

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

7979 GSRI Avenue
Baton Rouge, LA 70820

Report Date 10/30/2012

GCAL Report 212101650



Deliver To Shaw Environmental
4171 Essen Lane
Baton Rouge, LA 70809
987-7335

Attn Lisa Pultz

Project LDNR Bayou Corne

CASE NARRATIVE

Client: Shaw Environmental **Report:** 212101650

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the RSK 175 analysis, all samples had to be diluted to bracket the concentration of target analytes within the calibration range of the instrument. The recoveries for the surrogates are not applicable for those analyses performed at a 10 or higher dilution.

In the RSK 175 analysis for analytical batch 493127, the MS/MSD recoveries are not applicable for Methane and Ethane because the spike was diluted out of the samples. The LCS recoveries are acceptable.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates the result is between the MDL and RDL
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with [NELAC](#), this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Robyn Miguez
Technical Director
GCAL REPORT 212101650

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165001	007-098-101612	Water	10/16/2012 09:50	10/16/2012 16:30
21210165002	007-131-101612	Water	10/16/2012 10:15	10/16/2012 16:30
21210165003	007-089-101612	Water	10/16/2012 11:30	10/16/2012 16:30
21210165004	007-089-101612-MS	Water	10/16/2012 11:30	10/16/2012 16:30
21210165005	007-089-101612-MSD	Water	10/16/2012 11:30	10/16/2012 16:30
21210165006	007-072-101612	Water	10/16/2012 13:40	10/16/2012 16:30
21210165007	007-073-101612	Water	10/16/2012 14:10	10/16/2012 16:30
21210165008	007-080-101612	Water	10/16/2012 14:30	10/16/2012 16:30
21210165009	007-081-101612	Water	10/16/2012 14:55	10/16/2012 16:30
21210165010	FIELD DUP 8001-101612	Water	10/16/2012 00:00	10/16/2012 16:30

Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165001	007-098-101612	Water	10/16/2012 09:50	10/16/2012 16:30

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	10720	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.15	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	1.03	1.00		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	13200	3000		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165002	007-131-101612	Water	10/16/2012 10:15	10/16/2012 16:30

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	10250	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.30	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	14600	3000		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	55.8	10.0		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165003	007-089-101612	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	5.60	5.50		ug/L

Summary of Compounds Detected (con't)

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165003	007-089-101612	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-98-6	Propane	33.7	10.0		ug/L

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	5850	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.42	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	283	100		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	14500	3000		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165004	007-089-101612-MS	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	60.4	5.50		ug/L
74-85-1	Ethene	2.66	1.00		ug/L
74-98-6	Propane	65.3	10.0		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	280	100		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	13300	3000		ug/L

Summary of Compounds Detected (con't)

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165005	007-089-101612-MSD	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	62.2	5.50		ug/L
74-85-1	Ethene	2.67	1.00		ug/L
74-98-6	Propane	68.9	10.0		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	15800	3000		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	298	100		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165006	007-072-101612	Water	10/16/2012 13:40	10/16/2012 16:30

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	9040	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.36	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	5.95	5.50		ug/L
74-98-6	Propane	47.2	10.0		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	24000	3000		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	532	200		ug/L

Summary of Compounds Detected (con't)

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165007	007-073-101612	Water	10/16/2012 14:10	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	17.7	5.50		ug/L
74-98-6	Propane	104	10.0		ug/L

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	8070	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.54	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	34400	4500		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	1380	300		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165008	007-080-101612	Water	10/16/2012 14:30	10/16/2012 16:30

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	1.07	1.00		ug/L

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	7660	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.38	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	11100	1500		ug/L

Summary of Compounds Detected (con't)

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165009	007-081-101612	Water	10/16/2012 14:55	10/16/2012 16:30

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	10030	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.25	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	17300	4500		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165010	FIELD DUP 8001-101612	Water	10/16/2012 00:00	10/16/2012 16:30

SM 4500S H Hydrogen Sulfide

CAS#	Parameter	Result	RDL	REG LIMIT	Units
C-011	Specific Conductance	9040	10		umhos/cm
Temp	Temperature	17.0			Deg C
pH	pH	7.39	1.00		pH unit

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	7.98	5.50		ug/L
74-98-6	Propane	63.1	10.0		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	23900	3000		ug/L

RSK 175

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	645	200		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165001	007-098-101612	Water	10/16/2012 09:50	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 12:40	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	<5.50	5.50		ug/L
74-84-0	Ethane	1.03	1.00		ug/L
74-85-1	Ethene	<1.00	1.00		ug/L
74-98-6	Propane	<10.0	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	30.1	ug/L	74	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 12:48	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	13200	3000		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<9.00	9.00		mg S/L
C-011	Specific Conductance	10720	10		umhos/cm
18496-25-8	Sulfide	<9.00	9.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.15	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165002	007-131-101612	Water	10/16/2012 10:15	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 12:56	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units	
106-97-8	Butane	<5.50	5.50		ug/L	
74-85-1	Ethene	<1.00	1.00		ug/L	
74-98-6	Propane	<10.0	10.0		ug/L	
CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	25.2	ug/L	62	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			10	10/26/2012 13:05	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	55.8	10.0		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 13:13	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	14600	3000		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	10250	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.30	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165003	007-089-101612	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 14:49	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units	
106-97-8	Butane	5.60	5.50		ug/L	
74-85-1	Ethene	<1.00	1.00		ug/L	
74-98-6	Propane	33.7	10.0		ug/L	
CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	22.5	ug/L	56	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	10/26/2012 16:06	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	283	100		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 16:42	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	14500	3000		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	5850	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.42	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165004	007-089-101612-MS	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 15:11	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	60.4	5.50		ug/L
74-85-1	Ethene	2.66	1.00		ug/L
74-98-6	Propane	65.3	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	23.8	ug/L	59	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	10/26/2012 16:13	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	280	100		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 16:51	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	13300	3000		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165005	007-089-101612-MSD	Water	10/16/2012 11:30	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 15:24	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	62.2	5.50		ug/L
74-85-1	Ethene	2.67	1.00		ug/L
74-98-6	Propane	68.9	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	24.3	ug/L	60	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	10/26/2012 16:20	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	298	100		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 17:02	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	15800	3000		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165006	007-072-101612	Water	10/16/2012 13:40	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 17:13	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	5.95	5.50		ug/L
74-85-1	Ethene	<1.00	1.00		ug/L
74-98-6	Propane	47.2	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	22.4	ug/L	55	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 17:23	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	24000	3000		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			200	10/26/2012 17:32	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	532	200		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	9040	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.36	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165007	007-073-101612	Water	10/16/2012 14:10	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 17:40	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	17.7	5.50		ug/L
74-85-1	Ethene	<1.00	1.00		ug/L
74-98-6	Propane	104	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	18.5	ug/L	46	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			300	10/26/2012 18:26	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	1380	300		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			900	10/26/2012 18:34	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	34400	4500		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	8070	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.54	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165008	007-080-101612	Water	10/16/2012 14:30	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 18:58	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	<5.50	5.50		ug/L
74-84-0	Ethane	1.07	1.00		ug/L
74-85-1	Ethene	<1.00	1.00		ug/L
74-98-6	Propane	<10.0	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	16.5	ug/L	41	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			300	10/26/2012 19:05	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	11100	1500		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	7660	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.38	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165009	007-081-101612	Water	10/16/2012 14:55	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 19:21	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
106-97-8	Butane	<5.50	5.50		ug/L
74-84-0	Ethane	<1.00	1.00		ug/L
74-85-1	Ethene	<1.00	1.00		ug/L
74-98-6	Propane	<10.0	10.0		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	24.7	ug/L	61	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			900	10/26/2012 19:28	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	17300	4500		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	10030	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.25	1.00		pH unit

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21210165010	FIELD DUP 8001-101612	Water	10/16/2012 00:00	10/16/2012 16:30

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/26/2012 19:36	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units	
106-97-8	Butane	7.98	5.50		ug/L	
74-85-1	Ethene	<1.00	1.00		ug/L	
74-98-6	Propane	63.1	10.0		ug/L	
CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
115-07-1	Propene	40.5	20.8	ug/L	51	40 - 143

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			200	10/26/2012 19:48	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-84-0	Ethane	645	200		ug/L

RSK 175

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			600	10/26/2012 19:55	BMR	493127

CAS#	Parameter	Result	RDL	REG LIMIT	Units
74-82-8	Methane	23900	3000		ug/L

SM 4500S H Hydrogen Sulfide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	10/17/2012 16:40	CALC	492462

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7783-06-4	Hydrogen Sulfide, Unionized	<2.00	2.00		mg S/L
C-011	Specific Conductance	9040	10		umhos/cm
18496-25-8	Sulfide	<2.00	2.00		mg/L
Temp	Temperature	17.0			Deg C
pH	pH	7.39	1.00		pH unit

General Chromatography Quality Control Summary

Analytical Batch 493127 Prep Batch N/A		Client ID MB493127 GCAL ID 1121195 Sample Type Method Blank Analytical Date 10/26/2012 12:09 Matrix Water	LCS493127 1121196 LCS 10/26/2012 12:17 Water				
RSK 175		Units Result	ug/L RDL	Spike Added	Result	% R	Control Limits % R
74-82-8	Methane	<5.00	5.00	17.5	17.3	99	39 - 120
74-85-1	Ethene	<1.00	1.00	3.06	3.18	104	45 - 134
74-84-0	Ethane	<1.00	1.00	3.28	3.37	103	45 - 128
74-98-6	Propane	<10.0	10.0	50.7	40.6	80	30 - 170
106-97-8	Butane	<5.50	5.50	81.2	66.2	82	30 - 170
Surrogate							
115-07-1	Propene	27.5	68	40.5	27	67	40 - 143

Analytical Batch 493127 Prep Batch N/A		Client ID 007-089-101612 GCAL ID 21210165003 Sample Type SAMPLE Analytical Date 10/26/2012 14:49 Matrix Water			007-089-101612-MS 21210165004 MS 10/26/2012 15:11 Water			007-089-101612-MSD 21210165005 MSD 10/26/2012 15:24 Water			
RSK 175		Units	ug/L	Spike	Result		Control	Result			RPD
		Result	RDL	Added		% R	Limits % R		% R	RPD	Limit
106-97-8	Butane	5.60	5.50	81.2	60.4	67	30 - 170	62.2	70	3	40
74-85-1	Ethene	0.00	1.00	3.06	2.66	87	45 - 134	2.67	87	0.4	25
74-98-6	Propane	33.7	10.0	50.7	65.3	62	30 - 170	68.9	69	5	40
Surrogate											
115-07-1	Propene	22.5	56	40.5	23.8	59	40 - 143	24.3	60		

Analytical Batch 493127 Prep Batch N/A		Client ID 007-089-101612 GCAL ID 21210165003 Sample Type SAMPLE Analytical Date 10/26/2012 16:06 Matrix Water	007-089-101612-MS 21210165004 MS 10/26/2012 16:13 Water				007-089-101612-MSD 21210165005 MSD 10/26/2012 16:20 Water					
RSK 175			Units Result	ug/L RDL	Spike Added	Result	% R	Control Limits % R	Result	% R	RPD	RPD Limit
74-84-0 Ethane			283	100	3.28	280	-90*	45 - 128	298	457*	6	29

General Chromatography Quality Control Summary

Analytical Batch 493127 Prep Batch N/A		Client ID 007-089-101612 GCAL ID 21210165003 Sample Type SAMPLE Analytical Date 10/26/2012 16:42 Matrix Water		007-089-101612-MS 21210165004 MS 10/26/2012 16:51 Water			007-089-101612-MSD 21210165005 MSD 10/26/2012 17:02 Water				
RSK 175		Units	ug/L	Spike	Result		Control	Result		RPD	RPD
		Result	RDL	Added		% R	Limits % R		% R		Limit
74-82-8	Methane	14500	3000	17.5	13300	-7000*	39 - 120	15800	7430*	17	27

