

Delivery Confirmation No.  
420 87505 9101 9690 0094 0865 9229 50

RECEIVED OCD

February 21, 2012

2012 FEB 23 P 12: 21



Mr. Glenn von Gonten  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**RE: 2011 Annual Groundwater Monitoring Report  
South Four Lakes #13 Site (AP-76)  
T12S-R34E-Section 1, Unit Letter L, Lea County, New Mexico**

Dear Mr. von Gonten:

As agent for Pride Energy Company (Pride), Trident Environmental submits this *2011 Annual Groundwater Monitoring Report* for the above-referenced site.

### **Groundwater Monitoring Results**

Groundwater monitoring activities have been performed at the site on a quarterly basis since January 2008 as summarized in the following tables. A site plan showing the most recent groundwater elevation and the chloride/TDS concentrations in monitoring wells MW-1 and MW-2 is shown in Figure 1. Figure 2 is a graph depicting chloride and TDS concentrations and groundwater elevation versus time at monitoring wells MW-1 and MW-2.

**Summary of Groundwater Monitoring Results (MW-1)**

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	BTEX (mg/L)
MW-1	01/23/08	27.5	4116.22	1,330	NA	<0.003
	03/13/08	27.63	4116.09	665	1,461	<0.003
	06/19/08	27.88	4115.84	736	1,560	<0.003
	09/09/08	28.05	4115.67	760	1,790	<0.003
	12/08/08	28.11	4115.61	710	1,720	<0.003
	03/18/09	28.28	4115.44	750	1,770	<0.003
	06/17/09	28.46	4115.26	760	1830	<0.003
	09/21/09	28.49	4115.23	1040	2220	<0.003
	12/11/09	28.55	4115.17	820	1930	<0.003
	03/24/10	28.65	4115.07	780	1820	---
	06/15/10	28.75	4114.97	940	2150	---
	09/13/10	28.82	4114.90	1080	2280	---
	12/13/10	28.88	4114.84	813	2170	---
	03/17/11	28.97	4114.75	1110	3220	---
	06/29/11	29.12	4114.60	994	2260	---
	09/28/11	29.19	4114.53	1170	2630	---
	12/13/11	29.25	4114.47	1170	2290	---
MW-2	Continued on next page					

South Four Lakes #13 Site (AP-76)  
2011 Annual Groundwater Monitoring Report

**Summary of Groundwater Monitoring Results (MW-2)**

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	BTEX (mg/L)
MW-2	06/19/08	27.54	4115.71	<b>320</b>	976	<0.003
	09/09/08	27.71	4115.54	172	848	<0.003
	12/08/08	27.80	4115.45	164	732	<0.003
	03/18/09	27.95	4115.30	168	720	<0.003
	06/17/09	28.19	4115.06	188	769	<0.003
	09/21/09	28.15	4115.10	240	747	<0.003
	12/11/09	28.21	4115.04	220	866	<0.003
	03/24/10	28.30	4114.95	232	842	---
	06/15/10	28.41	4114.84	220	870	---
	09/13/10	28.50	4114.75	<b>260</b>	935	---
	12/13/10	28.54	4114.71	173	876	---
	03/17/11	28.62	4114.63	217	980	---
	06/29/11	28.76	4114.49	234	860	---
	09/28/11	28.85	4114.40	<b>280</b>	922	---
	12/13/11	28.90	4114.35	<b>313</b>	<b>1,230</b>	---

*Total Dissolved Solids (TDS), chloride, and BTEX concentrations listed in milligrams per liter (mg/L).*

*Values in boldface type indicate concentrations exceed WQCC standards.*

*BTOC - Below Top of Casing; AMSL - Above Mean Sea Level*

*NA Indicates parameter was not analyzed for this constituent.*

The constituents of concern in groundwater are chloride and TDS as they remain above the New Mexico's Water Quality Control Commission (WQCC) standards, of 250 mg/L and 1,000 mg/L, respectively; however, horizontal dispersion of the chloride and TDS in groundwater does not extend beyond approximately 100 feet downgradient (southeast) of the southeast corner of the pit as evidenced by the results of monitoring well MW-2 where background chloride and TDS levels are observed in groundwater. Benzene, toluene, ethylbenzene, and xylenes (BTEX) are not a constituent of concern as concentrations remained below laboratory detection limits and WQCC standards for two years; therefore, analysis for these constituents has been suspended. Quarterly ground water sampling and monitoring will continue.

We look forward to working with you on this project. If you have any questions please call me at 432-638-8740 or Matt Pride at 918-524-9200.

