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Alameda County
Environmental Health

May 2, 2012

Ms. Donna Drogos
Alameda County Environmental Health
1131 Harbor Parkway, Suite 250
Oakland, CA 94502-6577

Subject: First Quarter 2012 Monitoring Report
Shore Acres Gas
403 East 12th Street, Oakland, Alameda County, California
RO #0002931
ECG # GHA.19009

Dear Ms. Drogos:

Enclosed please find a copy of the May 2, 2012 First Quarter 2012 Monitoring Report for the above referenced site prepared by our consultant Environmental Compliance Group, LLC.

I declare, under penalty and perjury, that the information and/or recommendations contained in this report are true and correct to the best of my knowledge.

Respectfully,

Rashid Ghafoor

Environmental Compliance Group, LLC

270 Vintage Drive
Turlock, CA 95382
P: 209.664.1035
F: 209.664.1040

FIRST QUARTER 2012 GROUNDWATER MONITORING REPORT

SHORE ACRES GAS
403 EAST 12TH STREET
OAKLAND, CALIFORNIA

Prepared for: Rashid Ghafoor

ECG Project Number: GHA.19009
Alameda County Fuel Leak Case No. RO0002931

May 2, 2012

Drew Van Allen
Senior Project Manager

Michael S. Sgourakis
Principal Geologist
CA P.G. No. 7194

TABLE OF CONTENTS

Figures

Tables

Appendices

INTRODUCTION

Environmental Compliance Group (ECG) has been authorized by Mr. Rashid Ghafoor to provide this interim results report for the site.

This report describes activities conducted during First Quarter 2012 groundwater monitoring event. Site information is as follows:

Site Location:	403 East 12th Street Oakland, California
Geotracker Global ID:	T0600174667

LIMITATIONS

This report has been prepared for use by Rashid Ghafoor and the relevant regulatory agencies. The conclusions in this report are professional opinions based on the data presented in this report. This report was prepared in general accordance with hydrogeologic and engineering methods and standards. No other warranties are made as to the findings or conclusions presented in this report. The work described in this report was performed under the direct supervision of the professional geologist whose signature and State of California registration are shown above.

SITE DESCRIPTION AND HYDROGEOLOGIC CONDITIONS

SITE DESCRIPTION

The site occupies a parcel on the southeast corner of 4th Avenue and East 12th Street in Oakland, Alameda County, California (Figure 1). The site is situated in a commercial and residential area in central Oakland and is currently vacant. The site was historically used as a gasoline station. The area of interest at the site is the former location of three underground storage tanks (USTs) and fuel dispensers where impacted soil and groundwater was first identified in 2006. A detailed site plan is shown on Figure 2.

HYDROGEOLOGIC CONDITIONS

The site is underlain by Quaternary-age dune sand deposits referred to as the Merritt Sand. The Merritt Sand is typically described as loose, well-sorted fine- to medium-grained sand with a large silt component. The sand is reported to reach a maximum depth of 50-feet bgs in the area.

Based on boring logs from the advancement of 11 soil borings and the installation of six monitoring wells and four extraction wells, the stratigraphy of the site and vicinity consists of silt to approximately 30-feet bgs with discontinuous thin intervals of sandy silt and clayey sand present in the area.

Depth to groundwater is shallow, ranging between 10- to 13-feet bgs. The groundwater flow direction appears to be toward the southwest.

CLEANUP CRITERIA

It is prudent to establish cleanup goals for soil and groundwater based upon reaching the residential Environmental Screening Levels (ESLs) established by Region II for sites with shallow soil where groundwater is not a current or potential drinking water source. The primary constituents of concern relative to the site appear to be total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg) benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA). Accordingly, the following cleanup goals are proposed:

Constituent	**Soil (mg/kg)**	**Groundwater (ug/L)**
TPHd	100	210
TPHg	100	210
Benzene	0.12	46
Toluene	9.3	130
Ethylbenzene	2.3	43
Xylenes	11	100
MTBE	8.4	1,800
TBA	100	18,000

PROJECT BACKGROUND

INVESTIGATIONS

In July 2006, Geofon Incorporated (Geofon) advanced soil borings GP-1 and GP-2 and collected and analyzed soil samples. Results are detailed in Geofon's report entitled *Summary of Phase II Assessment Activities,* dated July 25, 2006.

In August 2009, Wright Environmental Services, Inc. (Wright) removed three USTs, associated fuel dispensers, and all associated piping. Results are detailed in Wright's *Closure Report for Three Underground Storage Tanks,* dated September 2009.

In April 2010, Apex Envirotech, Inc. (Apex) advanced nine soil borings to evaluate the lateral extent of impacted soil and groundwater. Results are documented in Apex's *Subsurface Investigation Results Report* dated June 23, 2010.

In June 2011, ECG supervised the installation of six groundwater monitoring wells (MW-1 through MW-6) and two nested extraction well pairs (EW-1s, EW-1d, EW-2s, and EW-2d). Results are documented in ECG's *Interim Results and Second Quarter 2011 Monitoring Report,* dated August 17, 2011.

In December 2011, ECG supervised the advancement of twelve soil borings (SB-10 through SB-21) and two nested extraction well pairs (EW-1s, EW-1d, EW-2s, and EW-2d). Results are documented in ECG's *Off-Site Investigation and Dual Phase Pilot Test Results with Fourth Quarter 2011 Monitoring Report,* dated January 26, 2012.

RISK ASSESSMENTS

In January 2011, ECG conducted a preferential pathway study for the site. Results are detailed in ECG's *Site Assessment and Soil Vapor Extraction Pilot Test Workplan*, dated February 9, 2011.

In January 2011, ECG conducted a sensitive receptor survey for the site. Results are detailed in ECG's *Site Assessment and Soil Vapor Extraction Pilot Test Workplan*, dated February 9, 2011.

A soil vapor survey has not been completed for the site.

CORRECTIVE ACTIONS

In June 2011, ECG supervised the installation of six groundwater monitoring wells (MW-1 through MW-6) and two nested extraction well pairs (EW-1s, EW-1d, EW-2s, and EW-2d). ECG also performed a 5-day dual phase extraction (DPE) test in June 2011. Results are documented in ECG's *Off-Site Investigation and Dual Phase Pilot Test Results with Fourth Quarter 2011 Monitoring Report*, dated January 26, 2012.

FIRST QUARTER 2012 MONITORING EVENT

ECG performed the first quarter 2012 groundwater monitoring and sampling event at the site on March 30, 2012. Gauging, development, purging, and sampling were conducted in accordance with ECG's SOPs included in Appendix A. The collected groundwater samples were submitted to Argon Analytical Services, Inc. located in Ceres, California for laboratory analysis under COC protocols (Appendix B).

The following is a summary of the current status of the groundwater monitoring program at the site:

Current Phase of Project:	Assessment
Groundwater Sampling Schedule:	Quarterly Wells MW-1 through MW-6, EW-1, and EW-2
Analysis:	TPHg and TPHd by EPA Method 8015M, BTEX, 5 oxygenates, and 2 lead scavengers by EPA Method 8260B
Is Free Product Present On-Site:	No

The following is a summary of recent field and analytical data:

Average Depth to Groundwater	8.15-feet below ground surface (bgs)
Average Groundwater Elevation	23.08-feet above mean sea level
Groundwater Gradient Direction	Northeast
Groundwater Gradient	0.014 feet/foot
TPHg Detected Range	9,500 ug/L (MW-6) to 100,000 ug/L (MW-3)
Benzene Detected Range	850 ug/L (MW-2) to 17,000 ug/L (MW-3)
MTBE Detected	56 ug/L (MW-4) to 13,000 (MW-3)

Groundwater samples were not collected from well MW-2 due to the presence of free product and samples were not collected from well MW-1 because the well was inaccessible. Laboratory

analytical reports and COCs are provided in Appendix B. Field notes are located in Appendix C. Summaries of groundwater monitoring and analytical data are presented in Tables 4a and 4b.

RESULTS AND CONCLUSIONS

Groundwater flow is towards the northeast during this event which disagrees with the contaminant distribution in soil and groundwater (Figure 3).
Based on the high groundwater and soil concentrations reported at the site, ECG recommends preparing a Feasibility Study and Remedial Action Plan detailing the DPE treatment system appropriate to reduce site conditions to below Region II ESLs in a reasonable amount of time.

FIGURES

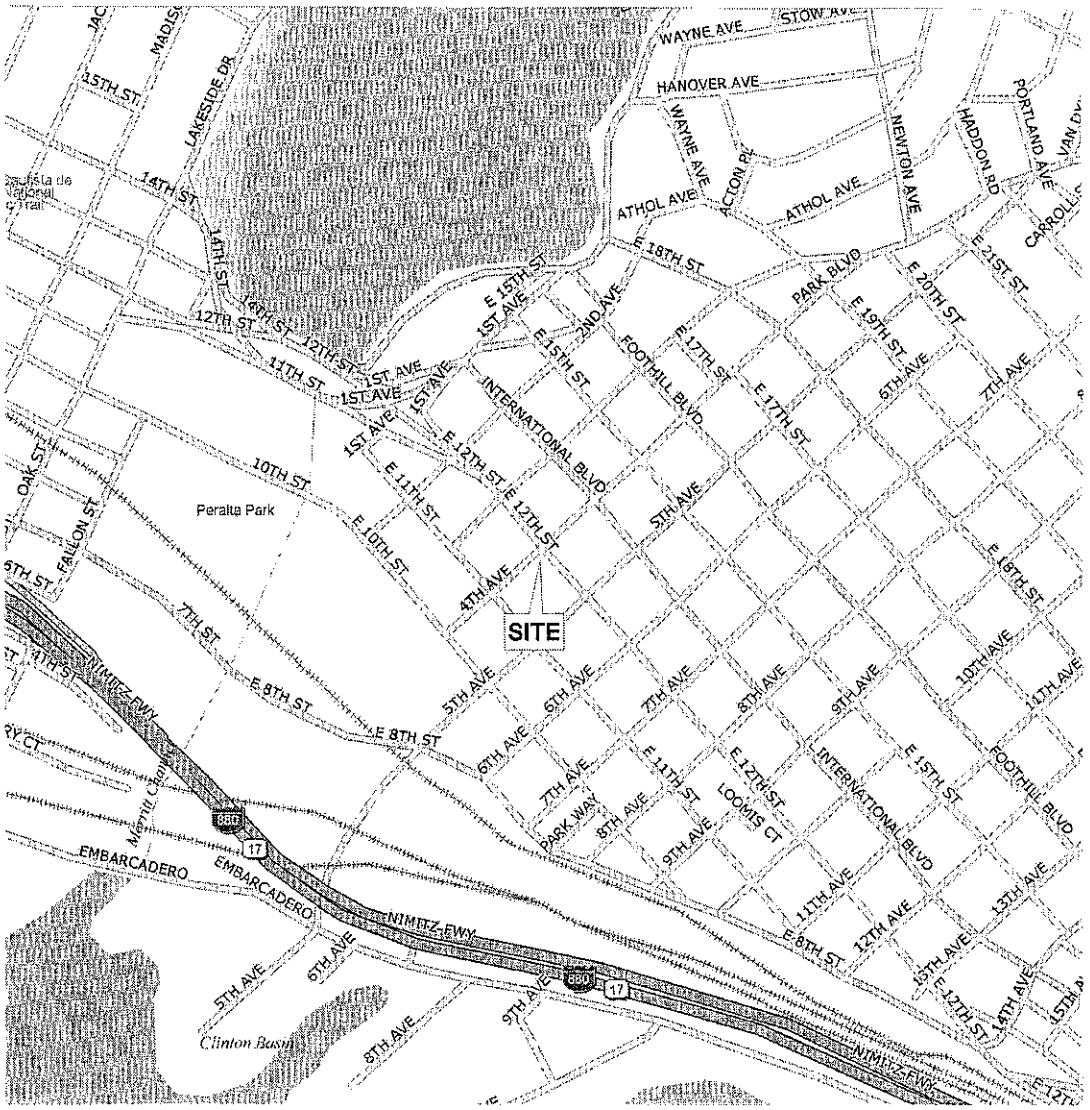


FIGURE 1	SITE LOCATION MAP	Environmental Compliance Group, LLC
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Date: February 9, 2011		

