF copies of case files can be downloaded at:

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

**APPENDIX B**  
**FIELD PROTOCOL**



## **Cardno Soil Boring and Well Installation Field Protocol**

### **Preliminary Activities**

Prior to the onset of field activities at the site, Cardno 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 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 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 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 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 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 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 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.

**APPENDIX C**  
**PERMITS**

# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency  
—Alameda County—

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

Application Approved on: 05/18/2016 By jamesy

Permit Numbers: W2016-0366  
Permits Valid from 06/08/2016 to 06/11/2016

**Application Id:** 1463160400150  
**Site Location:** 160 14th Street, Oakland, CA 9612-Sidewalk on Madison Street and 14th Street adjacent to address  
**Project Start Date:** 06/08/2016  
**Assigned Inspector:** Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com  
**Applicant:** Cardno - Heidi Dieffenbach-Carle  
601 North McDowell Blvd, Petaluma, CA 94954  
**Property Owner:** Public Works City of Oakland  
250 Frank H Ogawa Plaza, Oakland, CA 94612  
**Client:** Jennifer Sedlachek ExxonMobil Environmental Services  
4096 Piedmont Avenue #194, Oakland, CA 94611  
**Contact:** David Daniels

**City of Project Site:** Oakland

**Completion Date:** 06/11/2016

**Phone:** 707-766-2000

**Phone:** 510-238-3651

**Phone:** 510-547-8196

**Phone:** 707-766-2000

**Cell:** --

**Receipt Number:** WR2016-0252  
**Payer Name :** Heidi Dieffenbach  
**Total Due:** \$265.00  
**Total Amount Paid:** \$265.00  
**Paid By:** MC  
**PAID IN FULL**

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 6 Boreholes  
Driller: Cascade Drilling, LP - Lic #: 938110 - Method: DP

**Work Total: \$265.00**

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0366	05/18/2016	09/06/2016	6	3.00 in.	20.00 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 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, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit 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. 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.

6. 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.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. 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.

9. 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.

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# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency  
—Alameda County—

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

Application Approved on: 05/18/2016 By jamesy

Permit Numbers: W2016-0365  
Permits Valid from 06/09/2016 to 06/10/2016

**Application Id:** 1463161380335  
**Site Location:** 1433 Madison Street, Oakland, CA 94612/ Islamic Cultural Center of Northern California  
**Project Start Date:** 06/09/2016  
**Assigned Inspector:** Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com

**Applicant:** Cardno - Heidi Dieffenbach-Carle  
601 North McDowell Blvd, Petaluma, CA 94954  
**Property Owner:** Mohammad Bazargani Islamic Cultural Center of Northern California  
1433 Madison Street, Oakland, CA 94612  
**Client:** Jennifer Sedlachek ExxonMobil Environmental Services  
4096 Piedmont Avnue #194, Oakland, CA 94611  
**Contact:** David Daniels

**City of Project Site:** Oakland  
**Completion Date:** 06/10/2016

**Phone:** 707-766-2000  
**Phone:** 510-832-7600  
**Phone:** 510-547-8196  
**Phone:** 707-766-2000  
**Cell:** --

**Receipt Number:** WR2016-0251  
**Payer Name :** Heidi Dieffenbach

**Total Due:** \$265.00  
**Total Amount Paid:** \$265.00  
**Paid By:** MC  
**PAID IN FULL**

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 2 Boreholes  
Driller: Cascade Drilling, LP - Lic #: 938110 - Method: DP

**Work Total: \$265.00**

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0365	05/18/2016	09/07/2016	2	3.00 in.	20.00 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 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, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit 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. 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.

6. 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.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. 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.

9. 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.

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Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



# CITY OF OAKLAND

**FIELD COPY**

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department  
www.oaklandnet.com

PH: 510-238-3891  
FAX: 510-238-2263  
TDD: 510-238-3254

**Permit No:** OB1600577      Obstruction      **Filed Date:** 5/18/2016

**Job Site:** 160 14TH ST      **Schedule Inspection by calling:** 510-238-3444

**Parcel No:** 008 062800501

**District:**

**Project Description:** Reserve 3 NON-METERED parking spaces along Madison St, and 1 METERED space along 14th St only for soil boring equipment/materials or vehicle. AND Block 140 ft of sidewalk along Madison St and Block 140 ft of sidewalk along 14th St, per TSD 16-0078, approved by Joe Watson. Extended by Pat Taylor. Comply with all terms, conditions and restrictions stated in the Traffic Control Plan. Any/all changes need prior written approval. Provide original Traffic Control Plan at each renewal. Post No-parking signs 72 hours prior in residential areas. No-parking signs picked up by applicant after payment, 4TH FLOOR. To Have Illegally Parked Vehicle Ticketed Call 510-777-3333. Applicant arranges towing. Comply with terms set forth in CVC Section 22651 (m). For Towed Vehicle: Call 510-238-3021.  
Contact: 707 766-2000  
RE: Soil boring(s) on Madison and 14th St.  
Note: 1 metered and 1 non-metered given for the 2 excavation permits.  
Note: disregard start/end dates shown below. They are listed only for invoicing purposes.  
Actual dates (June 8th through June 11th AND June 13th through 14th) are non-consecutive. No Sunday parking needed, exclude June 12th.

**Related Permits:** X1601005 X1601006

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
<b>Owner:</b>	MADISON STREET LOFTS L P		1250 ADDISON ST BERKELEY, CA		
<b>Contractor:</b>	CASCADE DRILLING L P		P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	938110
<b>Contractor-Employee:</b>	HEIDI DIEFFENBACH-CARLE	X	P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	

**PERMIT DETAILS: Building/Public Use/Activity/Obstructions**

**Work Information**

Start Date: 06/08/2016      Obstruction Permit Type: Short Term (Max 14 Days)  
End Date: 06/13/2016      Number of Meters (Metered Area): 1  
Length Of Obstruction (Unmetered Area): 75

**Traffic Control Plan (TCP) to be approved every 30 days by PWA Transportation Services or whenever there is any deviation from previously approved TCP.**

**TOTAL FEES TO BE PAID AT FILING: \$672.44**

Application Fee	\$70.00	Records Management Fee	\$55.67	Short Term Meter	\$105.00
Short Term Permits	\$73.00	Technology Enhancement Fee	\$30.77	Transportation Service	\$338.00

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



Permit No: OB1600577

Parcel No: 008 062800501

Job Site: 160 14TH ST

Page 2 of 3

Plans Checked By \_\_\_\_\_ Date \_\_\_\_\_

Permit Issued By [Signature] Date 5/18/16

Finalized By \_\_\_\_\_ Date \_\_\_\_\_

Cardno Inc

INVOICE NUMBER	DATE		VOUCHER NO.	AMOUNT
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**OAKLAND** City of Oakland

Account Number:

Check Date: **5/16/2016**

Check Number: **035408**

**OAKL05062016-C** **5/16/2016**

**124577**

**833.56**

Obstruction Permit

**TOTAL:**

**833.56**

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



**CITY OF OAKLAND**

**FIELD COPY**

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department  
www.oaklandnet.com

PH: 510-238-3891  
FAX: 510-238-2263  
TDD: 510-238-3254

**Permit No:** X1601006      OPW - Excavation      **Filed Date:** 5/18/2016  
**Job Site:** 160 14TH ST      **Schedule Inspection by calling:** 510-238-3444

**Parcel No:** 008 062800501

**District:**

**Project Description:** 3 Soil boring(s) on 14th St. No impact on traffic lane or sidewalk allowed. Ensure that environmental controls are in place to prevent dust/debris/waste water from contaminating environment. Do Not Cut Into Pavement Unless And Until Ready To Complete Project. If working within 25' feet of a monument you must comply with State Law 8771, contact the Inspector prior to starting excavation: minimum \$5,800.00 fine for non-compliance. Comply with all terms of City of Oakland Public Works Standards, Street Excavation Rules, Revised March 2015 and City Council Ordinance No. 13300 C.M.S. Five day prior notice required for work lasting five days or less in business/commercial districts; 72 hour notice in residential districts. Ten day prior notice required for work lasting six days or more in all districts. Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR.  
Contact: 510 478-0858

**Related Permits:** X1601005

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
<b>Owner:</b>	MADISON STREET LOFTS L P		1250 ADDISON ST BERKELEY, CA		
<b>Contractor:</b>	CASCADE DRILLING L P		P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	938110
<b>Contractor-Employee:</b>	HEIDI DIEFFENBACH-CARLE	X	P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	

**PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA**

**General Information**

Excavation Type: Private Party      Special Paving Detail Required:      Tree Removal Involved:  
Date Street Last Resurfaced:      Holiday Restriction (Nov 1 - Jan 1):  
Worker's Compensation Company Name:      Limited Operation Area (7AM-9AM) And (4PM-6PM):  
Worker's Compensation Policy #:

**Key Dates**

Approximate Start Date: \_\_\_\_\_  
Approximate End Date: \_\_\_\_\_

**TOTAL FEES TO BE PAID AT FILING: \$434.91**

Application Fee	\$70.00	Excavation - Private Party Type	\$309.00	Records Management Fee	\$36.01
Technology Enhancement Fee	\$19.90				

Plans Checked By \_\_\_\_\_ Date \_\_\_\_\_ Permit Issued By *[Signature]* Date 5/18/16  
Finalized By \_\_\_\_\_ Date \_\_\_\_\_

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



# CITY OF OAKLAND

**FIELD COPY**

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department  
www.oaklandnet.com

PH: 510-238-3891  
FAX: 510-238-2263  
TDD: 510-238-3254

**Permit No:** X1601005      OPW - Excavation      **Filed Date:** 5/18/2016

**Job Site:** 160 14TH ST      **Schedule Inspection by calling:** 510-238-3444

**Parcel No:** 008 062800501

**District:**

**Project Description:** 3 Soil boring(s) on Madison St. No impact on traffic lane or sidewalk allowed. Ensure that environmental controls are in place to prevent dust/debris/waste water from contaminating environment. Do Not Cut Into Pavement Unless And Until Ready To Complete Project. If working within 25' feet of a monument you must comply with State Law 8771, contact the Inspector prior to starting excavation: minimum \$5,800.00 fine for non-compliance. Comply with all terms of City of Oakland Public Works Standards, Street Excavation Rules, Revised March 2015 and City Council Ordinance No. 13300 C.M.S. Five day prior notice required for work lasting five days or less in business/commercial districts; 72 hour notice in residential districts. Ten day prior notice required for work lasting six days or more in all districts. Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR. Contact: 510 478-0858  
NOTE: 1 more excavation and an obstruction permit to follow.

**Related Permits:**

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
<b>Owner:</b>	MADISON STREET LOFTS L P		1250 ADDISON ST BERKELEY, CA		
<b>Contractor:</b>	CASCADE DRILLING L P		P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	938110
<b>Contractor-Employee:</b>	HEIDI DIEFFENBACH-CARLE	X	P O BOX 1184 WOODINVILLE, WA	(425) 485-9802	

**PERMIT DETAILS:** Building/Public Infrastructure/Excavation/NA

**General Information**

Excavation Type: Private Party	Special Paving Detail Required:	Tree Removal Involved:
Date Street Last Resurfaced:		Holiday Restriction (Nov 1 - Jan 1):
Worker's Compensation Company Name:		Limited Operation Area (7AM-9AM) And (4PM-6PM):
Worker's Compensation Policy #:		

**Key Dates**

Approximate Start Date:

Approximate End Date:

<b>TOTAL FEES TO BE PAID AT FILING: \$434.91</b>					
Application Fee	\$70.00	Excavation - Private Party Type	\$309.00	Records Management Fee	\$36.01
Technology Enhancement Fee	\$19.90				

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



**Permit No:** X1601005

**Parcel No:** 008 062800501

**Job Site:** 160 14TH ST

Page 2 of 3

Plans Checked By \_\_\_\_\_ Date \_\_\_\_\_

Permit Issued By EG Date 5/18/16

Finalized By \_\_\_\_\_ Date \_\_\_\_\_

Cardno Inc

INVOICE NUMBER	DATE		VOUCHER NO.	AMOUNT
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OAKLAND City of Oakland

Check Date: 5/16/2016

OAKL05162016-B 5/16/2016  
Excavation Permit

Account Number:

Check Number: 035407  
124572

434.91

TOTAL:

434.91

**APPENDIX D**  
**BORING LOGS**





# BORING LOG B7

(Page 1 of 1)

Dates Drilled: : 06/08/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801799  
 Location E-W : -122.264560  
 Total Depth: : 20' bgs  
 First GW Depth: : 17.5' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G.8737  
 Signature: : *[Signature]*

Depth (ft)	Blow Count	OVM/PIID (ppmv)	Sample	Column	USCS	Sample Condition	Water Levels	Boring: B7
						☒ No Recovery □ Sampled Interval ■ Described Sample ▣ Preserved Sample	▼ After Drilling: 17.5' bgs ▽ During Drilling: 17.5' bgs	
DESCRIPTION (%clay, %silt, %sand, %gravel)								
0						6" Concrete. Cleared to 8' bgs using hand tools.		
					GW	GRAVEL with Sand (FILL): dark gray and brown, moist, well graded, subrounded to subangular, up to 2" diameter, fine- to coarse-grained sand (0,0,45,55)		
		1.6			SP	SAND: dark gray-brown, damp, fine- to medium-grained, poorly graded, subrounded (0,0,100,0)		
5					ML	SILT with Sand: dark orange-red brown, moist, low plasticity, fine- to medium-grained sand (30,55,15,0)		
		1.8						
					SM	Silty SAND: red-brown, moist, fine- to medium-grained, poorly graded, subrounded, iron oxide staining (0,15,85,0)		
10								
		1.4						
					SP	SAND: dark orange-brown, moist, fine- to medium-grained, poorly graded, subrounded, iron oxide staining (0,5,95,0)		
		1.2						
15					SP	Slight light gray mottling from 14.5' - 16' bgs.		
		3.2						
20						Wet at 17.5' bgs.		
						Total Depth 20 feet bgs Free groundwater encountered at 17.5 feet bgs		
25								



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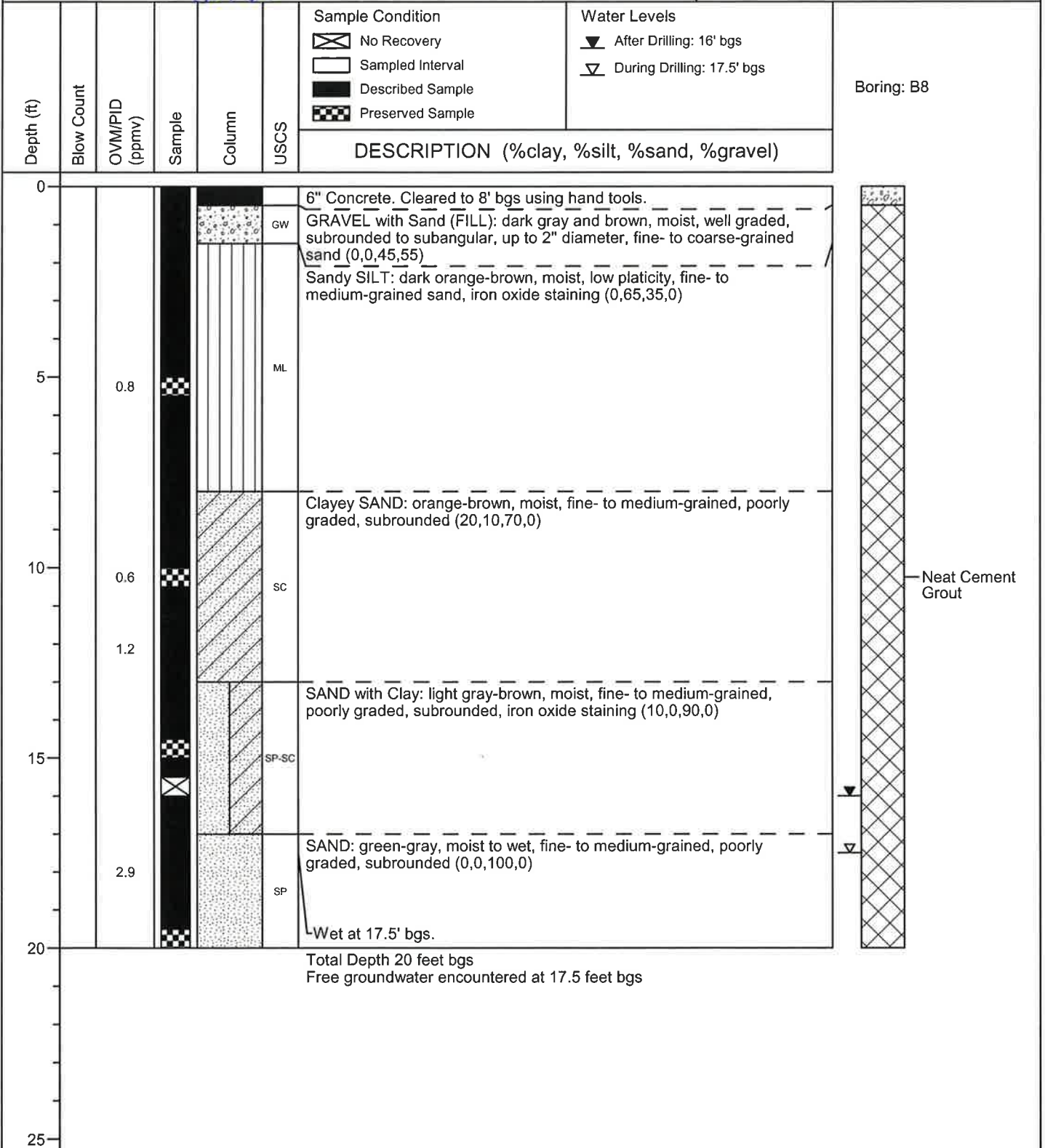


# BORING LOG B8

(Page 1 of 1)

Dates Drilled: : 06/10/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801646  
 Location E-W : -122.264423  
 Total Depth: : 20' bgs  
 First GW Depth: : 17.5' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G.8737  
 Signature: : *[Signature]*



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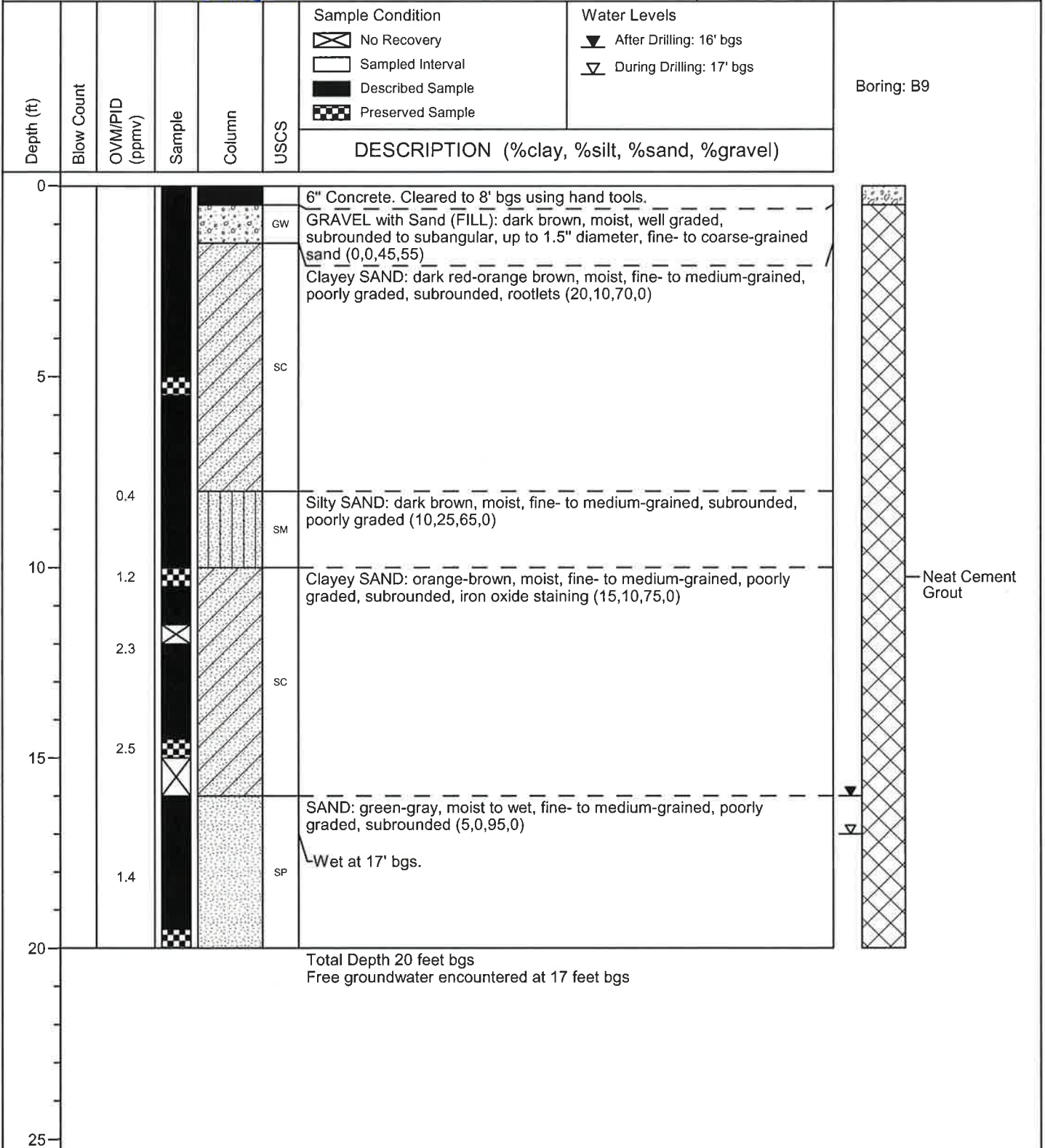


# BORING LOG B9

(Page 1 of 1)

Dates Drilled: : 06/10/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801711  
 Location E-W : -122.264207  
 Total Depth: : 20' bgs  
 First GW Depth: : 17' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G. 8737  
 Signature: : *[Signature]*



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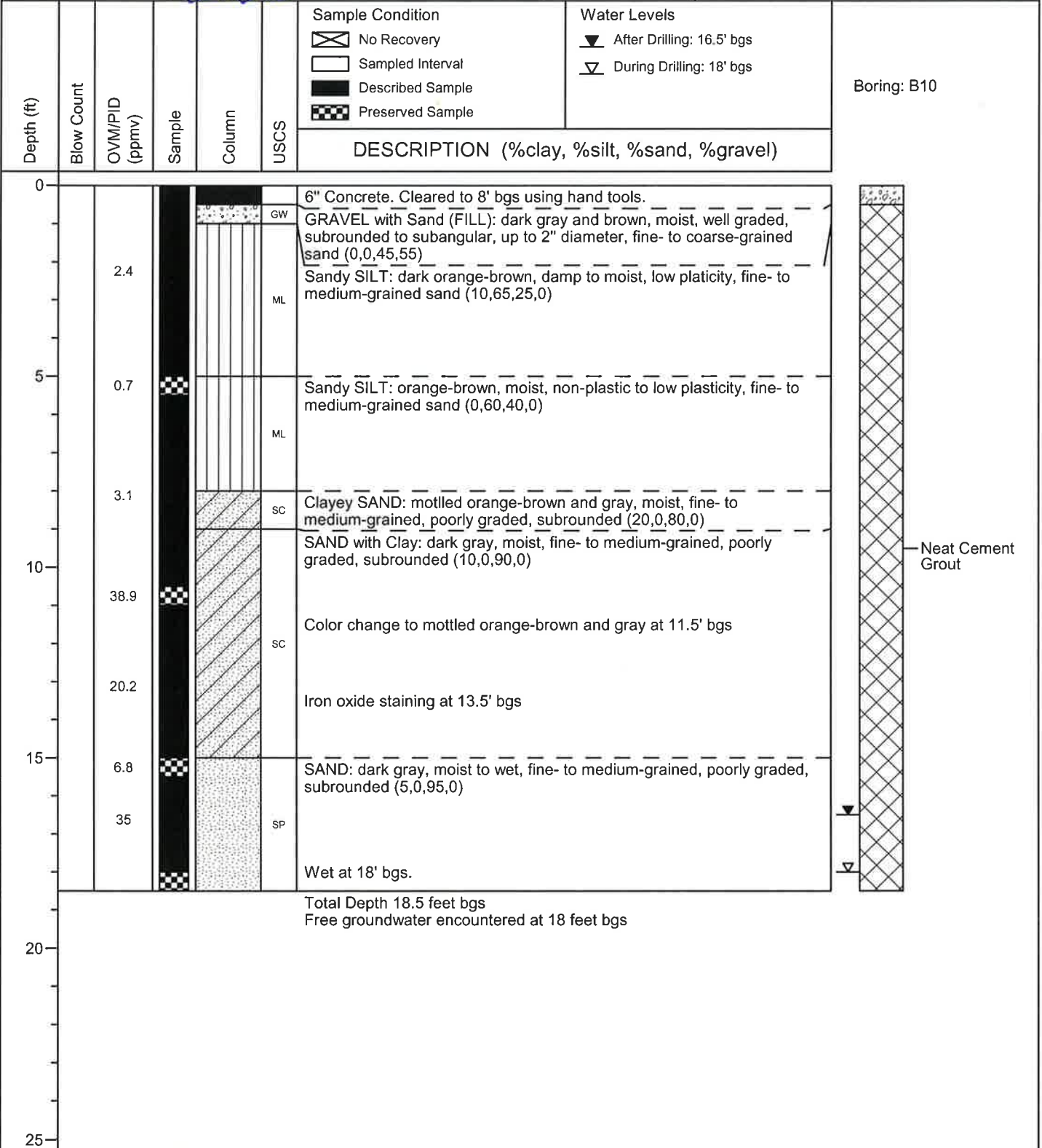


# BORING LOG B10

(Page 1 of 1)

Dates Drilled: : 06/09/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801716  
 Location E-W : -122.264121  
 Total Depth: : 18.5' bgs  
 First GW Depth: : 18' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G. 8737  
 Signature: \_\_\_\_\_



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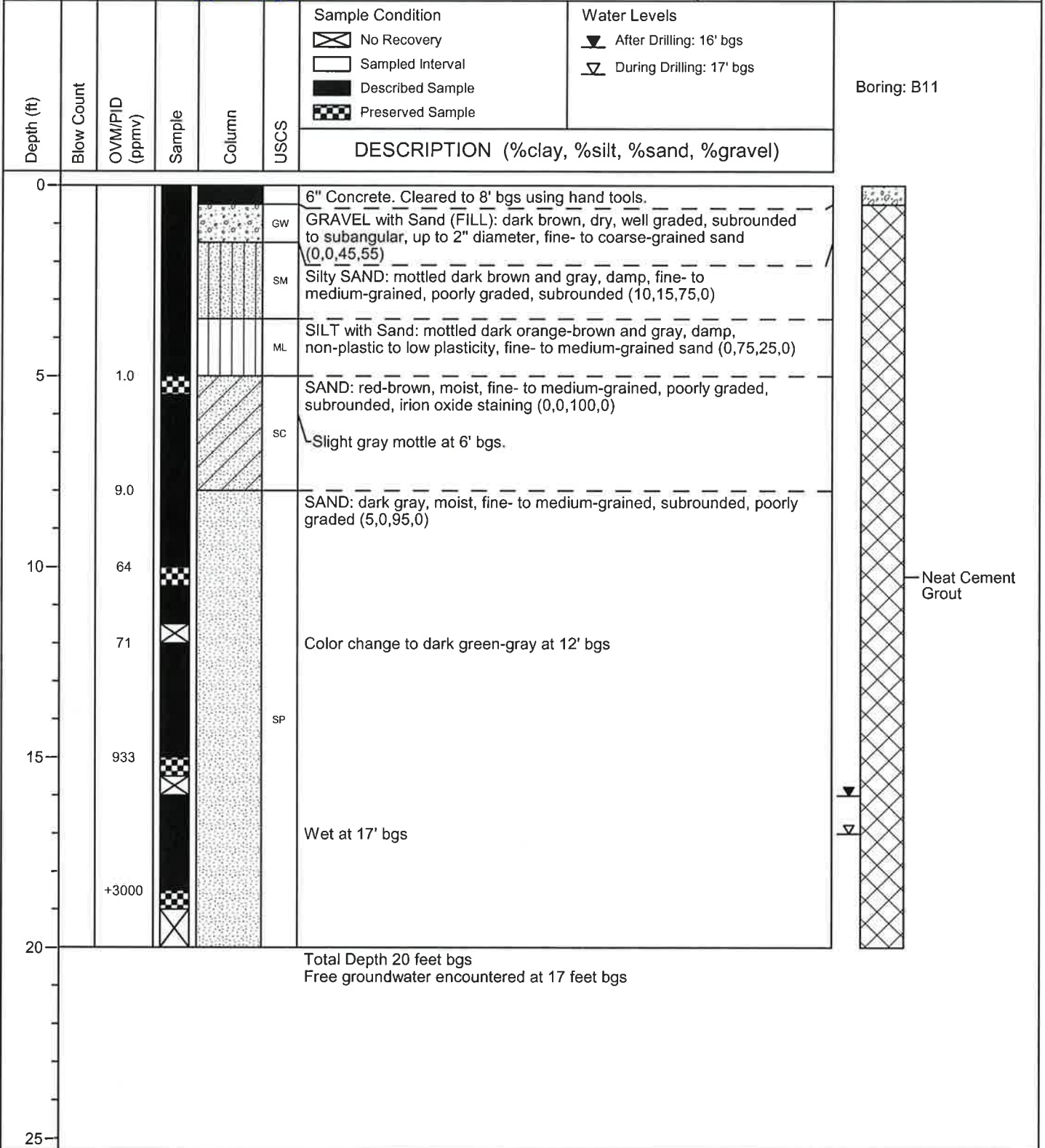


# BORING LOG B11

(Page 1 of 1)

Dates Drilled: : 06/09/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801800  
 Location E-W : -122.264001  
 Total Depth: : 20' bgs  
 First GW Depth: : 17' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G.8737  
 Signature: :