Sincerely,



Gilbert Van Deventer, REM, PG  
Trident Environmental

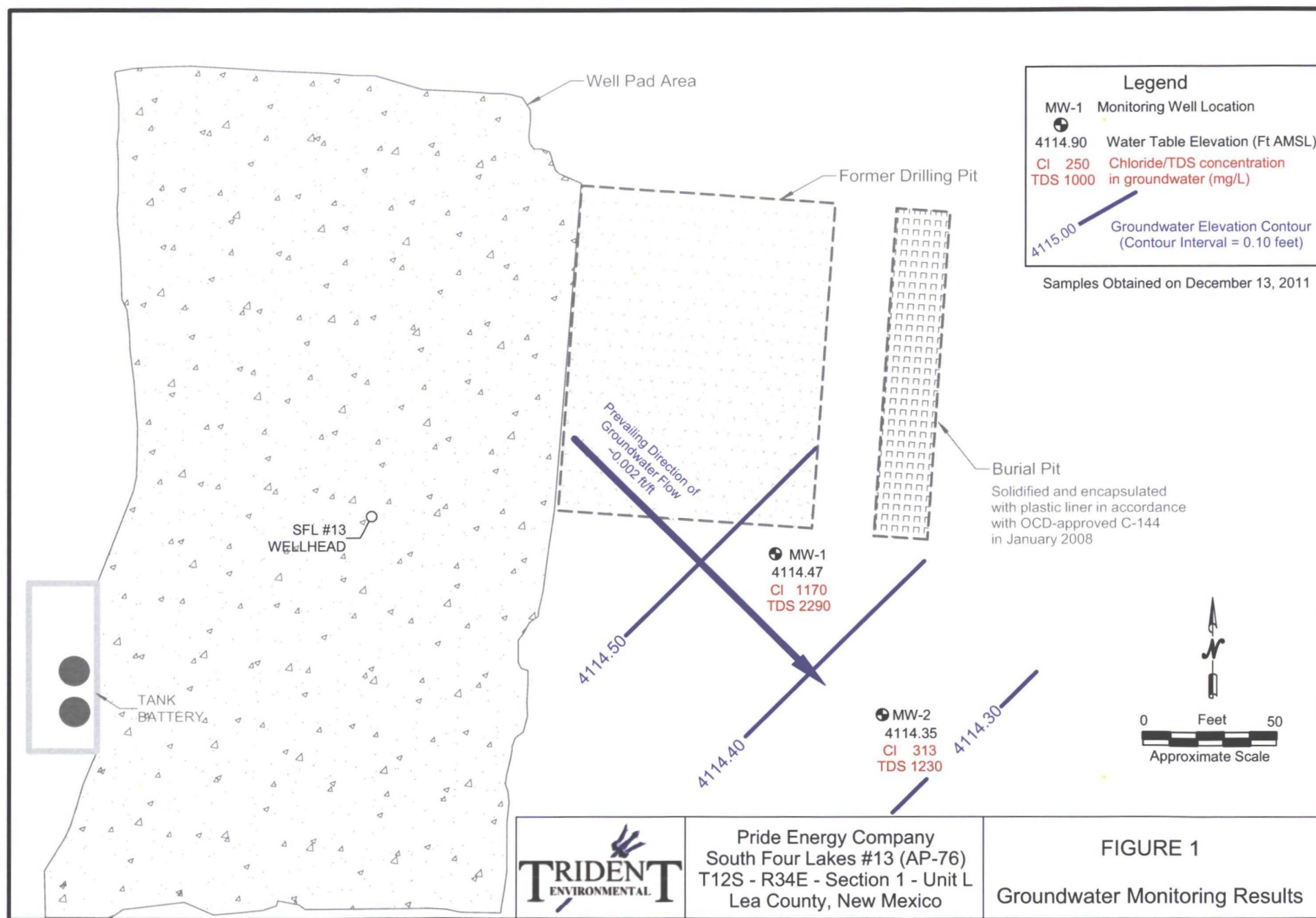
cc: Matt Pride (Pride Energy Co., Tulsa, OK)  
Geoffry Leking (NMOCD -District 1, Hobbs, NM)

Attachments: *Figures, well sampling data form, and laboratory analytical reports*