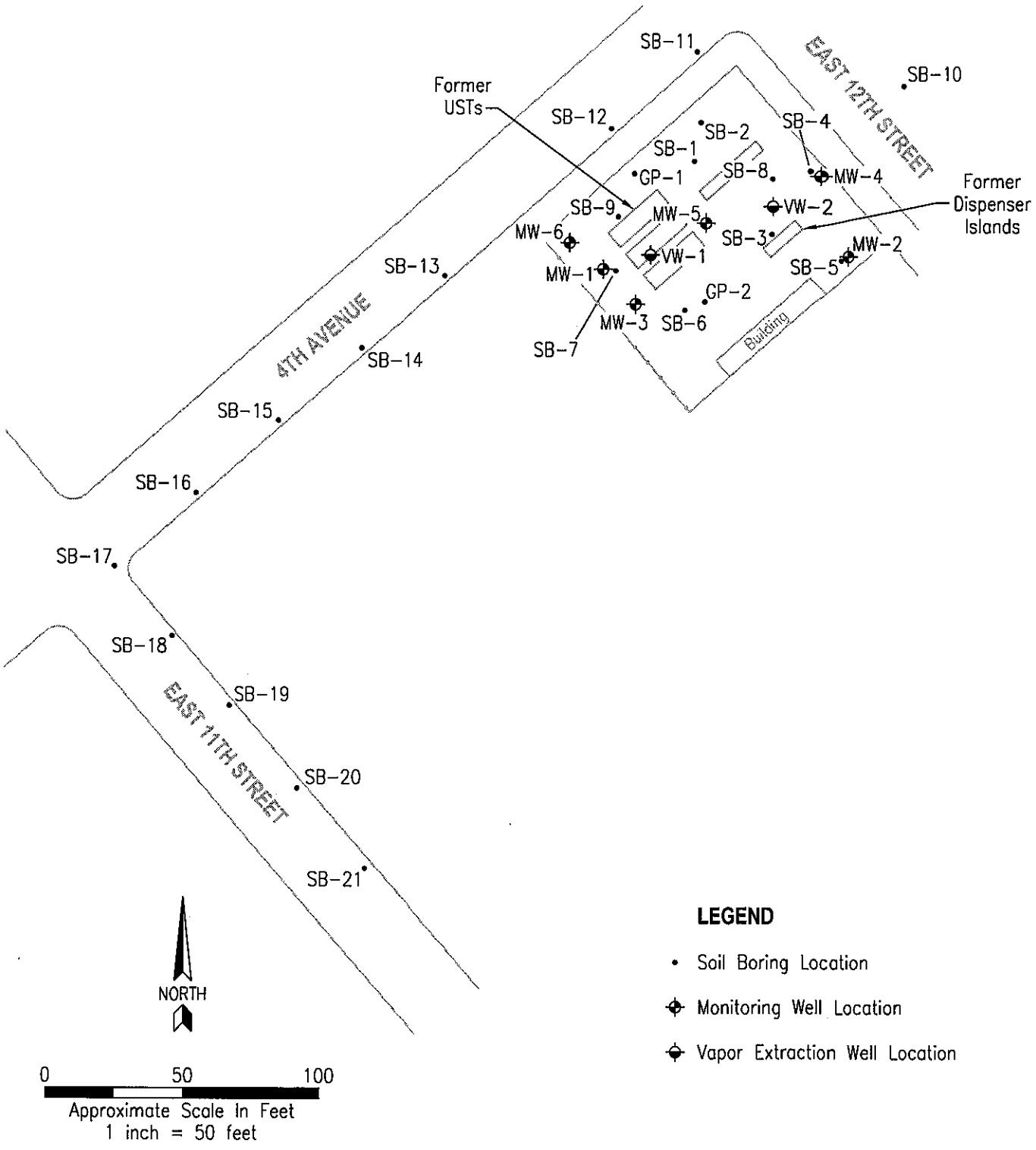
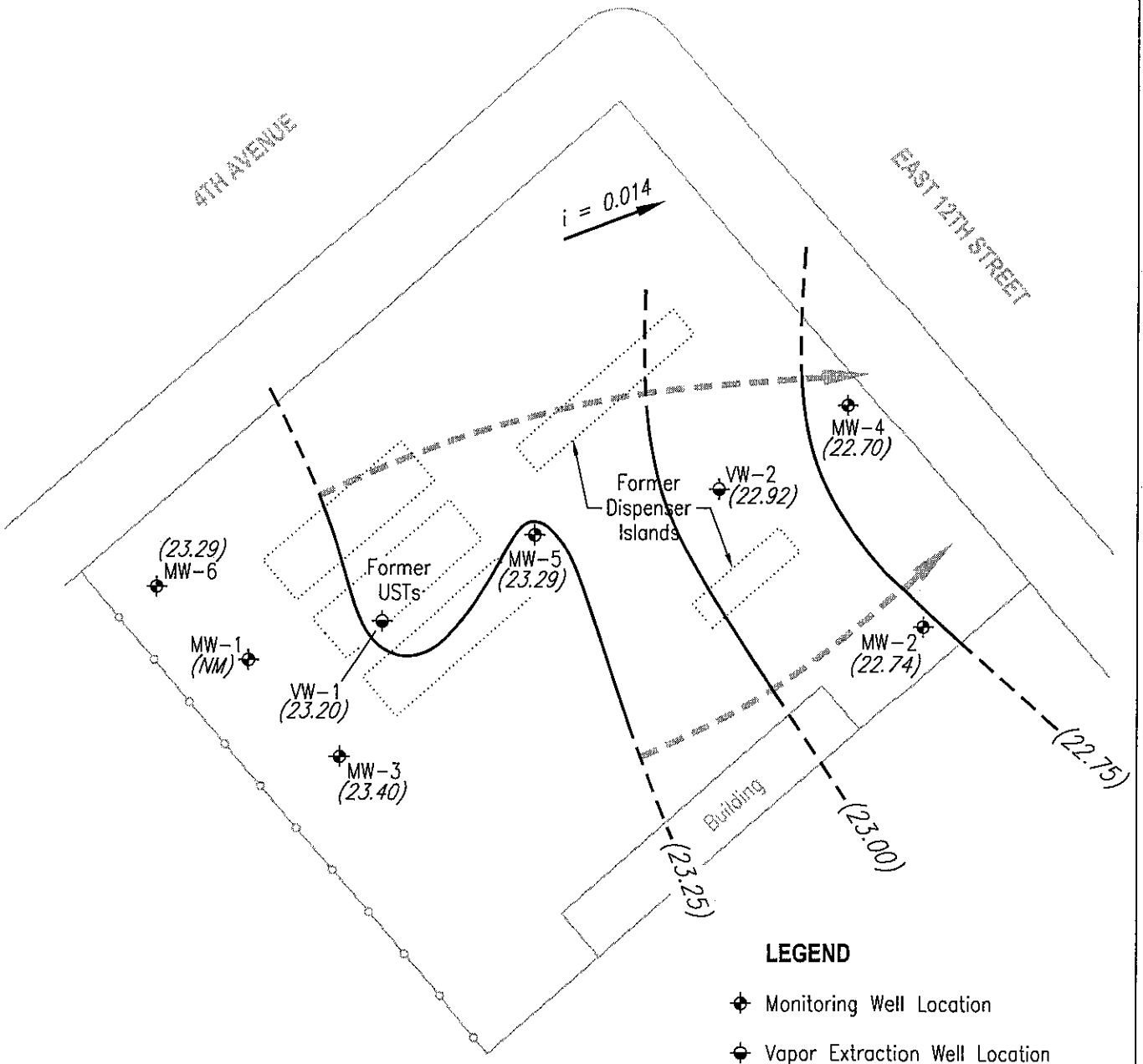


FIGURE 2	**SITE MAP**	**Environmental Compliance Group, LLC**
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Date: January 4, 2012		



LEGEND

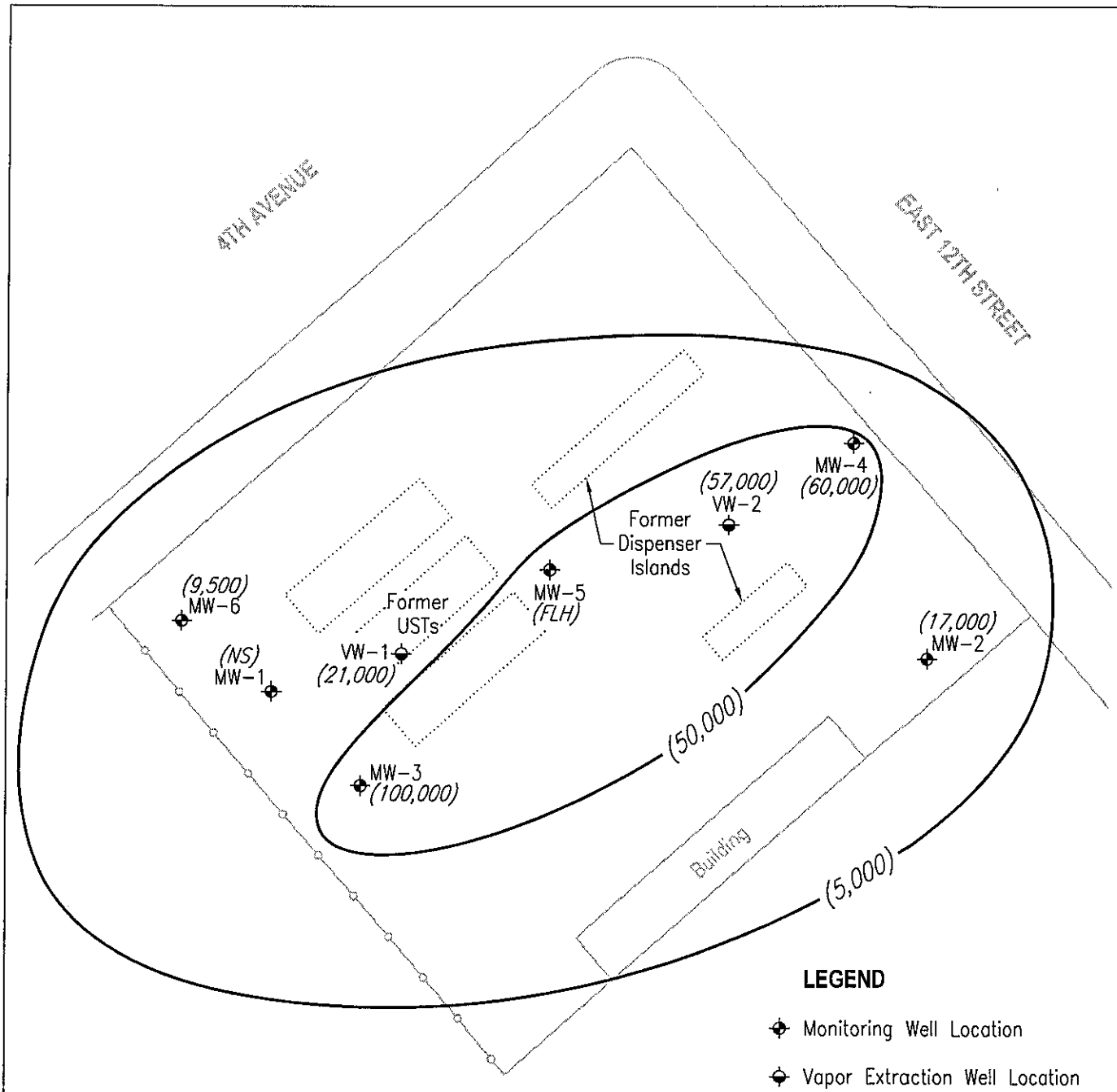
- Monitoring Well Location
- Vapor Extraction Well Location
- (23.40) Elevation Of Groundwater Measured In Feet Above Mean Sea Level
- (23.25) Lines Of Equipotential Measured In Feet Above Mean Sea Level (Dashed Where Inferred)
- Flow Lines
- i = 0.014 General Gradient
- (NM) Not Measured

NORTH

0 20 40

Approximate Scale In Feet
1 inch = 20 feet

FIGURE 3 **Project Number:** GHA.19009 **Date:** April 30, 2012	**POTENTIOMETRIC SURFACE MAP** **MARCH 30, 2012** Shore Acre Gas 403 East 12th Street Oakland, California	**Environmental Compliance Group, LLC** 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035



