



Texas Brine Company, LLC

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December 2, 2013

Commissioner James H. Welsh
P.O. Box 94275
Baton Rouge, LA 70804

RE: In response to State of Louisiana Department of Natural Resources Office of Conservation's Second Amendment to Declaration of Emergency and Directive

Commissioner Welsh,

In response to the Second Amendment and Declaration of Emergency and Directive order issued by the Louisiana Department of Natural Resources (LDNR), Office of Conservation on September 25, 2012, Texas Brine Company, LLC (TPC) understands the seven items listed in the document.

In the above mentioned, TBC was specifically directed and ordered to perform certain tasks outlined in the above mentioned document. Below are the required responses, as directed.

1. TBC's counsel provided LDNR legal counsel with a response to Directives 1-3 on September 28, 2012.
2. TBC understands Directive 4, which is to provide all daily logs and field notes from all contractors conducting investigation into subsidence and natural gas bubbling. The Daily Action Summary and results for current information can be found in the Attachment section of this report.
3. TBC understands Directive 5, which directs TBC to immediately allow for split or share any sample taken on site related to Well 3A (Serial Number 974265), the cavern, other wells facilities or other site locations. The Daily Action Summary of today's collection can be found in Attachment section of this report.
4. TBC understands Directive 6, which directs TBC to immediately report the results (final and preliminary) of any tests, logs samples or data collection performed on Well 3A, the cavern, other wells, facilities or site locations that indicate a change in any previously known conditions related to the investigation of the subsidence or natural gas bubbling

events, and continue to report any such results. The Daily Action Summary and the Results related to this Directive can be found in Attachment section of this report.

5. TBC understands the Directive 7, which states that TBC will provide a daily summary of all tests, or logs performed or samples taken from Well 3A and the cavern as well as any results of those tests or logs, including preliminary as of September 25, 2012 and going forward. The Daily Summary and Results related to this Directive can be found in Attachment section of this report.

Please note that the drilling rig used for the Observation Well 3A has been removed and the site is being rigged down and returned to pre-drilling condition. As such, daily drilling reports for this well have ceased. Plans are being made for longer term potential gas venting/flaring requirements and possible hydrocarbon material recover from Well 3A.

In addition, previous daily summary reports issued to LDNR have included significant duplicate information as there is a fair amount of overlap in the information requested in each of the Directives included in the September 25, 2012 order. All requested information associated with the Directives issued in the September 25, 2012 order are included in the Attachment section of this report.

TBC believes that the submittal of this report satisfies the requirements of the Declaration of Emergency and Directive issued on September 25, 2012. As directed this report is submitted by email to conservationorder@la.gov, ref. "Emergency Declaration-Texas Brine Company LLC-9/25/2012.



