

AP-76

**Pride Energy
South Four Lakes #13**

**Annual Report
2012**



January 30, 2013

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: 2012 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, Trident Environmental submits this *2012 Annual Groundwater Monitoring Report* for the above-referenced site.

Groundwater Sampling Procedures

During each quarterly sampling event the two monitoring wells (MW-1 and MW-2) were gauged for depth to groundwater using an electronic water level indicator immediately prior to purging operations. A minimum of three well volumes of groundwater was purged from each monitoring well using a 3-stage submersible pump which was decontaminated using an Alconox solution and a distilled water rinse between sampling points. Groundwater parameters (pH, temperature, and conductivity) were measured using a Hanna Model 98130 multimeter and recorded on a well sample data form. At the end of purging, water samples for each monitoring well were transferred into 500 milliliter (ml) plastic containers for laboratory analysis of chloride using EPA Method E300.1 and TDS using EPA Method 160.1. For each set of samples, chain of custody forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed. All water samples were placed in an ice-filled cooler immediately after collection and transported to Permian Basin Environmental Lab (Midland, Texas) for analysis.

Groundwater Monitoring Results

Groundwater monitoring activities have been performed at the site on a quarterly basis since January 2008 as summarized in Table 1. A site map showing the most recent groundwater elevation and the chloride/TDS concentrations in monitoring wells MW-1 and MW-2 is presented as Figure 1.

South Four Lakes #13 Site (AP-76)
2012 Annual Groundwater Monitoring Report

Groundwater Depth, Elevations, Hydraulic Gradient and Flow Direction

Depth to groundwater at the site is approximately 27 feet (ft) below ground surface with a groundwater gradient direction trending towards the southeast and a hydraulic gradient of approximately 0.004 ft/ft (Figure 1). As displayed in Figure 2, which graphs the change in groundwater elevation since 2008 at monitoring wells MW-1 and MW-2, the water table elevation has been steadily declining about 0.4 ft/year. Groundwater depths and gradient patterns are consistent with the prevailing water table conditions in the area.

Groundwater Quality Conditions

The constituents of concern in groundwater are chloride and TDS as they are above the New Mexico's Water Quality Control Commission (WQCC) standards, of 250 mg/L and 1,000 mg/L, respectively. 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 discontinued. The site groundwater monitoring map (Figure 1) includes the most recent chloride and TDS concentrations. Graphs depicting chloride and TDS concentrations at monitoring wells MW-1 and MW-2 since 2008 are presented in Figures 3 and 4, respectively.

Pride Energy Company plans to continue quarterly ground water monitoring activities and submit an annual groundwater monitoring report next year.

We look forward to working with you on this project. If you have any questions or comments you may contact me at 432.638.8740 (gil@trident-environmental.com) or Matt Pride at 918.524.9200 (mattp@pride-energy.com).

