August 1, 2016

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

Subject: Fourth Quarter 2015 Groundwater Monitoring and Remediation System Evaluation 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 August 1, 2016 *Fourth Quarter 2015 Groundwater Monitoring and Remediation System Evaluation 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

FOURTH QUARTER 2015 GROUNDWATER MONITORING AND REMEDIATION SYSTEM EVALUATION 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

August 1, 2016

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 report for the site.

This report describes activities conducted during Fourth Quarter 2015 groundwater monitoring event. This report also responds to Alameda County Environmental Health Services (ACEHS) correspondence requesting remediation system evaluation dated February 18, 2016 (Appendix A). 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 8- to 14-feet bgs. The groundwater flow direction appears to be generally toward the south.

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 extraction wells (EW-1 and EW-2). 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 extraction wells (EW-1 and EW-2). 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.

In May 2013, ECG supervised the installation of two extraction wells (EW-3 and EW-4). In September 2013, ECG installed the subsurface piping network from the remediation wells to the remediation compound and the subsurface conduit required by PG&E to install the electrical service required to operate the remediation compound.

In April 2014, the dual phase extraction system began operation. The DPE system includes a 25-horsepower liquid-ring blower capable of up to 400 standardized cubic feet per minute (scfm) flowrate, thermal/catalytic oxidizer, a conveyance piping network, and four individual extraction wells. The blower extracts vapors and groundwater from each extraction wells and through the

conveyance piping where the impacted vapor is destroyed in the thermal/catalytic oxidizer prior to discharge to the atmosphere and the groundwater is treated with an air stripper and granular activated carbon prior to discharge to the municipal sewer system.

The remediation system was started on April 30, 2014 and shut down on June 27, 2014 due to carbon change out requirements. The system was restarted on August 15, 2014. The remediation system was shut down on February 18, 2015 due to complaints from neighbors regarding the propane tank onsite providing supplemental fuel to the remediation equipment. ECG supervised the installation of natural gas provided by PG&E to the site and the system was restarted on August 11, 2015. The system was shut down on December 16, 2015 due to contaminant breakthrough of the first carbon vessel and scheduled carbon change out.

The DPE system is operated under Bay Area Air Quality Management District (BAAQMD) permit number 25354 and East Bay Municipal Utility District (EBMUD) Discharge Permit No. 68508758. The DPE system has removed approximately 8,304 pounds of TPHg, 38 pounds of benzene, and 2.7 pounds of MTBE from the subsurface.

FOURTH QUARTER 2015 MONITORING EVENT

WORK PERFORMED AND PROPOSED

The following is a summary of work performed during the fourth quarter 2015 and work proposed for next quarter at the site.

WORK PERFORMED FOURTH QUARTER 2015

1. The fourth quarter 2015 groundwater monitoring event was performed on December 16, 2015.
2. ECG attended a meeting with regulatory staff on November 17, 2015.
3. ECG performed DPE system startup, troubleshooting, and maintenance to the O&M unit.

WORK SCHEDULED FOR FIRST QUARTER 2016

1. Prepare and finalize the fourth quarter 2015 monitoring report.
2. Continue to operate the remediation system.
3. Perform first quarter 2016 monitoring event.

DISCUSSION OF RECENT MONITORING ACTIVITIES

ECG performed the fourth quarter 2015 groundwater monitoring and sampling event at the site on December 16, 2015. Gauging, development, purging, and sampling were conducted in accordance with ECG's SOPs included in Appendix B. The collected groundwater samples were submitted to California Agricultural and Environmental Labs located in Ceres, California for laboratory analysis under COC protocols (Appendix C).

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

Current Phase of Project:	Remediation
Groundwater Sampling Schedule:	Quarterly Wells MW-1 through MW-6, EW-1 through EW-4

Analysis:	TPHg 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	13.54-feet below ground surface (bgs)
Average Groundwater Elevation	18.12 -feet above mean sea level
Groundwater Gradient Direction	South
Groundwater Gradient	0.020 feet/foot
TPHg Detected Range	880 ug/L (MW-2) to 11,000 ug/L (MW-3 and EW-3)
Benzene Detected Range	8.2 ug/L (MW-2) to 1,400 ug/L (EW-2)
MTBE Detected	1.0 ug/L (MW-2) to 290 (MW-3)

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

DISCUSSION OF RECENT REMEDIATION ACTIVITIES

ECG performed remediation system monitoring and operations and maintenance activities on October 13 and 26, November 10 and 23, December 4 and 16, 2015. Multiple additional visits were made to the site to ensure the operation of the remediation systems and restart them as needed as the unit needed. Operating parameters are recorded twice each month and are included on the field notes in Appendix D. Influent and effluent vapor samples are field screened each visit with a photoionization detector and samples are collected monthly in accordance with BAAQMD permit requirements. The collected vapor samples were submitted to Pace Analytical, LLC, located in Davis, California for laboratory analysis under COC protocols.

The following is a summary of the fourth quarter 2015 remediation results at the site:

SVE System Operating Hours	1,185.6 hours, 49.4 days
Active SVE Extraction Points	Varied
Average Influent Flowrate	140 scfm
TPHg Detected Range in SVE Influent	102 parts per million by volume (ppmv) to 407 ppmv
Benzene Detected Range in SVE Influent	0.84 ppmv to 1.2 ppmv
SVE Destruction Efficiency	>97% or less than 0.109 pounds of benzene per day emission

Average Groundwater Extraction Rate	2.7 gallons per minute (gpm)
Average TPHg Detected in Groundwater Influent	12,800 ug/L
Average Benzene Detected in Groundwater Influent	803 ug/L
Average MTBE Detected in Groundwater Influent	63 ug/L

The system was shut down on December 16, 2015 due to contaminant breakthrough of the first carbon vessel and scheduled carbon change out. Summaries of remediation system operating parameters and analytical data are presented in Tables 5a, 5b, and 5c.

RESULTS AND CONCLUSIONS

Water levels and the gradient data were consistent with historical data. Tables 2a, 2b, 3a, 3b, 4a, and 4b tabulate the analytical data for soil and monitoring well sampling data. ECG will continue DPE remediation activities once the carbon change out has been completed. The next groundwater monitoring event will be in first quarter 2016.

The DPE system operated for 49 days during the fourth quarter of 2015 from September 29, 2015, when the system was restarted to December 16, 2015. Approximately 732 pounds of TPHg, 2.2 pounds of benzene, and 0.2 pounds of MTBE were removed from the soil beneath the site during this quarter (Table 5a). Approximately 35 pounds of TPHg, 2.2 pounds of benzene, and 0.17 pounds of MTBE were removed from the groundwater phase during this quarter (Table 5c). The DPE system operated within the rules of the BAAQMD permit issued to the facility.

At the November 17, 2015 meeting with regulatory staff, information was requested regarding the onsite structure and current car wash operations. The onsite structure is a cargo container that had been modified for commercial use. The structure is on a concrete pad at least 4-inches thick (this was observed during remediation system trenching activities). The site is completely surface with asphalt and concrete. The onsite car wash is a hand wash business. There are two surface drains that collect wash runoff and they discharge to the sanitary sewer through a connection that is separate from the groundwater treatment system.

REMEDIATION SYSTEM OPTIMIZATION

The current remediation system is a dual phase extraction system utilizing SVE and groundwater extraction and treatment. The system currently has four extraction wells connected to the system. Stinger pipes extend to the bottom of the wells with several holes in the stingers from 10- to 20-feet bgs to optimize water and vapor extraction. Depth to groundwater is generally about 10-feet bgs. The four extraction wells are screened from 5- to 20-feet bgs. Vapor flow rates average 125 cubic feet per minute into the system and groundwater flow rates average 1.75 gallons per minute. Vapor extraction rates for TPHg ranged from 5 to 26 pounds per day during the fourth quarter 2015 period. ECG activated wells EW-2, EW-3 and EW-4 in different configurations during the quarter in an attempt to optimize extraction rates.

ACEH is concerned about the impact that the tenant's Hand Car Wash business may have on groundwater at the site. The site owner and ECG visited the site and spoke with the owner of the wash. The owner stated that under his permit, he was required to install multiple surface drains that connected to the sanitary sewer system for proper disposal of the wash water. The new drains were observed during the site visit.

ACEH requested a complete round of monitoring and extraction well sampling after approximately six month period of non-operation of the remediation system to monitor groundwater quality for potential rebound of site related contaminants. The system was turned off on April 18, 2016 and will be sampled on September 30, 2016. Results will be presented in the next quarterly monitoring report.

EVALUATION OF THE GROUNDWATER MONITORING WELL NETWORK

ACEH requested an evaluation of the current groundwater monitoring well network to determine if it is adequate given the current conditions and historical data collected at the site. Therefore, ECG has prepared graphs showing groundwater concentrations over time for wells MW-1 through MW-

4 and MW-6 (Figures 7 through 21). Graphs were not prepared for well MW-5 because limited analytical data is available due to the consistent presence of free product at that well. In addition, a rose diagram is included as Figure 22.

In December 2011, ECG supervised the collection of grab groundwater samples from open borings place at intervals along 4th Avenue and East 11th and 12th Streets around the perimeter of the site. It was concluded based on the absence of contamination at boring SB-14 and the increasing TPHg concentrations at locations SB-15 through SB-17, that an additional offsite source was responsible for the contamination present in groundwater southwest of the site. The school building located southwest of the site has recently concluded a large excavation cleanup of petroleum related contamination at their facility.

The rose diagram (Figure 22) shows the groundwater flow direction is predominantly to the southeast from the site. No groundwater monitoring wells currently exist in the southeast direction due to physical limitations. An open UST investigation is currently ongoing at a site located directly downgradient of the site at 1044 5th Avenue. Upgradient borings for that site (directly downgradient from Shore Acres) B-6 through B-8 and B-19 were all reported as nondetect for TPHg. These borings provide adequate downgradient definition for the Shores Acres site and no additional investigation is recommended.

The graphs for groundwater elevations and contaminant concentrations all show a decreasing trend with time, especially after the initial DPE pilot test and remediation activities have occurred. In addition, rebound for TPHg concentrations in groundwater was observed at wells MW-1, MW-3, and MW-6 during the first quarter 2015 event when the system was down for a significant period of time.

A calculation of estimated mass of TPHg in soil and groundwater was conducted for the site and showed 11,350 pounds of TPHg was initially present in the subsurface at the site. To date, the system has removed 8,535 pounds of TPHg from groundwater and the vadose zone.

Soil data (Table 2) collected during the installation of wells EW-1 and EW-2 indicated a substantial increase in TPHg and benzene concentrations from 10- to 15-feet bgs. No soil analytical data was collected from wells EW-3 and EW-4 due to their close proximity to groundwater monitoring well MW-5 and soil boring SB-6.

RECOMENDATIONS

Based on the above findings, ECG recommends the following.

Based on the decreasing trends and rebound observed during times of prolonged operation, ECG recommends continued operation of the DPE system after the rebound samples are collected from the monitoring well network.

Based on the data that approximately 3,000 pounds of TPHg remains in the subsurface, most likely around approximately 15-feet bgs but lower extraction rates show difficulty removing the contamination with the current DPE configuration, ECG proposes conducting a pilot test consisting of installing submersible pumps into two extraction wells, EW-3 and EW-4, and extracting additional water while the current DPE system operates. The purpose of this pilot test is to determine what groundwater flow rates are required to further dewater the shallow zone aquifer and what increase in concentrations, if any, is observed during low water conditions. It has been documented during operation and maintenance of the system that higher PID readings coincide

with lower water levels. This pilot test will quantify all the parameters to determine the feasibility of implementing full time groundwater pumping. During the test, groundwater from the submersible pumps will be stored in a poly tank for disposal through the system at a very low, controlled flow rate so the current air stripper and transfer pumps are not inundated during the test. Upon concurrence from the ACEHS, ECG will prepare a workplan report detailing the activities suggested above.

ECG will make further conclusions and recommendations after the rebound samples and pilot test are concluded.

FIGURES

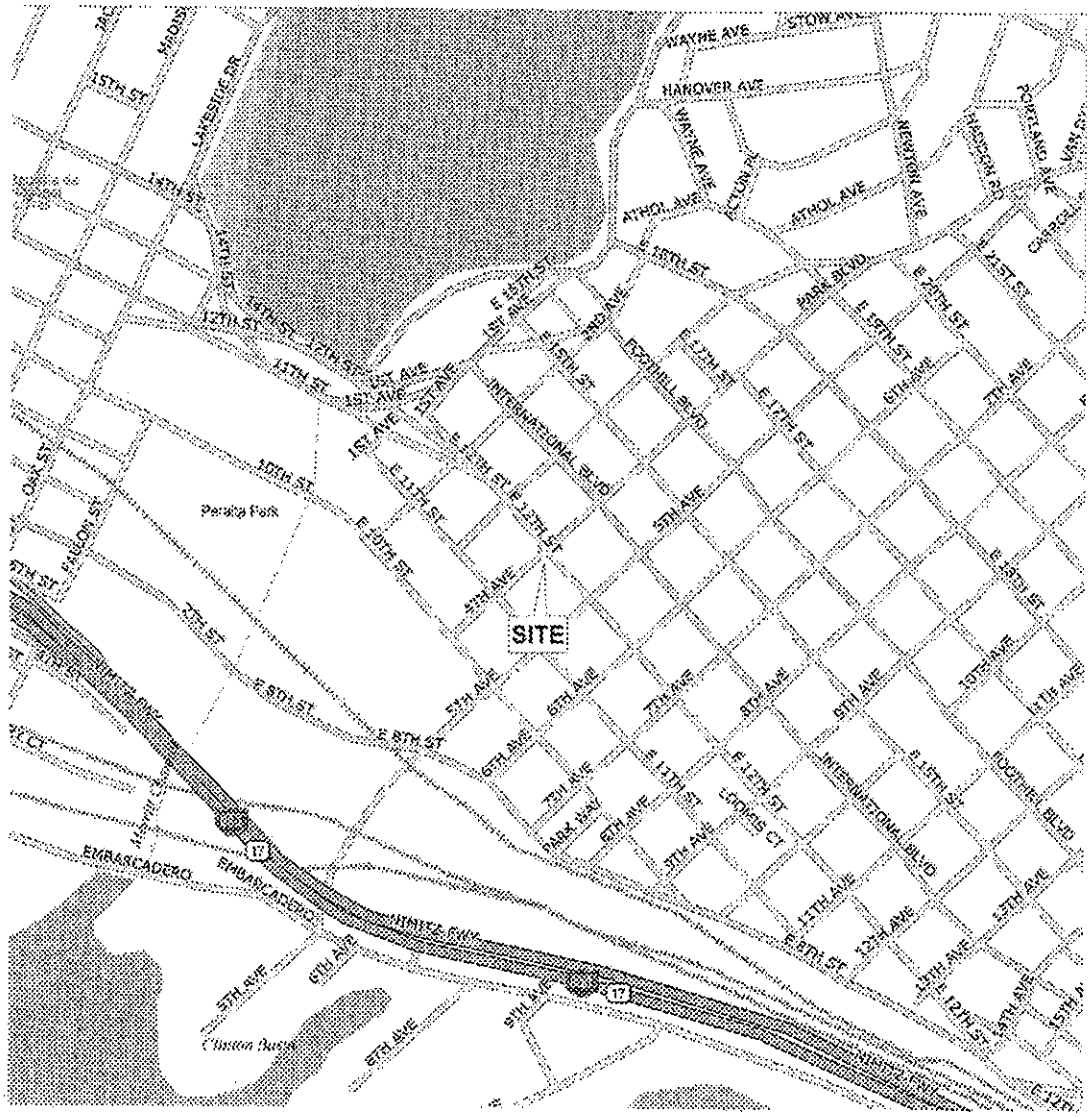


FIGURE 1	SITE LOCATION MAP	Environmental Compliance Group, LLC
Project Number: CHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 864-1035
Date: February 9, 2011		

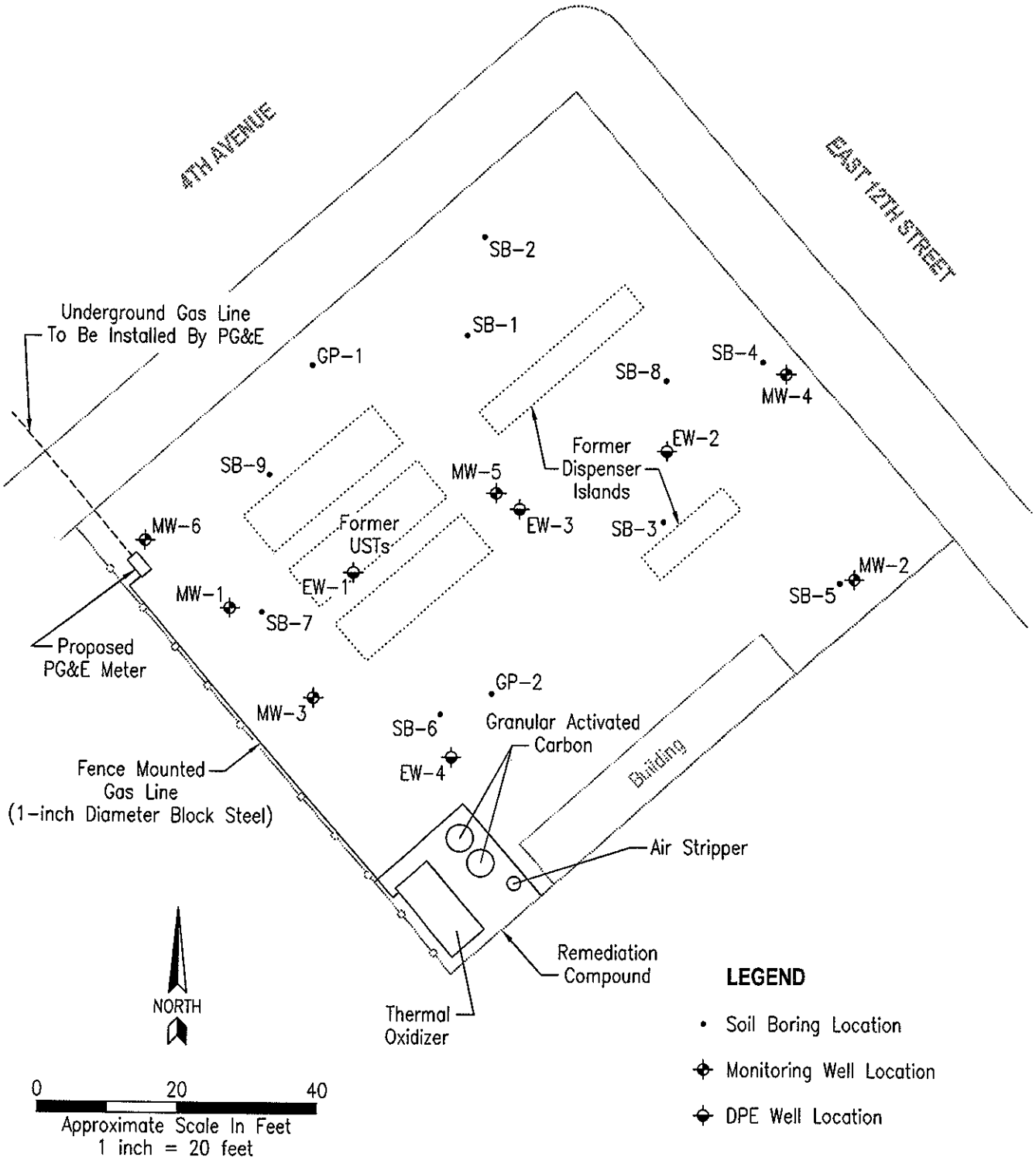


FIGURE 2	**SITE MAP**	**Environmental Compliance Group, LLC**
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Date: February 26, 2015		

LEGEND

NORTH

- Monitoring Well Location
- Vapor Extraction Well Location
- (19.21) Elevation Of Groundwater Measured In Feet Above Mean Sea Level
- (19.20) Lines Of Equipotential Measured In Feet Above Mean Sea Level (Dashed Where Inferred)
- Flow Lines
- i = 0.020 General Gradient
- (NM) Not Measured

0 50 100

Approximate Scale In Feet
1 inch = 50 feet

FIGURE 3 **Project Number:** GHA.19009 **Date:** February 12, 2016	**POTENTIOMETRIC SURFACE MAP** **DECEMBER 16, 2015** Shore Acre Gas 403 East 12th Street Oakland, California	Environmental Compliance Group, LLC 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035

LEGEND

NORTH

Monitoring Well Location

Vapor Extraction Well Location

(29,000) Concentration Of TPHg In Groundwater Measured In ug/L

(5,000) Line Of Equal Concentration Of TPHg In Groundwater Measured In ug/L (Dashed Where Inferred)

0 50 100

Approximate Scale In Feet
1 inch = 50 feet

FIGURE 4 **Project Number:** GHA.19009 **Date:** February 12, 2016	**TPHg IN GROUNDWATER ISOCONCENTRATION MAP DECEMBER 16, 2015** Shore Acre Gas 403 East 12th Street Oakland, California	Environmental Compliance Group, LLC 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035

LEGEND

NORTH

Monitoring Well Location

Vapor Extraction Well Location

(1,400) Concentration Of Benzene In Groundwater Measured In ug/L

(500) Line Of Equal Concentration Of Benzene In Groundwater Measured In ug/L (Dashed Where Inferred)