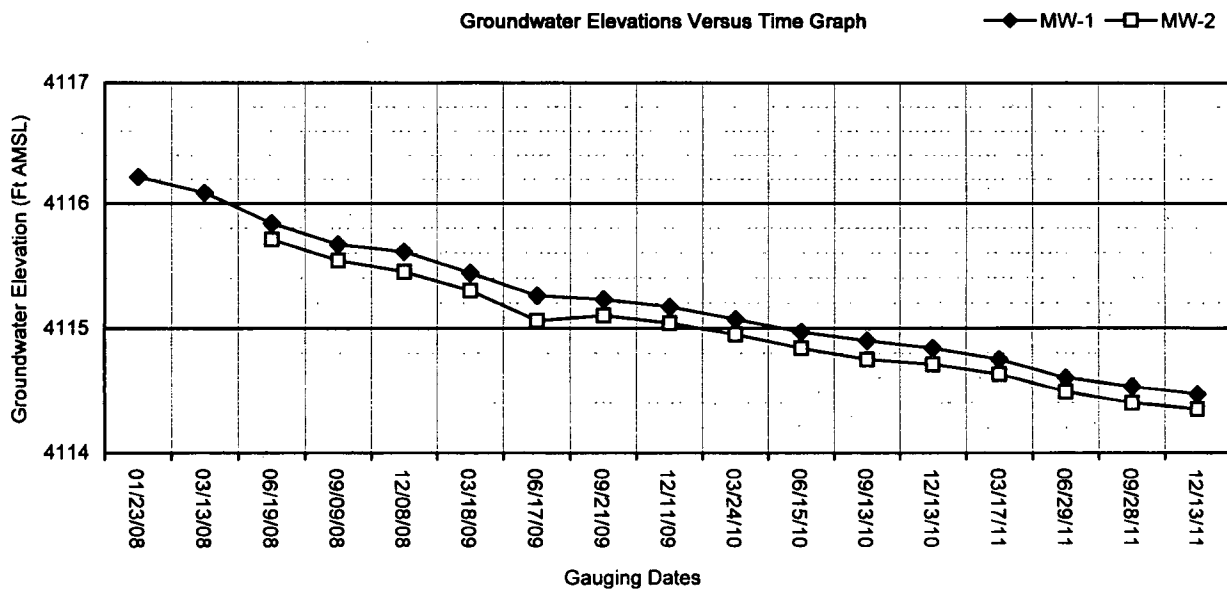
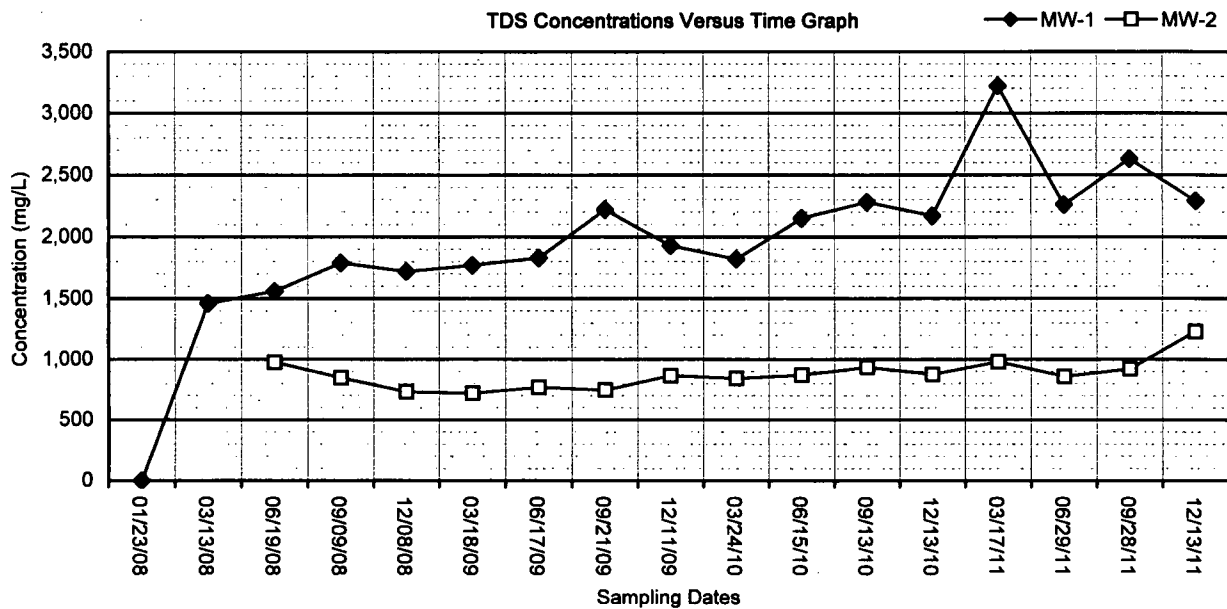
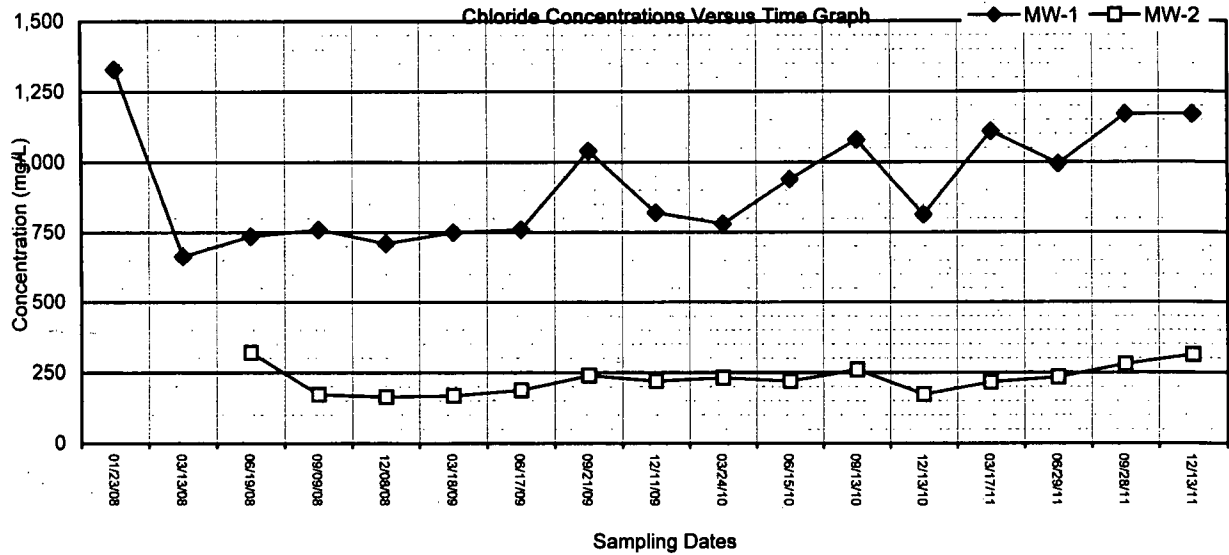
**FIGURE 1**

**GRAPHS**

**WELL SAMPLING DATA FORM**



South Four Lakes #13 Site (AP-76)  
2011 Annual Groundwater Monitoring Report



## WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company  
 SITE NAME: South Four Lakes #13  
 SITE LOCATION: T12S-R34E-Sec1 Unit Letter L ~ Lea County, NM  
 SAMPLER: Gil Van Deventer



PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Proactive SuperTwister (3-stage Submersible Pump)  
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: \_\_\_\_\_  
 DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