Respectfully,

Gilbert Van Deventer, REM, PG
Trident Environmental

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

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

ATTACHMENTS

TABLE 1

Summary of Groundwater Monitoring Results

FIGURE 1

Site Map with Groundwater Monitoring Results

FIGURE 2

Groundwater Elevations versus Time Graph

FIGURE 3

Chloride Concentrations Versus Time Graph

FIGURE 4

TDS Concentrations Versus Time Graph

WELL SAMPLING DATA FORM

South Four Lakes #13 Site (AP-76)
2012 Annual Groundwater Monitoring Report

Table 1
Summary of Groundwater Monitoring Results

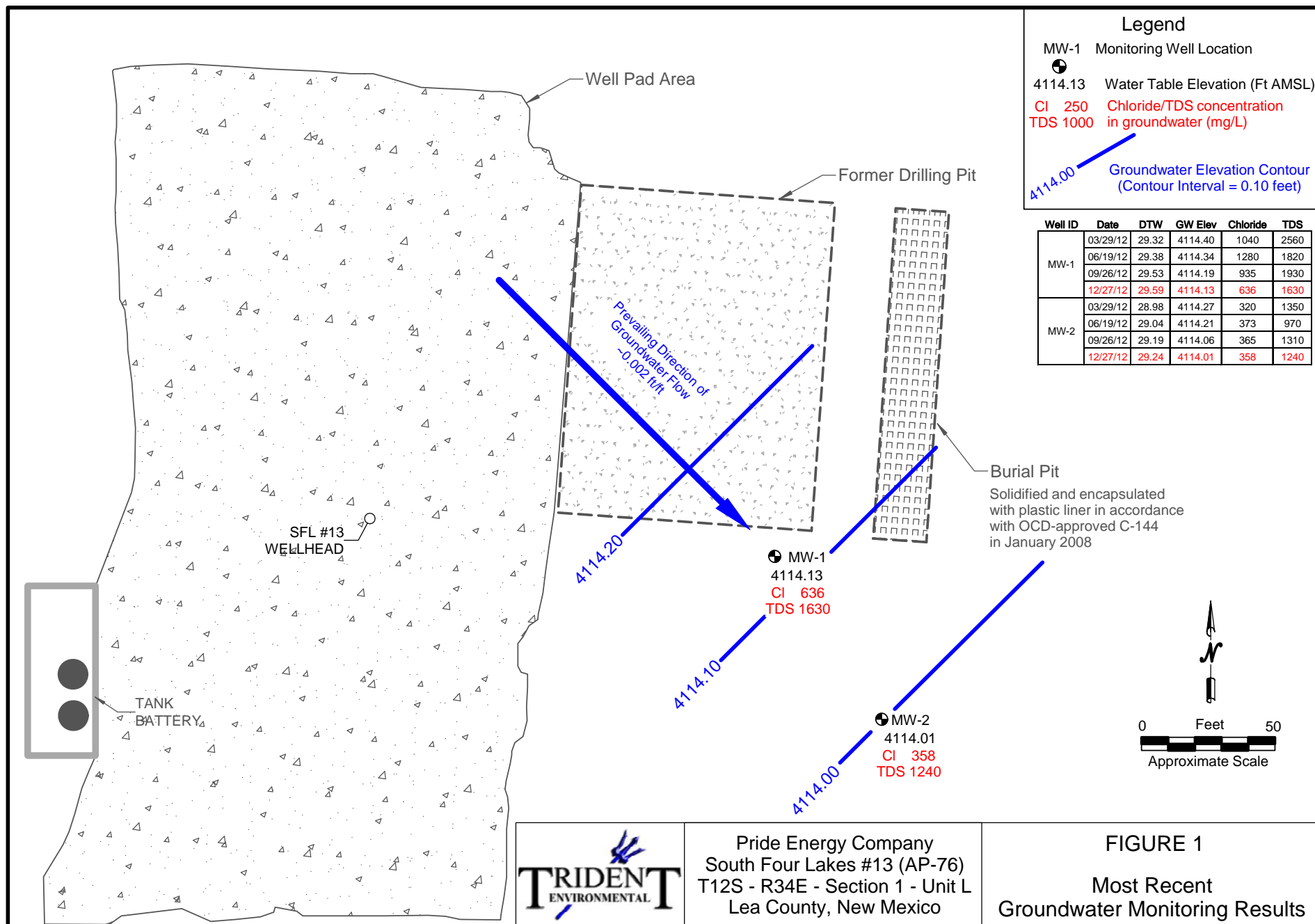
Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	BTEX (mg/L)
MW-1	01/23/08	27.5	4116.22	1,330	NA	<0.003
	03/13/08	27.63	4116.09	665	1,461	<0.003
	06/19/08	27.88	4115.84	736	1,560	<0.003
	09/09/08	28.05	4115.67	760	1,790	<0.003
	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	---
	03/29/12	29.32	4114.40	1040	2560	---
	06/19/12	29.38	4114.34	1280	1820	---
	09/26/12	29.53	4114.19	935	1930	---
	12/27/12	29.59	4114.13	636	1630	---
MW-2	06/19/08	27.54	4115.71	320	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	260	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	280	922	---
	12/13/11	28.90	4114.35	313	1,230	---
	03/29/12	28.98	4114.27	320	1,350	---
	06/19/12	29.04	4114.21	373	970	---
	09/26/12	29.19	4114.06	365	1,310	---
	12/27/12	29.24	4114.01	358	1,240	---