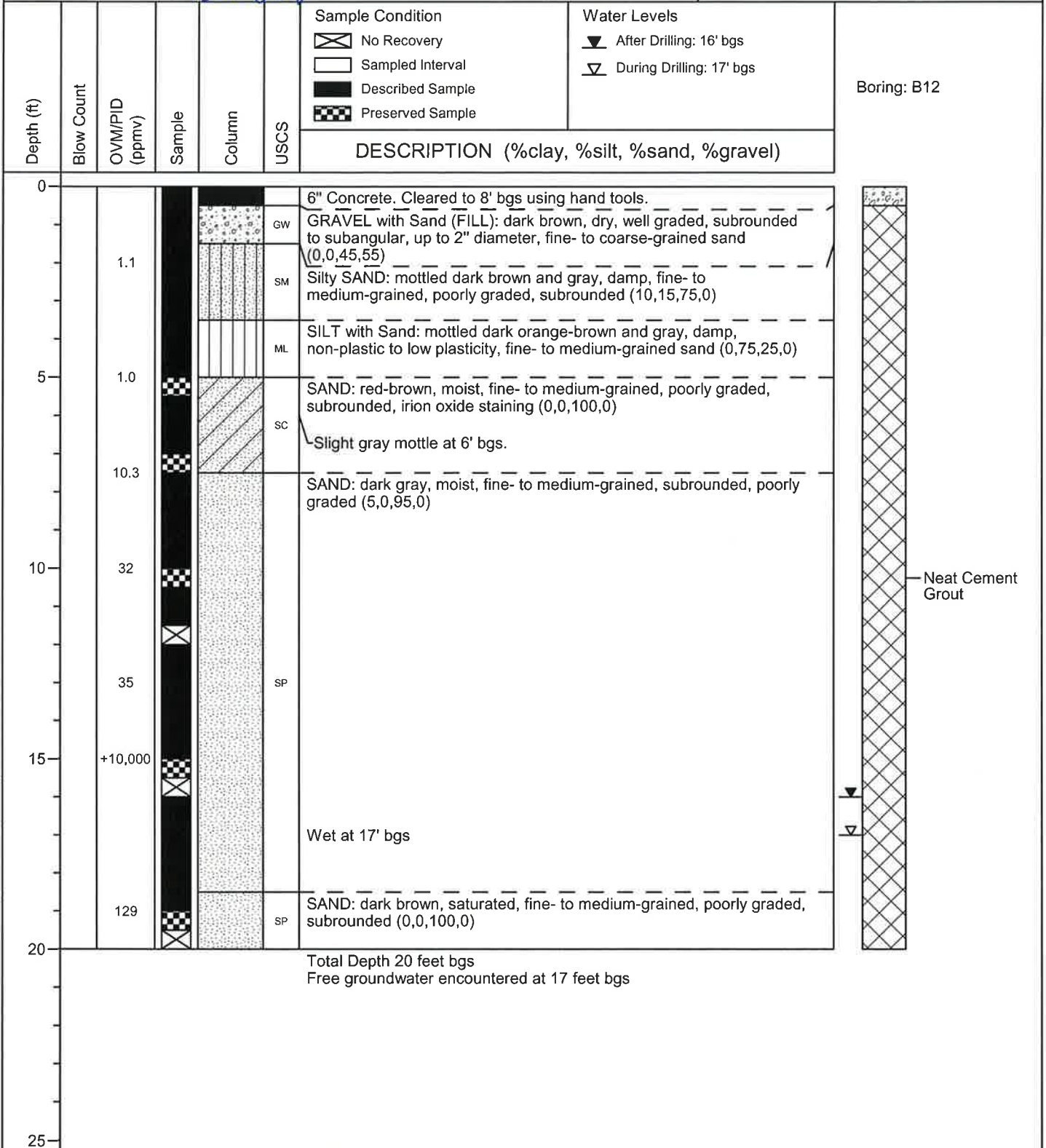


# BORING LOG B12

(Page 1 of 1)

Dates Drilled: : 06/08/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.801947  
 Location E-W : -122.263865  
 Total Depth: : 20' bgs  
 First GW Depth: : 17' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G. 8737  
 Signature: : *[Signature]*



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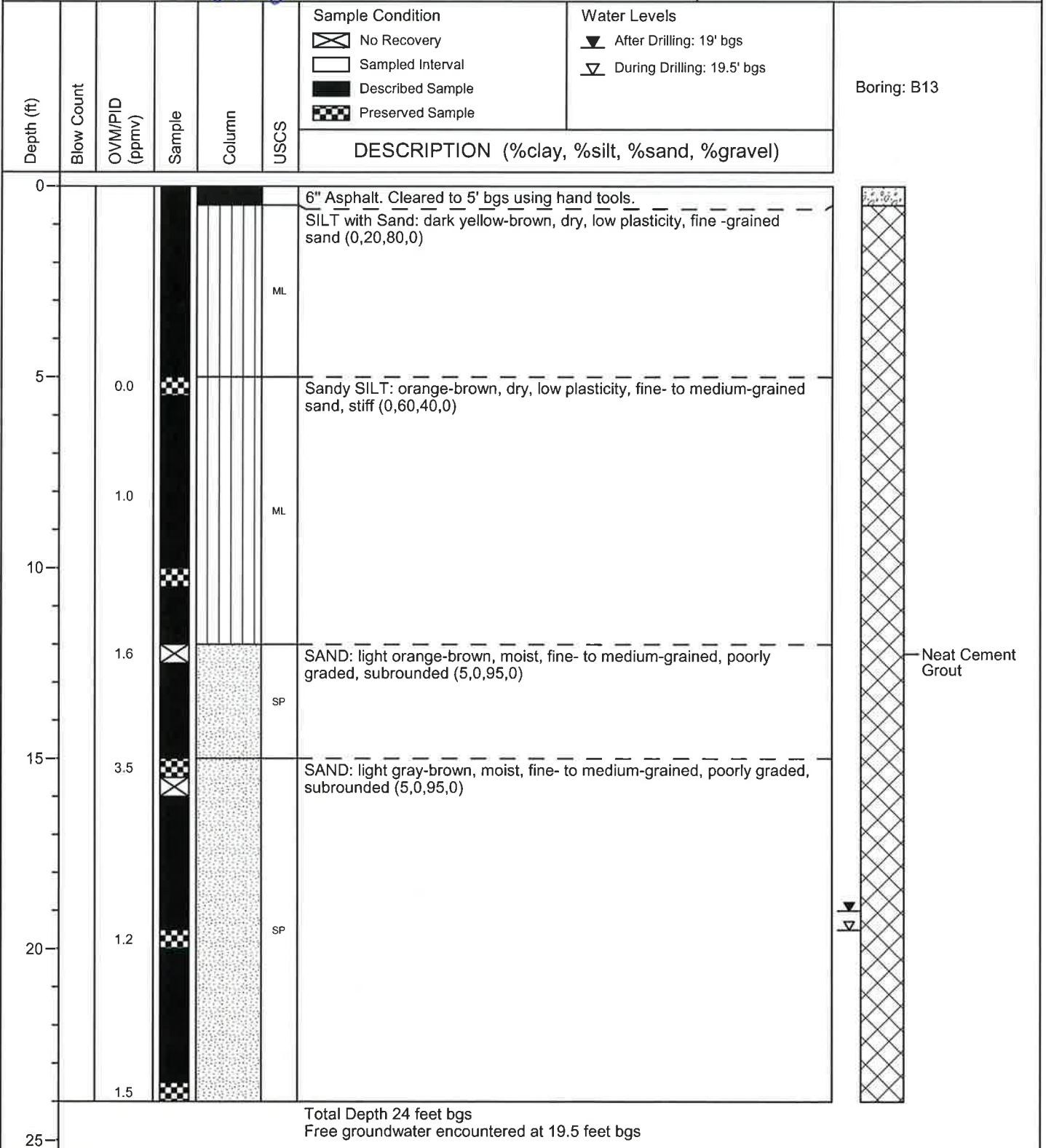


# BORING LOG B13

(Page 1 of 1)

Dates Drilled: : 06/10/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.802046  
 Location E-W : -122.264208  
 Total Depth: : 24' bgs  
 First GW Depth: : 19' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G.8737  
 Signature:



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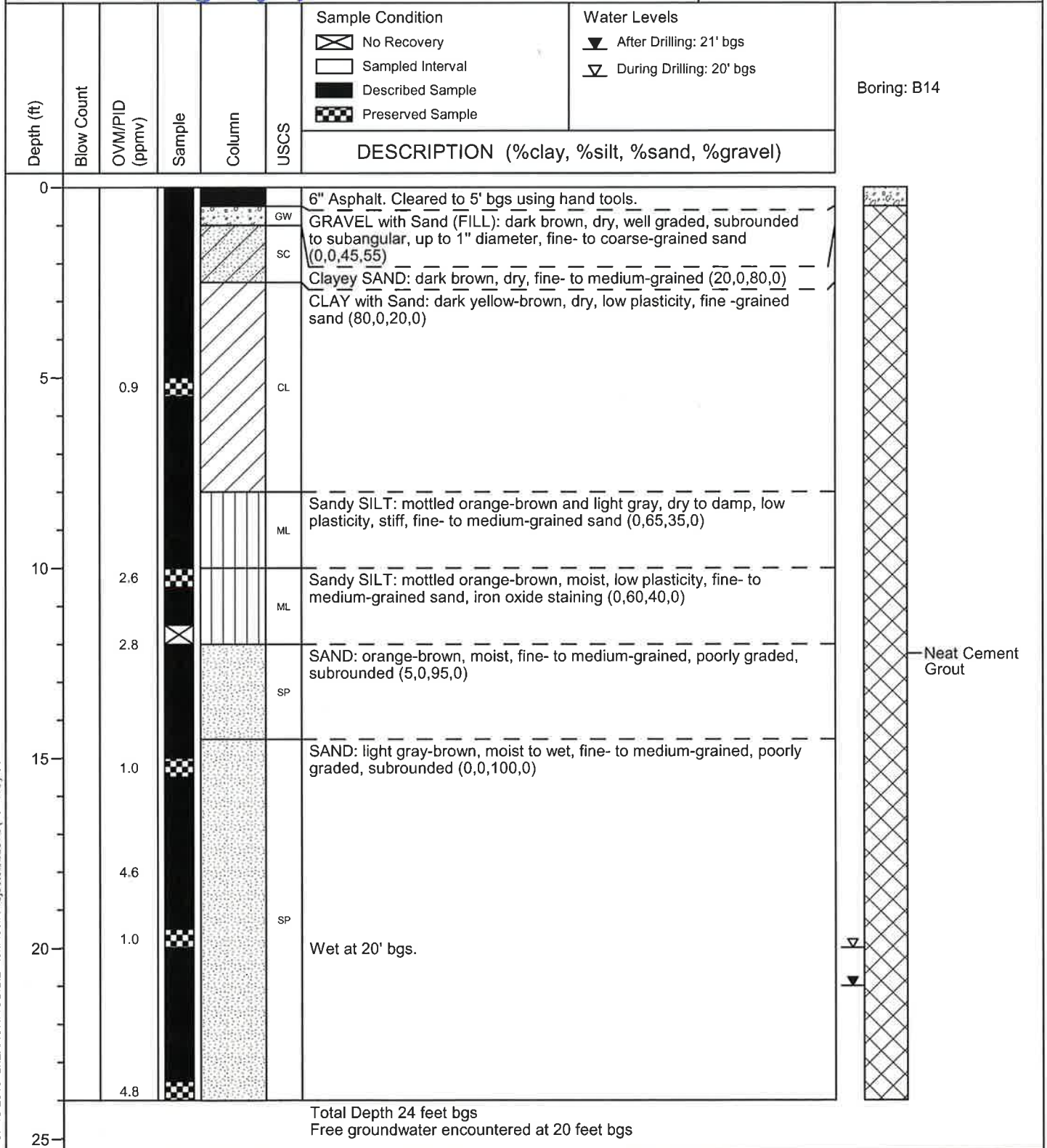


# BORING LOG B14

(Page 1 of 1)

Dates Drilled: : 06/10/2016  
 Drilling Co.: : Cascade Drilling  
 Drilling Method: : Direct-Push  
 Sampling Method: : Continuous Core  
 Borehole Diameter: : 2.25"  
 Casing Diameter: : NA  
 Location N-S : 37.802247  
 Location E-W : -122.264406  
 Total Depth: : 24' bgs  
 First GW Depth: : 20' bgs

Project No.: : Former Mobil Service Station 10MHG  
 Site: : 160 14th Street, Oakland, CA  
 Logged By: : Nadya M. Vicente  
 Reviewed By: : David R. Daniels, P.G.8737  
 Signature: :



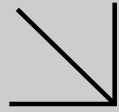
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**APPENDIX E**  
**LABORATORY ANALYTICAL REPORTS**



Calscience



**WORK ORDER NUMBER: 16-06-0985**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/28/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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

# Contents

Client Project Name: Former ExxonMobil 10MHG  
 Work Order Number: 16-06-0985

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/14/16. They were assigned to Work Order 16-06-0985.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

EPA 8260B:

LCS Batch Number 160622L045: All target analytes were within acceptance criteria with the exception of Ethyl-t-Butyl Ether (ETBE). The LCS recovery for this analyte was below the lower control limit of 76%, but was above the NELAC-defined lower marginal exceedance (ME) limit of 68%. (ME =  $\pm 4$  standard deviations.) Based upon the number of analytes spiked into the LCS, and per NELAC, the laboratory is allowed to report associated data when there is, in this case, one marginal exceedance in an LCS.



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## Sample Summary

Client: Cardno	Work Order: 16-06-0985
601 North McDowell Blvd.	Project Name: Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number: 4410384606
	Date/Time Received: 06/14/16 10:55
	Number of Containers: 40

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-16-B8	16-06-0985-1	06/10/16 12:00	10	Aqueous
W-16-B9	16-06-0985-2	06/10/16 13:30	10	Aqueous
W-19-B13	16-06-0985-3	06/10/16 09:05	10	Aqueous
W-21-B14	16-06-0985-4	06/10/16 09:50	10	Aqueous



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-16-B8</b>	<b>16-06-0985-1-I</b>	<b>06/10/16 12:00</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>06/16/16</b>	<b>06/21/16 16:02</b>	<b>160616B07</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		51		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		114		68-140			
<b>W-16-B9</b>	<b>16-06-0985-2-I</b>	<b>06/10/16 13:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>06/16/16</b>	<b>06/21/16 16:19</b>	<b>160616B07</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		47		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		115		68-140			
<b>W-19-B13</b>	<b>16-06-0985-3-I</b>	<b>06/10/16 09:05</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>06/16/16</b>	<b>06/21/16 16:35</b>	<b>160616B07</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		46		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		109		68-140			
<b>W-21-B14</b>	<b>16-06-0985-4-I</b>	<b>06/10/16 09:50</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>06/16/16</b>	<b>06/21/16 16:52</b>	<b>160616B07</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		46		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		109		68-140			
<b>Method Blank</b>	<b>099-15-304-1440</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>06/16/16</b>	<b>06/21/16 14:05</b>	<b>160616B07</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		96		68-140			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-16-B8</b>	<b>16-06-0985-1-F</b>	<b>06/10/16 12:00</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 13:30</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		160		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		61		38-134			
<b>W-16-B9</b>	<b>16-06-0985-2-F</b>	<b>06/10/16 13:30</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 17:20</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		59		38-134			
<b>W-19-B13</b>	<b>16-06-0985-3-F</b>	<b>06/10/16 09:05</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 17:56</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		57		38-134			
<b>W-21-B14</b>	<b>16-06-0985-4-F</b>	<b>06/10/16 09:50</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 18:32</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		55		38-134			
<b>Method Blank</b>	<b>099-12-436-10891</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 12:54</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		60		38-134			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 15

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-16-B8	16-06-0985-1-C	06/10/16 12:00	Aqueous	GC/MS L	06/22/16	06/22/16 18:08	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	ND	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	ND	2.0	4.00	
Xylenes (total)	ND	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	4.00	
Tert-Butyl Alcohol (TBA)	ND	20	4.00	
Diisopropyl Ether (DIPE)	ND	2.0	4.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4.00	
1,1,1,2-Tetrachloroethane	ND	2.0	4.00	
1,1,1-Trichloroethane	ND	2.0	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	4.00	
1,1,2-Trichloroethane	ND	2.0	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	4.00	
1,1-Dichloroethane	ND	2.0	4.00	
1,1-Dichloroethene	ND	2.0	4.00	
1,1-Dichloropropene	ND	2.0	4.00	
1,2,3-Trichlorobenzene	ND	2.0	4.00	
1,2,3-Trichloropropane	ND	4.0	4.00	
1,2,4-Trichlorobenzene	ND	2.0	4.00	
1,2,4-Trimethylbenzene	ND	2.0	4.00	
1,3,5-Trimethylbenzene	ND	2.0	4.00	
c-1,2-Dichloroethene	ND	2.0	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	4.00	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichlorobenzene	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	
1,2-Dichloropropane	ND	2.0	4.00	
t-1,2-Dichloroethene	ND	2.0	4.00	
c-1,3-Dichloropropene	ND	2.0	4.00	
1,3-Dichlorobenzene	ND	2.0	4.00	
1,3-Dichloropropane	ND	4.0	4.00	
t-1,3-Dichloropropene	ND	2.0	4.00	

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



## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 2 of 15

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	2.0	4.00	
2,2-Dichloropropane	ND	4.0	4.00	
2-Chlorotoluene	ND	2.0	4.00	
4-Chlorotoluene	ND	2.0	4.00	
4-Methyl-2-Pentanone	ND	20	4.00	
Acetone	ND	40	4.00	
Bromobenzene	ND	2.0	4.00	
Bromochloromethane	ND	4.0	4.00	
Bromoform	ND	2.0	4.00	
Bromomethane	ND	4.0	4.00	
Carbon Disulfide	ND	4.0	4.00	
Carbon Tetrachloride	ND	2.0	4.00	
Chlorobenzene	ND	2.0	4.00	
Dibromochloromethane	ND	2.0	4.00	
Chloroethane	ND	2.0	4.00	
Chloroform	ND	2.0	4.00	
Chloromethane	ND	2.0	4.00	
Dibromomethane	ND	2.0	4.00	
Bromodichloromethane	ND	2.0	4.00	
Dichlorodifluoromethane	ND	4.0	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	4.00	
Isopropylbenzene	ND	2.0	4.00	
2-Butanone	ND	20	4.00	
Methylene Chloride	ND	4.0	4.00	
2-Hexanone	ND	40	4.00	
Naphthalene	ND	4.0	4.00	
n-Butylbenzene	ND	2.0	4.00	
n-Propylbenzene	ND	2.0	4.00	
p-Isopropyltoluene	ND	2.0	4.00	
sec-Butylbenzene	ND	2.0	4.00	
Styrene	ND	2.0	4.00	
tert-Butylbenzene	ND	2.0	4.00	
Tetrachloroethene	110	2.0	4.00	
Trichloroethene	ND	2.0	4.00	
Trichlorofluoromethane	ND	2.0	4.00	
Vinyl Chloride	ND	2.0	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 3 of 15

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	107	80-127	
1,2-Dichloroethane-d4	111	80-128	
Toluene-d8	100	80-120	

  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-16-B9	16-06-0985-2-C	06/10/16 13:30	Aqueous	GC/MS L	06/22/16	06/22/16 18:39	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	ND	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	ND	2.0	4.00	
Xylenes (total)	ND	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	4.00	
Tert-Butyl Alcohol (TBA)	ND	20	4.00	
Diisopropyl Ether (DIPE)	ND	2.0	4.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4.00	
1,1,1,2-Tetrachloroethane	ND	2.0	4.00	
1,1,1-Trichloroethane	ND	2.0	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	4.00	
1,1,2-Trichloroethane	ND	2.0	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	4.00	
1,1-Dichloroethane	ND	2.0	4.00	
1,1-Dichloroethene	ND	2.0	4.00	
1,1-Dichloropropene	ND	2.0	4.00	
1,2,3-Trichlorobenzene	ND	2.0	4.00	
1,2,3-Trichloropropane	ND	4.0	4.00	
1,2,4-Trichlorobenzene	ND	2.0	4.00	
1,2,4-Trimethylbenzene	ND	2.0	4.00	
1,3,5-Trimethylbenzene	ND	2.0	4.00	
c-1,2-Dichloroethene	ND	2.0	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	4.00	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichlorobenzene	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	
1,2-Dichloropropane	ND	2.0	4.00	
t-1,2-Dichloroethene	ND	2.0	4.00	
c-1,3-Dichloropropene	ND	2.0	4.00	
1,3-Dichlorobenzene	ND	2.0	4.00	
1,3-Dichloropropane	ND	4.0	4.00	
t-1,3-Dichloropropene	ND	2.0	4.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	2.0	4.00	
2,2-Dichloropropane	ND	4.0	4.00	
2-Chlorotoluene	ND	2.0	4.00	
4-Chlorotoluene	ND	2.0	4.00	
4-Methyl-2-Pentanone	ND	20	4.00	
Acetone	ND	40	4.00	
Bromobenzene	ND	2.0	4.00	
Bromochloromethane	ND	4.0	4.00	
Bromoform	ND	2.0	4.00	
Bromomethane	ND	4.0	4.00	
Carbon Disulfide	ND	4.0	4.00	
Carbon Tetrachloride	ND	2.0	4.00	
Chlorobenzene	ND	2.0	4.00	
Dibromochloromethane	ND	2.0	4.00	
Chloroethane	ND	2.0	4.00	
Chloroform	ND	2.0	4.00	
Chloromethane	ND	2.0	4.00	
Dibromomethane	ND	2.0	4.00	
Bromodichloromethane	ND	2.0	4.00	
Dichlorodifluoromethane	ND	4.0	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	4.00	
Isopropylbenzene	ND	2.0	4.00	
2-Butanone	ND	20	4.00	
Methylene Chloride	ND	4.0	4.00	
2-Hexanone	ND	40	4.00	
Naphthalene	ND	4.0	4.00	
n-Butylbenzene	ND	2.0	4.00	
n-Propylbenzene	ND	2.0	4.00	
p-Isopropyltoluene	ND	2.0	4.00	
sec-Butylbenzene	ND	2.0	4.00	
Styrene	ND	2.0	4.00	
tert-Butylbenzene	ND	2.0	4.00	
Tetrachloroethene	80	2.0	4.00	
Trichloroethene	ND	2.0	4.00	
Trichlorofluoromethane	ND	2.0	4.00	
Vinyl Chloride	ND	2.0	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 6 of 15

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	109	80-127	
1,2-Dichloroethane-d4	113	80-128	
Toluene-d8	100	80-120	

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-19-B13	16-06-0985-3-C	06/10/16 09:05	Aqueous	GC/MS L	06/22/16	06/22/16 19:10	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	98	68-120		
Dibromofluoromethane	114	80-127		

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Former ExxonMobil 10MHG Page 9 of 15

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	118	80-128	
Toluene-d8	101	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-19-B13</b>	<b>16-06-0985-3-D</b>	<b>06/10/16 09:05</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/23/16</b>	<b>06/23/16 15:36</b>	<b>160623L057</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	51	1.0	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	107	80-128	
Toluene-d8	99	80-120	

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



## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-21-B14	16-06-0985-4-C	06/10/16 09:50	Aqueous	GC/MS L	06/22/16	06/22/16 19:40	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	14	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	5.6	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 12 of 15

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	109	80-127	
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	100	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1469	N/A	Aqueous	GC/MS L	06/22/16	06/22/16 10:18	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	68-120	

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	93	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-880-1470</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/23/16</b>	<b>06/23/16 10:17</b>	<b>160623L057</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	91	80-120	

Return to Contents

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



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-16-B8	Sample	Aqueous	GC 1	06/23/16	06/23/16 13:30	160621S042
W-16-B8	Matrix Spike	Aqueous	GC 1	06/23/16	06/23/16 14:06	160621S042
W-16-B8	Matrix Spike Duplicate	Aqueous	GC 1	06/23/16	06/23/16 14:42	160621S042

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	163.3	2000	2089	96	2044	94	68-122	2	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-1149-1	Sample	Aqueous	GC/MS L	06/22/16	06/22/16 11:27	160622S010
16-06-1149-1	Matrix Spike	Aqueous	GC/MS L	06/22/16	06/22/16 14:01	160622S010
16-06-1149-1	Matrix Spike Duplicate	Aqueous	GC/MS L	06/22/16	06/22/16 14:32	160622S010

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.21	102	9.814	98	75-125	4	0-20	
Toluene	ND	10.00	10.49	105	10.10	101	75-125	4	0-20	
Ethylbenzene	ND	10.00	10.69	107	10.12	101	75-125	5	0-20	
o-Xylene	ND	10.00	10.82	108	10.27	103	75-127	5	0-20	
p/m-Xylene	ND	20.00	21.72	109	20.75	104	75-125	5	0-20	
Methyl-t-Butyl Ether (MTBE)	6.873	10.00	17.45	106	16.60	97	71-131	5	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	60.09	120	55.90	112	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	13.68	137	14.44	144	64-136	5	0-20	HX
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.01	100	9.348	93	73-133	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.498	95	9.342	93	75-125	2	0-20	
1,1-Dichloroethene	ND	10.00	10.56	106	10.23	102	66-126	3	0-20	
1,2-Dibromoethane	ND	10.00	10.22	102	9.858	99	75-126	4	0-20	
1,2-Dichlorobenzene	ND	10.00	10.59	106	10.33	103	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	10.79	108	10.07	101	75-127	7	0-20	
Carbon Tetrachloride	ND	10.00	9.563	96	9.413	94	69-135	2	0-20	
Chlorobenzene	ND	10.00	10.29	103	9.899	99	75-125	4	0-20	
Trichloroethene	1.050	10.00	11.25	102	10.64	96	75-125	6	0-20	
Vinyl Chloride	ND	10.00	12.06	121	11.95	120	52-142	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-1464-2	Sample	Aqueous	GC/MS L	06/23/16	06/23/16 12:31	160623S016
16-06-1464-2	Matrix Spike	Aqueous	GC/MS L	06/23/16	06/23/16 14:34	160623S016
16-06-1464-2	Matrix Spike Duplicate	Aqueous	GC/MS L	06/23/16	06/23/16 15:05	160623S016

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.766	98	9.798	98	77-121	0	0-21	
Toluene	ND	10.00	10.02	100	10.02	100	78-120	0	0-25	
Ethylbenzene	ND	10.00	10.21	102	10.32	103	78-120	1	0-23	
o-Xylene	ND	10.00	10.28	103	10.44	104	74-122	2	0-24	
p/m-Xylene	ND	20.00	20.69	103	21.23	106	74-122	3	0-23	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.968	100	10.33	103	57-144	4	0-31	
Tert-Butyl Alcohol (TBA)	ND	50.00	54.96	110	60.61	121	43-170	10	0-38	
Diisopropyl Ether (DIPE)	ND	10.00	12.90	129	12.68	127	70-130	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.014	90	9.435	94	70-130	5	0-35	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.998	90	9.156	92	70-130	2	0-35	
1,1,1,2-Tetrachloroethane	ND	10.00	10.07	101	10.60	106	79-123	5	0-20	
1,1,1-Trichloroethane	ND	10.00	9.495	95	9.339	93	66-130	2	0-30	
1,1,2,2-Tetrachloroethane	ND	10.00	9.993	100	9.999	100	67-132	0	0-25	
1,1,2-Trichloroethane	ND	10.00	10.14	101	10.42	104	77-124	3	0-25	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10.00	9.910	99	10.04	100	52-145	1	0-35	
1,1-Dichloroethane	ND	10.00	11.78	118	11.57	116	63-144	2	0-32	
1,1-Dichloroethene	4.472	10.00	13.44	90	13.62	91	66-130	1	0-32	
1,1-Dichloropropene	ND	10.00	9.016	90	9.152	92	68-119	1	0-26	
1,2,3-Trichlorobenzene	ND	10.00	10.07	101	10.31	103	70-129	2	0-27	
1,2,3-Trichloropropane	ND	10.00	10.16	102	10.67	107	80-120	5	0-20	
1,2,4-Trichlorobenzene	ND	10.00	10.03	100	10.36	104	71-128	3	0-26	
1,2,4-Trimethylbenzene	ND	10.00	10.29	103	10.57	106	70-127	3	0-23	
1,3,5-Trimethylbenzene	ND	10.00	10.97	110	11.22	112	72-124	2	0-23	
c-1,2-Dichloroethene	ND	10.00	9.930	99	10.12	101	76-123	2	0-32	
1,2-Dibromo-3-Chloropropane	ND	10.00	8.599	86	9.118	91	65-125	6	0-31	
1,2-Dibromoethane	ND	10.00	9.585	96	9.891	99	74-130	3	0-22	
1,2-Dichlorobenzene	ND	10.00	10.35	103	10.50	105	78-120	1	0-19	
1,2-Dichloroethane	ND	10.00	10.20	102	9.979	100	72-130	2	0-25	
1,2-Dichloropropane	ND	10.00	10.02	100	10.22	102	74-122	2	0-24	
t-1,2-Dichloroethene	ND	10.00	10.28	103	10.51	105	67-129	2	0-35	
c-1,3-Dichloropropene	ND	10.00	8.987	90	9.219	92	76-126	3	0-24	
1,3-Dichlorobenzene	ND	10.00	9.958	100	10.06	101	75-120	1	0-22	
1,3-Dichloropropane	ND	10.00	9.821	98	10.07	101	74-128	3	0-21	
t-1,3-Dichloropropene	ND	10.00	8.792	88	9.155	92	71-127	4	0-22	
1,4-Dichlorobenzene	ND	10.00	10.01	100	10.15	102	78-120	1	0-21	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,2-Dichloropropane	ND	10.00	8.902	89	8.847	88	68-125	1	0-40	
2-Chlorotoluene	ND	10.00	10.37	104	10.61	106	64-123	2	0-34	
4-Chlorotoluene	ND	10.00	10.05	100	10.12	101	67-126	1	0-23	
4-Methyl-2-Pentanone	ND	10.00	9.179	92	9.784	98	60-136	6	0-41	
Acetone	ND	10.00	10.95	110	11.15	112	51-163	2	0-82	
Bromobenzene	ND	10.00	10.30	103	10.53	105	78-120	2	0-20	
Bromochloromethane	ND	10.00	10.47	105	10.21	102	71-135	2	0-28	
Bromoform	ND	10.00	8.451	85	9.110	91	61-140	8	0-22	
Bromomethane	ND	10.00	8.959	90	9.159	92	63-140	2	0-36	
Carbon Disulfide	ND	10.00	8.350	84	8.532	85	27-170	2	0-36	
Carbon Tetrachloride	ND	10.00	9.485	95	9.143	91	64-135	4	0-31	
Chlorobenzene	ND	10.00	9.924	99	10.14	101	80-120	2	0-20	
Dibromochloromethane	ND	10.00	9.246	92	10.05	101	76-132	8	0-23	
Chloroethane	ND	10.00	10.91	109	11.07	111	67-131	1	0-35	
Chloroform	ND	10.00	10.05	100	10.03	100	75-126	0	0-20	
Chloromethane	ND	10.00	12.37	124	12.60	126	54-143	2	0-41	
Dibromomethane	ND	10.00	10.07	101	10.42	104	75-127	3	0-29	
Bromodichloromethane	ND	10.00	10.12	101	10.47	105	72-129	3	0-26	
Dichlorodifluoromethane	ND	10.00	8.863	89	8.662	87	25-168	2	0-41	
Hexachloro-1,3-Butadiene	ND	10.00	11.15	111	11.20	112	52-128	0	0-30	
Isopropylbenzene	ND	10.00	10.59	106	10.77	108	71-123	2	0-24	
2-Butanone	ND	10.00	9.005	90	9.587	96	55-138	6	0-45	
Methylene Chloride	ND	10.00	11.00	110	11.28	113	71-129	3	0-30	
2-Hexanone	ND	10.00	9.241	92	9.323	93	61-137	1	0-36	
Naphthalene	ND	10.00	10.22	102	10.45	105	55-159	2	0-30	
n-Butylbenzene	ND	10.00	10.75	108	10.89	109	67-127	1	0-26	
n-Propylbenzene	ND	10.00	10.83	108	11.04	110	64-125	2	0-35	
p-Isopropyltoluene	ND	10.00	10.88	109	11.06	111	68-122	2	0-25	
sec-Butylbenzene	ND	10.00	10.44	104	10.62	106	66-122	2	0-26	
Styrene	ND	10.00	6.344	63	5.950	59	77-120	6	0-23	HX
tert-Butylbenzene	ND	10.00	10.49	105	10.68	107	73-120	2	0-26	
Tetrachloroethene	ND	10.00	8.933	89	9.052	91	72-119	1	0-24	
Trichloroethene	ND	10.00	10.05	101	9.995	100	75-116	1	0-24	
Trichlorofluoromethane	ND	10.00	11.09	111	11.02	110	62-146	1	0-36	
Vinyl Chloride	ND	10.00	10.94	109	11.14	111	60-141	2	0-34	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

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

Date Received: 06/14/16  
Work Order: 16-06-0985  
Preparation: EPA 3510C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-1440	LCS	Aqueous	GC 47	06/16/16	06/21/16 14:21	160616B07			
099-15-304-1440	LCSD	Aqueous	GC 47	06/16/16	06/21/16 14:38	160616B07			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	1826	91	1853	93	75-117	1	0-13	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-10891</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>06/23/16</b>	<b>06/23/16 12:19</b>	<b>160621L077</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1997	100	78-120	


  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Former ExxonMobil 10MHG		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1469</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/22/16</b>	<b>06/22/16 09:25</b>	<b>160622L045</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.498	95	80-120	73-127	
Toluene		10.00	9.881	99	80-120	73-127	
Ethylbenzene		10.00	10.13	101	80-120	73-127	
o-Xylene		10.00	10.12	101	80-120	73-127	
p/m-Xylene		20.00	20.44	102	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.981	90	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	49.94	100	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	9.321	93	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	7.201	72	76-124	68-132	LR,RU
Tert-Amyl-Methyl Ether (TAME)		10.00	8.861	89	80-120	73-127	
1,1-Dichloroethene		10.00	8.905	89	77-120	70-127	
1,2-Dibromoethane		10.00	9.348	93	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.14	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.468	95	80-122	73-129	
Carbon Tetrachloride		10.00	8.979	90	80-129	72-137	
Chlorobenzene		10.00	9.880	99	80-120	73-127	
Trichloroethene		10.00	9.662	97	80-120	73-127	
Vinyl Chloride		10.00	10.97	110	63-135	51-147	

Total number of LCS compounds: 18

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0985
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: Former ExxonMobil 10MHG Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1470</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/23/16</b>	<b>06/23/16 09:33</b>	<b>160623L057</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.334	93	80-120	73-127	
Toluene		10.00	9.872	99	80-120	73-127	
Ethylbenzene		10.00	10.10	101	80-120	73-127	
o-Xylene		10.00	9.891	99	80-120	73-127	
p/m-Xylene		20.00	20.39	102	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.063	81	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	44.93	90	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	8.486	85	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	8.452	85	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	8.512	85	80-120	73-127	
1,1-Dichloroethene		10.00	8.650	86	77-120	70-127	
1,2-Dibromoethane		10.00	8.866	89	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.01	100	80-120	73-127	
1,2-Dichloroethane		10.00	9.027	90	80-122	73-129	
Carbon Tetrachloride		10.00	8.510	85	80-129	72-137	
Chlorobenzene		10.00	9.755	98	80-120	73-127	
Trichloroethene		10.00	9.534	95	80-120	73-127	
Vinyl Chloride		10.00	9.654	97	63-135	51-147	

Total number of LCS compounds: 18  
 Total number of ME compounds: 0  
 Total number of ME compounds allowed: 1  
 LCS ME CL validation result: Pass

## Sample Analysis Summary Report

Work Order: 16-06-0985

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	682	GC 47	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





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CHAIN OF CUSTODY RECORD

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us 26\_sales@eurofinsus.com or call us.