Bruce E. Martin

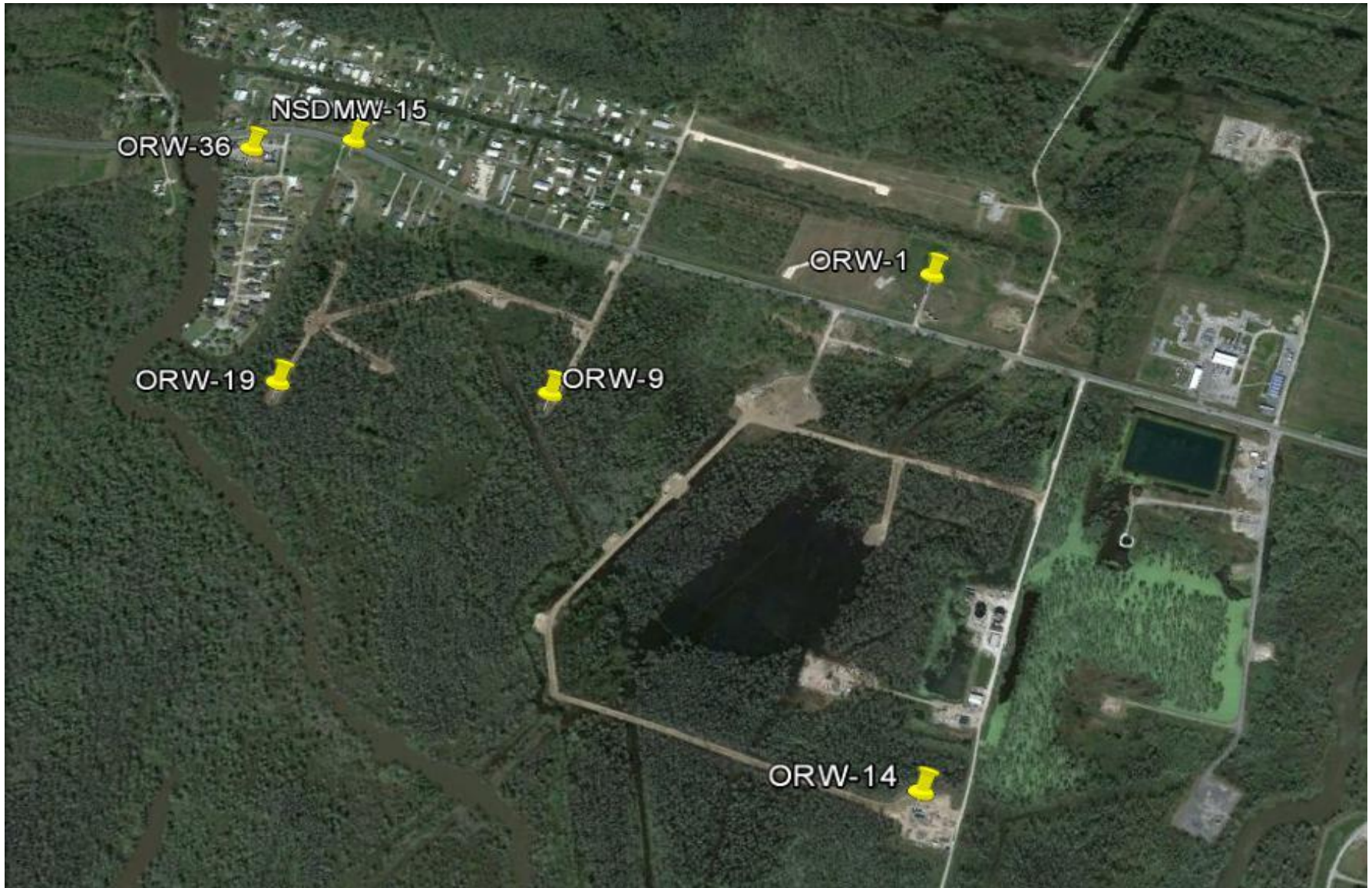
Vice President, Operations

Texas Brine Company, LLC

Summary Table for Daily Events

TBC Oxy Grand Bayou Data Management-Environmental									
Contractor	Responsibilities	Collected By	Date Collected	Delivered to Lab	Results from Lab	Laboratory	Method	Date to Agencies	
Sage	Stationary Air Monitoring	Bijet Mukherjee - 08:00 - 11:00, Britt Barnett (Code Red) - 00:00 - 06:00; 18:00 - 24:00, Roxana Dubose (Code Red) - 06:00 - 18:00; Steven Shaughnessy - 07:55 - 08:10, Britt Barnett (Code Red) - 00:00 - 06:00; 18:00 - 24:00, Roxana Dubose (Code Red) - 06:00 - 18:00; Steven Shaughnessy - 08:00 - 09:40, Britt Barnett (Code Red) - 00:00 - 06:00; 18:00 - 24:00, Roxana Dubose (Code Red) - 06:00 - 18:00; Bijet Mukherjee - 07:40 - 09:10, Britt Barnett (Code Red) - 00:00 - 06:00; 18:00 - 24:00, Roxana Dubose (Code Red) - 06:00 - 18:00; Bijet Mukherjee - 07:35 - 08:15, Britt Barnett (Code Red) - 00:00 - 06:00; 18:00 - 24:00, Roxana Dubose (Code Red) - 06:00 - 18:00	11/27 - 12/1/2013	NA	NA	NA	AreaRAE Monitors	11/28- 12/2/2013	
	Residential Air Monitoring	Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities.	NA	NA	NA	NA	NA	NA	
	Gas Seep Sampling	No work performed	11/27 - 12/1/2013	NA	NA	NA	NA	NA	
	Well Gas Sampling	Steve Shaughnessy, ORW-36 at 09:43 and 09:50, NSDMW-15 at 10:10, ORW-1 at 10:50 and 10:55, ORW-9 at 11:10 and 11:12, ORW-19 at 11:23, ORW-14 at 11:42 and 11:45		11/13/2013	N/A	Yes	Isotech	Isotopic	11/28/2013
	Under Slab Gas Sampling	No work performed	11/27 - 12/1/2013	NA	NA	NA	NA	NA	
Indoor Air Monitoring	No work performed	11/27 - 12/1/2013	NA	NA	NA	NA	NA		
Respec	Inclinometers/Tilt Meters/Transducers	11/27 - 12/1/2213 No on-site work Conducted. Mobilized	NA	NA	NA	NA	NA	NA	
	INSAR Reflector Installations	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Subsidence Survey-Fenstermaker	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Shallow Geophone Installation	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Deep Geophone Installation	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Amendment #3, Directive #2	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Expansion of geoprobe gas sampling locations	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	DPVE	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Abandon Casing Survey	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	MIHPT	11/27 - 12/1/2213 No work Conducted	NA	NA	NA	NA	NA	NA	
	Weekly Stability Survey	No work performed	11/27 - 12/1/2013	NA	NA	NA	NA	NA	
	Misc. Survey Work	M. Fore	11/27 - 12/1/2013	NA	NA	NA	NA	NA	
	Sinkhole Hydro/Perimeter Survey	No work performed	11/27 - 12/1/2013	NA	NA	NA	NA	NA	
Pisani	Surface Water	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
	Sinkhole	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
	Industrial Well Water	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
	MRAA Well Water	PMR	11/21 - 11/22/2013	NA	NA	gcal	Chloride, Bromide and Sulfate (Inorganic Anions) - SW-846 9056A, Conductivity - SM 2510B, TDS - SM 2540C, Cations/metals - SW-846 6010B, Carbonate & Bicarbonate Alkalinity - SM 2320B, BTEX - SW-846 8260B, TPH Fractions - TX 1006/LA 1006, and Dissolved Gases - RSK-175, PAH	NA	
	GP/ORW Water	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
	Cavern Water	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
	Discharge/Outfall Water	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA	
Geoprobe Wells	NA	11/20 - 12/1/2013	NA	NA	NA	NA	NA		
Grand Bayou Well 3A									
Daily Operations at 3A									
Summary of Today's events									
Dwy 3A									
11/28 - 12/2/2013	7am	855.7	11/28/2013						
	7am	860.63	11/29/2013						
	7am	864.38	11/30/2013						
	7am	870.23	12/1/2013						
	7am	874.22	12/2/2013						
Relief Well #1									
See ORW-01 Flare Spreadsheet									
11/28 - 12/2/2013									