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

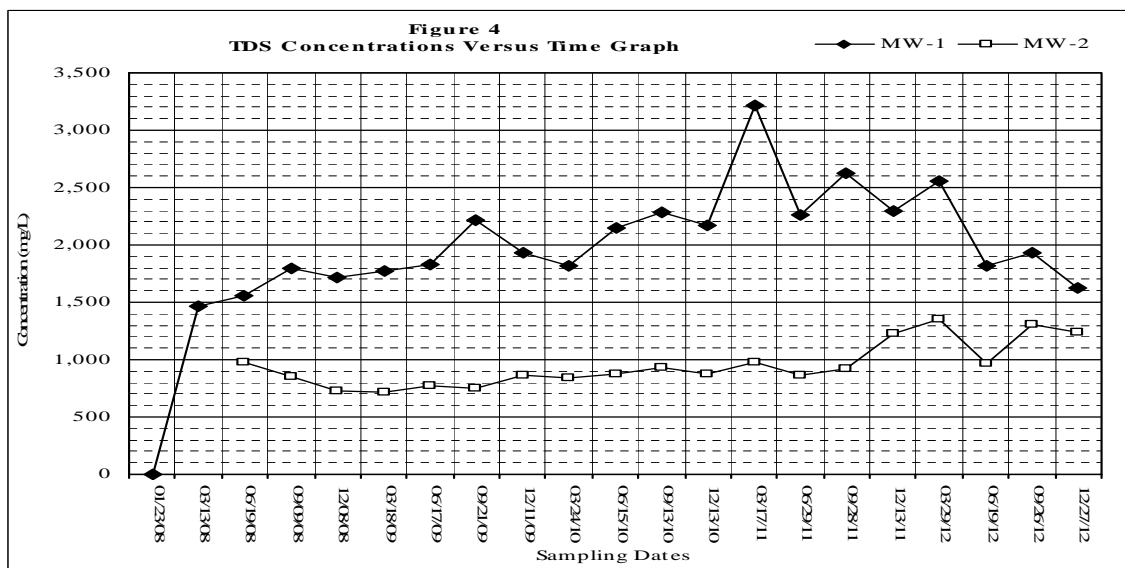
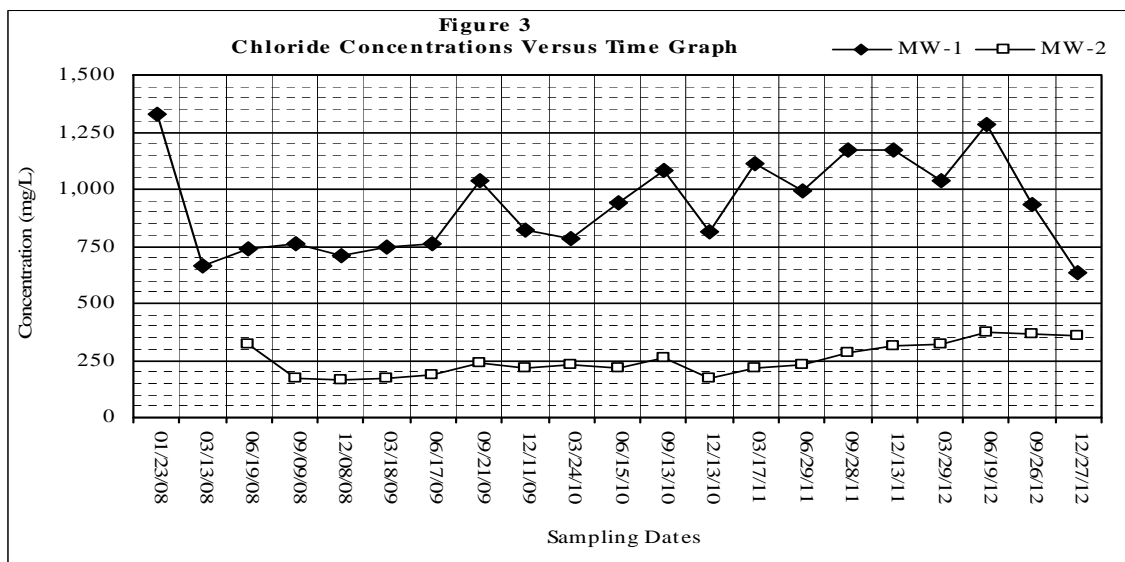
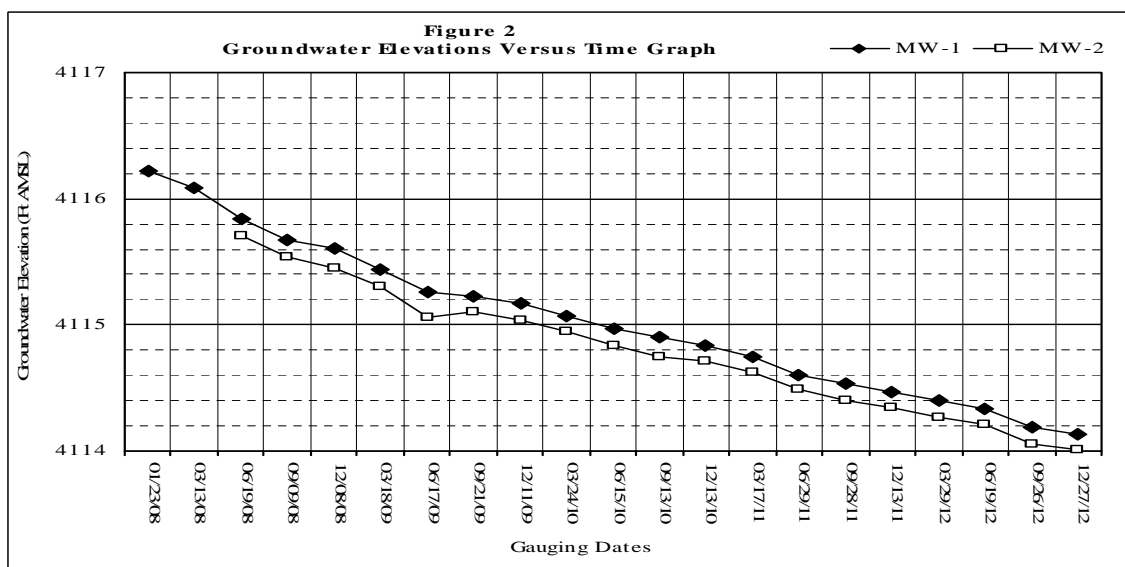
Values in boldface type indicate concentrations exceed WQCC standards.