WO # / LAB USE ONLY
16-06-0985

DATE: 06/10/16
PAGE: 1 OF 1

LABORATORY CLIENT: Cardno / ExxonMobil
ADDRESS: 601 N. McDowell Blvd
CITY: Petaluma STATE: CA ZIP: 94954
TEL: (707) 766-2000 E-MAIL: janice.jacobson@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Mobil 10MHG
PROJECT CONTACT: 160 14th Street, Oakland, CA
P.O. NO.: 4410371574
SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[ ] SAME DAY [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] 5 DAYS [X] STANDARD
[ ] COELT EDF GLOBAL ID: T06019782296 LOG CODE:

REQUESTED ANALYSES
Please check box or fill in blank as needed.

SPECIAL INSTRUCTIONS:
TPHd - Silica Gel Cleanup
Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions
Please email PDF files to: norcallabs@eri-us.com

Table with columns for various chemical analyses: TPH(g) (8015M), TPH(d) 8015M, TPH C6-C36 C6-C44, TPH, BTEX / MTBE 8021, Full Scan VOCs (8260B), Oxygenates (8260), Total Lead (6010), SVOCs (8270 C), Pesticides (8081), PCBs (8082), PAHs 8310, T22 Metals 6010/747X 6020/747X, Cr(VI) 7196 7199 218.6

Table with columns: LAB USE ONLY, SAMPLE ID, Field Point Name, SAMPLING DATE, TIME, MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 6/13/16 Time: 1115
Received by: (Signature/Affiliation) Date: 6/14/16 Time: 1055

0985

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GARDEN GROVE, CA 92841

**ORC**  
GARDEN GROVE

**A**

COD: \$0.00  
Weight: 0 lb(s)  
Reference:  
CARDNO ERI, PHILLIPS 66, TERRA PACIFIC GROUP  
Delivery Instructions:

D92845A



Signature Type: REQUIRED

52938865

Print Date: 6/13/2016 1:16 PM

LABEL INSTRUCTIONS:

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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 06 / 14 / 2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2-8 °C (w/ CF): 2-8 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter Checked by: 836

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

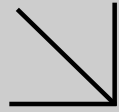
SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>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

**CONTAINER TYPE:** 8 (Trip Blank Lot Number: \_\_\_\_\_)  
**Aqueous:**  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBz<sub>2</sub>na  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  
**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
**Air:**  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ **Other Matrix** (\_\_\_\_):  \_\_\_\_\_  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 836  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, z<sub>2</sub>na = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 78





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**WORK ORDER NUMBER: 16-06-0880**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/27/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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 Work Order Number: 16-06-0880

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/11/16. They were assigned to Work Order 16-06-0880.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

EPA 8260B:

LCS Batch Number 160616L012: All target analytes were within acceptance criteria with the exception of Diisopropyl Ether (DIPE). The LCS recovery for this analyte was above the upper control limit of 121%, but was below the NELAC-defined upper marginal exceedance (ME) limit of 129%. (ME =  $\pm 4$  standard deviations.) Based upon the number of analytes spiked into the LCS, and per NELAC, the laboratory is allowed to report associated data when there is, in this case, one marginal exceedance in an LCS.



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## Sample Summary

Client: Cardno	Work Order:	16-06-0880
601 North McDowell Blvd.	Project Name:	Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number:	4410384606
	Date/Time Received:	06/11/16 08:50
	Number of Containers:	20

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-17.5-B7	16-06-0880-1	06/08/16 11:30	10	Aqueous
W-16-B12	16-06-0880-2	06/08/16 14:20	10	Aqueous

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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-17.5-B7</b>	<b>16-06-0880-1-I</b>	<b>06/08/16 11:30</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/16/16 11:04</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		87		68-140			
<b>W-16-B12</b>	<b>16-06-0880-2-I</b>	<b>06/08/16 14:20</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/16/16 11:22</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		16000		310		5.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		76		68-140			
<b>Method Blank</b>	<b>099-15-304-1443</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/15/16 23:04</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			

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



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-17.5-B7</b>	<b>16-06-0880-1-G</b>	<b>06/08/16 11:30</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/16/16</b>	<b>06/17/16 04:02</b>	<b>160616L051</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		52		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		63		38-134			
<b>W-16-B12</b>	<b>16-06-0880-2-G</b>	<b>06/08/16 14:20</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/16/16</b>	<b>06/17/16 06:23</b>	<b>160616L051</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		13000		500		10.0	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		79		38-134			
<b>Method Blank</b>	<b>099-12-436-10879</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/16/16</b>	<b>06/16/16 17:32</b>	<b>160616L051</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		60		38-134			

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Former ExxonMobil 10MHG

Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-17.5-B7	16-06-0880-1-A	06/08/16 11:30	Aqueous	GC/MS L	06/16/16	06/16/16 17:54	160616L012

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	ND	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	ND	2.0	4.00	
Xylenes (total)	ND	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	4.00	
Tert-Butyl Alcohol (TBA)	ND	20	4.00	
Diisopropyl Ether (DIPE)	ND	2.0	4.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4.00	
1,1,1,2-Tetrachloroethane	ND	2.0	4.00	
1,1,1-Trichloroethane	ND	2.0	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	4.00	
1,1,2-Trichloroethane	ND	2.0	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	4.00	
1,1-Dichloroethane	ND	2.0	4.00	
1,1-Dichloroethene	ND	2.0	4.00	
1,1-Dichloropropene	ND	2.0	4.00	
1,2,3-Trichlorobenzene	ND	2.0	4.00	
1,2,3-Trichloropropane	ND	4.0	4.00	
1,2,4-Trichlorobenzene	ND	2.0	4.00	
1,2,4-Trimethylbenzene	ND	2.0	4.00	
1,3,5-Trimethylbenzene	ND	2.0	4.00	
c-1,2-Dichloroethene	ND	2.0	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	4.00	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichlorobenzene	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	
1,2-Dichloropropane	ND	2.0	4.00	
t-1,2-Dichloroethene	ND	2.0	4.00	
c-1,3-Dichloropropene	ND	2.0	4.00	
1,3-Dichlorobenzene	ND	2.0	4.00	
1,3-Dichloropropane	ND	4.0	4.00	
t-1,3-Dichloropropene	ND	2.0	4.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	2.0	4.00	
2,2-Dichloropropane	ND	4.0	4.00	
2-Chlorotoluene	ND	2.0	4.00	
4-Chlorotoluene	ND	2.0	4.00	
4-Methyl-2-Pentanone	ND	20	4.00	
Acetone	ND	40	4.00	
Bromobenzene	ND	2.0	4.00	
Bromochloromethane	ND	4.0	4.00	
Bromoform	ND	2.0	4.00	
Bromomethane	ND	4.0	4.00	
Carbon Disulfide	ND	4.0	4.00	
Carbon Tetrachloride	ND	2.0	4.00	
Chlorobenzene	ND	2.0	4.00	
Dibromochloromethane	ND	2.0	4.00	
Chloroethane	ND	2.0	4.00	
Chloroform	ND	2.0	4.00	
Chloromethane	ND	2.0	4.00	
Dibromomethane	ND	2.0	4.00	
Bromodichloromethane	ND	2.0	4.00	
Dichlorodifluoromethane	ND	4.0	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	4.00	
Isopropylbenzene	ND	2.0	4.00	
2-Butanone	ND	20	4.00	
Methylene Chloride	ND	4.0	4.00	
2-Hexanone	ND	40	4.00	
Naphthalene	ND	4.0	4.00	
n-Butylbenzene	ND	2.0	4.00	
n-Propylbenzene	ND	2.0	4.00	
p-Isopropyltoluene	ND	2.0	4.00	
sec-Butylbenzene	ND	2.0	4.00	
Styrene	ND	2.0	4.00	
tert-Butylbenzene	ND	2.0	4.00	
Tetrachloroethene	110	2.0	4.00	
Trichloroethene	ND	2.0	4.00	
Trichlorofluoromethane	ND	2.0	4.00	
Vinyl Chloride	ND	2.0	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	68-120	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 3 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	103	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-16-B12	16-06-0880-2-A	06/08/16 14:20	Aqueous	GC/MS L	06/16/16	06/16/16 18:24	160616L012

Comment(s): - PC Sample taken from VOA vial with air bubble > 6mm diameter.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	100	200	
Toluene	ND	100	200	
Ethylbenzene	550	100	200	
o-Xylene	ND	100	200	
p/m-Xylene	460	100	200	
Xylenes (total)	460	100	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	100	200	
Tert-Butyl Alcohol (TBA)	ND	1000	200	
Diisopropyl Ether (DIPE)	ND	100	200	
Ethyl-t-Butyl Ether (ETBE)	ND	100	200	
Tert-Amyl-Methyl Ether (TAME)	ND	100	200	
1,1,1,2-Tetrachloroethane	ND	100	200	
1,1,1-Trichloroethane	ND	100	200	
1,1,2,2-Tetrachloroethane	ND	100	200	
1,1,2-Trichloroethane	ND	100	200	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100	200	
1,1-Dichloroethane	ND	100	200	
1,1-Dichloroethene	ND	100	200	
1,1-Dichloropropene	ND	100	200	
1,2,3-Trichlorobenzene	ND	100	200	
1,2,3-Trichloropropane	ND	200	200	
1,2,4-Trichlorobenzene	ND	100	200	
1,2,4-Trimethylbenzene	7500	100	200	
1,3,5-Trimethylbenzene	1600	100	200	
c-1,2-Dichloroethene	170	100	200	
1,2-Dibromo-3-Chloropropane	ND	1000	200	
1,2-Dibromoethane	ND	100	200	
1,2-Dichlorobenzene	ND	100	200	
1,2-Dichloroethane	ND	100	200	
1,2-Dichloropropane	ND	100	200	
t-1,2-Dichloroethene	ND	100	200	
c-1,3-Dichloropropene	ND	100	200	
1,3-Dichlorobenzene	ND	100	200	
1,3-Dichloropropane	ND	200	200	

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
t-1,3-Dichloropropene	ND	100	200	
1,4-Dichlorobenzene	ND	100	200	
2,2-Dichloropropane	ND	200	200	
2-Chlorotoluene	ND	100	200	
4-Chlorotoluene	ND	100	200	
4-Methyl-2-Pentanone	ND	1000	200	
Acetone	ND	2000	200	
Bromobenzene	ND	100	200	
Bromochloromethane	ND	200	200	
Bromoform	ND	100	200	
Bromomethane	ND	200	200	
Carbon Disulfide	ND	200	200	
Carbon Tetrachloride	ND	100	200	
Chlorobenzene	ND	100	200	
Dibromochloromethane	ND	100	200	
Chloroethane	ND	100	200	
Chloroform	ND	100	200	
Chloromethane	ND	100	200	
Dibromomethane	ND	100	200	
Bromodichloromethane	ND	100	200	
Dichlorodifluoromethane	ND	200	200	
Hexachloro-1,3-Butadiene	ND	400	200	
Isopropylbenzene	270	100	200	
2-Butanone	ND	1000	200	
Methylene Chloride	ND	200	200	
2-Hexanone	ND	2000	200	
Naphthalene	1000	200	200	
n-Butylbenzene	220	100	200	
n-Propylbenzene	970	100	200	
p-Isopropyltoluene	ND	100	200	
sec-Butylbenzene	ND	100	200	
Styrene	ND	100	200	
tert-Butylbenzene	ND	100	200	
Tetrachloroethene	190	100	200	
Trichloroethene	ND	100	200	
Trichlorofluoromethane	ND	100	200	
Vinyl Chloride	ND	100	200	


 Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 6 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	96	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1467	N/A	Aqueous	GC/MS L	06/16/16	06/16/16 10:31	160616L012

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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



## Analytical Report

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

Date Received: 06/11/16  
 Work Order: 16-06-0880  
 Preparation: EPA 5030C  
 Method: EPA 8260B  
 Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	97	68-120		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 9 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	117	80-127	
1,2-Dichloroethane-d4	111	80-128	
Toluene-d8	92	80-120	

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



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## Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0732-1	Sample	Aqueous	GC 42	06/16/16	06/16/16 18:07	160616S017
16-06-0732-1	Matrix Spike	Aqueous	GC 42	06/16/16	06/16/16 18:42	160616S017
16-06-0732-1	Matrix Spike Duplicate	Aqueous	GC 42	06/16/16	06/16/16 19:17	160616S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	2069	103	2078	104	68-122	0	0-18	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0867-1	Sample	Aqueous	GC/MS L	06/16/16	06/16/16 11:18	160616S008
16-06-0867-1	Matrix Spike	Aqueous	GC/MS L	06/16/16	06/16/16 12:21	160616S008
16-06-0867-1	Matrix Spike Duplicate	Aqueous	GC/MS L	06/16/16	06/16/16 12:51	160616S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.48	105	10.32	103	75-125	1	0-20	
Toluene	ND	10.00	11.23	112	10.88	109	75-125	3	0-20	
Ethylbenzene	ND	10.00	10.99	110	10.77	108	75-125	2	0-20	
o-Xylene	ND	10.00	10.80	108	10.68	107	75-127	1	0-20	
p/m-Xylene	ND	20.00	21.93	110	21.55	108	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.660	97	10.15	101	71-131	5	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	53.50	107	55.60	111	20-180	4	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	13.19	132	13.34	133	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	8.860	89	9.187	92	73-133	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.495	95	9.905	99	75-125	4	0-20	
1,1-Dichloroethene	ND	10.00	11.66	117	11.31	113	66-126	3	0-20	
1,2-Dibromoethane	ND	10.00	9.093	91	9.402	94	75-126	3	0-20	
1,2-Dichlorobenzene	ND	10.00	9.936	99	10.08	101	75-125	1	0-20	
1,2-Dichloroethane	ND	10.00	9.574	96	9.751	98	75-127	2	0-20	
Carbon Tetrachloride	ND	10.00	10.28	103	10.20	102	69-135	1	0-20	
Chlorobenzene	ND	10.00	10.16	102	10.12	101	75-125	0	0-20	
Trichloroethene	ND	10.00	9.999	100	9.910	99	75-125	1	0-20	
Vinyl Chloride	ND	10.00	10.37	104	10.38	104	52-142	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS/LCSD

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-1443	LCS	Aqueous	GC 46	06/13/16	06/15/16 23:20	160613B10			
099-15-304-1443	LCSD	Aqueous	GC 46	06/13/16	06/15/16 23:37	160613B10			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2061	103	2073	104	75-117	1	0-13	



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## Quality Control - LCS/LCSD

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

Date Received: 06/11/16  
Work Order: 16-06-0880  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
<b>099-12-436-10879</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/16/16</b>	<b>06/16/16 15:01</b>	<b>160616L051</b>			
<b>099-12-436-10879</b>	<b>LCSD</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/16/16</b>	<b>06/16/16 15:36</b>	<b>160616L051</b>			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	2120	106	2149	107	78-120	1	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0880
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Former ExxonMobil 10MHG		Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1467</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/16/16</b>	<b>06/16/16 09:37</b>	<b>160616L012</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.29	103	80-120	73-127	
Toluene		10.00	9.956	100	80-120	73-127	
Ethylbenzene		10.00	10.18	102	80-120	73-127	
o-Xylene		10.00	10.11	101	80-120	73-127	
p/m-Xylene		20.00	20.39	102	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.202	92	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	53.12	106	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	12.58	126	73-121	65-129	LQ,RU
Ethyl-t-Butyl Ether (ETBE)		10.00	8.510	85	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.202	92	80-120	73-127	
1,1-Dichloroethene		10.00	10.59	106	77-120	70-127	
1,2-Dibromoethane		10.00	9.218	92	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.765	98	80-120	73-127	
1,2-Dichloroethane		10.00	9.239	92	80-122	73-129	
Carbon Tetrachloride		10.00	11.34	113	80-129	72-137	
Chlorobenzene		10.00	10.04	100	80-120	73-127	
Trichloroethene		10.00	9.613	96	80-120	73-127	
Vinyl Chloride		10.00	9.170	92	63-135	51-147	

Total number of LCS compounds: 18

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 16-06-0880

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	682	GC 46	1
EPA 8015B (M)	EPA 5030C	1063	GC 42	2
EPA 8260B	EPA 5030C	316	GC/MS L	2



## Glossary of Terms and Qualifiers

Work Order: 16-06-0880

Page 1 of 1

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

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For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WG # / LAB USE ONLY  
**16-06-0880**

DATE: 6/8/16

PAGE: 1 OF 1

LABORATORY CLIENT: <b>Cardno / ExxonMobil</b>		CLIENT PROJECT NAME / NUMBER: Former Mobil 10MHG		P.O. NO.: 4410371574	
ADDRESS: 601 N. McDowell Blvd		PROJECT CONTACT: 160 14th Street, Oakland, CA		SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle	
CITY: Petaluma	STATE: CA	ZIP: 94954			
TEL: (707) 766-2000	E-MAIL: janice.jacobson@cardno.com				

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF

GLOBAL ID: **T06019782296**

LOG CODE:

SPECIAL INSTRUCTIONS:

**TPHd - Silica Gel Cleanup**

**Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions**

Please email PDF files to: [norcallabs@eri-us.com](mailto:norcallabs@eri-us.com)

Please check box or fill in blank as needed.																
Unpreserved	Preserved	Field Filtered	TPH(g) (8015M)	TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>								

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered
			DATE	TIME					
1	W-17.5-B7	B7	6-8-16	1130	W	8V/2A			
2	W-16-B12	B12	6-8-16	1420	W	8V/2A			

Relinquished by: (Signature) <i>Ward</i>	Received by: (Signature/Affiliation) <i>To Smalley, ECI</i>	Date: 6/10/16	Time: 1030
Relinquished by: (Signature) <i>Tom Smalley TO 650 6/10/16 1730</i>	Received by: (Signature/Affiliation) <i>Ward</i>	Date: 6/11/16	Time: 8:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

Page 23 of 28

0880



800-322-5555 www.gso.com

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

Tracking #: 532227626

SDS



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

ORC  
GARDEN GROVE

A

COD: \$0.00  
Weight: 0 lb(s)  
Reference:  
PHILLIPS 66, PAC ECORISK, ETIC(BTS), ARCADIS, CARD  
Delivery Instructions:

D92845A



52898456

Signature Type: REQUIRED

Print Date: 6/10/2016 3:30 PM

**LABEL INSTRUCTIONS:**

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

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

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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Cardno

DATE: 06 / 11 / 2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 4.2 °C (w/ CF): 4.2 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

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

Ambient Temperature:  Air  Filter

Checked by: 1017

**CUSTODY SEAL:**

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

Checked by: 1017

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

Checked by: 1017

**SAMPLE CONDITION:**

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

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)

**Aqueous:**  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  
**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
**Air:**  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_) :  \_\_\_\_\_  \_\_\_\_\_

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

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017

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

Reviewed by: 728

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**SAMPLE ANOMALY REPORT**

**DATE: 06 / 11 / 2016**

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or ECI sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample label(s) do not match COC (comment)
  - Project information
  - Client sample ID
  - Sampling date and/or time
  - Number of container(s)
  - Requested analysis
- Sample container(s) compromised (comment)
  - Broken
  - Water present in sample container
- Air sample container(s) compromised (comment)
  - Flat
  - Very low in volume
  - Leaking (not transferred; duplicate bag submitted)
  - Leaking (transferred into ECI Tedlar™ bags\*)
  - Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

**Comments**

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**MISCELLANEOUS:** (Describe)

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**Comments**

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**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**
-2	A, CPEFF	8			

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: \_\_\_\_\_

---

Reported by: 1017  
 Reviewed by: 778

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.



**EPA 8015B(M) TPH-Diesel**

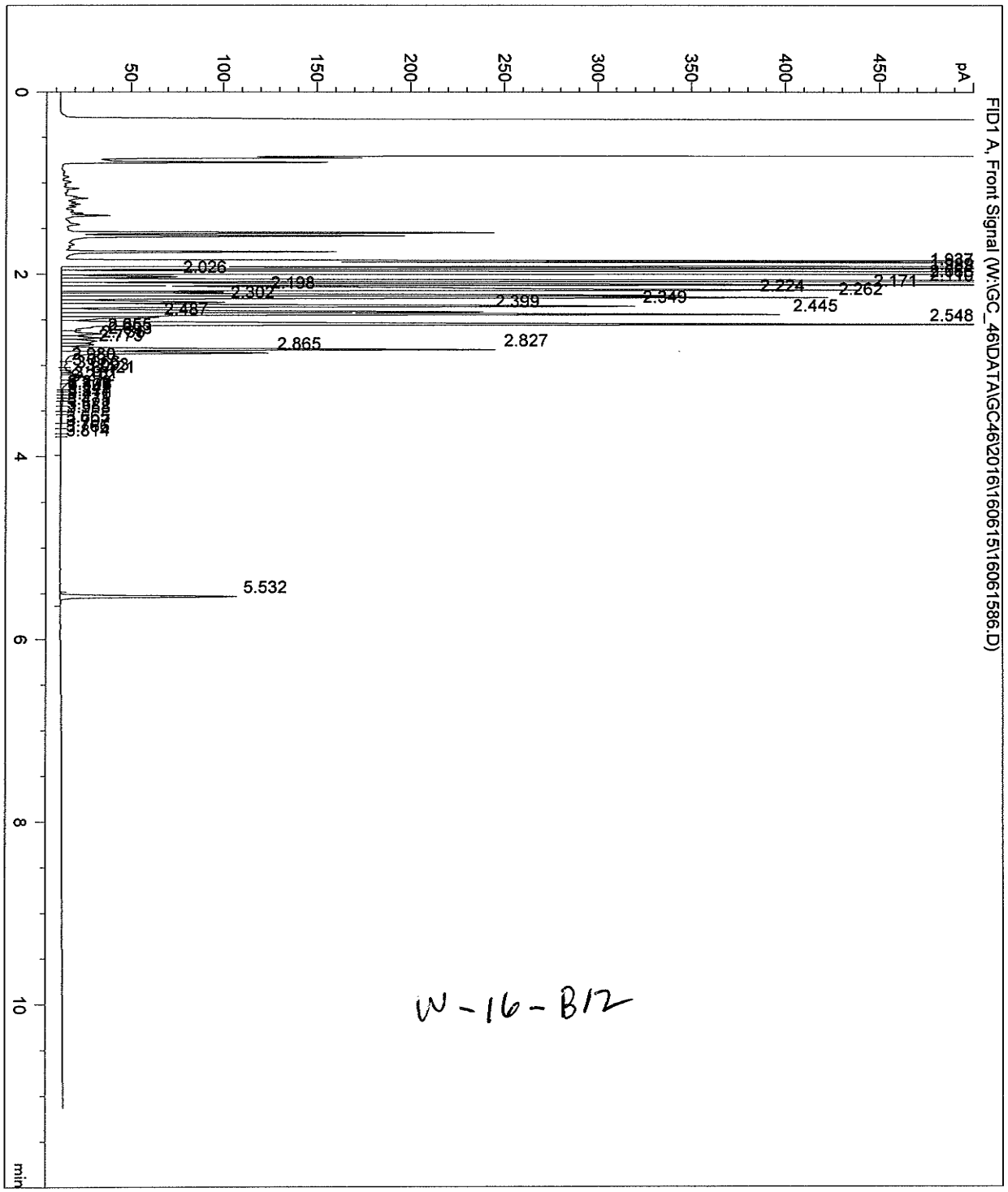
**ExxonMobil 10MHG / 16-06-0880-2**

**Chromatograms**

Area Percent Report

Data File Name : W:\GC\_46\DATA\GC46\2016\160615\16061586.D  
Page Number : 2  
Operator : 682 Vial Number : Vial 86  
Instrument : GC 46 Injection Number : 1  
Sample Name : 16-06-0880-2 5X Sequence Line : 86  
Instrument Method: W:\METHODS\GC 46\TPH46NE->  
Acquired on : 16 Jun 16 11:22 am  
Report Created on: 16 Jun 16 11:44 am Analysis Method : 8015B.MTH

Software Revision: Rev. B.04.03-SP1 [87] Copyright © Agilent Technologies

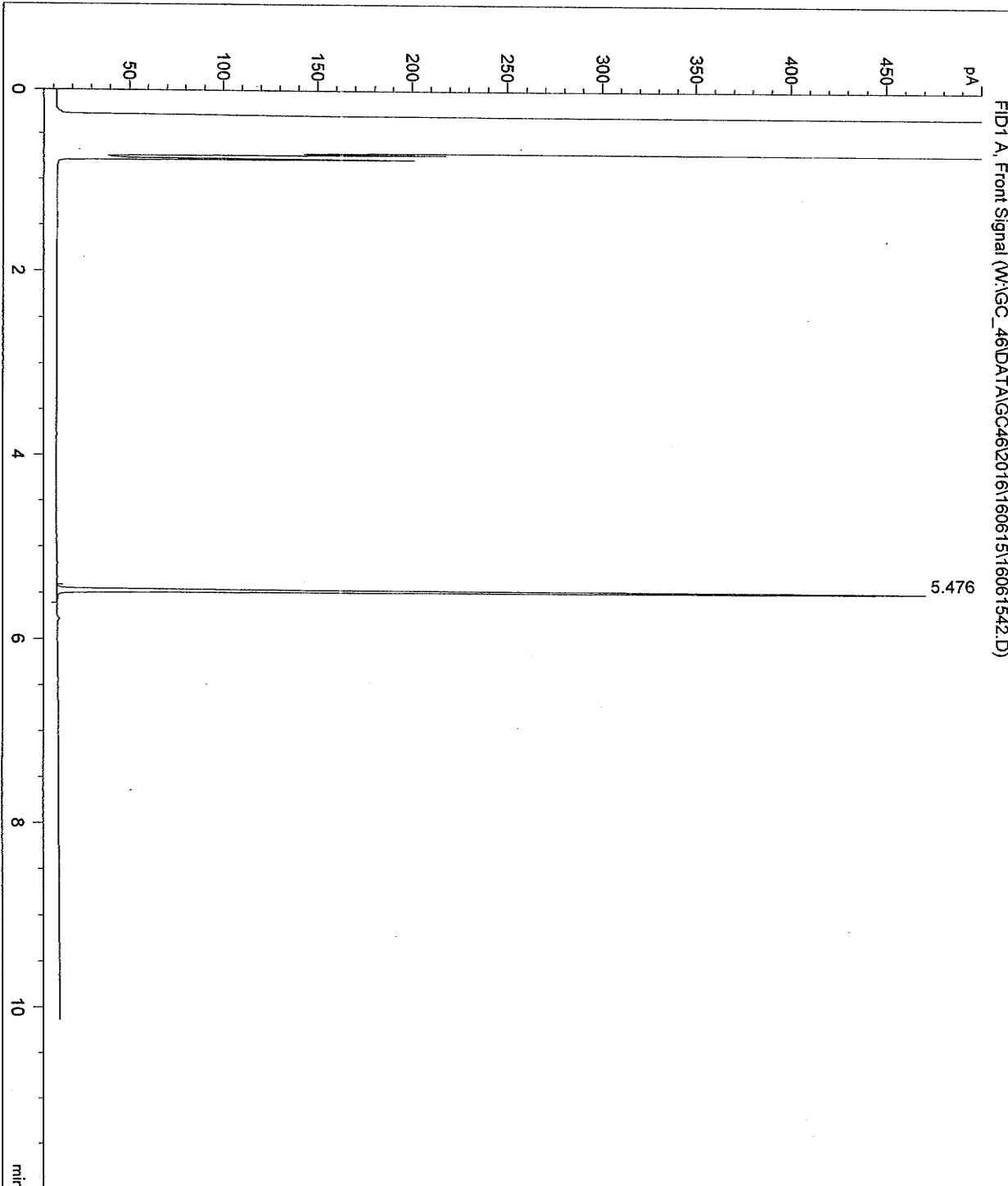


W-16-B12

=====  
Area Percent Report  
=====

Data File Name : W:\GC\_46\DATA\GC46\2016\160615\16061542.D  
Page Number : 2  
Operator : 682 Vial Number : Vial 42  
Instrument : GC 46 Injection Number : 1  
Sample Name : MB 16061310 Sequence Line : 42  
Instrument Method: W:\METHODS\GC 46\TPH46NE->  
Acquired on : 15 Jun 16 11:04 pm  
Report Created on: 16 Jun 16 11:30 am Analysis Method : 8015B.MTH