Attachments



MRAA Sampling Event

November 13, 2013





MRAA Sampling Event

November 26, 2013



Daily Action Summary

November 27, 2013

Sinkhole Perimeter Air Monitoring and Neighborhood ORWs Air Monitoring

- Bijet Mukherjee onsite from 08:00 – 11:00. Changed out the monitors between 08:42 and 10:45. Collected data from the monitoring database and forwarded to Jill Martin in the Baton Rouge office for processing.
- Code Red (monitor sub-contractor) onsite for continuous 24/7 monitoring:
 - Britt Barnett onsite from 0:00 to 06:00; 18:00 to 24:00
 - Roxana Dubose onsite from 06:00 to 18:00

Technicians also assisted in battery change outs and maintenance of the monitoring equipment as necessary.

NOTE: Data was not properly transmitted beginning at approximately 04:52 on 11/27/2013. Normal collection resumed between 06:00 and 08:45 on 11/27/2013. Data stored on the internal data loggers is being retrieved, and a revised report will be submitted to include the missing data.

Residential Air Monitoring

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

- Not Scheduled

Well Gas Sampling

- Isotopic analytical results from the November 13, 2013 MRAA sampling event were received and are attached.

Under Slab Gas Sampling

- Not Scheduled

Air Indoor Monitoring

- Not Scheduled

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/27/2013 01:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/27/2013 02:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/27/2013 03:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/27/2013 04:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/27/2013 05:00:00 AM	Data not properly transmitted - see note			Data not properly transmitted - see note		
11/27/2013 06:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.6
11/27/2013 07:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.6
11/27/2013 08:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.7
11/27/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.3
11/27/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.2
11/27/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.8
11/27/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.4
11/27/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Data was not properly transmitted beginning at approximately 04:52 AM on 11/27/2013. Normal collection resumed between 06:00 AM and 08:45 AM on 11/27/2013. Data stored on the internal data loggers is being retrieved, and a revised report will be submitted to include the missing data.

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/27/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/27/2013 02:00:00 AM	0.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 03:00:00 AM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 04:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 05:00:00 AM	Data not properly transmitted - see note					Data not properly transmitted - see note					Data not properly transmitted - see note					Data not properly transmitted - see note									
11/27/2013 06:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	Data not properly transmitted - see note					<1.0	0.0	0.0	0.0	20.9
11/27/2013 07:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	Data not properly transmitted - see note					0.0	0.0	0.0	0.0	20.9
11/27/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	20.7	<1.0	0.0	0.0	0.0	20.9
11/27/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.7	<1.0	0.0	0.0	0.0	20.9
11/27/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	0.0	<1.0	0.0	21.1	<1.0	0.0	<1.0	<1.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9
11/27/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.6	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/27/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/27/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/27/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/27/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 08:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.8	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/27/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9

Notes:
Data was not properly transmitted beginning at approximately 04:52 AM on 11/27/2013. Normal collection resumed between 06:00 AM and 08:45 AM on 11/27/2013. Data stored on the internal data loggers is being retrieved, and a revised report will be submitted to include the missing data.