Quarter	Date	Time	Monitoring Well No.	Depth to Water (ft btoc)	Total Depth (ft)	Water Column Height (ft)	Well Factor 2"=.16 4"=.65	Calc. Well Vol. (gal)	Volume Purged (gal)	No. of Well Volumes Purged	Temp. °C	Cond. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
First	03/24/10	13:40	MW-1	28.97	43.26	14.29	0.16	2.3	15	6.6	19.1	4.22	7.00	Whitish then cleared during purge
	03/24/10	14:00	MW-2	28.62	42.10	13.48	0.16	2.2	15	7.0	19.3	1.40	7.23	Pinkish/tan then cleared during purge
Second	06/29/11	10:45	MW-1	29.12	43.26	14.14	0.16	2.3	14	6.2	19.5	4.28	7.13	Whitish then cleared during purge
	06/29/11	9:45	MW-2	28.76	42.10	13.34	0.16	2.1	14	6.6	19.9	1.55	6.96	Whitish then cleared during purge
Third	09/28/11	13:40	MW-1	29.19	43.26	14.07	0.16	2.3	12	5.3	19.5	4.29	7.15	Whitish then cleared during purge
	09/28/11	14:10	MW-2	28.85	42.10	13.25	0.16	2.1	12	5.7	20.4	1.55	7.10	Whitish then cleared during purge
Fourth	12/13/11	16:00	MW-1	29.25	43.26	14.01	0.16	2.2	14	6.2	16.4	3.54	7.13	Whitish then cleared during purge
	12/13/11	15:30	MW-2	28.90	42.10	13.20	0.16	2.1	15	7.1	17.6	0.82	7.11	Whitish then cleared during purge

COMMENTS: Equipment decontamination consists of gloves, Alconox, and Distilled Water Rinse.

Hanna Model 98130 instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Xenco Laboratories in Odessa TX for chloride, sulfate, and TDS analysis.

## **LABORATORY ANALYTICAL REPORTS**

# Analytical Report 410330

for  
**Trident Environmental**

**Project Manager: Gil Van Deventer**

**Pride Energy Company**

**South Four Lakes #13 (AP-76)**

**22-MAR-11**



**Celebrating 20 Years of commitment to excellence in Environmental Testing Services**



**12600 West I-20 East Odessa, Texas 79765**

**Xenco-Houston (EPA Lab code: TX00122):**

Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

**Xenco-Atlanta (EPA Lab Code: GA00046):**

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

**Xenco-Miami (EPA Lab code: FL01152):** Florida (E86678), Maryland (330)

**Xenco-Tampa Mobile (EPA Lab code: FL01212):** Florida (E84900)

**Xenco-Odessa (EPA Lab code: TX00158):** Texas (T104704400-TX)

**Xenco-Dallas (EPA Lab code: TX01468):** Texas (T104704295-TX)

**Xenco-Corpus Christi (EPA Lab code: TX02613):** Texas (T104704370)

**Xenco-Boca Raton (EPA Lab Code: FL01273):**

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

**Xenco Phoenix (EPA Lab Code: AZ00901):**

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

**Xenco-Phoenix Mobile (EPA Lab code: AZ00901):** Arizona (AZM757)

**Xenco Tucson (EPA Lab code:AZ000989):** Arizona (AZ0758)





22-MAR-11

Project Manager: **Gil Van Deventer**  
**Trident Environmental**  
P.O. Box 7624  
Midland, TX 79708

Reference: XENCO Report No: **410330**  
**Pride Energy Company**  
Project Address: T12S-R34E-Sec1 Unit Letter L ~ Lea County, NM

**Gil Van Deventer:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 410330. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 410330 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**  
Odessa Laboratory Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.  
Certified and approved by numerous States and Agencies.*

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Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

**Sample Cross Reference 410330****Trident Environmental, Midland, TX***Pride Energy Company*

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-1	W	Mar-17-11 13:40		410330-001
MW-2	W	Mar-17-11 14:00		410330-002



## **CASE NARRATIVE**

**Client Name: Trident Environmental**

**Project Name: Pride Energy Company**



**Project ID:** South Four Lakes #13 (AP

**Work Order Number:** 410330

**Report Date:** 22-MAR-11

**Date Received:** 03/18/2011

**Sample receipt non conformances and Comments:**

None

**Sample receipt Non Conformances and Comments per Sample:**

None



# Certificate of Analy Summary 410330

Trident Environmental, Midland, TX

Project Name: Pride Energy Company



Project Id: South Four Lakes #13 (AP-76)

Contact: Gil Van Deventer

Project Location: T12S-R34E-Sec1 Unit Letter L ~ Lea Cou

Date Received in Lab: Fri Mar-18-11 01:17 pm

Report Date: 22-MAR-11

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	410330-001	410330-002		
	<b>Field Id:</b>	MW-1	MW-2		
	<b>Depth:</b>				
	<b>Matrix:</b>	WATER	WATER		
	<b>Sampled:</b>	Mar-17-11 13:40	Mar-17-11 14:00		
<b>Anions by E300</b>	<b>Extracted:</b>				
	<b>Analyzed:</b>	Mar-21-11 10:52	Mar-21-11 10:52		
	<b>Units/RL:</b>	mg/L RL	mg/L RL		
Chloride		1110 25.0	217 5.00		
<b>TDS by SM2540C</b>	<b>Extracted:</b>				
	<b>Analyzed:</b>	Mar-21-11 15:00	Mar-21-11 15:00		
	<b>Units/RL:</b>	mg/L RL	mg/L RL		
Total dissolved solids		3220 5.00	980 5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II  
Odessa Laboratory Manager

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit
- PQL** Practical Quantitation Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



