1R - 501

2012 AGWMR

01/30/2013

Delivery Confirmation No. 420 87505 9101 9690 0094 0558 4796 79



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 State 36 #2 Site (NMOCD Case # 1R-501) T19S-R37E-Section 36, Unit Letter O, Lea County, New Mexico

Dear Mr. von Gonten:

As agent for Pride Energy Company (Pride), Trident Environmental submits this 2012 Annual Groundwater Monitoring Report for the above-referenced site.

Groundwater Sampling Procedures

During each quarterly sampling event the four monitoring wells (MW-1, MW-2, MW-3, and MW-4) 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

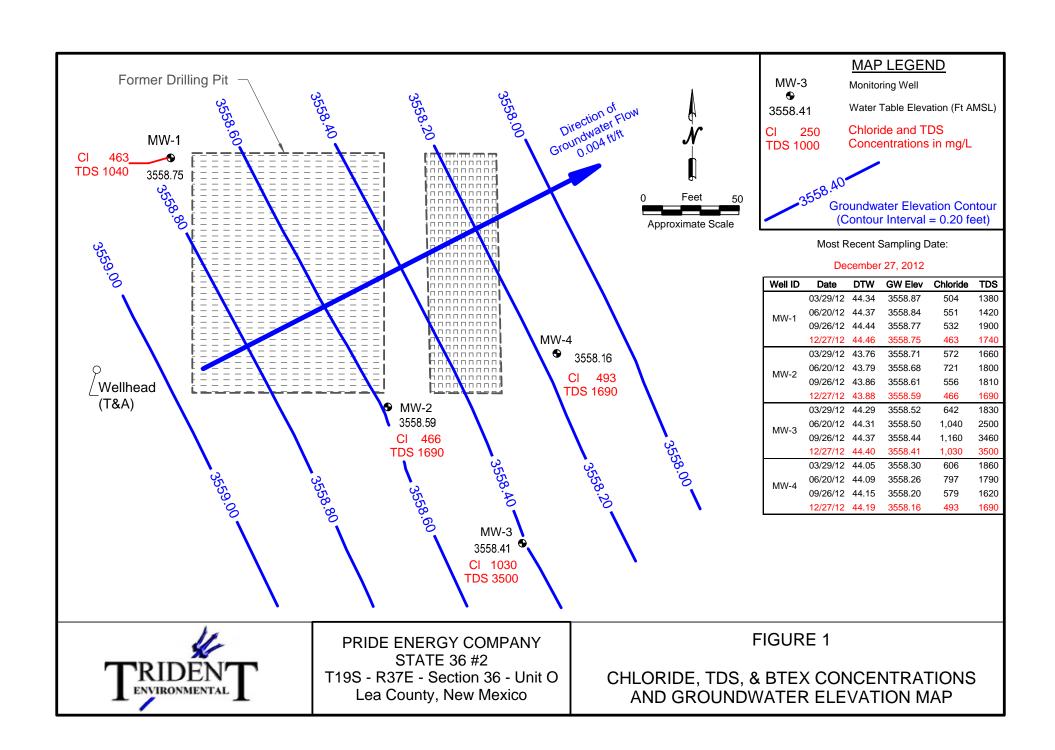
Groundwater monitoring activities have been performed at the site on a quarterly basis since January 2008 as summarized in Table 1. A site map showing the most recent groundwater elevation and the chloride/TDS concentrations in the four on site monitoring wells (MW-1, MW-2, MW-3, and MW-4) is shown in Figure 1. Figure 2 is a graph depicting groundwater elevation versus time for each monitoring well. Figures 3 and 4 depict chloride and TDS concentrations, respectively. A well sampling data form, laboratory analytical reports, and chains of custody documentation for each 2012 sampling event are included in Attachment A.

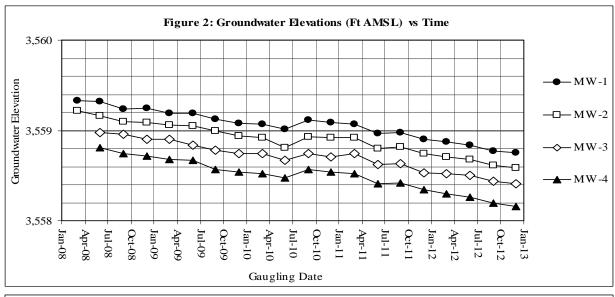
Table 1: Summary of Groundwater Monitoring Results

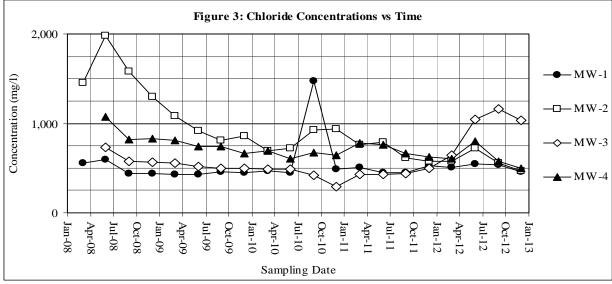
Manitanina	C 1 .	Depth to	Groundwater	C1.1	TDC	DTEV
Monitoring Well	Sample	Groundwater	Elevation (feet	Chloride	TDS	BTEX
wen	Date	(feet BTOC)	AMSL)	(mg/L)	(mg/L)	(mg/L)
	02/25/08	43.80	3559.41	489		
	03/27/08	43.88	3559.33	557	1,770	< 0.003
	06/17/08	43.89	3559.32	594	1,370	
	09/10/08	43.97	3559.24	440	1,260	< 0.003
	12/17/08	43.96	3559.25	440	1,290	< 0.003
	03/19/09	44.02	3559.19	430	1,240	< 0.003
	06/18/09	44.02	3559.19	428	1,330	< 0.003
	09/17/09	44.08	3559.13	456	1,530	< 0.003
	12/10/09	44.13	3559.08	450	1,360	< 0.003
	03/31/10	44.14	3559.07	468	1,330	
MW-1	06/16/10	44.20	3559.01	447	1,420	
	09/22/10	44.09	3559.12	1,470	3,940	
	12/13/10	44.12	3559.09	491	1,790	
	03/17/11 06/30/11	44.14 44.24	3559.07	512 447	1,840	
	09/29/11	44.24	3558.97 3558.98	453	1,410 770	
	12/20/11	44.23	3558.90	527	3,810*	
	03/29/12	44.34		504		
			3558.87		1,380	
	06/20/12	44.37	3558.84	551	1,420	
	09/26/12	44.44	3558.77	532	1,900	
	12/27/12	44.46	3558.75	463	1,740	
	05/08/08	43.25	3559.22	1,450	2,730	< 0.003
	06/17/08	43.31	3559.16	1,980	2,730	
	09/10/08	43.37	3559.10	1,580	3,440	< 0.003
	12/17/08	43.38	3559.09	1,300	2,900	< 0.003
	03/19/09	43.41	3559.06	1,080	2,380	< 0.003
	06/18/09	43.42	3559.05	920	2,300	< 0.003
	09/17/09	43.47	3559.00	810	1,980	< 0.003
	12/10/09	43.53	3558.94	860	1,870	< 0.003
	03/31/10	43.55	3558.92	691	1,520	
	06/16/10	43.66	3558.81	723	2,020	
MW-2	09/22/10	43.54	3558.93	923	3,080	
	12/13/10	43.55	3558.92	936	2,750	
	03/17/11	43.55	3558.92	765	2,560	
	06/30/11	43.67	3558.80	788	1,180	
	09/29/11	43.65	3558.82	616	1,380	
	12/20/11	43.73	3558.74	579	2,100	
	03/29/12					
		43.76	3558.71	572	1,660	
	06/20/12	43.79	3558.68	721 556	1,800	
	09/26/12	43.86	3558.61	556	1,810	
	12/27/12	43.88	3558.59	466	1,690	

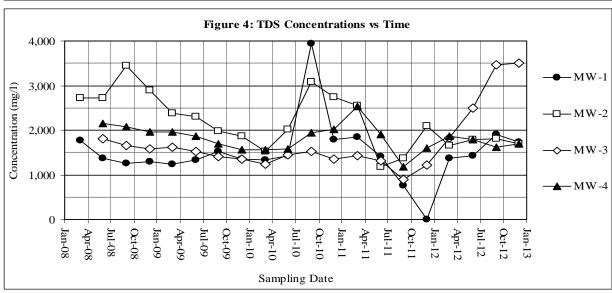
Table 1: Summary of Groundwater Monitoring Results (continued)

<u> 1a</u>	Die 1: Sumi	nary of Ground	iwater Monitori	ing Results	conunue	1)
Monitoring	Sample	Depth to Groundwater	Groundwater Elevation	Chloride	TDS	BTEX
Well	Date	(feet BTOC)	(feet AMSL)	(mg/L)	(mg/L)	(mg/L)
	06/17/08	43.83	3558.98	733	1,810	
	09/10/08	43.85	3558.96	580	1,660	< 0.003
	12/17/08	43.91	3558.90	570	1,580	< 0.003
	03/19/09	43.91	3558.90	560	1,620	< 0.003
	06/18/09	43.97	3558.84	520	1,530	< 0.003
	09/17/09	44.03	3558.78	500	1,410	< 0.003
	12/10/09	44.07	3558.74	500	1,360	< 0.003
	03/31/10	44.07	3558.74	489	1,230	
	06/16/10	44.14	3558.67	489	1,440	
MW-3	09/22/10	44.07	3558.74	420	1,520	
	12/13/10	44.10	3558.71	290	1,350	
	03/17/11	44.07	3558.74	434	1,420	
	06/30/11	44.19	3558.62	426	1,310	
	09/29/11	44.18	3558.63	439	890	
	12/20/11	44.28	3558.53	494	1,220	
	03/29/12	44.29	3558.52	642	1,830	
	06/20/12	44.31	3558.50	1,040	2,500	
	09/26/12	44.37	3558.44	1,160	3,460	
	12/27/12	44.40	3558.41	1,030	3,500	
	06/17/08	43.54	3558.81	1,070	2,150	
	09/10/08	43.61	3558.74	820	2,070	< 0.003
	12/17/08	43.63	3558.72	830	1,970	< 0.003
	03/19/09	43.67	3558.68	810	1,970	< 0.003
	06/18/09	43.68	3558.67	740	1,860	< 0.003
	09/17/09	43.78	3558.57	740	1,690	< 0.003
	12/10/09	43.81	3558.54	660	1,570	< 0.003
	03/31/10	43.83	3558.52	691	1,560	
	06/16/10	43.88	3558.47	606	1,580	
MW-4	09/22/10	43.78	3558.57	669	1,940	
	12/13/10	43.81	3558.54	646	2,020	
	03/17/11	43.83	3558.52	778	2,530	
	06/30/11	43.94	3558.41	758	1,910	
	09/29/11	43.93	3558.42	662	1,180	
	12/20/11	44.01	3558.34	623	1,600	
	03/29/12	44.05	3558.30	606	1,860	
	06/20/12	44.09	3558.26	797	1,790	
	09/26/12	44.15	3558.20	579	1,620	
	12/27/12	44.19	3558.16	493	1,690	









Conclusions regarding groundwater conditions are summarized as follows:

- O The local water table is at a depth of approximately 41 feet bgs and slopes towards the northeast at a magnitude of approximately 0.004 ft/ft, which is anomalous to the prevailing southeast trending regional gradient.
- o The base of the aquifer is at approximately 50 ft bgs, where red clay was encountered during well installations, therefore the saturated thickness is estimated at only 9 feet.
- O The potential well yield for possible beneficial use of groundwater at the site is very low due to the limited thickness of the aquifer (less than 10 feet), observations of low yields during monitoring well development activities, and water table elevation declines of approximately 0.1 feet per year. In the unlikely event a water well is completed in the area, the expected yield would be less than 150 gallons per day which is considered inadequate for any beneficial domestic, irrigation, or municipal use.
- O Chloride and TDS concentrations from groundwater samples collected at monitoring wells MW-1, MW-2, MW-3, and MW-4 exceed WQCC standards. The highest chloride and TDS levels during the most recent sampling event in December 2012 have been observed in monitoring well MW-3 with concentrations of 1,030 mg/L and 3,500 mg/L, respectively.
- o 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.

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).

Sincerely,

Gilbert Van Deventer, REM, PG Trident Environmental P. O. Box 12177 Odessa TX 79768

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

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

ATTACHMENT A

WELL SAMPLING DATA FORM

and

LABORATORY ANALYTICAL REPORTS

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company SITE NAME: State 36 #2 (OCD Case # 1R501) ITE LOCATION: T19S R37E Sec36 Unit O, Lea County, NM

SAMPLER: Gil Van Deventer

SAMPLING METHOD:



PURGING METHOD: Hand Bailed ✓ Pump, Type: Whaler Model WP-9012 Mega Purger (12-volt submersible pump)

☑ Direct from Discharge Hose Disposable Bailer Other:

SPOSAL METHOD OF PURGE WATER: ✓ SWD Disposal Facility On-site Drum Drums

Ouarter	Date	Time	Monitoring Well No.	Depth to Water (ft btoc)	Total Depth (ft)	Water Column Height (ft)		Calc. Well Vol. (gal)	Volume Purged (gal)	No. of Well Volumes Purged	Temp.	Cond. mS/cm	рН	Purge Method	PHYSICAL APPEARANCE AND REMARKS
		17:00	MW-1	44.34	52.37	8.03	0.16	1.3	10	7.8	67.5	2.45	7.24		Clear
First	03/29/12	19:00	MW-2	43.76	57.61	13.85	0.16	2.2	15	6.8	67.2	2.67	7.00	Pump	Clear
ίΞ	03/23/12	17:40	MW-3	44.29	53.83	9.54	0.16	1.5	10	6.6	68.0	2.83	6.99	rump	Clear
		18:20	MW-4	44.05	50.30	6.25	0.16	1.0	10	10.0	68.3	2.78	7.03		Clear
_		16:40	MW-1	44.37	52.37	8.00	0.16	1.3	10	7.8	73.1	2.26	6.29		Clear
ouc	06/20/12	18:20	MW-2	43.79	57.61	13.82	0.16	2.2	15	6.8	69.5	2.42	7.07	Pump	Clear
Second	00/20/12	17:10	MW-3	44.31	53.83	9.52	0.16	1.5	10	6.6	71.7	3.06	6.88	Fullip	Clear
Ľ		17:40	MW-4	44.09	50.30	6.21	0.16	1.0	10	10.1	70.4	2.53	7.06		Clear
		18:00	MW-1	44.44	52.37	7.93	0.16	1.3	10	7.9	70.3	2.25	6.20		Clear
Third	09/26/12	19:30	MW-2	43.86	57.61	13.75	0.16	2.2	15	6.8	66.7	2.48	7.03	Pump	Clear
H	09/20/12	18:30	MW-3	44.37	53.83	9.46	0.16	1.5	10	6.6	68.3	3.62	6.86	Fullip	Clear
		19:00	MW-4	44.15	50.30	6.15	0.16	1.0	10	10.2	68.5	2.54	7.07		Clear
		19:30	MW-1	44.46	52.37	7.91	0.16	1.3	10	7.9	62.3	2.20	6.81		Clear
Fourth	12/19/12	19:00	MW-2	43.88	57.61	13.73	0.16	2.2	15	6.8	62.0	2.28	7.12	Pump	Clear
For	12/13/12	18:00	MW-3	44.40	53.83	9.43	0.16	1.5	10	6.6	61.2	3.06	6.97	rump	Clear
		18:30	MW-4	44.19	50.30	6.11	0.16	1.0	8	8.2	61.3	1.54	7.19		Clear

Equipment decontamination consists of gloves, Alconox, and Distilled Water Rinse. COMMENTS: Note: Gate may be locked for access.

Hanna Model 98130 instrument used to obtain pH, conductivity, and temperature measurements. One of the locks combo is 5010

Delivered samples to analyical laboratory for chloride (300.1) and TDS (160.1) analysis.

Analytical Report 439818

for Trident Environmental

Project Manager: Gil Van Deventer
Pride Energy Company
State 36 # 2
11-APR-12

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 Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





11-APR-12

Project Manager: Gil Van Deventer

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

Reference: XENCO Report No: **439818 Pride Energy Company**

Project Address: T19S-R37E, Sec 36, Unit Letter O ~ 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 439818. 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. 439818 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

Odessa Laboratory Director

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Sample Cross Reference 439818



Trident Environmental, Odessa, TX

Pride Energy Company

Sample Id	Matrix	Date Collected Sample	Depth	Lab Sample Id
MW-1	W	03-29-12 17:00		439818-001
MW-2	W	03-29-12 19:00		439818-002
MW-3	W	03-29-12 17:40		439818-003
MW-4	W	03-29-12 18:20		439818-004

CASE NARRATIVE



Client Name: Trident Environmental Project Name: Pride Energy Company



Project ID: State 36 # 2 Report Date: 11-APR-12 Work Order Number: 439818 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: 439818-001, -004, -003, -002.

The Laboratory Control Sample for Chloride is within laboratory Control Limits

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Final 1.001



Certificate of Analysis Summary 439818

Trident Environmental, Odessa, TX



Project Id: State 36 # 2

Project Name: Pride Energy Company

Contact: Gil Van Deventer

Date Received in Lab: Fri Mar-30-12 10:20 am **Report Date:** 11-APR-12

Project Location: T19S-R37E, Sec 36, Unit Letter O ~ Lea C

Project Manager: Brent Barron II

										Bremt Burron II		
	Lab Id:	439818-0	001	439818-0	02	439818-0	03	439818-0	04			
Analysis Requested	Field Id:	MW-1		MW-2		MW-3		MW-4				
Analysis Requested	Depth:											
	Matrix:	WATE	R	WATER	₹	WATER	₹	WATE	₹			
	Sampled:	Mar-29-12	17:00	Mar-29-12 1	9:00	Mar-29-12 1	7:40	Mar-29-12	18:20			
Anions Cl by EPA 300/300.1	Extracted:	Apr-05-12	pr-05-12 14:46 A		5:02	Apr-05-12 15:51		Apr-05-12 16:07				
SUB: TX104704215	Analyzed:	Apr-05-12	14:46	Apr-05-12 1	5:02	Apr-05-12 1	5:51	Apr-05-12 1	6:07			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Chloride		504	5.00	572	5.00	642	5.00	606	5.00			
TDS by SM2540C	Extracted:											
SUB: TX104704215	Analyzed:	Apr-04-12	17:00	Apr-04-12 1	2 17:00 Apr-04-1		7:00	Apr-04-12 1	7:00			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Total dissolved solids		1380	5.00	1660	5.00	1830	5.00	1860	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 Odessa Laboratory Director



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 MQL 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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BS / BSD Recoveries



Project Name: Pride Energy Company

Work Order #: 439818

Analyst: TTE

Date Prepared: 04/05/2012

Project ID: State 36 # 2 **Date Analyzed:** 04/05/2012

Lab Batch ID: 885227

Sample: 620198-1-BKS

Matrix: Water

Units: mg/L	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY
-------------	---

Batch #: 1

Anions Cl by EPA 300/300.1 Analytes	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	

Date Analyzed: 04/04/2012 Analyst: LBA **Date Prepared:** 04/04/2012

Matrix: Water **Lab Batch ID:** 885128 **Batch #:** 1 **Sample:** 885128-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/L Blank Blank Blank Blk. Spk Control TDS by SM2540C Blank Spike Control Spike Sample Result Added Spike Spike Spike Dup. **RPD** Limits Limits Flag Added %R **Duplicate** %R % %R %RPD [A] Result [B] [D] Result [F] [C] [E] [G] **Analytes** Total dissolved solids < 5.00 2000 2000 2040 102 80-120 2060

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 #: 439818

Project ID: State 36 # 2 **Lab Batch #:** 885227

Date Prepared: 04/05/2012 Analyst: TTE **Date Analyzed:** 04/05/2012 **QC- Sample ID:** 439871-001 S Batch #: Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY Reporting Units: mg/L

reporting officer mg 2	1,1111	122 / 19211	11421 01 1142	RECO	LIKI DI C	
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	239	50.0	242	6	80-120	X

Lab Batch #: 885227

Date Prepared: 04/05/2012Analyst: TTE **Date Analyzed:** 04/05/2012

QC- Sample ID: 439974-001 S Batch #: Matrix: Water

Reporting Units: mg/L 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	15.9	50.0	63.4	95	80-120	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Pride Energy Company

Work Order #: 439818

Lab Batch #: 885128 **Project ID:** State 36 # 2

 Date Analyzed:
 04/04/2012 17:00
 Date Prepared:
 04/04/2012
 Analyst: LBA

 QC- Sample ID:
 439757-001 D
 Batch #:
 1
 Matrix: Water

Reporting Units: mg/L	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	456	464	2	30	

Lab Batch #: 885128

 Date Analyzed:
 04/04/2012 17:00
 Date Prepared:
 04/04/2012
 Analyst:LBA

 QC- Sample ID:
 439899-001 D
 Batch #:
 1
 Matrix: Water

Reporting Units: mg/L	SAMPLE/SAMPLE DUPLICATE RECOVERY							
TDS by SM2540C	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag			
Analyte		[B]						
Total dissolved solids	734	726	1	30				

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PERMIAN BASIN ENIRONMENTAL 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: State 36 #2

Location: T19S-R7E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 2F21004

Report Date: 06/28/12

Trident Environmental Project: Pride Energy Company

P.O. Box 12177 Project Number: State 36 #2

Odessa TX, 79768 Project Manager: Gilbert Vandeventer

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2F21004-01	Water	06/20/12 16:40	06-21-2012 09:50
MW-2	2F21004-02	Water	06/20/12 18:20	06-21-2012 09:50
MW-3	2F21004-03	Water	06/20/12 17:10	06-21-2012 09:50
MW-4	2F21004-04	Water	06/20/12 17:40	06-21-2012 09:50

Fax: (432) 413-9968

Trident Environmental

Project: Pride Energy Company

P.O. Box 12177 Odessa TX, 79768 Project Number: State 36 #2

Project Manager: Gilbert Vandeventer

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzad	Method	Notes
MW-1 (2F21004-01) Water	resur	- Emilit	Cints	Dilution	Daten	riepaieu	Analyzed	Wethod	Notes
Chloride	551	10.0	mg/L	20	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1420	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-2 (2F21004-02) Water									
Chloride	721	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1800	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-3 (2F21004-03) Water									
Chloride	1040	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	2500	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-4 (2F21004-04) Water									
Chloride	797	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1790	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	

Fax: (432) 413-9968

Trident Environmental

Project: Pride Energy Company

P.O. Box 12177 Odessa TX, 79768 Project Number: State 36 #2

Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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

	p. 1	Reporting		Spike	Source	N/PEG	%REC	222	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF22503 - General Preparation (W	etChem)									
Blank (EF22503-BLK1)				Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Chloride	ND	0.500	mg/L							
LCS (EF22503-BS1)				Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Chloride	8.82		mg/L	10.0		88.2	80-120			
LCS Dup (EF22503-BSD1)				Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Chloride	9.04		mg/L	10.0		90.4	80-120	2.46	20	
Duplicate (EF22503-DUP1)	Source	e: 2F21003-	01	Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Chloride	1260	25.0	mg/L		1280			1.57	20	
Matrix Spike (EF22503-MS1)	Source	e: 2F21003-	01	Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Chloride	1610	25.0	mg/L	250	1280	132	80-120			M
Batch EF22601 - General Preparation (W	etChem)									
Blank (EF22601-BLK1)				Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EF22601-DUP1)	Sourc	e: 2F21001-	01	Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Total Dissolved Solids	510	10.0	mg/L		570			11.1	20	
Duplicate (EF22601-DUP2)	Sourc	e: 2F21001-	11	Prepared: (06/22/12 A	nalyzed: 06	5/25/12			
Total Dissolved Solids	850	10.0	mg/L		710			17.9	20	

P.O. Box 12177 Project Number: State 36 #2
Odessa TX, 79768 Project Manager: Gilbert Vandeventer

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

	Bren Da	non	
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.

Matrix Spike

Duplicate

MS

Dup

Company Tride Project Ma Gil V Address: PO B Phone # (432) Project Lo T19S Relinquis

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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: State 36 #2
Project Number: State 36 #2

Location: T19S-R37E, Sec 36, Unit Letter O Lea Co. NM

Lab Order Number: 2I27006



NELAP/TCEQ # T104704156-12-1

Report Date: 10/04/12

Trident Environmental P.O. Box 12177

Odessa TX, 79768

Project: State 36 #2

Fax: (432) 413-9968

Project Number: State 36 #2

Project Manager: Gilbert Vandeventer

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2I27006-01	Water	09/26/12 18:00	09-27-2012 13:00
MW-2	2I27006-02	Water	09/26/12 19:30	09-27-2012 13:00
MW-3	2I27006-03	Water	09/26/12 18:30	09-27-2012 13:00
MW-4	2127006-04	Water	09/26/12 19:00	09-27-2012 13:00

Trident Environmental Project: State 36 #2 Fax: (432) 413-9968

P.O. Box 12177 Odessa TX, 79768 Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (2I27006-01) Water									
Chloride	532	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1900	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-2 (2127006-02) Water									
Chloride	556	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1810	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-3 (2127006-03) Water									
Chloride	1160	12.5	mg/L	25	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	3460	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-4 (2127006-04) Water									
Chloride	579	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1620	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	

Trident Environmental Project: State 36 #2 Fax: (432) 413-9968

P.O. Box 12177 Project Number: State 36 #2
Odessa TX, 79768 Project Manager: Gilbert Vandeventer

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
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)	Sou	rce: 2127004-0)1	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)	Sou	rce: 2127004-0)1	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: 1	0/02/12 Ar	nalyzed: 10	/03/12			
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EJ20305-DUP1)	Sou	rce: 2I28001-0)1	Prepared: 1	0/02/12 Ar	nalyzed: 10	/03/12			
Total Dissolved Solids	79400	10.0	mg/L		78900			0.632	20	

Trident Environmental Project: State 36 #2 Fax: (432) 413-9968

P.O. Box 12177 Project Number: State 36 #2

Odessa TX, 79768 Project Manager: Gilbert Vandeventer

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

Dup

Matrix Spike
Duplicate

	R. D. Barron		
Report Approved By:	There of	Date:	10/4/2012

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.

PBBLAB

Permian Basin Environmental Lab, LP 10014 S. County Road 1213

10014 S. County Road 1213 Midland, Texas 79706 Phone: 432-661-4184

1213

Page 1 of 1 COC No.: 1R-501-0612

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Delivered By: Sampler -		Relinguished by		Relinguished by:						40~	-03	-02	701	LAB# (LAB USE)		T19S-R37E	State 36 #2	Project #:	(432) 638-8740	PO BOX 12	Address: (S	Gil Van De	rident Ent Project Manager:	Company Name:	
(Circle One) UPS - Bus - Other:		r Date: Time:	1 1/2/2 1:00 Pm	r: // // Date: Time:						MW-4	MW-3	MW-2	MW-1	FIELD CODE 2		E, Sec 36, Unit Letter O∼			8740	PU BUX 12177, Odessa 1 x 79700	(Street, City, Zip)	Gil Van Deventer / Trident Environmental	rident Environmental		
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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: State 36 #2

Location: T19S-R37E, Sec 36, Unit Letter O~Lea County, NM

Lab Order Number: 3A02003



NELAP/TCEQ # T104704156-12-1

Report Date: 01/10/13

P.O. Box 12177 Project Number: State 36 #2
Odessa TX, 79768 Project Manager: Gilbert Vandeventer

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3A02003-01	Water	12/27/12 17:30	12-28-2012 15:15
MW-2	3A02003-02	Water	12/27/12 19:00	12-28-2012 15:15
MW-3	3A02003-03	Water	12/27/12 18:00	12-28-2012 15:15
MW-4	3A02003-04	Water	12/27/12 18:30	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 (3A02003-01) Water									
Chloride	463	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1740	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-2 (3A02003-02) Water									
Chloride	466	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1690	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-3 (3A02003-03) Water									
Chloride	1030	25.0	mg/L	50	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	3500	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-4 (3A02003-04) Water									
Chloride	493	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1690	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	

P.O. Box 12177 Project Number: State 36 #2
Odessa TX, 79768 Project Manager: Gilbert Vandeventer

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA30302 - *** DEFAULT PREP ***										
Blank (EA30302-BLK1)				Prepared & Analyzed: 01/03/13						
Chloride	ND	0.500	mg/L							
LCS (EA30302-BS1)				Prepared & Analyzed: 01/03/13						
Chloride	9.99		mg/L	10.0		99.9	80-120			
LCS Dup (EA30302-BSD1)				Prepared & Analyzed: 01/03/13						
Chloride	9.99		mg/L	10.0		99.9	80-120	0.0100	20	
Duplicate (EA30302-DUP1)	Source: 3A02002-01		Prepared & Analyzed: 01/03/13							
Chloride	4140	100	mg/L		4140			0.00	20	
Matrix Spike (EA30302-MS1)	Source: 3A02002-01		Prepared & Analyzed: 01/03/13							
Chloride	5960	100	mg/L	1750	4140	104	80-120			
Matrix Spike (EA30302-MS2)	Source: 2L28001-04		Prepared & Analyzed: 01/03/13							
Chloride	45600	500	mg/L	1250	35800	781	80-120			QM-05
Batch EA30804 - *** DEFAULT PREP ***										
Blank (EA30804-BLK1)				Prepared & Analyzed: 01/08/13						
Total Dissolved Solids	40.0	10.0	mg/L							
Duplicate (EA30804-DUP1)	Source: 3A02003-04		Prepared & Analyzed: 01/08/13							
Total Dissolved Solids	1690	10.0	mg/L		1690			0.00	20	-

P.O. Box 12177 Project Number: State 36 #2
Odessa TX, 79768 Project Manager: Gilbert Vandeventer

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

	RaRmon		
Report Approved By:	Sien Gerter	Date:	1/10/2013

Brent Barron, Laboratory Director/Technical Director

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Sampler company Name Delivered By: Relinquished by ONLY State 36 #2 PO Box 12177, Odessa TX 79768 Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Trident Environmental T19S-R37E, (432) 638-8740 63 6 20-20 LAB# UPS -(Circle One) Sec 36, FIELD CODE Bus -Date: Unit Letter O ~ Lea County, NM MW-3 MW-2 MW-1 MW-4 Other: ime: Time: Sample Condition Received by: (413) 403-9968 G (G)rab or (C)omp G G ດ Ύes Pride Energy Company (918) 524-9200 BILL TO S # CONTAINERS × × WATER Laboratory Staff)

SOIL

AIR SLUDGE

HNO₃

NaHSO₄

H₂SO₄ ICE

NONE

DATE

TIME

MTBE 8021B/602

BTEX 8021 B

TCLP Volatiles

TCLP Pesticides

Moisture Content Cations (Ca, Mg, Na, K) Anions (CI, SO4, CO3, HCO3)

RCI

TCLP Semi Volatiles

GC/MS Vol. 8260B/624

GC/MS Semi. Vol. 8270C/625

12/27/12

12/27/12 12/27/12 12/27/12

1830

× X × ×

1800 1900 1730 HCL (BTEX only

MATRIX

PRESERVATIVE

SAMPLING

TPH 418.1/TX1005 / TX1005 Extended (C35)

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Dissolved Solids (160.1 or SM2540C)

Chloride / ClT (SM4500 B or 300.1)

Turn Around Time ~ 24 Hours

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

Yes

3.7 2

CHECKED BY:

15,15

Date:

Time:

Fax Results Phone Results

REMARKS

Samples not field filtered

Yes Yes

×

No

Additional Fax Number:

N

Email Results to:

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

Phone: 432-661-4184 Midland, Texas 79706 10014 S. County Road 1213 Permian Basin Environmental Lab, LP Pride Energy Company / Attention: Matt Pride Company (Street, City, Zip) CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3402, 063 LAB Order ID#_ (Circle or Specify Method No.) **ANALYSIS REQUEST** COC No.: 1R-501-1212

(918) 524-9292