Texas Brine - Belle Rose, Louisiana
MRAA Sampling Events
Isotopic Analytical Results

Lab # 394504
Sample Name: ORW-36
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0278			
Oxygen	0.032			
Nitrogen	1.76			
Carbon Dioxide	1.87			
Methane	93.42	-42.92	-157.4	
Ethane	2.23	-26.34		
Ethylene	nd			
Propane	0.447	-23.44		
Propylene	nd			
Iso-butane	0.104	-23.85		
N-butane	0.0714	-22.73		
Iso-pentane	0.0254			
N-pentane	0.0086			
Hexanes +	0.0065			
BTU/cf ¹	1006			
Specific gravity	0.598			

¹At 60°F and 14.73 psia

Lab # 394505
Sample Name: NSDMW-15
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0917			
Oxygen	0.22			
Nitrogen	6.60			
Carbon Dioxide	3.43			
Methane	87.65	-51.08	-174.6	
Ethane	1.46	-27.29		
Ethylene	nd			
Propane	0.378	-23.36		
Propylene	0.0003			
Iso-butane	0.0976	-23.81		
N-butane	0.0496			
Iso-pentane	0.0139			
N-pentane	0.0032			
Hexanes +	0.0034			
BTU/cf ¹	930			
Specific gravity	0.630			

¹At 60°F and 14.73 psia

Lab # 394506
Sample Name: ORW-1
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	0.0816			
Argon	0.0508			
Oxygen	0.037			
Nitrogen	3.24			
Carbon Dioxide	0.49			
Methane	92.80	-43.10	-157.8	
Ethane	2.37	-26.90		
Ethylene	nd			
Propane	0.619	-23.13		
Propylene	nd			
Iso-butane	0.163	-23.75		
N-butane	0.0980	-20.71		
Iso-pentane	0.0322			
N-pentane	0.0082			
Hexanes +	0.0088			
BTU/cf ¹	1010			
Specific gravity	0.595			

¹At 60°F and 14.73 psia

Lab # 394507
Sample Name: ORW-9
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	0.0108			
Argon	0.0354			
Oxygen	0.037			
Nitrogen	2.11			
Carbon Dioxide	0.83			
Methane	93.77	-44.17	-161.8	
Ethane	2.34	-26.96		
Ethylene	nd			
Propane	0.622	-22.96		
Propylene	nd			
Iso-butane	0.144	-23.66		
N-butane	0.0761	-20.41		
Iso-pentane	0.0180			
N-pentane	0.0043			
Hexanes +	0.0047			
BTU/cf ¹	1017			
Specific gravity	0.592			

¹At 60°F and 14.73 psia

Texas Brine - Belle Rose, Louisiana
MRAA Sampling Events
Isotopic Analytical Results

Lab # 394508
Sample Name: ORW-19
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0395			
Oxygen	0.21			
Nitrogen	2.57			
Carbon Dioxide	2.23			
Methane	91.92	-43.63	-158.8	
Ethane	2.20	-26.85		
Ethylene	nd			
Propane	0.595	-22.96		
Propylene	nd			
Iso-butane	0.144	-23.51		
N-butane	0.0740	-20.28		
Iso-pentane	0.0140			
N-pentane	0.0023			
Hexanes +	0.0011			
BTU/cf ¹	994			
Specific gravity	0.608			

¹At 60°F and 14.73 psia

Lab # 394509
Sample Name: ORW-14
Date Sampled: 11/13/2013

Component	mol %	¹³ C ‰	D ‰	¹⁵ N ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0414			
Oxygen	0.033			
Nitrogen	2.52			
Carbon Dioxide	1.60			
Methane	92.96	-43.45	-157.6	
Ethane	2.14	-26.48		
Ethylene	nd			
Propane	0.426	-23.92		
Propylene	nd			
Iso-butane	0.103	-24.23		
N-butane	0.0858	-23.66		
Iso-pentane	0.0400			
N-pentane	0.0190			
Hexanes +	0.0290			
BTU/cf ¹	1001			
Specific gravity	0.599			

¹At 60°F and 14.73 psia

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/27/2013 05:00:00 AM	Data not propoerly transmitted - see note			Data not propoerly transmitted - see note		
11/27/2013 06:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.6
11/27/2013 07:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.6
11/27/2013 08:00:00 AM	0.0	0.0	21.0	<1.0	0.0	20.7
11/27/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.3
11/27/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.2
11/27/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.8
11/27/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.4
11/27/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/27/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Data was not properly transmitted beginning at approximately 04:52 AM on 11/27/2013. Normal collection resumed between 06:00 AM and 08:45 AM on 11/27/2013. Data stored on the internal data loggers is being retrieved, and a revised report will be submitted to include the missing data.