## BS / BSD Recoveries



**Project Name: Pride Energy Company**

**Work Order #: 410330**

**Analyst: LATCOR**

**Date Prepared: 03/21/2011**

**Project ID: South Four Lakes #13 (AP-76)**

**Date Analyzed: 03/21/2011**

**Lab Batch ID: 848684**

**Sample: 848684-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	10.0	9.91	99	10.0	9.94	99	0	80-120	20	

**Analyst: WRU**

**Date Prepared: 03/21/2011**

**Date Analyzed: 03/21/2011**

**Lab Batch ID: 848683**

**Sample: 848683-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total dissolved solids	<5.00	1000	958	96	1000	914	91	5	80-120	30	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



## Form 3 - MS Recoveries

Project Name: Pride Energy Company



Work Order #: 410330

Lab Batch #: 848684

Date Analyzed: 03/21/2011

Date Prepared: 03/21/2011

Project ID: South Four Lakes #13 (AP-76)

Analyst: LATCOR

QC- Sample ID: 410286-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	531	200	749	109	80-120	

Matrix Spike Percent Recovery [D] =  $100 \cdot (C-A)/B$

Relative Percent Difference [E] =  $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

**Project Name: Pride Energy Company**

**Work Order #: 410330**

**Lab Batch #: 848684**

**Project ID: South Four Lakes #13 (AP-76)**

**Date Analyzed: 03/21/2011 10:52**

**Date Prepared: 03/21/2011**

**Analyst: LATCOR**

**QC- Sample ID: 410286-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	531	517	3	20	

**Lab Batch #: 848683**

**Date Analyzed: 03/21/2011 15:00**

**Date Prepared: 03/21/2011**

**Analyst: WRU**

**QC- Sample ID: 410286-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	1490	1520	2	30	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



# Xenco Laboratories

12800 West I-20 East - Odessa TX  
79768  
(432) 563-1800  
Tel  
Fax (432) 563-1713

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
LAB Order ID # 410530

Page 1 of 1

Company Name:

Trident Environmental

BILL TO Company:

Pride Energy Company / Matt Pride

Project Manager:

Gil Van Deventer / Trident Environmental

Address:

PO Box 710950, Tulsa, OK 74170-1950

Address: (Street, City, Zip)

PO Box 12177, Odessa TX 79768

Phone#:

(918) 524-9200

Fax#:

(918) 524-9292

Phone #:

(432) 638-8740

Fax #:

(413) 403-9968

Project #:

South Four Lakes #13 (AP-76)

Project Name:

Pride Energy Company

Project Location:

T12S-R34E-Sect 1 Unit Letter L ~ Lea County, NM

Sampler Signature:

LAB #

FIELD CODE

(LAB USE ONLY)

(G)rab or (C)omp  
# CONTAINERS

MATRIX  
WATER  
SOIL  
AIR  
SLUDGE

PRESERVATIVE  
HCL (BTEX only)  
HNO<sub>3</sub>  
NaHSO<sub>4</sub>  
H<sub>2</sub>SO<sub>4</sub>  
ICE  
NONE

SAMPLING  
DATE  
TIME

MW-1

MW-2

G 1

G 1

X

X

X

X

X

X

3/17/11

3/17/11

1340

1400

MTBE 8021B/602  
BTEX 8021 B  
TPH 418.1/TX1005 / TX1005 Extended (C35)  
PAH 8270C  
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7  
TCLP Metals Ag As Ba Cd Cr Pb Se Hg  
TCLP Volatiles  
TCLP Semi Volatiles  
TCLP Pesticides  
RCI  
GC/MS Vol. 8260B/624  
GC/MS Semi. Vol. 8270C/625  
Moisture Content  
Cations (Ca, Mg, Na, K)  
Anions (Cl, SO<sub>4</sub>, CO<sub>3</sub>, HCO<sub>3</sub>)  
Total Dissolved Solids (160.1 or SM2540C)  
Chloride / Cl<sup>-</sup> (SM4500 B or 300.1)

Turn Around Time ~ 24 Hours

Final 1.000

Relinquished by:

*[Signature]*

Date:

3/18/11

Time:

1:17 PM

Received by:

*[Signature]*

Date:

3-18-11

Time:

1:17

Relinquished by:

*[Signature]*

Date:

3/18/11

Time:

1:17 PM

Delivered By: (Circle One)

Sample Condition

Yes

No

Checked By:

*[Signature]*

(Initials)

*[Signature]*

Yes

No

Sampler - UPS - Bus - Other:

REMARKS:

Email Results to:  
gil@trident-environmental.com  
matt@pride-energy.com

Phone Results

Yes

No

Fax Results

Yes

No

Additional Fax Number:



XENCO Laboratories  
Atlanta, Boca Raton, Corpus Christi, Dallas  
Houston, Miami, Odessa, Philadelphia  
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
Document No.: SYS-SRC  
Revision/Date: No. 01, 5/27/2010  
Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Trident Environmental  
Date/Time: 3-18-11 1:17  
Lab ID #: 410330  
Initials: LM

#### Sample Receipt Checklist

1. Samples on ice?	Yes	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 3.6 °C	lbs °C	lbs °C	lbs °C	lbs °C

#### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
  - ☐ Initial and Backup Temperature confirm out of temperature conditions
  - ☐ Client understands and would like to proceed with analysis

# **Analytical Report 421884**

**for**

## **Trident Environmental**

**Project Manager: Gil Van Deventer**

**Pride Energy Company**

**South Four Lakes #13 (AP-76)**

**06-JUL-11**

Collected By: Client



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**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



06-JUL-11

Project Manager: **Gil Van Deventer**  
**Trident Environmental**  
P.O. Box 7624  
Midland, TX 79708

Reference: XENCO Report No: **421884**  
**Pride Energy Company**  
Project Address: T12S-R34E-Sec 1 Unit Letter L-Lea County, NM

**Gil Van Deventer:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 421884. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 421884 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