0 50 100

Approximate Scale In Feet
1 inch = 50 feet

FIGURE 5	**BENZENE IN GROUNDWATER ISOCONCENTRATION MAP DECEMBER 16, 2015** Shore Acre Gas 403 East 12th Street Oakland, California	Environmental Compliance Group, LLC 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Project Number: GHA.19009		
Date: February 12, 2016		

LEGEND

NORTH

Monitoring Well Location

Vapor Extraction Well Location

(290) Concentration Of MTBE In Groundwater Measured In ug/L

(50) Line Of Equal Concentration Of MTBE In Groundwater Measured In ug/L (Dashed Where Inferred)

0 50 100

Approximate Scale In Feet
1 inch = 50 feet

FIGURE 6	**MTBE IN GROUNDWATER ISOCONCENTRATION MAP DECEMBER 16, 2015** Shore Acre Gas 403 East 12th Street Oakland, California	Environmental Compliance Group, LLC 270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664-1035
Project Number: GHA.19009		
Date: February 12, 2016		

Figure 7
Well MW-1
TPHg and GWEl vs. Time
Shore Acres Gas

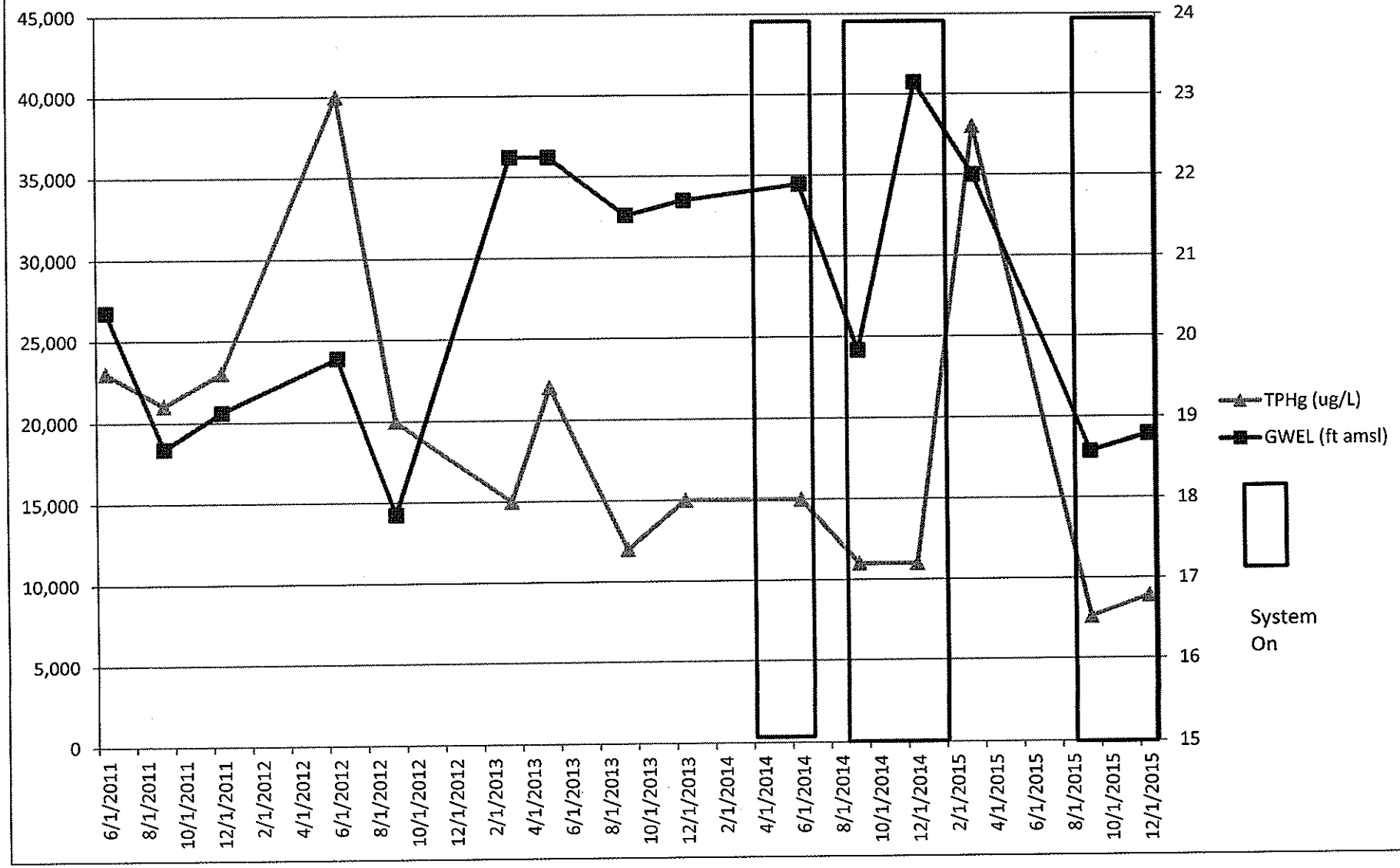


Figure 8
Well MW-1
Benzene and GWEl vs. Time
Shore Acres Gas

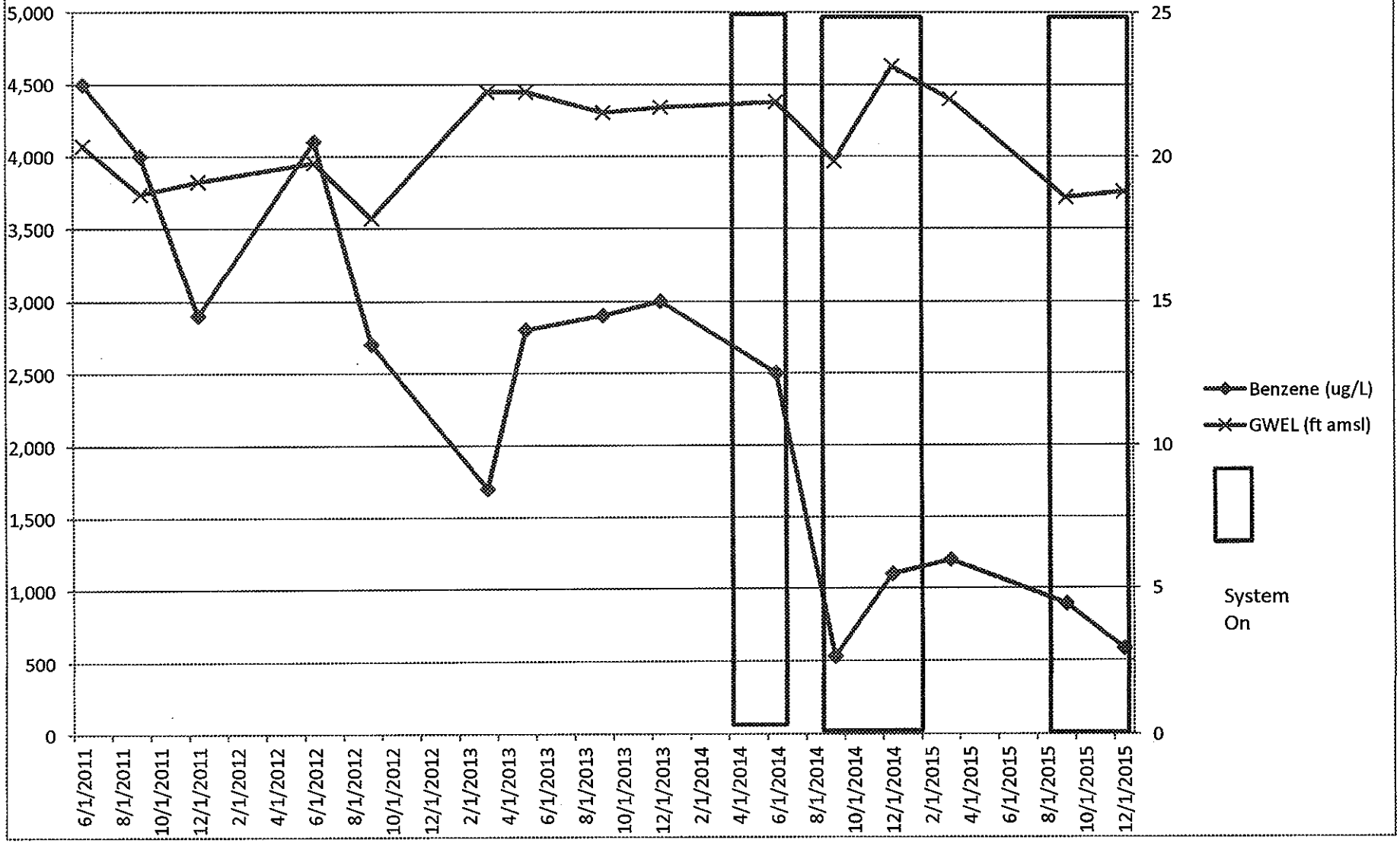


Figure 9
Well MW-1
MTBE and GWEl vs. Time
Shore Acres Gas

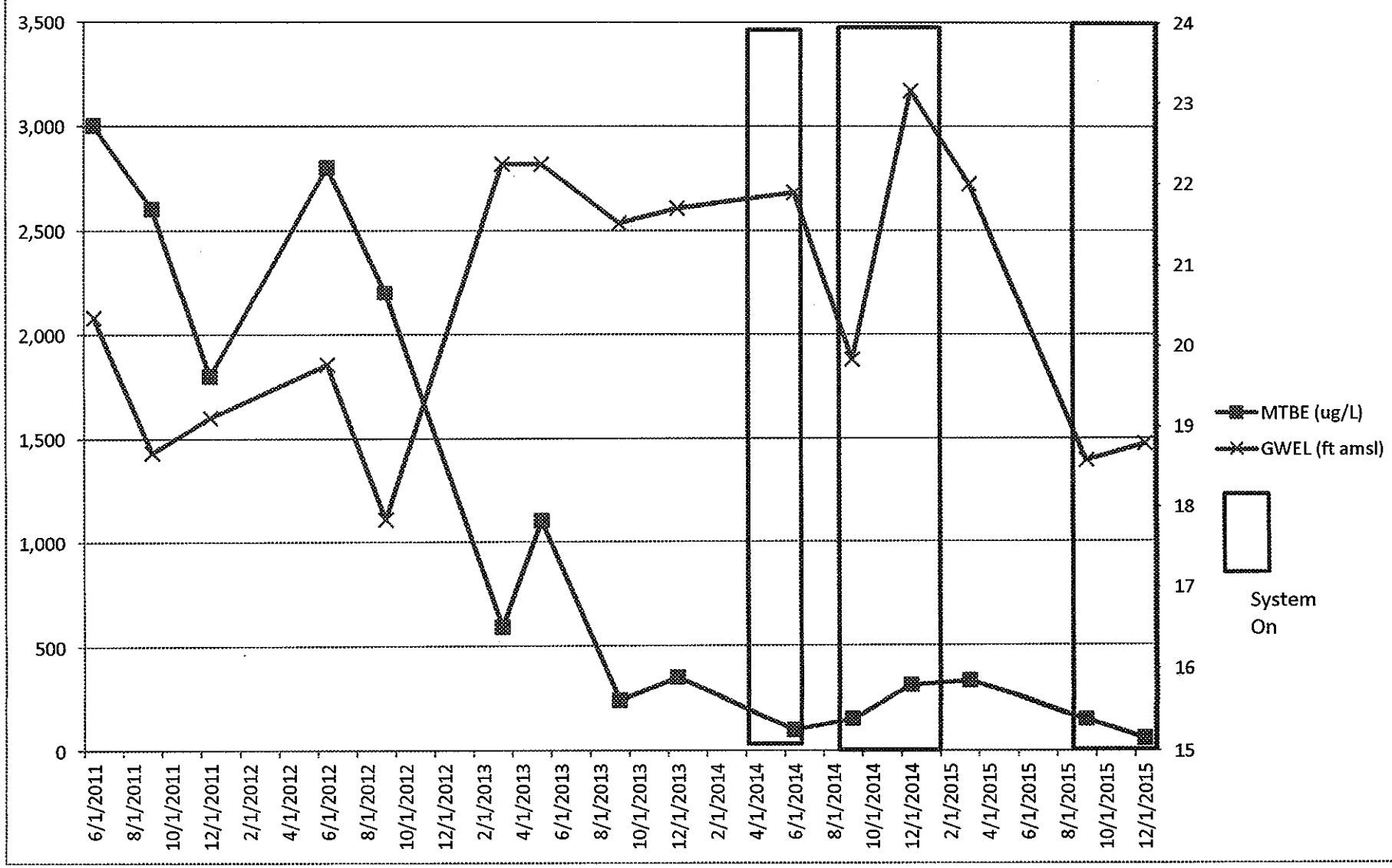


Figure 10
Well MW-2
TPHg and GWEl vs. Time
Shore Acres Gas

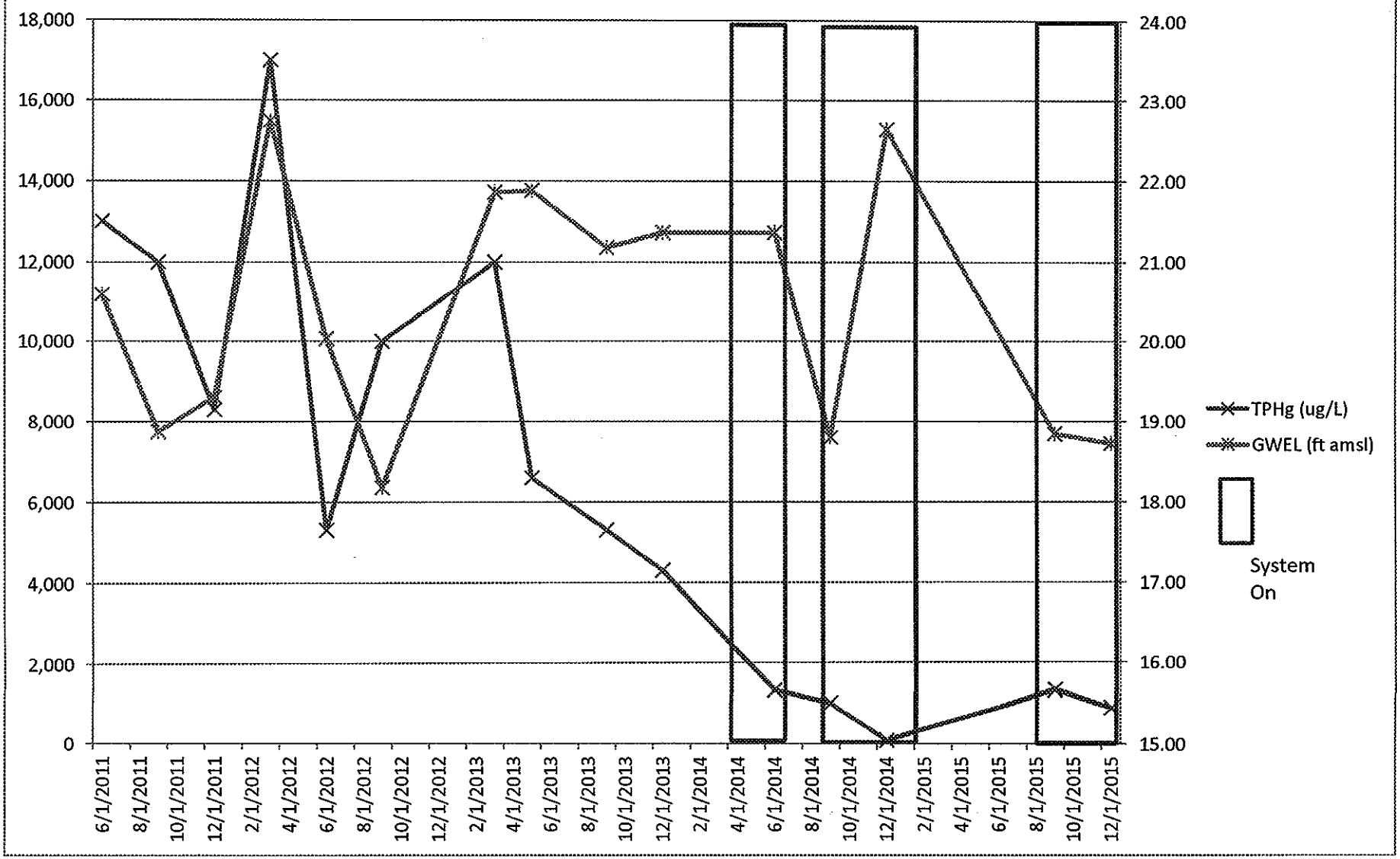


Figure 11
Well MW-2
Benzene and GWEl vs. Time
Shore Acres Gas

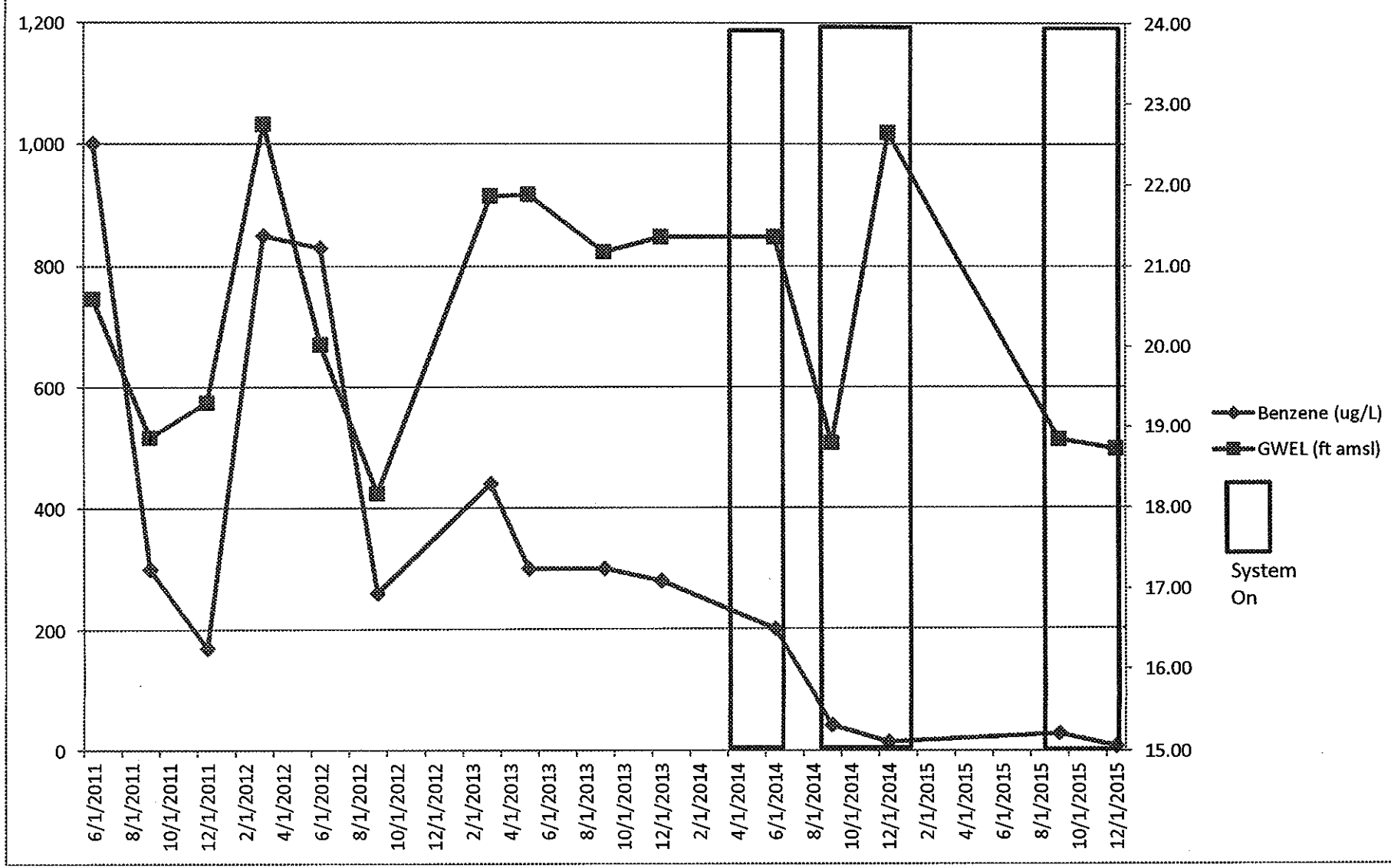


Figure 12
Well MW-2
MTBE and GWEl vs. Time
Shore Acres Gas

