



ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Case Narrative for:  
**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

Certificate of Analysis Number:

**L0021263**

<p><b>Report To:</b></p> <p><b>SHAW ENVIRONMENTAL &amp; INFRASTRUCTURE</b>  <b>LISA PULTZ</b>  <b>4171 ESSEN LANE</b></p> <p><b>BATON ROUGE</b>  <b>LA</b>  <b>70809-</b>  <b>ph: (225) 932-2500      fax: (225) 987-7300</b></p>	<p><b>Project Name:</b> 147497 LDNR- BAYOU CORNE INDUST</p> <p><b>Site:</b> LDNR/BAYOU CORNE</p> <p><b>Site Address:</b></p> <p><b>PO Number:</b> 817098</p> <p><b>State:</b> Louisiana</p> <p><b>State Cert. No.:</b> 02048</p> <p><b>Date Reported:</b> 10/30/2012</p>
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Note: As requested by the client, the Chloride analysis for samples 007-098-101612 and 007-131-101612 were analyzed by both the IC300 and the SM4500 methods. As suspected the samples are showing an interference with the IC (Ion chromatography) that is causing a false low reading of the chloride analyte. The comparison with the same interference was noted for several other samples collected from the same site over several sampling dates.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data for those samples spiked by the laboratory and may be applicable to other samples of similar matrix from the site. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process. If insufficient sample is supplied for MS/MSD, a Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) are reported with the analytical batch and serve as the batch quality control (QC).

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

Accutest Gulf Coast is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Cristina Thibeaux  
 Project Manager

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Date

Test results meet all requirements of NELAC, unless specified in the narrative.



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**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

Certificate of Analysis Number:

**L0021263**

**Report To:** SHAW ENVIRONMENTAL & INFRASTRUCTURE  
 LISA PULTZ  
 4171 ESSEN LANE  
  
 BATON ROUGE  
 LA  
 70809-  
 ph: (225) 932-2500 fax: (225) 987-7300

**Project Name:** 147497 LDNR- BAYOU CORNE INDUST  
**Site:** LDNR/BAYOU CORNE  
**Site Address:**  
  
**PO Number:** 817098  
**State:** Louisiana  
**State Cert. No.:** 02048  
**Date Reported:** 10/30/2012

**Fax To:**

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
007-098-101612	L0021263-01	Water	10/16/2012 9:50	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-131-101612	L0021263-02	Water	10/16/2012 10:15	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-089-101612	L0021263-03	Water	10/16/2012 11:30	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-089-101612MS	L0021263-03MS	Water	10/16/2012 11:30	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-089-101612MSD	L0021263-03MSD	Water	10/16/2012 11:30	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-072-101612	L0021263-04	Water	10/16/2012 13:40	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-073-101612	L0021263-05	Water	10/16/2012 14:10	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-080-101612	L0021263-06	Water	10/16/2012 14:30	10/17/2012 2:45:00 PM		<input type="checkbox"/>
007-081-101612	L0021263-07	Water	10/16/2012 14:55	10/17/2012 2:45:00 PM		<input type="checkbox"/>
FIELD DUP 8001-101612	L0021263-08	Water	10/16/2012 0:00	10/17/2012 2:45:00 PM		<input type="checkbox"/>
FIELD BLANK 8001-101612	L0021263-09	Water	10/16/2012 15:00	10/17/2012 2:45:00 PM		<input type="checkbox"/>
TRIP BLANK 8001-101612	L0021263-10	Water	10/16/2012 0:00	10/17/2012 2:45:00 PM		<input type="checkbox"/>

*Cristina C. Thibeaux*

Cristina Thibeaux  
 Project Manager

10/30/2012

Date

Ron Benjamin  
 Laboratory Director

Rebecca Haryett  
 Quality Assurance Officer



ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Client Sample ID:007-098-101612 Collected: 10/16/2012 9:50 Lab Sample ID: L0021263-01

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ANIONS BY IC USING EPA 300.0</b>				<b>MCL</b>	<b>E300.0</b>	<b>Units: mg/L</b>	
Chloride	16.7		0.25	1	10/24/12 14:02	SM	4770406

<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	3290		250	50	10/25/12 14:00	JMR	4773379

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 17:25	E_G	4775599
Surr: o-Terphenyl	106	%	47-125	1	10/27/12 17:25	E_G	4775599

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 15:56	JHP	4765441
Surr: 1,4-Difluorobenzene	92.1	%	70-135	1	10/19/12 15:56	JHP	4765441
Surr: 4-Bromofluorobenzene	93.9	%	89-126	1	10/19/12 15:56	JHP	4765441

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	5800		10	1	10/22/12 10:20	SPM	4767378

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 0:32	IHK	4763203
Ethylbenzene	ND		0.005	1	10/19/12 0:32	IHK	4763203
Toluene	ND		0.005	1	10/19/12 0:32	IHK	4763203
m,p-Xylene	ND		0.005	1	10/19/12 0:32	IHK	4763203
o-Xylene	ND		0.005	1	10/19/12 0:32	IHK	4763203
Xylenes,Total	ND		0.005	1	10/19/12 0:32	IHK	4763203
Surr: 1,2-Dichloroethane-d4	107	%	84-124	1	10/19/12 0:32	IHK	4763203
Surr: 4-Bromofluorobenzene	91.4	%	89-111	1	10/19/12 0:32	IHK	4763203
Surr: Toluene-d8	91.1	%	83-115	1	10/19/12 0:32	IHK	4763203

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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 (337) 237-4775

Client Sample ID:007-131-101612 Collected: 10/16/2012 10:15 Lab Sample ID: L0021263-02

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ANIONS BY IC USING EPA 300.0</b>				<b>MCL</b>	<b>E300.0</b>	<b>Units: mg/L</b>	
Chloride	15.9		0.25	1	10/24/12 14:15	SM	4770407

<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2820		250	50	10/25/12 14:00	JMR	4773380

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 17:48	E_G	4775600
Surr: o-Terphenyl	97.9	%	47-125	1	10/27/12 17:48	E_G	4775600

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 16:26	JHP	4765442
Surr: 1,4-Difluorobenzene	91.8	%	70-135	1	10/19/12 16:26	JHP	4765442
Surr: 4-Bromofluorobenzene	94.4	%	89-126	1	10/19/12 16:26	JHP	4765442

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	5560		10	1	10/22/12 10:20	SPM	4767380

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 1:01	IHK	4763204
Ethylbenzene	ND		0.005	1	10/19/12 1:01	IHK	4763204
Toluene	ND		0.005	1	10/19/12 1:01	IHK	4763204
m,p-Xylene	ND		0.005	1	10/19/12 1:01	IHK	4763204
o-Xylene	ND		0.005	1	10/19/12 1:01	IHK	4763204
Xylenes,Total	ND		0.005	1	10/19/12 1:01	IHK	4763204
Surr: 1,2-Dichloroethane-d4	115	%	84-124	1	10/19/12 1:01	IHK	4763204
Surr: 4-Bromofluorobenzene	91.3	%	89-111	1	10/19/12 1:01	IHK	4763204
Surr: Toluene-d8	91.4	%	83-115	1	10/19/12 1:01	IHK	4763204

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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Client Sample ID:007-089-101612 Collected: 10/16/2012 11:30 Lab Sample ID: L0021263-03

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2430		250	50	10/25/12 14:00	JMR	4773381

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 18:11	E_G	4775601
Surr: o-Terphenyl	90.7	%	47-125	1	10/27/12 18:11	E_G	4775601

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 13:25	JHP	4763772
Surr: 1,4-Difluorobenzene	92.4	%	70-135	1	10/19/12 13:25	JHP	4763772
Surr: 4-Bromofluorobenzene	95.5	%	89-126	1	10/19/12 13:25	JHP	4763772

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	2970		10	1	10/22/12 10:20	SPM	4767381

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 1:29	IHK	4763205
Ethylbenzene	ND		0.005	1	10/19/12 1:29	IHK	4763205
Toluene	ND		0.005	1	10/19/12 1:29	IHK	4763205
m,p-Xylene	ND		0.005	1	10/19/12 1:29	IHK	4763205
o-Xylene	ND		0.005	1	10/19/12 1:29	IHK	4763205
Xylenes,Total	ND		0.005	1	10/19/12 1:29	IHK	4763205
Surr: 1,2-Dichloroethane-d4	108	%	84-124	1	10/19/12 1:29	IHK	4763205
Surr: 4-Bromofluorobenzene	92.5	%	89-111	1	10/19/12 1:29	IHK	4763205
Surr: Toluene-d8	93.2	%	83-115	1	10/19/12 1:29	IHK	4763205

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution  
 MI - Matrix Interference



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 SCOTT, LA 70583  
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Client Sample ID:007-072-101612 Collected: 10/16/2012 13:40 Lab Sample ID: L0021263-04

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2820		250	50	10/25/12 14:00	JMR	4773382

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 19:41	E_G	4775604
Surr: o-Terphenyl	116	%	47-125	1	10/27/12 19:41	E_G	4775604

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 16:56	JHP	4765443
Surr: 1,4-Difluorobenzene	92.9	%	70-135	1	10/19/12 16:56	JHP	4765443
Surr: 4-Bromofluorobenzene	95.3	%	89-126	1	10/19/12 16:56	JHP	4765443

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	4900		10	1	10/22/12 10:20	SPM	4767382

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 1:58	IHK	4763206
Ethylbenzene	ND		0.005	1	10/19/12 1:58	IHK	4763206
Toluene	ND		0.005	1	10/19/12 1:58	IHK	4763206
m,p-Xylene	ND		0.005	1	10/19/12 1:58	IHK	4763206
o-Xylene	ND		0.005	1	10/19/12 1:58	IHK	4763206
Xylenes,Total	ND		0.005	1	10/19/12 1:58	IHK	4763206
Surr: 1,2-Dichloroethane-d4	112	%	84-124	1	10/19/12 1:58	IHK	4763206
Surr: 4-Bromofluorobenzene	92.3	%	89-111	1	10/19/12 1:58	IHK	4763206
Surr: Toluene-d8	92.8	%	83-115	1	10/19/12 1:58	IHK	4763206

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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Client Sample ID:007-073-101612 Collected: 10/16/2012 14:10 Lab Sample ID: L0021263-05

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2350		250	50	10/25/12 14:00	JMR	4773383

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 20:04	E_G	4775605
Surr: o-Terphenyl	103	%	47-125	1	10/27/12 20:04	E_G	4775605

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 17:27	JHP	4765444
Surr: 1,4-Difluorobenzene	93.1	%	70-135	1	10/19/12 17:27	JHP	4765444
Surr: 4-Bromofluorobenzene	95.9	%	89-126	1	10/19/12 17:27	JHP	4765444

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	4120		10	1	10/22/12 10:20	SPM	4767383

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 2:22	IHK	4763207
Ethylbenzene	ND		0.005	1	10/19/12 2:22	IHK	4763207
Toluene	ND		0.005	1	10/19/12 2:22	IHK	4763207
m,p-Xylene	ND		0.005	1	10/19/12 2:22	IHK	4763207
o-Xylene	ND		0.005	1	10/19/12 2:22	IHK	4763207
Xylenes,Total	ND		0.005	1	10/19/12 2:22	IHK	4763207
Surr: 1,2-Dichloroethane-d4	112	%	84-124	1	10/19/12 2:22	IHK	4763207
Surr: 4-Bromofluorobenzene	94.1	%	89-111	1	10/19/12 2:22	IHK	4763207
Surr: Toluene-d8	102	%	83-115	1	10/19/12 2:22	IHK	4763207

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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10/30/2012 3:06:57 PM

Client Sample ID:007-080-101612 Collected: 10/16/2012 14:30 Lab Sample ID: L0021263-06

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2120		250	50	10/25/12 14:00	JMR	4773384

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 20:26	E_G	4775606
Surr: o-Terphenyl	103	%	47-125	1	10/27/12 20:26	E_G	4775606

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 17:57	JHP	4765445
Surr: 1,4-Difluorobenzene	92.7	%	70-135	1	10/19/12 17:57	JHP	4765445
Surr: 4-Bromofluorobenzene	95.6	%	89-126	1	10/19/12 17:57	JHP	4765445

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	4020		10	1	10/22/12 10:20	SPM	4767384

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 3:33	IHK	4763210
Ethylbenzene	ND		0.005	1	10/19/12 3:33	IHK	4763210
Toluene	ND		0.005	1	10/19/12 3:33	IHK	4763210
m,p-Xylene	ND		0.005	1	10/19/12 3:33	IHK	4763210
o-Xylene	ND		0.005	1	10/19/12 3:33	IHK	4763210
Xylenes,Total	ND		0.005	1	10/19/12 3:33	IHK	4763210
Surr: 1,2-Dichloroethane-d4	114	%	84-124	1	10/19/12 3:33	IHK	4763210
Surr: 4-Bromofluorobenzene	95.6	%	89-111	1	10/19/12 3:33	IHK	4763210
Surr: Toluene-d8	100	%	83-115	1	10/19/12 3:33	IHK	4763210

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Client Sample ID:007-081-101612 Collected: 10/16/2012 14:55 Lab Sample ID: L0021263-07

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2590		250	50	10/25/12 14:00	JMR	4773385

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 20:49	E_G	4775607
Surr: o-Terphenyl	99.5	%	47-125	1	10/27/12 20:49	E_G	4775607

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 18:27	JHP	4765446
Surr: 1,4-Difluorobenzene	92.4	%	70-135	1	10/19/12 18:27	JHP	4765446
Surr: 4-Bromofluorobenzene	95.6	%	89-126	1	10/19/12 18:27	JHP	4765446

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	5490		10	1	10/22/12 10:20	SPM	4767385

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/20/12 13:00	IHK	4765928
Ethylbenzene	ND		0.005	1	10/20/12 13:00	IHK	4765928
Toluene	ND		0.005	1	10/20/12 13:00	IHK	4765928
m,p-Xylene	ND		0.005	1	10/20/12 13:00	IHK	4765928
o-Xylene	ND		0.005	1	10/20/12 13:00	IHK	4765928
Xylenes,Total	ND		0.005	1	10/20/12 13:00	IHK	4765928
Surr: 1,2-Dichloroethane-d4	104	%	84-124	1	10/20/12 13:00	IHK	4765928
Surr: 4-Bromofluorobenzene	95.3	%	89-111	1	10/20/12 13:00	IHK	4765928
Surr: Toluene-d8	98.2	%	83-115	1	10/20/12 13:00	IHK	4765928

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Client Sample ID: FIELD DUP 8001-101612      Collected: 10/16/2012 0:00      Lab Sample ID: L0021263-08

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>CHLORIDE BY SM4500</b>				<b>MCL</b>	<b>M4500-CL C</b>	<b>Units: mg/L</b>	
Chloride	2820		250	50	10/25/12 14:00	JMR	4773388

Prep Method	Prep Date	Prep Initials	Prep Factor
	10/25/2012 14:00		1.00

<b>RECAP DIESEL RANGE ORGANICS BY METHOD 8015C</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	ND		0.15	1	10/27/12 21:11	E_G	4775608
Surr: o-Terphenyl	96.9	%	47-125	1	10/27/12 21:11	E_G	4775608

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3511	10/18/2012 11:29	JDF	1.00

<b>RECAP GASOLINE RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015C</b>	<b>Units: mg/L</b>	
Gasoline Range Organics (C6-C10)	ND		0.1	1	10/19/12 18:57	JHP	4765447
Surr: 1,4-Difluorobenzene	92.6	%	70-135	1	10/19/12 18:57	JHP	4765447
Surr: 4-Bromofluorobenzene	98.2	%	89-126	1	10/19/12 18:57	JHP	4765447

<b>TOTAL DISSOLVED SOLIDS BY SM2540 C</b>				<b>MCL</b>	<b>M2540 C</b>	<b>Units: mg/L</b>	
Total Dissolved Solids (Residue,filterable)	5050		10	1	10/22/12 10:20	SPM	4767388

<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/19/12 3:09	IHK	4763209
Ethylbenzene	ND		0.005	1	10/19/12 3:09	IHK	4763209
Toluene	ND		0.005	1	10/19/12 3:09	IHK	4763209
m,p-Xylene	ND		0.005	1	10/19/12 3:09	IHK	4763209
o-Xylene	ND		0.005	1	10/19/12 3:09	IHK	4763209
Xylenes,Total	ND		0.005	1	10/19/12 3:09	IHK	4763209
Surr: 1,2-Dichloroethane-d4	117	%	84-124	1	10/19/12 3:09	IHK	4763209
Surr: 4-Bromofluorobenzene	96.7	%	89-111	1	10/19/12 3:09	IHK	4763209
Surr: Toluene-d8	105	%	83-115	1	10/19/12 3:09	IHK	4763209

**Qualifiers:** ND/U - Not Detected at the Reporting Limit      >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank      D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits      MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Client Sample ID: FIELD BLANK 8001-101612      Collected: 10/16/2012 15:00      Lab Sample ID: L0021263-09

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>				<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>	
Benzene	ND		0.005	1	10/18/12 23:35	IHK	4763201
Ethylbenzene	ND		0.005	1	10/18/12 23:35	IHK	4763201
Toluene	ND		0.005	1	10/18/12 23:35	IHK	4763201
m,p-Xylene	ND		0.005	1	10/18/12 23:35	IHK	4763201
o-Xylene	ND		0.005	1	10/18/12 23:35	IHK	4763201
Xylenes, Total	ND		0.005	1	10/18/12 23:35	IHK	4763201
Surr: 1,2-Dichloroethane-d4	109		% 84-124	1	10/18/12 23:35	IHK	4763201
Surr: 4-Bromofluorobenzene	94.2		% 89-111	1	10/18/12 23:35	IHK	4763201
Surr: Toluene-d8	101		% 83-115	1	10/18/12 23:35	IHK	4763201

**Qualifiers:** ND/U - Not Detected at the Reporting Limit      >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank      D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits      MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Client Sample ID: TRIP BLANK 8001-101612      Collected: 10/16/2012 0:00      Lab Sample ID: L0021263-10

Site: LDNR/BAYOU CORNE

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS:METHOD 8260B:BTEX - WATER</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: mg/L</b>		
Benzene	ND		0.005	1	10/19/12 0:03	IHK	4763202
Ethylbenzene	ND		0.005	1	10/19/12 0:03	IHK	4763202
Toluene	ND		0.005	1	10/19/12 0:03	IHK	4763202
m,p-Xylene	ND		0.005	1	10/19/12 0:03	IHK	4763202
o-Xylene	ND		0.005	1	10/19/12 0:03	IHK	4763202
Xylenes, Total	ND		0.005	1	10/19/12 0:03	IHK	4763202
Surr: 1,2-Dichloroethane-d4	108		% 84-124	1	10/19/12 0:03	IHK	4763202
Surr: 4-Bromofluorobenzene	92.7		% 89-111	1	10/19/12 0:03	IHK	4763202
Surr: Toluene-d8	91.9		% 83-115	1	10/19/12 0:03	IHK	4763202

**Qualifiers:** ND/U - Not Detected at the Reporting Limit      >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte Detected In The Associated Method Blank      D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits      MI - Matrix Interference  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

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# *Quality Control Documentation*

**Quality Control Report**

**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

**Analysis:** RECAP Diesel Range Organics by Method 8015C  
**Method:** SW8015C

**WorkOrder:** L0021263  
**Lab Batch ID:** 115929

**Method Blank**

RunID: TPHC\_121026D-4775584 Units: mg/L  
Analysis Date: 10/27/2012 9:57 Analyst: E\_G  
Preparation Date: 10/18/2012 11:29 Prep By: JDF Method: SW3511

Analyte	Result	Rep Limit
Diesel Range Organics (C10-C28)	ND	0.15
Surr: o-Terphenyl	97.2	47-125

**Samples in Analytical Batch:**

Lab Sample ID	Client Sample ID
L0021263-01B	007-098-101612
L0021263-02B	007-131-101612
L0021263-03B	007-089-101612
L0021263-04B	007-072-101612
L0021263-05B	007-073-101612
L0021263-06B	007-080-101612
L0021263-07B	007-081-101612
L0021263-08B	FIELD DUP 8001-101612

**Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)**

RunID: TPHC\_121026D-4775585 Units: mg/L  
Analysis Date: 10/27/2012 10:19 Analyst: E\_G  
Preparation Date: 10/18/2012 11:29 Prep By: JDF Method: SW3511

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Diesel Range Organics (C10-C28)	6.00	4.53	75.6	6.00	5.75	95.8	23.6	26	21	140
Surr: o-Terphenyl	0.100	0.0961	96.1	0.100	0.122	122	24.2	30	47	125

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: L0021263-03  
RunID: TPHC\_121026D-4775587 Units: mg/L  
Analysis Date: 10/27/2012 12:31 Analyst: E\_G  
Preparation Date: 10/18/2012 11:29 Prep By: JDF Method: SW3511

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics (C10-C28)	ND	6	2.60	43.4	6	2.11	35.2	20.9	26	21	140
Surr: o-Terphenyl	ND	0.1	0.0706	70.6	0.1	0.0695	69.5	1.57	30	47	125

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

**Quality Control Report**

**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

**Analysis:** RECAP Gasoline Range Organics  
**Method:** SW8015C

**WorkOrder:** L0021263  
**Lab Batch ID:** R296999

**Method Blank**

RunID: HPAA\_121019A-4763758 Units: mg/L  
Analysis Date: 10/19/2012 5:42 Analyst: JHP

Analyte	Result	Rep Limit
Gasoline Range Organics (C6-C10)	ND	0.10
Surr: 1,4-Difluorobenzene	94.2	70-135
Surr: 4-Bromofluorobenzene	95.8	89-126

**Samples in Analytical Batch:**

Lab Sample ID	Client Sample ID
L0021263-01A	007-098-101612
L0021263-02A	007-131-101612
L0021263-03A	007-089-101612
L0021263-04A	007-072-101612
L0021263-05A	007-073-101612
L0021263-06A	007-080-101612
L0021263-07A	007-081-101612
L0021263-08A	FIELD DUP 8001-101612

**Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)**

RunID: HPAA\_121019A-4763756 Units: mg/L  
Analysis Date: 10/19/2012 3:41 Analyst: JHP

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Gasoline Range Organics (C6-C10)	5.00	4.73	94.6	5.00	4.83	96.6	2.0	7	77	118
Surr: 1,4-Difluorobenzene	30.0	31.5	105	30.0	31.0	103	1.4	30	70	135
Surr: 4-Bromofluorobenzene	30.0	31.2	104	30.0	30.3	101	2.9	30	89	126

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: L0021263-03  
RunID: HPAA\_121019A-4763773 Units: mg/L  
Analysis Date: 10/19/2012 13:55 Analyst: JHP

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics (C6-C10)	ND	25	24.5	97.9	25	25.2	101	3.02	7	77	118
Surr: 1,4-Difluorobenzene	ND	150	155	103	150	155	103	0.260	30	70	135

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



ACCUTEST GULF COAST  
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Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: RECAP Gasoline Range Organics  
 Method: SW8015C

WorkOrder: L0021263  
 Lab Batch ID: R296999

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0021263-03  
 RunID: HPAA\_121019A-4763773 Units: mg/L  
 Analysis Date: 10/19/2012 13:55 Analyst: JHP

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Surr: 4-Bromofluorobenzene	ND	150	153	102	150	154	103	0.223	30	89	126

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Version 2.1 - Modified February 11, 2011



Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR - BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: Volatile Organics:Method 8260B:BTEX - water  
 Method: SW8260B

WorkOrder: L0021263  
 Lab Batch ID: R296969

Method Blank

RunID: QB\_121018D-4763222 Units: ug/L  
 Analysis Date: 10/18/2012 23:06 Analyst: IHK

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	105.3	84-124
Surr: 4-Bromofluorobenzene	95.1	89-111
Surr: Toluene-d8	101.6	83-115

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0021263-01A	007-098-101612
L0021263-02A	007-131-101612
L0021263-03A	007-089-101612
L0021263-04A	007-072-101612
L0021263-05A	007-073-101612
L0021263-06A	007-080-101612
L0021263-08A	FIELD DUP 8001-101612
L0021263-09A	FIELD BLANK 8001-101612
L0021263-10A	TRIP BLANK 8001-101612

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: QB\_121018D-4763198 Units: ug/L  
 Analysis Date: 10/18/2012 22:09 Analyst: IHK

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzene	20.0	20.2	101	20.0	20.8	104	3.1	10	82	119
Ethylbenzene	20.0	21.7	109	20.0	22.0	110	1.4	10	84	117
Toluene	20.0	21.9	109	20.0	23.0	115	5.0	10	80	121
m,p-Xylene	40.0	42.8	107	40.0	44.2	111	3.2	10	82	121
o-Xylene	20.0	21.6	108	20.0	22.1	111	2.5	10	84	119
Xylenes, Total	60.0	64.4	107	60.0	66.3	111	3.0	10	81	122
Surr: 1,2-Dichloroethane-d4	50.0	51.5	103	50.0	53.0	106	2.8	30	84	124
Surr: 4-Bromofluorobenzene	50.0	48.6	97.2	50.0	47.9	95.9	1.4	30	89	111
Surr: Toluene-d8	50.0	50.3	101	50.0	50.6	101	0.7	30	83	115

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

**Quality Control Report**

**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

**Analysis:** Volatile Organics:Method 8260B:BTEX - water  
**Method:** SW8260B

**WorkOrder:** L0021263  
**Lab Batch ID:** R296969

Sample Spiked: L0021263-03  
RunID: QB\_121018D-4763214 Units: ug/L  
Analysis Date: 10/19/2012 5:08 Analyst: IHK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	100	97.8	97.8	100	95.0	95.0	2.82	10	82	119
Ethylbenzene	ND	100	107	107	100	105	105	1.62	10	84	117
Toluene	ND	100	119	119	100	116	116	2.74	10	80	121
m,p-Xylene	ND	200	211	105	200	204	102	3.47	10	82	121
o-Xylene	ND	100	106	106	100	104	104	1.89	10	84	119
Xylenes, Total	ND	300	317	106	300	308	102	2.94	10	81	122
Surr: 1,2-Dichloroethane-d4	ND	250	297	119	250	296	118	0.321	30	84	124
Surr: 4-Bromofluorobenzene	ND	250	236	94.2	250	248	99.1	5.10	30	89	111
Surr: Toluene-d8	ND	250	260	104	250	260	104	0.221	30	83	115

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR - BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: Volatile Organics:Method 8260B:BTEX - water  
 Method: SW8260B

WorkOrder: L0021263  
 Lab Batch ID: R297100

Method Blank

Samples in Analytical Batch:

RunID: QB\_121020A-4765947 Units: ug/L  
 Analysis Date: 10/20/2012 10:41 Analyst: IHK

Lab Sample ID: L0021263-07A  
 Client Sample ID: 007-081-101612

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	111.5	84-124
Surr: 4-Bromofluorobenzene	91.3	89-111
Surr: Toluene-d8	95.0	83-115

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: QB\_121020A-4765920 Units: ug/L  
 Analysis Date: 10/20/2012 9:54 Analyst: IHK

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzene	20.0	20.7	103	20.0	20.0	100	3.3	10	82	119
Ethylbenzene	20.0	22.3	112	20.0	21.3	107	4.5	10	84	117
Toluene	20.0	20.6	103	20.0	20.6	103	0.2	10	80	121
m,p-Xylene	40.0	42.1	105	40.0	41.0	102	2.7	10	82	121
o-Xylene	20.0	21.0	105	20.0	20.2	101	3.9	10	84	119
Xylenes, Total	60.0	63.1	105	60.0	61.2	102	3.1	10	81	122
Surr: 1,2-Dichloroethane-d4	50.0	55.5	111	50.0	52.8	106	5.1	30	84	124
Surr: 4-Bromofluorobenzene	50.0	46.1	92.2	50.0	47.8	95.5	3.6	30	89	111
Surr: Toluene-d8	50.0	45.3	90.5	50.0	47.9	95.8	5.7	30	83	115

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: Volatile Organics:Method 8260B:BTEX - water  
 Method: SW8260B

WorkOrder: L0021263  
 Lab Batch ID: R297100

Sample Spiked: L0021329-01  
 RunID: QB\_121020A-4765940 Units: ug/L  
 Analysis Date: 10/20/2012 17:17 Analyst: IHK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	2950	1000	4930	198 *	1000	4940	199 *	0.268	10	82	119
Ethylbenzene	1860	1000	3740	188 *	1000	3770	191 *	0.827	10	84	117
Toluene	2160	1000	4100	194 *	1000	4300	214 *	4.82	10	80	121
m,p-Xylene	5810	2000	10200	222 *	2000	10300	226 *	0.789	10	82	121
o-Xylene	1950	1000	3800	185 *	1000	3830	188 *	0.720	10	84	119
Xylenes, Total	7800	3000	14000	210 *	3000	14000	210 *	0.77	10	81	122
Surr: 1,2-Dichloroethane-d4	ND	2500	2760	110	2500	2660	106	3.88	30	84	124
Surr: 4-Bromofluorobenzene	ND	2500	2330	93.3	2500	2410	96.5	3.39	30	89	111
Surr: Toluene-d8	ND	2500	2470	98.8	2500	2520	101	1.79	30	83	115

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

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Version 2.1 - Modified February 11, 2011



ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
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**Quality Control Report**

**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

**Analysis:** Total Dissolved Solids by SM2540 C  
**Method:** M2540 C

**WorkOrder:** L0021263  
**Lab Batch ID:** R297162

Method Blank

RunID: WET\_1210220-4767375 Units: mg/L  
 Analysis Date: 10/22/2012 10:20 Analyst: SPM

Analyte	Result	Rep Limit
Total Dissolved Solids (Residue,filterable)	ND	10

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0021263-01C	007-098-101612
L0021263-02C	007-131-101612
L0021263-03C	007-089-101612
L0021263-04C	007-072-101612
L0021263-05C	007-073-101612
L0021263-06C	007-080-101612
L0021263-07C	007-081-101612
L0021263-08C	FIELD DUP 8001-101612

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: WET\_1210220-4767376 Units: mg/L  
 Analysis Date: 10/22/2012 10:20 Analyst: SPM

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Total Dissolved Solids (Residue,filterable)	200.0	200.0	100.0	200.0	203.3	101.7	1.7	20	90	110

Sample Duplicate

Original Sample: L0021263-01  
 RunID: WET\_1210220-4767378 Units: mg/L  
 Analysis Date: 10/22/2012 10:20 Analyst: SPM

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Total Dissolved Solids (Residue,filterable)	5800	5737	1.04	20

**Qualifiers:** ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
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 J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

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**Quality Control Report**

**SHAW ENVIRONMENTAL & INFRASTRUCTURE**

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

**Analysis:** Anions by IC using EPA 300.0  
**Method:** E300.0

**WorkOrder:** L0021263  
**Lab Batch ID:** R297306

Method Blank

Samples in Analytical Batch:

RunID: IC\_121024A-4770401 Units: mg/L  
Analysis Date: 10/24/2012 12:58 Analyst: SM

<u>Lab Sample ID</u>	<u>Client Sample ID</u>
L0021263-01C	007-098-101612
L0021263-02C	007-131-101612

Analyte	Result	Rep Limit
Chloride	ND	0.25

Laboratory Control Sample (LCS)

RunID: IC\_121024A-4770402 Units: mg/L  
Analysis Date: 10/24/2012 13:11 Analyst: SM

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	12.50	13.15	105.2	90	110

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0021236-06  
RunID: IC\_121024A-4770404 Units: mg/L  
Analysis Date: 10/24/2012 13:37 Analyst: SM

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	3.376	5	8.711	106.7	5	8.713	106.7	0.02296	15	80	120

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: Chloride by SM4500  
 Method: M4500-CL C

WorkOrder: L0021263  
 Lab Batch ID: R297442

Method Blank

RunID: WET\_121025K-4773367 Units: mg/L  
 Analysis Date: 10/25/2012 14:00 Analyst: JMR  
 Preparation Date: 10/25/2012 14:00 Prep By: Method:

Analyte	Result	Rep Limit
Chloride	ND	5.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0021263-01C	007-098-101612
L0021263-02C	007-131-101612
L0021263-03C	007-089-101612
L0021263-04C	007-072-101612
L0021263-05C	007-073-101612
L0021263-06C	007-080-101612
L0021263-07C	007-081-101612
L0021263-08C	FIELD DUP 8001-101612

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: WET\_121025K-4773368 Units: mg/L  
 Analysis Date: 10/25/2012 14:00 Analyst: JMR  
 Preparation Date: 10/25/2012 14:00 Prep By: Method:

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Chloride	150.0	139.6	93.05	150.0	141.1	94.10	1.1	10	90	110

Sample Duplicate

Original Sample: L0021336-01  
 RunID: WET\_121025K-4773370 Units: mg/L  
 Analysis Date: 10/25/2012 14:00 Analyst: JMR  
 Preparation Date: 10/25/2012 14:00 Prep By: Method:

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Chloride	ND	ND	0	20

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

**Qualifiers:** ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

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ACCUTEST GULF COAST  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

Quality Control Report

SHAW ENVIRONMENTAL & INFRASTRUCTURE

147497 LDNR- BAYOU CORNE INDUSTRIAL WATER WELL

Analysis: Chloride by SM4500  
 Method: M4500-CL C

WorkOrder: L0021263  
 Lab Batch ID: R297442

Sample Spiked: L0021336-01  
 RunID: WET\_121025K-4773372 Units: mg/L  
 Analysis Date: 10/25/2012 14:00 Analyst: JMR  
 Preparation Date: 10/25/2012 14:00 Prep By: Method:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	ND	150	141.1	94.10	150	139.6	93.05	1.117	20	80	120

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
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*Sample Receipt Checklist  
And  
Chain of Custody*



**ACCUTEST GULF COAST**  
 500 AMBASSADOR CAFFERY PARKWAY  
 SCOTT, LA 70583  
 (337) 237-4775

**Sample Receipt Checklist**

Workorder:	L0021263	Received By:	JF
Date and Time Received:	10/17/2012 2:45:00 PM	Carrier name:	Accutest-Delivery
Temperature:	3.0°C	Chilled by:	Water Ice

- |   |   |                             |  |
|---|---|-----------------------------|--|
| <b>1. Shipping container/cooler in good condition?</b>              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2. Custody seals intact on shipping container/cooler?</b>        | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>3. Custody seals intact on sample bottles?</b>                   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4. Chain of custody present?</b>                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>5. Chain of custody signed when relinquished and received?</b>   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>6. Chain of custody agrees with sample labels?</b>               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>7. Samples in proper container/bottle?</b>                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>8. Sample containers intact?</b>                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>9. Sufficient sample volume for indicated test?</b>              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>10. All samples received within holding time?</b>                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>11. Container/Temp Blank temperature in compliance?</b>          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>12. Water - VOA vials have zero headspace?</b>                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | VOA Vials Not Present <input type="checkbox"/>     |
| <b>13. Water - Preservation checked upon receipt (except VOA*)?</b> | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

\*VOA Preservation Checked After Sample Analysis

Accutest Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:

Client / Reporting Information				Project Information				Requested Analysis		Matrix Codes							
Company Name: <b>Shaw E+I</b> Street Address: <b>4771 Essen Ln, Baton Rouge, LA 70809</b> City: <b>Hugh Adams</b> State: <b>LA</b> Zip: <b>70809</b> Project Contact: <b>Kevin Simoneaux</b> Phone #: <b>highadams@shawsp.com</b> Fax #: <b>Kevin.Simoneaux</b>				Project Name: <b>LDNR - Bayou Come - Industrial Water Well</b> Street: <b>Bayou Come - Industrial Water Well</b> City: <b>Baton Rouge, LA</b> State: <b>LA</b> Zip: <b>70809</b> Billing Information (if different from Report to): Company Name: <b>Shaw E+I</b> Street Address: <b>4771 Essen Ln</b> City: <b>Hugh Adams</b> State: <b>LA</b> Zip: <b>70809</b>				Requested Analysis: <b>TDS/Chloride</b> <b>TPH-DRO</b> <b>TPH-CRO</b> <b>BTEX</b>		Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank							
Account Sample #	Field ID / Point of Collection	Date	Time	Collection	Sampled By	Matrix	# of bottles	Number of preserved Bottles				LAB USE ONLY					
								Z/N/NOH	HNO3	H2SO4	DI WATER	MEOH	TSP	NH4SO4	ENCORE	OTHER	
007-098-101612		10/16/12	0950	15/32	GN	GN	10										10
007-131-101612			1015														10
007-089-101612			1130														10
007-089-101612-MSD			1130														10
007-072-101612			1340														10
007-073-101612			1410														10
007-080-101612			1430														10
007-081-101612			1455														10
Field DUF 8001-101612							10										10
Field Blank 8001-101612		10/16/12	1500	15/32	GW	GW	3										3
Trip Blank 8001-101612							6										0

Approved By (Accutest PM): / Date: \_\_\_\_\_  
 Turnaround Time (Business days): \_\_\_\_\_  
 Standard:  Standard  
 5 Day RUSH  
 4 Day RUSH  
 3 Day RUSH  
 2 Day RUSH  
 1 Day EMERGENCY  
 Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information:  
 Commercial "A" (Level 1)  
 Commercial "B" (Level 2)  
 Commercial "C" (Level 3+4)  
 FULT1 (Level 3+4)  
 REDT1 (Level 3+4)  
 Commercial "C"  
 Commercial "A" = Results Only  
 Commercial "B" = Results + QC Summary  
 Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions:  
 1) **Midnight samples**  
 Received at Baton Rouge  
 BU-3413  
 SERVICE CENTER  
 Accutest driver

Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Received By:	Date Time:	Relinquished By:
1/ [Signature]	2/ [Signature]	10/17/12	2/ [Signature]
Relinquished by Sampler:	Received By:	Date Time:	Relinquished By:
3/ [Signature]	4/ [Signature]	10/17/12	4/ [Signature]
Relinquished by:	Received By:	Date Time:	Relinquished By:
5/ [Signature]	6/ [Signature]	10/17/12	6/ [Signature]

On Ice:  Cooler Temp: 3.0 (15)

Preserved where applicable:  Intact  Not Intact

Custody Seal # [Signature]