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## Sample Cross Reference 421884

Trident Environmental, Midland, TX

Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	Jun-29-11 09:45		421884-001
MW-2	W	Jun-29-11 10:45		421884-002



## **CASE NARRATIVE**

**Client Name: Trident Environmental**

**Project Name: Pride Energy Company**



**Project ID:** South Four Lakes #13 (AP)  
**Work Order Number:** 421884

**Report Date:** 06-JUL-11  
**Date Received:** 07/01/2011

**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analysis Summary 421884

Trident Environmental, Midland, TX

Project Name: Pride Energy Company

Project Id: South Four Lakes #13 (AP-76)

Contact: Gil Van Deventer

Project Location: T12S-R34E-Sec 1 Unit Letter L-Lea Coun

Date Received in Lab: Fri Jul-01-11 05:05 pm


Report Date: 06-JUL-11

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	421884-001	421884-002				
	<b>Field Id:</b>	MW-1	MW-2				
	<b>Depth:</b>						
	<b>Matrix:</b>	WATER	WATER				
	<b>Sampled:</b>	Jun-29-11 09:45	Jun-29-11 10:45				
<b>Anions by E300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jul-05-11 19:10	Jul-05-11 19:10				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Chloride		994 100	234 50.0				
<b>TDS by SM2540C</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jul-05-11 15:30	Jul-05-11 15:30				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Total dissolved solids		2260 5.00	860 5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II  
Odessa Laboratory Manager

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit
- PQL** Practical Quantitation Limit
- LOD** Limit of Detection
- LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
(602) 437-0330	





## BS / BSD Recoveries



Project Name: Pride Energy Company

Work Order #: 421884

Analyst: BRB

Date Prepared: 07/05/2011

Project ID: South Four Lakes #13 (AP-76)

Date Analyzed: 07/05/2011

Lab Batch ID: 862643

Sample: 862643-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	10.0	9.33	93	10.0	9.09	91	3	80-120	20	

Analyst: WRU

Date Prepared: 07/05/2011

Date Analyzed: 07/05/2011

Lab Batch ID: 862675

Sample: 862675-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total dissolved solids	<5.00	1000	930	93	1000	944	94	1	80-120	30	

Relative Percent Difference RPD =  $200 * (C - F) / (C + F)$

Blank Spike Recovery [D] =  $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS Recoveries

Project Name: Pride Energy Company

Work Order #: 421884

Lab Batch #: 862643

Date Analyzed: 07/05/2011

Date Prepared: 07/05/2011

Project ID: South Four Lakes #13 (AP-76)

Analyst: BRB

QC- Sample ID: 421830-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	46.9	500	507	92	80-120	

Matrix Spike Percent Recovery [D] =  $100 \cdot (C-A)/B$

Relative Percent Difference [E] =  $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

**Project Name: Pride Energy Company**

**Work Order #: 421884**

**Lab Batch #: 862643**

**Date Analyzed: 07/05/2011 19:10**

**Date Prepared: 07/05/2011**

**Project ID: South Four Lakes #13 (AP-76)**

**Analyst: BRB**

**QC- Sample ID: 421830-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	46.9	42.1	11	20	

**Lab Batch #: 862675**

**Date Analyzed: 07/05/2011 15:30**

**Date Prepared: 07/05/2011**

**Analyst: WRU**

**QC- Sample ID: 421830-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	2260	2200	3	30	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

[illegible]



XENCO Laboratories  
Atlanta, Boca Raton, Corpus Christi, Dallas  
Houston, Miami, Odessa, Philadelphia  
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
Document No.: SYS-SRC  
Revision/Date: No. 01, 5/27/2010  
Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Pride Energy  
Date/Time: 7-1-11 5:05  
Lab ID #: 421884  
Initials: DM

### Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1 a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis

# **Analytical Report 428779**

## **for Trident Environmental**

**Project Manager: Gil Van Deventer**

**Pride Energy Company**

**South Four Lakes # 13 (AP-76)**

**10-OCT-11**

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



10-OCT-11

Project Manager: **Gil Van Deventer**  
**Trident Environmental**  
P.O. Box 7624  
Midland, TX 79708

Reference: XENCO Report No: **428779**  
**Pride Energy Company**  
Project Address: T12S-R34E-Sec 1 Unit Leter L ~ Lea County, NM

**Gil Van Deventer:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 428779. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

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We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron II**

Odessa Laboratory Manager

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## Sample Cross Reference 428779

Trident Environmental, Midland, TX

Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	09-28-11 15:40		428779-001
MW-2	W	09-28-11 16:10		428779-002





## CASE NARRATIVE

**Client Name:** *Trident Environmental*

**Project Name:** *Pride Energy Company*



**Project ID:** *South Four Lakes # 13 (A)*  
**Work Order Number:** *428779*

**Report Date:** *10-OCT-11*  
**Date Received:** *09/30/2011*

**Sample receipt non conformances and comments:**

*None*

**Sample receipt non conformances and comments per sample:**

*None*

**Analytical non nonformances and comments:**

**Batch:** *LBA-871512 Anions by E300*

*The RPD between the sample and sample duplicate was above the QC limit for Chloride. This is most likely due to sample non-homogeneity.*

**Batch:** *LBA-871899 TDS by SM2540C*

*The RPD between the Sample and Sample Duplicate for this batch was above the QC limits. This is most likely due to sample non-homogeneity (excess particles.)*



# Certificate of Analysis Summary 428779

Trident Environmental, Midland, TX

Project Name: Pride Energy Company

Project Id: South Four Lakes # 13 (AP-76)