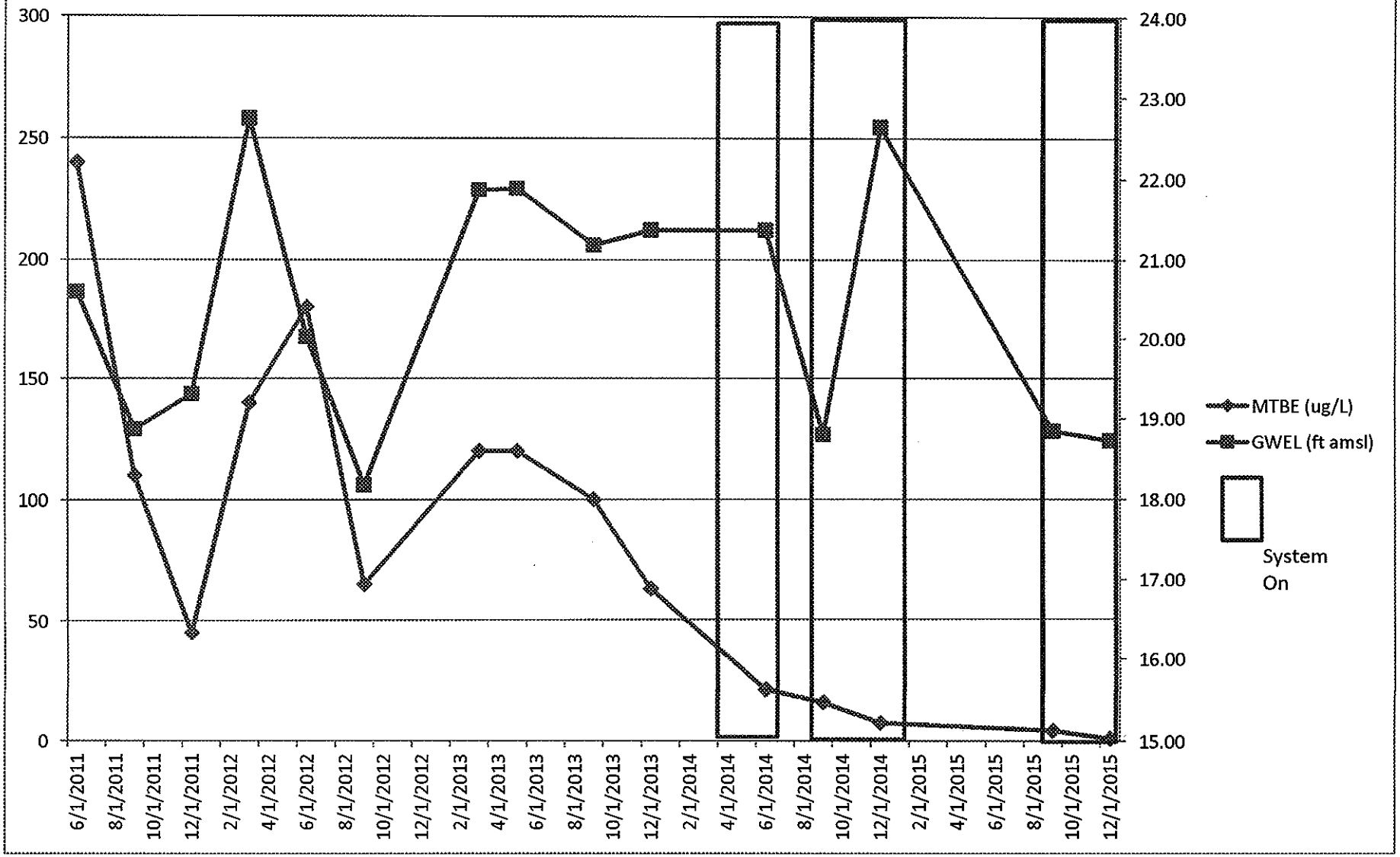


Figure 13
Well MW-3
TPHg and GWEl vs. Time
Shore Acres Gas

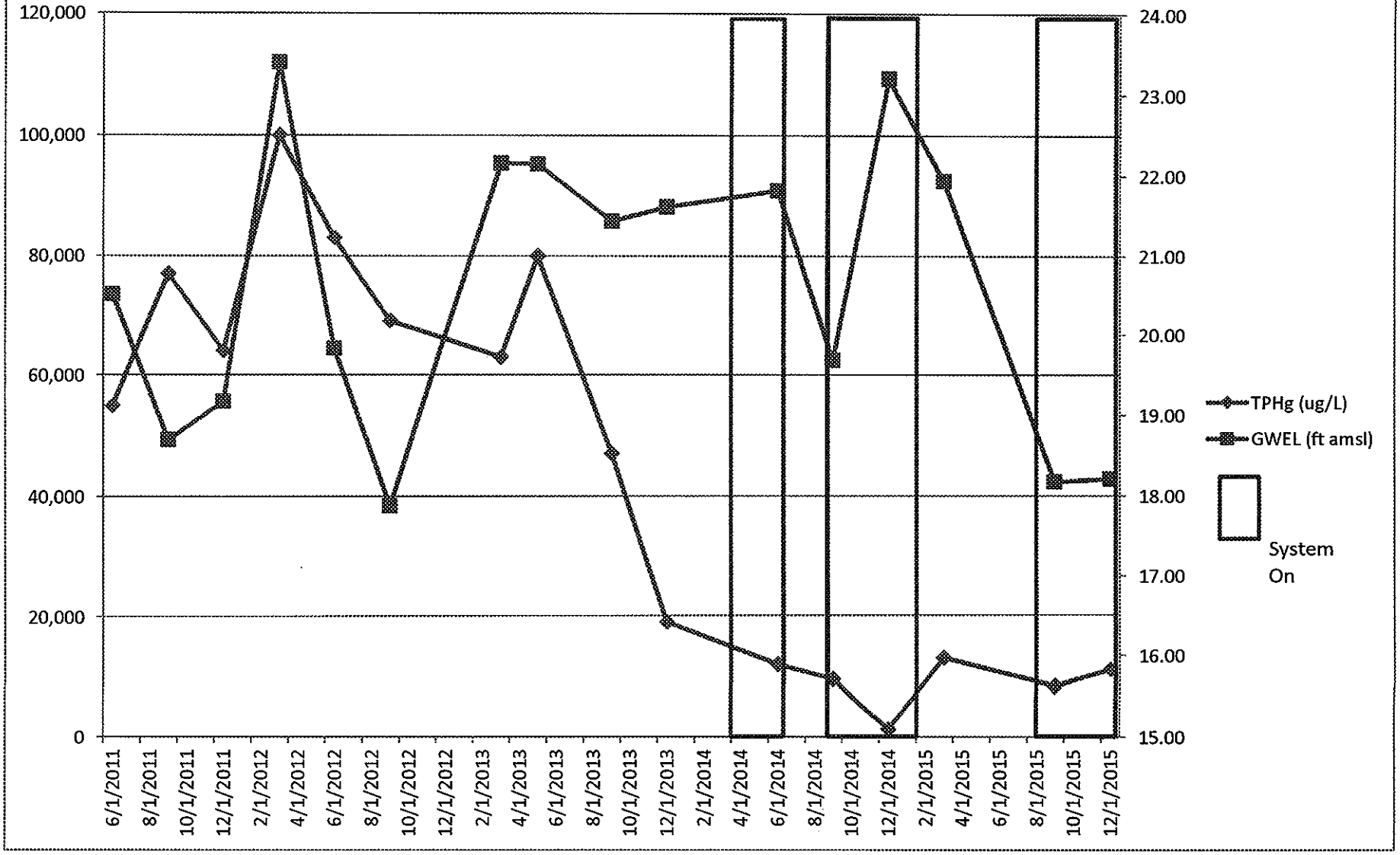


Figure 14
Well MW-3
Benzene and GWEl vs. Time
Shore Acres Gas

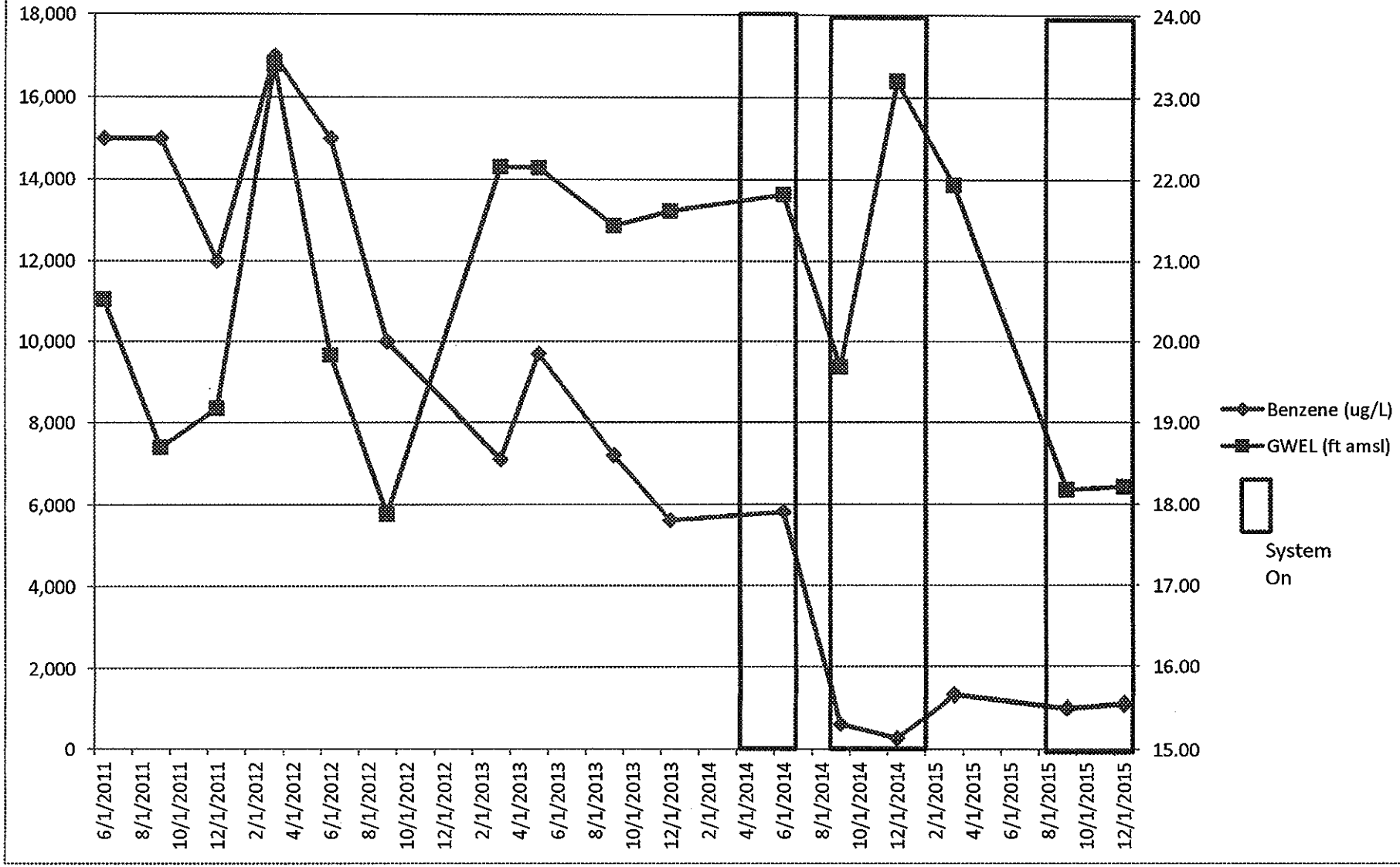


Figure 15
Well MW-3
MTBE and GWEl vs. Time
Shore Acres Gas

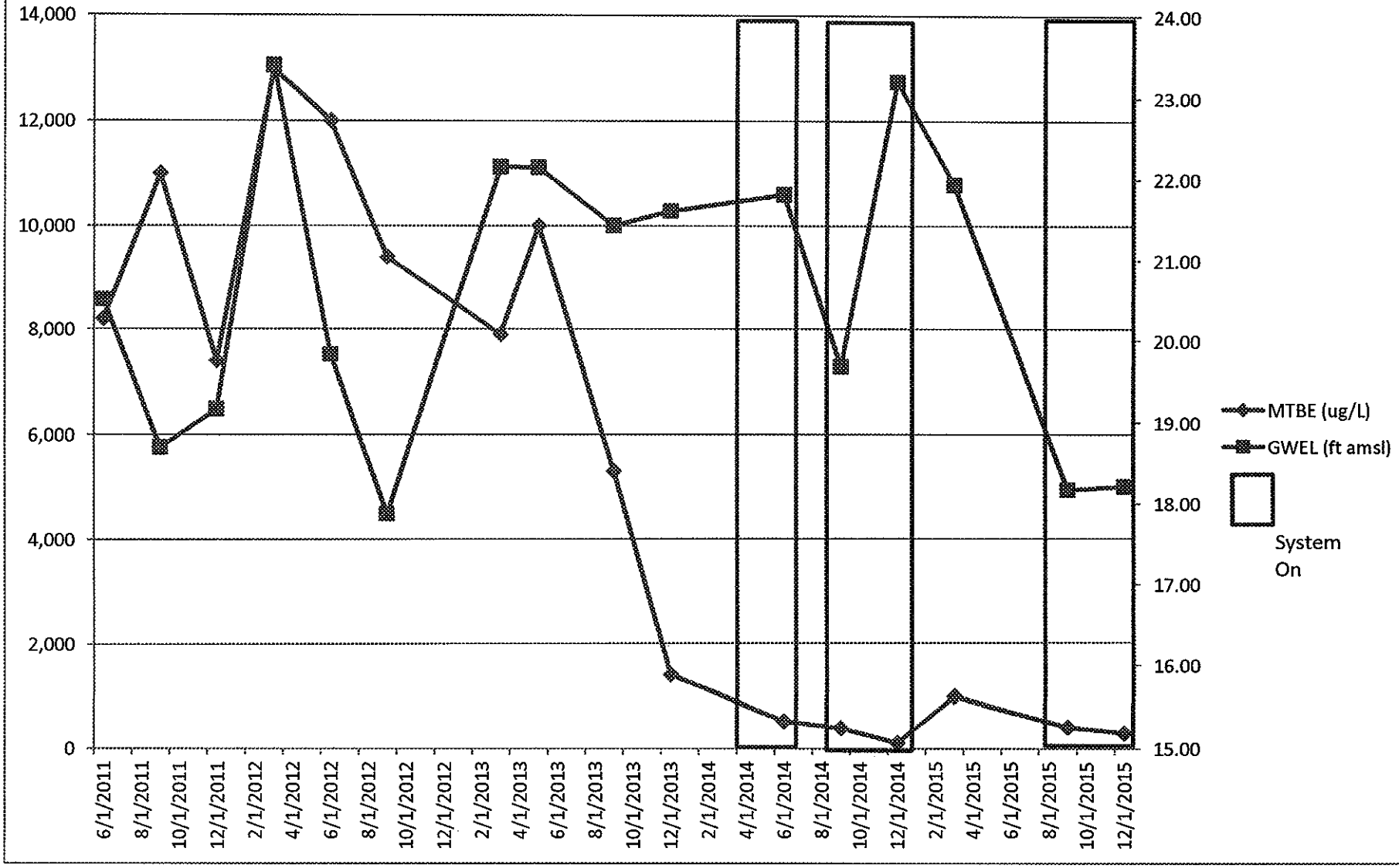


Figure 16
Well MW-4
TPHg and GWEl vs. Time
Shore Acres Gas

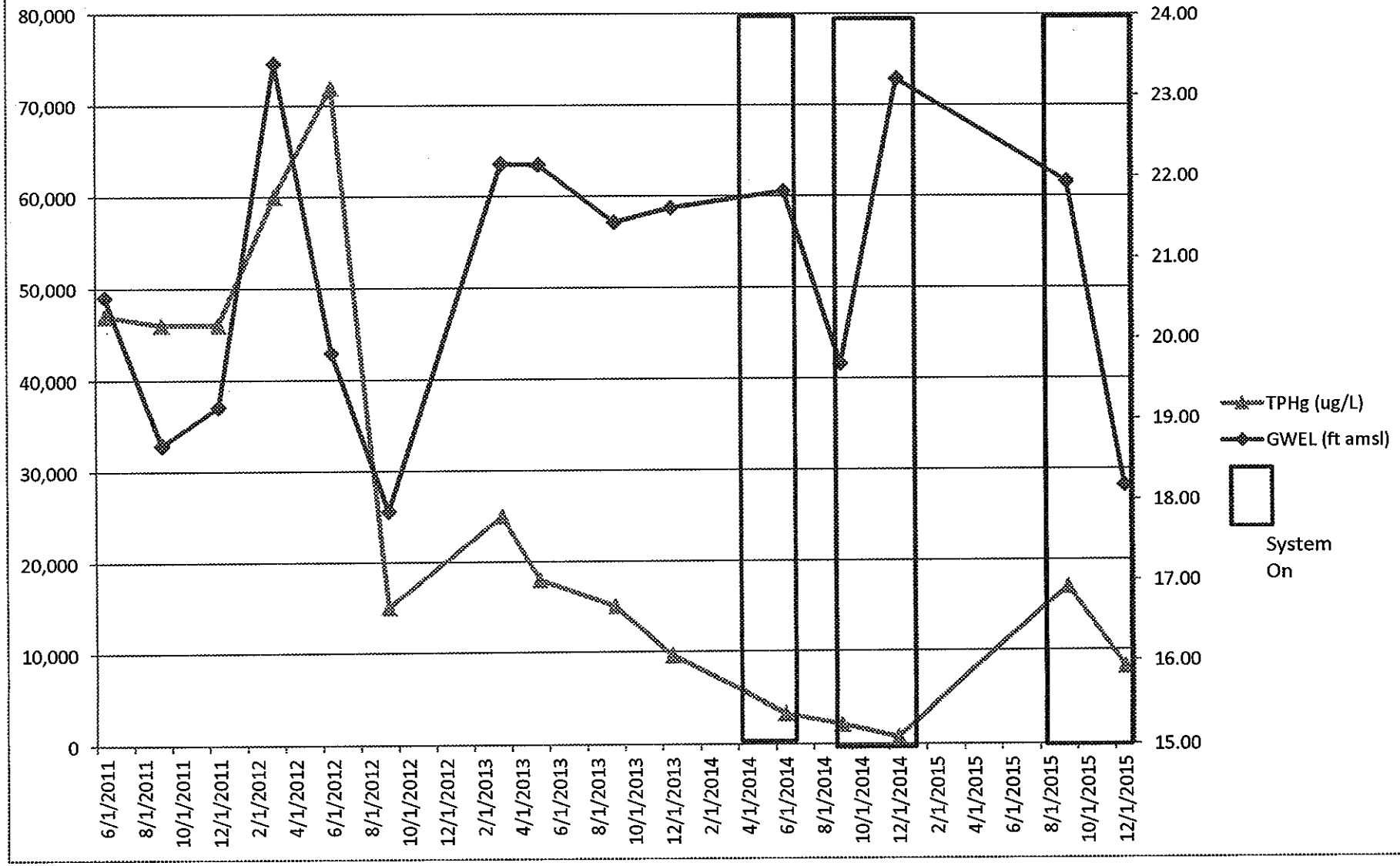


Figure 17
Well MW-4
Benzene and GWEl vs. Time
Shore Acres Gas

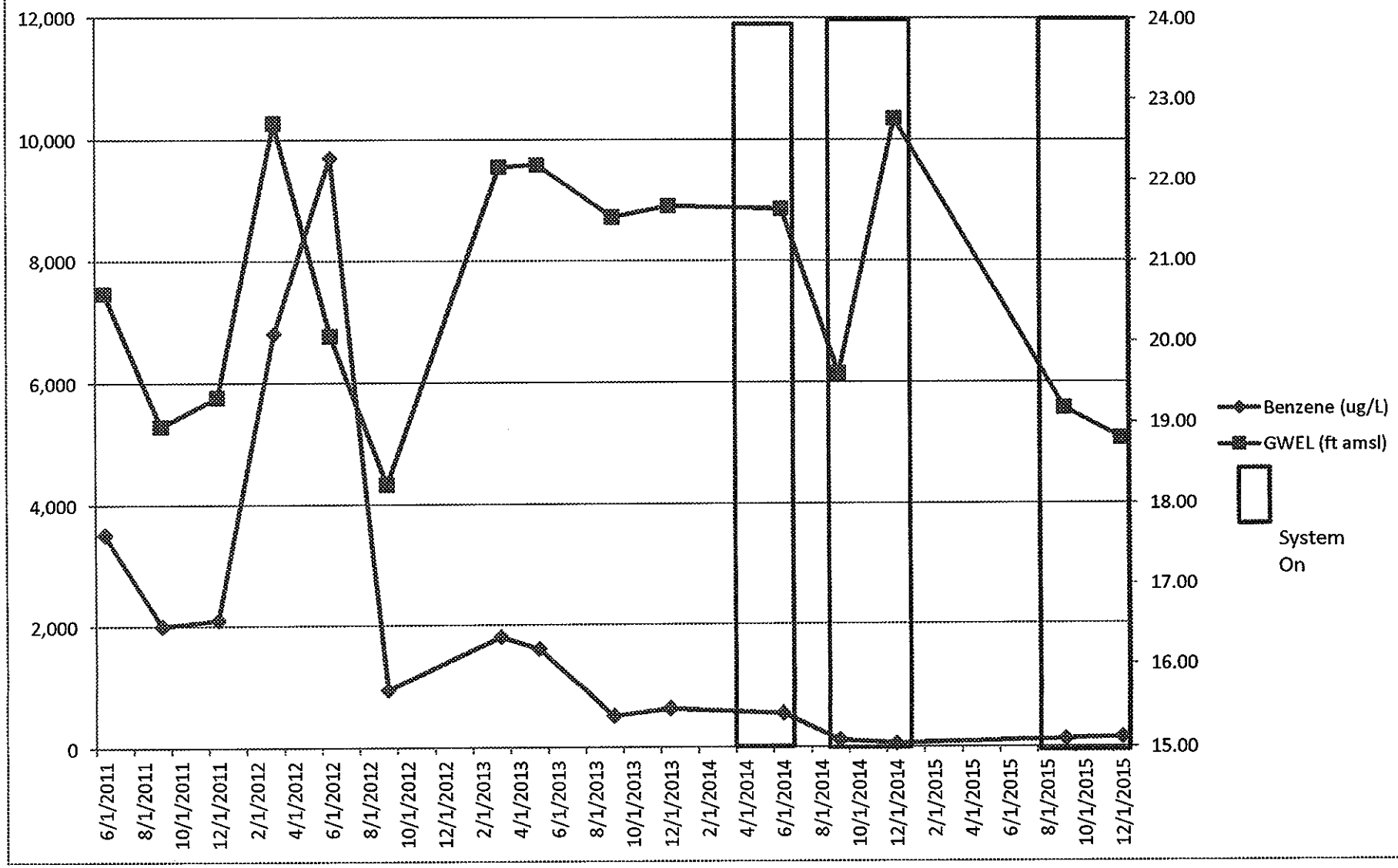


Figure 18
Well MW-4
MTBE and GWEl vs. Time
Shore Acres Gas

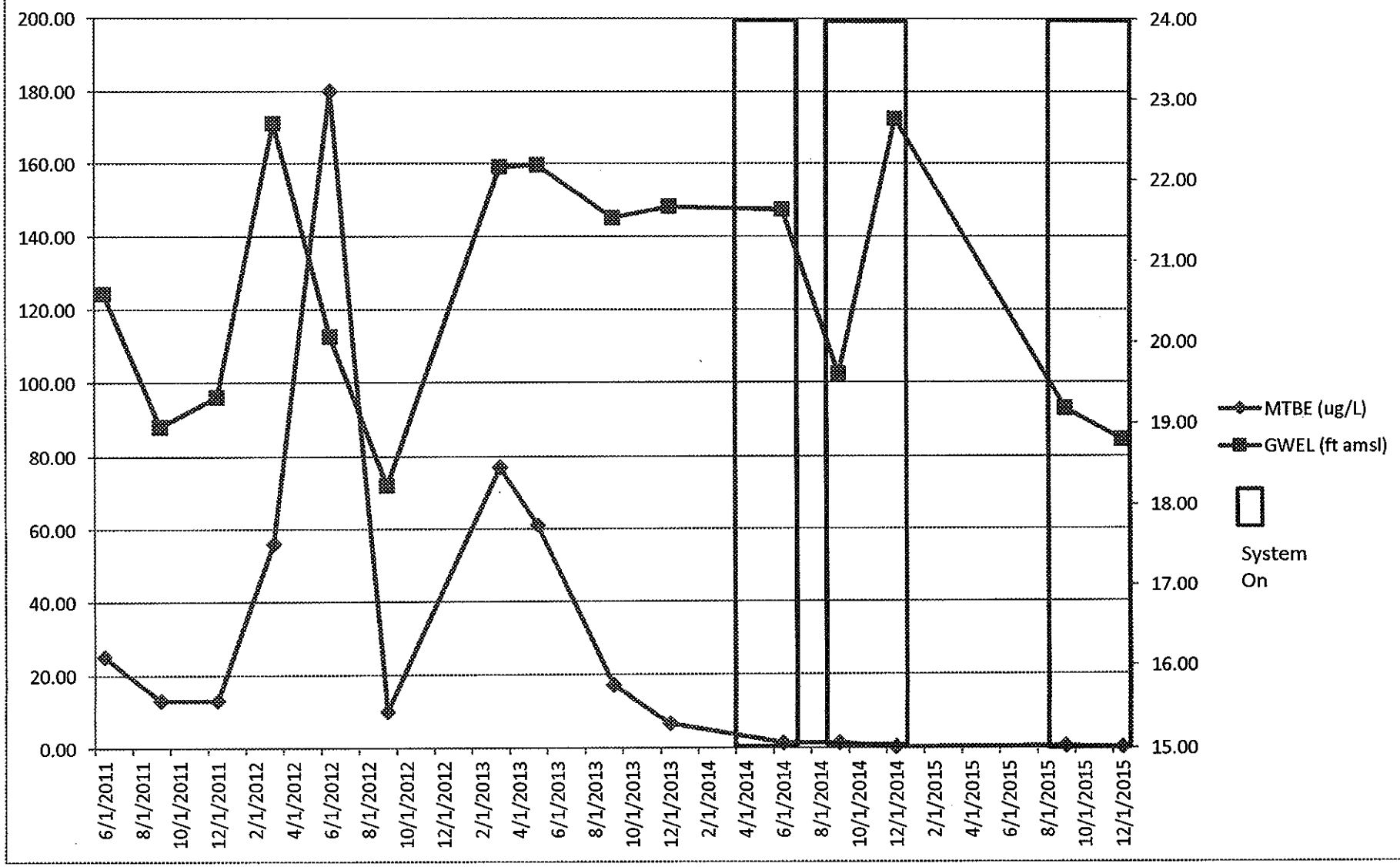


Figure 19
Well MW-6
TPHg and GWEl vs. Time
Shore Acres Gas

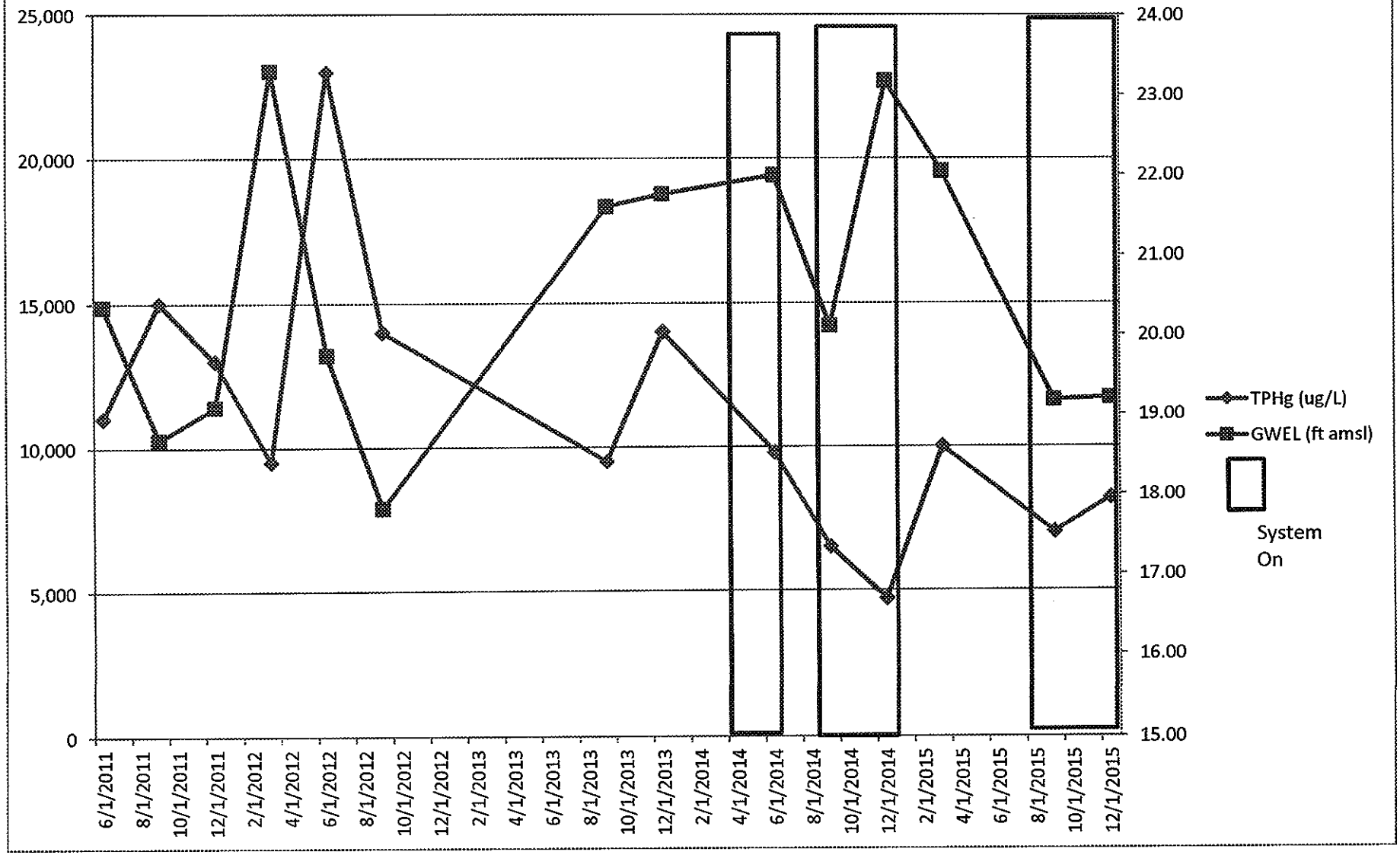


Figure 20
Well MW-6
Benzene and GWEl vs. Time
Shore Acres Gas

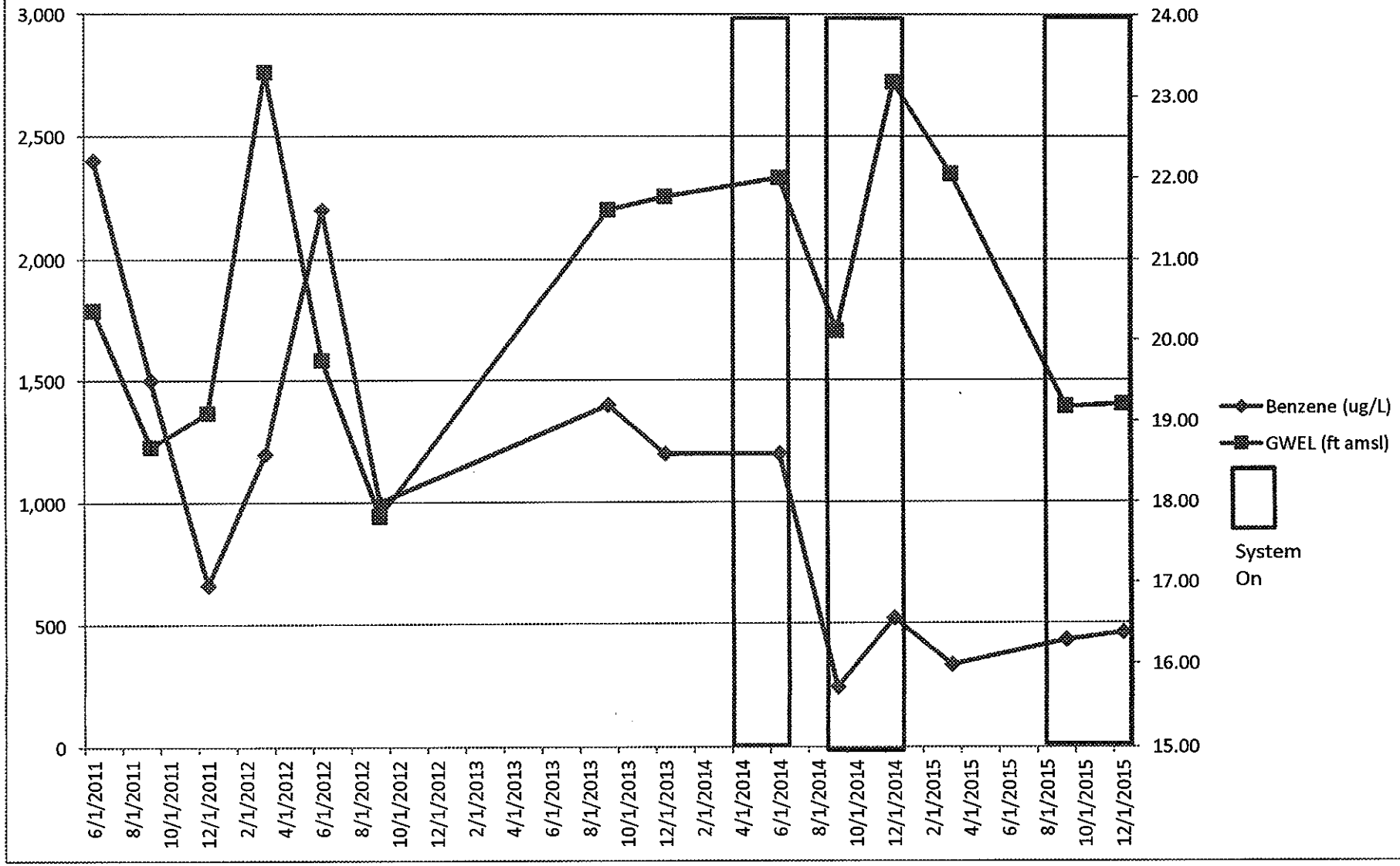
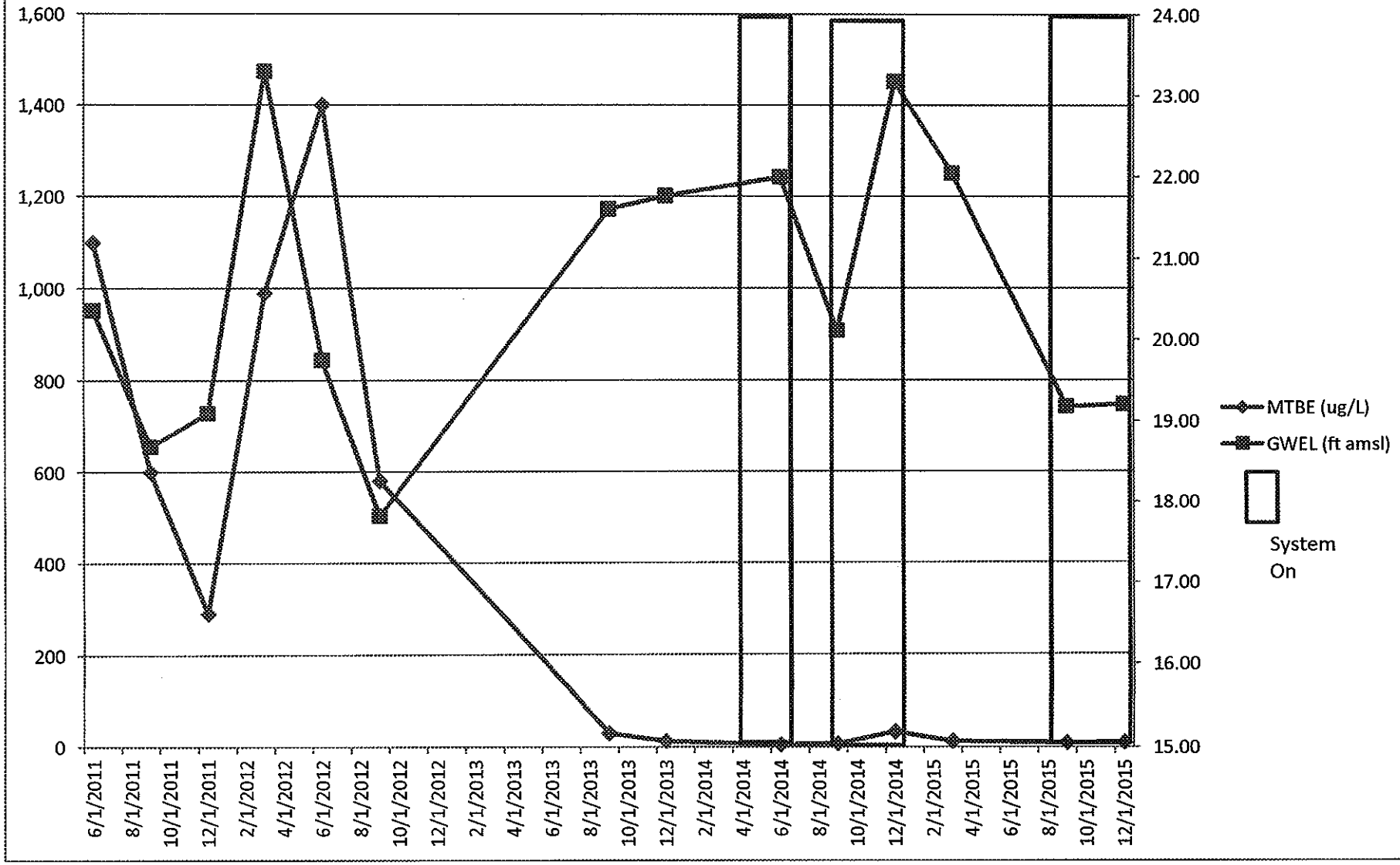


Figure 21
Well MW-4
MTBE and GWEl vs. Time
Shore Acres Gas



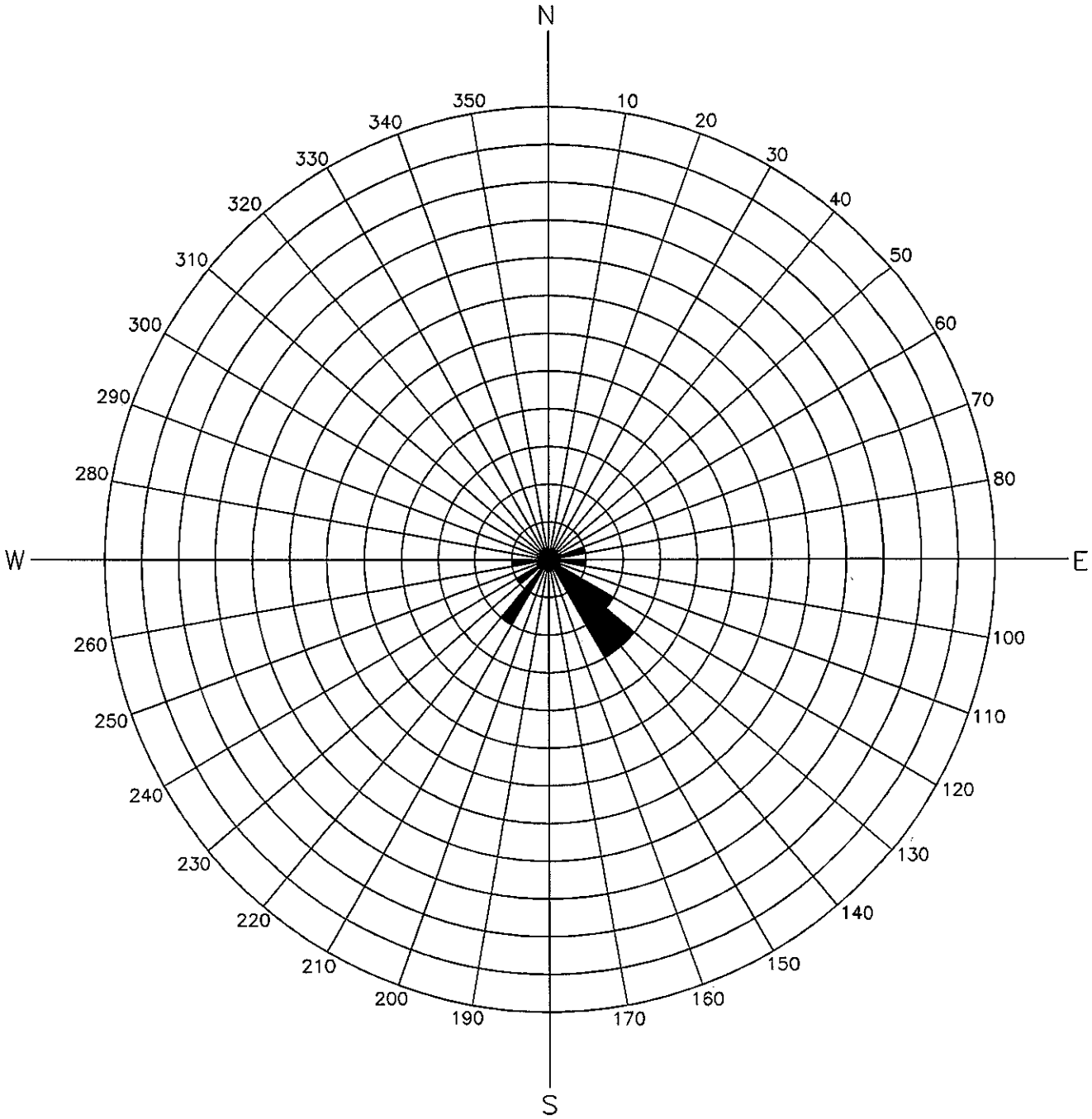


FIGURE 22	**ROSE DIAGRAM**	**Environmental Compliance Group, LLC**
Project Number: GHA.19009	Shore Acre Gas 403 East 12th Street Oakland, California	270 Vintage Drive, Turlock, CA 95382 Phone: (209) 664–1035
Date: August 1, 2016		

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							
EW-1	June 2011	31.46	20	4	PVC	0.020/#3	5-20
EW-2		31.43	20	4	PVC	0.020/#3	5-20
EW-3	May 2012	---	20	6	PVC	0.020/#3	5-20
EW-4		---	20	6	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	December 2011	---	<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	December 2011	<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							
	6/1/2012	11.04	19.77	---	40,000	4,100	800	2,700	6,100
	9/14/2012	12.96	17.85	<100	20,000	2,700	160	830	2,600
	3/27/2013	8.57	22.24	<50	15,000	1,700	150	400	830
	5/20/2013	8.57	22.24	<100	22,000	2,800	870	560	2,000
	9/4/2013	9.29	21.52	<250	12,000	2,900	130	190	370
	12/6/2013	9.11	21.70	<120	15,000	3,000	780	580	2,400
	6/27/2014	8.92	21.89	<120	15,000	2,500	280	2,400	2,400
	9/19/2014	10.98	19.83	---	11,000	530	190	460	950
	12/15/2014	7.66	23.15	---	11,000	1,100	140	310	420
	3/31/2015	8.81	22.00	---	38,000	1,200	230	810	2,600
	9/18/2015	12.23	18.58	---	7,600	890	38	240	360
	12/16/2015	12.02	18.79	---	**8,900**	**580**	**16**	**110**	**110**
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
	6/1/2012	11.26	20.03	---	5,300	830	260	630	1,700
	9/14/2012	13.11	18.18	<50	10,000	260	190	600	1,900
	3/27/2013	9.43	21.86	<50	12,000	440	98	320	810
	5/20/2013	9.41	21.88	<100	6,600	300	74	190	500
	9/4/2013	10.11	21.18	<100	5,300	300	50	180	280
	12/6/2013	9.93	21.36	<50	4,300	280	39	140	160
	6/27/2014	9.93	21.36	<50	1,300	200	22	85	160
	9/19/2014	12.49	18.80	---	990	42	12	97	110
	12/15/2014	8.65	22.64	---	85	14	3.3	5.2	13
	3/31/2015	9.83	21.46	---	---	---	---	---	---
	9/18/2015	12.45	18.84	---	1,300	29	8.9	44	120
	12/16/2015	12.57	18.72	---	**880**	**8.2**	**2.9**	**16**	**30**

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)
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
	6/1/2012	11.47	19.83	---	83,000	15,000	6,000	2,900	10,000
	9/14/2012	13.42	17.88	<200	69,000	10,000	1,500	1,800	5,900
	3/27/2013	9.15	22.15	<200	63,000	7,100	2,100	1,900	7,700
	5/20/2013	9.16	22.14	<250	80,000	9,700	2,900	2,400	8,600
	9/4/2013	9.87	21.43	<250	47,000	7,200	470	1,200	5,000
	12/6/2013	9.69	21.61	<50	19,000	5,600	240	520	1,600
	6/27/2014	9.49	21.81	<50	12,000	5,800	240	860	760
	9/19/2014	11.62	19.68	---	9,500	610	160	220	400
	12/15/2014	8.10	23.20	---	1,300	260	69	39	120
	3/31/2015	9.37	21.93	---	13,000	1,300	270	230	700
	9/18/2015	13.13	18.17	---	8,300	1,000	150	150	440
	12/16/2015	13.09	18.21	---	**11,000**	**1,100**	**130**	**290**	**350**
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
	6/1/2012	11.14	20.07	---	72,000	9,700	8,500	2,300	9,000
	9/14/2012	12.97	18.24	<50	15,000	940	880	450	1,700
	3/27/2013	9.05	22.16	<50	25,000	1,800	2,200	660	2,500
	5/20/2013	9.03	22.18	<250	18,000	1,600	1,700	470	1,900
	9/4/2013	9.68	21.53	<50	15,000	510	410	260	820
	12/6/2013	9.54	21.67	<50	9,600	630	650	240	970
	6/27/2014	9.58	21.63	<50	3,300	550	2,900	200	420
	9/19/2014	11.61	19.60	---	2,100	110	54	92	210
	12/15/2014	8.45	22.76	---	720	58	32	29	33
	3/31/2015	9.46	21.75	---	---	---	---	---	---
	9/18/2015	12.03	19.18	---	17,000	130	33	70	200
	12/16/2015	12.41	18.80	---	**8,200**	**160**	**44**	**88**	**130**

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)
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					
	6/1/2012	11.38	19.97	Sheen - not sampled					
	9/14/2012	13.61	17.74	Free product - not sampled					
	3/27/2013	9.21	22.14	Free product - not sampled					
	5/20/2013	9.17	22.18	Free product - not sampled					
	9/4/2013	9.70	21.65	Free product - not sampled					
	12/6/2013	9.67	21.68	<250	81,000	10,000	13,000	5,500	21,000
	6/27/2014	9.51	21.84	Free product - not sampled					
	9/19/2014	12.91	18.44	---	56,000	1,000	270	1,000	4,100
	12/15/2014	---	---	---	13,000	840	530	450	1,700
	3/31/2015	9.36	21.99	---	34,000	1,100	570	500	2,000
	9/18/2015	---	---	---	9,800	290	23	140	270
	12/16/2015	---	---	---	**6,100**	**220**	**5.8**	**92**	**35**
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
	6/1/2012	11.04	19.75	---	23,000	2,200	220	1,300	3,000
	9/14/2012	12.96	17.83	<50	14,000	1,000	86	420	1,200
	3/27/2013	---	---	Inaccessible					
	5/20/2013	---	---	Inaccessible					
	9/4/2013	9.19	21.60	<100	9,500	1,400	120	1,400	1,600
	12/6/2013	9.03	21.76	<100	14,000	1,200	24	1,400	810
	6/27/2014	8.80	21.99	<100	9,800	1,200	75	2,800	530
	9/19/2014	10.68	20.11	---	6,500	240	21	490	110
	12/15/2014	7.62	23.17	---	4,700	520	25	110	43
	3/31/2015	8.75	22.04	---	10,000	330	12	80	73
	9/18/2015	11.61	19.18	---	7,000	430	24	120	110
	12/16/2015	11.58	19.21	---	**8,200**	**460**	**12**	**17**	**26**

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)
DPE Wells									
EW-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
	6/1/2012	11.42	19.84	---	21,000	2,800	100	1,200	3,100
	9/14/2012	13.37	17.89	<50	22,000	1,900	50	1,000	2,600
	3/27/2013	9.06	22.20	<50	15,000	630	36	360	590
	5/20/2013	9.06	22.20	<100	11,000	600	28	210	350
	9/4/2013	9.77	21.49	<50	9,300	610	19	170	250
	12/6/2013	9.63	21.83	<100	11,000	740	17	260	340
	6/27/2014	9.55	21.91	<100	12,000	1,400	210	1,900	2,400
	9/19/2014	12.41	19.05	---	28,000	1,000	450	1,400	3,900
	12/15/2014	8.20	23.26	---	4,000	560	29	150	150
	3/31/2015	9.30	22.16	---	---	---	---	---	---
	9/18/2015	13.25	18.21	---	6,900	370	5.5	190	210
	12/16/2015	13.22	18.24	---	**6,000**	**250**	**5.3**	**31**	**31**
EW-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
	6/1/2012	11.40	20.00	---	82,000	8,800	8,600	3,300	13,000
	9/14/2012	13.27	18.13	<100	32,000	2,600	2,400	1,000	4,500
	3/27/2013	9.24	22.16	<100	18,000	940	790	390	1,700
	5/20/2013	9.21	22.19	<50	10,000	540	430	220	790
	9/4/2013	9.88	21.52	<250	10,000	680	580	480	1,700
	12/6/2013	9.96	21.47	<50	13,000	620	380	350	1,600
	6/27/2014	9.85	21.58	<50	27,000	3,200	5,600	1,200	8,000
	9/19/2014	16.80	14.63	---	18,000	690	1,300	360	2,400
	12/15/2014	8.73	22.70	---	11,000	510	500	160	1,100
	3/31/2015	9.90	21.53	---	---	---	---	---	---
	9/18/2015	15.10	16.33	---	16,000	1,400	2,400	520	3,400
	12/16/2015	16.57	14.86	---	**29,000**	**1,400**	**3,300**	**400**	**2,500**

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)
EW-3	5/20/2013	8.82	---	<50	1,300	430	540	280	1,000
	9/4/2013	9.49	---	<100	9,800	480	220	560	1,800
	12/6/2013	10.05	---	<50	10,000	810	580	260	1,100
	6/27/2014	9.90	---	<50	27,000	4,300	4,300	1,200	7,900
	9/19/2014	13.00	---	---	15,000	670	650	530	2,400
	12/15/2014	8.20	---	---	26,000	1,200	1,100	350	2,000
	3/31/2015	9.31	---	---	8,000	170	18	130	560
	9/18/2015	13.98	---	---	12,000	340	110	180	1,900
	12/16/2015	14.31	---	---	**11,000**	**360**	**75**	**110**	**920**
EW-4	5/20/2013	9.12	---	<50	8,100	720	160	94	430
	9/4/2013	9.85	---	<250	11,000	990	580	310	1,200
	12/6/2013	9.62	---	<50	4,400	150	170	140	670
	6/27/2014	9.47	---	<50	8,400	1,500	940	540	2,100
	9/19/2014	12.48	---	---	9,000	680	1,600	450	3,000
	12/15/2014	8.50	---	---	7,700	570	170	320	1,000
	3/31/2015	9.78	---	---	23,000	1,000	1,200	420	1,700
	9/18/2015	15.45	---	---	7,200	860	62	55	130
	12/16/2015	16.08	---	---	**5,200**	**1,200**	**35**	**40**	**81**

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						
	6/1/2012	<20	<20	2,800	<20	1,300	<20	<20
	9/14/2012	<10	<10	2,200	<10	1,600	<10	<10
	3/27/2013	<0.5	<0.5	590	<0.5	350	<0.5	<0.5
	5/20/2013	<10	<10	1,100	<10	620	<10	<10
	9/4/2013	<10	<10	240	<10	<100	<10	<10
	12/6/2013	<5.0	<5.0	350	<50	<100	<5.0	<5.0
	6/27/2014	<10	<10	97	<10	<100	<10	<10
	9/19/2014	<10	<10	150	<10	<100	<10	<10
	12/15/2014	<0.5	<0.5	310	<0.5	98	<0.5	<0.5
	3/31/2015	<5.0	<5.0	330	<5.0	<50	<5.0	<5.0
	9/18/2015	<5.0	<5.0	150	<5.0	<50	<5.0	<5.0
	12/16/2015	<5.0	<5.0	**57**	<5.0	<50	<5.0	<5.0
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
	6/1/2012	<5.0	<5.0	180	<5.0	490	<5.0	<5.0
	9/14/2012	<5.0	<5.0	65	<5.0	190	<5.0	<5.0
	3/27/2013	<0.5	<0.5	120	<0.5	930	<0.5	<0.5
	5/20/2013	<2.5	<2.5	120	<2.5	1,800	<2.5	<2.5
	9/4/2013	<5.0	<5.0	100	<5.0	780	<5.0	<5.0
	12/6/2013	<5.0	<5.0	63	<5.0	230	<5.0	<5.0
	6/27/2014	<5.0	<5.0	21	<5.0	<50	<5.0	<5.0
	9/19/2014	<5.0	<5.0	16	<5.0	<50	<5.0	<5.0
	12/15/2014	<0.5	<0.5	7.3	<0.5	23	<0.5	<0.5
	3/31/2015	---	---	---	---	---	---	---
	9/18/2015	<0.5	<0.5	4.1	<0.5	<5.0	<0.5	<0.5
	12/16/2015	<0.5	<0.5	**1.0**	<0.5	<5.0	<0.5	<0.5

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)
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
	6/1/2012	<50	<50	12,000	<50	<500	<50	<50
	9/14/2012	<50	<50	9,400	<50	<500	<50	<50
	3/27/2013	<0.5	<0.5	7,900	<0.5	3,800	<0.5	<0.5
	5/20/2013	<25	<25	10,000	<25	5,000	<25	<25
	9/4/2013	<25	<25	5,300	<25	2,100	<25	<25
	12/6/2013	<25	<25	1,400	<25	640	<25	<25
	6/27/2014	<25	<25	520	<25	260	<25	<25
	9/19/2014	<25	<25	390	<25	370	<25	<25
	12/15/2014	<0.5	<0.5	110	<0.5	140	<0.5	<0.5
	3/31/2015	<5.0	<5.0	980	<5.0	610	<5.0	<5.0
	9/18/2015	<5.0	<5.0	410	<5.0	410	<5.0	<5.0
	12/16/2015	<5.0	<5.0	**290**	<5.0	<50	<5.0	<5.0
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
	6/1/2012	<50	<50	180	<50	<500	<50	<50
	9/14/2012	<20	<20	<20	<20	<200	<20	<20
	3/27/2013	<0.5	<0.5	77	<0.5	450	<0.5	<0.5
	5/20/2013	<10	<10	61	<10	360	<10	<10
	9/4/2013	<2.5	<2.5	17	<2.5	64	<2.5	<2.5
	12/6/2013	<2.5	<2.5	6.6	<2.5	<25	<2.5	<2.5
	6/27/2014	<2.5	<2.5	<2.5	<2.5	<25	<2.5	<2.5
	9/19/2014	<2.5	<2.5	<2.5	<2.5	<25	<2.5	<2.5
	12/15/2014	<0.5	<0.5	<0.5	<0.5	13	<0.5	<0.5
	3/31/2015	---	---	---	---	---	---	---
	9/18/2015	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
	12/16/2015	<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0

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)
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						
	6/1/2012	Sheen - not sampled						
	9/14/2012	Free product - not sampled						
	3/27/2013	Free product - not sampled						
	5/20/2013	Free product - not sampled						
	9/4/2013	Free product - not sampled						
	12/6/2013	<25	<25	270	<25	<250	<25	<25
	6/27/2014	Free product - not sampled						
	9/19/2014	<25	<25	75	<25	<250	<25	<25
	12/15/2014	<0.5	<0.5	370	<0.5	340	<0.5	<0.5
	3/31/2015	<5.0	<5.0	71	<5.0	280	<5.0	<5.0
	9/18/2015	<5.0	<5.0	15	<5.0	<50	<5.0	<5.0
	12/16/2015	<5.0	<5.0	**17**	<5.0	<50	<5.0	<5.0
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
	6/1/2012	<10	<10	1,400	<10	2,200	<10	<10
	9/14/2012	<10	<10	580	<10	2,000	<10	<10
	3/27/2013	Inaccessible						
	5/20/2013	Inaccessible						
	9/4/2013	<5.0	<5.0	29	<5.0	140	<5.0	<5.0
	12/6/2013	<2.5	<2.5	12	<2.5	<25	<2.5	<2.5
	6/27/2014	<2.5	<2.5	4.9	<2.5	<25	<2.5	<2.5
	9/19/2014	<2.5	<2.5	7.1	<2.5	<25	<2.5	<2.5
	12/15/2014	<0.5	<0.5	33	<0.5	88	<0.5	<0.5
	3/31/2015	<5.0	<5.0	12	<5.0	<50	<5.0	<5.0
	9/18/2015	<2.5	<2.5	9.6	<2.5	<25	<2.5	<2.5
	12/16/2015	<5.0	<5.0	**10**	<5.0	<50	<5.0	<5.0

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								
EW-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
	6/1/2012	<25	<25	500	<25	1,700	<25	<25
	9/14/2012	<10	<10	370	<10	1,400	<10	<10
	3/27/2013	<0.5	<0.5	270	<0.5	560	<0.5	<0.5
	5/20/2013	<5.0	<5.0	250	<5.0	560	<5.0	<5.0
	9/4/2013	<2.5	<2.5	220	<2.5	590	<2.5	<2.5
	12/6/2013	<2.5	<2.5	130	<2.5	270	<2.5	<2.5
	6/27/2014	<10	<10	40	<10	<100	<10	<10
	9/19/2014	<20	<20	300	<20	<200	<20	<20
	12/15/2014	<0.5	<0.5	170	<0.5	110	<0.5	<0.5
	3/31/2015	---	---	---	---	---	---	---
	9/18/2015	<2.5	<2.5	100	<2.5	<25	<2.5	<2.5
	12/16/2015	<5.0	<5.0	**24**	<5.0	<50	<5.0	<5.0
EW-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
	6/1/2012	<50	<50	2,600	<50	3,300	<50	<50
	9/14/2012	<20	<20	1,100	<20	2,400	<20	<20
	3/27/2013	<0.5	<0.5	360	<0.5	1,800	<0.5	<0.5
	5/20/2013	<2.5	<2.5	390	<2.5	2,600	<2.5	<2.5
	9/4/2013	<5.0	<5.0	460	<5.0	1,400	<5.0	<5.0
	12/6/2013	<10	<10	210	<10	560	<10	<10
	6/27/2014	<10	<10	110	<10	<100	<10	<10
	9/19/2014	<25	<25	96	<25	<250	<25	<25
	12/15/2014	<0.5	<0.5	94	<0.5	66	<0.5	<0.5
	3/31/2015	---	---	---	---	---	---	---
	9/18/2015	<10	<10	50	<10	<100	<10	<10
	12/16/2015	<50	<50	**58**	<50	<500	<50	<50

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)
EW-3	5/20/2013	<2.5	<2.5	140	<2.5	1,100	<2.5	<2.5
	9/4/2013	<2.5	<2.5	120	<2.5	650	<2.5	<2.5
	12/6/2013	<2.5	<2.5	96	<2.5	690	<2.5	<2.5
	6/27/2014	<5.0	<5.0	150	<5.0	360	<5.0	<5.0
	9/19/2014	<25	<25	75	<25	<250	<25	<25
	12/15/2014	<0.5	<0.5	160	<0.5	700	<0.5	<0.5
	3/31/2015	<5.0	<5.0	38	<5.0	68	<5.0	<5.0
	9/18/2015	<5.0	<5.0	120	<5.0	<50	<5.0	<5.0
	12/16/2015	<5.0	<5.0	**81**	<5.0	<50	<5.0	<5.0
EW-4	5/20/2013	<5.0	<5.0	480	<5.0	1,900	<5.0	<5.0
	9/4/2013	<5.0	<5.0	220	<5.0	1,300	<5.0	<5.0
	12/6/2013	<5.0	<5.0	58	<5.0	430	<5.0	<5.0
	6/27/2014	<2.5	<2.5	82	<2.5	65	<2.5	<2.5
	9/19/2014	<20	<20	120	<20	520	<20	<20
	12/15/2014	<0.5	<0.5	100	<0.5	110	<0.5	<0.5
	3/31/2015	<5.0	<5.0	140	<5.0	310	<5.0	<5.0
	9/18/2015	<5.0	<5.0	140	<5.0	420	<5.0	<5.0
	12/16/2015	<5.0	<5.0	**87**	<5.0	**390**	<5.0	<5.0

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

Table 5a
Soil Vapor Extraction System Performance Calculations
Shore Acres Gas
403 East 12th Street
Oakland, California

Date	Meter* (hours)	Influent Flow Rate (scfm)	Influent Sample Results			Extraction Rates (lb/day)			Cumulative Extraction (lb)		
			TPHg (ppmv)	Benzene (ppmv)	MTBE (ppmv)	TPHg (lb/day)	Benzene (lb/day)	MTBE (lb/day)	TPHg (lb)	Benzene (lb)	MTBE (lb)
05/27/14	590.3	106.0	2,500	14	0.73	112	0.5	0.0	2,745	11.4	0.7
06/17/14	961.5	125.0	40	1.4	0.18	2.1	0.05	0.0	2,778	12.3	0.8
06/27/14	988.2	Unit shut down for Carbon Change Out									
08/15/14	988.2	Restart Unit									
08/19/14	992.6	125.0	33	0.79	0.13	1.7	0.03	0.0	2,780	12.3	0.8
09/25/14	1,535.7	163.0	2,100	15	< 0.1	144	0.77	0.0	6,042	29.7	0.9
10/28/14	1,750.4	146.0	130	2.4	0.44	8.0	0.11	0.0	6,114	30.6	1.1
12/09/14	2,142.4	154.0	610	2.6	0.23	40	0.13	0.0	6,760	32.7	1.3
02/18/15	2,708.3	System shut down, propane tank removed from site									
08/11/15	2,708.9	System restarted									
08/25/15	2,864.4	125.0	344	2.7	< 0.1	18	0.11	0.0	7,305	32.6	1.3
09/29/15	3,428.0	128.0	91	1.4	< 0.1	5	0.06	0.0	7,420	33.9	1.4
10/26/15	3,742.1	122.0	225	0.97	< 0.1	12	0.04	0.0	7,571	34.4	1.5
11/23/15	4,175.9	150.0	407	1.2	< 0.1	26	0.06	0.0	8,036	35.4	1.6
12/16/15	4,613.3	148.0	102	0.84	< 0.1	6	0.04	0.0	8,152	36.1	1.6
12/16/15	4,613.3	Unit shut down for Carbon Change Out									

MW_{TPHg} = Molecular Weight of TPHg = 105 MW_{MTBE} = Molecular Weight of Methyl tert-butyl ether = 88.15
$MW_{Benzene}$ = Molecular Weight of Benzene = 78.11

days of operation during quarter 49.4

ft^3 = cubic feet min = minutes lb/day = pounds per day
ppmv = parts per million by volume = ft^3 / $1x10^6$ ft^3 scfm = standard cubic feet per minute

NS = not sampled NA = not analyzed NC = not calculated

Extraction rate = (flow rate(ft^3/min) x concentration (ft^3 / $1x10^6$ ft^3) x MW_{TPHg}(lb/lb-mol) x 1440 min/day)/(359 ft^3/lb-mol*)

* - Hour meter readings does not match field data sheets because hour meter was 5472.6 when unit was started.

Table 5b

Soil Vapor Extraction System Destruction Efficiency and Emission Calculations

Shore Acres Gas

403 East 12th Street

Oakland, California

Date	Stack Flow Rate (scfm)	Stack Sample Results (ppmv)			Emission Rates (lb/day)			Destruction Efficiency (%)		
		TPHg	Benzene	MTBE	TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
05/27/14	106.0	< 5.0	< 0.050	< 0.10	< 0.2	< 0.002	< 0.004	100.0	100.0	100.0
06/17/14	125.0	< 5.0	< 0.050	< 0.10	< 0.2	< 0.002	< 0.004	100.0	100.0	100.0
08/19/14	125.0	< 5.0	< 0.050	< 0.10	< 0.2	< 0.002	< 0.004	100.0	100.0	100.0
09/25/14	163.0	< 5.0	< 0.050	< 0.10	< 0.3	< 0.003	< 0.006	100.0	100.0	100.0
10/28/14	146.0	< 5.0	< 0.050	< 0.10	< 0.3	< 0.002	< 0.005	100.0	100.0	100.0
12/09/14	154.0	< 5.0	< 0.050	< 0.10	< 0.3	< 0.002	< 0.005	100.0	100.0	100.0
02/18/15	154.0	System shutdown and propane tank removed from site								
08/11/15	121.0	System restart								
08/25/15	125.0	< 5.0	< 0.050	< 0.10	< 0.2	< 0.002	< 0.004	100.0	100.0	100.0
10/26/15	122.0	< 5.0	< 0.050	< 0.10	< 0.2	< 0.002	< 0.004	100.0	100.0	100.0
11/23/15	150.0	< 5.0	< 0.050	< 0.10	< 0.3	< 0.002	< 0.005	100.0	100.0	100.0
12/16/15	148.0	< 5.0	< 0.050	< 0.10	< 0.3	< 0.002	< 0.005	100.0	100.0	100.0
12/16/15		System shutdown and propane tank removed from site								

Note: "<" indicates analytical method detection limit; method detection limits are used as stack concentrations to estimate emission rates. Destruction efficiency is assumed to be 100%.

Sample Calculations

Emission rate = flow rate(ft^3/min) x concentration (ft^3 / $1x10^6$ ft^3) x MW (lb/lb-mole)/359 (ft^3/lb-mole*) x 1440 min/day

Destruction Efficiency = [(Extraction rate - Emission rate)/Extraction rate] x 100%

Stack flow = Catox Influent + Natural Gas flow rate

lb/day = pounds per day

ft^3 = cubic feet

ppmv = parts per million by volume = ft^3 / $1x10^6$ ft^3

NS = not sampled

min = minutes

scfm = standard cubic feet per minute

NA = Not applicable

Table 5c
Groundwater Treatment System Performance Data
Shore Acres Gas
403 East 12th Street
Oakland, California

DATE	TOTAL FLOW (gallons)	AVG. PERIOD FLOW RATE (gallons/min)	Influent Water Analytical Results			Estimated Removal Rates			Estimated Removal (Period)			Estimated Removal (Cumulative)		
			TPHg (ug/L)	Benzene (ug/L)	MTBE (ug/L)	TPHg (lb/day)	Benzene (lb/day)	MTBE (lb/day)	TPHg (pounds)	Benzene (pounds)	MTBE (pounds)	TPHg (pounds)	Benzene (pounds)	MTBE (pounds)
04/30/14	189,810	Unit Start Up												
06/27/14	358,850	2.02	18,600	2,600	96	0.45	0.063	0.002	26.21	3.66	0.13	26.21	3.66	0.13
08/19/14	360,060	Unit Stut Down for Carbon Change Out												
09/25/14	463,050	1.93	17,500	760	148	0.41	0.018	0.003	15.03	0.65	0.13	41.24	4.32	0.26
12/15/14	613,230	1.29	12,175	710	131	0.19	0.011	0.002	15.24	0.89	0.16	56.48	5.21	0.43
02/18/15	766,392	1.64	15,500	585	89	0.30	0.011	0.002	19.79	0.75	0.11	76.27	5.95	0.54
02/18/15	766,392	Unit Stut Down for Change from Propane to Natural Gas												
08/11/15	766,392	Unit Restarted												
09/18/15	849,579	1.52	10,525	743	103	0.19	0.014	0.002	40.72	2.87	0.40	117.00	8.83	0.94
12/16/15	1,082,639	1.82	12,800	803	63	0.28	0.018	0.001	35.49	2.23	0.17	152.49	11.05	1.11
	233,060	**total gallons pumped during current reporting period**							35.49	2.23	0.17			
	3884	**average gallons per day during current reporting period**												
	2.7	**average gallons per minute during current reporting period**												

Notes:
Influent concentrations are an average of extraction wells EW-1 through EW-4
Groundwater flow meter was 189,910 when unit was started up
Sample Calculations:
Extraction/ disposal rate = flow rate(gallons/min) * concentration (ug/L) * 3.785 L/gallon *lb/454,000,000 ug * 1440 min/day

NC - Not calculated
NS - Not Sampled
--- - Not Analyzed

MTBE - Methyl tertiary butyl ether
TPHg - Total Petroleum Hydrocarbons as gasoline
TBA -Tertiary butyl ether

lb/day - pounds per day
ug/L - micrograms per liter

Table 6
TPHg, Benzene, and MTBE Masses in Soil
Shore Acres Gas
403 East 12th Street
Oakland, California

TPHg Average[1] Concentration (mg/kg)	Area (ft^2)	Thickness (ft)	Volume (ft^3)	Mass[2] (lbs)
11-20 feet bgs				
3,250	4,900	4	19,600	6,370
550	8,100	12	77,600	4,268
55	12,100	15	84,300	464
5.5	19,600	20	210,500	116
Total TPHg Mass				**11,217**

Benzene Average Concentration (mg/kg)	Area (ft^2)	Thickness (ft)	Volume (ft^3)	Mass (lbs)
11-27 feet bgs				
17	625	5	3,125	5
2.75	4,900	10	45,875	13
0.275	19,600	16	264,600	7
0.0275	19,600	20	78,400	0
Total Benzene Mass				**18.1**

MTBE Average Concentration (mg/kg)	Area (ft^2)	Thickness (ft)	Volume (ft^3)	Mass (lbs)
11-27 feet bgs				
0.8	6,400	5	32,000	2.6
0.275	19,600	15	262,000	7.2
0.0275	28,900	20	284,000	0.8
Total MTBE Mass				**10.5**

Notes

(1) Average of highest area = average of all concentrations plus isoconcentration value / (number of concentrations + 1)

(2) Assumes a soil bulk density of 100 pounds per cubic foot

Table 7
TPHg, Benzene, and MTBE Masses in Groundwater
Shore Acres Gas
403 East 12th Street
Oakland, California

TPHg Average[(1)] Concentration (ug/L)	Area (ft2)	Depth (ft)	Mass[(2)] (lbs)
75,000	2,142	20	60.11
27,500	7,900	20	81.29
Total TPHg Mass			**141.40**

Benzene Average Concentration (ug/kg)	Area (ft2)	Depth (ft)	Mass (lbs)
11,000	2,456	20	10.11
2,750	5,177	20	5.33
Total Benzene Mass			**15.44**

MTBE Average Concentration (ug/kg)	Area (ft2)	Depth (ft)	Mass (lbs)
9,000	240	20	0.81
2,750	3,137	20	3.23
275	4,943	20	0.51
Total MTBE Mass			**4.54**

Notes

(1) Average of highest area = $\frac{\text{average of all concentrations plus isoconcentration value}}{\text{(number of concentrations + 1)}}$

(2) Assumes a porosity of 30%

APPENDIX A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Acting Director

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

February 18, 2016

Rashid Ghafoor (Sent via e-mail to: rashidz1@aol.com)
226 Havenwood Circle
Pittsburg, CA 94567

Subject: Fuel Leak Case No. RO0002931 and GeoTracker Global ID T0600174667, Shore Acres Gas, 403 E 12th St., Oakland, CA 94606

Dear Mr. Ghafoor:

Thank you for participating by phone with the meeting at our office on Tuesday November 17, 2015. The purpose of the meeting was to discuss our evaluation of the site data in reference to the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP), identify possible technical data gaps, and develop a path to case closure. ACEH understands that redevelopment is not currently under consideration and commercial property usage will continue.

Based on our meeting, ACEH understands that the site is currently leased to a Hand Car Wash business, which started operation in January-February 2015. The Hand Car Wash facility is comprised of an existing site trailer and numerous portable canopies arranged on the paved site.

Alameda County Environmental Health (ACEH) staff has evaluated the case file including the following documents prepared on your behalf by Environmental Compliance Group, LLC:

- *Interim Results and 2nd Quarter 2011 Groundwater Monitoring Event*, August 17, 2011
- *3rd Quarter 2011 Groundwater Monitoring and Interim Results Report Addendum Report*, October 13, 2011
- *Off Site Investigation and Dual Phase Pilot Test Results with 4th Quarter 2011 Groundwater Monitoring Report*, January 26, 2012
- *Corrective Action Plan* (CAP), June 10, 2012
- *Revised Corrective Action Plan* (CAP Addendum), October 25, 2012
- *Path to Closure Plan and Work Plan Report*, April 8, 2013
- *Application for New Authority to Construct*, April 17, 2013
- *Second Quarter 2013 Groundwater Monitoring Report, June 17, 2013*
- *Semi Annual Discharge Report,* October 31, 2014
- Discussion of Recent Remediation Activities in the *Quarterly Groundwater Monitoring and Sampling Reports*

TECHNICAL COMMENTS

1. **Remediation System Optimization:** Dual Phase Extraction (DPE) with groundwater extraction/carbon polishing was the selected remedy in the CAP and CAP Addendum. Two DPE wells, VW-1 and VW-2 were installed in June 2011 and two additional DPE wells, VW-3 and VW-4 were installed in May 2013. The system was installed and operated periodically for a total of 14 months, from April 30, 2014 through June 27, 2014, August 18, 2014 through February 18, 2015, and August 11, 2015 through the present. Please evaluate the effectiveness of the remediation

system and present an analysis with recommendations in the Interim Remediation Report requested below.

a. ACEH is concerned about the impact that the tenant's Hand Car Wash business may have on groundwater at the site. Please provide a description and a figure of the car wash's drainage, including where and how car wash effluent is managed at the site including waste water drainage and disposal.

b. After treatment system non-operation for a defined length of time, and prior to treatment system restart, please propose a method to monitor groundwater quality for rebound.

2. **Evaluation Of The Groundwater Monitoring Well Network:** The groundwater gradient direction at the site appears to vary over 270 degrees, from the west northwest, to the east northeast. An offsite groundwater investigation conducted in December 2011 detected TPH in groundwater in soil borings along 4th Avenue to the southwest of the site but no detections in boring SB-10 placed directly across from the site on East 12th street. Please evaluate the effectiveness of the groundwater monitoring well network and present recommendations in the Interim Remediation Report requested below.

a. Please prepare a rose diagram to assist in determining the predominant groundwater direction;

b. Please provide graphs indicating groundwater concentrations and groundwater elevations together before and during DPE treatment operation and update with each sampling event;

c. Please analyze the influence, if any, of the SVE treatment system operation on the groundwater gradient direction. In all future reports, please include a column on the groundwater monitoring well data tables indicating the status of the treatment system operation, i.e., whether the system was operating during the groundwater sampling events. Please also indicate the status on the *Potentiometric Surface Map* figure.

3. **Sensitive Receptor Survey:** Please perform a Sensitive Receptor Study to determine if sensitive receptors are present within a radius of 1,500 feet of the site by utilizing Alameda County Public Works Agency (ACPWA) and Department of Water Resources (DWR) well data sources for a complete inventory of vicinity water supply wells. ACEH understands that DWR's response is currently delayed, so please utilize ACPWA's data base. ACEH requests the identification and location on a site vicinity figure all active, inactive, standby, decommissioned (sealed with concrete), unrecorded, and abandoned (improperly decommissioned or lost) wells including irrigation, water supply, industrial, dewatering, and cathodic protection wells within a 1,500-foot radius of the site. Please plot the numbered well locations on an aerial photography-based figure and provide a table listing the same numbered well locations, site addresses, well depth and use. Additionally, please identify on the same figure beneficial resources and other sensitive receptors including, but not limited to, surface water bodies, natural resources, schools, hospitals, day care centers, elder care facilities, etc. Please include the sensitive receptor survey in the Interim Remediation Report requested below.

4. **ACPWA Permit Discrepancies and Submittal Of Missing Documents:**

a. **Monitoring Well Survey Coordinates:** Please upload the monitoring well survey data for wells MW-1 through MW-6, EW-1 through EW-4 to Geotracker as described under *Locational Data* and *Elevation Data* in Attachment 2, *UST Program, Geotracker Reporting Requirements*. If the survey data does not meet the current Geotracker standards, please

have the six monitoring wells and four extraction wells surveyed by a California–Licensed Land Surveyor and upload the data to Geotracker.

b. **ACPWA Well Permit Discrepancies:** ACEH notes that discrepancies exist between the number of wells installed compared to the number of wells paid for under an ACPWA permit. Specifically, MW-5, MW-6, EW-3 and EW-4 do not appear to be installed under a required ACPWA well permit. In the future, ACEH requests that all soil borings and wells installed at the site be performed under an ACPWA permit. Additionally, please include the accompanying ACPWA well permit when submitting future investigation reports, an industry standard-practice. Please note that ACPWA is included as a cc on this letter.

   i. The ACPWA Well Permit Conditions state that the contractor must complete and submit Department of Water Resources (DWR) Form 188 for all installed wells (groundwater monitoring and extraction) and mail the original to ACPWA within 60 days of installation. Please submit DWR Form 188 to ACEH and ACPWA by the date provided below even if the DWR Form 188 were previously submitted.

   ii. Please provide a discussion of the apparent name change of wells VW-1 through VW-4 to EW-1 through EW-4 in the Miscellaneous Report requested below. In the future, ACEH requests a brief description and rationale as to the renaming of wells.

c. **Missing Boring Logs:** Please submit the missing boring logs for MW-1 through MW-6, EW-1(or VW-1) through EW-4 (or VW-4), and off-site soil borings SB-10 through SB-21 and their respective ACPWA permits in the Miscellaneous Report requested below. This is an industry standard-practice.

5. **Assessment Of The Potential Of Vapor Intrusion To Indoor Air:** Due to the elevated concentrations of benzene detected September 18, 2015 in groundwater monitoring wells MW-1, MW-3, MW-5, MW-6, EW-1, EW-2, EW-3, and EW-4 and due to the close proximity of MW-1, MW-3, EW-1 and EW-4 to the residence at the southwest property line, ACEH requests preparation of a work plan to assess potential vapor intrusion to indoor air of the on-site trailer and adjacent residences. Please collect vapor samples with the treatment system both on and off. Please ensure that your sampling strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's Final Vapor Intrusion Guidance (October 2011). Consistent with the guidance, ACEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations. Please include the soil vapor investigation work plan with the Interim Remediation Report requested below.

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:

- **March 18, 2016** – Geotracker Confirmation submittal of monitoring well survey data
  File to be named: RO2931_MISC_R_yyyy-mm-dd

- **March 18, 2016** – Miscellaneous Report
  File to be named: RO2931_MISC_R_yyyy-mm-dd

- **March 18, 2016 (Submit Only to ACEH and ACPWA)** – DWR Form 188 for Six Groundwater Monitoring and Four Extraction Wells

- **April 18, 2016 –** Interim Remediation and Soil Vapor Investigation Work Plan
  File to be named: RO2931_IR_WP_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.

Thank you for your cooperation. 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 or call me at (510) 567-6708.

Digitally signed by Karel Detterman
DN: cn=Karel Detterman, o, ou, email=karel.detterman@acgov.org, c=US
Date: 2016.02.18 17:16:20 -08'00'

Karel Detterman, PG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations and Electronic Report Upload (ftp) Instructions

Attachment 2, UST Program, Geotracker Reporting Requirements

Attachment 3, Well Survey Sample Table and Figure

cc: Drew Van Allen, Environmental Compliance Group, LLC (Sent via E-mail to: ecg.ust@gmail.com)
James Yoo, ACPWA (sent via e-mail to jamesy@acpwa.org)
Dilan Roe, ACEH (sent via E-mail to: dilan.roe@acgov.org)
Karel Detterman, ACEH (sent via E-mail to: karel.detterman@acgov.org)
Electronic File, GeoTracker

APPENDIX B

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. Three well volumes of vapor will be purged at a rate less than 200 milliliters per minute (ml/min.), including sand pack pore volume from each soil vapor probe prior to sample collection. 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.

Per the DTSC *Advisory Active Soil Gas Investigations*, April 2012, high quality soil gas data collection is driven by project-specific data quality objectives (DQOs) and can be enhanced by using a shroud and a gaseous tracer compound. This method of leak detection ensures that soil gas wells are properly constructed and the sample train components do not leak. Most gaseous tracer compounds do not affect target analyte measurements nor does their detection require sample dilution. Also, gaseous leak tracer compounds allow a quantitative determination of a leak either in the sampling train or from ambient air intrusion down the borehole.

The shroud will be designed to contain the entire sampling train and the soil gas well annulus. The sampling train will be constructed of material that does not react with the sample analytes and will not off gas or adsorb volatile compounds. The sampling equipment will be clean and shut-in tested prior to use. The gaseous leak tracer compound (isobutylene 100 ppm) concentration inside the shroud will be monitored frequently to verify initial concentrations. A photoionization detector will be used to monitor tracer gas concentrations.

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 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** or Suma canisters as described in **Section 11.0.** Samples 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.

14.0 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.

APPENDIX C

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

04 January 2016

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

RE: Shore Acres Gas Project Data

Enclosed are the results for sample(s) received on 12/18/15 14:20 by California Agriculture & Environmental Laboratory. 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,

Wayne Scott

Lab Manager

Argon Analytical Services, Inc.

CHAIN OF CUSTODY

10.8°c

B5|2018|1512180043

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 Turlock, CA 95382	Address:	2905 Railroad Avenue Ceres, CA 95307
Location:	403 East 12th Street Oakland, CA	Contact:	Mike Sgourakis	Contact:	
Sampler's Name: (print)		Phone:	916.500.4580	Phone:	(209) 581-9280
Sampler's Signature:		Fax:	209.664.1040	Fax:	(209) 581-9282
		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) ☒

Sample ID.	Date	Time	# Containers	Matrix	TPHg by EPA Method 8015M	BTEX, 5 oxygenates, 1,2-DCA, EDB by EPA Method 8260B	EDF Reports	COMMENTS (Preservative)
MW-1	12/10/15	1257	3	water	X	X	X	
MW-2	↓	1210	↓	↓	↓	↓	↓	
MW-3	↓	1309	↓	↓	↓	↓	↓	
MW-4	↓	1225	↓	↓	↓	↓	↓	
MW-5	↓	1320	↓	↓	↓	↓	↓	
MW-6	↓	1242	↓	↓	↓	↓	↓	
EW-1	↓	1025	↓	↓	↓	↓	↓	
EW-2	↓	1330	↓	↓	↓	↓	↓	
EW-3	↓	1335	↓	↓	↓	↓	↓	
EW-4	↓	1340	↓	↓	↓	↓	↓	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	12/18/15	1420	[signature]	12/18/15	14:20

SPECIAL INSTRUCTIONS:

Global ID#

T0600174667

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Compliance Group,LLC Date & Time Received: 12/18/15 14:20

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

Received By: MC Matrix: Water ☑ Soil ☐ Sludge ☐

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

Argon Labs Project Number: R512018/151218043

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:

♥ ♣ ♦ ♠

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	R512018-01	Water	12/16/15 12:57	12/18/15 14:20
MW-2	R512018-02	Water	12/16/15 12:10	12/18/15 14:20
MW-3	R512018-03	Water	12/16/15 13:09	12/18/15 14:20
MW-4	R512018-04	Water	12/16/15 12:25	12/18/15 14:20
MW-5	R512018-05	Water	12/16/15 13:20	12/18/15 14:20
MW-6	R512018-06	Water	12/16/15 12:42	12/18/15 14:20
EW-1	R512018-07	Water	12/16/15 13:25	12/18/15 14:20
EW-2	R512018-08	Water	12/16/15 13:30	12/18/15 14:20
EW-3	R512018-09	Water	12/16/15 13:35	12/18/15 14:20
EW-4	R512018-10	Water	12/16/15 13:40	12/18/15 14:20

Wayne E Kutt

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
MW-1 (R512018-01) Water Sampled: 16-Dec-15 12:57 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**8900**	500	500	ug/L	10	21-Dec-15	8015M	
Surr. Rec.:		*117 %*				"	"	
MW-2 (R512018-02) Water Sampled: 16-Dec-15 12:10 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**880**	500	500	ug/L	10	21-Dec-15	8015M	
Surr. Rec.:		*90 %*				"	"	
MW-3 (R512018-03) Water Sampled: 16-Dec-15 13:09 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**11000**	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*114 %*				"	"	
MW-4 (R512018-04) Water Sampled: 16-Dec-15 12:25 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**8200**	500	500	ug/L	10	21-Dec-15	8015M	
Surr. Rec.:		*112 %*				"	"	
MW-5 (R512018-05) Water Sampled: 16-Dec-15 13:20 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**6100**	500	500	ug/L	10	21-Dec-15	8015M	
Surr. Rec.:		*106 %*				"	"	
MW-6 (R512018-06) Water Sampled: 16-Dec-15 12:42 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**8200**	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*123 %*				"	"	
EW-1 (R512018-07) Water Sampled: 16-Dec-15 13:25 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	**6000**	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*103 %*				"	"	

Approved By Wayne E Keath

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
EW-2 (R512018-08) Water Sampled: 16-Dec-15 13:30 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	29000	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*75 %*				"	"	
EW-3 (R512018-09) Water Sampled: 16-Dec-15 13:35 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	11000	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*107 %*				"	"	
EW-4 (R512018-10) Water Sampled: 16-Dec-15 13:40 Received: 18-Dec-15 14:20								
Total Petroleum Hydrocarbons @ Gasoline	5200	500	500	ug/L	10	23-Dec-15	8015M	
Surr. Rec.:		*97 %*				"	"	

Wayne E. Kotts

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
MW-1 (R512018-01) Water Sampled: 16-Dec-15 12:57 Received: 18-Dec-15 14:20								
Benzene	**580**	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	**16**	5.0	5.0	"	"	"	"	
Xylenes, total	**110**	10	10	"	"	"	"	
Ethylbenzene	**110**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	**57**	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*94 %*				"	"	
MW-2 (R512018-02) Water Sampled: 16-Dec-15 12:10 Received: 18-Dec-15 14:20								
Benzene	**8.2**	0.5	0.5	ug/L	1	26-Dec-15	8260B	
Toluene	**2.9**	0.5	0.5	"	"	"	"	
Xylenes, total	**30**	1.0	1.0	"	"	"	"	
Ethylbenzene	**16**	0.5	0.5	"	"	"	"	
t-Butanol	ND	5.0	5.0	"	"	"	"	
Methyl tert-Butyl Ether	**1.0**	0.5	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	0.5	"	"	"	"	
Surr. Rec.:		*94 %*				"	"	

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
MW-3 (R512018-03) Water Sampled: 16-Dec-15 13:09 Received: 18-Dec-15 14:20								
Benzene	**1100**	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	**130**	5.0	5.0	"	"	"	"	
Xylenes, total	**350**	10	10	"	"	"	"	
Ethylbenzene	**290**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	**290**	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*94 %*				"	"	
MW-4 (R512018-04) Water Sampled: 16-Dec-15 12:25 Received: 18-Dec-15 14:20								
Benzene	**160**	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	**44**	5.0	5.0	"	"	"	"	
Xylenes, total	**130**	10	10	"	"	"	"	
Ethylbenzene	**88**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*87 %*				"	"	

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
MW-5 (R512018-05) Water Sampled: 16-Dec-15 13:20 Received: 18-Dec-15 14:20								
Benzene	**220**	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	**5.8**	5.0	5.0	"	"	"	"	
Xylenes, total	**35**	10	10	"	"	"	"	
Ethylbenzene	**92**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	**17**	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*103 %*				"	"	
MW-6 (R512018-06) Water Sampled: 16-Dec-15 12:42 Received: 18-Dec-15 14:20								
Benzene	**460**	5.0	5.0	ug/L	10	28-Dec-15	8260B	
Toluene	**12**	5.0	5.0	"	"	"	"	
Xylenes, total	**26**	10	10	"	"	"	"	
Ethylbenzene	**17**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	**10**	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*91 %*				"	"	

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
EW-1 (R512018-07) Water Sampled: 16-Dec-15 13:25 Received: 18-Dec-15 14:20								
Benzene	**250**	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	**5.3**	5.0	5.0	"	"	"	"	
Xylenes, total	**31**	10	10	"	"	"	"	
Ethylbenzene	**31**	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	**24**	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*109 %*				"	"	
EW-2 (R512018-08) Water Sampled: 16-Dec-15 13:30 Received: 18-Dec-15 14:20								
Benzene	**1400**	50	50	ug/L	100	26-Dec-15	8260B	
Toluene	**3300**	50	50	"	"	"	"	
Xylenes, total	**2500**	100	100	"	"	"	"	
Ethylbenzene	**400**	50	50	"	"	"	"	
t-Butanol	ND	500	500	"	"	"	"	
Methyl tert-Butyl Ether	**58**	50	50	"	"	"	"	
Di-Isopropyl Ether	ND	50	50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	50	50	"	"	"	"	
tert-Amyl Methyl Ether	ND	50	50	"	"	"	"	
1,2-Dichloroethane	ND	50	50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	50	"	"	"	"	
Surr. Rec.:		*112 %*				"	"	

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Detection Limit	Units	Dilution	Analyzed	Method	Notes
EW-3 (R512018-09) Water Sampled: 16-Dec-15 13:35 Received: 18-Dec-15 14:20								
Benzene	360	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	75	5.0	5.0	"	"	"	"	
Xylenes, total	920	10	10	"	"	"	"	
Ethylbenzene	110	5.0	5.0	"	"	"	"	
t-Butanol	ND	50	50	"	"	"	"	
Methyl tert-Butyl Ether	81	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*115 %*				"	"	
EW-4 (R512018-10) Water Sampled: 16-Dec-15 13:40 Received: 18-Dec-15 14:20								
Benzene	1200	5.0	5.0	ug/L	10	26-Dec-15	8260B	
Toluene	35	5.0	5.0	"	"	"	"	
Xylenes, total	81	10	10	"	"	"	"	
Ethylbenzene	40	5.0	5.0	"	"	"	"	
t-Butanol	390	50	50	"	"	"	"	
Methyl tert-Butyl Ether	87	5.0	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	5.0	"	"	"	"	
Surr. Rec.:		*110 %*				"	"	

Wayne E. Scott

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9260
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GBA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Total Petroleum Hydrocarbons @ Gasoline - Quality Control

California Agriculture & Environmental Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch R501241 - EPA 5030B										
Blank (R501241-BLK1)				Prepared & Analyzed: 12/21/15						
Surrogate: a,a,a-Trifluorotoluene	*44.0*		*ug/L*	*50*		*88*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							
LCS (R501241-BS1)				Prepared & Analyzed: 12/21/15						
Surrogate: a,a,a-Trifluorotoluene	*56.5*		*ug/L*	*50*		*113*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1070		"	1000		107	80-120			
LCS Dup (R501241-BSD1)				Prepared & Analyzed: 12/21/15						
Surrogate: a,a,a-Trifluorotoluene	*58.5*		*ug/L*	*50*		*117*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1120		"	1000		112	80-120	5	20	
Matrix Spike (R501241-MS1)		**Source: R512024-01**		Prepared & Analyzed: 12/21/15						
Surrogate: a,a,a-Trifluorotoluene	*55.5*		*ug/L*	*50*		*111*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1060		"	1000	ND	106	70-130			
Matrix Spike Dup (R501241-MSD1)		**Source: R512024-01**		Prepared & Analyzed: 12/21/15						
Surrogate: a,a,a-Trifluorotoluene	*58.0*		*ug/L*	*50*		*116*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1080		"	1000	ND	108	70-130	2	20	
Batch R501244 - EPA 5030B										
Blank (R501244-BLK1)				Prepared & Analyzed: 12/23/15						
Surrogate: a,a,a-Trifluorotoluene	*42.5*		*ug/L*	*50*		*85*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							
LCS (R501244-BS1)				Prepared & Analyzed: 12/23/15						
Surrogate: a,a,a-Trifluorotoluene	*56.5*		*ug/L*	*50*		*113*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1130		"	1000		113	80-120			
LCS Dup (R501244-BSD1)				Prepared & Analyzed: 12/23/15						
Surrogate: a,a,a-Trifluorotoluene	*55.5*		*ug/L*	*50*		*111*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1110		"	1000		111	80-120	1	20	
Matrix Spike (R501244-MS1)		**Source: R512018-06**		Prepared & Analyzed: 12/23/15						

Approved By Wayne T. Frost

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Total Petroleum Hydrocarbons @ Gasoline - Quality Control

California Agriculture & Environmental Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch R501244 - EPA 5030B										
Matrix Spike (R501244-MS1)		**Source: R512018-06**		Prepared & Analyzed: 12/23/15						
Surrogate: α,α,α-Trifluorotoluene	*56.0*		*ug/L*	*50*		*112*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	83000		"	1000	82300	77	70-130			
Matrix Spike Dup (R501244-MSD1)		**Source: R512018-06**		Prepared & Analyzed: 12/23/15						
Surrogate: α,α,α-Trifluorotoluene	*53.5*		*ug/L*	*50*		*107*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	83100		"	1000	82300	81	70-130	0.05	20	

Wayne E. Kroft

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

California Agriculture & Environmental Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch R501245 - EPA 5030B										
Blank (R501245-BLK1)				Prepared & Analyzed: 12/26/15						
Surrogate: Fluorobenzene	*48.5*		*ug/L*	*50*		*97*	*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 (R501245-BS1)				Prepared & Analyzed: 12/26/15						
Surrogate: Fluorobenzene	*52.3*		*ug/L*	*50*		*105*	*70-130*			
Methyl tert-Butyl Ether	26.6		"	25		107	80-120			
LCS Dup (R501245-BSD1)				Prepared & Analyzed: 12/26/15						
Surrogate: Fluorobenzene	*50.5*		*ug/L*	*50*		*101*	*70-130*			
Methyl tert-Butyl Ether	25.7		"	25		103	80-120	3	20	
Matrix Spike (R501245-MS1)		**Source: R512026-04**		Prepared & Analyzed: 12/26/15						
Surrogate: Fluorobenzene	*50.5*		*ug/L*	*50*		*101*	*70-130*			
Di-Isopropyl Ether	23.6		"	25	ND	95	70-130			
Matrix Spike Dup (R501245-MSD1)		**Source: R512026-04**		Prepared & Analyzed: 12/26/15						
Surrogate: Fluorobenzene	*44.5*		*ug/L*	*50*		*89*	*70-130*			
Di-Isopropyl Ether	21.1		"	25	ND	84	70-130	11	20	
Batch R501247 - EPA 5030B										
Blank (R501247-BLK1)				Prepared & Analyzed: 12/28/15						
Surrogate: Fluorobenzene	*50.0*		*ug/L*	*50*		*100*	*70-130*			
Benzene	ND	0.5	"							

Approved By Wayne Frost

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

California Agriculture & Environmental Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch R501247 - EPA 5030B										
Blank (R501247-BLK1)				Prepared & Analyzed: 12/28/15						
Toluene	ND	0.5	ug/L							
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 (R501247-BS1)				Prepared & Analyzed: 12/28/15						
Surrogate: Fluorobenzene	*51.5*		*ug/L*	*50*		*103*	*70-130*			
Methyl tert-Butyl Ether	28.1		"	25		112	80-120			
LCS Dup (R501247-BSD1)				Prepared & Analyzed: 12/28/15						
Surrogate: Fluorobenzene	*53.0*		*ug/L*	*50*		*106*	*70-130*			
Methyl tert-Butyl Ether	29.0		"	25		116	80-120	3	20	

Wayne T. Nuth

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

CALIFORNIA
AGRICULTURE & ENVIRONMENTAL
LABORATORY
2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

Environmental Compliance Group, LLC	Project Number: GHA.19009	Work Order No.:
270 Vintage Drive	Project Name: Shore Acres Gas	R512018
Turlock, CA 95382	Project Manager: Mike Sgourakis	

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

Approved By
California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

October 28, 2015

Drew Van Allen
Environmental Compliance Group
270 Vintage Dr
Turlock, CA 95382

RE: Project: Shore Acres Gas
Pace Project No.: 1256023

Dear Drew Van Allen:
Enclosed are the analytical results for sample(s) received by the laboratory on October 27, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott Forbes

Scott M Forbes
scott.forbes@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

CERTIFICATIONS

Project: Shore Acres Gas
Pace Project No.: 1256023

Davis Cerification IDs
2795 Second Street Suite 300 Davis, CA 95618
North Dakota Certification #: R-214
Oregon Certification #: CA300002
Washington Certification #: C926-14a
California Certification #: 08263CA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE SUMMARY

Project: Shore Acres Gas
Pace Project No.: 1256023

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1256023001	Effluent	Air	10/26/15 13:40	10/27/15 09:45
1256023002	Influent	Air	10/26/15 13:50	10/27/15 09:45

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE ANALYTE COUNT

Project: Shore Acres Gas
Pace Project No.: 1256023

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1256023001	Effluent	EPA 8260B	JCP	9	PASI-DAV
1256023002	Influent	EPA 8260B	JCP	9	PASI-DAV

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

ANALYTICAL RESULTS

Project: Shore Acres Gas
Pace Project No.: 1256023

Sample: Effluent **Lab ID: 1256023001** Collected: 10/26/15 13:40 Received: 10/27/15 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	ND	ppbv	50.0	1		10/27/15 18:59	71-43-2	
Ethylbenzene	ND	ppbv	50.0	1		10/27/15 18:59	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	100	1		10/27/15 18:59	1634-04-4	
Toluene	ND	ppbv	50.0	1		10/27/15 18:59	108-88-3	
TPH as Gas	ND	ppbv	5000	1		10/27/15 18:59		
Xylene (Total)	ND	ppbv	100	1		10/27/15 18:59	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%.	70-130	1		10/27/15 18:59	2037-26-5	
1,2-Dichloroethane-d4 (S)	103	%.	70-130	1		10/27/15 18:59	17060-07-0	
4-Bromofluorobenzene (S)	107	%.	70-130	1		10/27/15 18:59	460-00-4	

Sample: Influent **Lab ID: 1256023002** Collected: 10/26/15 13:50 Received: 10/27/15 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	**970**	ppbv	50.0	1		10/27/15 18:10	71-43-2	
Ethylbenzene	**332**	ppbv	50.0	1		10/27/15 18:10	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	100	1		10/27/15 18:10	1634-04-4	
Toluene	**535**	ppbv	50.0	1		10/27/15 18:10	108-88-3	
TPH as Gas	**22500**	ppbv	5000	1		10/27/15 18:10		
Xylene (Total)	**2460**	ppbv	100	1		10/27/15 18:10	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%.	70-130	1		10/27/15 18:10	2037-26-5	
1,2-Dichloroethane-d4 (S)	103	%.	70-130	1		10/27/15 18:10	17060-07-0	
4-Bromofluorobenzene (S)	107	%.	70-130	1		10/27/15 18:10	460-00-4	

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA

Project: Shore Acres Gas
Pace Project No.: 1256023

QC Batch: DAVM/2456 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV AIR
Associated Lab Samples: 1256023001, 1256023002

METHOD BLANK: 262146 Matrix: Air
Associated Lab Samples: 1256023001, 1256023002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppbv	ND	50.0	10/27/15 17:46	
Ethylbenzene	ppbv	ND	50.0	10/27/15 17:46	
Methyl-tert-butyl ether	ppbv	ND	100	10/27/15 17:46	
Toluene	ppbv	ND	50.0	10/27/15 17:46	
TPH as Gas	ppbv	ND	5000	10/27/15 17:46	
Xylene (Total)	ppbv	ND	100	10/27/15 17:46	
1,2-Dichloroethane-d4 (S)	%.	103	70-130	10/27/15 17:46	
4-Bromofluorobenzene (S)	%.	105	70-130	10/27/15 17:46	
Toluene-d8 (S)	%.	94	70-130	10/27/15 17:46	

LABORATORY CONTROL SAMPLE: 262147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppbv	474	482	102	70-130	
Ethylbenzene	ppbv	530	628	118	70-130	
Methyl-tert-butyl ether	ppbv	436	455	104	70-130	
Toluene	ppbv	515	511	99	70-130	
Xylene (Total)	ppbv	806	942	117	70-130	
1,2-Dichloroethane-d4 (S)	%.			103	70-130	
4-Bromofluorobenzene (S)	%.			100	70-130	
Toluene-d8 (S)	%.			89	70-130	

SAMPLE DUPLICATE: 262148

Parameter	Units	1256023002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ppbv	970	972	0	25	
Ethylbenzene	ppbv	332	346	4	25	
Methyl-tert-butyl ether	ppbv	ND	ND		25	
Toluene	ppbv	535	533	0	25	
TPH as Gas	ppbv	22500	23400	4	25	
Xylene (Total)	ppbv	2460	2540	3	25	
1,2-Dichloroethane-d4 (S)	%.	103	103	0		
4-Bromofluorobenzene (S)	%.	107	103	4		
Toluene-d8 (S)	%.	94	92	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALIFIERS

Project: Shore Acres Gas
Pace Project No.: 1256023

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-DAV Pace Analytical Services - Davis

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Shore Acres Gas
Pace Project No.: 1256023

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1256023001	**Effluent**	EPA 8260B	DAVM/2456		
1256023002	**Influent**	EPA 8260B	DAVM/2456		

KIFF Analytical LLC
2795 2nd Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 1256023

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Drew Van Allen	California EDF Report? ☑ Yes ☐ No
Company / Address: 270 Vintage Drive, Turlock, CA 95382	Sampling Company Log Code: ECGT
Phone Number: 209.664.1035	Global ID: T0600174667
Fax Number: 209.664.1040	EDF Deliverable To (Email Address): ecg.ust@gmail.com
Project #: GHA.19009 — P.O. #:	Bill to: ECG LLC
Project Name: Shore Acres Gas	Sampler Print Name: Drew Van Allen
	Sampler Signature:
Project Address: 403 East 12th Street Oakland, CA	

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None	Matrix: Water	Soil	Air
Effluent	10/26/2015	1340					X						X
Influent	10/26/2015	1350					X						X

Analysis Request (PLEASE CIRCLE METHOD):

Sample Designation	MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EtOH, MeOH) (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	CAM 17 Metals (EPA 200.7 / 6010)	5 Waste Oil Metals (Cd,Cr,Ni,Pb,Zn) (EPA 200.7 / 6010)	Mercury (EPA 245.1 / 7470 / 7471)	Total Lead (EPA 200.7 / 6010)	W.E.T. Lead (STLC)	TPHg, BTEX, and MTBE by EPA 8260B	TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72hr ☑ 1 wk	For Lab Use Only
Effluent																	X		001
Influent																	X		002

Relinquished by:	Date	Time	Received by:
[signature]	10/26/15	1500	[signature]
[signature]	102715	0945	[signature] PACE Analytical
			Received by Laboratory:

Remarks:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 061708

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 25Feb2015 Page 1 of 1
	Document No.: F-DAV-C-002-rev.02	Issuing Authority: Pace Davis, CA Quality Office

Sample Condition Upon Receipt

Client Name: ECG

Project #: WO# : 1256023

1256023

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ OnTrac ☐ Other:

Tracking Number: 7748 2900 4750

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other: **Temp Blank?** ☐ Yes ☒ No

Thermom. Used: ☐ DA1434 ☐ DA2285 **Type of Ice:** ☐ Wet ☐ Blue ☐ Dry Ice ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read(°C): N/A **Cooler Temp Corrected(°C):** **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** **Date and Initials of Person Examining Contents:** 10/27/15

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☒ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: AR	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☒ Yes	☐ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Scott Date: 10/27/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

November 30, 2015

Drew Van Allen
Environmental Compliance Group
270 Vintage Dr
Turlock, CA 95382

RE: Project: Shore Acres Gas
Pace Project No.: 1257613

Dear Drew Van Allen:
Enclosed are the analytical results for sample(s) received by the laboratory on November 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott M Forbes
scott.forbes@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

CERTIFICATIONS

Project: Shore Acres Gas
Pace Project No.: 1257613

Davis Cerification IDs
2795 Second Street Suite 300 Davis, CA 95618
North Dakota Certification #: R-214
Oregon Certification #: CA300002
Washington Certification #: C926-15a
California Certification #: 08263CA

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE SUMMARY

Project: Shore Acres Gas
Pace Project No.: 1257613

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1257613001	Effluent	Air	11/23/15 09:55	11/24/15 10:00
1257613002	Influent	Air	11/23/15 01:00	11/24/15 10:00

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE ANALYTE COUNT

Project: Shore Acres Gas
Pace Project No.: 1257613

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1257613001	Effluent	EPA 8260B	LM	9	PASI-DAV
1257613002	Influent	EPA 8260B	LM	9	PASI-DAV

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

ANALYTICAL RESULTS

Project: Shore Acres Gas
Pace Project No.: 1257613

Sample: Effluent Lab ID: 1257613001 Collected: 11/23/15 09:55 Received: 11/24/15 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	ND	ppbv	50.0	1		11/24/15 16:44	71-43-2	
Ethylbenzene	ND	ppbv	50.0	1		11/24/15 16:44	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	100	1		11/24/15 16:44	1634-04-4	
Toluene	ND	ppbv	50.0	1		11/24/15 16:44	108-88-3	
TPH as Gas	ND	ppbv	5000	1		11/24/15 16:44		
Xylene (Total)	ND	ppbv	100	1		11/24/15 16:44	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%.	70-130	1		11/24/15 16:44	2037-26-5	
1,2-Dichloroethane-d4 (S)	104	%.	70-130	1		11/24/15 16:44	17060-07-0	
4-Bromofluorobenzene (S)	112	%.	70-130	1		11/24/15 16:44	460-00-4	

Sample: Influent Lab ID: 1257613002 Collected: 11/23/15 01:00 Received: 11/24/15 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	**1200**	ppbv	250	5		11/24/15 16:20	71-43-2	
Ethylbenzene	**608**	ppbv	250	5		11/24/15 16:20	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	500	5		11/24/15 16:20	1634-04-4	
Toluene	**2260**	ppbv	250	5		11/24/15 16:20	108-88-3	
TPH as Gas	**407000**	ppbv	25000	5		11/24/15 16:20		
Xylene (Total)	**16800**	ppbv	500	5		11/24/15 16:20	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%.	70-130	5		11/24/15 16:20	2037-26-5	
1,2-Dichloroethane-d4 (S)	**111**	%.	70-130	5		11/24/15 16:20	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	70-130	5		11/24/15 16:20	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA

Project: Shore Acres Gas
Pace Project No.: 1257613

QC Batch: DAVM/2687
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV AIR
Associated Lab Samples: 1257613001, 1257613002

METHOD BLANK: 270778
Matrix: Air
Associated Lab Samples: 1257613001, 1257613002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppbv	ND	50.0	11/24/15 14:21	
Ethylbenzene	ppbv	ND	50.0	11/24/15 14:21	
Methyl-tert-butyl ether	ppbv	ND	100	11/24/15 14:21	
Toluene	ppbv	ND	50.0	11/24/15 14:21	
TPH as Gas	ppbv	ND	5000	11/24/15 14:21	
Xylene (Total)	ppbv	ND	100	11/24/15 14:21	
1,2-Dichloroethane-d4 (S)	%.	103	70-130	11/24/15 14:21	
4-Bromofluorobenzene (S)	%.	111	70-130	11/24/15 14:21	
Toluene-d8 (S)	%.	95	70-130	11/24/15 14:21	

LABORATORY CONTROL SAMPLE: 270779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppbv	474	452	95	70-130	
Ethylbenzene	ppbv	530	564	106	70-130	
Methyl-tert-butyl ether	ppbv	436	427	98	70-130	
Toluene	ppbv	515	483	94	70-130	
Xylene (Total)	ppbv	806	825	102	70-130	
1,2-Dichloroethane-d4 (S)	%.			104	70-130	
4-Bromofluorobenzene (S)	%.			104	70-130	
Toluene-d8 (S)	%.			95	70-130	

SAMPLE DUPLICATE: 270780

Parameter	Units	1257598001 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ppbv	0.94 mg/m3	937	0	25	
Ethylbenzene	ppbv	ND	292J		25	
Methyl-tert-butyl ether	ppbv	ND	ND		25	
Toluene	ppbv	ND	ND		25	
TPH as Gas	ppbv	651 mg/m3	570000	13	25	
Xylene (Total)	ppbv	1.0 mg/m3	902J		25	
1,2-Dichloroethane-d4 (S)	%.	102	100	1		
4-Bromofluorobenzene (S)	%.	104	101	3		
Toluene-d8 (S)	%.	90	92	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALIFIERS

Project: Shore Acres Gas
Pace Project No.: 1257613

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-DAV Pace Analytical Services - Davis

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Shore Acres Gas
Pace Project No.: 1257613

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1257613001	Effluent	EPA 8260B	DAVM/2687		
1257613002	Influent	EPA 8260B	DAVM/2687		

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 1257613

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Drew Van Allen	California EDF Report? ☑ Yes ☐ No
Company / Address: 270 Vintage Drive, Turlock, CA 95382	Sampling Company Log Code: ECGT
Phone Number: 209.664.1035	Global ID: T0600174667
Fax Number: 209.664.1040	EDF Deliverable To (Email Address): ecg.ust@gmail.com
Project #: GHA.19009 / P.O. #:	Bill to: ECG LLC
Project Name: Shore Acres Gas	Sampler Print Name: Drew Van Allen
	Sampler Signature:

Project Address: 403 East 12th Street, Oakland, CA

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	Matrix: Air
Effluent	11/23/2015	0955					X						X
Influent	11/23/2015	0100					X						X

Analysis Request — PLEASE CIRCLE METHOD

MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EtOH, MeOH) (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	CAM 17 Metals (EPA 200.7 / 6010)	STLC Waste Oil Metals (Cd,Cr,Ni,Pb,Zn) (EPA 200.7 / 6010)	Mercury (EPA 245.1 / 7470 / 7471)	Total Lead (EPA 200.7 / 6010)	W.E.T. Lead (STLC)	TPHg, BTEX, and MTBE by EPA 8260B				TAT	For Lab Use Only
																X					☐ 12 hr	001
																X					☐ 24 hr	002
																					☐ 48hr	
																					☐ 72hr	
																					☑ 1 wk	

Relinquished by:	Date	Time	Received by:
[signature]	11/23/15	1400	Fedex
Relinquished by:	Date	Time	Received by:
[signature]	12415	1000	[signature]
Relinquished by:	Date	Time	Received by Laboratory:

Remarks:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Custody Seal Present
NA	[initials]	12415	1000	NA	Yes / No

Page 9 of 9

Distribution: White - Lab; Pink - Originator
Rev 061708

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 26Feb2015 Page 1 of 1
	Document No.: F-DAV-C-002-rev.02	Issuing Authority: Pace Davis, CA Quality Office

Sample Condition Upon Receipt

Client Name: GCG

Project #: WO#: 1257613

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ OnTrac ☐ Other:

Tracking Number: 8091 9862 9280

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other: **Temp Blank?** ☐ Yes ☒ No

Thermom. Used: ☐ DA1434 ☐ DA2285 **Type of Ice:** ☐ Wet ☐ Blue ☐ Dry Ice ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read(°C): N/A **Cooler Temp Corrected(°C):**

Temp should be above freezing to 6°C **Correction Factor:**

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Date and Initials of Person Examining Contents: 11/24/15

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☒ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☐ Yes	☐ No	☒ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: AR	☐ Yes	☒ No	☐ N/A	12. The time for sample -002 is wrong on the container (label).
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☒ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Scott Anderson **Date:** 11/24/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

December 22, 2015

Drew Van Allen
Environmental Compliance Group
270 Vintage Dr
Turlock, CA 95382

RE: Project: Shore Acres Gas
Pace Project No.: 1258770

Dear Drew Van Allen:
Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott M Forbes
scott.forbes@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

CERTIFICATIONS

Project: Shore Acres Gas
Pace Project No.: 1258770

Davis Cerification IDs
2795 Second Street Suite 300 Davis, CA 95618
North Dakota Certification #: R-214
Oregon Certification #: CA300002
Washington Certification #: C926-15a
California Certification #: 08263CA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE SUMMARY

Project: Shore Acres Gas
Pace Project No.: 1258770

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1258770001	Effluent	Air	12/16/15 10:55	12/18/15 10:05
1258770002	Influent	Air	12/16/15 11:00	12/18/15 10:05

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

SAMPLE ANALYTE COUNT

Project: Shore Acres Gas
Pace Project No.: 1258770

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1258770001	Effluent	EPA 8260B	LM	9	PASI-DAV
1258770002	Influent	EPA 8260B	LM	9	PASI-DAV

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

ANALYTICAL RESULTS

Project: Shore Acres Gas
Pace Project No.: 1258770

Sample: Effluent **Lab ID: 1258770001** Collected: 12/16/15 10:55 Received: 12/18/15 10:05 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	ND	ppbv	50.0	1		12/18/15 13:27	71-43-2	
Ethylbenzene	ND	ppbv	50.0	1		12/18/15 13:27	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	100	1		12/18/15 13:27	1634-04-4	
Toluene	ND	ppbv	50.0	1		12/18/15 13:27	108-88-3	
TPH as Gas	ND	ppbv	5000	1		12/18/15 13:27		
Xylene (Total)	ND	ppbv	100	1		12/18/15 13:27	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%.	70-130	1		12/18/15 13:27	2037-26-5	
1,2-Dichloroethane-d4 (S)	97	%.	70-130	1		12/18/15 13:27	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	70-130	1		12/18/15 13:27	460-00-4	

Sample: Influent **Lab ID: 1258770002** Collected: 12/16/15 11:00 Received: 12/18/15 10:05 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV AIR	Analytical Method: EPA 8260B							
Benzene	**840**	ppbv	50.0	1		12/18/15 14:48	71-43-2	
Ethylbenzene	**176**	ppbv	50.0	1		12/18/15 14:48	100-41-4	
Methyl-tert-butyl ether	ND	ppbv	100	1		12/18/15 14:48	1634-04-4	
Toluene	**911**	ppbv	50.0	1		12/18/15 14:48	108-88-3	
TPH as Gas	**102000**	ppbv	5000	1		12/18/15 14:48		
Xylene (Total)	**5970**	ppbv	100	1		12/18/15 14:48	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%.	70-130	1		12/18/15 14:48	2037-26-5	
1,2-Dichloroethane-d4 (S)	101	%.	70-130	1		12/18/15 14:48	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	70-130	1		12/18/15 14:48	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA

Project: Shore Acres Gas
Pace Project No.: 1258770

QC Batch: DAVM/2799
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260 MSV AIR
Associated Lab Samples: 1258770001, 1258770002

METHOD BLANK: 276275 Matrix: Air
Associated Lab Samples: 1258770001, 1258770002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppbv	ND	50.0	12/18/15 11:48	
Ethylbenzene	ppbv	ND	50.0	12/18/15 11:48	
Methyl-tert-butyl ether	ppbv	ND	100	12/18/15 11:48	
Toluene	ppbv	ND	50.0	12/18/15 11:48	
TPH as Gas	ppbv	ND	5000	12/18/15 11:48	
Xylene (Total)	ppbv	ND	100	12/18/15 11:48	
1,2-Dichloroethane-d4 (S)	%.	96	70-130	12/18/15 11:48	
4-Bromofluorobenzene (S)	%.	99	70-130	12/18/15 11:48	
Toluene-d8 (S)	%.	100	70-130	12/18/15 11:48	

LABORATORY CONTROL SAMPLE: 276276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppbv	520	551	106	70-130	
Ethylbenzene	ppbv	515	519	101	70-130	
Methyl-tert-butyl ether	ppbv	515	543	106	70-130	
Toluene	ppbv	515	534	104	70-130	
Xylene (Total)	ppbv	768	804	105	70-130	
1,2-Dichloroethane-d4 (S)	%.			99	70-130	
4-Bromofluorobenzene (S)	%.			94	70-130	
Toluene-d8 (S)	%.			99	70-130	

SAMPLE DUPLICATE: 276277

Parameter	Units	1258773002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ppbv	ND	ND		25	
Ethylbenzene	ppbv	0.069 ppmv	67.1	3	25	
Methyl-tert-butyl ether	ppbv	ND	ND		25	
Toluene	ppbv	ND	29.5J		25	
TPH as Gas	ppbv	27.9 ppmv	27100	3	25	
Xylene (Total)	ppbv	0.54 ppmv	542	0	25	
1,2-Dichloroethane-d4 (S)	%.	98	100	3		
4-Bromofluorobenzene (S)	%.	100	104	4		
Toluene-d8 (S)	%.	103	103	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALIFIERS

Project: Shore Acres Gas
Pace Project No.: 1258770

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-DAV Pace Analytical Services - Davis

Pace Analytical Services, Inc.
2795 Second Street - Suite 300
Davis, CA 95618
(530) 297-4800

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Shore Acres Gas
Pace Project No.: 1258770

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1258770001	Effluent	EPA 8260B	DAVM/2799		
1258770002	Influent	EPA 8260B	DAVM/2799		

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 158770

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Drew Van Allen	California EDF Report? ☑ Yes ☐ No
Company / Address: 270 Vintage Drive, Turlock, CA 95382	Sampling Company Log Code: ECGT
Phone Number: 209.664.1035	Global ID: T0600174667
Fax Number: 209.664.1040	EDF Deliverable To (Email Address): ecg.ust@gmail.com
Project #: GHA.19009 / P.O. #:	Bill to: ECG LLC
Project Name: Shore Acres Gas	Sampler Print Name: Drew Van Allen
	Sampler Signature:

Project Address: 403 East 12th Street, Oakland, CA

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None		Matrix: Water	Soil	Air
Effluent	12/16/2015	1055					X							X
Influent	12/16/2015	1100					X							X

Analysis Request

PLEASE CIRCLE METHOD

Sample Designation	MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EtOH, MeOH) (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	CAM 17 Metals (EPA 200.7 / 6010)	5 Waste Oil Metals (Cd,Cr,Ni,Pb,Zn) (EPA 200.7 / 6010)	Mercury (EPA 245.1 / 7470 / 7471)	Total Lead (EPA 200.7 / 6010)	W.E.T. Lead (STLC)	TPHg, BTEX, and MTBE by EPA 8260B				TAT: 1 wk	For Lab Use Only
Effluent																	X				☑	001
Influent																	X				☑	002

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72hr ☑ 1 wk

Relinquished by:	Date	Time	Received by:
Drew Van Allen	12/16/15	1100	Peake
	12/18/15	1005	

Remarks:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Page 6 of

Distribution: White - Lab; Pink - Originator
Rev 061708

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 25Feb2015 Page 1 of 1
	Document No.: F-DAV-C-002-rev.02	Issuing Authority: Pace Davis, CA Quality Office

Sample Condition Upon Receipt

Client Name: ECG

Project #: WO#: 1258770

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☐ Pace ☐ OnTrac ☐ Other:
Tracking Number: 7252 2986 0330

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other: Temp Blank? ☐ Yes ☒ No

Thermom. Used: ☐ DA1434 ☐ DA2285 Type of Ice: ☐ Wet ☐ Blue ☐ Dry Ice ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read(°C): N/A Cooler Temp Corrected(°C): Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C Correction Factor: Date and Initials of Person Examining Contents: 12/18/15 TSB

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☒ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: AR	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Scott Fries Date: 12/18/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX D

GROUNDWATER LEVEL DATA FORM

PROJECT NAME: Shore Acres
PROJECT MANAGER: MSS
SITE ADDRESS: 403 East 12th Street, Oakland, Ca

PROJECT NUMBER: GHA.19009
TASK NUMBER:

WELL ID	TIME	DEPTH TO BOTTOM	DEPTH TO WATER	DEPTH TO PRODUCT	PRODUCT THICKNESS	PRODUCT THICKNESS X 0.8	COMMENTS
MW-1		17.82	13.09				
MW-2		19.94	12.57				
MW-3		19.98	12.02				
MW-4		18.75	12.41				
MW-5							Not measured but sampled.
MW-6		19.92	11.59				
EW-1			13.82				
EW-2			16.57				active
EW-3			14.31				
EW-4			16.08				

FIELD TECHNICIAN: DWA
DATE: 12/16/14

PURGE/DEVELOPMENT FORM

PROJECT NAME: Jiffy Food
PROJECT NUMBER: CHA.19614
PROJECT MANAGER: DVA
TASK NUMBER:
SITE ADDRESS: 5851 South Elm, Fresno, CA

WELL ID: MW-1
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.98
Depth to Water: 12.02
Water Column Length: 7.96

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

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

7.92	x	0.17	x	3	=	4
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
		7.16	18.7	681			
1257							sample

FIELD TECHNICIAN: DVS
DATE: 12/10/15

PURGE/DEVELOPMENT FORM

PROJECT NAME: Jiffy Food
PROJECT NUMBER: CHA.19614
PROJECT MANAGER: DVA
TASK NUMBER:
SITE ADDRESS: 5851 South Elm, Fresno, CA

WELL ID: MW-2
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.94
Depth to Water: 12.57
Water Column Length: 7.37

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

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

7.37 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Volumes) = 3.7 (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
1202	1.25	7.51	20.1	671			
1205	2.5	7.57	19.9	711			
1208	3.75	7.53	19.8	639			
1210							Sample

FIELD TECHNICIAN: DVA
DATE: 12/16/15

PURGE/DEVELOPMENT FORM

PROJECT NAME: Jiffy Food
PROJECT NUMBER: CHA.19614
PROJECT MANAGER: DVA
TASK NUMBER:
SITE ADDRESS: 5851 South Elm, Fresno, CA

WELL ID: MW-3
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 17.82
Depth to Water: 13.09
Water Column Length: 4.73

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

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

4.73 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Volumes) = 2.5 (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
1303	1.0	7.17	19.7	819			
1305	1.7	7.15	19.1	821			
1307	2.5	7.14	18.9	820			
1309							sample

FIELD TECHNICIAN: DVA
DATE: 11/16/17

PURGE/DEVELOPMENT FORM

PROJECT NAME: Jiffy Food
PROJECT NUMBER: CHA.19614
PROJECT MANAGER: DVA
TASK NUMBER:
SITE ADDRESS: 5851 South Elm, Fresno, CA

WELL ID: MW-4
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 18.75
Depth to Water: 12.41
Water Column Length: 6.34

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

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

6.34 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Volumes) = 3.3 (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
1217	1.25	7.47	20.9	543			
1220	2.25	7.39	20.9	557			
1223	3.3	7.45	21.9	546			
1225							SAMPLED

FIELD TECHNICIAN: DVA
DATE: 12/16/15

PURGE/DEVELOPMENT FORM

PROJECT NAME: Jiffy Food
PROJECT NUMBER: CHA.19614
PROJECT MANAGER: DVA
TASK NUMBER:
SITE ADDRESS: 5851 South Elm, Fresno, CA

WELL ID: MW-6
TYPE OF WELL: Monitoring

WATER COLUMN DATA: (feet)
Well Total Depth: 19.92
Depth to Water: 11.58
Water Column Length: 8.34

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

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

8.34 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Volumes) = 4.3 (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
1232	1.5	7.19	19.2	697			
1236	3.0	7.17	19.1	701			
1240	4.5	7.16	19.0	694			
1242							sample

FIELD TECHNICIAN: DVA
DATE: 12/16/14

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	09/29/15
Time of arrival:	11:00
Time of departure:	13:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				128.0		0	8,900.6	11:00

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			
				128.0	INFLUENT			185.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Unit shutdown, look like stuck water level float on AS unit

PID readings low because unit just restarted

temp 1498 dil 1425

Groundwater flow meter 872358

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	10/13/15
Time of arrival:	11:00
Time of departure:	13:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				124.0		0	9,058.3	11:00

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			
				124.0	INFLUENT			

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Unit shutdown, look like stuck water level float on AS unit

temp 1471 dil 1312

Groundwater flow meter 898070

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	10/20/15
Time of arrival:	11:00
Time of departure:	13:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

Oil Level	Vapor Manifold (influent) ΔP	Temp.	Pressure	INFLUENT Flow	Traviani Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				131.0		0	9,090.6	11:00

UTILITIES

	Natural Gas Meter	Flow Rate	Gas Train Pressure	EFFLUENT Flow
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)
				131.0

SAMPLES COLLECTED AND SAMPLE TIMES

	Time (hours)	Sampler	PID (ppmv)
EFFLUENT		dva	1.7
INFLUENT		dva	251.0

VAPOR EXTRACTION WELL MANIFOLD LINES

Line	% Open (%)	Vacuum ("Hg)	Delta Pl ("w.c.)	Temp (°F)	Field PID (ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Power outage 10/14/15

temp 1465 dil 1383

Groundwater flow meter 904544

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	10/26/15
Time of arrival:	12:30
Time of departure:	14:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				122.0		0	9,214.7	12:30

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT	13:40	dva	1.2
				122.0	INFLUENT	13:50	dva	220.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Unit shutdown, look like stuck water level float on AS unit

Called manufacturer to replace floats

temp 1555 dil 1126

Groundwater flow meter 925204

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	11/04/15
Time of arrival:	11:00
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				131.0		0	9,311.6	11:00

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			
				131.0	INFLUENT			

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Unit shutdown, look like stuck water level float on AS unit

temp 1469 dil 1383

Groundwater flow meter 940519

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	11/10/15
Time of arrival:	11:00
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				127.0		0	9,341.1	11:00

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			
				127.0	INFLUENT			

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

Unit shutdown, look like stuck water level float on AS unit

temp 1469 dil 1383

Groundwater flow meter 946271

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	11/17/15
Time of arrival:	11:00
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	operating
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				137.0		0	9,506.9	11:00

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			1.2
				137.0	INFLUENT			191.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	---
EW-4	10%	---	---	---	water

MISC. FIELD NOTES

AS floats replaced 11/11/15

temp 1533 dil 1482

Groundwater flow meter 974412

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	11/23/15
Time of arrival:	09:30
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	operating
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				150.0		0	9,648.5	09:30

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT		dva	1.2
				150.0	INFLUENT		dva	401.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	water
EW-4	100%	---	---	---	water

MISC. FIELD NOTES

AS floats replaced 11/11/15

temp 1455 dil 1409

Groundwater flow meter 999922

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	12/04/15
Time of arrival:	09:30
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	shutdown
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				129.0		0	9,798.2	09:30

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			
				129.0	INFLUENT			

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	0%	---	---	---	---
EW-3	100%	---	---	---	water
EW-4	100%	---	---	---	water

MISC. FIELD NOTES

Collect Effluent carbon sample
temp 1451 dil 1205
Collect MID carbon sample
Groundwater flow meter 1025586

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	12/08/15
Time of arrival:	09:30
Time of departure:	11:30

ECG employee:	dva
System status upon arrival:	operating
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				153.0		0	9,896.4	09:30

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT			1.1
				153.0	INFLUENT			412.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta Pl	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	100%	---	---	---	water
EW-3	0%	---	---	---	---
EW-4	100%	---	---	---	water

MISC. FIELD NOTES

Collect Effluent carbon sample
temp 1451 dil 1205
Collect MID carbon sample
Groundwater flow meter 1025586

Shore Acres Gas
403 East 12th Street
Oakland, California

Date of site visit:	12/16/15
Time of arrival:	09:30
Time of departure:	12:00

ECG employee:	dva
System status upon arrival:	operating
System status upon departure:	operating

SOIL VAPOR EXTRACTION SYSTEM

	Vapor Manifold (influent)			INFLUENT	Traviani			
Oil Level	ΔP	Temp.	Pressure	Flow	Blower	Dilution	Hours	Time
(OK/Low)	("w.c.)	(°F)	("w.c.)	(SCFM)	Pressure	%	(Hours)	(Hours)
OK				148.0		0	10,085.9	09:30

UTILITIES					SAMPLES COLLECTED AND SAMPLE TIMES			
	Natural Gas		Gas Train	EFFLUENT		Time	Sampler	PID
	Meter	Flow Rate	Pressure	Flow		(hours)		(ppmv)
	(ft^3 X 1000)	(SCFM)	(psig)	(SCFM)	EFFLUENT	10:55	dva	2.1
				148.0	INFLUENT	11:00	dva	109.0

VAPOR EXTRACTION WELL MANIFOLD LINES

	% Open	Vacuum	Delta PI	Temp	Field PID
Line	(%)	("Hg)	("w.c.)	(°F)	(ppmv)
EW-1	0%	---	---	---	---
EW-2	100%	---	---	---	water
EW-3	0%	---	---	---	---
EW-4	0%	---	---	---	---

MISC. FIELD NOTES

temp 1454 dil 1407

Groundwater flow meter 1082639