LEGEND

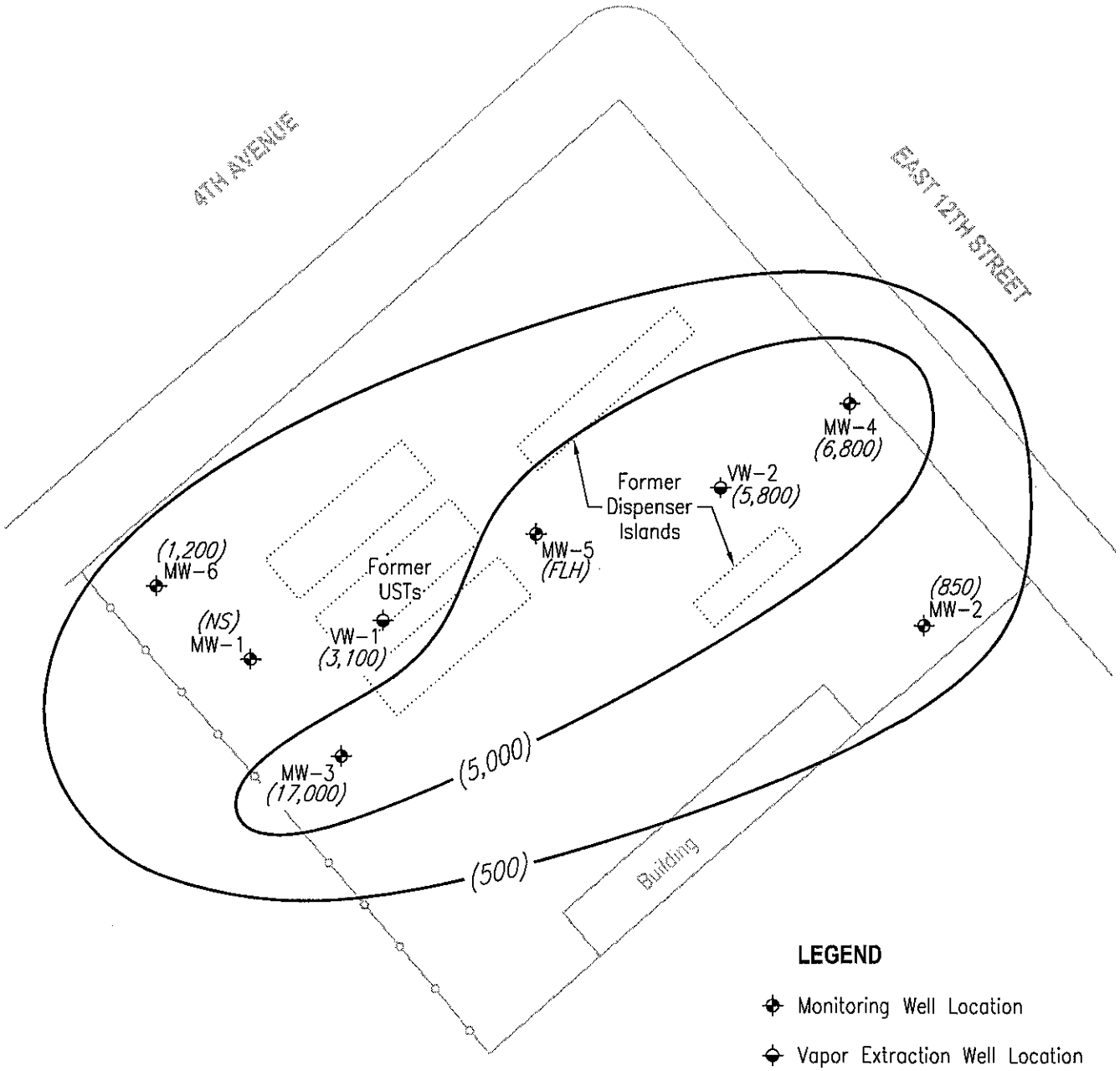
- Monitoring Well Location
- Vapor Extraction Well Location
- (100,000) Concentration Of TPHg In Groundwater Measured In ug/L
- (50,000) Line Of Equal Concentration Of TPHg In Groundwater Measured In ug/L (Dashed Where Inferred)
- (NS) Not Sampled
- (FLH) Floating Liquid Hydrocarbons

NORTH

0 20 40

Approximate Scale In Feet
1 inch = 20 feet

FIGURE 4	**TPHg IN GROUNDWATER ISOCONCENTRATION MAP MARCH 30, 2012**	**Environmental Compliance Group, LLC**
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Date: April 30, 2012		



LEGEND

- Monitoring Well Location
- Vapor Extraction Well Location
- (17,000) Concentration Of Benzene In Groundwater Measured In ug/L
- (5,000) Line Of Equal Concentration Of Benzene In Groundwater Measured In ug/L (Dashed Where Inferred)
- (NS) Not Sampled
- (FLH) Floating Liquid Hydrocarbons

NORTH

0 20 40

Approximate Scale In Feet
1 inch = 20 feet

FIGURE 5	**BENZENE IN GROUNDWATER ISOCONCENTRATION MAP MARCH 30, 2012**	**Environmental Compliance Group, LLC**
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Date: April 30, 2012		

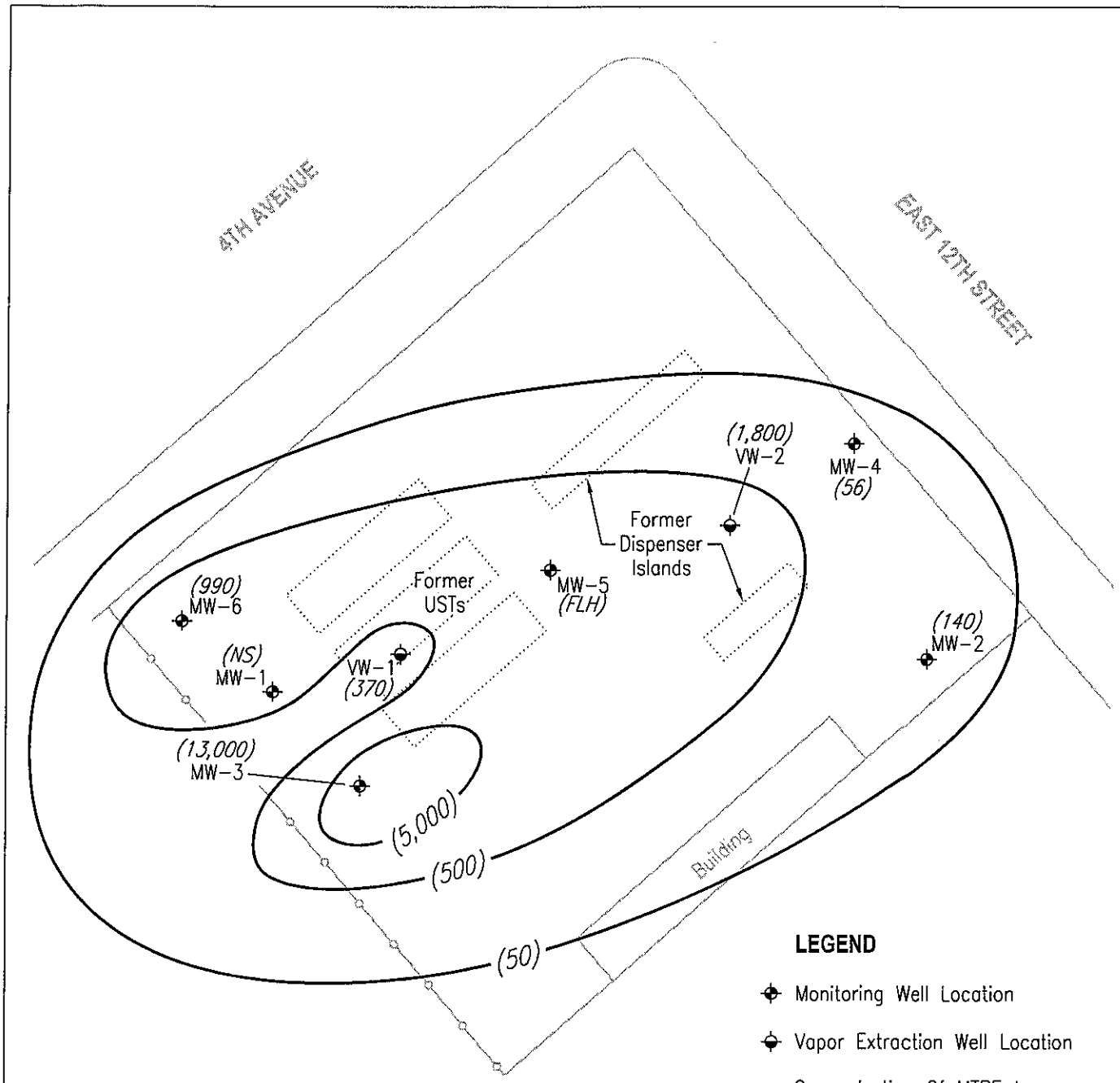


FIGURE 6 **Project Number:** GHA.19009 **Date:** April 30, 2012	**MTBE IN GROUNDWATER ISOCONCENTRATION MAP** **MARCH 30, 2012** Shore Acre Gas 403 East 12th Street Oakland, California	**Environmental Compliance Group, LLC** 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035

TABLES

Table 1
Well Construction Details
Shore Acres Gas
403 East 12th Street
Oakland, California

Well ID	Date Installed	TOC Elevation (ft amsl)	Well Depth (ft bgs)	Casing Diameter (inches)	Casing Material	Screen/ Filter	Screen Interval (ft bgs)
Monitoring Wells							
MW-1	June 2011	30.81	20	2	PVC	0.020/#3	10-20
MW-2		31.29	20	2	PVC	0.020/#3	10-20
MW-3		31.30	18	2	PVC	0.020/#3	8-18
MW-4		31.21	19	2	PVC	0.020/#3	9-19
MW-5		31.35	20	2	PVC	0.020/#3	10-20
MW-6		30.79	20	2	PVC	0.020/#3	10-20
Dual Phase Extraction Wells							
VW-1	June 2011	31.26	20	4	PVC	0.020/#3	5-20
VW-2		31.40	20	4	PVC	0.020/#3	5-20

Notes:

TOC - denotes top of casing
ft - denotes feet
amsl - denotes above mean sea level
bgs - denotes below ground surface
PVC - denotes polyvinyl chloride

Table 2a
Historical Soil Analytical Data
TPH and BTEX
Shore Acres Gas
403 East 12th Street
Oakland, California

Boring ID	Sample Depth (feet)	Collection Date	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total xylenes (mg/kg)
UST Removal Samples								
SS-D1	2	August 2009	**1,800***	**3,000**	<0.25	**0.34**	**39**	**180**
SS-D2	2		**900***	**2,400**	<0.25	<0.25	**36**	**120**
SS-D3	2		**460***	**1,000**	<0.15	<0.15	**12**	**14**
SS-D4	2		**540***	**640**	<0.090	**1.0**	**6.1**	**51**
SS-D5	2		**320**	**140**	<0.025	<0.025	**1.3**	**3.2**
SS-D6	2.0		**320***	**260**	<0.025	**0.054**	**1.0**	**8.0**
SS-J1	2.0		**39***	**160**	<0.025	<0.025	**0.71**	**0.94**
SS-Isle	4.0		**560***	**100**	<0.025	<0.025	**0.30**	**0.084**
SS-7	18.0		**310***	**1,600**	**6.9**	**76**	**39**	**200**
Tank 1-SS-1	14.0		**830***	**2,500**	**4.2**	**100**	**69**	**360**
Tank 1-SS-2	14.0		**62***	**480**	**1.8**	**5.3**	**14**	**62**
Tank 2-SS-1	14.0		**120***	**290**	**0.37**	**2.4**	**6.3**	**31**
Tank 2-SS-2	14.0		**330***	**80**	**0.074**	**0.051**	**1.2**	**5.8**
Tank 3-SS-1	14.0		**480***	**2,100**	**2.4**	**41**	**62**	**320**
Tank 3-SS-2	14.0		**75***	**130**	**0.23**	**0.26**	**3.1**	**15**
Soil Borings								
GP-1-15.5	15.5	July 2006	**13.0**	**18.0**	**0.63**	**0.052**	**0.69**	**0.13**
GP-1-18.0	18.0		<1.0	<1.0	**0.0056**	**0.0082**	<0.005	**0.019**
GP-2-12.0	12.0		**600**	**3,600**	**17**	**180**	**98**	**440**
GP-2-20.0	20.0		**79**	**1,100**	**3.2**	**41**	**25**	**130**
SB-1-9.5	9.5	April 2010	---	**1,600**	**5.1**	**43**	**30**	**180**
SB-1-24.5	24.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-1-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-2-9.5	9.5		---	**2.2**	**0.26**	**<0.010**	**0.066**	<0.020
SB-2-24.5	24.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-2-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-3-14.5	14.5		---	**17**	**17**	**100**	**42**	**240**
SB-3-24.5	24.5		---	<1.0	<0.005	**0.005**	<0.005	**0.013**
SB-3-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-4-14.5	14.5		---	**1,700**	**13**	**79**	**28**	**170**
SB-4-19.5	19.5		---	<1.0	<0.005	0.009	<0.005	**0.026**
SB-4-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-5-14.5	14.5		---	**470**	<0.20	**0.45**	**6.2**	**37**
SB-5-24.5	24.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-5-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-6-9.5	9.5		---	**6,100**	**21**	**170**	**95**	**580**
SB-6-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-6-32	32.0		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-7-9.5	9.5		---	**4,000**	**12**	**46**	**55**	**360**
SB-7-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-7-32	32.0		---	<1.0	<0.005	<0.005	<0.005	<0.010