Contact: Gil Van Deventer

Project Location: T12S-R34E-Sec 1 Unit Leter L ~ Lea Cou

Date Received in Lab: Fri Sep-30-11 03:01 pm

Report Date: 10-OCT-11

Project Manager: Brent Barron II

<i><b>Analysis Requested</b></i>	<i><b>Lab Id:</b></i>	428779-001	428779-002		
	<i><b>Field Id:</b></i>	MW-1	MW-2		
	<i><b>Depth:</b></i>				
	<i><b>Matrix:</b></i>	WATER	WATER		
	<i><b>Sampled:</b></i>	Sep-28-11 15:40	Sep-28-11 16:10		
<b>Anions by E300</b>	<i><b>Extracted:</b></i>				
	<i><b>Analyzed:</b></i>	Oct-03-11 14:31	Oct-03-11 14:31		
	<i><b>Units/RL:</b></i>	mg/L RL	mg/L RL		
Chloride		1170 25.0	280 10.0		
<b>TDS by SM2540C</b>	<i><b>Extracted:</b></i>				
	<i><b>Analyzed:</b></i>	Oct-05-11 13:30	Oct-05-11 13:30		
	<i><b>Units/RL:</b></i>	mg/L RL	mg/L RL		
Total dissolved solids		2630 5.00	922 5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II  
Odessa Laboratory Manager

# Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



## BS / BSD Recoveries



Project Name: Pride Energy Company

Work Order #: 428779

Analyst: BRB

Date Prepared: 10/03/2011

Project ID: South Four Lakes # 13 (AP-76)

Date Analyzed: 10/03/2011

Lab Batch ID: 871512

Sample: 871512-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	10.0	10.6	106	10.0	10.6	106	0	80-120	20	

Analyst: BRB

Date Prepared: 10/05/2011

Date Analyzed: 10/05/2011

Lab Batch ID: 871899

Sample: 871899-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total dissolved solids	<5.00	1000	886	89	1000	854	85	4	80-120	30	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



## Form 3 - MS Recoveries

Project Name: Pride Energy Company

Work Order #: 428779

Lab Batch #: 871512

Date Analyzed: 10/03/2011

Date Prepared: 10/03/2011

Project ID: South Four Lakes # 13 (AP-7)

Analyst: BRB

QC- Sample ID: 428778-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	5090	5000	10600	110	80-120	

Matrix Spike Percent Recovery [D] =  $100 \cdot (C-A)/B$   
Relative Percent Difference [E] =  $200 \cdot (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

**Project Name: Pride Energy Company**

**Work Order #: 428779**

**Lab Batch #: 871512**

**Date Analyzed: 10/03/2011 14:31**

**Date Prepared: 10/03/2011**

**Project ID: South Four Lakes # 13 (AP-76)**

**Analyst: BRB**

**QC- Sample ID: 428605-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	312	246	24	20	F

**Lab Batch #: 871512**

**Date Analyzed: 10/03/2011 14:31**

**Date Prepared: 10/03/2011**

**Analyst: BRB**

**QC- Sample ID: 428778-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5090	5070	0	20	

**Lab Batch #: 871899**

**Date Analyzed: 10/05/2011 13:30**

**Date Prepared: 10/05/2011**

**Analyst: BRB**

**QC- Sample ID: 428777-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	770	1240	47	30	F

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 428779

## ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
------------------	-------	-------	--------------	-------	-------

Gil Van Deventer

Relinquished by: <u>[Signature]</u>	Date: <u>9/11/01</u>	Time: <u>11:00</u>	Received By: (Laboratory Staff) <u>[Signature]</u>	Date: <u>9/11/01</u>	Time: <u>11:00</u>
-------------------------------------	----------------------	--------------------	--	----------------------	--------------------

9/1/11 11:01/11 3:01/11 1/1/11 11:01/11 3:01/11 1/1/11 11:01/11 3:01/11

Delivered By: (Circle One)	Sample Condition Cool Intact	CHECKED BY:
----------------------------	---------------------------------	-------------

Yes ☐ No ☐ (Initials) ☐

Sampler	-	UPS	-	Bus	-	Other:	No	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>
---------	---	-----	---	-----	---	--------	----	--------------------------	----	--------------------------	--------------------------

Phone Results		Yes	X	No
---------------	--	-----	---	----

<b>Fax Results</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<b>Additional Fax Number:</b>
--------------------	------------------------------	--	-------------------------------

REMARKS:

**Email Results to:** \_\_\_\_\_

gil@trident-environmental.com  
matt@pride-energy.com

mattp@pride-energy.com

520 in 1004



XENCO Laboratories  
Atlanta, Boca Raton, Corpus Christi, Dallas  
Houston, Miami, Odessa, Philadelphia  
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
Document No.: SYS-SRC  
Revision/Date: No. 01, 5/27/2010  
Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Trident Env.  
Date/Time: 9.30.11 15:01  
Lab ID #: 428779  
Initials: AE

### Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	<u>N/A</u>	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 7.0 °C	lbs °C	lbs °C	lbs °C	lbs °C

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☒ Client understands and would like to proceed with analysis



# **Analytical Report 400566**

## **for Trident Environmental**

**Project Manager: Gil Van Deventer**

**Pride Energy Company**

**South Four Lakes # 13 (AP-76)**

**20-DEC-10**



**Celebrating 20 Years of commitment to excellence in Environmental Testing Services**



**12600 West I-20 East Odessa, Texas 79765**

**Xenco-Houston (EPA Lab code: TX00122):**

**Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)**

**Xenco-Atlanta (EPA Lab Code: GA00046):**

**Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)**

**Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)**

**Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)**

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**Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)**

**Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)**

**Xenco-Boca Raton (EPA Lab Code: FL01273):**

**Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)**

**Xenco Phoenix (EPA Lab Code: AZ00901):**

**Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)**

**Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)**

**Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)**



20-DEC-10

Project Manager: **Gil Van Deventer**  
**Trident Environmental**  
P.O. Box 7624  
Midland, TX 79708

Reference: XENCO Report No: **400566**  
**Pride Energy Company**  
Project Address: T12S-R34E-Sec 1 Unit Letter L - Lea County, NM

**Gil Van Deventer:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 400566. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 400566 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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## Sample Cross Reference 400566



Trident Environmental, Midland, TX  
Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	Dec-13-10 13:47		400566-001
MW-2	W	Dec-13-10 14:07		400566-002



## CASE NARRATIVE

**Client Name:** Trident Environmental

**Project Name:** Pride Energy Company



**Project ID:** South Four Lakes # 13 (A1)

**Work Order Number:** 400566

**Report Date:** 20-DEC-10

**Date Received:** 12/14/2010

**Sample receipt non conformances and Comments:**

None

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

**Batch:** LBA-835912 Anions by E300

E300MI

*Batch 835912, Chloride recovered above QC limits in the Matrix Spike.*

*Samples affected are: 400566-001, -002.*

*The Laboratory Control Sample for Chloride is within laboratory Control Limits*

**Batch:** LBA-835988 TDS by SM2540C



# Certificate of Analy Summary 400566

Trident Environmental, Midland, TX

Project Name: Pride Energy Company



Project Id: South Four Lakes # 13 (AP-76)

Contact: Gil Van Deventer

Project Location: T12S-R34E-Sec 1 Unit Letter L - Lea Cou

Date Received in Lab: Tue Dec-14-10 12:30 pm


Report Date: 20-DEC-10

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	400566-001	400566-002		
	<b>Field Id:</b>	MW-1	MW-2		
	<b>Depth:</b>				
	<b>Matrix:</b>	WATER	WATER		
	<b>Sampled:</b>	Dec-13-10 13:47	Dec-13-10 14:07		
<b>Anions by E300</b>	<b>Extracted:</b>				
	<b>Analyzed:</b>	Dec-14-10 15:10	Dec-14-10 15:10		
	<b>Units/RL:</b>	mg/L RL	mg/L RL		
Chloride		813 25.0	173 5.00		
<b>TDS by SM2540C</b>	<b>Extracted:</b>				
	<b>Analyzed:</b>	Dec-14-10 16:00	Dec-14-10 16:00		
	<b>Units/RL:</b>	mg/L RL	mg/L RL		
Total dissolved solids		2170 5.00	876 5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II  
Odessa Laboratory Manager

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit
- PQL** Practical Quantitation Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
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12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



## BS / BSD Recoveries



Project Name: Pride Energy Company

Work Order #: 400566

Analyst: LATCOR

Date Prepared: 12/14/2010

Project ID: South Four Lakes # 13 (AP-76)

Date Analyzed: 12/14/2010

Lab Batch ID: 835912

Sample: 835912-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	ND	10.0	9.33	93	10	9.44	94	1	80-120	20	

Analyst: WRU

Date Prepared: 12/14/2010

Date Analyzed: 12/14/2010

Lab Batch ID: 835988

Sample: 835988-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total dissolved solids	<	1000	940	94	1000	954	95	1	80-120	30	

Relative Percent Difference RPD =  $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



## Form 3 - MS Recoveries



Project Name: Pride Energy Company

Work Order #: 400566

Lab Batch #: 835912

Date Analyzed: 12/14/2010

Date Prepared: 12/14/2010

Project ID: South Four Lakes # 13 (AP-76)

Analyst: LATCOR

QC- Sample ID: 400475-001 S

Batch #: 1

Matrix: Water

Reporting Units: mg/L

### MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	129	100	262	133	80-120	X

Matrix Spike Percent Recovery [D] =  $100 \cdot (C-A)/B$

Relative Percent Difference [E] =  $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



**Project Name: Pride Energy Company**

**Work Order #: 400566**

**Lab Batch #: 835912**

**Date Analyzed: 12/14/2010 15:10**

**Date Prepared: 12/14/2010**

**Project ID: South Four Lakes # 13 (AP-76)**

**Analyst: LATCOR**

**QC- Sample ID: 400475-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

## SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	129	130	1	20	

**Lab Batch #: 835988**

**Date Analyzed: 12/14/2010 16:00**

**Date Prepared: 12/14/2010**

**Analyst: WRU**

**QC- Sample ID: 400564-001 D**

**Batch #: 1**

**Matrix: Water**

**Reporting Units: mg/L**

## SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	10600	11100	5	30	

Spike Relative Difference  $RPD = 200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit

Phone Results	Yes	No
Fax Results	Yes	No      Additional Fax Number:

REMARKS:

Email Results to: [gill@trident-environmental.com](mailto:gill@trident-environmental.com)  
[matto@pride-energy.com](mailto:matto@pride-energy.com)



**XENCO Laboratories**  
Atlanta, Boca Raton, Corpus Christi, Dallas  
Houston, Miami, Odessa, Philadelphia  
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
Document No.: SYS-SRC  
Revision/Date: No. 01, 5/27/2010  
Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Trident Env.  
Date/Time: 12-14-10 12:30  
Lab ID #: 400566  
Initials: AE

#### Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	(Yes)	No	N/A	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	Yes	No	(N/A)	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 7.6 °C	lbs °C	lbs °C	lbs °C	lbs °C

#### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis