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**REPORT AND  
REMEDICATION  
PROPOSAL**

**02/28/2009**

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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: Site Investigation Report and Corrective Action Plan  
Pride Energy Company – State 36 #2 Site (API # 30-025-36909)  
T19S-R37E, Section 36, Unit Letter O  
Lea County, New Mexico**

Dear Mr. von Gonten:

As agent for Pride Energy Company, Trident Environmental submits the attached *Site Investigation Report and Corrective Action Plan* for the above-referenced site.

Data collected to date indicate chloride and total dissolved solids (TDS) concentrations in groundwater exceed the standards in 20.6.2.3103 NMAC (250 mg/L and 1,000 mg/L, respectively). Chloride concentrations above 1,000 mg/kg exist in the vadose zone below the former drilling pit. The suspected source of the chloride in the vadose zone and groundwater at the site is the former drilling pit. Regulated hydrocarbons (benzene, toluene, ethylbenzene, and xylenes) are not present in groundwater or the vadose zone.

This report includes the findings of site characterization activities, a work plan for further investigations to determine the extent of groundwater impairment, and proposed corrective actions as a remedy to vadose zone and groundwater conditions.

Please feel free to contact me at (432) 638-8740 or Matthew Pride at (918) 524-9200.

Sincerely,

Gilbert J. Van Deventer, PG, REM  
Project Manager

cc: Matthew Pride (Pride Energy Company, Tulsa, OK)

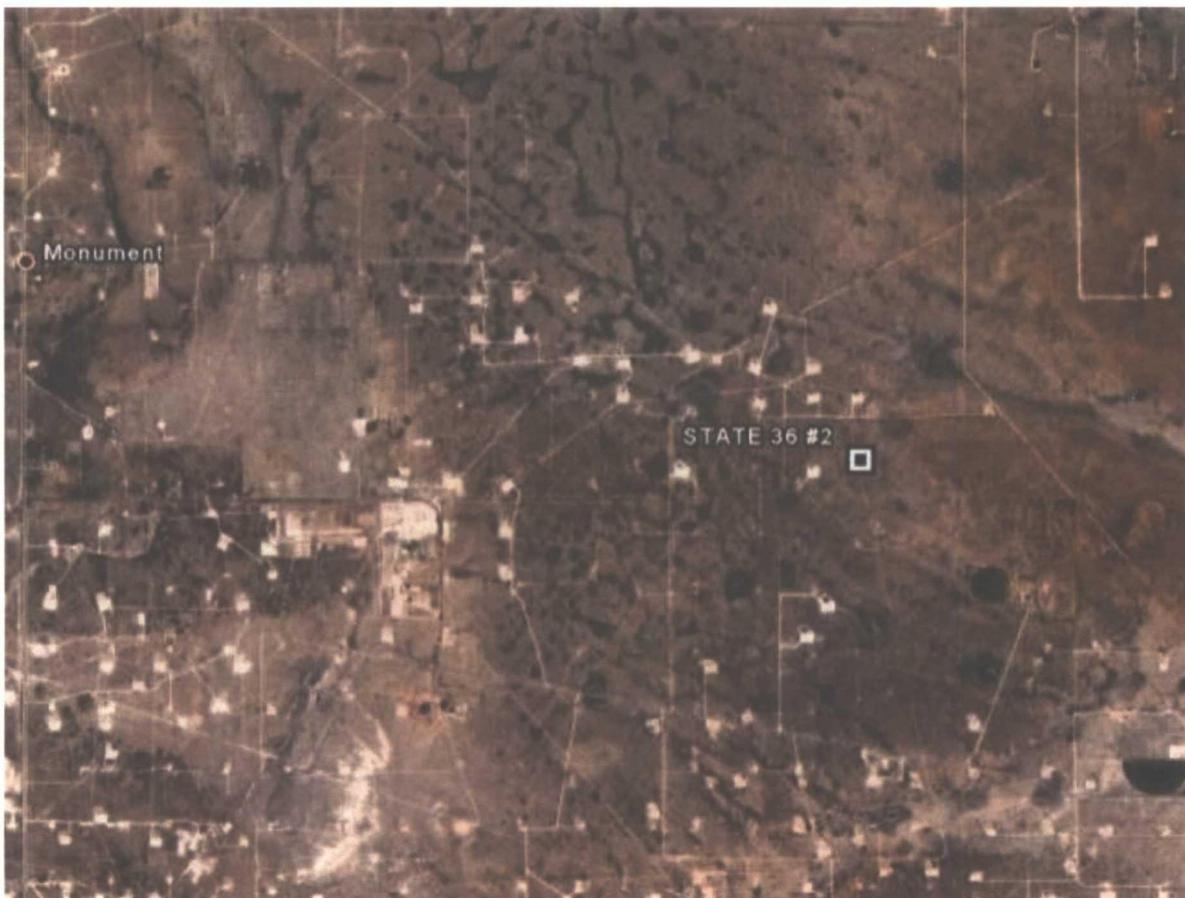
IR-501

**SITE INVESTIGATION REPORT AND CORRECTIVE ACTION PLAN  
STATE 36 #2 SITE (API # 30-025-36909)  
TOWNSHIP 19 SOUTH, RANGE 37 EAST, SECTION 136 UNIT O  
LEA COUNTY, NEW MEXICO**

**FEBRUARY 28, 2009**

**Prepared For:**

**Pride Energy Company  
P. O. Box 701950  
Tulsa, OK 74170**



**Prepared By:**



**P. O. Box 7624  
Midland, Texas 79708**

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Appendix D.....Monitoring Well Sampling Data Forms

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## 1.0 EXECUTIVE SUMMARY

The State 36 #2 well site (API # 30-025-36909) is located in Township 19 South, Range 37 East, Section 36, and Unit Letter O (N 32° 36' 44", W 103° 12' 14").