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

NA Indicates parameter was not analyzed for this constituent.



South Four Lakes #13 Site (AP-76)
2012 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: Whaler Model WP-9012 Mega Purger (12-volt 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. °F	Cond. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
First	03/29/12	14:00	MW-1	29.32	43.26	13.94	0.16	2.2	15	6.7	66.8	3.26	7.23	Whitish then cleared during purge
	03/29/12	13:00	MW-2	28.98	42.10	13.12	0.16	2.1	15	7.1	69.8	1.74	7.39	Whitish then cleared during purge
Second	06/19/12	11:00	MW-1	29.38	43.26	13.88	0.16	2.2	15	6.8	68.5	3.60	7.22	Whitish then cleared during purge
	06/19/12	10:00	MW-2	29.04	42.10	13.06	0.16	2.1	15	7.2	68.8	1.69	6.87	Whitish then cleared during purge
Third	09/26/12	11:00	MW-1	29.53	43.26	13.73	0.16	2.2	15	6.9	68.7	3.15	7.23	Whitish then cleared during purge
	09/26/12	10:00	MW-2	29.19	42.10	12.91	0.16	2.1	15	7.3	68.8	1.75	7.03	Whitish then cleared during purge
Fourth	12/27/12	11:00	MW-1	29.59	43.26	13.67	0.16	2.2	15	6.9	63.7	1.89	7.28	Whitish then cleared during purge
	12/27/12	10:00	MW-2	29.24	42.10	12.86	0.16	2.1	15	7.3	62.7	1.17	6.80	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 the analytical laboratory for chloride and TDS analysis.

LABORATORY ANALYTICAL REPORTS
AND
CHAINS OF CUSTODY

Analytical Report 439825

for

Trident Environmental

Project Manager: Gil Van Deventer

Pride Energy Company

South Four Lakes # 13 (AP-76)

06-APR-12

Collected By: Client



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 (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 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-APR-12

Project Manager: **Gil Van Deventer**

Trident Environmental

P.O. Box 12177

Odessa, TX 79768

Reference: XENCO Report No: **439825**

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 439825. 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. 439825 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 439825



Trident Environmental, Odessa, TX

Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	03-29-12 14:00		439825-001
MW-2	W	03-29-12 13:00		439825-002



CASE NARRATIVE

Client Name: Trident Environmental

Project Name: Pride Energy Company



Project ID: South Four Lakes # 13 (Al
Work Order Number: 439825

Report Date: 06-APR-12
Date Received: 03/30/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-885227 Inorganic Anions by EPA 300
E300

Batch 885227, Chloride recovered below QC limits in the Matrix Spike.

Samples affected are: 439825-001, -002.

The Laboratory Control Sample for Chloride is within laboratory Control Limits



Certificate of Analysis Summary 439825

Trident Environmental, Odessa, 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: Fri Mar-30-12 10:20 am

Report Date: 06-APR-12

Project Manager: Brent Barron II

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	439825-001 MW-1 WATER Mar-29-12 14:00	439825-002 MW-2 WATER Mar-29-12 13:00				
Anions Cl by EPA 300/300.1 SUB: TX104704215	Extracted: Analyzed: Units/RL:	Apr-05-12 14:14 Apr-05-12 14:14 mg/L RL	Apr-05-12 14:30 Apr-05-12 14:30 mg/L RL				
Chloride		1040 10.0	320 2.50				
TDS by SM2540C SUB: TX104704215	Extracted: Analyzed: Units/RL:	Apr-03-12 13:00 mg/L RL	Apr-03-12 13:00 mg/L RL				
Total dissolved solids		2560 5.00	1350 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.

* Surrogate recovered outside laboratory control limit.

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

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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

Project Name: Pride Energy Company

Work Order #: 439825

Analyst: TTE

Date Prepared: 04/05/2012

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

Date Analyzed: 04/05/2012

Lab Batch ID: 885227

Sample: 620198-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions Cl by EPA 300/300.1	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	50.0	50.3	101	50.0	49.7	99	1	90-110	20	

Analyst: LBA

Date Prepared: 04/03/2012

Date Analyzed: 04/03/2012

Lab Batch ID: 885058

Sample: 885058-1-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	500	513	103	500	512	102	0	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 #: 439825

Lab Batch #: 885227

Date Analyzed: 04/05/2012

QC- Sample ID: 439871-001 S

Reporting Units: mg/L

Date Prepared: 04/05/2012

Batch #: 1

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

Analyst: TTE

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	239	50.0	242	6	80-120	X

Lab Batch #: 885227

Date Analyzed: 04/05/2012

QC- Sample ID: 439974-001 S

Reporting Units: mg/L

Date Prepared: 04/05/2012

Batch #: 1

Analyst: TTE

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.9	50.0	63.4	95	80-120	

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

BRL - Below Reporting Limit

Project Name: Pride Energy Company

Work Order #: 439825

Lab Batch #: 885058

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

Date Analyzed: 04/03/2012 13:00

Date Prepared: 04/03/2012

Analyst: LBA

QC- Sample ID: 439744-001 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	356	356	0	30	

Lab Batch #: 885058

Date Analyzed: 04/03/2012 13:00

Date Prepared: 04/03/2012

Analyst: LBA

QC- Sample ID: 439797-001 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	342	340	1	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

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Gilbert Vandeventer

Trident Environmental

P.O. Box 12177

Odessa, TX 79768

Project: Pride Energy Company

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

Location: T12S-R34E-Sec1 Unit Letter L~Lea County, NM

Lab Order Number: 2F21003

Report Date: 06/28/12

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13 (AP-76)
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2F21003-01	Water	06/19/12 11:00	06-21-2012 09:50
MW-2	2F21003-02	Water	06/19/12 10:00	06-21-2012 09:50

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13 (AP-76)
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

General Chemistry Parameters by EPA / Standard Methods
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (2F21003-01) Water									
Chloride	1280	25.0	mg/L	50	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1820	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-2 (2F21003-02) Water									
Chloride	373	10.0	mg/L	20	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	970	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13 (AP-76)
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22503 - General Preparation (WetChem)										
Blank (EF22503-BLK1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	ND	0.500	mg/L							
LCS (EF22503-BS1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	8.82		mg/L	10.0		88.2	80-120			
LCS Dup (EF22503-BSD1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	9.04		mg/L	10.0		90.4	80-120	2.46	20	
Duplicate (EF22503-DUP1)				Source: 2F21003-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Chloride	1260	25.0	mg/L		1280			1.57	20	
Matrix Spike (EF22503-MS1)				Source: 2F21003-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Chloride	1610	25.0	mg/L	250	1280	132	80-120			M1
Batch EF22601 - General Preparation (WetChem)										
Blank (EF22601-BLK1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EF22601-DUP1)				Source: 2F21001-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Total Dissolved Solids	510	10.0	mg/L		570			11.1	20	
Duplicate (EF22601-DUP2)				Source: 2F21001-11		Prepared: 06/22/12 Analyzed: 06/25/12				
Total Dissolved Solids	850	10.0	mg/L		710			17.9	20	

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13 (AP-76)
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Notes and Definitions

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

6/28/2012

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-661-4184.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
LAB Order ID # 2F21003

Company Name: Trident Environmental		BILL TO Company: Pride Energy Company / Attention: 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	
Phone #: (432) 638-8740		Fax#: (918) 524-9292	
Project #: (413) 403-9968		Project Name: Pride Energy Company	
Project Location: T12S-R34E-Sect 1 Unit Letter L ~ Lea County, NM		Sampler Signature: <i>[Signature]</i>	
LAB # (LAB USE ONLY)		FIELD CODE	
LAB # -01		MMW-1	
LAB # -02		MMW-2	
(G)rab or (C)omp		# CONTAINERS	
WATER		SOIL	
AIR		SLUDGE	
HCL (BTEX only)		HNO ₃	
NaHSO ₄		H ₂ SO ₄	
ICE		NONE	
DATE		TIME	
6/19/12		1100	
6/19/12		1000	
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 ₄ , CO ₃ , HCO ₃)		Total Dissolved Solids (160.1 or SM2540C)	
Chloride / Cl ⁻ (SM4500 B or 300.1)		Turn Around Time ~ 24 Hours	

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Gilbert Vandeventer
Trident Environmental
P.O. Box 12177
Odessa, TX 79768

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

Project Number: [none]

Location: T12S-R34 E-Sec1 Unit Letter L Lea Co, NM

Lab Order Number: 2127005



NELAP/TCEQ # T104704156-12-1

Report Date: 10/04/12

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: South Four Lakes #13 (AP-76)
Project Number: [none]
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2I27005-01	Water	09/26/12 11:00	09-27-2012 13:00
MW-2	2I27005-02	Water	09/26/12 10:00	09-27-2012 13:00

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: South Four Lakes #13 (AP-76)
Project Number: [none]
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

General Chemistry Parameters by EPA / Standard Methods
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (2127005-01) Water									
Chloride	935	12.5	mg/L	25	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1930	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-2 (2127005-02) Water									
Chloride	365	5.00	mg/L	10	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1310	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: South Four Lakes #13 (AP-76)
Project Number: [none]
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ20202 - * DEFAULT PREP *****