General Chemistry Quality Control Summary

Analytical Batch 492462 Prep Batch N/A		Client ID 007-131-101612 GCAL ID 21210165002 Sample Type SAMPLE Analytical Date 10/17/2012 16:40 Matrix Water	1117670DUP 1117843 DUP 10/17/2012 16:40 Water			
SM 4500S H Hydrogen Sulfide		Units Result	pH unit RDL	Result	RPD	RPD Limit
pH	pH	7.30	1.00	7.30	0	6
18496-25-8	Sulfide	0.000	2.00	0.000	0	25
C-011	Specific Conductance	10250	10	10250	0	25
Temp	Temperature	17.0		17.0	0.00	
7783-06-4	Hydrogen Sulfide, Unionized	0.000	2.00	0.000	0	25

7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402
Phone 225.769.4900 • Fax 225.767.5717

Lab use only

Shaw

Environmental

0270

212101650

10-25-12

Client Name

Client #

Workorder #

Due Date

Report to:

Client: Shaw E&I
Address: 4171 Essen Ln.
B.R. LA. 70809
Contact: Hugh Adams
Phone: 987-7338
Fax: hugh.adams@shawgrp.com

Bill to:

Client: Shaw E&I
Address: _____
Contact: Lisa Pultz
Phone: _____
Fax: _____

Analytical Requests & Method

Lab use only:

Custody Seal

used ☐ yes ☒ no

intact ☐ yes ☐ no

Temperature °C 13.3 on ice

P.O. Number

Project Name/Number

LDNR-Bayou Corne (Industrial Water Wells)

Sampled By:

Kevin Simoneaux

Matrix	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No Containers	Remarks	Lab ID
GW	10/16/12	0950		X	007-098-101612	---	4		10 16
		1015			007-131-101612	---			01
		1130			007-089-101612	---			02
		1130			007-089-101612-MS	---			03
		1130			007-089-101612-MSD	---			04
		1340			007-072-101612	---			05
		1410			007-073-101612	---			06
		1430			007-080-101612	---			07
		1455			007-081-101612	---			08
GW	10/16/12	---		X	Field DUP8001-101612	---	4		09
									10

Dissolved Gases (RSTG-W)
Hydrogen Sulfide (H2S-W)

Turn Around Time: ☐ 24-48 hrs. ☐ 3 days ☐ 1 week ☒ Standard ☐ Other

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

Note:

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 212101650		CHECKLIST			
Client 0270 - Shaw Environmental	Transport Method COURIER	Were all samples received using proper thermal preservation? ☒ Yes ☐ No ☐ NA			
Profile 235534 - LDNR Bayou Come	Received By McCune, Odie	When used, were all custody seals intact? ☐ Yes ☐ No ☒ NA			
Line Item(s) 2 - Standard TAT Waters	Receive Date(s) 10/16/12	Were all samples received in proper containers? ☒ Yes ☐ No ☐ NA			
		Were all samples received using proper chemical preservation? ☒ Yes ☐ No ☐ NA			
		Was preservative added to any container at the lab? ☐ Yes ☒ No ☐ NA			
		Were all containers received in good condition? ☒ Yes ☐ No ☐ NA			
		Were all VOA vials received with no head space? ☒ Yes ☐ No ☐ NA			
		Do all sample labels match the Chain of Custody? ☒ Yes ☐ No ☐ NA			
		Did the Chain of Custody list the sampling technician? ☒ Yes ☐ No ☐ NA			
		Was the COC maintained i.e. all signatures, dates and time of receipt included? ☒ Yes ☐ No ☐ NA			
COOLERS		DISCREPANCIES	LABORATORY PRESERVATIONS		
Airbill	Temp(oC) 13.3	None	None		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 5px;">NOTES</td> <td style="padding: 5px;">Temperature acceptable - samples collected and received same day on ice.</td> </tr> </table>				NOTES	Temperature acceptable - samples collected and received same day on ice.
NOTES	Temperature acceptable - samples collected and received same day on ice.				