The former drilling pit contents were removed, mixed with a stabilization/solidification product (20:1 mud to product ratio) and buried in a 20-mil plastic-lined excavation adjacent to the east side of the former drilling pit. This work was done by Elke Environmental (Elke) in mid-February 2008 in accordance with an NMOCD-approved C-144 form (Appendix E).

Preliminary assessment of the soil and groundwater conditions was then conducted by Elke during the last week of February 2008, which included the sampling at five test points (TP-1 through TP-5) within the former drilling pit and installation of a monitoring well (MW-1) adjacent to the northwest corner of the pit.

After review of the data collected by Elke, Trident Environmental (Trident) re-sampled the on site monitoring well on March 27, 2008, to verify groundwater impact. Based on the results of the re-sampling activity it was determined that the constituents of concern are chloride and total dissolved solids (TDS). The laboratory did not detect benzene, toluene, ethylbenzene, or xylenes (BTEX) in the March sample. Regulated hydrocarbons (BTEX) were not analyzed during Elke's February sampling event.

Since the prevailing groundwater gradient in the regional area is to the southeast, and there was a possibility of an upgradient offsite source due to regional impacts in the Monument area, a second monitoring well (MW-2) was installed adjacent to the southeast corner of the drilling pit under the oversight of Trident on May 2, 2008. Review of laboratory analysis of groundwater samples collected from MW-2 on May 8, 2008, confirms that the former drilling pit is a source of chlorides and TDS observed in groundwater at the site. Therefore, on June 4, 2008, monitoring well MW-3 was installed approximately 100 feet southeast of MW-2 and monitoring well MW-4 about 80 ft east of the east edge of the former drilling pit for further delineation. Subsequent sampling events confirm groundwater is impacted with chlorides and TDS beyond the boundary of the former drilling pit, and that the gradient direction is in the northeasterly direction, which is anomalous to the prevailing southeast direction for the region.

The conclusions of the site characterization activities are summarized below.

- Based on the soil boring data obtained by Elke in February 2008 and by Trident in May and June 2008, the chloride impact to the vadose zone is limited to the area within the perimeter of the former drilling pit.
- Chloride and TDS concentrations from groundwater samples collected at monitoring well MW-1, MW-2, MW-3, and MW-4 exceed WQCC standards. The highest chloride and TDS levels have been observed in monitoring well MW-2 with levels of 1,300mg/L and 2,900 mg/L, respectively, during the most recent sampling event in December 2008.
- Regulated hydrocarbons (BTEX) are not present in groundwater or the vadose zone.

- 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 one foot per year. It is unlikely a well completed in the area would yield greater than 150 gallons per day which is considered inadequate for any beneficial use. Therefore, there is negligible threat to human health and the environment.

Recommendations for corrective actions to mitigate the chloride and TDS impact to groundwater are discussed in section 7.0 and summarized below:

- Construction of an infiltration barrier within the former drilling pit to eliminate the potential for migration of residual brines from the vadose zone to groundwater.
- Install one monitoring well approximately 250 feet northeast of the east edge of the former drilling pit to delineate the downgradient extent of chloride and TDS impact.
- Install one monitoring well approximately 150 feet southwest of the west edge of the former drilling pit to confirm background concentrations.
- Submit a report to the NMOCD to document the completion of the recommended tasks above and propose recommendations for a natural restoration/monitoring groundwater remedy, or a pump-and-use groundwater restoration strategy, if appropriate.
- Continue quarterly monitoring of all on site monitoring wells. Groundwater depth measurements and analysis for only the constituents of concern (chloride and TDS) will be collected. An annual report will be submitted to NMOCD by April 1, 2010.

## 2.0 SITE DESCRIPTION

### 2.1 Location

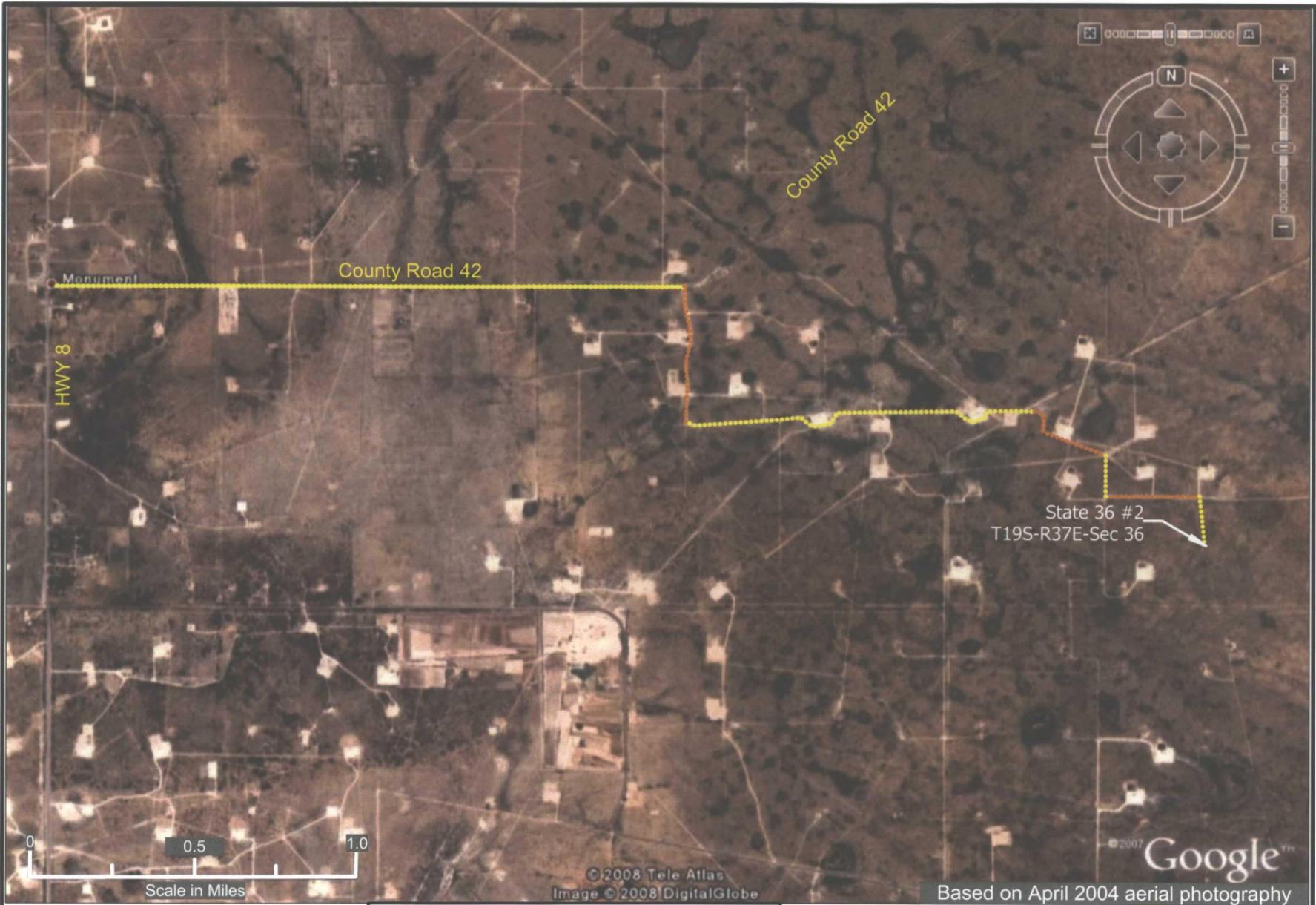
The State 36 #2 well site is located in Township 19 South, Range 37 East, Section 36, and Unit Letter O (N 32° 36' 44", W 103° 12' 14"). The site is located on State land and is primarily utilized for crude oil production and cattle ranching. To access the site:

From Monument, drive 2 miles west on County Road 42. Turn right onto lease road (Pride Energy sign at cattle guard) and proceed south 0.4 mi. Road turns east, continue east 1.1 mi. Continue south then southeast 0.2 mi. Bear right heading south 0.1 mi. Turn left and continue east 0.3 mi. Turn right and continue south 0.1 mi. to well site.

Figure 1 and the report cover depict aerial photography (est. April 2004) showing the general area and access to the site.

### 2.2 Site History

Date	Description
October 26, 2004	Well spudded.
April 27, 2005	Total depth reached.
February 28, 2007	Temporarily abandoned (non-productive)
August 29, 2007	C-144 pit closure form approved by NMOCD
December 10, 2007	Revised C-144 approved by NMOCD
February 18-28, 2008	Initial soil & groundwater sampling activities (Elke Environmental)
March 27, 2008	Groundwater sampling event (MW-1)
May 2, 2008	MW-2 installed at southeast edge of pit.
May 8, 2008	Groundwater sampling event (MW-2)
May 21, 2008	C-141 release notification form submitted by Trident
June 4, 2008	MW-3 and MW-4 installed for further delineation.
June 17, 2008	Groundwater sampling event (MW-1, MW-2, MW-3, and MW-4)
September 10, 2008	Groundwater sampling event (MW-1, MW-2, MW-3, and MW-4)
December 17, 2008	Groundwater sampling event (MW-1, MW-2, MW-3, and MW-4)



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T19S - R37E - Section 36 - Unit O  
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Figure 1  
SITE LOCATION MAP

### 3.0 LOCAL AND REGIONAL HYDROGEOLOGY

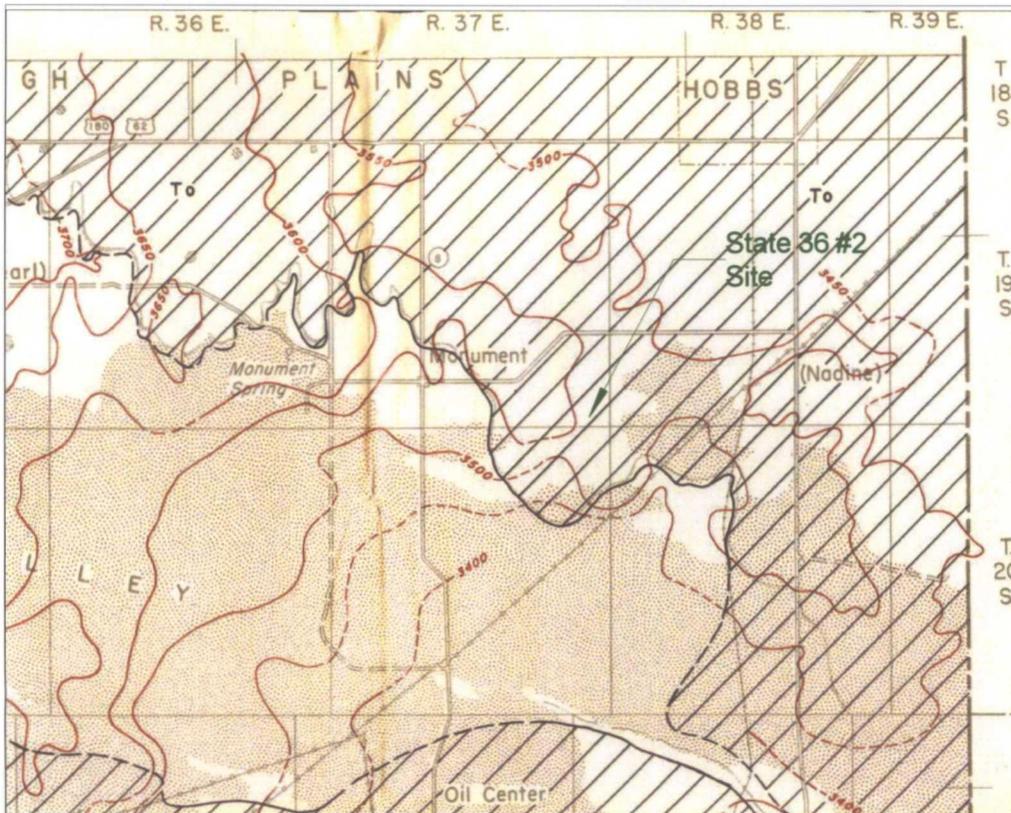
The site is underlain by Quaternary colluvium deposits composed of sand, silt, and gravel deposited by slopewash, and talus which were re-deposited from the underlying Ogallala Formation of Tertiary age. These deposits are often calichified (indurated with cemented calcium carbonate) with caliche layers from 1 to 20 feet thick. The thickness of the colluvium deposits and Ogallala Formation at the site is estimated at 50 feet; however, it varies locally as a result of significant paleo-topography at the top of the underlying Triassic Dockum Group. Since Cretaceous Age rocks in the region have been removed by pre-Tertiary erosion, the colluvial deposits and Ogallala Formation rest unconformably on the Triassic Dockum Group. The uppermost unit of the Dockum Group is the Chinle Formation, which primarily consists of micaceous red clay and shale but also contains thin interbeds of fine-grained sandstone and siltstone. The red clays and shale of the Chinle Formation act as an aquitard beneath the water bearing colluvial deposits and therefore limit the amount of recharge to the underlying Dockum Group.

Based on the descriptions provided in lithologic logs, the subsurface soils are generally composed of very fine-grained sand and caliche in the upper 23 feet. A varied mix of mostly fine-grained sand and sandstone with intermittent zones of chert and gravel was then observed to a depth of approximately 38 to 45 feet. Below this layer a fine- to medium-grained sand was encountered with some intermittent clay and gravel to a depth of 50 ft. Below 50 ft a red clay was observed. More detailed descriptions of the subsurface lithology are provided in the soil boring and monitoring well logs (Appendix A).

Potable ground water used in southern Lea County is derived primarily from the Ogallala Formation (including the colluvial deposits) and the Quaternary alluvium. Lower yields have also been provided by water bearing zones within the Triassic Dockum Group in a few scattered areas within southern Lea County. No potable water is known to be derived below the Triassic Dockum Group. Water from the Ogallala and alluvium aquifers in southern Lea County is used for irrigation, stock, domestic, industrial, and public supply purposes.

Water well records from the Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) websites were reviewed to determine if there are any active water supply wells in use for domestic, irrigation, livestock, municipal, or industrial purposes in the area. As a result of this review and several field reconnaissance efforts there are no water wells within a half mile of the site.

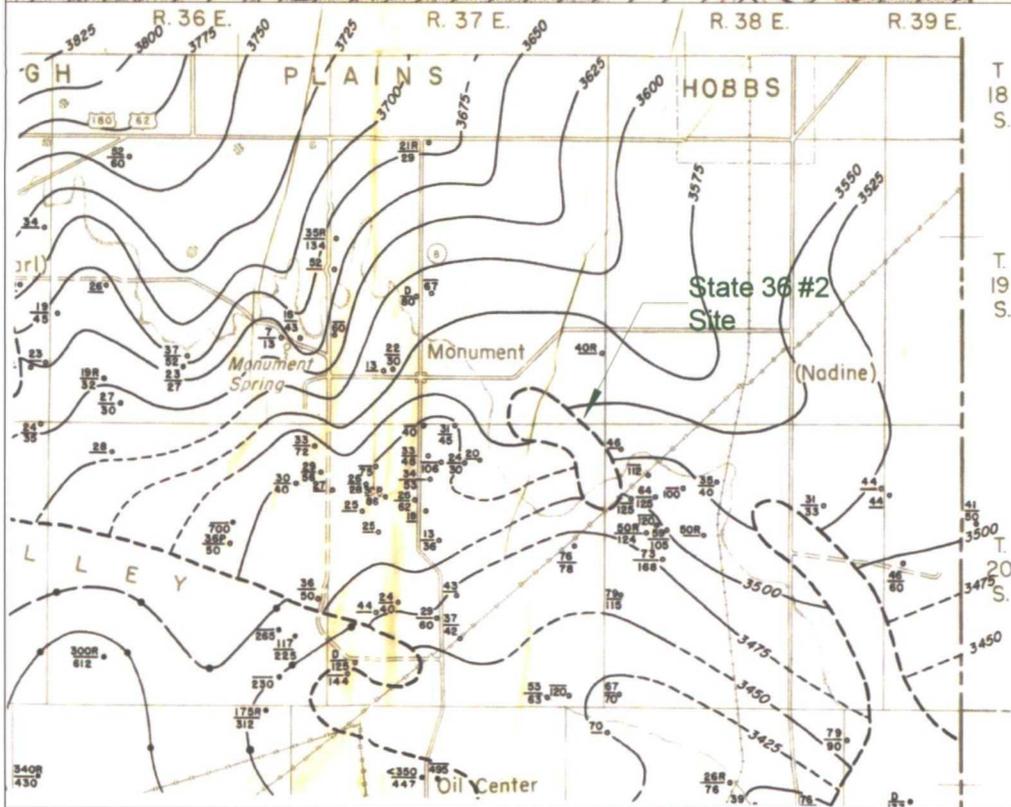
Recent data from the four monitoring wells at the site shows that the water table is at a depth of approximately 41 feet below ground surface (bgs) and slopes towards the northeast at a magnitude of approximately 0.004 ft/ft. The gradient direction is anomalous to the prevailing southeast-trending regional gradient typical of the Monument area. Figure 2 is a map depicting the regional geology and water table surface. Note that the site lies on the northeast side of a localized groundwater divide which may partially explain the anomalous local gradient observed at the site. The base of the aquifer is at approximately 50 ft bgs (Nicholson and Clebsch, 1961), therefore the saturated thickness is estimated at only 9 feet.



**Geologic Map Explanation**

 3500  
Red Bed Elevation Contours

Qal = Alluvium  
To = Ogallala Fm.  
Rc = Chinle Fm.  
Rs = Santa Rosa Sandstone  
Rd = Dockum Group



**Groundwater Map Explanation**

 3550  
Water Table Elevation Contours based on 1953-1954 data

$\frac{35}{40}$  ○ Upper number is depth to water  
Lower number is depth of well

 Water well

Reproduced from Groundwater Report 6, "Geology and Ground-Water Conditions in Southern Lea County, NM", Nicholson and Clebsch, 1961)



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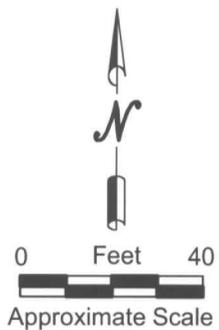
FIGURE 2  
GEOLOGIC & GROUNDWATER MAPS  
LEA COUNTY, NEW MEXICO

#### **4.0 VADOSE ZONE INVESTIGATION PROCEDURES AND RESULTS**

Elke Environmental conducted soil sampling at five locations (TP-1 through TP-5) within the former drilling pit using a trackhoe on February 18 and 19, 2008, and an air rotary drilling rig on February 28, 2008. Results of chloride field titrations during this investigation are depicted in Figure 3. Copies of earlier submissions of this data are included in Appendix E. Elke also supervised the installation of a monitoring well (MW-1) at the northwest corner of the drilling pit on February 22, 2008, however no soil samples were analyzed for chloride content.

On May 2, 2008, Trident supervised the installation of a monitoring well (MW-2) adjacent to the southeast edge of the former drilling pit to confirm groundwater impact. Soil samples were collected at five-foot intervals for chloride analysis until groundwater was encountered at approximately 40 ft bgs. Two additional monitoring wells (MW-3 and MW-4) were installed to delineate groundwater conditions which included soil samples taken at ten-foot intervals for chloride analysis. There were no indications of hydrocarbon impact during any investigation therefore no soil samples were submitted for laboratory analysis of regulated hydrocarbons (BTEX). Chloride concentrations for each sampled interval of the monitoring wells were at background levels (less than 500 mg/kg), therefore the extent of impact to the vadose zone appears limited to within the perimeter of the former drilling pit.

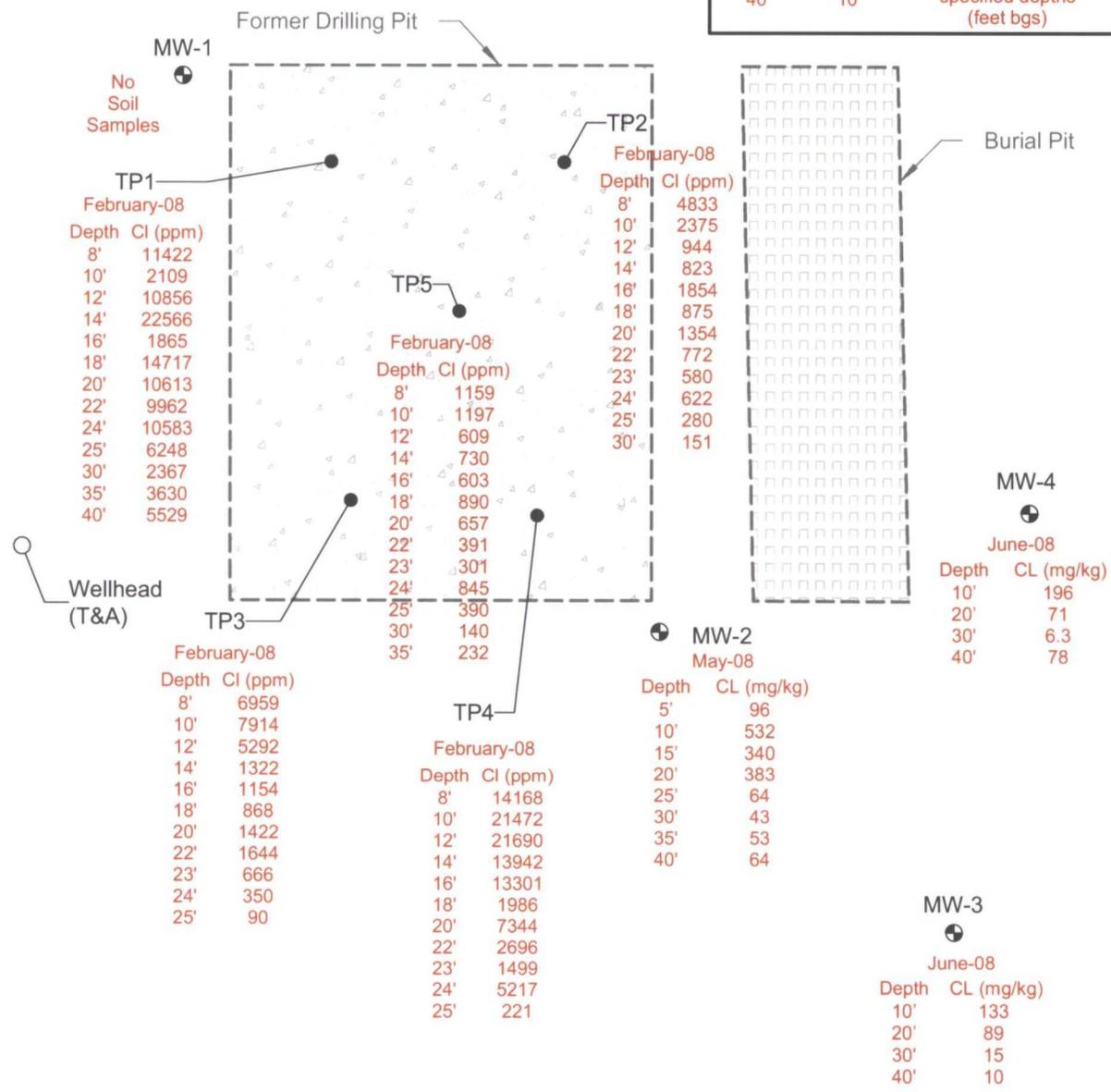
Chloride concentrations measured during all soil sampling activities are depicted in Figure 3 and shown on the individual lithologic logs of monitoring wells MW-2, MW-3, and MW-4 in Appendix A. Photodocumentation of site activities is included in Appendix B. Laboratory analytical reports and chains of custody are included in Appendix C.



### MAP LEGEND

- MW-3 Monitoring Well (Trident Environmental)
- TP2 Test Point (Elke Environmental)

June-08		Sample Date
Depth	CL (mg/kg)	
10'	133	Chloride
20'	89	Concentrations
30'	15	in mg/kg at
40'	10	specified depths
		(feet bgs)



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FIGURE 3  
CHLORIDE CONCENTRATIONS  
IN VADOSE ZONE

## 5.0 GROUNDWATER INVESTIGATION PROCEDURES AND RESULTS

A summary of historical analytical results and ground water elevations for monitoring wells MW-1, MW-2, MW-3 and MW-4 at the State 36 #2 site are listed in Table 1 below.

Maps depicting groundwater conditions are depicted in Figures 4A, 4B, 4C, and 4D. Copies of the laboratory analytical reports and chains of custody form for each ground water sampling event are included in Appendix C. The well sampling data forms are included in Appendix D.

**Table 1**  
**Summary of Groundwater Monitoring Results**

Sample Location	Sample Date	Depth to Groundwater (feet btoc)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
MW-1	02/25/08	43.80	3559.41	<b>489</b>	---	---	---	---	---
	03/27/08	43.88	3559.33	<b>557</b>	<b>1,770</b>	<0.001	<0.002	<0.001	<0.003
	06/17/08	43.89	3559.32	<b>594</b>	<b>1,370</b>	---	---	---	---
	09/10/08	43.97	3559.24	<b>440</b>	<b>1,260</b>	<0.001	<0.001	<0.001	<0.003
	12/17/08	43.96	3559.25	<b>440</b>	<b>1,290</b>	<0.001	<0.001	<0.001	<0.003
MW-2	05/08/08	43.25	3559.22	<b>1,450</b>	<b>2,730</b>	<0.001	<0.002	<0.001	<0.003
	06/17/08	43.31	3559.16	<b>1,980</b>	<b>2,730</b>	---	---	---	---
	09/10/08	43.37	3559.10	<b>1,580</b>	<b>3,440</b>	<0.001	<0.001	<0.001	<0.003
	12/17/08	43.38	3559.09	<b>1,300</b>	<b>2,900</b>	<0.001	<0.001	<0.001	<0.003
MW-3	06/17/08	43.83	3558.98	<b>733</b>	<b>1,810</b>	---	---	---	---
	09/10/08	43.85	3558.96	<b>580</b>	<b>1,660</b>	<0.001	<0.001	<0.001	<0.003
	12/17/08	43.91	3558.90	<b>570</b>	<b>1,580</b>	<0.001	<0.001	<0.001	<0.003
MW-4	06/17/08	43.54	3558.81	<b>1,070</b>	<b>2,150</b>	---	---	---	---
	09/10/08	43.61	3558.74	<b>820</b>	<b>2,070</b>	<0.001	<0.001	<0.001	<0.003
	12/17/08	43.63	3558.72	<b>830</b>	<b>1,970</b>	<0.001	<0.001	<0.001	<0.003
WQCC Standards				250	1,000	0.01	0.75	0.75	0.62

--- Indicates sample not analyzed for this constituent.

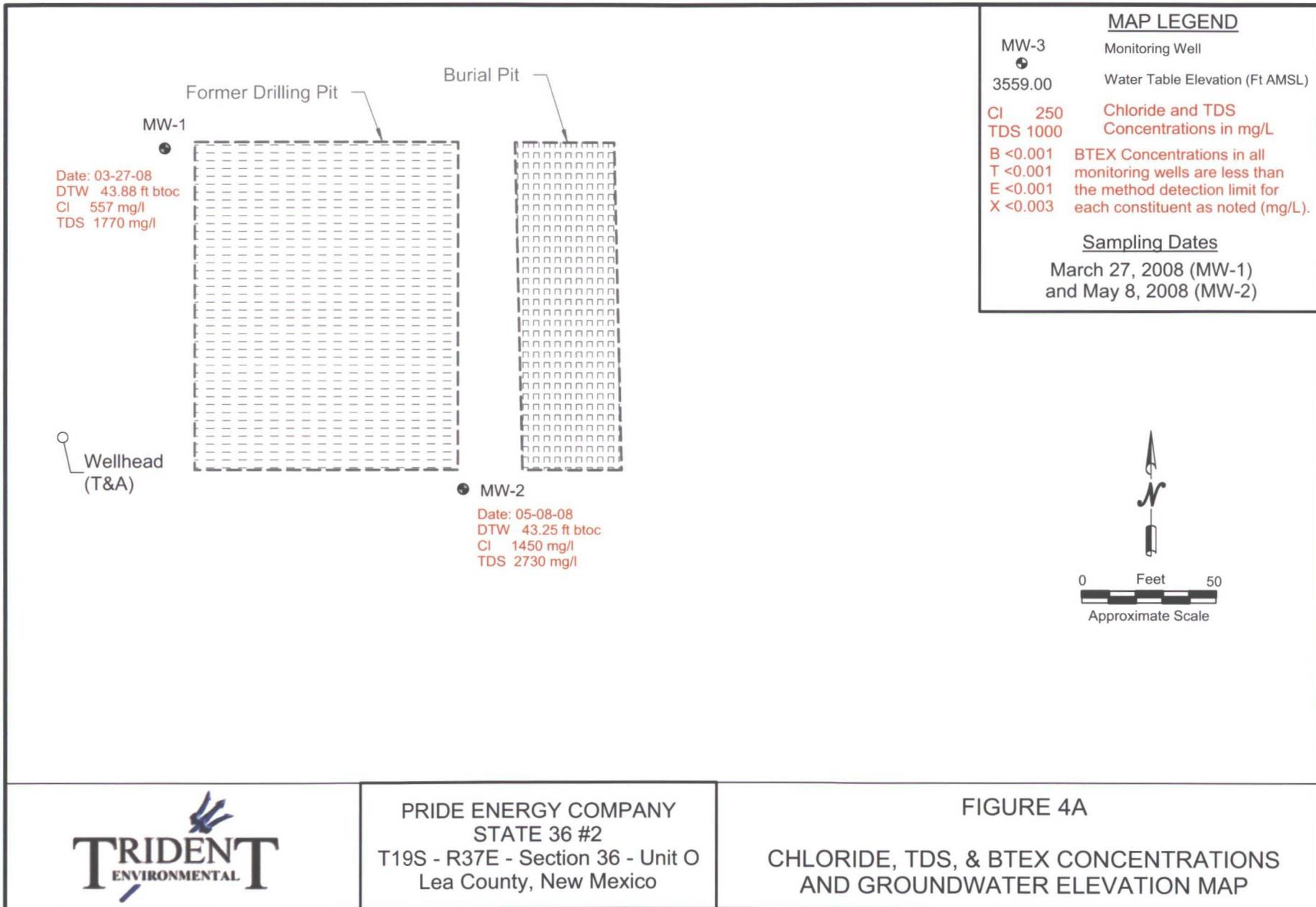
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards.

AMSL – above mean sea level

The 2008 data from the four monitoring wells show that the 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. The base of the aquifer is at approximately 50 ft bgs, where a red clay was encountered during well installations, therefore the saturated thickness is estimated at only 9 feet.

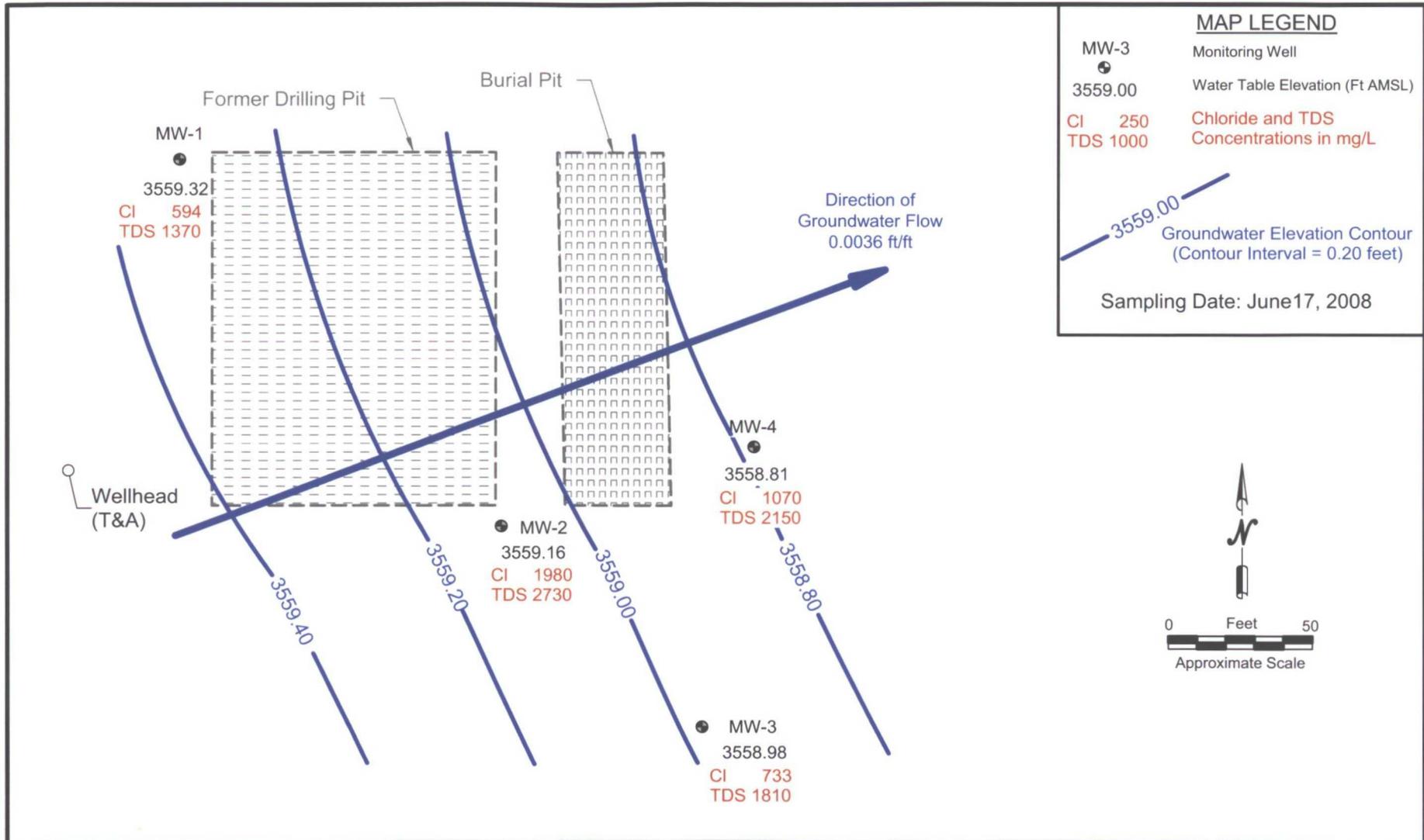
Chloride and TDS concentrations at monitoring wells MW-1, MW-2, MW-3, and MW-4 exceed WQCC standards. The highest chloride and TDS levels have been observed in monitoring well MW-2 with levels of 1,300mg/L and 2,900 mg/L, respectively, during the most recent sampling event in December 2008.