Software Revision: Rev. B.04.03-SP1 [87] Copyright © Agilent Technologies

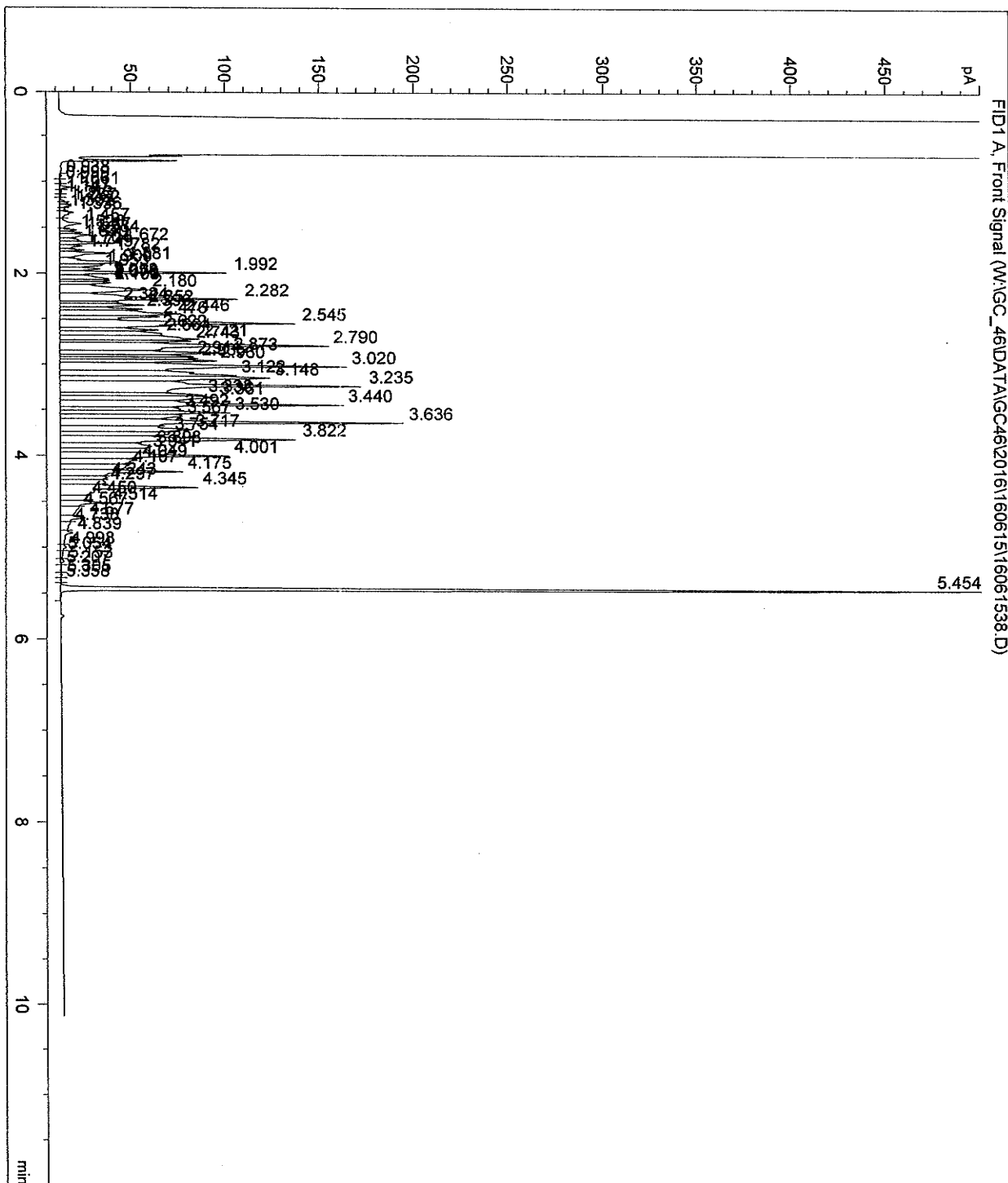




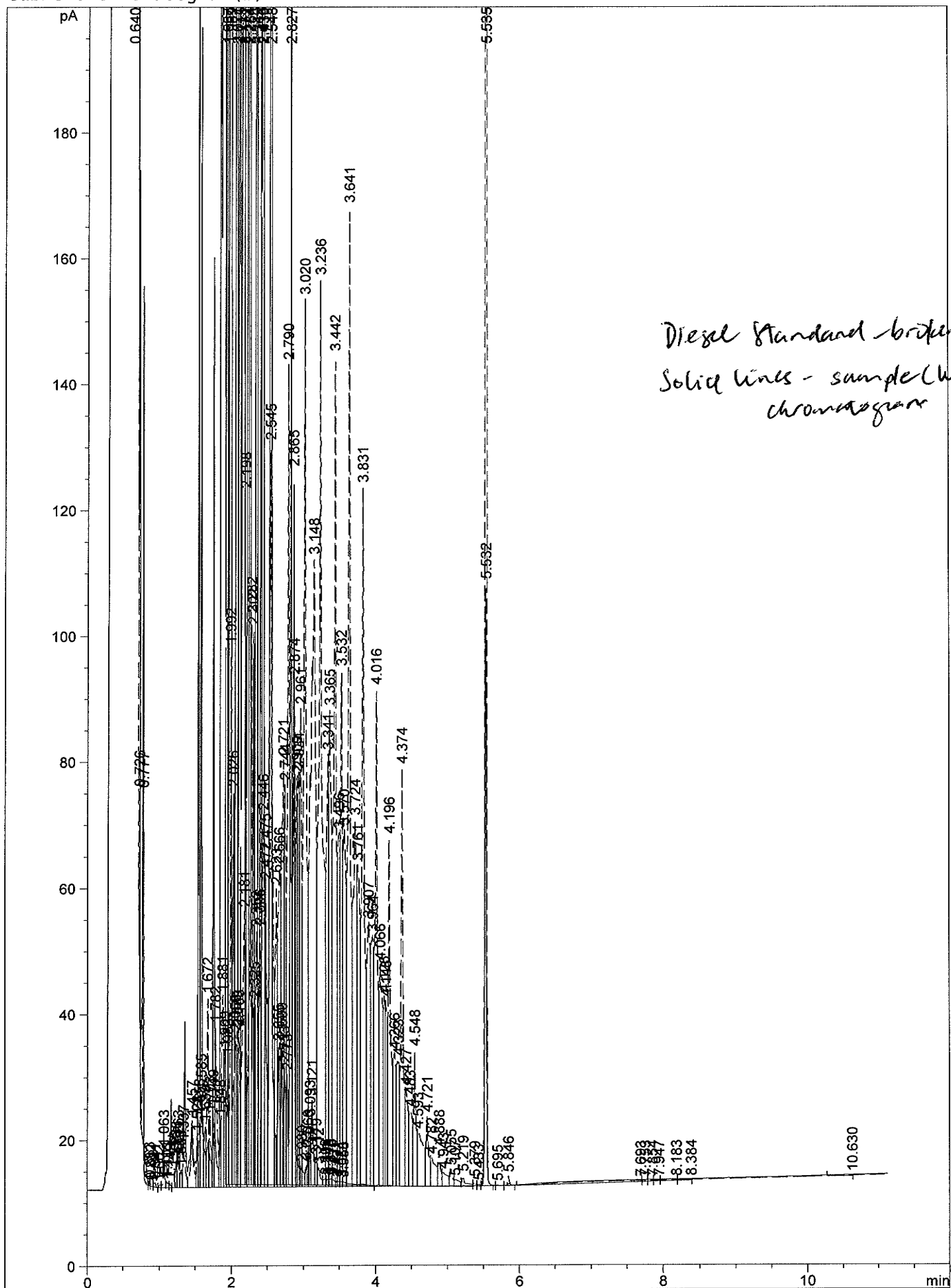
=====  
 Area Percent Report  
 =====

Data File Name : W:\GC\_46\DATA\GC46\2016\160615\16061538.D  
 Page Number : 3  
 Operator : 682  
 Instrument : GC 46  
 Sample Name : CCV D400 C28 50 ->  
 Vial Number : Vial 38  
 Injection Number : 1  
 Sequence Line : 38  
 Instrument Method: W:\METHODS\GC 46\TPH46NE->  
 Acquired on : 15 Jun 16 09:57 pm  
 Report Created on: 16 Jun 16 11:30 am  
 Analysis Method : 8015B.MTH

Software Revision: Rev. B.04.03-SP1 [87] Copyright © Agilent Technologies



Current Chromatogram(s)



Diesel Standard - broken lines  
Solid lines - sample (W-16 B12)  
chromatogram

**EPA 8015B(M) TPH-Gasoline**

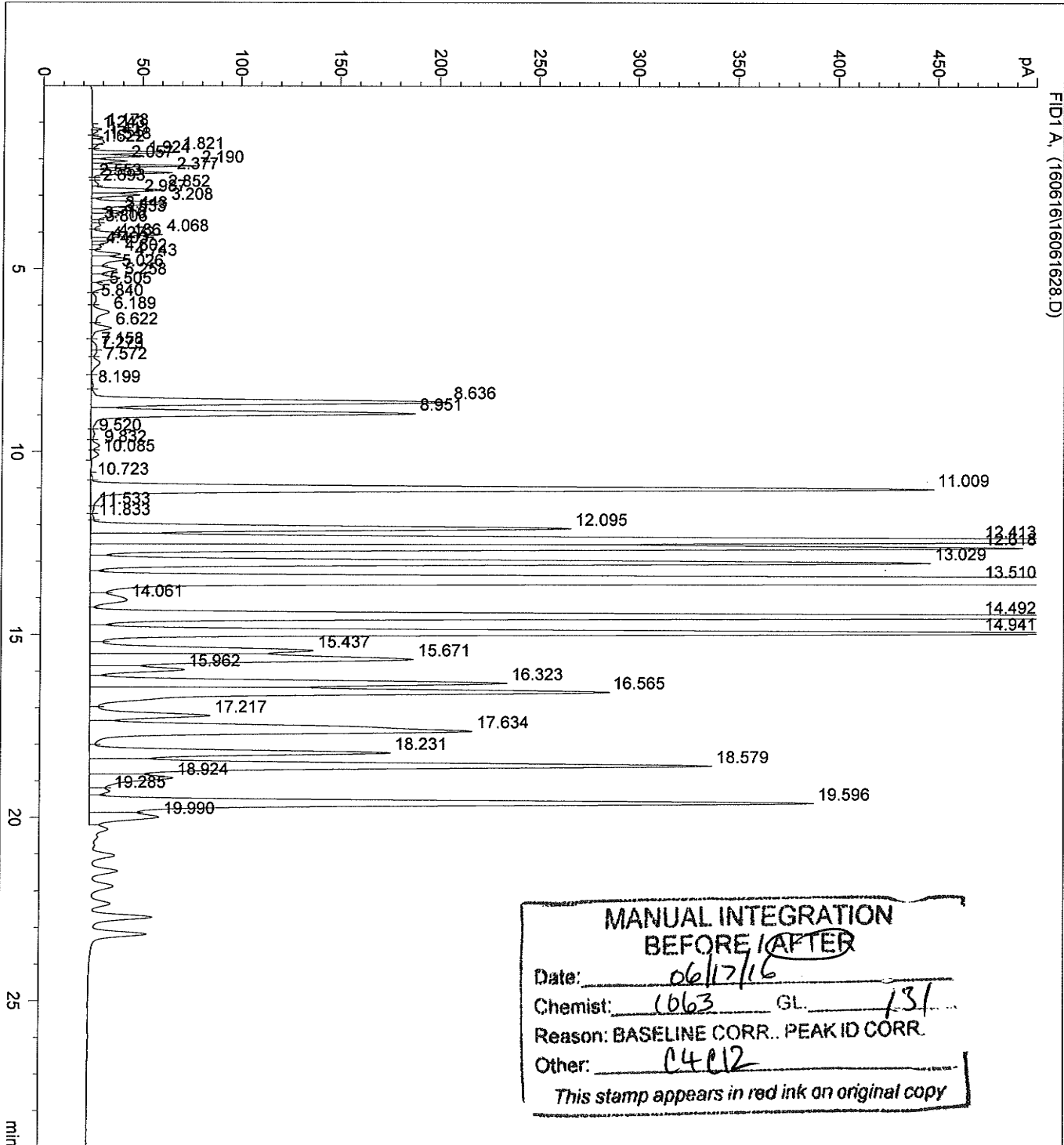
**ExxonMobil 10MHG / 16-06-0880-2**

**Chromatograms**

=====  
 Area Percent Report  
 =====

Data File Name : W:\DATA\160616\16061628.D  
 Operator : 1063  
 Instrument : GC 42  
 Sample Name : 06-0880-2G 10X<2  
 Run Time Bar Code:  
 Acquired on : 6/17/2016 6:23:22 AM  
 Report Created on: 17 Jun 16 00:10 pm

Page Number : 3  
 Vial Number : Vial 28  
 Injection Number : 1  
 Sequence Line : 28  
 Instrument Method: 80158021.M  
 Analysis Method : 8015B(M).MTH



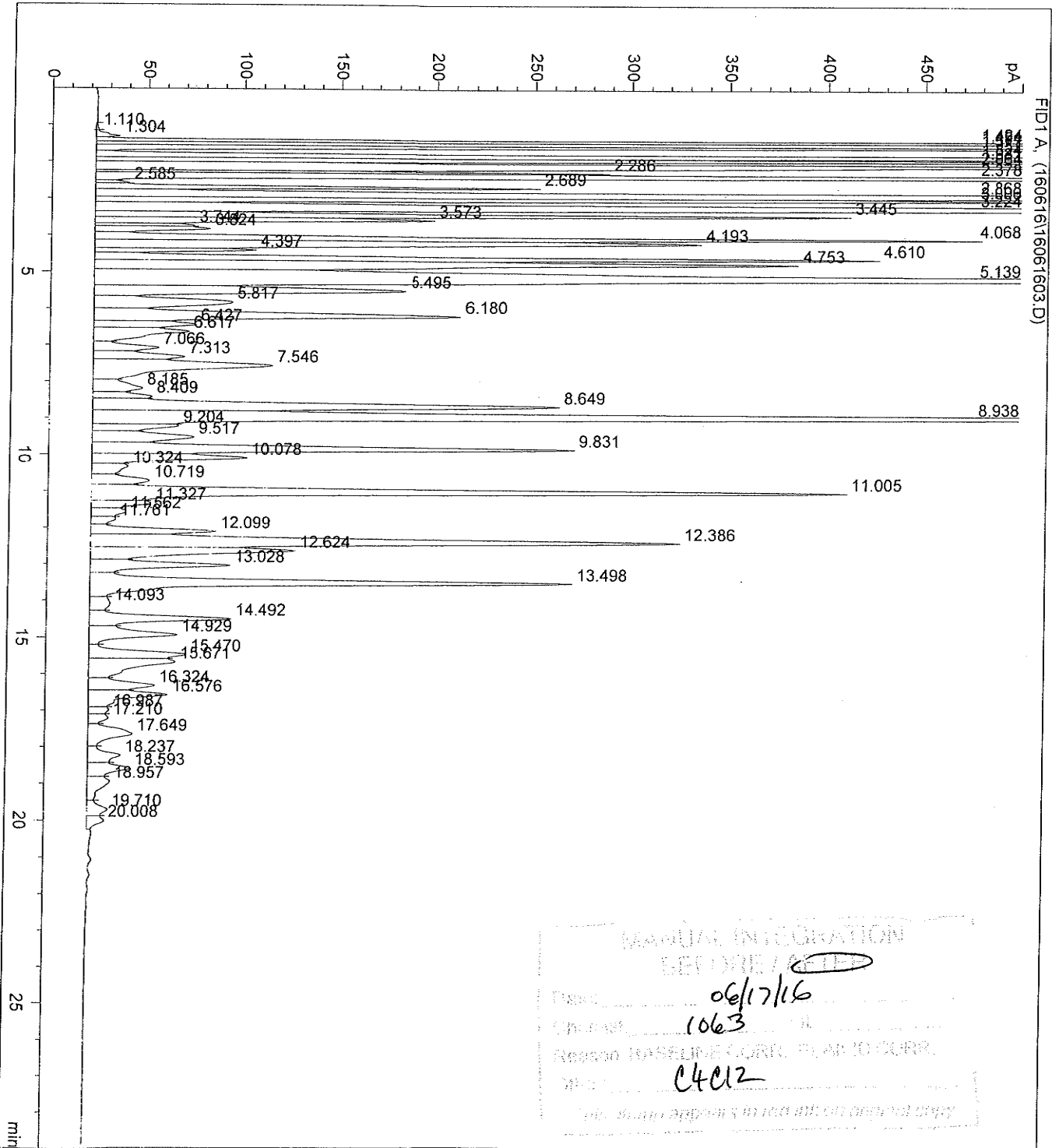
**MANUAL INTEGRATION**  
 BEFORE / AFTER  
 Date: 06/17/16  
 Chemist: 1063 GL: 131  
 Reason: BASELINE CORR., PEAK ID CORR.  
 Other: C4P12  
 This stamp appears in red ink on original copy

W-16-B12

=====  
 Area Percent Report  
 =====

Data File Name : W:\DATA\160616\16061603.D  
 Operator : 1063  
 Instrument : GC 42  
 Sample Name : 2PPM TPH CCV  
 Run Time Bar Code:  
 Acquired on : 6/16/2016 2:26:38 PM  
 Report Created on: 17 Jun 16 11:37 am

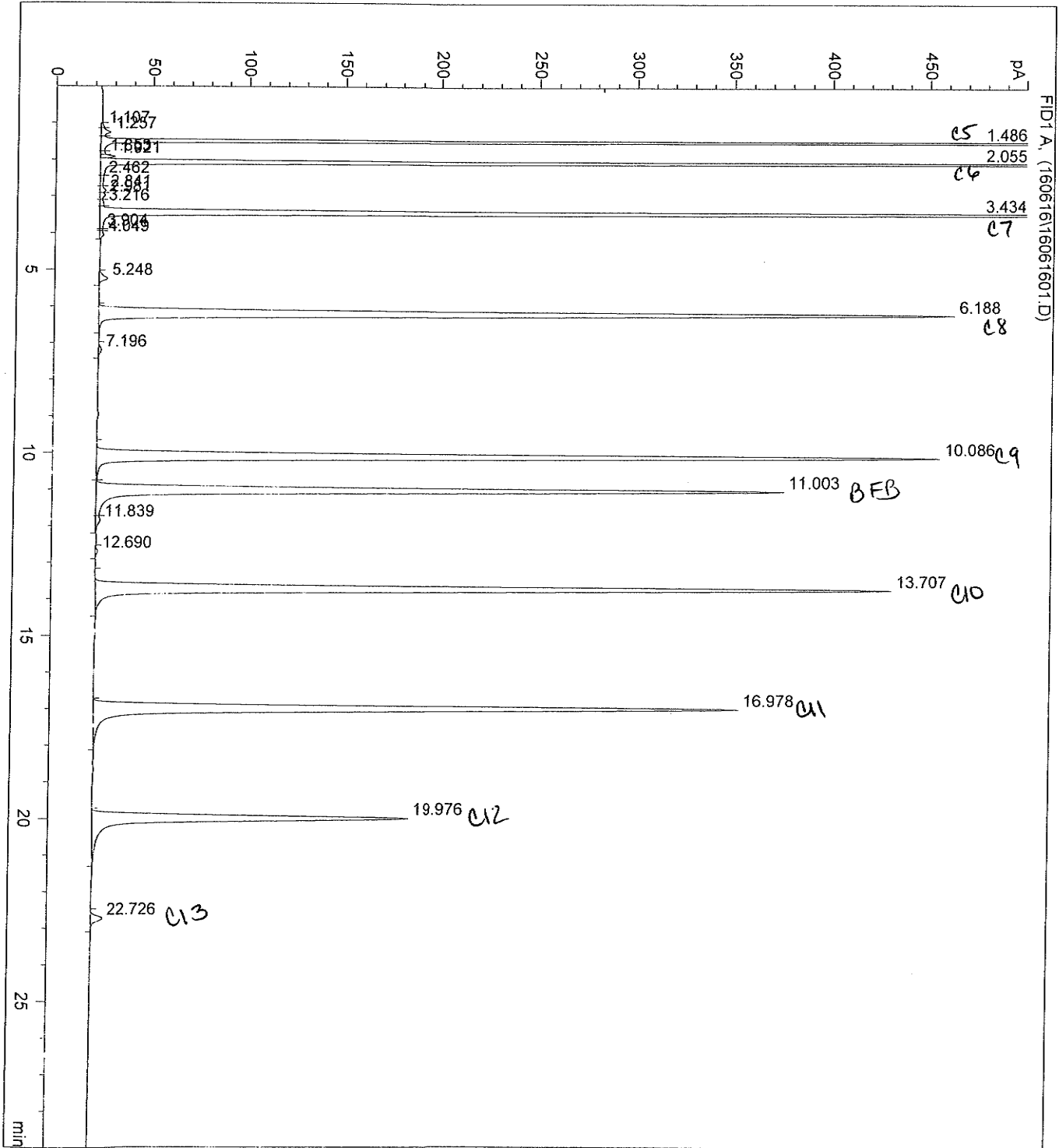
Page Number : 3  
 Vial Number : Vial 3  
 Injection Number : 1  
 Sequence Line : 3  
 Instrument Method: 80158021.M  
 Analysis Method : 8015B(M).MTH



Area Percent Report

Data File Name : W:\DATA\160616\16061601.D  
Operator : 1063  
Instrument : GC 42  
Sample Name : C5-C13 MARKER  
Run Time Bar Code:  
Acquired on : 6/16/2016 1:16:34 PM  
Report Created on: 17 Jun 16 11:31 am

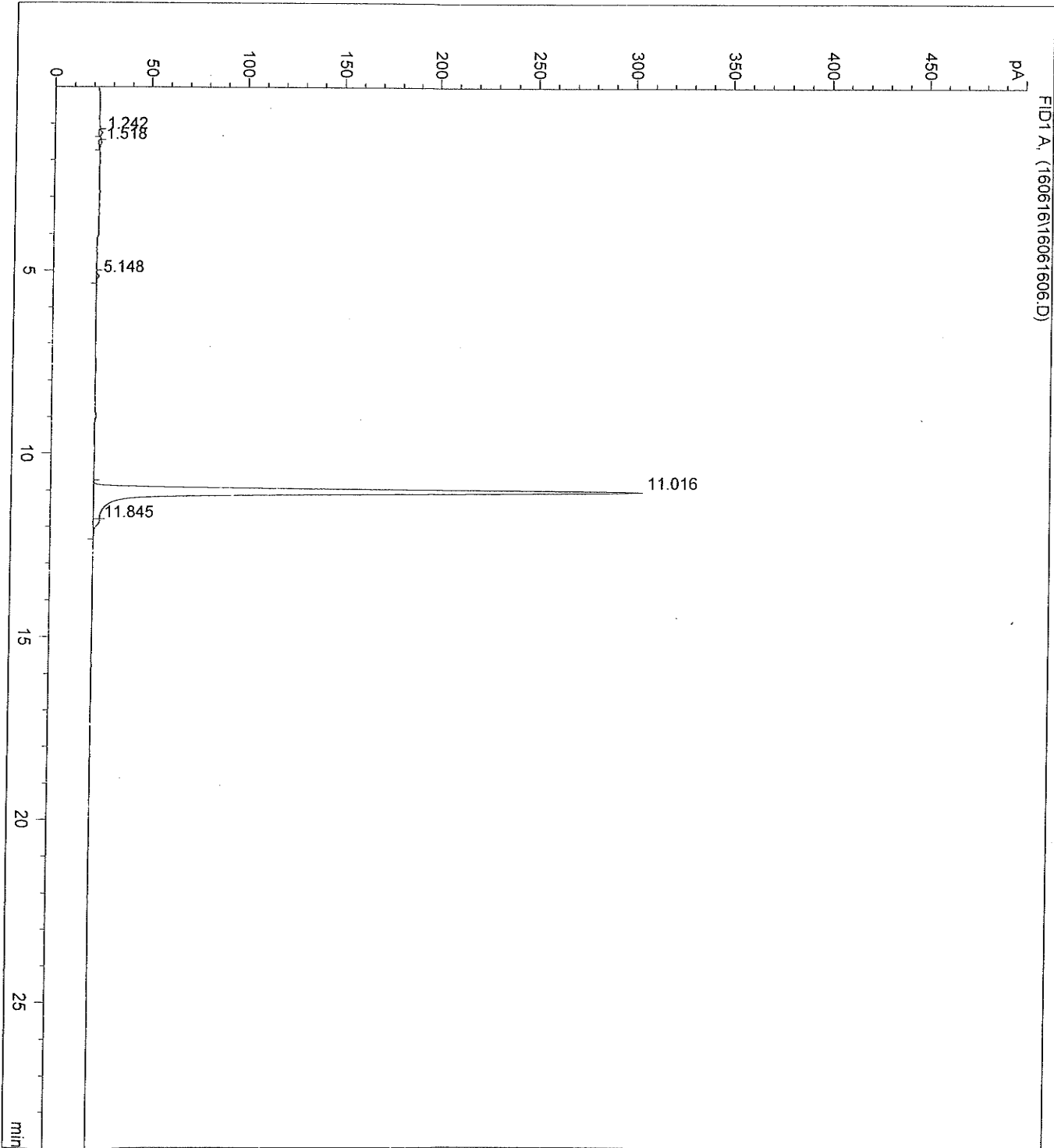
Page Number : 2  
Vial Number : Vial 1  
Injection Number : 1  
Sequence Line : 1  
Instrument Method: 80158021.M  
Analysis Method : 8015B(M).MTH



=====  
Area Percent Report  
=====

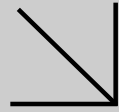
Data File Name : W:\DATA\160616\16061606.D  
Operator : 1063  
Instrument : GC 42  
Sample Name : MB  
Run Time Bar Code:  
Acquired on : 6/16/2016 5:32:48 PM  
Report Created on: 17 Jun 16 11:32 am

Page Number : 2  
Vial Number : Vial 6  
Injection Number : 1  
Sequence Line : 6  
Instrument Method: 80158021.M  
Analysis Method : 8015B(M).MTH





Calscience



**WORK ORDER NUMBER: 16-06-0866**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/27/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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



# Contents

Client Project Name: Former ExxonMobil 10MHG  
 Work Order Number: 16-06-0866

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/11/16. They were assigned to Work Order 16-06-0866.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

EPA 8260B:

LCS Batch Number 160622L045: All target analytes were within acceptance criteria with the exception of Ethyl-t-Butyl Ether (ETBE). The LCS recovery for this analyte was below the lower control limit of 76%, but was above the NELAC-defined lower marginal exceedance (ME) limit of 68%. (ME =  $\pm 4$  standard deviations.) Based upon the number of analytes spiked into the LCS, and per NELAC, the laboratory is allowed to report associated data when there is, in this case, one marginal exceedance in an LCS.



Calscience

## Sample Summary

Client: Cardno	Work Order:	16-06-0866
601 North McDowell Blvd.	Project Name:	Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number:	4410384606
	Date/Time Received:	06/11/16 08:50
	Number of Containers:	29

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-5-B9	16-06-0866-1	06/09/16 13:20	1	Solid
S-5-B11	16-06-0866-2	06/09/16 13:45	1	Solid
S-10-B11	16-06-0866-3	06/09/16 14:15	1	Solid
S-15-B11	16-06-0866-4	06/09/16 14:20	1	Solid
S-18.5-B11	16-06-0866-5	06/09/16 14:25	1	Solid
S-5-B10	16-06-0866-6	06/09/16 09:10	1	Solid
S-10.5-B10	16-06-0866-7	06/09/16 09:45	1	Solid
S-15-B10	16-06-0866-8	06/09/16 10:10	1	Solid
S-18-B10	16-06-0866-9	06/09/16 11:10	1	Solid
W-16-B11	16-06-0866-10	06/09/16 14:45	10	Aqueous
W-16.5-B10	16-06-0866-11	06/09/16 12:45	10	Aqueous


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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B9</b>	<b>16-06-0866-1-A</b>	<b>06/09/16 13:20</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/14/16 01:05</b>	<b>160613L03</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decafluorobiphenyl	76	8-120	

Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B11	16-06-0866-2-A	06/09/16 13:45	Solid	HPLC 5	06/13/16	06/14/16 01:38	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	80	8-120		

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B11	16-06-0866-3-A	06/09/16 14:15	Solid	HPLC 5	06/13/16	06/14/16 02:10	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	64	8-120	

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

## Analytical Report

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

Date Received: 06/11/16  
 Work Order: 16-06-0866  
 Preparation: EPA 3545  
 Method: EPA 8310  
 Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B10</b>	<b>16-06-0866-6-A</b>	<b>06/09/16 09:10</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/14/16 02:43</b>	<b>160613L03</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	78	8-120		

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-07-002-1874</b>	<b>N/A</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/13/16 20:45</b>	<b>160613L03</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	77	8-120		


 Return to Contents

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





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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-16-B11</b>	<b>16-06-0866-10-I</b>	<b>06/09/16 14:45</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/16/16 00:25</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		2100		48		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			
<b>W-16.5-B10</b>	<b>16-06-0866-11-I</b>	<b>06/09/16 12:45</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/16/16 00:41</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			
<b>Method Blank</b>	<b>099-15-304-1443</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>06/13/16</b>	<b>06/15/16 23:04</b>	<b>160613B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B9</b>	<b>16-06-0866-1-A</b>	<b>06/09/16 13:20</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 19:16</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		109		61-145			
<b>S-5-B11</b>	<b>16-06-0866-2-A</b>	<b>06/09/16 13:45</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 19:32</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		113		61-145			
<b>S-10-B11</b>	<b>16-06-0866-3-A</b>	<b>06/09/16 14:15</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 19:48</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		108		61-145			
<b>S-15-B11</b>	<b>16-06-0866-4-A</b>	<b>06/09/16 14:20</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 20:04</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		115		61-145			
<b>S-18.5-B11</b>	<b>16-06-0866-5-A</b>	<b>06/09/16 14:25</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 20:20</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		109		61-145			

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B10</b>	<b>16-06-0866-6-A</b>	<b>06/09/16 09:10</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 20:37</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		117		61-145			
<b>S-10.5-B10</b>	<b>16-06-0866-7-A</b>	<b>06/09/16 09:45</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 20:54</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		107		61-145			
<b>S-15-B10</b>	<b>16-06-0866-8-A</b>	<b>06/09/16 10:10</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 21:15</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		126		61-145			
<b>S-18-B10</b>	<b>16-06-0866-9-A</b>	<b>06/09/16 11:10</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 21:32</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		111		61-145			
<b>Method Blank</b>	<b>099-15-422-2501</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 15:24</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-16-B11</b>	<b>16-06-0866-10-G</b>	<b>06/09/16 14:45</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/17/16</b>	<b>06/17/16 13:35</b>	<b>160617L040</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
TPH as Gasoline		3600	250		5.00		
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		72	38-134				
<b>W-16.5-B10</b>	<b>16-06-0866-11-G</b>	<b>06/09/16 12:45</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/17/16</b>	<b>06/17/16 09:18</b>	<b>160617L040</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
TPH as Gasoline		110	50		1.00		HD
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		61	38-134				
<b>Method Blank</b>	<b>099-12-436-10880</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/17/16</b>	<b>06/17/16 08:43</b>	<b>160617L040</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
TPH as Gasoline		ND	50		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		59	38-134				

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B9</b>	<b>16-06-0866-1-A</b>	<b>06/09/16 13:20</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 09:32</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.49		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		69		42-126			
<b>S-5-B11</b>	<b>16-06-0866-2-A</b>	<b>06/09/16 13:45</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 11:17</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-10-B11</b>	<b>16-06-0866-3-A</b>	<b>06/09/16 14:15</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 11:52</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.49		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			
<b>S-15-B11</b>	<b>16-06-0866-4-A</b>	<b>06/09/16 14:20</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 15:21</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		0.91		0.49		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		69		42-126			
<b>S-18.5-B11</b>	<b>16-06-0866-5-A</b>	<b>06/09/16 14:25</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 12:26</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		63		42-126			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B10</b>	<b>16-06-0866-6-A</b>	<b>06/09/16 09:10</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 13:01</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-10.5-B10</b>	<b>16-06-0866-7-A</b>	<b>06/09/16 09:45</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 13:36</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-15-B10</b>	<b>16-06-0866-8-A</b>	<b>06/09/16 10:10</b>	<b>Solid</b>	<b>GC 56</b>	<b>06/11/16</b>	<b>06/14/16 14:06</b>	<b>160614L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		51		42-126			
<b>S-18-B10</b>	<b>16-06-0866-9-A</b>	<b>06/09/16 11:10</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 14:46</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		59		42-126			
<b>Method Blank</b>	<b>099-14-571-3069</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/12/16</b>	<b>06/12/16 06:37</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		67		42-126			

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-14-571-3073</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 56</b>	<b>06/14/16</b>	<b>06/14/16 13:03</b>	<b>160614L055</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene - FID	60	42-126	



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-16-B11	16-06-0866-10-C	06/09/16 14:45	Aqueous	GC/MS L	06/22/16	06/22/16 17:07	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	250	20	40.0	
Toluene	150	20	40.0	
Ethylbenzene	790	20	40.0	
o-Xylene	540	20	40.0	
p/m-Xylene	1900	20	40.0	
Xylenes (total)	2400	20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	20	40.0	
Tert-Butyl Alcohol (TBA)	ND	200	40.0	
Diisopropyl Ether (DIPE)	ND	20	40.0	
Ethyl-t-Butyl Ether (ETBE)	ND	20	40.0	
Tert-Amyl-Methyl Ether (TAME)	ND	20	40.0	
1,1,1,2-Tetrachloroethane	ND	20	40.0	
1,1,1-Trichloroethane	ND	20	40.0	
1,1,2,2-Tetrachloroethane	ND	20	40.0	
1,1,2-Trichloroethane	ND	20	40.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40.0	
1,1-Dichloroethane	ND	20	40.0	
1,1-Dichloroethene	ND	20	40.0	
1,1-Dichloropropene	ND	20	40.0	
1,2,3-Trichlorobenzene	ND	20	40.0	
1,2,3-Trichloropropane	ND	40	40.0	
1,2,4-Trichlorobenzene	ND	20	40.0	
1,2,4-Trimethylbenzene	830	20	40.0	
1,3,5-Trimethylbenzene	190	20	40.0	
c-1,2-Dichloroethene	92	20	40.0	
1,2-Dibromo-3-Chloropropane	ND	200	40.0	
1,2-Dibromoethane	ND	20	40.0	
1,2-Dichlorobenzene	ND	20	40.0	
1,2-Dichloroethane	ND	20	40.0	
1,2-Dichloropropane	ND	20	40.0	
t-1,2-Dichloroethene	33	20	40.0	
c-1,3-Dichloropropene	ND	20	40.0	
1,3-Dichlorobenzene	ND	20	40.0	
1,3-Dichloropropane	ND	40	40.0	
t-1,3-Dichloropropene	ND	20	40.0	

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



## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	20	40.0	
2,2-Dichloropropane	ND	40	40.0	
2-Chlorotoluene	ND	20	40.0	
4-Chlorotoluene	ND	20	40.0	
4-Methyl-2-Pentanone	ND	200	40.0	
Acetone	ND	400	40.0	
Bromobenzene	ND	20	40.0	
Bromochloromethane	ND	40	40.0	
Bromoform	ND	20	40.0	
Bromomethane	ND	40	40.0	
Carbon Disulfide	ND	40	40.0	
Carbon Tetrachloride	ND	20	40.0	
Chlorobenzene	ND	20	40.0	
Dibromochloromethane	ND	20	40.0	
Chloroethane	ND	20	40.0	
Chloroform	ND	20	40.0	
Chloromethane	ND	20	40.0	
Dibromomethane	ND	20	40.0	
Bromodichloromethane	ND	20	40.0	
Dichlorodifluoromethane	ND	40	40.0	
Hexachloro-1,3-Butadiene	ND	80	40.0	
Isopropylbenzene	41	20	40.0	
2-Butanone	ND	200	40.0	
Methylene Chloride	ND	40	40.0	
2-Hexanone	ND	400	40.0	
Naphthalene	220	40	40.0	
n-Butylbenzene	49	20	40.0	
n-Propylbenzene	120	20	40.0	
p-Isopropyltoluene	ND	20	40.0	
sec-Butylbenzene	ND	20	40.0	
Styrene	ND	20	40.0	
tert-Butylbenzene	ND	20	40.0	
Tetrachloroethene	22	20	40.0	
Trichloroethene	81	20	40.0	
Trichlorofluoromethane	ND	20	40.0	
Vinyl Chloride	ND	20	40.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 3 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	101	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-16.5-B10	16-06-0866-11-B	06/09/16 12:45	Aqueous	GC/MS L	06/22/16	06/22/16 17:37	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	3.8	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	11	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	1.2	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	1.7	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	0.89	0.50	1.00	
Tetrachloroethene	29	0.50	1.00	
Trichloroethene	4.1	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	0.56	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	68-120	

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



Calscience

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 6 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	110	80-127	
1,2-Dichloroethane-d4	112	80-128	
Toluene-d8	103	80-120	

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



Calscience

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1469	N/A	Aqueous	GC/MS L	06/22/16	06/22/16 10:18	160622L045

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	68-120	

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



Calscience

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Former ExxonMobil 10MHG		Page 9 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	93	80-120	

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



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B9	16-06-0866-1-A	06/09/16 13:20	Solid	GC/MS GGG	06/11/16	06/12/16 08:33	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 2 of 30

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 3 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B11	16-06-0866-2-A	06/09/16 13:45	Solid	GC/MS GGG	06/11/16	06/12/16 09:00	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 5 of 30

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 6 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	100	80-120	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B11	16-06-0866-3-A	06/09/16 14:15	Solid	GC/MS GGG	06/11/16	06/12/16 09:27	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.024	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.024	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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





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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 9 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B11	16-06-0866-4-A	06/09/16 14:20	Solid	GC/MS GGG	06/11/16	06/12/16 09:53	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	0.0094	0.0050	1.00	
o-Xylene	0.0052	0.0050	1.00	
p/m-Xylene	0.020	0.0050	1.00	
Xylenes (total)	0.025	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	0.057	0.0050	1.00	
1,3,5-Trimethylbenzene	0.0066	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	0.064	0.050	1.00	
n-Butylbenzene	0.016	0.0050	1.00	
n-Propylbenzene	0.0098	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	100	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 12 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	101	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-18.5-B11	16-06-0866-5-A	06/09/16 14:25	Solid	GC/MS GGG	06/11/16	06/12/16 10:20	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	0.021	0.0050	1.00	
o-Xylene	0.039	0.0050	1.00	
p/m-Xylene	0.081	0.0050	1.00	
Xylenes (total)	0.12	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	0.040	0.0050	1.00	
1,3,5-Trimethylbenzene	0.011	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	98	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 15 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B10	16-06-0866-6-A	06/09/16 09:10	Solid	GC/MS GGG	06/11/16	06/12/16 10:46	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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



## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 18 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-10.5-B10</b>	<b>16-06-0866-7-A</b>	<b>06/09/16 09:45</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 11:13</b>	<b>160611L027</b>

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0051	1.00	
Toluene	ND	0.0051	1.00	
Ethylbenzene	ND	0.0051	1.00	
o-Xylene	ND	0.0051	1.00	
p/m-Xylene	ND	0.0051	1.00	
Xylenes (total)	ND	0.0051	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0051	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.051	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,1-Trichloroethane	ND	0.0051	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,2-Trichloroethane	ND	0.0051	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.051	1.00	
1,1-Dichloroethane	ND	0.0051	1.00	
1,1-Dichloroethene	ND	0.0051	1.00	
1,1-Dichloropropene	ND	0.0051	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0051	1.00	
1,2,4-Trichlorobenzene	ND	0.0051	1.00	
1,2,4-Trimethylbenzene	ND	0.0051	1.00	
1,3,5-Trimethylbenzene	ND	0.0051	1.00	
c-1,2-Dichloroethene	ND	0.0051	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0051	1.00	
1,2-Dichlorobenzene	ND	0.0051	1.00	
1,2-Dichloroethane	ND	0.0051	1.00	
1,2-Dichloropropane	ND	0.0051	1.00	
t-1,2-Dichloroethene	ND	0.0051	1.00	
c-1,3-Dichloropropene	ND	0.0051	1.00	
1,3-Dichlorobenzene	ND	0.0051	1.00	
1,3-Dichloropropane	ND	0.0051	1.00	
t-1,3-Dichloropropene	ND	0.0051	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0051	1.00	
2,2-Dichloropropane	ND	0.0051	1.00	
2-Chlorotoluene	ND	0.0051	1.00	
4-Chlorotoluene	ND	0.0051	1.00	
4-Methyl-2-Pentanone	ND	0.051	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0051	1.00	
Bromochloromethane	ND	0.0051	1.00	
Bromoform	ND	0.0051	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.051	1.00	
Carbon Tetrachloride	ND	0.0051	1.00	
Chlorobenzene	ND	0.0051	1.00	
Dibromochloromethane	ND	0.0051	1.00	
Chloroethane	ND	0.0051	1.00	
Chloroform	ND	0.0051	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0051	1.00	
Bromodichloromethane	ND	0.0051	1.00	
Dichlorodifluoromethane	ND	0.0051	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0051	1.00	
2-Butanone	ND	0.051	1.00	
Methylene Chloride	ND	0.051	1.00	
2-Hexanone	ND	0.051	1.00	
Naphthalene	ND	0.051	1.00	
n-Butylbenzene	ND	0.0051	1.00	
n-Propylbenzene	ND	0.0051	1.00	
p-Isopropyltoluene	ND	0.0051	1.00	
sec-Butylbenzene	ND	0.0051	1.00	
Styrene	ND	0.0051	1.00	
tert-Butylbenzene	ND	0.0051	1.00	
Tetrachloroethene	ND	0.0051	1.00	
Trichloroethene	ND	0.0051	1.00	
Trichlorofluoromethane	ND	0.051	1.00	
Vinyl Chloride	ND	0.0051	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 21 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B10	16-06-0866-8-A	06/09/16 10:10	Solid	GC/MS GGG	06/11/16	06/12/16 11:39	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 24 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-18-B10	16-06-0866-9-A	06/09/16 11:10	Solid	GC/MS GGG	06/11/16	06/12/16 12:06	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 26 of 30

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 27 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	93	63-141	
1,2-Dichloroethane-d4	104	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1881	N/A	Solid	GC/MS GGG	06/11/16	06/12/16 02:48	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 29 of 30

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 30 of 30

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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



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## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 3545  
Method: EPA 8310

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-5-B11	Sample	Solid	HPLC 5	06/13/16	06/14/16 01:38	160613S03
S-5-B11	Matrix Spike	Solid	HPLC 5	06/13/16	06/13/16 21:17	160613S03
S-5-B11	Matrix Spike Duplicate	Solid	HPLC 5	06/13/16	06/13/16 21:50	160613S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	100.0	85.12	85	82.14	82	23-167	4	0-46	
Acenaphthylene	ND	100.0	68.21	68	68.94	69	24-120	1	0-47	
Acenaphthene	ND	100.0	64.90	65	66.08	66	16-120	2	0-46	
Fluorene	ND	100.0	63.49	63	63.83	64	32-120	1	0-44	
Phenanthrene	ND	100.0	68.94	69	70.01	70	34-120	2	0-38	
Anthracene	ND	100.0	69.15	69	68.30	68	27-120	1	0-45	
Fluoranthene	ND	100.0	73.92	74	76.73	77	32-122	4	0-41	
Pyrene	ND	100.0	80.01	80	80.26	80	31-127	0	0-38	
Benzo (a) Anthracene	ND	100.0	75.27	75	75.23	75	32-122	0	0-43	
Chrysene	ND	100.0	74.39	74	74.58	75	30-132	0	0-42	
Benzo (b) Fluoranthene	ND	100.0	72.66	73	72.60	73	33-120	0	0-44	
Benzo (k) Fluoranthene	ND	100.0	70.34	70	70.74	71	23-149	1	0-44	
Benzo (a) Pyrene	ND	100.0	78.23	78	76.50	76	12-132	2	0-48	
Dibenz (a,h) Anthracene	ND	100.0	77.22	77	77.49	77	29-125	0	0-43	
Benzo (g,h,i) Perylene	ND	100.0	76.82	77	77.88	78	24-132	1	0-42	
Indeno (1,2,3-c,d) Pyrene	ND	100.0	72.08	72	72.39	72	29-143	0	0-42	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0879-6	Sample	Solid	GC 45	06/22/16	06/22/16 18:25	160621S10
16-06-0879-6	Matrix Spike	Solid	GC 45	06/22/16	06/22/16 16:29	160621S10
16-06-0879-6	Matrix Spike Duplicate	Solid	GC 45	06/22/16	06/22/16 16:46	160621S10

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	379.5	95	371.7	93	64-130	2	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-16.5-B10	Sample	Aqueous	GC 42	06/17/16	06/17/16 09:18	160617S017
W-16.5-B10	Matrix Spike	Aqueous	GC 42	06/17/16	06/17/16 09:53	160617S017
W-16.5-B10	Matrix Spike Duplicate	Aqueous	GC 42	06/17/16	06/17/16 10:28	160617S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	105.8	2000	2159	103	2169	103	68-122	0	0-18	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B9</b>	<b>Sample</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 09:32</b>	<b>160612S002</b>
<b>S-5-B9</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 10:07</b>	<b>160612S002</b>
<b>S-5-B9</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/11/16</b>	<b>06/12/16 10:42</b>	<b>160612S002</b>

<u>Parameter</u>	<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	10.80	108	11.22	112	48-114	4	0-23	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0874-1	Sample	Solid	GC 56	06/11/16	06/14/16 14:38	160614S021
16-06-0874-1	Matrix Spike	Solid	GC 56	06/11/16	06/14/16 15:10	160614S021
16-06-0874-1	Matrix Spike Duplicate	Solid	GC 56	06/11/16	06/14/16 15:42	160614S021

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	147.3	80.00	218.1	88	221.8	93	48-114	2	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-1149-1	Sample	Aqueous	GC/MS L	06/22/16	06/22/16 11:27	160622S010
16-06-1149-1	Matrix Spike	Aqueous	GC/MS L	06/22/16	06/22/16 14:01	160622S010
16-06-1149-1	Matrix Spike Duplicate	Aqueous	GC/MS L	06/22/16	06/22/16 14:32	160622S010

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.21	102	9.814	98	75-125	4	0-20	
Toluene	ND	10.00	10.49	105	10.10	101	75-125	4	0-20	
Ethylbenzene	ND	10.00	10.69	107	10.12	101	75-125	5	0-20	
o-Xylene	ND	10.00	10.82	108	10.27	103	75-127	5	0-20	
p/m-Xylene	ND	20.00	21.72	109	20.75	104	75-125	5	0-20	
Methyl-t-Butyl Ether (MTBE)	6.873	10.00	17.45	106	16.60	97	71-131	5	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	60.09	120	55.90	112	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	13.68	137	14.44	144	64-136	5	0-20	HX
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.01	100	9.348	93	73-133	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.498	95	9.342	93	75-125	2	0-20	
1,1-Dichloroethene	ND	10.00	10.56	106	10.23	102	66-126	3	0-20	
1,2-Dibromoethane	ND	10.00	10.22	102	9.858	99	75-126	4	0-20	
1,2-Dichlorobenzene	ND	10.00	10.59	106	10.33	103	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	10.79	108	10.07	101	75-127	7	0-20	
Carbon Tetrachloride	ND	10.00	9.563	96	9.413	94	69-135	2	0-20	
Chlorobenzene	ND	10.00	10.29	103	9.899	99	75-125	4	0-20	
Trichloroethene	1.050	10.00	11.25	102	10.64	96	75-125	6	0-20	
Vinyl Chloride	ND	10.00	12.06	121	11.95	120	52-142	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0879-1	Sample	Solid	GC/MS GGG	06/11/16	06/12/16 03:14	160611S017
16-06-0879-1	Matrix Spike	Solid	GC/MS GGG	06/11/16	06/12/16 07:14	160611S017
16-06-0879-1	Matrix Spike Duplicate	Solid	GC/MS GGG	06/11/16	06/12/16 07:40	160611S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04272	85	0.04305	86	61-127	1	0-20	
Toluene	ND	0.05000	0.04451	89	0.04504	90	63-123	1	0-20	
Ethylbenzene	ND	0.05000	0.04493	90	0.04561	91	57-129	2	0-22	
o-Xylene	ND	0.05000	0.04525	90	0.04580	92	70-130	1	0-30	
p/m-Xylene	ND	0.1000	0.08874	89	0.08958	90	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04137	83	0.04200	84	57-123	2	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2576	103	0.2565	103	30-168	0	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.05130	103	0.05102	102	57-129	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04794	96	0.04834	97	55-127	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04130	83	0.04133	83	58-124	0	0-20	
1,1-Dichloroethene	ND	0.05000	0.04943	99	0.04962	99	47-143	0	0-25	
1,2-Dibromoethane	ND	0.05000	0.04336	87	0.04349	87	64-124	0	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.04381	88	0.04446	89	35-131	1	0-25	
1,2-Dichloroethane	ND	0.05000	0.04831	97	0.04873	97	80-120	1	0-20	
Carbon Tetrachloride	ND	0.05000	0.04321	86	0.04360	87	51-135	1	0-29	
Chlorobenzene	ND	0.05000	0.04344	87	0.04416	88	57-123	2	0-20	
Trichloroethene	ND	0.05000	0.04639	93	0.04658	93	44-158	0	0-20	
Vinyl Chloride	ND	0.05000	0.05007	100	0.04920	98	49-139	2	0-47	

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310

Project: Former ExxonMobil 10MHG Page 1 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-07-002-1874</b>	<b>LCS</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/13/16 20:12</b>	<b>160613L03</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Naphthalene		100.0	106.9	107	17-203	0-234	
Acenaphthylene		100.0	89.38	89	50-120	38-132	
Acenaphthene		100.0	74.66	75	41-120	28-133	
Fluorene		100.0	77.61	78	51-120	40-132	
Phenanthrene		100.0	82.75	83	56-120	45-131	
Anthracene		100.0	81.64	82	49-120	37-132	
Fluoranthene		100.0	88.49	88	60-120	50-130	
Pyrene		100.0	92.87	93	61-121	51-131	
Benzo (a) Anthracene		100.0	89.72	90	61-121	51-131	
Chrysene		100.0	88.10	88	61-121	51-131	
Benzo (b) Fluoranthene		100.0	88.98	89	61-121	51-131	
Benzo (k) Fluoranthene		100.0	84.96	85	57-129	45-141	
Benzo (a) Pyrene		100.0	92.94	93	43-120	30-133	
Dibenz (a,h) Anthracene		100.0	111.9	112	59-125	48-136	
Benzo (g,h,i) Perylene		100.0	94.65	95	57-123	46-134	
Indeno (1,2,3-c,d) Pyrene		100.0	89.09	89	64-130	53-141	

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

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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS/LCSD

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-1443	LCS	Aqueous	GC 46	06/13/16	06/15/16 23:20	160613B10			
099-15-304-1443	LCSD	Aqueous	GC 46	06/13/16	06/15/16 23:37	160613B10			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2061	103	2073	104	75-117	1	0-13	



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 3 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-2501</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 16:13</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	354.1	89	75-123	


  
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RPD: Relative Percent Difference. CL: Control Limits





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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 4 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-10880</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 42</b>	<b>06/17/16</b>	<b>06/17/16 08:08</b>	<b>160617L040</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	2032	102	78-120	

  
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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 5 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-571-3069</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/12/16</b>	<b>06/12/16 06:02</b>	<b>160612L002</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	10.74	107	70-124	



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 6 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-571-3073</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 56</b>	<b>06/14/16</b>	<b>06/14/16 12:31</b>	<b>160614L055</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	9.533	95	70-124	


  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0866  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1469</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>06/22/16</b>	<b>06/22/16 09:25</b>	<b>160622L045</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.498	95	80-120	73-127	
Toluene		10.00	9.881	99	80-120	73-127	
Ethylbenzene		10.00	10.13	101	80-120	73-127	
o-Xylene		10.00	10.12	101	80-120	73-127	
p/m-Xylene		20.00	20.44	102	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.981	90	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	49.94	100	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	9.321	93	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	7.201	72	76-124	68-132	LR,RU
Tert-Amyl-Methyl Ether (TAME)		10.00	8.861	89	80-120	73-127	
1,1-Dichloroethene		10.00	8.905	89	77-120	70-127	
1,2-Dibromoethane		10.00	9.348	93	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.14	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.468	95	80-122	73-129	
Carbon Tetrachloride		10.00	8.979	90	80-129	72-137	
Chlorobenzene		10.00	9.880	99	80-120	73-127	
Trichloroethene		10.00	9.662	97	80-120	73-127	
Vinyl Chloride		10.00	10.97	110	63-135	51-147	

Total number of LCS compounds: 18

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0866
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Former ExxonMobil 10MHG		Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1881</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 01:28</b>	<b>160611L027</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04226	85	78-120	71-127	
Toluene		0.05000	0.04412	88	77-120	70-127	
Ethylbenzene		0.05000	0.04470	89	76-120	69-127	
o-Xylene		0.05000	0.04531	91	75-125	67-133	
p/m-Xylene		0.1000	0.08878	89	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04234	85	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2444	98	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05067	101	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.04781	96	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04106	82	75-120	68-128	
1,1-Dichloroethene		0.05000	0.04816	96	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04496	90	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.04565	91	75-120	68-128	
1,2-Dichloroethane		0.05000	0.04924	98	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04297	86	49-139	34-154	
Chlorobenzene		0.05000	0.04398	88	79-120	72-127	
Trichloroethene		0.05000	0.04573	91	80-120	73-127	
Vinyl Chloride		0.05000	0.04808	96	68-122	59-131	

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 16-06-0866

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	682	GC 46	1
EPA 8015B (M)	EPA 3550B	974	GC 45	1
EPA 8015B (M)	EPA 5030C	933	GC 56	2
EPA 8015B (M)	EPA 5030C	1063	GC 25	2
EPA 8015B (M)	EPA 5030C	1063	GC 42	2
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B	EPA 5030C	1023	GC/MS GGG	2
EPA 8310	EPA 3545	960	HPLC 5	1

## Glossary of Terms and Qualifiers

Work Order: 16-06-0866

Page 1 of 1

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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CHAIN OF CUSTODY RECORD

WO # (LAB USE ONLY) 16-06-0866

DATE: 6/9/16 PAGE: 1 OF 2

LABORATORY CLIENT: Cardno / ExxonMobil
ADDRESS: 601 N. McDowell Blvd
CITY: Petaluma STATE: CA ZIP: 94954
CLIENT PROJECT NAME / NUMBER: Former Mobil 10MHG
P.O. NO.: 4410371574
PROJECT CONTACT: 160 14th Street, Oakland, CA
SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle

TEL: (707) 766-2000 E-MAIL: janice.jacobson@cardno.com
REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[ ] SAME DAY [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] 5 DAYS [X] STANDARD

[ ] COELT EDF GLOBAL ID: T06019782296 LOG CODE:

SPECIAL INSTRUCTIONS:
TPHd - Silica Gel Cleanup
Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions
Please email PDF files to: norcallabs@eri-us.com

Table with columns: LAB USE ONLY, SAMPLE ID, Field Point Name, SAMPLING DATE, TIME, MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, TPH(g) (8015M), TPH(d) 8015M, TPH C6-C36 C6-C44, BTEX / MTBE 8021, Full Scan VOCs (8260B), Oxygenates (8260), Total Lead (6010), SVOCs (8270 C), Pesticides (8081), PCBs (8082), PAHs 8310, T22 Metals 6010/747X 6020/747X, Cr(VI) 7196 7199 218.6

Relinquished by: (Signature) [Signature] Received by: (Signature/Affiliation) Tom O'Malley, ECI Date: 6/10/16 Time: 1030
Relinquished by: (Signature) Tom O'Malley, TO 650 6/10/16 1730 Received by: (Signature/Affiliation) [Signature] Date: 6/11/16 Time: 0850





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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY  
0866

DATE: 6/9/16  
PAGE: 2 OF 2

LABORATORY CLIENT: <b>Cardno / ExxonMobil</b>		CLIENT PROJECT NAME / NUMBER: <b>Former Mobil 10MHG</b>		P.O. NO.: <b>4410371574</b>
ADDRESS: 601 N. McDowell Blvd		PROJECT CONTACT: 160 14th Street, Oakland, CA		SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle
CITY: Petaluma	STATE: CA	ZIP: 94954		
TEL: (707) 766-2000	E-MAIL: <a href="mailto:janice.jacobson@cardno.com">janice.jacobson@cardno.com</a>			

**REQUESTED ANALYSES**

Please check box or fill in blank as needed.

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: **T06019782296** LOG CODE:

SPECIAL INSTRUCTIONS:  
**TPHd - Silica Gel Cleanup**  
**Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions**  
**Please email PDF files to: norcallabs@eri-us.com**

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			DATE	TIME						TPH(g) (8015M)	TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6					
<del>6/11</del>	<del>W-16-B11</del>	<del>B11</del>	<del>6/9/16</del>	<del>1445</del>	<del>W</del>	<del>8V/2A</del>				x	x																	
(0)	W-16-B11	B11	6/9/16	1445	W	8V/2A				X	X			X														
(1)	W-16.5-B10	B10	6/9/16	1245	W	8V/2A				X	X			X														

Relinquished by: (Signature) 	Received by: (Signature/Affiliation) Tom O'Malley ECI	Date: 6/10/16	Time: 1630
Relinquished by: (Signature) Tom O'Malley to BSD 6/10/16 1730	Received by: (Signature/Affiliation) 	Date: 6/11/16	Time: 08:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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0866



800-322-5555 www.gso.com

**Ship From**

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

Tracking #: 532227567

SDS



**Ship To**

CEL  
SAMPLE RECEIVING  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

**ORC**  
GARDEN GROVE

**A**

COD: \$0.00

Weight: 0 lb(s)

Reference:

CARDNO ERI

Delivery Instructions:

**D92845A**



52898323

Signature Type: REQUIRED

Print Date: 6/10/2016 3:28 PM

Package 1 of 2

**LABEL INSTRUCTIONS:**

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

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

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 06 / 11 / 2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.9 °C (w/ CF): 3.9 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

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

Ambient Temperature:  Air  Filter

Checked by: 1017

CUSTODY SEAL:

Cooler  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: 1017

Sample(s)  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

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

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

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

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

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

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017

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

Reviewed by: 778



Calscience



WORK ORDER NUMBER: 16-06-0879

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/27/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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

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 Work Order Number: 16-06-0879

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/11/16. They were assigned to Work Order 16-06-0879.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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## Sample Summary

Client: Cardno	Work Order: 16-06-0879
601 North McDowell Blvd.	Project Name: Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number: 4410384606
	Date/Time Received: 06/11/16 08:50
	Number of Containers: 9

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-5-B7	16-06-0879-1	06/08/16 10:00	1	Solid
S-10-B7	16-06-0879-2	06/08/16 10:55	1	Solid
S-14-B7	16-06-0879-3	06/08/16 11:00	1	Solid
S-18.5-B7	16-06-0879-4	06/08/16 11:05	1	Solid
S-5-B12	16-06-0879-5	06/08/16 13:10	1	Solid
S-7.5-B12	16-06-0879-6	06/08/16 13:25	1	Solid
S-10-B12	16-06-0879-7	06/08/16 13:50	1	Solid
S-15-B12	16-06-0879-8	06/08/16 13:53	1	Solid
S-19-B12	16-06-0879-9	06/08/16 13:56	1	Solid



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B7	16-06-0879-1-A	06/08/16 10:00	Solid	HPLC 5	06/13/16	06/13/16 22:22	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	72	8-120	

Return to Contents

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





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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B7	16-06-0879-2-A	06/08/16 10:55	Solid	HPLC 5	06/13/16	06/13/16 22:55	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	72	8-120	

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B12	16-06-0879-5-A	06/08/16 13:10	Solid	HPLC 5	06/13/16	06/13/16 23:27	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	56	10	1.00	
Pyrene	55	10	1.00	
Benzo (a) Anthracene	16	10	1.00	
Chrysene	22	10	1.00	
Benzo (b) Fluoranthene	13	10	1.00	
Benzo (k) Fluoranthene	13	10	1.00	
Benzo (a) Pyrene	28	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	11	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	80	8-120		

Return to Contents

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-7.5-B12	16-06-0879-6-A	06/08/16 13:25	Solid	HPLC 5	06/13/16	06/14/16 00:00	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	79	8-120	

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B12	16-06-0879-7-A	06/08/16 13:50	Solid	HPLC 5	06/13/16	06/14/16 00:33	160613L03

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	71	8-120	

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-07-002-1874</b>	<b>N/A</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/13/16 20:45</b>	<b>160613L03</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	77	8-120		

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B7</b>	<b>16-06-0879-1-A</b>	<b>06/08/16 10:00</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 17:03</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		66		61-145			
<b>S-10-B7</b>	<b>16-06-0879-2-A</b>	<b>06/08/16 10:55</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 17:20</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		82		61-145			
<b>S-14-B7</b>	<b>16-06-0879-3-A</b>	<b>06/08/16 11:00</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 17:36</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		67		61-145			
<b>S-18.5-B7</b>	<b>16-06-0879-4-A</b>	<b>06/08/16 11:05</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 17:52</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		68		61-145			
<b>S-5-B12</b>	<b>16-06-0879-5-A</b>	<b>06/08/16 13:10</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 18:09</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		91		61-145			

Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-7.5-B12</b>	<b>16-06-0879-6-A</b>	<b>06/08/16 13:25</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 18:25</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		61-145			
<b>S-10-B12</b>	<b>16-06-0879-7-A</b>	<b>06/08/16 13:50</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 22:06</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		83		61-145			
<b>S-15-B12</b>	<b>16-06-0879-8-A</b>	<b>06/08/16 13:53</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 22:22</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		29		5.0		1.00	HD,SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		92		61-145			
<b>S-19-B12</b>	<b>16-06-0879-9-A</b>	<b>06/08/16 13:56</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 18:59</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.1		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		67		61-145			
<b>Method Blank</b>	<b>099-15-422-2501</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 15:24</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		101		61-145			

Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B7</b>	<b>16-06-0879-1-A</b>	<b>06/08/16 10:00</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 15:08</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		61		42-126			
<b>S-10-B7</b>	<b>16-06-0879-2-A</b>	<b>06/08/16 10:55</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 16:55</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		62		42-126			
<b>S-14-B7</b>	<b>16-06-0879-3-A</b>	<b>06/08/16 11:00</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 17:31</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		61		42-126			
<b>S-18.5-B7</b>	<b>16-06-0879-4-A</b>	<b>06/08/16 11:05</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 18:07</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		63		42-126			
<b>S-5-B12</b>	<b>16-06-0879-5-A</b>	<b>06/08/16 13:10</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 18:43</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.53		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		60		42-126			

Return to Contents

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





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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-7.5-B12</b>	<b>16-06-0879-6-A</b>	<b>06/08/16 13:25</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 19:19</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		65		42-126			
<b>S-10-B12</b>	<b>16-06-0879-7-A</b>	<b>06/08/16 13:50</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 19:54</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		63		42-126			
<b>S-15-B12</b>	<b>16-06-0879-8-A</b>	<b>06/08/16 13:53</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/18/16 04:14</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		49		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		435		42-126		AZ	
<b>S-19-B12</b>	<b>16-06-0879-9-A</b>	<b>06/08/16 13:56</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/17/16 20:30</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		0.77		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		64		42-126			
<b>Method Blank</b>	<b>099-14-571-3089</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/17/16</b>	<b>06/17/16 13:57</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		60		42-126			

Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B7	16-06-0879-1-A	06/08/16 10:00	Solid	GC/MS GGG	06/11/16	06/12/16 03:14	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 3 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	109	62-146	
Toluene-d8	100	80-120	