Blank (EJ20202-BLK1)

Prepared & Analyzed: 10/02/12

Sulfate	ND	1.00	mg/L
Chloride	ND	0.500	"

LCS (EJ20202-BS1)

Prepared & Analyzed: 10/02/12

Sulfate	9.80		mg/L	10.0		98.0	80-120
Chloride	9.45		"	10.0		94.5	80-120

LCS Dup (EJ20202-BSD1)

Prepared & Analyzed: 10/02/12

Sulfate	9.79		mg/L	10.0		97.9	80-120	0.163	20
Chloride	9.32		"	10.0		93.2	80-120	1.37	20

Duplicate (EJ20202-DUP1)

Source: 2127004-01

Prepared & Analyzed: 10/02/12

Sulfate	987	200	mg/L		1010			2.80	20
Chloride	4390	100	"		4590			4.44	20

Matrix Spike (EJ20202-MS1)

Source: 2127004-01

Prepared & Analyzed: 10/02/12

Sulfate	3030	200	mg/L	1750	1010	115	80-120
Chloride	6530	100	"	1750	4590	111	80-120

Batch EJ20305 - * DEFAULT PREP *****

Blank (EJ20305-BLK1)

Prepared: 10/02/12 Analyzed: 10/03/12

Total Dissolved Solids	ND	10.0	mg/L
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Duplicate (EJ20305-DUP1)

Source: 2128001-01

Prepared: 10/02/12 Analyzed: 10/03/12

Total Dissolved Solids	79400	10.0	mg/L		78900			0.632	20
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Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: South Four Lakes #13 (AP-76)
Project Number: [none]
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

10/4/2012

Brent Barron, Laboratory Director/Technical Director

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Gilbert Vandeventer
Trident Environmental
P.O. Box 12177
Odessa, TX 79768

Project: Pride Energy Company

Project Number: South Four Lakes #13

Location: T12S-R34-Sec1 Unit Letter L ~Lea County, NM

Lab Order Number: 3A02001



NELAP/TCEQ # T104704156-12-1

Report Date: 01/10/13

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3A02001-01	Water	12/27/12 11:00	12-28-2012 15:15
MW-2	3A02001-02	Water	12/27/12 10:00	12-28-2012 15:15

General Chemistry Parameters by EPA / Standard Methods Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (3A02001-01) Water									
Chloride	636	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1630	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-2 (3A02001-02) Water									
Chloride	358	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1240	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EA30302 - * DEFAULT PREP *****

Blank (EA30302-BLK1)

Prepared & Analyzed: 01/03/13

Chloride	ND	0.500	mg/L
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LCS (EA30302-BS1)

Prepared & Analyzed: 01/03/13

Chloride	9.99		mg/L	10.0	99.9	80-120
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LCS Dup (EA30302-BSD1)

Prepared & Analyzed: 01/03/13

Chloride	9.99		mg/L	10.0	99.9	80-120	0.0100	20
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Duplicate (EA30302-DUP1)

Source: 3A02002-01

Prepared & Analyzed: 01/03/13

Chloride	4140	100	mg/L	4140			0.00	20
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Matrix Spike (EA30302-MS1)

Source: 3A02002-01

Prepared & Analyzed: 01/03/13

Chloride	5960	100	mg/L	1750	4140	104	80-120
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Matrix Spike (EA30302-MS2)

Source: 2L28001-04

Prepared & Analyzed: 01/03/13

Chloride	45600	500	mg/L	1250	35800	781	80-120		QM-05
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Batch EA30804 - * DEFAULT PREP *****

Blank (EA30804-BLK1)

Prepared & Analyzed: 01/08/13

Total Dissolved Solids	40.0	10.0	mg/L
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Duplicate (EA30804-DUP1)

Source: 3A02003-04

Prepared & Analyzed: 01/08/13

Total Dissolved Solids	1690	10.0	mg/L	1690			0.00	20
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Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Pride Energy Company
Project Number: South Four Lakes #13
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Notes and Definitions

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

1/10/2013

Brent Barron, Laboratory Director/Technical Director

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