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/27/2013 05:00:00 AM	Data not properly transmitted - see note					Data not properly transmitted - see note					Data not properly transmitted - see note					Data not properly transmitted - see note					Data not properly transmitted - see note				
11/27/2013 06:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	Data not properly transmitted - see note					<1.0	0.0	0.0	0.0	20.9
11/27/2013 07:00:00 AM	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	20.7	<1.0	0.0	0.0	0.0	20.9
11/27/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	20.7	<1.0	0.0	0.0	0.0	20.9
11/27/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.7	<1.0	0.0	0.0	0.0	20.9
11/27/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	0.0	<1.0	0.0	21.1	<1.0	0.0	<1.0	<1.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9
11/27/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.6	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.7	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/27/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/27/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/27/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/27/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 08:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/27/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.8	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/27/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 02:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9
11/28/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9

Notes:
Data was not properly transmitted beginning at approximately 04:52 AM on 11/27/2013. Normal collection resumed between 06:00 AM and 08:45 AM on 11/27/2013. Data stored on the internal data loggers is being retrieved, and a revised report will be submitted to include the missing data.

Daily Action Summary

November 28, 2013

Sinkhole Perimeter Air Monitoring and Neighborhood ORWs Air Monitoring

- Steven Shaughnessy onsite from 07:55 – 08:10. Changed out the monitors between 07:57 and 08:00. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Code Red (monitor sub-contractor) onsite for continuous 24/7 monitoring:
 - Britt Barnett onsite from 0:00 to 06:00; 18:00 to 24:00
 - Roxana Dubose onsite from 06:00 to 18:00

Technicians also assisted in battery change outs and maintenance of the monitoring equipment as necessary.

NOTE: The sinkhole monitors are now housed in solar-powered weather boxes; thus, daily monitor change-out not necessary for Pad 9, TR-1, ORW-11a, ORW-9, and ORW-5. Monitors will continue to be calibrated and serviced as necessary.

Residential Air Monitoring

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

- Not Scheduled

Well Gas Sampling

- Not Scheduled

Under Slab Gas Sampling

- Not Scheduled

Air Indoor Monitoring

- Not Scheduled

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/28/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 09:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 10:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 11:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 12:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 01:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 02:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 06:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 07:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 08:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 10:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 11:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 12:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well -9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/28/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 02:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9
11/28/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 08:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9
11/28/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/28/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/28/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/28/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 09:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/28/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 09:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 10:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 11:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 12:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 01:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 02:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 06:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 07:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 08:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/28/2013 10:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/28/2013 11:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 12:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 01:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 02:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 03:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 04:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 05:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/28/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 08:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.7	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9
11/28/2013 10:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 11:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 12:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 01:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1
11/28/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/28/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2
11/28/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
11/28/2013 09:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/28/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/28/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 02:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 03:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/29/2013 04:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9
11/29/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9

Notes:

Daily Action Summary

November 29, 2013

Sinkhole Perimeter Air Monitoring and Neighborhood ORWs Air Monitoring

- Steven Shaughnessy onsite from 08:00 – 09:40. Changed out the monitors between 08:26 and 09:16. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Code Red (monitor sub-contractor) onsite for continuous 24/7 monitoring:
 - Britt Barnett onsite from 0:00 to 06:00; 18:00 to 24:00
 - Roxana Dubose onsite from 06:00 to 18:00

Technicians also assisted in battery change outs and maintenance of the monitoring equipment as necessary.

NOTE: The sinkhole monitors are now housed in solar-powered weather boxes; thus, daily monitor change-out not necessary for Pad 9, TR-1, ORW-11a, ORW-9, and ORW-5. Monitors will continue to be calibrated and serviced as necessary.

Residential Air Monitoring

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

- Not Scheduled

Well Gas Sampling

- Not Scheduled

Under Slab Gas Sampling

- Not Scheduled

Air Indoor Monitoring

- Not Scheduled

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/29/2013 01:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 02:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 03:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 04:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 05:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 06:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 07:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/29/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 02:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 03:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/29/2013 04:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	<1.0	0.0	20.9
11/29/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 07:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/29/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	<1.0	0.0	0.0	0.0	20.9
11/29/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.7	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	<1.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 02:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 03:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	<1.0	<1.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9
11/29/2013 04:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9
11/29/2013 05:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1
11/29/2013 06:00:00 PM	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0
11/29/2013 07:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/29/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/29/2013 05:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 06:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 07:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/29/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/29/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/29/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 07:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.5	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.5	<1.0	0.0	0.0	0.0	20.9
11/29/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.4	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.4	<1.0	0.0	0.0	0.0	20.9
11/29/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.7	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.6	<1.0	0.0	0.0	0.0	20.9
11/29/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	<1.0	<1.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	21.0	<1.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 02:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 03:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	<1.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9
11/29/2013 04:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	21.2	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9
11/29/2013 05:00:00 PM	0.0	0.0	0.0	0.0	21.2	<1.0	0.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1
11/29/2013 06:00:00 PM	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0
11/29/2013 07:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/29/2013 10:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/29/2013 11:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 12:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 03:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 04:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9

Notes:

Daily Action Summary

November 30, 2013

Sinkhole Perimeter Air Monitoring and Neighborhood ORWs Air Monitoring

- Bijet Mukherjee onsite from 07:40 – 09:10. Changed out the monitors between 08:20 and 08:52. Collected data from the monitoring database and forwarded to Steven Shaughnessy in the Baton Rouge office for processing.
- Code Red (monitor sub-contractor) onsite for continuous 24/7 monitoring:
 - Britt Barnett onsite from 0:00 to 06:00; 18:00 to 24:00
 - Roxana Dubose onsite from 06:00 to 18:00

Technicians also assisted in battery change outs and maintenance of the monitoring equipment as necessary.

NOTE: The sinkhole monitors are now housed in solar-powered weather boxes; thus, daily monitor change-out not necessary for Pad 9, TR-1a, ORW-11a, ORW-9a, and ORW-5. Monitors will continue to be calibrated and serviced as necessary.

Residential Air Monitoring

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

- Not Scheduled

Well Gas Sampling

- Not Scheduled

Under Slab Gas Sampling

- Not Scheduled

Air Indoor Monitoring

- Not Scheduled

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/30/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	20.9
11/30/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	20.9
11/30/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 09:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 10:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 11:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 12:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 01:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 02:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 03:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 04:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/30/2013 01:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 03:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 04:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 07:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
11/30/2013 08:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
11/30/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 09:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
11/30/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	20.9
11/30/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	20.9
11/30/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 09:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 10:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 11:00:00 AM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 12:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 01:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 02:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 03:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 04:00:00 PM	0.0	0.0	21.0	<1.0	0.0	21.0
11/30/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
11/30/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
11/30/2013 05:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 07:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
11/30/2013 08:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	0.0	<1.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.3	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
11/30/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
11/30/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
11/30/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.2	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 09:00:00 PM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
11/30/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9
12/01/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9
12/01/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 05:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9

Notes:

Daily Action Summary

December 1, 2013

Sinkhole Perimeter Air Monitoring and Neighborhood ORWs Air Monitoring

- Bijeet Mukherjee onsite from 07:35 – 08:15. Changed out the monitors between 07:58 and 08:02. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Code Red (monitor sub-contractor) onsite for continuous 24/7 monitoring:
 - Britt Barnett onsite from 0:00 to 06:00; 18:00 to 24:00
 - Roxana Dubose onsite from 06:00 to 18:00

Technicians also assisted in battery change outs and maintenance of the monitoring equipment as necessary.

NOTE: The sinkhole monitors are now housed in solar-powered weather boxes; thus, daily monitor change-out not necessary for Pad 9, TR-1a, ORW-11a, ORW-9a, and ORW-5. Monitors will continue to be calibrated and serviced as necessary.

Residential Air Monitoring

- Sage has been requested to suspend bimonthly residential air monitoring. Therefore, Sage will discontinue these activities. The last event was conducted on March 26, 2013.

Gas Seep Sampling

- Not Scheduled

Well Gas Sampling

- Not Scheduled

Under Slab Gas Sampling

- Not Scheduled

Air Indoor Monitoring

- Not Scheduled

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
12/01/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
12/01/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9
12/01/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	0.0	20.9
12/01/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 05:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
12/01/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.6	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
12/01/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.6	<1.0	<1.0	0.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9
12/01/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Neighborhood Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

	Observation Relief Well -49 at the Well Head			Observation Relief Well - 50 at the Well Head		
	ORW-49-WH			ORW-50-WH		
Date-Time *	H2S (ppm)	LEL (%)	O2 (%)	H2S (ppm)	LEL (%)	O2 (%)
12/01/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 06:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 07:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 08:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 09:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 10:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 11:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 12:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 01:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 02:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 03:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 04:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 05:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 06:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 07:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 08:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 09:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 10:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/01/2013 11:00:00 PM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 12:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 01:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 02:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 03:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 04:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0
12/02/2013 05:00:00 AM	0.0	0.0	21.0	0.0	0.0	21.0

Notes:

Texas Brine - Belle Rose, Louisiana
Hourly Air Monitoring Data
Sinkhole Perimeter Monitoring

*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	Observation Relief Well -5					Observation Relief Well - 9					Observation Relief Well -11					South of OG3A-1					Onsite Trailers				
	ORW-5					ORW-9a					ORW-11a					Pad #9					TR-1a				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
12/01/2013 05:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 07:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	20.9
12/01/2013 08:00:00 AM	<1.0	0.0	0.0	0.0	20.8	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.6	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 09:00:00 AM	0.0	0.0	0.0	0.0	20.6	<1.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
12/01/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.6	<1.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.5	0.0	0.0	0.0	0.0	20.9
12/01/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.6	<1.0	<1.0	<1.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	21.4	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.4	0.0	0.0	0.0	0.0	20.9
12/01/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	21.5	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.8	0.0	0.0	0.0	0.0	20.9
12/01/2013 02:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 03:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.1	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 04:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.0	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 05:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 06:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 07:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 08:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 09:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 10:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/01/2013 11:00:00 PM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 12:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 01:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 02:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 03:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 04:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
12/02/2013 05:00:00 AM	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9

Notes:

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 11/27/13

Company: RESPEC

Job #: 02241

Personnel	Company	Job Title

Time Onsite: Start Time: NA End Time: NA

DAILY ACTIVITY:

No Field Work Conducted. RESPEC was not on-site.