Table 2a
Historical Soil Analytical Data
TPH and BTEX
Shore Acres Gas
403 East 12th Street
Oakland, California

Boring ID	Sample Depth (feet)	Collection Date	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total xylenes (mg/kg)
SB-8-9.5	9.5	April 2010	---	**2,500**	**16**	**110**	**63**	**370**
SB-8-24.5	24.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-8-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-9-14.5	14.5		---	**390**	**3.0**	**3.0**	**9.1**	**41**
SB-9-29.5	29.5		---	<1.0	<0.005	<0.005	<0.005	<0.010
SB-9-32	32.0		---	<1.0	<0.005	<0.005	<0.005	<0.010
Groundwater Wells								
MW-1-5	5	June 2011	<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-1-15	15		<5.0	**18**	**0.55**	<0.050	**0.87**	**1.2**
MW-1-20	20		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-2-5	5		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-2-10	10		<5.0	**69**	<0.005	<0.005	<0.005	<0.010
MW-2-15	15		<5.0	**50**	<0.050	**0.48**	**3.1**	**19**
MW-2-20	20		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-3-5	5		<5.0	<1.0	<0.010	<0.010	<0.010	<0.020
MW-3-10	10		<15	**840**	**3.4**	**33**	**20**	**140**
MW-3-15	15		<5.0	**380**	**3.0**	**4.5**	**7.3**	**41**
MW-3-20	20		<5.0	<1.0	**0.019**	<0.005	**0.006**	<0.010
MW-4-5	5		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-4-10	10		<15	**420**	**1.7**	**2.6**	**9.2**	**51**
MW-4-15	15		<5.0	**3.1**	**0.036**	**0.20**	**0.15**	**0.95**
MW-4-20	20		<5.0	<1.0	**0.007**	**0.017**	**0.010**	**0.039**
MW-5-5	5		<5.0	**76**	<0.10	<0.10	**1.3**	**0.76**
MW-5-10	10		<15	**3,200**	**4.6**	**6.5**	**72**	**410**
MW-5-15	15		<5.0	**600**	**1.3**	**13**	**15**	**110**
MW-6-5	5		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-6-10	10		<5.0	**5.1**	**0.015**	<0.010	**3.4**	**1.0**
MW-6-15	15		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
MW-6-20	20		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
VW-1-5	5		<5.0	**34**	<0.005	<0.005	**0.16**	**0.31**
VW-1-10	10		<15	**85**	<0.10	<0.10	**2.2**	**0.89**
VW-1-15	15		<15	**420**	**2.1**	**4.1**	**9.4**	**55**
VW-1-20	20		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
VW-2-5	5		<5.0	<1.0	<0.005	<0.005	<0.005	<0.010
VW-2-10	10		<5.0	**130**	<0.10	<0.10	**2.9**	**15**
VW-2-15	15		<15	**5,500**	**29**	**430**	**120**	**910**
VW-2-20	20		<5.0	<1.0	**0.14**	**0.054**	**0.025**	**0.14**

Notes:

TPHd - denotes total petroleum hydrocarbons as diesel
TPHg - denotes total petroleum hydrocarbons as gasoline
mg/kg - denotes milligrams per kilogram
< - denotes less than the detection limit
--- denotes no data

Table 2b
Historical Soil Analytical Data
Oxygenates and Lead Scavengers
Shore Acres Gas
403 East 12th Street
Oakland, California

Boring ID	Sample Depth (feet)	Collection Date	DIPE (mg/kg)	ETBE (mg/kg)	MTBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
UST Removal Samples									
SS-D1	2	August 2009	<0.25	<0.25	<0.25	<0.25	<1.5	---	---
SS-D2	2		<0.25	<0.25	<0.25	<0.25	<1.5	---	---
SS-D3	2		<0.15	<0.15	<0.15	<0.15	<0.70	---	---
SS-D4	2		<0.090	<0.090	<0.090	<0.090	<0.50	---	---
SS-D5	2		<0.025	<0.025	<0.025	<0.025	<0.15	---	---
SS-D6	2		<0.025	<0.025	<0.025	<0.025	<0.15	---	---
SS-J1	2		<0.025	<0.025	<0.025	<0.025	<0.15	---	---
SS-Isle	4		<0.025	<0.025	<0.025	<0.025	<0.15	---	---
SS-7	18		<0.25	<0.25	<0.25	<0.25	<1.5	<0.25	<0.25
Tank 1-SS-1	14		<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50
Tank 1-SS-2	14		<0.040	<0.040	**0.37**	<0.040	**0.51**	<0.040	<0.040
Tank 2-SS-1	14		<0.050	<0.050	**0.18**	<0.050	**0.35**	<0.050	<0.050
Tank 2-SS-2	14		<0.025	<0.025	**0.090**	<0.025	**0.16**	<0.025	<0.025
Tank 3-SS-1	14		<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50
Tank 3-SS-2	14		<0.025	<0.025	**0.19**	<0.025	**0.15**	<0.025	<0.025
Soil Borings									
GP-1-15.5	15.5	July 2006	<0.005	<0.005	**0.029**	<0.005	**0.27**	---	---
GP-1-18.0	18.0		<0.005	<0.005	**0.54**	<0.005	**0.33**	---	---
GP-2-12.0	12.0		<0.50	<0.50	<0.50	<0.50	<2.5	---	---
GP-2-20.0	20.0		<0.025	<0.025	**0.041**	<0.025	<0.15	---	---
SB-1-9.5	9.5	April 2010	<0.80	<0.80	<0.80	<0.80	<8.0	<0.80	<0.80
SB-1-24.5	24.5		<0.005	<0.005	**0.11**	<0.005	<0.050	<0.005	<0.005
SB-1-29.5	29.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-2-9.5	9.5		<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010
SB-2-24.5	24.5		<0.005	<0.005	**0.053**	<0.005	<0.050	<0.005	<0.005
SB-2-29.5	29.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-3-14.5	14.5		<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
SB-3-24.5	24.5		<0.005	<0.005	**0.10**	<0.005	<0.050	<0.005	<0.005
SB-3-29.5	29.5		<0.005	<0.005	**0.010**	<0.005	<0.050	<0.005	<0.005
SB-4-14.5	14.5		<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
SB-4-19.5	19.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-4-29.5	29.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-5-14.5	14.5		<0.20	<0.20	<0.20	<0.20	<2.0	<0.20	<0.20
SB-5-24.5	24.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-5-29.5	29.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-6-9.5	9.5		<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
SB-6-29.5	29.5		<0.005	<0.005	**0.20**	<0.005	<0.050	<0.005	<0.005
SB-6-32	32.0		<0.005	<0.005	**0.18**	<0.005	<0.050	<0.005	<0.005
SB-7-9.5	9.5		<1.0	<1.0	**4.0**	<1.0	<10	<1.0	<1.0
SB-7-29.5	29.5		<0.005	<0.005	**0.18**	<0.005	<0.050	<0.005	<0.005
SB-7-32	32.0		<0.005	<0.005	**0.11**	<0.005	<0.050	<0.005	<0.005

Table 2b
Historical Soil Analytical Data
Oxygenates and Lead Scavengers
Shore Acres Gas
403 East 12th Street
Oakland, California

Boring ID	Sample Depth (feet)	Collection Date	DIPE (mg/kg)	ETBE (mg/kg)	MTBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
SB-8-9.5	9.5	April 2010	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
SB-8-24.5	24.5		<0.005	<0.005	**0.033**	<0.005	<0.050	<0.005	<0.005
SB-8-29.5	29.5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
SB-9-14.5	14.5		<0.20	<0.20	**5.5**	<0.20	<2.0	<0.20	<0.20
SB-9-29.5	29.5		<0.005	<0.005	**0.090**	<0.005	**0.15**	<0.005	<0.005
SB-9-32	32.0		<0.005	<0.005	**0.11**	<0.005	<0.050	<0.005	<0.005
Groundwater Wells									
MW-1-5	5	June 2011	<0.005	<0.005	**0.35**	<0.005	**0.093**	<0.005	<0.005
MW-1-15	15		<0.050	<0.050	**1.1**	<0.050	<0.50	<0.050	<0.050
MW-1-20	20		<0.005	<0.005	**0.31**	<0.005	**0.58**	<0.005	<0.005
MW-2-5	5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
MW-2-10	10		<0.050	<0.050	<0.050	<0.050	<0.50	<0.050	<0.050
MW-2-15	15		<0.050	<0.050	<0.050	<0.050	<0.50	<0.050	<0.050
MW-2-20	20		<0.005	<0.005	**0.006**	<0.005	<0.050	<0.005	<0.005
MW-3-5	5		<0.010	<0.010	**1.5**	<0.010	**0.37**	<0.010	<0.010
MW-3-10	10		<0.80	<0.80	**1.3**	<0.80	<8.0	<0.80	<0.80
MW-3-15	15		<0.20	<0.20	**3.0**	<0.20	<2.0	<0.20	<0.20
MW-3-20	20		<0.005	<0.005	**0.036**	<0.005	**0.16**	<0.005	<0.005
MW-4-5	5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
MW-4-10	10		<0.40	<0.40	<0.40	<0.40	<4.0	<0.40	<0.40
MW-4-15	15		<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010
MW-4-20	20		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
MW-5-5	5		<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10
MW-5-10	10		<4.0	<4.0	<4.0	<4.0	<40	<4.0	<4.0
MW-5-15	15		<0.40	<0.40	<0.40	<0.40	<4.0	<0.40	<0.40
MW-6-5	5		<0.005	<0.005	<0.005	<0.005	<0.050	<0.005	<0.005
MW-6-10	10		<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010
MW-6-15	15		<0.005	<0.005	**0.026**	<0.005	**0.088**	<0.005	<0.005
MW-6-20	20		<0.005	<0.005	**0.010**	<0.005	**0.37**	<0.005	<0.005
VW-1-5	5		<0.050	<0.050	<0.050	<0.050	<0.50	<0.050	<0.050
VW-1-10	10		<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10
VW-1-15	15		<0.40	<0.40	**0.59**	<0.40	<4.0	<0.40	<0.40
VW-1-20	20		<0.005	<0.005	**0.009**	<0.005	**0.16**	<0.005	<0.005
VW-2-5	5		<0.005	<0.005	**0.25**	<0.005	**0.14**	<0.005	<0.005
VW-2-10	10		<0.10	<0.10	**0.33**	<0.10	<1.0	<0.10	<0.10
VW-2-15	15		<4.0	<4.0	<4.0	<4.0	<40	<4.0	<4.0
VW-2-20	20		<0.005	<0.005	**0.008**	<0.005	**0.26**	<0.005	<0.005

Notes:

mg/kg - denotes milligrams per kilogram
< - denotes less than the detection limi
--- - denotes not analyzed/applicable
DCA - denotes dichloroethane
EDB - denotes ethylene dibromide
MTBE - denotes methyl tertiary butyl ether
DIPE - denotes di-isopropyl ether
ETBE - denotes ethyl tertiary butyl ether
TAME - denotes tertiary amyl ether
TBA - denotes tertiary butyl alcohol

Table 3a
Grab Groundwater Sample Results
TPH and BTEX
Shore Acres Gas
403 East 12th Street
Oakland, California

Sample ID	Collection Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
Excavation							
Pit Sample 1	August 2009	**21,000**	**21,000**	**3,800**	**1,000**	**1,200**	**3,700**
Direct Push Grab Groundwater Samples							
SB-1	April 2010	---	**60**	**2.9**	**6.7**	**2.1**	**9.7**
SB-2		---	<50	<0.5	<0.5	<0.5	<1.0
SB-3		---	**170**	**1.5**	**11**	**4.8**	**27**
SB-4		---	**6,500**	**78**	**440**	**190**	**960**
SB-5		---	<50	<0.5	<0.5	<0.5	<1.0
SB-6		---	**440**	<20	<20	<20	<40
SB-7		---	**270**	<12	<12	<12	<25
SB-8		---	<50	**0.6**	**1.3**	**0.6**	**3.3**
SB-9		---	<50	<10	<10	<10	<20
SB-10	Dec-11	---	<50	<0.5	<0.5	<0.5	<1.0
SB-11		---	**2,300**	**83**	**1.9**	**140**	**43**
SB-12		---	**4,700**	**620**	**290**	**84**	**400**
SB-13		---	**400**	**51**	**2.4**	**4.2**	**9.7**
SB-14		---	<50	**1.7**	<0.5	**2.1**	<1.0
SB-15		---	**320**	**32**	**0.7**	**33**	**25**
SB-16		---	**4,800**	**1,600**	**10**	**49**	<20
SB-17		---	**990**	**290**	**7.2**	**27**	**4.3**
SB-18		---	**560**	**8.7**	**4.9**	**23**	**83**
SB-19		---	**260**	**7.1**	<0.5	**16**	**7.0**
SB-21		---	<50	<0.5	<0.5	<0.5	<1.0

Notes:

TPHd - denotes total petroleum hydrocarbons as diesel

TPHg - denotes total petroleum hydrocarbons as gasoline

ug/L - denotes micrograms per liter

< - denotes less than the detection limit

---- - denotes not analyzed/applicable

Table 3b
Grab Groundwater Sample Results
Oxygenates and Lead Scavengers
Shore Acres Gas
403 East 12th Street
Oakland, California

Sample ID	Collection Date	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)
Excavation								
Water	February 2000	<10	<10	**15,000**	**39**	**17,000**	<10	<10
Direct Push Grab Groundwater Samples								
SB-1	April 2010	<0.5	<0.5	**14**	<0.5	<5.0	<0.5	<0.5
SB-2		<0.5	<0.5	**45**	<0.5	<5.0	<0.5	<0.5
SB-3		<0.5	<0.5	**110**	<0.5	**32**	<0.5	<0.5
SB-4		<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0
SB-5		<0.5	<0.5	**0.6**	<0.5	<5.0	<0.5	<0.5
SB-6		<20	<20	**4,000**	<20	<200	<20	<20
SB-7		<12	<12	**2,500**	<12	<120	<12	<12
SB-8		<0.5	<0.5	**26**	<0.5	**98**	<0.5	<0.5
SB-9		<10	<10	**1,800**	<10	**5,300**	<10	<10
SB-10	Dec-11	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-11		<1.0	<1.0	**22**	<1.0	**140**	<1.0	<1.0
SB-12		<5.0	<5.0	**100**	<5.0	**550**	<5.0	<5.0
SB-13		<2.0	<2.0	**39**	<2.0	**3,900**	<2.0	<2.0
SB-14		<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-15		<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-16		<10	<10	<10	<10	<100	<10	<10
SB-17		<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
SB-18		<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-19		<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-21		<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5

Notes:

ug/L - denotes micrograms per liter
< - denotes less than the detection limit
DCA - denotes dichloroethane
EDB - denotes ethylene dibromide
MTBE - denotes methyl tertiary butyl ether
DIPE - denotes di-isopropyl ether
ETBE - denotes ethyl tertiary butyl ether
TAME - denotes tertiary amyl ether
TBA - denotes tertiary butyl alcohol

Table 4a
Monitoring Well Data
Water Level, TPH, and BTEX
Shore Acres Gas
403 East 12th Street
Oakland, California

Well ID TOC	Date Measured	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft amsl)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
Monitoring Wells									
MW-1	6/23/2011	10.46	20.35	<250	23,000	4,500	820	1,700	3,800
	9/22/2011	12.13	18.68	<50	21,000	4,000	1,500	980	3,000
	12/11/2011	11.69	19.12	---	23,000	2,900	1,000	720	3,000
	3/30/2012	Inaccessible							
MW-2	6/23/2011	10.70	20.59	<250	13,000	1,000	160	370	1,600
	9/22/2011	12.42	18.87	<50	12,000	300	130	470	1,400
	12/11/2011	11.98	19.31	---	8,300	170	120	450	1,500
	3/30/2012	8.55	22.74	<250	**17,000**	**850**	**700**	**710**	**2,900**
MW-3	6/23/2011	10.79	20.51	<250	55,000	15,000	3,600	2,000	4,300
	9/22/2011	12.60	18.70	<250	77,000	15,000	3,900	1,700	4,900
	12/11/2011	12.13	19.17	---	64,000	12,000	3,100	1,600	4,500
	3/30/2012	7.90	23.40	<120	**100,000**	**17,000**	**10,000**	**2,000**	**8,400**
MW-4	6/23/2011	10.62	20.59	<250	47,000	3,500	7,100	2,300	11,000
	9/22/2011	12.25	18.96	<250	46,000	2,000	2,400	1,100	5,300
	12/11/2011	11.89	19.32	---	46,000	2,100	3,400	1,800	7,000
	3/30/2012	8.51	22.70	<250	**60,000**	**6,800**	**8,200**	**1,200**	**5,700**
MW-5	6/23/2011	10.12	21.23	<250	130,000	7,100	25,000	13,000	94,000
	9/22/2011	12.53	18.82	<250	120,000	6,900	7,600	3,800	17,000
	12/11/2011	12.09	19.26	---	110,000	7,800	14,000	4,200	20,000
	3/30/2012	8.06	23.29	Sheen - not sampled					
MW-6	6/23/2011	10.43	20.36	<250	11,000	2,400	120	480	840
	9/22/2011	12.10	18.69	<50	15,000	1,500	270	880	2,500
	12/11/2011	11.69	19.10	---	13,000	660	190	610	1,500
	3/30/2012	7.50	23.29	<250	**9,500**	**1,200**	**160**	**250**	**520**
DPE Wells									
VW-1	6/28/2011	---	---	---	20,000	2,000	490	1,000	2,400
	9/22/2011	12.55	18.71	<120	39,000	3,900	610	1,400	4,600
	12/11/2011	12.09	19.17	---	27,000	2,600	270	1,400	4,400
	3/30/2012	8.06	23.20	<120	**21,000**	**3,100**	**160**	**910**	**2,300**
VW-2	6/28/2011	---	---	---	33,000	3,100	2,000	790	3,500
	9/22/2011	12.50	18.90	<250	66,000	2,400	4,500	2,000	11,000
	12/11/2011	12.12	19.28	---	70,000	2,800	6,900	2,700	13,000
	3/30/2012	8.48	22.92	<250	**57,000**	**5,800**	**5,500**	**1,200**	**5,400**

Table 4a
Monitoring Well Data
Water Level, TPH, and BTEX
Shore Acres Gas
403 East 12th Street
Oakland, California

Well ID TOC	Date Measured	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft amsl)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)

Notes:
TOC - denotes top of casing elevation
TPHg - denotes total petroleum hydrocarbons as gasoline
TPHd - denotes total petroleum hydrocarbons as diesel
ft bgs - denotes feet below top of casing
ft amsl - denotes feet above mean sea level
ug/L - denotes micrograms per liter
< - denotes less than the detection limit
--- - denotes not available/applicable
FLH - denotes floating liquid hydrocarbons
* - denotes less than six inches of water and considered dry

Table 4b
Monitoring Well Data
Oxygenates and Lead Scavengers
Shore Acres Gas
403 East 12th Street
Oakland, California

Well ID TOC	Date Measured	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)
Monitoring Wells								
MW-1	6/23/2011	<25	<25	3,000	<25	3,900	<25	<25
	9/22/2011	<50	<50	2,600	<50	2,500	<50	<50
	12/11/2011	<20	<20	1,800	<20	1,600	<20	<20
	3/30/2012	Inaccessible						
MW-2	6/23/2011	<10	<10	240	<10	640	<10	<10
	9/22/2011	<5.0	<5.0	110	<5.0	260	<5.0	<5.0
	12/11/2011	<2.5	<2.5	45	<2.5	110	<2.5	<2.5
	3/30/2012	<5.0	<5.0	**140**	<5.0	**490**	<5.0	<5.0
MW-3	6/23/2011	<100	<100	8,200	<100	6,400	<100	<100
	9/22/2011	<100	<100	11,000	<100	2,800	<100	<100
	12/11/2011	<100	<100	7,400	<100	1,800	<100	<100
	3/30/2012	<100	<100	**13,000**	<100	<1,000	<100	<100
MW-4	6/23/2011	<50	<50	<50	<50	<500	<50	<50
	9/22/2011	<25	<25	<25	<25	<250	<25	<25
	12/11/2011	<25	<25	<25	<25	<250	<25	<25
	3/30/2012	<50	<50	**56**	<50	<500	<50	<50
MW-5	6/23/2011	<120	<120	440	<120	<1,200	<120	<120
	9/22/2011	<50	<50	670	<50	1,500	<50	<50
	12/11/2011	<120	<120	690	<120	1,600	<120	<120
	3/30/2012	Sheen - not sampled						
MW-6	6/23/2011	<25	<25	1,100	<25	4,000	<25	<25
	9/22/2011	<12	<12	600	<12	2,800	<12	<12
	12/11/2011	<10	<10	290	<10	1,300	<10	<10
	3/30/2012	<10	<10	**990**	<10	**3,500**	<10	<10

Table 4b
Monitoring Well Data
Oxygenates and Lead Scavengers
Shore Acres Gas
403 East 12th Street
Oakland, California

Well ID TOC	Date Measured	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)
DPE Wells								
VW-1	6/28/2011	<25	<25	1,500	<25	5,300	<25	<25
	9/22/2011	<50	<50	640	<50	1,800	<50	<50
	12/11/2011	<25	<25	490	<25	1,000	<25	<25
	3/30/2012	<20	<20	**370**	<20	**1,100**	<20	<20
VW-2	6/28/2011	<25	<25	670	<25	4,100	<25	<25
	9/22/2011	<50	<50	740	<50	1,600	<50	<50
	12/11/2011	<50	<50	540	<50	880	<50	<50
	3/30/2012	<50	<50	**1,800**	<50	**2,800**	<50	<50

Notes:

ug/L - denotes micrograms per liter
< - denotes less than the detection limit
DCA - denotes dichloroethane
EDB - denotes ethylene dibromide
MTBE - denotes methyl tertiary butyl ether
DIPE - denotes di-isopropyl ether
ETBE - denotes ethyl tertiary butyl ether
TAME - denotes tertiary amyl ether
TBA - denotes tertiary butyl alcohol
--- - denotes no data available

APPENDICES

ENVIRONMENTAL COMPLIANCE GROUP, LLC
STANDARD OPERATING AND SAFETY AND LOSS CONTROL PROCEDURES

1.0 SOIL BORING/DRILLING SAMPLE COLLECTION AND CLASSIFICATION PROCEDURES

ECG will prepare a site-specific Health and Safety Plan as required by the Occupational Health and Safety Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR.1910.120). The document will be reviewed and signed by all ECG personnel and subcontractors prior to performing work at the site.

Prior to conducting and subsurface work at the site, Underground Services Alert (USA) will be contacted to delineate subsurface utilities near the site with surface markings. In addition, the first five feet of every location will be hand cleared to a diameter larger than the diameter of the auger or probe as a further precaution against damaging underground utilities. Sites that are currently operated as gas stations will be cleared with a private utility locator prior to drilling activities.

Soil samples to be submitted for chemical analyses are collected into brass or stainless steel tubes. The tubes are placed in an 18-inch long split-barrel sampler. The split-barrel sampler is driven its entire length hydraulically or by 140-pound drop hammer. The split-barrel sampler is removed from the borehole and the tubes are removed. When the tubes are removed from the split-barrel sampler, the tubes are trimmed and capped with Teflon sheets and plastic caps or the soil is removed from the tubes and placed in other appropriate sample containers. The samples are sealed, labeled, and placed in ice under chain-of-custody to be delivered to the analytical laboratory. All samples will be kept refrigerated until their delivery to the analytical laboratory.

One soil sample collected from each split-barrel sampler is field screened with a photoionization detector (PID), flame ionization detector (FID), or other equivalent field screening meter. The soil sample is sealed in a plastic bag or other appropriate container to allow volatilization of volatile organic compounds (VOCs). The field meter is used to measure the VOC concentration in the container's headspace and is recorded on the boring logs at the appropriate depth interval.

Other soil samples collected from each split-barrel sampler are inspected and documented to identify the soil stratigraphy beneath the site and classify the soil types according to the United Soil Classification System. The soil types are recorded on boring logs with the appropriate depth interval and any pertinent field observations. Drilling and sampling equipment are steam cleaned or washed in solution and rinsed in deionized water prior to use, between sample collections and boreholes and after use.

2.0 SOIL EXCAVATION SAMPLE COLLECTION AND CLASSIFICATION PROCEDURES

Soil samples to be submitted for chemical analyses are collected into brass or stainless steel tubes or other appropriate containers. The samples are sealed, labeled, and placed in ice under chain-of-custody (COC) to be delivered to the analytical laboratory. All samples will be kept refrigerated until their delivery to the analytical laboratory.

Select soil samples are placed into a sealed plastic bag or other appropriate container and field screened using a PID, FID, or equivalent meter. Other soil samples collected are inspected and documented to identify the soil stratigraphy beneath the site and classify the soil types according to the United Soil Classification System. The soil types are recorded field notes with the appropriate depth interval and any pertinent field observations. Sampling equipment are steam cleaned or washed in solution and rinsed in deionized water prior to use, between sample collections, and after use. Soil cuttings and rinseate water are temporarily stored onsite pending laboratory analytical results and proper transport and disposal.

3.0 SAMPLE IDENTIFICATION AND COC PROCEDURES

Sample containers are labeled with job number, job name, sample collection time and date, sample collection point, and analyses requested. Sampling method, sampler's name, and any pertinent field observations are recorded on boring logs or excavation field notes. COC forms track the possession of the sample from the time of its collection until the time of its delivery to the analytical laboratory. During sample transfers, the person with custody of the samples will relinquish them to the next person by signing the COC and documenting the time and date. The analytical laboratory Quality Control/Quality Assurance (QA/QC) staff will document the receipt of the samples and confirm the analyses requested on the COC matches the sample containers and preservative used, if any. The analytical laboratory will assign unique log numbers for identification during the analyses and reporting. The log numbers will be added to the COC form and maintained in a log book maintained by the analytical laboratory.

4.0 ANALYTICAL LABORATORY QA/QC PROCEDURES

The analytical laboratory analyzes spikes, replicates, blanks, spiked blanks, and certified reference materials to verify analytical methods and results. The analytical laboratory QA/QC also includes:

Routine instrument calibration,
Complying with state and federal laboratory accreditation and certification programs,
Participation in U.S. EPA performance evaluation studies,
Standard operating procedures, and
Multiple review of raw data and client reports

5.0 HOLLOW STEM AUGER WELL INSTALLATION

Boreholes for wells are often drilled with a truck-mounted hollow stem auger drill rig. The borehole diameter is at least 4 inches wider than the outside diameter of the well casing. Soil samples are collected and screened as described in **Section 1.0** and decontamination procedures are also the same as described in **Section 1.0**.

Wells are cased with both blank and factory-perforated Schedule 40 PVC. The factory perforations are typically 0.020 inches wide by 1.5 inch long slots, with 42 slots per foot. A PVC cap is typically installed at the bottom of the casing with stainless steel screws. No solvents or cements are used in the construction of the wells. Well stabilizers or centering devices may be installed around the casing to ensure the filter material and grout in the annulus are evenly distributed. The casing is purchased pre-cleaned or steam cleaned and washed prior to installation in the borehole.

The casing is set inside the augers and sand, gravel, or other filter material is poured into the annulus to fill the borehole from the bottom to approximately 1-2 feet above the perforations. A two foot thick bentonite plug is placed above the filter material to prevent the grout from filling the filter pack. Neat cement or sand-cement grout is poured into the annulus from the top of the bentonite plug to the surface. For wells located in parking lots or driveways, or roads, a traffic rated well box is installed around the well. For wells located in landscaped areas or fields, a stovepipe well protection device is installed around the well. Soil cuttings and rinseate water are temporarily stored onsite pending laboratory analytical results and proper transport and disposal.

6.0 MUD AND AIR ROTARY WELL INSTALLATION

Boreholes for wells can also be drilled with a truck-mounted air rotary or mud rotary drill rig. Air or mud can be used as a drill fluid to fill the borehole and prevent the borehole from caving in and remove drill cuttings. Mud or air can be chosen depending on the subsurface conditions. Soil samples are collected and screened as described in **Section 1.0** and decontamination procedures are also the same as described in **Section 1.0**.

Wells are cased with both blank and factory-perforated Schedule 40 PVC. The factory perforations are typically 0.020 inches wide by 1.5 inch long slots, with 42 slots per foot. A PVC cap is typically installed at the bottom of the casing with stainless steel screws. No solvents or cements are used in the construction of the wells. Well stabilizers or centering devices may be installed around the casing to ensure the filter material and grout in the annulus are evenly distributed. The casing is purchased pre-cleaned or steam cleaned and washed prior to installation in the borehole. Soil cuttings and drilling fluids are temporarily stored onsite pending laboratory analytical results and proper transport and disposal.

The casing is set inside the augers and sand, gravel, or other filter material is poured into the annulus to fill the borehole from the bottom to approximately 1-2 feet above the perforations. A two foot thick bentonite plug is placed above the filter material to prevent the grout from filling the filter pack. Neat cement or sand-cement grout is poured into the annulus from the top of the bentonite plug to the surface. For wells located in parking lots or driveways, or roads, a traffic rated well box is installed around the well. For wells located in landscaped areas or fields, a stovepipe well protection device is installed around the well. Soil cuttings and rinseate water are temporarily stored onsite pending laboratory analytical results and proper transport and disposal.

7.0 WELL DEVELOPMENT

After well installation, the wells are developed to remove residual drilling materials from the annulus and to improve well production by fine materials from the filter pack. Possible well development methods include pumping, surging, bailing, jetting, flushing, and air lifting. Development water is temporarily stored onsite pending laboratory analytical results and proper transport and disposal. Development equipment are steam cleaned or washed in solution and rinsed in deionized water prior to use, between sample collections and after use. After well development the wells are typically allowed to stabilize for at least 24 hours prior to purging and sampling.

8.0 LIQUID LEVEL MEASUREMENTS

Liquid level measurements are made with a water level meter and/or interface probe and disposable bailers. The probe tip attached to a measuring tape is lowered into the well and into the groundwater when a beeping tone indicates the probe is in the groundwater. The probe and measuring tape (graduated to hundredths of a foot) are slowly raised until the beeping stops and the depth to water measurement is recorded. If the meter makes a steady tone, this indicates the presence of floating liquid hydrocarbons (FLH) and the probe and measuring tape are raised until the steady tone stops and the depth to the FLH is measured. Once depth to water and depth to FLH (if present) has been recorded, the probe and measuring tape are lowered to the bottom of the well where the total depth of the well is measured. The depth to water, depth to FLH, and depth to bottom are measured again to confirm the results.

If FLH is encountered in the well, a disposable bailer is lowered into the well and brought back to the surface to confirm the thickness/presence of FLH. To minimize potential for cross contamination between wells, all measurements are done from cleanest to dirtiest well. Prior to beginning liquid level measurements, in between measurements in all wells, and at the completion of liquid level measurements, the water level probe and measuring tape is cleaned with solution (Alconox, Simple Green, or equivalent) and rinsed with deionized water.

9.0 WELL PURGING AND SAMPLING

Each well is typically purged of at least three well casing volumes of groundwater prior to collecting a groundwater sample. Purging can continue beyond three well casing volumes if field parameters including pH, temperature, electrical conductivity are not stabilizing during the purging process. If the well is purged dry before the three well casing volumes has been purged, the well is typically allowed to recharge to 80 percent of its initial water level before a groundwater sample is collected.

Purging equipment can include submersible pumps, PVC purging bailers, disposable bailers, air lift pumps, or pneumatic pumps. Prior to beginning well purging, in between each well purging, and at the completion of purging activities, all non-dedicated purging equipment is cleaned with solution (Alconox, Simple Green, or equivalent) and rinsed with deionized water.

Once the well has been purged, it will be sampled with a disposable bailer, PVC bailer, stainless steel bailer, or through a low flow groundwater pump. The groundwater sample is transferred from the bottom of the bailer to reduce volatilization to the appropriate sample container. The sample containers are specified by the analytical laboratory depending on the analyses requested. Sample containers typically include volatile organic compound (VOA) vials with septa of Teflon like materials. The groundwater sample is collected into the VOAs to minimize air bubbles and once the cap has been placed on the VOA, the VOA is tipped upside down to see if air bubbles are present in the VOA. Typically a duplicate VOA is collected from each well to be analyzed by the analytical laboratory, if warranted, to verify results.

Sample containers are labeled as described in **Section 3.0** and placed immediately in an ice chest and kept refrigerated until its delivery to the analytical laboratory. A trip blank may also be prepared by the analytical laboratory to travel with the ice chest during transport to the laboratory. Field blanks from equipment that has been decontaminated may be collected in between use in different wells to verify the decontamination procedure is effective. To minimize potential for cross contamination between wells, all wells are purged and sampled from cleanest to dirtiest well.

10.0 TEDLAR BAG SOIL VAPOR SAMPLING

Sampling equipment to collect Tedlar bag soil vapor samples includes an air pump, a Tedlar bag which can range in size from 1 to 10 liters, and 3/16-inch diameter polyethylene tubing. The air pump should be equipped with 3/16-inch hose barbs for the polyethylene tubing to attach to. The Tedlar bag must be equipped with a valve for filling and sealing the bag.

When soil vapor samples are collected from remediation equipment, the sample collection port on the remediation equipment is typically fitted with a 3/16-inch hose barb. Prior to collecting soil vapor samples from remediation equipment, air flow, temperature, and pressure or vacuum of the sampling point/remediation equipment are recorded. One end of the polyethylene tubing is connected to the sample collection port and one end is connected to the influent of the air pump, creating an air tight seal. The air pump is turned on and soil vapor from the sample collection port is pumped through the air pump for at least one minute. The air pump is turned off and one end of another piece of polyethylene tubing is connected to the effluent of the air pump and one end is connected to the valve on the Tedlar bag. The valve is opened and the air pump is turned on filling the Tedlar bag with the soil vapor sample until the bag has reached 75% capacity, when the valve on the Tedlar bag is closed and the air pump is turned off.

Tedlar bags are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory. After each soil vapor sample collection, the air pump is turned on for five minutes to allow ambient air to clear the air pump and polyethylene tubing.

11.0 SUMMA CANISTER SOIL VAPOR SAMPLING

Sampling equipment to collect Summa canister soil vapor samples includes a sterilized Summa stainless steel canister under vacuum, ¼-inch diameter polyethylene tubing, and a laboratory calibrated flow meter, if required.

When soil vapor samples are collected from remediation equipment, the sample collection port on the remediation equipment is typically fitted with brass connection with silicone septa that has been threaded into a tapped hole on the piping network. Prior to collecting soil vapor samples from remediation equipment, air flow, temperature, and pressure or vacuum of the sampling point/remediation equipment are recorded. One end of the polyethylene tubing is connected to the brass sample collection port and one end is connected to the canister valve or flow meter, creating an air tight seal. Prior to collecting the soil vapor sample, the valve on the Summa canister is opened to verify the Summa canister has the required vacuum which is recorded. The sample valve or flow meter is opened and the soil vapor sample is collected into the Summa canister and the sample valve is closed and the final vacuum reading (typically greater than 5 inches per square inch) on the Summa canister is recorded.

Summa canisters are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory.

12.0 SYRINGE SOIL VAPOR SAMPLING

Sampling equipment to collect syringe soil vapor samples includes a sterilized, 100 cubic centimeter, gas tight syringe and silicone septa.

When soil vapor samples are collected from remediation equipment, the sample collection port on the remediation equipment is typically fitted with brass connection with silicone septa that has been threaded into a tapped hole on the piping network. Prior to collecting soil vapor samples from remediation equipment, air flow, temperature, and pressure or vacuum of the sampling point/remediation equipment are recorded. The syringe is inserted into the silicone septa and the plunger is purged or pumped at least three times. The sample is collected the fourth time the syringe plunger is extracted and the syringe is removed from the sample collection port and the needle on the syringe is capped with a rubber stopper.