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B7	16-06-0879-2-A	06/08/16 10:55	Solid	GC/MS GGG	06/11/16	06/12/16 03:41	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 5 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	93	60-132		

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 6 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	109	62-146	
Toluene-d8	99	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-14-B7	16-06-0879-3-A	06/08/16 11:00	Solid	GC/MS GGG	06/11/16	06/12/16 04:08	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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



## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 8 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 9 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-18.5-B7	16-06-0879-4-A	06/08/16 11:05	Solid	GC/MS GGG	06/11/16	06/12/16 04:34	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	0.0083	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	93	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 12 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B12	16-06-0879-5-A	06/08/16 13:10	Solid	GC/MS GGG	06/11/16	06/12/16 05:01	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 15 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-7.5-B12	16-06-0879-6-A	06/08/16 13:25	Solid	GC/MS GGG	06/11/16	06/12/16 05:27	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 18 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B12	16-06-0879-7-A	06/08/16 13:50	Solid	GC/MS GGG	06/11/16	06/12/16 05:54	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	60-132	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 21 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	100	80-120	

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B12	16-06-0879-8-A	06/08/16 13:53	Solid	GC/MS GGG	06/11/16	06/12/16 06:20	160611L026

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,1,1,2-Tetrachloroethane	ND	0.50	50.0	
1,1,1-Trichloroethane	ND	0.50	50.0	
1,1,2,2-Tetrachloroethane	ND	0.50	50.0	
1,1,2-Trichloroethane	ND	0.50	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	50.0	
1,1-Dichloroethane	ND	0.50	50.0	
1,1-Dichloroethene	ND	0.50	50.0	
1,1-Dichloropropene	ND	0.50	50.0	
1,2,3-Trichlorobenzene	ND	1.0	50.0	
1,2,3-Trichloropropane	ND	0.50	50.0	
1,2,4-Trichlorobenzene	ND	0.50	50.0	
1,2,4-Trimethylbenzene	ND	0.50	50.0	
1,3,5-Trimethylbenzene	ND	0.50	50.0	
c-1,2-Dichloroethene	ND	0.50	50.0	
1,2-Dibromo-3-Chloropropane	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichlorobenzene	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	
1,2-Dichloropropane	ND	0.50	50.0	
t-1,2-Dichloroethene	ND	0.50	50.0	
c-1,3-Dichloropropene	ND	0.50	50.0	
1,3-Dichlorobenzene	ND	0.50	50.0	
1,3-Dichloropropane	ND	0.50	50.0	
t-1,3-Dichloropropene	ND	0.50	50.0	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 23 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	50.0	
2,2-Dichloropropane	ND	0.50	50.0	
2-Chlorotoluene	ND	0.50	50.0	
4-Chlorotoluene	ND	0.50	50.0	
4-Methyl-2-Pentanone	ND	5.0	50.0	
Acetone	ND	13	50.0	
Bromobenzene	ND	0.50	50.0	
Bromochloromethane	ND	0.50	50.0	
Bromoform	ND	0.50	50.0	
Bromomethane	ND	2.5	50.0	
Carbon Disulfide	ND	5.0	50.0	
Carbon Tetrachloride	ND	0.50	50.0	
Chlorobenzene	ND	0.50	50.0	
Dibromochloromethane	ND	0.50	50.0	
Chloroethane	ND	0.50	50.0	
Chloroform	ND	0.50	50.0	
Chloromethane	ND	2.5	50.0	
Dibromomethane	ND	0.50	50.0	
Bromodichloromethane	ND	0.50	50.0	
Dichlorodifluoromethane	ND	0.50	50.0	
Hexachloro-1,3-Butadiene	ND	10	50.0	
Isopropylbenzene	ND	0.50	50.0	
2-Butanone	ND	5.0	50.0	
Methylene Chloride	ND	5.0	50.0	
2-Hexanone	ND	5.0	50.0	
Naphthalene	ND	5.0	50.0	
n-Butylbenzene	1.1	0.50	50.0	
n-Propylbenzene	1.3	0.50	50.0	
p-Isopropyltoluene	ND	0.50	50.0	
sec-Butylbenzene	ND	0.50	50.0	
Styrene	ND	0.50	50.0	
tert-Butylbenzene	ND	0.50	50.0	
Tetrachloroethene	ND	0.50	50.0	
Trichloroethene	ND	0.50	50.0	
Trichlorofluoromethane	ND	5.0	50.0	
Vinyl Chloride	ND	0.50	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	60-132	

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





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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 24 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	103	62-146	
Toluene-d8	103	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-19-B12	16-06-0879-9-A	06/08/16 13:56	Solid	GC/MS GGG	06/11/16	06/13/16 22:08	160613L038

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0051	1.00	
Toluene	ND	0.0051	1.00	
Ethylbenzene	0.012	0.0051	1.00	
o-Xylene	ND	0.0051	1.00	
p/m-Xylene	0.012	0.0051	1.00	
Xylenes (total)	0.012	0.0051	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0051	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.051	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,1-Trichloroethane	ND	0.0051	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,2-Trichloroethane	ND	0.0051	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.051	1.00	
1,1-Dichloroethane	ND	0.0051	1.00	
1,1-Dichloroethene	ND	0.0051	1.00	
1,1-Dichloropropene	ND	0.0051	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0051	1.00	
1,2,4-Trichlorobenzene	ND	0.0051	1.00	
1,2,4-Trimethylbenzene	0.099	0.0051	1.00	
1,3,5-Trimethylbenzene	0.024	0.0051	1.00	
c-1,2-Dichloroethene	ND	0.0051	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0051	1.00	
1,2-Dichlorobenzene	ND	0.0051	1.00	
1,2-Dichloroethane	ND	0.0051	1.00	
1,2-Dichloropropane	ND	0.0051	1.00	
t-1,2-Dichloroethene	ND	0.0051	1.00	
c-1,3-Dichloropropene	ND	0.0051	1.00	
1,3-Dichlorobenzene	ND	0.0051	1.00	
1,3-Dichloropropane	ND	0.0051	1.00	
t-1,3-Dichloropropene	ND	0.0051	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 26 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0051	1.00	
2,2-Dichloropropane	ND	0.0051	1.00	
2-Chlorotoluene	ND	0.0051	1.00	
4-Chlorotoluene	ND	0.0051	1.00	
4-Methyl-2-Pentanone	ND	0.051	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0051	1.00	
Bromochloromethane	ND	0.0051	1.00	
Bromoform	ND	0.0051	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.051	1.00	
Carbon Tetrachloride	ND	0.0051	1.00	
Chlorobenzene	ND	0.0051	1.00	
Dibromochloromethane	ND	0.0051	1.00	
Chloroethane	ND	0.0051	1.00	
Chloroform	ND	0.0051	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0051	1.00	
Bromodichloromethane	ND	0.0051	1.00	
Dichlorodifluoromethane	ND	0.0051	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0051	1.00	
2-Butanone	ND	0.051	1.00	
Methylene Chloride	ND	0.051	1.00	
2-Hexanone	ND	0.051	1.00	
Naphthalene	ND	0.051	1.00	
n-Butylbenzene	ND	0.0051	1.00	
n-Propylbenzene	0.012	0.0051	1.00	
p-Isopropyltoluene	ND	0.0051	1.00	
sec-Butylbenzene	ND	0.0051	1.00	
Styrene	ND	0.0051	1.00	
tert-Butylbenzene	ND	0.0051	1.00	
Tetrachloroethene	0.011	0.0051	1.00	
Trichloroethene	ND	0.0051	1.00	
Trichlorofluoromethane	ND	0.051	1.00	
Vinyl Chloride	ND	0.0051	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



Calscience

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 27 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	101	80-120	


  
Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-882-1882</b>	<b>N/A</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 02:21</b>	<b>160611L026</b>

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,1,1,2-Tetrachloroethane	ND	0.50	50.0	
1,1,1-Trichloroethane	ND	0.50	50.0	
1,1,2,2-Tetrachloroethane	ND	0.50	50.0	
1,1,2-Trichloroethane	ND	0.50	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	50.0	
1,1-Dichloroethane	ND	0.50	50.0	
1,1-Dichloroethene	ND	0.50	50.0	
1,1-Dichloropropene	ND	0.50	50.0	
1,2,3-Trichlorobenzene	ND	1.0	50.0	
1,2,3-Trichloropropane	ND	0.50	50.0	
1,2,4-Trichlorobenzene	ND	0.50	50.0	
1,2,4-Trimethylbenzene	ND	0.50	50.0	
1,3,5-Trimethylbenzene	ND	0.50	50.0	
c-1,2-Dichloroethene	ND	0.50	50.0	
1,2-Dibromo-3-Chloropropane	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichlorobenzene	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	
1,2-Dichloropropane	ND	0.50	50.0	
t-1,2-Dichloroethene	ND	0.50	50.0	
c-1,3-Dichloropropene	ND	0.50	50.0	
1,3-Dichlorobenzene	ND	0.50	50.0	
1,3-Dichloropropane	ND	0.50	50.0	
t-1,3-Dichloropropene	ND	0.50	50.0	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 29 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	50.0	
2,2-Dichloropropane	ND	0.50	50.0	
2-Chlorotoluene	ND	0.50	50.0	
4-Chlorotoluene	ND	0.50	50.0	
4-Methyl-2-Pentanone	ND	5.0	50.0	
Acetone	ND	12	50.0	
Bromobenzene	ND	0.50	50.0	
Bromochloromethane	ND	0.50	50.0	
Bromoform	ND	0.50	50.0	
Bromomethane	ND	2.5	50.0	
Carbon Disulfide	ND	5.0	50.0	
Carbon Tetrachloride	ND	0.50	50.0	
Chlorobenzene	ND	0.50	50.0	
Dibromochloromethane	ND	0.50	50.0	
Chloroethane	ND	0.50	50.0	
Chloroform	ND	0.50	50.0	
Chloromethane	ND	2.5	50.0	
Dibromomethane	ND	0.50	50.0	
Bromodichloromethane	ND	0.50	50.0	
Dichlorodifluoromethane	ND	0.50	50.0	
Hexachloro-1,3-Butadiene	ND	10	50.0	
Isopropylbenzene	ND	0.50	50.0	
2-Butanone	ND	5.0	50.0	
Methylene Chloride	ND	5.0	50.0	
2-Hexanone	ND	5.0	50.0	
Naphthalene	ND	5.0	50.0	
n-Butylbenzene	ND	0.50	50.0	
n-Propylbenzene	ND	0.50	50.0	
p-Isopropyltoluene	ND	0.50	50.0	
sec-Butylbenzene	ND	0.50	50.0	
Styrene	ND	0.50	50.0	
tert-Butylbenzene	ND	0.50	50.0	
Tetrachloroethene	ND	0.50	50.0	
Trichloroethene	ND	0.50	50.0	
Trichlorofluoromethane	ND	5.0	50.0	
Vinyl Chloride	ND	0.50	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	60-132	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 30 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1881	N/A	Solid	GC/MS GGG	06/11/16	06/12/16 02:48	160611L027

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 33 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1883	N/A	Solid	GC/MS GGG	06/13/16	06/13/16 18:04	160613L038

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 35 of 36

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 36 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	100	80-120	


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



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## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0866-2	Sample	Solid	HPLC 5	06/13/16	06/14/16 01:38	160613S03
16-06-0866-2	Matrix Spike	Solid	HPLC 5	06/13/16	06/13/16 21:17	160613S03
16-06-0866-2	Matrix Spike Duplicate	Solid	HPLC 5	06/13/16	06/13/16 21:50	160613S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	100.0	85.12	85	82.14	82	23-167	4	0-46	
Acenaphthylene	ND	100.0	68.21	68	68.94	69	24-120	1	0-47	
Acenaphthene	ND	100.0	64.90	65	66.08	66	16-120	2	0-46	
Fluorene	ND	100.0	63.49	63	63.83	64	32-120	1	0-44	
Phenanthrene	ND	100.0	68.94	69	70.01	70	34-120	2	0-38	
Anthracene	ND	100.0	69.15	69	68.30	68	27-120	1	0-45	
Fluoranthene	ND	100.0	73.92	74	76.73	77	32-122	4	0-41	
Pyrene	ND	100.0	80.01	80	80.26	80	31-127	0	0-38	
Benzo (a) Anthracene	ND	100.0	75.27	75	75.23	75	32-122	0	0-43	
Chrysene	ND	100.0	74.39	74	74.58	75	30-132	0	0-42	
Benzo (b) Fluoranthene	ND	100.0	72.66	73	72.60	73	33-120	0	0-44	
Benzo (k) Fluoranthene	ND	100.0	70.34	70	70.74	71	23-149	1	0-44	
Benzo (a) Pyrene	ND	100.0	78.23	78	76.50	76	12-132	2	0-48	
Dibenz (a,h) Anthracene	ND	100.0	77.22	77	77.49	77	29-125	0	0-43	
Benzo (g,h,i) Perylene	ND	100.0	76.82	77	77.88	78	24-132	1	0-42	
Indeno (1,2,3-c,d) Pyrene	ND	100.0	72.08	72	72.39	72	29-143	0	0-42	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-7.5-B12	Sample	Solid	GC 45	06/22/16	06/22/16 18:25	160621S10
S-7.5-B12	Matrix Spike	Solid	GC 45	06/22/16	06/22/16 16:29	160621S10
S-7.5-B12	Matrix Spike Duplicate	Solid	GC 45	06/22/16	06/22/16 16:46	160621S10

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	379.5	95	371.7	93	64-130	2	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-5-B7	Sample	Solid	GC 1	06/11/16	06/17/16 15:08	160617S015
S-5-B7	Matrix Spike	Solid	GC 1	06/11/16	06/17/16 15:44	160617S015
S-5-B7	Matrix Spike Duplicate	Solid	GC 1	06/11/16	06/17/16 16:19	160617S015

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	10.55	106	10.40	104	48-114	1	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B7</b>	<b>Sample</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 03:14</b>	<b>160611S017</b>
<b>S-5-B7</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 07:14</b>	<b>160611S017</b>
<b>S-5-B7</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 07:40</b>	<b>160611S017</b>

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04272	85	0.04305	86	61-127	1	0-20	
Toluene	ND	0.05000	0.04451	89	0.04504	90	63-123	1	0-20	
Ethylbenzene	ND	0.05000	0.04493	90	0.04561	91	57-129	2	0-22	
o-Xylene	ND	0.05000	0.04525	90	0.04580	92	70-130	1	0-30	
p/m-Xylene	ND	0.1000	0.08874	89	0.08958	90	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04137	83	0.04200	84	57-123	2	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2576	103	0.2565	103	30-168	0	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.05130	103	0.05102	102	57-129	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04794	96	0.04834	97	55-127	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04130	83	0.04133	83	58-124	0	0-20	
1,1-Dichloroethene	ND	0.05000	0.04943	99	0.04962	99	47-143	0	0-25	
1,2-Dibromoethane	ND	0.05000	0.04336	87	0.04349	87	64-124	0	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.04381	88	0.04446	89	35-131	1	0-25	
1,2-Dichloroethane	ND	0.05000	0.04831	97	0.04873	97	80-120	1	0-20	
Carbon Tetrachloride	ND	0.05000	0.04321	86	0.04360	87	51-135	1	0-29	
Chlorobenzene	ND	0.05000	0.04344	87	0.04416	88	57-123	2	0-20	
Trichloroethene	ND	0.05000	0.04639	93	0.04658	93	44-158	0	0-20	
Vinyl Chloride	ND	0.05000	0.05007	100	0.04920	98	49-139	2	0-47	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0924-5	Sample	Solid	GC/MS GGG	06/13/16	06/13/16 18:31	160613S008
16-06-0924-5	Matrix Spike	Solid	GC/MS GGG	06/13/16	06/13/16 18:57	160613S008
16-06-0924-5	Matrix Spike Duplicate	Solid	GC/MS GGG	06/13/16	06/13/16 19:24	160613S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.02901	58	0.02887	58	61-127	0	0-20	HX
Toluene	ND	0.05000	0.02988	60	0.02963	59	63-123	1	0-20	HX
Ethylbenzene	ND	0.05000	0.02964	59	0.02892	58	57-129	2	0-22	
o-Xylene	ND	0.05000	0.03145	63	0.03111	62	70-130	1	0-30	HX
p/m-Xylene	ND	0.1000	0.05990	60	0.05856	59	70-130	2	0-30	HX
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.03774	75	0.03841	77	57-123	2	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2708	108	0.2713	109	30-168	0	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.03893	78	0.03889	78	57-129	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.03942	79	0.03961	79	55-127	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.03481	70	0.03614	72	58-124	4	0-20	
1,1-Dichloroethene	ND	0.05000	0.03033	61	0.02929	59	47-143	3	0-25	
1,2-Dibromoethane	ND	0.05000	0.04008	80	0.04127	83	64-124	3	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.03443	69	0.03432	69	35-131	0	0-25	
1,2-Dichloroethane	ND	0.05000	0.04008	80	0.04162	83	80-120	4	0-20	
Carbon Tetrachloride	ND	0.05000	0.02619	52	0.02516	50	51-135	4	0-29	HX
Chlorobenzene	ND	0.05000	0.03173	63	0.03134	63	57-123	1	0-20	
Trichloroethene	ND	0.05000	0.03143	63	0.03091	62	44-158	2	0-20	
Vinyl Chloride	ND	0.05000	0.04791	96	0.04353	87	49-139	10	0-47	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 3545  
Method: EPA 8310

Project: Former ExxonMobil 10MHG

Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-07-002-1874</b>	<b>LCS</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/13/16</b>	<b>06/13/16 20:12</b>	<b>160613L03</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Naphthalene		100.0	106.9	107	17-203	0-234	
Acenaphthylene		100.0	89.38	89	50-120	38-132	
Acenaphthene		100.0	74.66	75	41-120	28-133	
Fluorene		100.0	77.61	78	51-120	40-132	
Phenanthrene		100.0	82.75	83	56-120	45-131	
Anthracene		100.0	81.64	82	49-120	37-132	
Fluoranthene		100.0	88.49	88	60-120	50-130	
Pyrene		100.0	92.87	93	61-121	51-131	
Benzo (a) Anthracene		100.0	89.72	90	61-121	51-131	
Chrysene		100.0	88.10	88	61-121	51-131	
Benzo (b) Fluoranthene		100.0	88.98	89	61-121	51-131	
Benzo (k) Fluoranthene		100.0	84.96	85	57-129	45-141	
Benzo (a) Pyrene		100.0	92.94	93	43-120	30-133	
Dibenz (a,h) Anthracene		100.0	111.9	112	59-125	48-136	
Benzo (g,h,i) Perylene		100.0	94.65	95	57-123	46-134	
Indeno (1,2,3-c,d) Pyrene		100.0	89.09	89	64-130	53-141	

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

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-2501</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 45</b>	<b>06/22/16</b>	<b>06/22/16 16:13</b>	<b>160621B10</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	354.1	89	75-123	


  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-571-3089</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/17/16</b>	<b>06/17/16 13:21</b>	<b>160617L055</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	10.01	100	70-124	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1882</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 01:28</b>	<b>160611L026</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04226	85	78-120	71-127	
Toluene		0.05000	0.04412	88	77-120	70-127	
Ethylbenzene		0.05000	0.04470	89	76-120	69-127	
o-Xylene		0.05000	0.04531	91	75-125	67-133	
p/m-Xylene		0.1000	0.08878	89	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04234	85	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2444	98	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05067	101	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.04781	96	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04106	82	75-120	68-128	
1,1-Dichloroethene		0.05000	0.04816	96	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04496	90	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.04565	91	75-120	68-128	
1,2-Dichloroethane		0.05000	0.04924	98	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04297	86	49-139	34-154	
Chlorobenzene		0.05000	0.04398	88	79-120	72-127	
Trichloroethene		0.05000	0.04573	91	80-120	73-127	
Vinyl Chloride		0.05000	0.04808	96	68-122	59-131	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0879  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1881</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/12/16 01:28</b>	<b>160611L027</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04226	85	78-120	71-127	
Toluene		0.05000	0.04412	88	77-120	70-127	
Ethylbenzene		0.05000	0.04470	89	76-120	69-127	
o-Xylene		0.05000	0.04531	91	75-125	67-133	
p/m-Xylene		0.1000	0.08878	89	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04234	85	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2444	98	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05067	101	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.04781	96	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04106	82	75-120	68-128	
1,1-Dichloroethene		0.05000	0.04816	96	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04496	90	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.04565	91	75-120	68-128	
1,2-Dichloroethane		0.05000	0.04924	98	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04297	86	49-139	34-154	
Chlorobenzene		0.05000	0.04398	88	79-120	72-127	
Trichloroethene		0.05000	0.04573	91	80-120	73-127	
Vinyl Chloride		0.05000	0.04808	96	68-122	59-131	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0879
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: Former ExxonMobil 10MHG Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1883</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/13/16</b>	<b>06/13/16 16:44</b>	<b>160613L038</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04435	89	78-120	71-127	
Toluene		0.05000	0.04681	94	77-120	70-127	
Ethylbenzene		0.05000	0.04743	95	76-120	69-127	
o-Xylene		0.05000	0.04909	98	75-125	67-133	
p/m-Xylene		0.1000	0.09611	96	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04443	89	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2567	103	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05463	109	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.05193	104	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04428	89	75-120	68-128	
1,1-Dichloroethene		0.05000	0.04945	99	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04808	96	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.04968	99	75-120	68-128	
1,2-Dichloroethane		0.05000	0.05176	104	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04356	87	49-139	34-154	
Chlorobenzene		0.05000	0.04751	95	79-120	72-127	
Trichloroethene		0.05000	0.04722	94	80-120	73-127	
Vinyl Chloride		0.05000	0.04829	97	68-122	59-131	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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## Sample Analysis Summary Report

Work Order: 16-06-0879

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3550B	974	GC 45	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	1023	GC/MS GGG	2
EPA 8310	EPA 3545	960	HPLC 5	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 16-06-0879

Page 1 of 1

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

CHAIN OF CUSTODY RECORD

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494  
 For courier service / sample drop off information, contact us 26 sales@eurofinsus.com or call us.

WO # / LAB USE ONLY  
**16-06-0879**

DATE: 6/8/16  
 PAGE: 1 OF 1

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: janice.jacobson@cardno.com

CLIENT PROJECT NAME / NUMBER: **Former Mobil 10MHG**

PROJECT CONTACT: 160 14th Street, Oakland, CA

P.O. NO.: **4410371574**

SAMPLER(S): (PRINT) **Heidi Dieffenbach-Carle**

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: **T06019782296** LOG CODE:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

SPECIAL INSTRUCTIONS:

TPHd - Silica Gel Cleanup

Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions

Please email PDF files to: norcallabs@eri-us.com

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	
			DATE	TIME																				
1	S-5-B7	B7	6-8-16	1000	S	1				x	x				x						x			
2	S-10-B7	B7	6-8-16	1055	S	1				x	x				x						x			
3	S-14-B7	B7	6-8-16	1100	S	1				x	x				x									
4	S-18.5-B7	B7	6-8-16	1105	S	1				x	x				x									
5	S-5-B12	B12	6-8-16	1310	S	1				x	x				x						x			
6	S-7.5-B12	B12	6-8-16	1325	S	1				x	x				x						x			
7	S-10-B12	B12	6-8-16	1350	S	1				x	x				x						x			
8	S-15-B12	B12	6-8-16	1353	S	1				x	x				x									
9	S-19-B12	B12	6-8-16	1356	S	1				x	x				x									

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *Tom O'Malley TO 650 6/10/16 1730*

Relinquished by: (Signature)

Received by: (Signature/Affiliation) *Tom O'Malley ECI*

Received by: (Signature/Affiliation) *[Signature] ECI*

Received by: (Signature/Affiliation)

Date: 6/10/16 Time: 1030

Date: 6/11/16 Time: 08:50

Date: Time:

-0879



800-322-5555 www.gso.com

**Ship From**

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

Tracking #: 532227626

SDS



**Ship To**

CEL  
SAMPLE RECEIVING  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

**ORC**  
GARDEN GROVE

**A**

COD: \$0.00

Weight: 0 lb(s)

Reference:

PHILLIPS 66, PAC ECORISK, ETIC(BTS), ARCADIS, CARD

**Delivery Instructions:**

**D92845A**



52898456

**Signature Type:** REQUIRED

Print Date: 6/10/2016 3:30 PM

**LABEL INSTRUCTIONS:**

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

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

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno

DATE: 06 / 11 / 2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 4.2 °C (w/ CF): 4.2 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter Checked by: 1017

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1017  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1017

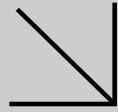
SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>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

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)  
**Aqueous:**  VOA  VOA<sub>h</sub>  VOA<sub>na<sub>2</sub></sub>  100PJ  100PJ<sub>na<sub>2</sub></sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  
 125PB<sub>z<sub>na</sub></sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>  
 500PB  1AGB  1AGB<sub>na<sub>2</sub></sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  
**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (P/S)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
**Air:**  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, z<sub>na</sub> = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 778





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**WORK ORDER NUMBER: 16-06-0986**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/28/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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 Work Order Number: 16-06-0986

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/14/16. They were assigned to Work Order 16-06-0986.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





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## Sample Summary

Client: Cardno	Work Order: 16-06-0986
601 North McDowell Blvd.	Project Name: Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number: 4410384606
	Date/Time Received: 06/14/16 10:55
	Number of Containers: 17

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-5-B8	16-06-0986-1	06/10/16 11:00	1	Solid
S-10-B8	16-06-0986-2	06/10/16 11:35	1	Solid
S-14.5-B8	16-06-0986-3	06/10/16 11:37	1	Solid
S-19.5-B8	16-06-0986-4	06/10/16 11:50	1	Solid
S-10-B9	16-06-0986-5	06/10/16 13:10	1	Solid
S-14.5-B9	16-06-0986-6	06/10/16 13:15	1	Solid
S-19.5-B9	16-06-0986-7	06/10/16 13:20	1	Solid
S-5-B13	16-06-0986-8	06/10/16 08:35	1	Solid
S-10-B13	16-06-0986-9	06/10/16 08:40	1	Solid
S-15-B13	16-06-0986-10	06/10/16 08:42	1	Solid
S-19.5-B13	16-06-0986-11	06/10/16 08:45	1	Solid
S-23.5-B13	16-06-0986-12	06/10/16 08:48	1	Solid
S-5-B14	16-06-0986-13	06/10/16 09:15	1	Solid
S-10-B14	16-06-0986-14	06/10/16 09:20	1	Solid
S-15-B14	16-06-0986-15	06/10/16 09:25	1	Solid
S-19.5-B14	16-06-0986-16	06/10/16 09:35	1	Solid
S-23.5-B14	16-06-0986-17	06/10/16 09:45	1	Solid


  
Return to Contents



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B8	16-06-0986-1-A	06/10/16 11:00	Solid	HPLC 5	06/24/16	06/25/16 06:34	160624L02

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	67	8-120	

Return to Contents

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8310
	Units:	ug/kg

Project: Former ExxonMobil 10MHG

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B13	16-06-0986-8-A	06/10/16 08:35	Solid	HPLC 5	06/24/16	06/25/16 07:07	160624L02

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	9.9	1.00	
Phenanthrene	ND	9.9	1.00	
Anthracene	ND	9.9	1.00	
Fluoranthene	ND	9.9	1.00	
Pyrene	ND	9.9	1.00	
Benzo (a) Anthracene	ND	9.9	1.00	
Chrysene	ND	9.9	1.00	
Benzo (b) Fluoranthene	ND	9.9	1.00	
Benzo (k) Fluoranthene	ND	9.9	1.00	
Benzo (a) Pyrene	ND	9.9	1.00	
Dibenz (a,h) Anthracene	ND	9.9	1.00	
Benzo (g,h,i) Perylene	ND	9.9	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.9	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	56	8-120	

Return to Contents

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B14	16-06-0986-13-A	06/10/16 09:15	Solid	HPLC 5	06/24/16	06/25/16 07:39	160624L02

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decafluorobiphenyl	96	8-120	

Return to Contents

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3545  
Method: EPA 8310  
Units: ug/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-07-002-1877</b>	<b>N/A</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/24/16</b>	<b>06/24/16 20:16</b>	<b>160624L02</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Naphthalene	ND	15	1.00	
Acenaphthylene	ND	30	1.00	
Acenaphthene	ND	15	1.00	
Fluorene	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Anthracene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Pyrene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Chrysene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decafluorobiphenyl	85	8-120		

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B8</b>	<b>16-06-0986-1-A</b>	<b>06/10/16 11:00</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 19:22</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		98		61-145			
<b>S-10-B8</b>	<b>16-06-0986-2-A</b>	<b>06/10/16 11:35</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 19:39</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		103		61-145			
<b>S-14.5-B8</b>	<b>16-06-0986-3-A</b>	<b>06/10/16 11:37</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 19:56</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		96		61-145			
<b>S-19.5-B8</b>	<b>16-06-0986-4-A</b>	<b>06/10/16 11:50</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 20:12</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		61-145			
<b>S-10-B9</b>	<b>16-06-0986-5-A</b>	<b>06/10/16 13:10</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 20:28</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.1		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		61-145			

Return to Contents

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-14.5-B9</b>	<b>16-06-0986-6-A</b>	<b>06/10/16 13:15</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 20:45</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
<b>S-19.5-B9</b>	<b>16-06-0986-7-A</b>	<b>06/10/16 13:20</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 21:02</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
<b>S-5-B13</b>	<b>16-06-0986-8-A</b>	<b>06/10/16 08:35</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 21:18</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		6.5		5.1		1.00	HD,SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		61-145			
<b>S-10-B13</b>	<b>16-06-0986-9-A</b>	<b>06/10/16 08:40</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 21:35</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		61-145			
<b>S-15-B13</b>	<b>16-06-0986-10-A</b>	<b>06/10/16 08:42</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 22:08</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		87		61-145			

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-19.5-B13</b>	<b>16-06-0986-11-A</b>	<b>06/10/16 08:45</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 22:25</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		61-145			
<b>S-23.5-B13</b>	<b>16-06-0986-12-A</b>	<b>06/10/16 08:48</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 22:42</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.1		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		97		61-145			
<b>S-5-B14</b>	<b>16-06-0986-13-A</b>	<b>06/10/16 09:15</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 22:59</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		4.9		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		61-145			
<b>S-10-B14</b>	<b>16-06-0986-14-A</b>	<b>06/10/16 09:20</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 23:16</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		91		61-145			
<b>S-15-B14</b>	<b>16-06-0986-15-A</b>	<b>06/10/16 09:25</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 23:32</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.1		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		94		61-145			

Return to Contents

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





Calscience

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-19.5-B14</b>	<b>16-06-0986-16-A</b>	<b>06/10/16 09:35</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 23:49</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		96		61-145			
<b>S-23.5-B14</b>	<b>16-06-0986-17-A</b>	<b>06/10/16 09:45</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/24/16 00:06</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		95		61-145			
<b>Method Blank</b>	<b>099-15-422-2504</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 17:57</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		5.0		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		89		61-145			

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-5-B8</b>	<b>16-06-0986-1-A</b>	<b>06/10/16 11:00</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 12:12</b>	<b>160618L010</b>

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	61	42-126	

<b>S-10-B8</b>	<b>16-06-0986-2-A</b>	<b>06/10/16 11:35</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 13:57</b>	<b>160618L010</b>
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	65	42-126	

<b>S-14.5-B8</b>	<b>16-06-0986-3-A</b>	<b>06/10/16 11:37</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 14:32</b>	<b>160618L010</b>
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	66	42-126	

<b>S-19.5-B8</b>	<b>16-06-0986-4-A</b>	<b>06/10/16 11:50</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 15:08</b>	<b>160618L010</b>
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	66	42-126	

<b>S-10-B9</b>	<b>16-06-0986-5-A</b>	<b>06/10/16 13:10</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 15:43</b>	<b>160618L010</b>
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	66	42-126	

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-14.5-B9</b>	<b>16-06-0986-6-A</b>	<b>06/10/16 13:15</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 16:18</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		63		42-126			
<b>S-19.5-B9</b>	<b>16-06-0986-7-A</b>	<b>06/10/16 13:20</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 16:53</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		66		42-126			
<b>S-5-B13</b>	<b>16-06-0986-8-A</b>	<b>06/10/16 08:35</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 17:29</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		63		42-126			
<b>S-10-B13</b>	<b>16-06-0986-9-A</b>	<b>06/10/16 08:40</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 18:04</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.48		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		66		42-126			
<b>S-15-B13</b>	<b>16-06-0986-10-A</b>	<b>06/10/16 08:42</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 18:39</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		60		42-126			

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-19.5-B13</b>	<b>16-06-0986-11-A</b>	<b>06/10/16 08:45</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 19:50</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		70		42-126			
<b>S-23.5-B13</b>	<b>16-06-0986-12-A</b>	<b>06/10/16 08:48</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 20:25</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-5-B14</b>	<b>16-06-0986-13-A</b>	<b>06/10/16 09:15</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 21:00</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.49		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		72		42-126			
<b>S-10-B14</b>	<b>16-06-0986-14-A</b>	<b>06/10/16 09:20</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 21:35</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-15-B14</b>	<b>16-06-0986-15-A</b>	<b>06/10/16 09:25</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 22:11</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.51		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		71		42-126			

Return to Contents

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



Calscience

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>S-19.5-B14</b>	<b>16-06-0986-16-A</b>	<b>06/10/16 09:35</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 22:46</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		68		42-126			
<b>S-23.5-B14</b>	<b>16-06-0986-17-A</b>	<b>06/10/16 09:45</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 23:21</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.52		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		70		42-126			
<b>Method Blank</b>	<b>099-14-571-3090</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/18/16</b>	<b>06/18/16 11:02</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene - FID		60		42-126			

Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B8	16-06-0986-1-A	06/10/16 11:00	Solid	GC/MS GGG	06/14/16	06/15/16 06:43	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 2 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	93	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 3 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	101	80-120	

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



## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B8	16-06-0986-2-A	06/10/16 11:35	Solid	GC/MS GGG	06/14/16	06/15/16 02:17	160614L067

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.024	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.024	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	60-132	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 6 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	97	63-141	
1,2-Dichloroethane-d4	109	62-146	
Toluene-d8	99	80-120	

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-14.5-B8	16-06-0986-3-A	06/10/16 11:37	Solid	GC/MS GGG	06/14/16	06/15/16 02:44	160614L067

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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



Calscience

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 9 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-19.5-B8	16-06-0986-4-A	06/10/16 11:50	Solid	GC/MS GGG	06/14/16	06/15/16 03:10	160614L067

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 12 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B9	16-06-0986-5-A	06/10/16 13:10	Solid	GC/MS GGG	06/14/16	06/15/16 03:37	160614L067

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 14 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 15 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-14.5-B9	16-06-0986-6-A	06/10/16 13:15	Solid	GC/MS GGG	06/14/16	06/15/16 08:29	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0051	1.00	
Toluene	ND	0.0051	1.00	
Ethylbenzene	ND	0.0051	1.00	
o-Xylene	ND	0.0051	1.00	
p/m-Xylene	ND	0.0051	1.00	
Xylenes (total)	ND	0.0051	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0051	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.051	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,1-Trichloroethane	ND	0.0051	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0051	1.00	
1,1,2-Trichloroethane	ND	0.0051	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.051	1.00	
1,1-Dichloroethane	ND	0.0051	1.00	
1,1-Dichloroethene	ND	0.0051	1.00	
1,1-Dichloropropene	ND	0.0051	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0051	1.00	
1,2,4-Trichlorobenzene	ND	0.0051	1.00	
1,2,4-Trimethylbenzene	ND	0.0051	1.00	
1,3,5-Trimethylbenzene	ND	0.0051	1.00	
c-1,2-Dichloroethene	ND	0.0051	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0051	1.00	
1,2-Dichlorobenzene	ND	0.0051	1.00	
1,2-Dichloroethane	ND	0.0051	1.00	
1,2-Dichloropropane	ND	0.0051	1.00	
t-1,2-Dichloroethene	ND	0.0051	1.00	
c-1,3-Dichloropropene	ND	0.0051	1.00	
1,3-Dichlorobenzene	ND	0.0051	1.00	
1,3-Dichloropropane	ND	0.0051	1.00	
t-1,3-Dichloropropene	ND	0.0051	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0051	1.00	
2,2-Dichloropropane	ND	0.0051	1.00	
2-Chlorotoluene	ND	0.0051	1.00	
4-Chlorotoluene	ND	0.0051	1.00	
4-Methyl-2-Pentanone	ND	0.051	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0051	1.00	
Bromochloromethane	ND	0.0051	1.00	
Bromoform	ND	0.0051	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.051	1.00	
Carbon Tetrachloride	ND	0.0051	1.00	
Chlorobenzene	ND	0.0051	1.00	
Dibromochloromethane	ND	0.0051	1.00	
Chloroethane	ND	0.0051	1.00	
Chloroform	ND	0.0051	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0051	1.00	
Bromodichloromethane	ND	0.0051	1.00	
Dichlorodifluoromethane	ND	0.0051	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0051	1.00	
2-Butanone	ND	0.051	1.00	
Methylene Chloride	ND	0.051	1.00	
2-Hexanone	ND	0.051	1.00	
Naphthalene	ND	0.051	1.00	
n-Butylbenzene	ND	0.0051	1.00	
n-Propylbenzene	ND	0.0051	1.00	
p-Isopropyltoluene	ND	0.0051	1.00	
sec-Butylbenzene	ND	0.0051	1.00	
Styrene	ND	0.0051	1.00	
tert-Butylbenzene	ND	0.0051	1.00	
Tetrachloroethene	ND	0.0051	1.00	
Trichloroethene	ND	0.0051	1.00	
Trichlorofluoromethane	ND	0.051	1.00	
Vinyl Chloride	ND	0.0051	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	99	80-120	

Return to Contents

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-19.5-B9	16-06-0986-7-A	06/10/16 13:20	Solid	GC/MS GGG	06/14/16	06/15/16 08:56	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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



## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 20 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 21 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B13	16-06-0986-8-A	06/10/16 08:35	Solid	GC/MS GGG	06/14/16	06/15/16 09:22	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 24 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	

  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B13	16-06-0986-9-A	06/10/16 08:40	Solid	GC/MS GGG	06/14/16	06/15/16 09:49	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 26 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	92	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 27 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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



## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B13	16-06-0986-10-A	06/10/16 08:42	Solid	GC/MS GGG	06/14/16	06/15/16 10:15	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 30 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	


  
Return to Contents

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-19.5-B13	16-06-0986-11-A	06/10/16 08:45	Solid	GC/MS GGG	06/14/16	06/15/16 10:42	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	0.013	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 33 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	100	80-120	

  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-23.5-B13	16-06-0986-12-A	06/10/16 08:48	Solid	GC/MS GGG	06/14/16	06/15/16 11:08	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 35 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.024	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.024	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	0.0069	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 36 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B14	16-06-0986-13-A	06/10/16 09:15	Solid	GC/MS GGG	06/14/16	06/15/16 11:35	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 39 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B14	16-06-0986-14-A	06/10/16 09:20	Solid	GC/MS GGG	06/14/16	06/15/16 12:02	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 42 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	63-141	
1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	100	80-120	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B14	16-06-0986-15-A	06/10/16 09:25	Solid	GC/MS GGG	06/14/16	06/15/16 12:28	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0099	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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



## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 44 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.099	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	93	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 45 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-19.5-B14	16-06-0986-16-A	06/10/16 09:35	Solid	GC/MS GGG	06/14/16	06/15/16 12:55	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 47 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.13	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	60-132		

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

**Analytical Report**

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	100	80-120	

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-23.5-B14	16-06-0986-17-A	06/10/16 09:45	Solid	GC/MS GGG	06/14/16	06/15/16 13:21	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,1-Trichloroethane	ND	0.0049	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0049	1.00	
1,1,2-Trichloroethane	ND	0.0049	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.049	1.00	
1,1-Dichloroethane	ND	0.0049	1.00	
1,1-Dichloroethene	ND	0.0049	1.00	
1,1-Dichloropropene	ND	0.0049	1.00	
1,2,3-Trichlorobenzene	ND	0.0098	1.00	
1,2,3-Trichloropropane	ND	0.0049	1.00	
1,2,4-Trichlorobenzene	ND	0.0049	1.00	
1,2,4-Trimethylbenzene	ND	0.0049	1.00	
1,3,5-Trimethylbenzene	ND	0.0049	1.00	
c-1,2-Dichloroethene	ND	0.0049	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichlorobenzene	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	
1,2-Dichloropropane	ND	0.0049	1.00	
t-1,2-Dichloroethene	ND	0.0049	1.00	
c-1,3-Dichloropropene	ND	0.0049	1.00	
1,3-Dichlorobenzene	ND	0.0049	1.00	
1,3-Dichloropropane	ND	0.0049	1.00	
t-1,3-Dichloropropene	ND	0.0049	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0049	1.00	
2,2-Dichloropropane	ND	0.0049	1.00	
2-Chlorotoluene	ND	0.0049	1.00	
4-Chlorotoluene	ND	0.0049	1.00	
4-Methyl-2-Pentanone	ND	0.049	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0049	1.00	
Bromochloromethane	ND	0.0049	1.00	
Bromoform	ND	0.0049	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.049	1.00	
Carbon Tetrachloride	ND	0.0049	1.00	
Chlorobenzene	ND	0.0049	1.00	
Dibromochloromethane	ND	0.0049	1.00	
Chloroethane	ND	0.0049	1.00	
Chloroform	ND	0.0049	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0049	1.00	
Bromodichloromethane	ND	0.0049	1.00	
Dichlorodifluoromethane	ND	0.0049	1.00	
Hexachloro-1,3-Butadiene	ND	0.098	1.00	
Isopropylbenzene	ND	0.0049	1.00	
2-Butanone	ND	0.049	1.00	
Methylene Chloride	ND	0.049	1.00	
2-Hexanone	ND	0.049	1.00	
Naphthalene	ND	0.049	1.00	
n-Butylbenzene	ND	0.0049	1.00	
n-Propylbenzene	ND	0.0049	1.00	
p-Isopropyltoluene	ND	0.0049	1.00	
sec-Butylbenzene	ND	0.0049	1.00	
Styrene	ND	0.0049	1.00	
tert-Butylbenzene	ND	0.0049	1.00	
Tetrachloroethene	ND	0.0049	1.00	
Trichloroethene	ND	0.0049	1.00	
Trichlorofluoromethane	ND	0.049	1.00	
Vinyl Chloride	ND	0.0049	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 51 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	93	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	99	80-120	

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



## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1884	N/A	Solid	GC/MS GGG	06/14/16	06/15/16 06:16	160614L066

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	60-132	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 54 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	97	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	100	80-120	

## Analytical Report

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1885	N/A	Solid	GC/MS GGG	06/14/16	06/14/16 16:58	160614L067

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	
t-1,3-Dichloropropene	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 56 of 57

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	60-132		

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



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## Analytical Report

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 57 of 57

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	100	80-120	

  
Return to Contents

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



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3545  
Method: EPA 8310

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B8</b>	<b>Sample</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/24/16</b>	<b>06/25/16 06:34</b>	<b>160624S02</b>
<b>S-5-B8</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/24/16</b>	<b>06/25/16 08:12</b>	<b>160624S02</b>
<b>S-5-B8</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/24/16</b>	<b>06/25/16 08:44</b>	<b>160624S02</b>

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	100.0	116.9	117	100.3	100	23-167	15	0-46	
Acenaphthylene	ND	100.0	77.44	77	78.17	78	24-120	1	0-47	
Acenaphthene	ND	100.0	71.93	72	70.76	71	16-120	2	0-46	
Fluorene	ND	100.0	71.28	71	70.82	71	32-120	1	0-44	
Phenanthrene	ND	100.0	78.02	78	74.44	74	34-120	5	0-38	
Anthracene	ND	100.0	76.41	76	72.72	73	27-120	5	0-45	
Fluoranthene	ND	100.0	88.50	88	80.34	80	32-122	10	0-41	
Pyrene	ND	100.0	95.33	95	84.42	84	31-127	12	0-38	
Benzo (a) Anthracene	ND	100.0	91.86	92	79.76	80	32-122	14	0-43	
Chrysene	ND	100.0	86.69	87	79.08	79	30-132	9	0-42	
Benzo (b) Fluoranthene	ND	100.0	87.59	88	78.32	78	33-120	11	0-44	
Benzo (k) Fluoranthene	ND	100.0	96.83	97	73.15	73	23-149	28	0-44	
Benzo (a) Pyrene	ND	100.0	106.6	107	88.68	89	12-132	18	0-48	
Dibenz (a,h) Anthracene	ND	100.0	50.68	51	69.90	70	29-125	32	0-43	
Benzo (g,h,i) Perylene	ND	100.0	91.79	92	87.36	87	24-132	5	0-42	
Indeno (1,2,3-c,d) Pyrene	ND	100.0	87.31	87	77.56	78	29-143	12	0-42	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B14</b>	<b>Sample</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 22:59</b>	<b>160622S05</b>
<b>S-5-B14</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 18:31</b>	<b>160622S05</b>
<b>S-5-B14</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 18:48</b>	<b>160622S05</b>

<u>Parameter</u>	<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	394.5	99	394.7	99	64-130	0	0-15	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B8</b>	<b>Sample</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 12:12</b>	<b>160618S008</b>
<b>S-5-B8</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 12:47</b>	<b>160618S008</b>
<b>S-5-B8</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/14/16</b>	<b>06/18/16 13:22</b>	<b>160618S008</b>

<u>Parameter</u>	<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	10.40	104	10.27	103	48-114	1	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-1015-1	Sample	Solid	GC/MS GGG	06/14/16	06/14/16 18:18	160614S011
16-06-1015-1	Matrix Spike	Solid	GC/MS GGG	06/14/16	06/14/16 18:45	160614S011
16-06-1015-1	Matrix Spike Duplicate	Solid	GC/MS GGG	06/14/16	06/14/16 19:11	160614S011

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.02948	59	0.02947	59	61-127	0	0-20	HX
Toluene	ND	0.05000	0.03043	61	0.03010	60	63-123	1	0-20	HX
Ethylbenzene	ND	0.05000	0.02950	59	0.02928	59	57-129	1	0-22	
o-Xylene	ND	0.05000	0.03098	62	0.03052	61	70-130	1	0-30	HX
p/m-Xylene	ND	0.1000	0.05964	60	0.05862	59	70-130	2	0-30	HX
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04048	81	0.03878	78	57-123	4	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2645	106	0.2476	99	30-168	7	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04146	83	0.04022	80	57-129	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04197	84	0.04073	81	55-127	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.03631	73	0.03540	71	58-124	3	0-20	
1,1-Dichloroethene	ND	0.05000	0.03205	64	0.03221	64	47-143	1	0-25	
1,2-Dibromoethane	ND	0.05000	0.04042	81	0.03892	78	64-124	4	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.03203	64	0.03097	62	35-131	3	0-25	
1,2-Dichloroethane	ND	0.05000	0.04150	83	0.04028	81	80-120	3	0-20	
Carbon Tetrachloride	ND	0.05000	0.02798	56	0.02757	55	51-135	1	0-29	
Chlorobenzene	ND	0.05000	0.03083	62	0.03058	61	57-123	1	0-20	
Trichloroethene	ND	0.05000	0.03159	63	0.03147	63	44-158	0	0-20	
Vinyl Chloride	ND	0.05000	0.04861	97	0.04669	93	49-139	4	0-47	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>S-5-B8</b>	<b>Sample</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/14/16</b>	<b>06/15/16 06:43</b>	<b>160614S032</b>
<b>S-5-B8</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/14/16</b>	<b>06/15/16 07:10</b>	<b>160614S032</b>
<b>S-5-B8</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/14/16</b>	<b>06/15/16 07:36</b>	<b>160614S032</b>

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.03652	73	0.03468	69	61-127	5	0-20	
Toluene	ND	0.05000	0.03816	76	0.03650	73	63-123	4	0-20	
Ethylbenzene	ND	0.05000	0.03920	78	0.03712	74	57-129	5	0-22	
o-Xylene	ND	0.05000	0.04035	81	0.03781	76	70-130	7	0-30	
p/m-Xylene	ND	0.1000	0.07789	78	0.07441	74	70-130	5	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04003	80	0.03793	76	57-123	5	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2594	104	0.2322	93	30-168	11	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04516	90	0.04345	87	57-129	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04433	89	0.04208	84	55-127	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.03826	77	0.03576	72	58-124	7	0-20	
1,1-Dichloroethene	ND	0.05000	0.04039	81	0.03912	78	47-143	3	0-25	
1,2-Dibromoethane	ND	0.05000	0.04210	84	0.03905	78	64-124	8	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.03965	79	0.03803	76	35-131	4	0-25	
1,2-Dichloroethane	ND	0.05000	0.04413	88	0.04137	83	80-120	6	0-20	
Carbon Tetrachloride	ND	0.05000	0.03559	71	0.03455	69	51-135	3	0-29	
Chlorobenzene	ND	0.05000	0.03908	78	0.03677	74	57-123	6	0-20	
Trichloroethene	ND	0.05000	0.03817	76	0.03679	74	44-158	4	0-20	
Vinyl Chloride	ND	0.05000	0.04898	98	0.04706	94	49-139	4	0-47	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 3545  
Method: EPA 8310

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-07-002-1877</b>	<b>LCS</b>	<b>Solid</b>	<b>HPLC 5</b>	<b>06/24/16</b>	<b>06/24/16 19:43</b>	<b>160624L02</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Naphthalene		100.0	124.4	124	17-203	0-234	
Acenaphthylene		100.0	95.56	96	50-120	38-132	
Acenaphthene		100.0	82.85	83	41-120	28-133	
Fluorene		100.0	82.87	83	51-120	40-132	
Phenanthrene		100.0	83.88	84	56-120	45-131	
Anthracene		100.0	82.94	83	49-120	37-132	
Fluoranthene		100.0	90.49	90	60-120	50-130	
Pyrene		100.0	96.43	96	61-121	51-131	
Benzo (a) Anthracene		100.0	93.47	93	61-121	51-131	
Chrysene		100.0	91.79	92	61-121	51-131	
Benzo (b) Fluoranthene		100.0	92.16	92	61-121	51-131	
Benzo (k) Fluoranthene		100.0	88.84	89	57-129	45-141	
Benzo (a) Pyrene		100.0	106.9	107	43-120	30-133	
Dibenz (a,h) Anthracene		100.0	89.44	89	59-125	48-136	
Benzo (g,h,i) Perylene		100.0	103.3	103	57-123	46-134	
Indeno (1,2,3-c,d) Pyrene		100.0	72.42	72	64-130	53-141	

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

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-2504</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 47</b>	<b>06/22/16</b>	<b>06/23/16 18:14</b>	<b>160622B05S</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	383.9	96	75-123	

  
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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-571-3090</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 25</b>	<b>06/18/16</b>	<b>06/18/16 10:27</b>	<b>160618L010</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	10.82	108	70-124	



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## Quality Control - LCS

Cardno	Date Received:	06/14/16
601 North McDowell Blvd.	Work Order:	16-06-0986
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: Former ExxonMobil 10MHG Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1884</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/14/16</b>	<b>06/15/16 04:57</b>	<b>160614L066</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04474	89	78-120	71-127	
Toluene		0.05000	0.04672	93	77-120	70-127	
Ethylbenzene		0.05000	0.04740	95	76-120	69-127	
o-Xylene		0.05000	0.04853	97	75-125	67-133	
p/m-Xylene		0.1000	0.09539	95	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04657	93	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2638	106	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05476	110	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.05349	107	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04551	91	75-120	68-128	
1,1-Dichloroethene		0.05000	0.04890	98	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04882	98	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.04861	97	75-120	68-128	
1,2-Dichloroethane		0.05000	0.05236	105	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04316	86	49-139	34-154	
Chlorobenzene		0.05000	0.04689	94	79-120	72-127	
Trichloroethene		0.05000	0.04775	95	80-120	73-127	
Vinyl Chloride		0.05000	0.04985	100	68-122	59-131	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

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

Date Received: 06/14/16  
Work Order: 16-06-0986  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1885</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/14/16</b>	<b>06/14/16 16:32</b>	<b>160614L067</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04575	91	78-120	71-127	
Toluene		0.05000	0.04819	96	77-120	70-127	
Ethylbenzene		0.05000	0.05008	100	76-120	69-127	
o-Xylene		0.05000	0.05033	101	75-125	67-133	
p/m-Xylene		0.1000	0.09934	99	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04802	96	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2595	104	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05681	114	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.05505	110	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04540	91	75-120	68-128	
1,1-Dichloroethene		0.05000	0.05287	106	74-122	66-130	
1,2-Dibromoethane		0.05000	0.04872	97	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.05112	102	75-120	68-128	
1,2-Dichloroethane		0.05000	0.05231	105	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04632	93	49-139	34-154	
Chlorobenzene		0.05000	0.04858	97	79-120	72-127	
Trichloroethene		0.05000	0.04873	97	80-120	73-127	
Vinyl Chloride		0.05000	0.05199	104	68-122	59-131	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



## Sample Analysis Summary Report

Work Order: 16-06-0986

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3550B	974	GC 47	1
EPA 8015B (M)	EPA 5030C	1063	GC 25	2
EPA 8260B	EPA 5030C	1023	GC/MS GGG	2
EPA 8310	EPA 3545	960	HPLC 5	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 16-06-0986

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**Jonathan Diaz**

---

**From:** Nadya Vicente <nadya.vicente@cardno.com>  
**Sent:** Thursday, June 16, 2016 9:43 AM  
**To:** Jonathan Diaz  
**Cc:** Janice Jacobson; Cecile L de Guia  
**Subject:** RE: Former ExxonMobil 10MHG / ECI 16-06-0986  
**Attachments:** 20160616094131.pdf

Jonathan,

Here is the corrected COC (#17). As discussed, submitted sample # 1 is S-5-B8.

Thank you

**Nadya Vicente**

SENIOR STAFF GEOLOGIST  
ENGINEERING & ENVIRONMENTAL SERVICES DIVISION  
CARDNO

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**From:** Jonathan Diaz [<mailto:JonathanDiaz@eurofinsUS.com>]  
**Sent:** Wednesday, June 15, 2016 3:35 PM  
**To:** Janice Jacobson <[janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)>  
**Cc:** Cecile L de Guia <[CecileLdeGuia@eurofinsUS.com](mailto:CecileLdeGuia@eurofinsUS.com)>; Nadya Vicente <[nadya.vicente@cardno.com](mailto:nadya.vicente@cardno.com)>  
**Subject:** RE: Former ExxonMobil 10MHG / ECI 16-06-0986

Okay. that's fine.

-Jonathan

(714) 895-5494

---

**From:** Janice Jacobson [<mailto:janice.jacobson@cardno.com>]  
**Sent:** Wednesday, June 15, 2016 2:54 PM  
**To:** Jonathan Diaz  
**Cc:** Cecile L de Guia; Nadya Vicente  
**Subject:** RE: Former ExxonMobil 10MHG / ECI 16-06-0986

Jonathan,  
Nadya is in the field. She will answer your question tomorrow.  
Thank you,  
Janice

## Janice Jacobson

SR PROJECT MANAGER  
ENGINEERING & ENVIRONMENTAL SERVICES DIVISION  
CARDNO

Direct (+1) 707-766-2018 Mobile (+1) 707-975-0931 Fax (+1) 707-789-0414  
Address 601 North McDowell Blvd., Petaluma, CA 94954  
Email [janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com) Web [www.cardno.com](http://www.cardno.com)

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---

**From:** Jonathan Diaz [<mailto:JonathanDiaz@eurofinsUS.com>]  
**Sent:** Wednesday, June 15, 2016 12:34 PM  
**To:** Janice Jacobson <[janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)>  
**Cc:** Cecile L de Guia <[CecileLdeGuia@eurofinsUS.com](mailto:CecileLdeGuia@eurofinsUS.com)>  
**Subject:** Former ExxonMobil 10MHG / ECI 16-06-0986

Hi Janice,

We receive sample IDs per label for sample -1 as **S-5-B7** instead of **S-5-B8** and sample -17 as **S-23.5-B14** instead of **S-23.5-B13**. Please advise.

Thanks,  
Jonathan

(714) 895-5494

Notify us [here](#) to report this email as spam.



Calscience

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY  
**16-06-0986**

DATE: 06/10/16  
PAGE: 1 OF 2

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: janice.jacobson@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Mobil 10MHG P.O. NO.: 4410371574

PROJECT CONTACT: 160 14th Street, Oakland, CA SAMPLER(S): (PRINT)

Heidi Dieffenbach-Carle

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: T06019782296 LOG CODE:

SPECIAL INSTRUCTIONS:  
TPHd - Silica Gel Cleanup  
Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions  
Please email PDF files to: norcallabs@eri-us.com

						Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(g) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
1	S-5-B8	B8	6/10/2016	1100	S	1			x	x				x						x		
2	S-10-B8	B8	6/10/2016	1135	S	1			x	x				x								
3	S-14.5-B8	B8	6/10/2016	1137	S	1			x	x				x								
4	S-19.5-B8	B8	6/10/2016	1150	S	1			x	x				x								
5	S-10-B9	B9	6/10/2016	1310	S	1			x	x				x								
6	S-14.5-B9	B9	6/10/2016	1315	S	1			x	x				x								
7	S-19.5-B9	B9	6/10/2016	1320	S	1			x	x				x								
8	S-5-B13	B13	6/10/2016	0835	S	1			x	x				x						x		
9	S-10-B13	B13	6/10/2016	0840	S	1			x	x				x								
10	S-15-B13	B13	6/10/2016	0842	S	1			x	x				x								

Relinquished by: (Signature)  
*[Signature]*  
Relinquished by: (Signature)  
*To Ormally 70 GSO 6/13/16 1730*  
Relinquished by: (Signature)

Received by: (Signature/Affiliation)  
*To Ormally ECI*  
Received by: (Signature/Affiliation)  
*[Signature]*  
Received by: (Signature/Affiliation)

Date: 6/13/16 Time: 1115  
Date: 6/14/16 Time: 1055  
Date: Time:

Page 88 of 94



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WO # / LAB USE ONLY  
16-06-0986

CHAIN OF CUSTODY RECORD

DATE: 06/10/16  
PAGE: 2 OF 2

LABORATORY CLIENT: <b>Cardno / ExxonMobil</b>		CLIENT PROJECT NAME / NUMBER: <b>Former Mobil 10MHG</b>	P.O. NO.: <b>4410371574</b>
ADDRESS: 601 N. McDowell Blvd		PROJECT CONTACT: 160 14th Street, Oakland, CA	SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle
CITY: Petaluma	STATE: CA	ZIP: 94954	

TEL: (707) 766-2000 E-MAIL: [janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)

**REQUESTED ANALYSES**

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 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: **T06019782296** LOG CODE:

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**Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions**  
 Please email PDF files to: [norcallabs@eri-us.com](mailto:norcallabs@eri-us.com)

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
			DATE	TIME																			
11	S-19.5-B13	B13	6/10/2016	0845	S	1				x	x				x								
12	S-23.5-B13	B13	6/10/2016	0848	S	1				x	x				x								
13	S-5-B14	B14	6/10/2016	0915	S	1				x	x				x						x		
14	S-10-B14	B14	6/10/2016	0920	S	1				x	x				x								
15	S-15-B14	B14	6/10/2016	0925	S	1				x	x				x								
16	S-19.5-B14	B14	6/10/2016	0935	S	1				x	x				x								
17	S-23.5-B14	B14	6/10/2016	0945	S	1				x	x				x								

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>To O'Malley GCU</i>	Date: 6/13/16	Time: 1115
Relinquished by: (Signature) <i>To O'Malley TO GCU 6/13/16 1730</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: 6/14/16	Time: 1055
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:



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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY  
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DATE: 06/10/16  
PAGE: 1 OF 2

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: [janice.jacobson@cardno.com](mailto:janice.jacobson@cardno.com)

CLIENT PROJECT NAME / NUMBER: Former Mobil 10MHG

PROJECT CONTACT: 160 14th Street, Oakland, CA

P.O. NO.: 4410371574

SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: T06019782296 LOG CODE:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
			x	x				x						x		
			x	x				x								
			x	x				x								
			x	x				x								
			x	x				x								
			x	x				x								
			x	x				x						x		
			x	x				x								
			x	x				x								

SPECIAL INSTRUCTIONS:

TPHd - Silica Gel Cleanup

Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions

Please email PDF files to: [norcallabs@eri-us.com](mailto:norcallabs@eri-us.com)

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6	S-14.5-B9	B9	6/10/2016	1315	S	1				x	x				x									
7	S-19.5-B9	B9	6/10/2016	1320	S	1				x	x				x									
8	S-5-B13	B13	6/10/2016	0835	S	1				x	x				x							x		
9	S-10-B13	B13	6/10/2016	0840	S	1				x	x				x									
10	S-15-B13	B13	6/10/2016	0842	S	1				x	x				x									

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *To O'Malley to GSO 6/13/16 1730*

Relinquished by: (Signature)

Received by: (Signature/Affiliation) *To O'Malley ECI*

Received by: (Signature/Affiliation) *[Signature]*

Received by: (Signature/Affiliation)

Date: 6/13/16 Time: 1115

Date: 6/14/16 Time: 1055

Date:

Time:

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### CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY  
**16-06-0986**

DATE: 06/10/16  
PAGE: 2 OF 2

LABORATORY CLIENT: <b>Cardno / ExxonMobil</b>		CLIENT PROJECT NAME / NUMBER: <b>Former Mobil 10MHG</b>		P.O. NO.: <b>4410371574</b>
ADDRESS: 601 N. McDowell Blvd		PROJECT CONTACT: 160 14th Street, Oakland, CA		SAMPLER(S): (PRINT) Heidi Dieffenbach-Carle
CITY: Petaluma	STATE: CA	ZIP: 94954		

#### REQUESTED ANALYSES

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COELT EDF   GLOBAL ID: **T06019782296**   LOG CODE:

SPECIAL INSTRUCTIONS:  
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**Full Scan VOCs 8260B: Includes BTEX, Napthalene, chlorinated solutions**  
 Please email PDF files to: norcallabs@eri-us.com

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260B)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input checked="" type="checkbox"/> 8310	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	
			DATE	TIME																				
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12	S-23.5-B13	B13	6/10/2016	0848	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
13	S-5-B14	B14	6/10/2016	0915	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
14	S-10-B14	B14	6/10/2016	0920	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
15	S-15-B14	B14	6/10/2016	0925	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
16	S-19.5-B14	B14	6/10/2016	0935	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
17	S-23.5-B13	B14	6/10/2016	0945	S	1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>Ta Omalley ECI</i>	Date: <b>6/13/16</b>	Time: <b>1115</b>
Relinquished by: (Signature) <i>Ta Omalley TO GSO 6/13/16 1730</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: <b>6/14/16</b>	Time: <b>1055</b>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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0986

<https://app.gso.com/Shipping/ShippingLabel>



800-322-5555 [www.gso.com](http://www.gso.com)

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

Tracking #: 532238579

NPS



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

**ORC**  
GARDEN GROVE

**A**

COD: \$0.00  
Weight: 0 lb(s)  
Reference:  
CARDNO ERI, PHILLIPS 66, TERRA PACIFIC GROUP  
Delivery Instructions:

D92845A



Signature Type: REQUIRED

52938865

Print Date: 6/13/2016 1:16 PM

LABEL INSTRUCTIONS:

Return to Contents

SAMPLE RECEIPT CHECKLIST

COOLER / OF /

CLIENT: Cardno ERI

DATE: 06 / 14 / 2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2-8 °C (w/ CF): 2-8 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

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

Ambient Temperature:  Air  Filter

Checked by: 836

CUSTODY SEAL:

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

Checked by: 836

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

Checked by: 836

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

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

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB

125PB<sub>z<sub>na</sub></sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

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

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

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

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 836

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

Reviewed by: 718

Return to Contents

**SAMPLE ANOMALY REPORT**

DATE: 06 / 14 / 2016

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
  - Sample(s) received but NOT LISTED on COC
  - Holding time expired (list client or ECI sample ID and analysis)
  - Insufficient sample amount for requested analysis (list analysis)
  - Improper container(s) used (list analysis)
  - Improper preservative used (list analysis)
  - No preservative noted on COC or label (list analysis and notify lab)
  - Sample container(s) not labeled
  - Client sample label(s) illegible (list container type and analysis)
  - Client sample label(s) do not match COC (comment)
    - Project information
    - Client sample ID
    - Sampling date and/or time
    - Number of container(s)
    - Requested analysis
  - Sample container(s) compromised (comment)
    - Broken
    - Water present in sample container
  - Air sample container(s) compromised (comment)
    - Flat
    - Very low in volume
    - Leaking (not transferred; duplicate bag submitted)
    - Leaking (transferred into ECI Tedlar™ bags\*)
    - Leaking (transferred into client's Tedlar™ bags\*)
- \* Transferred at client's request.

**Comments**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*Labeled as :*

\* (-1)S-5-B7

\* (-17)S-23.5-B14

\* date / time matched

**MISCELLANEOUS: (Describe)**

\_\_\_\_\_

**Comments**

\_\_\_\_\_

**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

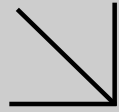
Comments: \_\_\_\_\_  
 \_\_\_\_\_

Reported by: *sm*  
 Reviewed by: *TL*

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.



Calscience



**WORK ORDER NUMBER: 16-06-0865**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** Former ExxonMobil 10MHG

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

*Cecile de Guia*

Approved for release on 06/14/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

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 Work Order Number: 16-06-0865

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/11/16. They were assigned to Work Order 16-06-0865.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

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

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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## Sample Summary

Client: Cardno	Work Order: 16-06-0865
601 North McDowell Blvd.	Project Name: Former ExxonMobil 10MHG
Petaluma, CA 94954-2312	PO Number: 4410384606
	Date/Time Received: 06/11/16 08:50
	Number of Containers: 5

Attn: Janice Jacobson

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-SP1-1	16-06-0865-1	06/08/16 14:10	1	Solid
S-SP1-2	16-06-0865-2	06/08/16 14:15	1	Solid
S-SP1-3	16-06-0865-3	06/08/16 14:25	1	Solid
S-SP1-4	16-06-0865-4	06/08/16 14:30	1	Solid
SP-1	16-06-0865-5	06/08/16 00:00	1	Solid



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	16-06-0865-5-A	06/08/16 00:00	Solid	GC 48	06/13/16	06/13/16 20:17	160613B03S

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	109	61-145	

Method Blank	099-15-422-2480	N/A	Solid	GC 48	06/13/16	06/13/16 19:31	160613B03S
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Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

Return to Contents

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





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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	16-06-0865-5-A	06/08/16 00:00	Solid	GC 1	06/11/16	06/12/16 01:00	160611L022

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	0.70	0.51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	66	42-126	

Method Blank	099-14-571-3067	N/A	Solid	GC 1	06/11/16	06/11/16 17:16	160611L022
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	59	42-126	

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



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## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	16-06-0865-5-A	06/08/16 00:00	Solid	ICP 8300	06/11/16	06/13/16 14:25	160611L02

Parameter	Result	RL	DF	Qualifiers
Lead	4.35	0.500	1.00	

Method Blank	097-01-002-22777	N/A	Solid	ICP 8300	06/11/16	06/13/16 15:07	160611L02
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Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.488	0.976	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3545  
Method: EPA 8270C  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	16-06-0865-5-A	06/08/16 00:00	Solid	GC/MS CCC	06/11/16	06/13/16 14:28	160611L05

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

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

## Analytical Report

Cardno 601 North McDowell Blvd. Petaluma, CA 94954-2312	Date Received: 06/11/16 Work Order: 16-06-0865 Preparation: EPA 3545 Method: EPA 8270C Units: mg/kg
Project: Former ExxonMobil 10MHG	Page 2 of 6

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dichlorophenol	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 3 of 6

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	70	27-120	
2-Fluorophenol	70	25-120	
Nitrobenzene-d5	66	33-123	
p-Terphenyl-d14	84	27-159	
Phenol-d6	72	26-122	
2,4,6-Tribromophenol	69	18-138	

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-549-3629</b>	<b>N/A</b>	<b>Solid</b>	<b>GC/MS CCC</b>	<b>06/11/16</b>	<b>06/13/16 14:46</b>	<b>160611L05</b>

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 5 of 6

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dichlorophenol	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 6 of 6

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	80	27-120	
2-Fluorophenol	83	25-120	
Nitrobenzene-d5	81	33-123	
p-Terphenyl-d14	95	27-159	
Phenol-d6	82	26-122	
2,4,6-Tribromophenol	65	18-138	



## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	16-06-0865-5-A	06/08/16 00:00	Solid	GC/MS GGG	06/11/16	06/11/16 18:22	160611L009

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
Ethanol	ND	0.25	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	0.15	0.0050	1.00	
1,3,5-Trimethylbenzene	0.037	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	

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

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
t-1,3-Dichloropropene	ND	0.0050	1.00	
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	0.012	0.0050	1.00	
n-Propylbenzene	0.017	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 3 of 6

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	60-132	
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	101	80-120	

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

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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	099-12-882-1879	N/A	Solid	GC/MS GGG	06/11/16	06/11/16 14:44	160611L009

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
Ethanol	ND	0.25	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,1-Trichloroethane	ND	0.0050	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0050	1.00	
1,1,2-Trichloroethane	ND	0.0050	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	1.00	
1,1-Dichloroethane	ND	0.0050	1.00	
1,1-Dichloroethene	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0050	1.00	
1,2,3-Trichlorobenzene	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0050	1.00	
1,2,4-Trichlorobenzene	ND	0.0050	1.00	
1,2,4-Trimethylbenzene	ND	0.0050	1.00	
1,3,5-Trimethylbenzene	ND	0.0050	1.00	
c-1,2-Dichloroethene	ND	0.0050	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichlorobenzene	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	
1,2-Dichloropropane	ND	0.0050	1.00	
t-1,2-Dichloroethene	ND	0.0050	1.00	
c-1,3-Dichloropropene	ND	0.0050	1.00	
1,3-Dichlorobenzene	ND	0.0050	1.00	
1,3-Dichloropropane	ND	0.0050	1.00	

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



Calscience

## Analytical Report

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/kg

Project: Former ExxonMobil 10MHG

Page 5 of 6

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
t-1,3-Dichloropropene	ND	0.0050	1.00	
1,4-Dichlorobenzene	ND	0.0050	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
2-Chlorotoluene	ND	0.0050	1.00	
4-Chlorotoluene	ND	0.0050	1.00	
4-Methyl-2-Pentanone	ND	0.050	1.00	
Acetone	ND	0.12	1.00	
Bromobenzene	ND	0.0050	1.00	
Bromochloromethane	ND	0.0050	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.025	1.00	
Carbon Disulfide	ND	0.050	1.00	
Carbon Tetrachloride	ND	0.0050	1.00	
Chlorobenzene	ND	0.0050	1.00	
Dibromochloromethane	ND	0.0050	1.00	
Chloroethane	ND	0.0050	1.00	
Chloroform	ND	0.0050	1.00	
Chloromethane	ND	0.025	1.00	
Dibromomethane	ND	0.0050	1.00	
Bromodichloromethane	ND	0.0050	1.00	
Dichlorodifluoromethane	ND	0.0050	1.00	
Hexachloro-1,3-Butadiene	ND	0.10	1.00	
Isopropylbenzene	ND	0.0050	1.00	
2-Butanone	ND	0.050	1.00	
Methylene Chloride	ND	0.050	1.00	
2-Hexanone	ND	0.050	1.00	
Naphthalene	ND	0.050	1.00	
n-Butylbenzene	ND	0.0050	1.00	
n-Propylbenzene	ND	0.0050	1.00	
p-Isopropyltoluene	ND	0.0050	1.00	
sec-Butylbenzene	ND	0.0050	1.00	
Styrene	ND	0.0050	1.00	
tert-Butylbenzene	ND	0.0050	1.00	
Tetrachloroethene	ND	0.0050	1.00	
Trichloroethene	ND	0.0050	1.00	
Trichlorofluoromethane	ND	0.050	1.00	
Vinyl Chloride	ND	0.0050	1.00	


 Return to Contents

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

## Analytical Report

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: Former ExxonMobil 10MHG		Page 6 of 6

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	60-132	
Dibromofluoromethane	95	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	99	80-120	



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0843-2	Sample	Solid	GC 48	06/13/16	06/13/16 16:57	160613S03
16-06-0843-2	Matrix Spike	Solid	GC 48	06/13/16	06/13/16 16:26	160613S03
16-06-0843-2	Matrix Spike Duplicate	Solid	GC 48	06/13/16	06/13/16 16:41	160613S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	6.025	400.0	439.6	108	387.7	95	64-130	13	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0843-2	Sample	Solid	GC 1	06/10/16	06/11/16 18:28	160611S011
16-06-0843-2	Matrix Spike	Solid	GC 1	06/10/16	06/11/16 19:03	160611S011
16-06-0843-2	Matrix Spike Duplicate	Solid	GC 1	06/10/16	06/11/16 19:39	160611S011

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	9.277	93	9.062	91	48-114	2	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





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Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former ExxonMobil 10MHG		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0844-21	Sample	Solid	ICP 8300	06/11/16	06/13/16 14:42	160611S02
16-06-0844-21	Matrix Spike	Solid	ICP 8300	06/11/16	06/13/16 13:18	160611S02
16-06-0844-21	Matrix Spike Duplicate	Solid	ICP 8300	06/11/16	06/13/16 13:19	160611S02

<u>Parameter</u>	<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	209.8	25.00	202.8	4X	204.7	4X	75-125	4X	0-20	BB

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3545  
Method: EPA 8270C

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0841-11	Sample	Solid	GC/MS CCC	06/11/16	06/13/16 16:00	160611S05
16-06-0841-11	Matrix Spike	Solid	GC/MS CCC	06/11/16	06/13/16 16:36	160611S05
16-06-0841-11	Matrix Spike Duplicate	Solid	GC/MS CCC	06/11/16	06/13/16 15:41	160611S05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	7.864	79	7.899	79	34-148	0	0-20	
Acenaphthylene	ND	10.00	7.642	76	7.644	76	53-120	0	0-20	
Butyl Benzyl Phthalate	ND	10.00	8.305	83	8.515	85	15-189	2	0-20	
4-Chloro-3-Methylphenol	ND	10.00	8.022	80	8.019	80	32-120	0	0-20	
2-Chlorophenol	ND	10.00	8.017	80	7.977	80	53-120	0	0-20	
1,4-Dichlorobenzene	ND	10.00	6.681	67	6.661	67	43-120	0	0-26	
Dimethyl Phthalate	ND	10.00	7.591	76	7.655	77	44-122	1	0-20	
2,4-Dinitrotoluene	ND	10.00	8.584	86	8.647	86	28-120	1	0-20	
Fluorene	ND	10.00	7.797	78	7.719	77	12-186	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	7.544	75	7.526	75	38-140	0	0-20	
Naphthalene	ND	10.00	7.185	72	7.179	72	20-140	0	0-20	
4-Nitrophenol	ND	10.00	7.684	77	7.479	75	14-128	3	0-59	
Pentachlorophenol	ND	10.00	6.314	63	5.741	57	10-124	10	0-20	
Phenol	ND	10.00	7.978	80	7.888	79	22-124	1	0-20	
Pyrene	ND	10.00	8.363	84	8.681	87	31-169	4	0-20	
1,2,4-Trichlorobenzene	ND	10.00	7.369	74	7.402	74	56-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0843-2	Sample	Solid	GC/MS GGG	06/10/16	06/11/16 20:35	160611S006
16-06-0843-2	Matrix Spike	Solid	GC/MS GGG	06/10/16	06/11/16 16:09	160611S006
16-06-0843-2	Matrix Spike Duplicate	Solid	GC/MS GGG	06/10/16	06/11/16 16:36	160611S006

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04088	82	0.04024	80	61-127	2	0-20	
Toluene	ND	0.05000	0.04249	85	0.04193	84	63-123	1	0-20	
Ethylbenzene	ND	0.05000	0.04300	86	0.04203	84	57-129	2	0-22	
o-Xylene	ND	0.05000	0.04330	87	0.04254	85	70-130	2	0-30	
p/m-Xylene	ND	0.1000	0.08660	87	0.08400	84	70-130	3	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04160	83	0.04000	80	57-123	4	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2822	113	0.2562	102	30-168	10	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04967	99	0.04777	96	57-129	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04696	94	0.04525	91	55-127	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.03958	79	0.03839	77	58-124	3	0-20	
Ethanol	ND	0.5000	0.6579	132	0.5492	110	17-167	18	0-47	
1,1-Dichloroethene	ND	0.05000	0.04773	95	0.04746	95	47-143	1	0-25	
1,2-Dibromoethane	ND	0.05000	0.04382	88	0.04132	83	64-124	6	0-20	
1,2-Dichlorobenzene	ND	0.05000	0.04393	88	0.04176	84	35-131	5	0-25	
1,2-Dichloroethane	ND	0.05000	0.04780	96	0.04551	91	80-120	5	0-20	
Carbon Tetrachloride	ND	0.05000	0.04204	84	0.04126	83	51-135	2	0-29	
Chlorobenzene	ND	0.05000	0.04235	85	0.04126	83	57-123	3	0-20	
Trichloroethene	ND	0.05000	0.04521	90	0.04412	88	44-158	2	0-20	
Vinyl Chloride	ND	0.05000	0.04798	96	0.04727	95	49-139	2	0-47	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-2480</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 48</b>	<b>06/13/16</b>	<b>06/13/16 19:46</b>	<b>160613B03S</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	383.5	96	75-123	


  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Former ExxonMobil 10MHG		Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-571-3067</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 1</b>	<b>06/11/16</b>	<b>06/11/16 16:40</b>	<b>160611L022</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		10.00	10.45	105	70-124	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	06/11/16
601 North McDowell Blvd.	Work Order:	16-06-0865
Petaluma, CA 94954-2312	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former ExxonMobil 10MHG		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-22777</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 8300</b>	<b>06/11/16</b>	<b>06/13/16 15:08</b>	<b>160611L02</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		25.00	27.01	108	80-120	


  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 3545  
Method: EPA 8270C

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-549-3629</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS CCC</b>	<b>06/11/16</b>	<b>06/13/16 15:05</b>	<b>160611L05</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Acenaphthene		10.00	8.407	84	51-123	39-135	
Acenaphthylene		10.00	8.165	82	52-120	41-131	
Butyl Benzyl Phthalate		10.00	8.830	88	43-139	27-155	
4-Chloro-3-Methylphenol		10.00	8.648	86	55-121	44-132	
2-Chlorophenol		10.00	8.920	89	58-124	47-135	
1,4-Dichlorobenzene		10.00	7.772	78	42-132	27-147	
Dimethyl Phthalate		10.00	7.896	79	51-123	39-135	
2,4-Dinitrotoluene		10.00	9.233	92	51-129	38-142	
Fluorene		10.00	8.287	83	54-126	42-138	
N-Nitroso-di-n-propylamine		10.00	8.402	84	40-136	24-152	
Naphthalene		10.00	8.048	80	32-146	13-165	
4-Nitrophenol		10.00	7.376	74	24-126	7-143	
Pentachlorophenol		10.00	3.693	37	23-131	5-149	
Phenol		10.00	8.659	87	40-130	25-145	
Pyrene		10.00	8.944	89	47-143	31-159	
1,2,4-Trichlorobenzene		10.00	8.427	84	45-129	31-143	

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

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

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

Date Received: 06/11/16  
Work Order: 16-06-0865  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Former ExxonMobil 10MHG

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-882-1879</b>	<b>LCS</b>	<b>Solid</b>	<b>GC/MS GGG</b>	<b>06/11/16</b>	<b>06/11/16 13:21</b>	<b>160611L009</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		0.05000	0.04854	97	78-120	71-127	
Toluene		0.05000	0.05050	101	77-120	70-127	
Ethylbenzene		0.05000	0.05242	105	76-120	69-127	
o-Xylene		0.05000	0.05243	105	75-125	67-133	
p/m-Xylene		0.1000	0.1044	104	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		0.05000	0.04738	95	77-120	70-127	
Tert-Butyl Alcohol (TBA)		0.2500	0.2690	108	68-122	59-131	
Diisopropyl Ether (DIPE)		0.05000	0.05601	112	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)		0.05000	0.05424	108	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)		0.05000	0.04714	94	75-120	68-128	
Ethanol		0.5000	0.5141	103	56-140	42-154	
1,1-Dichloroethene		0.05000	0.05620	112	74-122	66-130	
1,2-Dibromoethane		0.05000	0.05137	103	80-120	73-127	
1,2-Dichlorobenzene		0.05000	0.05337	107	75-120	68-128	
1,2-Dichloroethane		0.05000	0.05520	110	80-120	73-127	
Carbon Tetrachloride		0.05000	0.04937	99	49-139	34-154	
Chlorobenzene		0.05000	0.05158	103	79-120	72-127	
Trichloroethene		0.05000	0.05202	104	80-120	73-127	
Vinyl Chloride		0.05000	0.05017	100	68-122	59-131	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Sample Analysis Summary Report

Work Order: 16-06-0865

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	771	ICP 8300	1
EPA 8015B (M)	EPA 3550B	974	GC 48	1
EPA 8015B (M)	EPA 5030C	933	GC 1	2
EPA 8260B	EPA 5030C	823	GC/MS GGG	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 16-06-0865

Page 1 of 1

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

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494  
 For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

**CHAIN OF CUSTODY RECORD**

WO # / LAB USE ONLY  
**16-06-0865**

DATE: 6/8/16  
 PAGE: 1 OF 1

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

CLIENT PROJECT NAME / NUMBER: **Former Mobil 10MHG**

P.O. NO.: **4410371574**

PROJECT CONTACT: **160 14th Street, Oakland, CA**

SAMPLER(S): (PRINT) **Heidi Dieffenbach-Carle**

TEL: (707) 766-2000 E-MAIL: janice.jacobson@cardno.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: **T06019782296** LOG CODE:

**REQUESTED ANALYSES**

SPECIAL INSTRUCTIONS:  
**TPHd - Silica Gel Cleanup**  
**Full Scan VOCs 8260: BTEX, MTBE, TBA, DIPE, ETBE, TAME, 1,2-DCA, ethanol and EDB**  
**\*\*\*Combine all 4 sleeves into single sample SP-1**  
 Please email PDF files to: norcallabs@eri-us.com

Please check box or fill in blank as needed.																
Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 218.6
			x	x				x		x	x					
			x	x				x		x	x					
			x	x				x		x	x					
			x	x				x		x	x					

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input checked="" type="checkbox"/> TPH(g) (8015M)	<input checked="" type="checkbox"/> TPH(d) 8015M	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8021 <input type="checkbox"/>	Full Scan VOCs (8260)	Oxygenates (8260)	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 218.6	
			DATE	TIME																				
1	S-SP1-1***	SP1	6/8/16	1410	Soil	1				x	x				x		x	x						
2	S-SP1-2***	SP1	6/8/16	1415	Soil	1				x	x				x		x	x						
3	S-SP1-3***	SP1	6/8/16	1425	Soil	1				x	x				x		x	x						
4	S-SP1-4***	SP1	6/8/16	1430	Soil	1				x	x				x		x	x						

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>To Smalley EQ10</i>	Date: <u>6/10/16</u>	Time: <u>1030</u>
Relinquished by: (Signature) <i>Tom Smalley to 650 6/10/16 1730</i>	Received by: (Signature/Affiliation) <i>Chandra EQ</i>	Date: <u>6/11/16</u>	Time: <u>08:50</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

-0865



800-322-5555 www.gso.com

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

**Tracking #:** 532227567

**SDS**



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

**ORC**  
**GARDEN GROVE**

**A**

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

**D92845A**



**Signature Type:** REQUIRED

52898323

Print Date: 6/10/2016 3:28 PM

Package 1 of 2

**LABEL INSTRUCTIONS:**

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

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



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 06/11/2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 4.1 °C (w/ CF): 4.1 °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

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

Ambient Temperature:  Air  Filter

Checked by: 1017

CUSTODY SEAL:

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

Checked by: 1017

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

Checked by: 1013

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

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

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB

125PB<sub>z<sub>na</sub></sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

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

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

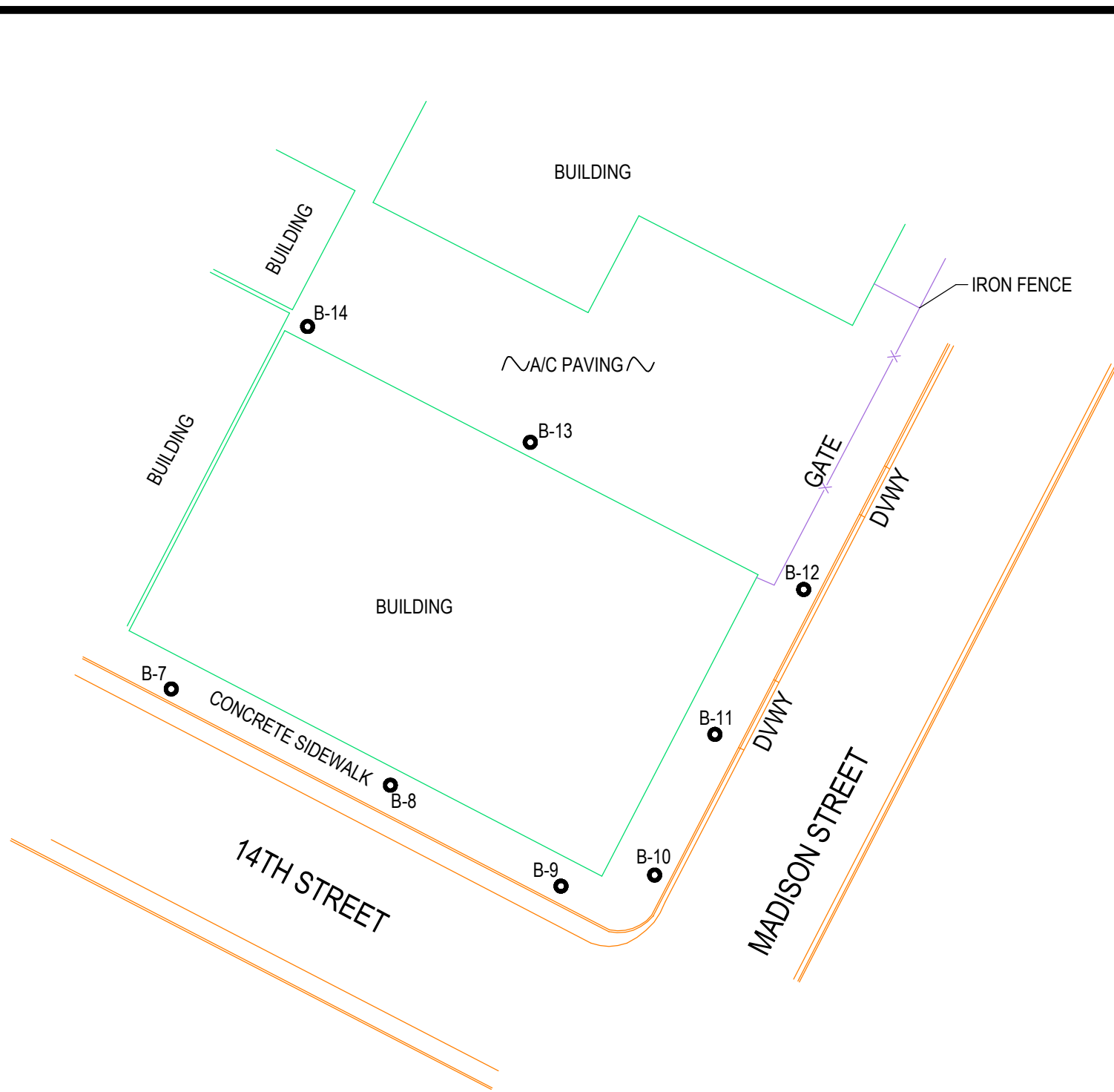
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1013

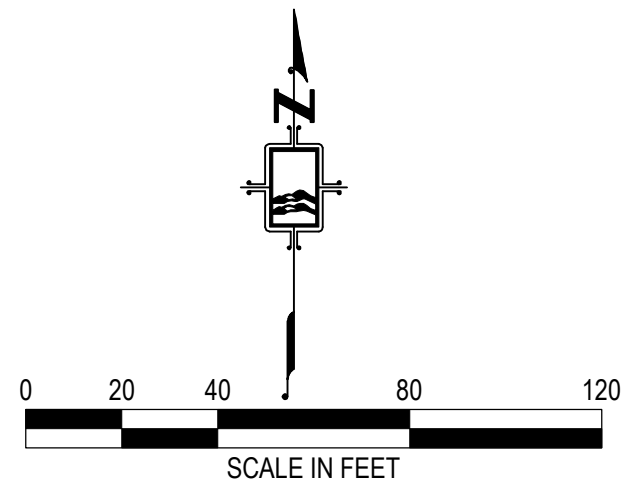
s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, z<sub>na</sub> = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 728

**APPENDIX F**  
**SURVEY DATA**



DESCRIPTION	NORTHING	EASTING	LATIUDE	LONGITUDE
B-7	2119228.8	6051888.2	37.8018201	-122.2645500
B-8	2119202.0	6051950.1	37.8017497	-122.2643340
B-9	2119173.6	6051998.0	37.8016743	-122.2641663
B-10	2119176.7	6052024.4	37.8016842	-122.2640754
B-11	2119216.2	6052041.3	37.8017936	-122.2640194
B-12	2119256.9	6052066.2	37.8019066	-122.2639357
B-13	2119298.3	6051989.4	37.8020162	-122.2642042
B-14	2119330.8	6051926.8	37.8021022	-122.2644229



1255 Starboard Drive  
 West Sacramento ~ CA ~ 95691  
 Phone: 916-372-8124  
 Fax: 916-372-8538  
 Email: matt@morrowssurveying.com  
 www.morrowssurveying.com

DATE: June 2016  
 DATE SURVEYED: 6-30-16 KR  
 SCALE: 1"=40'  
 SHEET 1 OF 1  
 FIELD BOOK:  
 DRAWING NO. : 1873-165  
 DRAWN BY: MM

**BASIS OF COORDINATES & ELEVATIONS:**

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

COORDINATE DATUM IS NAD 83.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

**MONITORING WELL EXHIBIT**

Prepared for:  
**CARDNO**

**160 14th Street**

City of Oakland County of Alameda  
 California

**APPENDIX G**  
**WASTE DISPOSAL DOCUMENTATION**



NON-HAZARDOUS WASTE DATA FORM

BESI # 269479

Generator's Name and Mailing Address: EXXONMOBIL OIL CORPORATION, C/O GARDNO, 601 NORTH MCDOWELL BOULEVARD, PETALUMA, CA 94954  
 Generator's Site Address (if different than mailing address): MOBIL 10MHG (FORMER), 160 14TH STREET, OAKLAND, CA 94612  
 Generator's Phone: 707-786-2000

Container type removed from site:  Drums  Vacuum Truck  Roll-off Truck  Dump Truck  
 Container type transported to receiving facility:  Drums  Vacuum Truck  Roll-off Truck  Dump Truck  
 Quantity: 1  
 Volume: 1 gallon

WASTE DESCRIPTION: NON-HAZARDOUS WASTE LIQUIDS  
 GENERATING PROCESS: DECON WATER

COMPONENTS OF WASTE		PPM	%	COMPONENTS OF WASTE		PPM	%
1.	WATER		95-100%	3.	SOLIDS		0-5%
2.	TPH		≤ 1%	4.			

Waste Profile: PROPERTIES: pH 4-10  SOLID  LIQUID  SLUDGE  SLURRY  OTHER

Generator Printed/Typed Name: Janice Thompson  
 Signature: [Signature]  
 Month Day Year: 06 28 14

The Generator certifies that the waste as described is 100% non-hazardous

Transporter 1 Company Name: BELSHIRE  
 Phone#: 949-480-5200  
 Transporter 1 Printed/Typed Name: Ron Green  
 Signature: [Signature]  
 Month Day Year: 06 28 16

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC.  
 Phone#: 714-990-6855  
 Transporter 2 Printed/Typed Name: Jeff Wynn  
 Signature: [Signature]  
 Month Day Year: 07 20 16

Transporter Acknowledgment of Receipt of Materials

Designated Facility Name and Site Address: DEMENNO KERDOON, 2000 N. ALAMEDA ST., COMPTON, CA 90222  
 Phone#: 310-537-7100

Printed/Typed Name: [Name]  
 Signature: [Signature]  
 Month Day Year: 07 20 16

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

10MHG  
 1378197

# Manifest

## SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: 7/18/16 Responsible for Payment: \_\_\_\_\_ Transport Truck #: 876 1476 Facility #: A07 Approval Number: 46085 Load #: 10011

Generator's Name and Billing Address:  
EXXONMOBIL OIL CORPORATION  
C/O CARDNO  
601 NORTH MCDOWELL BOULEVARD  
PETALUMA, CA 94954

Generator's Phone #: 707-788-2000  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_ Customer Account Number: \_\_\_\_\_

Consultant's Name and Billing Address: \_\_\_\_\_  
Consultant's Phone #: \_\_\_\_\_  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_ Customer Account Number: \_\_\_\_\_

Generation Site (Transport from): (name & address)  
MOBIL 10MHG (FORMER)  
160 14TH STREET  
OAKLAND, CA 94612

Site Phone #: \_\_\_\_\_  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_

Designated Facility (Transport to): (name & address)  
SOIL SAFE  
12328 HIBISCUS AVENUE  
ADELANTO, CA 92301

Facility Phone #: (800) 862-8001  
Person to Contact: JOE PROVANSAL  
FAX#: (760) 246-8004

Transporter Name and Mailing Address:  
BELSHIRE  
25971 TOWNE CENTRE DRIVE  
FOOTHILL RANCH, CA 92610  
BESI: 268479

Transporter's Phone #: 949-460-5200  
Person to Contact: LARRY MOOTHART  
FAX#: 949-460-5210

Customer Account Number: CAR000183813  
450847

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	<u>1 DM</u>	<u>Soil</u>	<u>38840</u>	<u>38300</u>	<u>540</u>
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					<u>.27</u>

List any exception to items listed above: \_\_\_\_\_ Scale Ticket # 126624

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator  Consultant   
On behalf of ExxonMobil  
Janice Robinson

Signature and date: \_\_\_\_\_  
[Signature] 6/28/16

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Ronald Lee  
Rongreen

Signature and date: \_\_\_\_\_  
[Signature] 06/28/16

Discrepancies: \_\_\_\_\_

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. PROVANSAL  
Signature and date: \_\_\_\_\_  
[Signature] 7-18-16

10MHG 11377200