Instrumentation Program:

No Work Conducted.

Other Programs:

No Work Conducted.

PROPOSED SCHEDULE:

Instrumentation Program:

System upgrades and O&M are scheduled for December 2nd to the 8th.

Other Programs:

Installation of a passive vent well at bubble site #56 is scheduled for the week of December 2nd.

Initials: DJG

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 11/28/13

Company: RESPEC

Job #: 02241

Personnel	Company	Job Title

Time Onsite: Start Time: NA End Time: NA

DAILY ACTIVITY:

No Field Work Conducted. RESPEC was not on-site.

Instrumentation Program:

No Work Conducted.

Other Programs:

No Work Conducted.

PROPOSED SCHEDULE:

Instrumentation Program:

System upgrades and O&M are scheduled for December 2nd to the 8th.

Other Programs:

Installation of a passive vent well at bubble site #56 is scheduled for the week of December 2nd.

Initials: DJG

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 11/29/13

Company: RESPEC

Job #: 02241

Personnel	Company	Job Title

Time Onsite: Start Time: NA End Time: NA

DAILY ACTIVITY:

No Field Work Conducted. RESPEC was not on-site.

Instrumentation Program:

No Work Conducted.

Other Programs:

No Work Conducted.

PROPOSED SCHEDULE:

Instrumentation Program:

System upgrades and O&M are scheduled for December 2nd to the 8th.

Other Programs:

Installation of a passive vent well at bubble site #56 is scheduled for the week of December 2nd.

Initials: DJG

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 11/30/13

Company: RESPEC

Job #: 02241

Personnel	Company	Job Title

Time Onsite: Start Time: NA End Time: NA

DAILY ACTIVITY:

No Field Work Conducted. RESPEC was not on-site.

Instrumentation Program:

No Work Conducted.

Other Programs:

No Work Conducted.

PROPOSED SCHEDULE:

Instrumentation Program:

System upgrades and O&M are scheduled for December 2nd to the 8th.

Other Programs:

Installation of a passive vent well at bubble site #56 is scheduled for the week of December 2nd.

Initials: DJG

RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 12/01/13

Company: RESPEC

Job #: 02241

Personnel	Company	Job Title

Time Onsite: Start Time: NA End Time: NA

DAILY ACTIVITY:

No Field Work Conducted. RESPEC was not on-site.

Instrumentation Program:

No Work Conducted. However N. Marnach mobilized to Louisiana today.

Other Programs:

No Work Conducted.

PROPOSED SCHEDULE:

Instrumentation Program:

System upgrades and O&M are scheduled for December 2nd to the 8th.

Other Programs:

Installation of a passive vent well at bubble site #56 is scheduled for the week of December 2nd.

Initials: DJG

ME&A Daily Action Summary

November 27, 2013

Subsidence Survey:

- Surveyed Subsidence Points around Brine Tanks

Sinkhole Perimeter/Hydrographic Survey:

- No Work Done

Support Sinkhole Cleanup

- No Work Done

Misc. Survey Work

- Arrived @ 8:30 am
- Surveyed Containment Berm Settlement Plates
- Surveyed South Berm Settlement Rods
- Surveyed DPVE #47 Settlement Plates
- Surveyed North Access Road Settlement Pipe
- Departed @ 2:30 pm

ME&A Daily Action Summary

November 28, 2013

Subsidence Survey:

- No Work Done
-

Sinkhole Perimeter/Hydrographic Survey:

- No Work Done

Support Sinkhole Cleanup

- No Work Done

Misc. Survey Work

- No Work Done

ME&A Daily Action Summary

November 29, 2013

Subsidence Survey:

- No Work Done

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Sinkhole Perimeter/Hydrographic Survey:

- No Work Done

Support Sinkhole Cleanup

- No Work Done

Misc. Survey Work

- Arrived @ 8:00 am
- Surveyed Containment Berm Settlement Plates
- Surveyed South Berm Settlement Rods
- Departed @ 10:45 am

ME&A Daily Action Summary

November 30, 2013

Subsidence Survey:

- No Work Done

-

Sinkhole Perimeter/Hydrographic Survey:

- No Work Done

Support Sinkhole Cleanup

- No Work Done

Misc. Survey Work

- Arrived @ 8:00 am
- Surveyed Containment Berm Settlement Plates
- Departed @ 10:30 am

ME&A Daily Action Summary

December 01, 2013

Subsidence Survey:

- No Work Done

Sinkhole Perimeter/Hydrographic Survey:

- No Work Done

Support Sinkhole Cleanup

- No Work Done

Misc. Survey Work

- Arrived @ 8:00 am
- Surveyed Containment Berm Settlement Plates
- Departed @ 10:15 am

Michael Pisani & Associates

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: Patrick Ritchie

Company: MP&A

Date: 11/20/2013

Work Order # 80-05

Health and Safety Meeting YES NO

Weather: 60 F Overcast

<u>Personnel</u>	<u>Company</u>	<u>Job Title</u>
<u>Charles Trahan</u>	<u>MP&A</u>	<u>Geologist</u>
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Site Activities: Start Time 6:55 End Time 17:55

Equipment On-site:
Sonic Rig Airboat
Skid Steer
Vac Truck
Truck with poly tank

Daily Activity:
Well development at MRAA-4D and MRAA-2S. Each well was flushed, surged block and then airlifted

Estimated time of completion:
On-going

Proposed schedule:
Measure pressure and water level at TBC Geoprobe locations (2x/month)
Collect laboratory samples from MRAA and industrial water wells (monthly)
Observe, video, measure bubble sites (monthly)
Collect laboratory samples from surface water (monthly)
Collect sinkhole profile and laboratory samples (monthly)
Conduct in-situ monitoring of industrial water wells
Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/21/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: 53 F Mostly cloudy

Personnel	Company	Job Title
Charles Trahan	MP&A	Geologist
Patrick Ritchie	MP&A	Environmental Scientist

Site Activities: Start Time 6:55 End Time 21:30

Equipment On-site:

Daily Activity:
 Collect laboratory samples from Oxy-3A Cavern
 Collect laboratory samples from MRAA water wells

Estimated time of completion:
 On-going

Proposed schedule:
 Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/22/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: 55 F Overcast

Personnel	Company	Job Title
Charles Trahan	MP&A	Geologist
Patrick Ritchie	MP&A	Environmental Scientist

Site Activities: Start Time 8:30 End Time 11:00

Equipment On-site:

Daily Activity:
 Collect laboratory samples from MRAA water wells

Estimated time of completion:
 On-going

Proposed schedule:
 Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/23/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: _____

Personnel	Company	Job Title

Site Activities: Start Time _____ End Time _____

Equipment On-site:

Daily Activity:
 NO FIELD ACTIVITIES

Estimated time of completion:
 On-going

Proposed schedule:

Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/24/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: 58 F Mostly sunny

<u>Personnel</u>	<u>Company</u>	<u>Job Title</u>
<u>Patrick Ritchie</u>	<u>MP&A</u>	<u>Environmental Scientist</u>

Site Activities: Start Time 8:15 End Time 15:00

Equipment On-site:

Daily Activity:
 Measure pressure and water level at TBC Geoprobe locations
 Measure pressure and water level at CBI Geoprobe locations

Estimated time of completion:
 On-going

Proposed schedule:
 Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/25/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: 50 F Overcast, raining

Personnel	Company	Job Title
<u>Patrick Ritchie</u>	<u>MP&A</u>	<u>Environmental Scientist</u>

Site Activities: Start Time 8:50 End Time 13:30

Equipment On-site:

Daily Activity:
 Assist Sage in gas sampling
 Collect laboratory sample form Outfall location
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Proposed schedule:
 Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/26/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: _____

Personnel	Company	Job Title

Site Activities: Start Time _____ End Time _____

Equipment On-site:

Daily Activity:
 NO FIELD ACTIVITIES

Estimated time of completion:
 On-going

Proposed schedule:

Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR

Michael Pisani & Associates
Texas Brine, L.L.C.
Assumption Parish, Louisiana
Daily Field Report

Report By: Patrick Ritchie
 Company: MP&A

Date: 11/27/2013
 Work Order # 80-05

Health and Safety Meeting YES NO

Weather: _____

Personnel	Company	Job Title

Site Activities: Start Time _____ End Time _____

Equipment On-site:

Daily Activity:
 NO FIELD ACTIVITIES

Estimated time of completion:
 On-going

Proposed schedule:
 Measure pressure and water level at TBC Geoprobe locations (2x/month)
 Collect laboratory samples from MRAA and industrial water wells (monthly)
 Observe, video, measure bubble sites (monthly)
 Collect laboratory samples from surface water (monthly)
 Collect sinkhole profile and laboratory samples (monthly)
 Conduct in-situ monitoring of industrial water wells
 Measure water level for the industrial water wells and MRAA wells and download transducer data

Estimated time of completion:
 On-going

Initials: PMR