Syringes are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory.

13.0 TEDLAR BAG SOIL VAPOR SURVEY, TEMPORARY SAMPLING POINTS

Sampling equipment to collect Tedlar bag soil vapor survey samples includes an air pump, a Tedlar bag which can range in size from 1 to 10 liters, 3/16-inch diameter polyethylene tubing, and possibly a soil vapor probe. The air pump should be equipped with 3/16-inch hose barbs for the polyethylene tubing to attach to. The Tedlar bag must be equipped with a valve for filling and sealing the bag.

A temporary borehole is advanced using either a slam bar or a direct push drill rig. In the case of the slam bar, once the borehole has been created, a temporary soil vapor probe is inserted into the borehole and advanced with a slide hammer or other physical force two additional feet. A bentonite seal is then placed in the borehole above the soil vapor probe to create an air tight seal and prevent ambient air from entering the sample collection space. In the case of the direct push drill rig, the sampling rod is advanced to the desired depth with a 6-inch retractable vapor screen at the tip. The sample screen on the 6-inch vapor screen is removed and a bentonite seal is then placed in the borehole above the soil vapor probe to create an air tight seal and prevent ambient air from entering the sample collection space.

Once the bentonite seal has set, at least one hour, the soil vapor survey samples are collected into Tedlar bags as described in **Section 10.0.** Tedlar bags are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory. After each soil vapor sample collection, the air pump is turned on for five minutes to allow ambient air to clear the air pump and polyethylene tubing.

13.0 TEDLAR BAG SOIL VAPOR SURVEY, TEMPORARY AND REPEATABLE SAMPLING POINTS

Sampling equipment to collect Tedlar bag soil vapor survey samples includes an air pump, a Tedlar bag which can range in size from 1 to 10 liters, 3/16-inch diameter polyethylene tubing, and possibly a soil vapor probe. The air pump should be equipped with 3/16-inch hose barbs for the polyethylene tubing to attach to. The Tedlar bag must be equipped with a valve for filling and sealing the bag.

13.1 TEMPORARY SAMPLING POINTS

A temporary borehole is advanced using either a slam bar or a direct push drill rig. In the case of the slam bar, once the borehole has been created, a temporary soil vapor probe is inserted into the borehole and advanced with a slide hammer or other physical force two additional feet. A bentonite seal is then placed in the borehole above the soil vapor probe to create an air tight seal and prevent ambient air from entering the sample collection space. In the case of the direct push drill rig, the sampling rod is advanced to the desired depth with a 6-inch retractable vapor screen at the tip. The sample screen on the 6-inch vapor screen is removed and a bentonite seal is then placed in the borehole above the soil vapor probe to create an air tight seal and prevent ambient air from entering the sample collection space.

Once the bentonite seal has set, at least one hour, the soil vapor survey samples are collected into Tedlar bags as described in **Section 10.0.** Tedlar bags are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory. After each soil vapor sample collection, the air pump is turned on for five minutes to allow ambient air to clear the air pump and polyethylene tubing.

13.2 REPEATABLE SAMPLING POINTS

A borehole is advanced using either a hand auger or a drill rig. A 6-inch slotted probe with caps on both ends is placed in the borehole. A Swagelok fitting is attached to one end cap and 3/16-inch diameter Nylon tubing is attached to the Swagelok fitting. A one foot sand pack is placed around the probe and the remainder of the borehole is sealed with a layer of dry bentonite powder, followed by a layer of bentonite chips, and an additional layer of dry bentonite powder. A well box is placed on the surface of the repeatable sampling point and the excess Nylon tubing is placed inside the well box.

Soil vapor survey samples will be collected at least one week after probe installation. In addition, soil vapor survey samples will only be collected after five consecutive precipitation free days and after any onsite irrigation has been suspended.

The soil vapor survey samples are collected into Tedlar bags as described in **Section 10.0** or Summa canisters as described in **Section 11.0.** Tedlar bags or Summa canisters are labeled as described in **Section 3.0** and placed immediately in an empty ice chest and kept dry and unrefrigerated until its delivery to the analytical laboratory. After each soil vapor sample collection, the air pump is turned on for five minutes to allow ambient air to clear the air pump and polyethylene tubing.

argon laboratories

16 April 2012

Mike Sgourakis
Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

RE: Shore Acres Gas Project Data

Enclosed are the results for sample(s) received on 04/04/12 13:55 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto
Lab Manager

2905 Railroad Avenue, Ceres, CA 95307 • Phone (209) 581-9280 • Fax (209) 581-9282
email: main@argonlabs.com

Argon Analytical Services, Inc.

CHAIN OF CUSTODY

Project Information:		Report To:		Samples Submitted To:	
Project No:	GHA.19009	Consultant:	Environmental Compliance Group, LLC	Laboratory:	Argon Labs
Project Title:	Shore Acres Gas	Address:	270 Vintage Drive	Address:	2905 Railroad Avenue
Location:	403 East 12th Street		Turlock, CA 95382		Ceres, CA 95307
	Oakland, CA	Contact:	Mike Sgourakis	Contact:	
Sampler's Name:		Phone:	916.600.4560	Phone:	(209) 581-9280
(print)		Fax:	209.664.1040	Fax:	(209) 581-9282
Sampler's Signature:		Bill To:		Date Results Required:	
		Client:	Environmental Compliance Group, LLC	Date Report Required:	
		Address:	270 Vintage Drive Turlock, CA		

TURN AROUND TIME: RUSH ☐ | 24 Hour ☐ | 48 Hour ☐ | Standard (5 days) ☐ | Special (10-14 days) ☒

ANALYSIS

Sample ID.	Date	Time	# Containers	Matrix	TPHg and TPHd by EPA Method 8015M	BTEX, 5 oxygenates, 1,2-DCA, EDB by EPA Method 8260B								EDF Reports	COMMENTS
~~MW-1~~															Preservative
MW-2	3/30/12	1226	4	Water	X	X									
MW-3		1345		↓	X	X									
MW-4		1246			X	X									
~~MW-5~~															
MW-6		1500		Water	X	X									
VW-1		1435			X	X									
VW-2		1325		↓	X	X									

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	SPECIAL INSTRUCTIONS:
Dan Vukmanic	4/4/12	13:55	[signature]	4/4/12	13:55	Global ID# T0600174667
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Compliance Group Date & Time Received: 04/04/12 13:55

Project Name: Shore Acres Client Project Number: GHA.19009

Received By: I.C. Matrix: Water ☑ Soil ☐ Sludge ☐

Sample Carrier: Client ☑ Laboratory ☐ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: M204005

Shipper Container in good condition? N/A_____	Yes ☑	No ☐		Samples received in proper containers?	Yes ☑	No ☐	
				Samples received intact?	Yes ☑	No ☐	
Samples received under refrigeration?	Yes ☑	No ☐		Sufficient sample volume for requested tests?	Yes ☑	No ☐	
Chain of custody present?	Yes ☑	No ☐		Samples received within holding time?	Yes ☑	No ☐	
Chain of Custody signed by all parties?	Yes ☑	No ☐		Do samples contain proper preservative? N/A ☐	Yes ☑	No ☐	
Chain of Custody matches all sample labels?	Yes ☑	No ☐		Do VOA vials contain zero headspace? (None submitted ☐)	Yes ☑	No ☐	

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments:

Action Taken:

ADDITIONAL TEST(S) REQUEST / OTHER

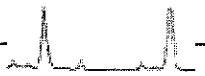
Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments:

♥ ♣ ♦ ♠

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282



Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

Project Number: GHA.19009
Project Name: Shore Acres Gas
Project Manager: Mike Sgourakis

Work Order No.:
M204005

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	M204005-01	Water	03/30/12 12:26	04/04/12 13:55
MW-3	M204005-02	Water	03/30/12 13:45	04/04/12 13:55
MW-4	M204005-03	Water	03/30/12 12:46	04/04/12 13:55
MW-6	M204005-04	Water	03/30/12 15:00	04/04/12 13:55
VW-1	M204005-05	Water	03/30/12 14:35	04/04/12 13:55
VW-2	M204005-06	Water	03/30/12 13:25	04/04/12 13:55

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	
270 Vintage Drive	Project Name: Shore Acres Gas	Work Order No.:
Turlock, CA 95382	Project Manager: Mike Sgourakis	M204005

Total Petroleum Hydrocarbons @ Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
MW-2 (M204005-01) Water Sampled: 30-Mar-12 12:26 Received: 04-Apr-12 13:55							
Diesel	ND	250	ug/L	5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*104 %*			"	"	
MW-3 (M204005-02) Water Sampled: 30-Mar-12 13:45 Received: 04-Apr-12 13:55							
Diesel	ND	120	ug/L	2.5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*106 %*			"	"	
MW-4 (M204005-03) Water Sampled: 30-Mar-12 12:46 Received: 04-Apr-12 13:55							
Diesel	ND	250	ug/L	5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*112 %*			"	"	
MW-6 (M204005-04) Water Sampled: 30-Mar-12 15:00 Received: 04-Apr-12 13:55							
Diesel	ND	250	ug/L	5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*108 %*			"	"	
VW-1 (M204005-05) Water Sampled: 30-Mar-12 14:35 Received: 04-Apr-12 13:55							
Diesel	ND	120	ug/L	2.5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*107 %*			"	"	
VW-2 (M204005-06) Water Sampled: 30-Mar-12 13:25 Received: 04-Apr-12 13:55							
Diesel	ND	250	ug/L	5	05-Apr-12	EPA 8015Mod	
Surr. Rec.:		*103 %*			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

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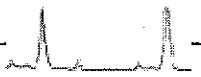

Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

Project Number: GHA.19009
Project Name: Shore Acres Gas
Project Manager: Mike Sgourakis

Work Order No.: M204005

Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
MW-2 (M204005-01) Water Sampled: 30-Mar-12 12:26 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**17000**	500	ug/L	10	05-Apr-12	8015M	
Surr. Rec.:		*100 %*			"	"	
MW-3 (M204005-02) Water Sampled: 30-Mar-12 13:45 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**100000**	5000	ug/L	100	05-Apr-12	8015M	
Surr. Rec.:		*110 %*			"	"	
MW-4 (M204005-03) Water Sampled: 30-Mar-12 12:46 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**60000**	2500	ug/L	50	05-Apr-12	8015M	
Surr. Rec.:		*106 %*			"	"	
MW-6 (M204005-04) Water Sampled: 30-Mar-12 15:00 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**9500**	620	ug/L	12.5	05-Apr-12	8015M	
Surr. Rec.:		*107 %*			"	"	
VW-1 (M204005-05) Water Sampled: 30-Mar-12 14:35 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**21000**	1200	ug/L	25	05-Apr-12	8015M	
Surr. Rec.:		*101 %*			"	"	
VW-2 (M204005-06) Water Sampled: 30-Mar-12 13:25 Received: 04-Apr-12 13:55							
Total Petroleum Hydrocarbons @ Gasoline	**57000**	5000	ug/L	100	05-Apr-12	8015M	
Surr. Rec.:		*105 %*			"	"	

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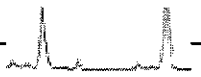

Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

Project Number: GHA.19009
Project Name: Shore Acres Gas
Project Manager: Mike Sgourakis

Work Order No.: M204005

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
MW-2 (M204005-01) Water Sampled: 30-Mar-12 12:26 Received: 04-Apr-12 13:55							
Benzene	**850**	5.0	ug/L	10	09-Apr-12	8260B	
Toluene	**700**	5.0	"	"	"	"	
Xylenes, total	**2900**	10	"	"	"	"	
Ethylbenzene	**710**	5.0	"	"	"	"	
t-Butanol	**490**	50	"	"	"	"	
Methyl tert-Butyl Ether	**140**	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	
Surr. Rec.:		*93 %*			"	"	
MW-3 (M204005-02) Water Sampled: 30-Mar-12 13:45 Received: 04-Apr-12 13:55							
Benzene	**17000**	100	ug/L	200	09-Apr-12	8260B	
Toluene	**10000**	100	"	"	"	"	
Xylenes, total	**8400**	200	"	"	"	"	
Ethylbenzene	**2000**	100	"	"	"	"	
t-Butanol	ND	1000	"	"	"	"	
Methyl tert-Butyl Ether	**13000**	100	"	"	"	"	
Di-Isopropyl Ether	ND	100	"	"	"	"	
Ethyl tert-Butyl Ether	ND	100	"	"	"	"	
tert-Amyl Methyl Ether	ND	100	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	100	"	"	"	"	
Surr. Rec.:		*95 %*			"	"	

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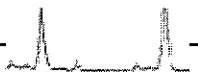

Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

Project Number: GHA.19009
Project Name: Shore Acres Gas
Project Manager: Mike Sgourakis

Work Order No.: M204005

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
MW-4 (M204005-03) Water Sampled: 30-Mar-12 12:46 Received: 04-Apr-12 13:55							
Benzene	**6800**	50	ug/L	100	09-Apr-12	8260B	
Toluene	**8200**	50	"	"	"	"	
Xylenes, total	**5700**	100	"	"	"	"	
Ethylbenzene	**1200**	50	"	"	"	"	
t-Butanol	ND	500	"	"	"	"	
Methyl tert-Butyl Ether	**56**	50	"	"	"	"	
Di-Isopropyl Ether	ND	50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	50	"	"	"	"	
tert-Amyl Methyl Ether	ND	50	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	
Surr. Rec.:		*94 %*			"	"	
MW-6 (M204005-04) Water Sampled: 30-Mar-12 15:00 Received: 04-Apr-12 13:55							
Benzene	**1200**	10	ug/L	20	09-Apr-12	8260B	
Toluene	**160**	10	"	"	"	"	
Xylenes, total	**520**	20	"	"	"	"	
Ethylbenzene	**250**	10	"	"	"	"	
t-Butanol	**3500**	100	"	"	"	"	
Methyl tert-Butyl Ether	**990**	10	"	"	"	"	
Di-Isopropyl Ether	ND	10	"	"	"	"	
Ethyl tert-Butyl Ether	ND	10	"	"	"	"	
tert-Amyl Methyl Ether	ND	10	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	
Surr. Rec.:		*94 %*			"	"	

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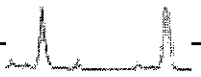

Environmental Compliance Group, LLC
270 Vintage Drive
Turlock, CA 95382

Project Number: GHA.19009
Project Name: Shore Acres Gas
Project Manager: Mike Sgourakis

Work Order No.:
M204005

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
VW-1 (M204005-05) Water Sampled: 30-Mar-12 14:35 Received: 04-Apr-12 13:55							
Benzene	**3100**	20	ug/L	40	09-Apr-12	8260B	
Toluene	**160**	20	"	"	"	"	
Xylenes, total	**2300**	40	"	"	"	"	
Ethylbenzene	**910**	20	"	"	"	"	
t-Butanol	**1100**	200	"	"	"	"	
Methyl tert-Butyl Ether	**370**	20	"	"	"	"	
Di-Isopropyl Ether	ND	20	"	"	"	"	
Ethyl tert-Butyl Ether	ND	20	"	"	"	"	
tert-Amyl Methyl Ether	ND	20	"	"	"	"	
1,2-Dichloroethane	ND	20	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	20	"	"	"	"	
Surr. Rec.:		*100 %*			"	"	
VW-2 (M204005-06) Water Sampled: 30-Mar-12 13:25 Received: 04-Apr-12 13:55							
Benzene	**5800**	50	ug/L	100	09-Apr-12	8260B	
Toluene	**5500**	50	"	"	"	"	
Xylenes, total	**5400**	100	"	"	"	"	
Ethylbenzene	**1200**	50	"	"	"	"	
t-Butanol	**2800**	500	"	"	"	"	
Methyl tert-Butyl Ether	**1800**	50	"	"	"	"	
Di-Isopropyl Ether	ND	50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	50	"	"	"	"	
tert-Amyl Methyl Ether	ND	50	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	
Surr. Rec.:		*92 %*			"	"	

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Environmental Compliance Group, LLC	Project Number: GHA.19009	
270 Vintage Drive	Project Name: Shore Acres Gas	Work Order No.:
Turlock, CA 95382	Project Manager: Mike Sgourakis	M204005

Total Petroleum Hydrocarbons @ Diesel - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch M200434 - EPA 3510C										
Blank (M200434-BLK1)				Prepared & Analyzed: 04/05/12						
Surrogate: p-Terphenyl	*101*		*ug/L*	*100*		*101*	*70-130*			
Diesel	ND	50	"							
LCS (M200434-BS1)				Prepared & Analyzed: 04/05/12						
Diesel	220		ug/L	200		110	80-120			
LCS Dup (M200434-BSD1)				Prepared & Analyzed: 04/05/12						
Diesel	221		ug/L	200		110	80-120	0.5	20	

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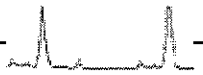

Environmental Compliance Group, LLC	Project Number: GHA.19009	
270 Vintage Drive	Project Name: Shore Acres Gas	Work Order No.:
Turlock, CA 95382	Project Manager: Mike Sgourakis	M204005

Total Petroleum Hydrocarbons @ Gasoline - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch M200435 - EPA 5030B										
Blank (M200435-BLK1)				Prepared & Analyzed: 04/05/12						
Surrogate: a,a,a-Trifluorotoluene	*47.0*		*ug/L*	*50*		*94*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							
LCS (M200435-BS1)				Prepared & Analyzed: 04/05/12						
Total Petroleum Hydrocarbons @ Gasoline	1100		ug/L	1000		110	80-120			
LCS Dup (M200435-BSD1)				Prepared & Analyzed: 04/05/12						
Total Petroleum Hydrocarbons @ Gasoline	1140		ug/L	1000		114	80-120	3	20	
Matrix Spike (M200435-MS1)		**Source: M203060-09**		Prepared & Analyzed: 04/05/12						
Total Petroleum Hydrocarbons @ Gasoline	1080		ug/L	1000	ND	108	70-130			
Matrix Spike Dup (M200435-MSD1)		**Source: M203060-09**		Prepared & Analyzed: 04/05/12						
Total Petroleum Hydrocarbons @ Gasoline	1070		ug/L	1000	ND	107	70-130	0.7	20	

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Environmental Compliance Group, LLC	Project Number: GHA.19009	
270 Vintage Drive	Project Name: Shore Acres Gas	Work Order No.:
Turlock, CA 95382	Project Manager: Mike Sgourakis	M204005

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch M200436 - EPA 5030B										
Blank (M200436-BLK1)				Prepared & Analyzed: 04/09/12						
Surrogate: Fluorobenzene	*46.5*		*ug/L*	*50*		*93*	*70-130*			
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Xylenes, total	ND	1.0	"							
Ethylbenzene	ND	0.5	"							
t-Butanol	ND	5.0	"							
Methyl tert-Butyl Ether	ND	0.5	"							
Di-Isopropyl Ether	ND	0.5	"							
Ethyl tert-Butyl Ether	ND	0.5	"							
tert-Amyl Methyl Ether	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
1,2-Dibromoethane (EDB)	ND	0.5	"							
LCS (M200436-BS1)				Prepared & Analyzed: 04/09/12						
Methyl tert-Butyl Ether	26.2		ug/L	25		105	80-120			
LCS Dup (M200436-BSD1)				Prepared & Analyzed: 04/09/12						
Methyl tert-Butyl Ether	27.6		ug/L	25		110	80-120	5	20	
Matrix Spike (M200436-MS1)		**Source: M204005-01**		Prepared & Analyzed: 04/09/12						
Benzene	34.9		ug/L	25	8.5	106	70-130			
Matrix Spike Dup (M200436-MSD1)		**Source: M204005-01**		Prepared & Analyzed: 04/09/12						
Benzene	33.0		ug/L	25	8.5	98	70-130	6	20	

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Environmental Compliance Group, LLC	Project Number: GHA.19009	
270 Vintage Drive	Project Name: Shore Acres Gas	Work Order No.:
Turlock, CA 95382	Project Manager: Mike Sgourakis	M204005

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

GROUNDWATER LEVEL DATA FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID	TIME	DEPTH TO BOTTOM	DEPTH TO WATER	DEPTH TO PRODUCT	PRODUCT THICKNESS	PRODUCT THICKNESS X 0.8	COMMENTS
MW-1							inaccessible
MW-2	1112	20.01	8.55				
MW-3	1121	17.03	7.90				
MW-4	1114	18.78	8.51				
MW-5	1119	18.68	8.06				sheen 0.01"
MW-6	1124	19.93	7.50				
VW-1	1126	19.74	8.06				
VW-2	1116	19.71	8.48				

FIELD TECHNICIAN: DM
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-2
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 20.01
Depth to Water: 8.55
Water Column Length: 11.46

WELL DIAMETER:
2-inch: ✓
4-inch:
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

11.46	x	0.17	x	3	=	6
Water Column Length		Multiplier		No. Volumes		Purge Volume

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1214	2	7.84	17.7	415			
1218	4	7.26	17.5	366			
1223	6	7.05	17.6	362			
1226							Sample

FIELD TECHNICIAN: DMA
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-3
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 17.83
Depth to Water: 7.90
Water Column Length: 9.93

WELL DIAMETER:
2-inch: ✓
4-inch:
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

9.93	x	0.17	x	3	=	5
Water Column Length		Multiplier		No. Volumes		Purge Volume

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1333	1.75	6.81	16.0	435			
1338	3.5	6.84	16.1	439			
1343	5	6.84	16.2	431			
1345							sample

FIELD TECHNICIAN: DWS
DATE: 7/30/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-4
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 18.78
Depth to Water: 8.51
Water Column Length: 10.27

WELL DIAMETER:
2-inch: ✓
4-inch:
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

10.27	x	0.17	x	3	=	5.5
Water Column Length		Multiplier		No. Volumes		Purge Volume

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1235	2	6.80	18.1	398			
1239	4	7.01	18.3	401			
1243	6	7.04	18.3	394			
1246							sample

FIELD TECHNICIAN: DWA
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-5
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 18.68
Depth to Water: 8.06
Water Column Length: 10.62

WELL DIAMETER:
2-inch: ✓
4-inch:
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

10.62	x	0.17	x	3	=	5.5
Water Column Length		Multiplier		No. Volumes		Purge Volume

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
			Sheen				
			floating				
			product				
			0.01'				
						Not	Sampled

FIELD TECHNICIAN: DWA
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-6
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.93
Depth to Water: 7.50
Water Column Length: 12.43

WELL DIAMETER:
2-inch: ✓
4-inch:
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

12.43 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Volumes) = 6.5 (Purge Volume)

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1446	2.25	6.83	17.0	417			
1451	4.5	6.81	16.8	408			
1456	6.5	6.82	17.0	408			
1500							sample

FIELD TECHNICIAN: DWA
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: VW-1
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.74
Depth to Water: 8.06
Water Column Length: 11.68

WELL DIAMETER:
2-inch:
4-inch: ✓
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

11.68 (Water Column Length) x 0.65 (Multiplier) x 3 (No. Volumes) = 23.5 (Purge Volume)

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:
2-inch: 0.17
4-inch: 0.65
6-inch: 1.5

PURGE METHOD:
Disposable Bailer: ✓(2)
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1410	8	6.78	17.8	474			
1421	16	6.78	18.0	472			
1432	24	6.76	18.1	467			
1435							sample

FIELD TECHNICIAN: DW
DATE: 3/20/12

PURGE/DEVELOPMENT FORM

PROJECT NAME: Shore Acres Gas
PROJECT NUMBER: GHA.19009
PROJECT MANAGER: MSS
TASK NUMBER:
SITE ADDRESS: 403 East 12th Street, Oakland, CA

WELL ID: MW-2
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.74
Depth to Water: 8.06
Water Column Length: 11.68

WELL DIAMETER:
2-inch:
4-inch: ✓
6-inch:

PURGE VOLUME CALCULATION:
Water Column Length x Multiplier x No. Volumes = Purge Volume

11.68	x	0.65	x	3	=	23.5
Water Column Length		Multiplier		No. Volumes		Purge Volume

MULTIPLIER DATA:
Multiplier for Schedule 40 PVC; Gallons/Linear Foot Based on Casing Diameter:

2-inch:	0.17
4-inch:	0.65
6-inch:	1.5

PURGE METHOD:
Disposable Bailer: 1(2)
PVC Bailer:
Submersible Pump:
Other:

SAMPLE METHOD:
Disposable Bailer: ✓
Pump:
Other:

TIME	VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (uS/cm)	DO (mg/l)	ORP (mV)	COMMENTS
1300	8	6.93	18.5	427			
1310	16	6.81	18.7	421			
1320	24	6.79	18.9	418			
1325							sample

FIELD TECHNICIAN: DH
DATE: 3/20/12