BTEX concentrations in monitoring wells MW-1, MW-2, MW-3, and MW-4 have been below the WQCC standards for each constituent and for every sampling event taken place.



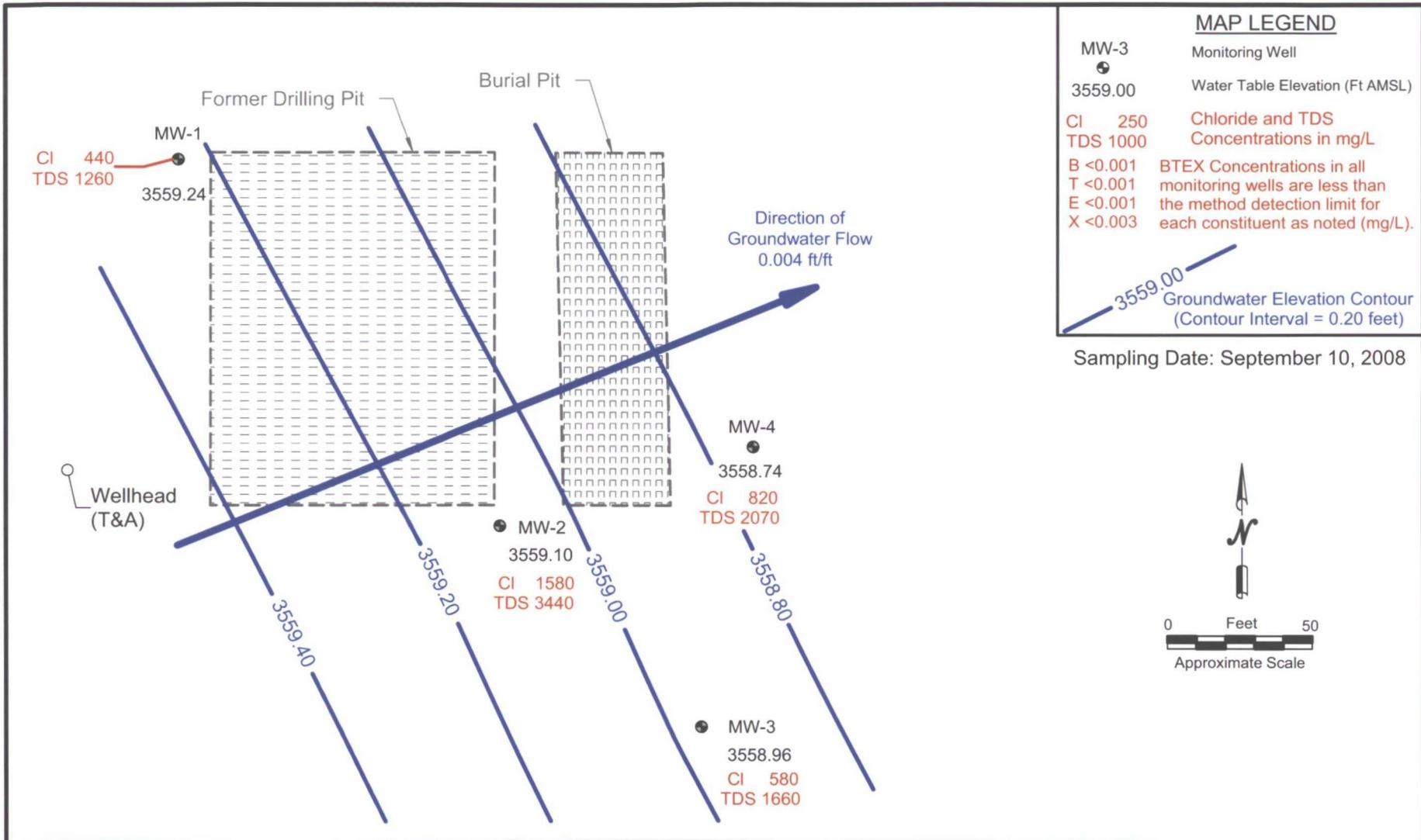
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 Lea County, New Mexico

FIGURE 4A  
 CHLORIDE, TDS, & BTEX CONCENTRATIONS  
 AND GROUNDWATER ELEVATION MAP



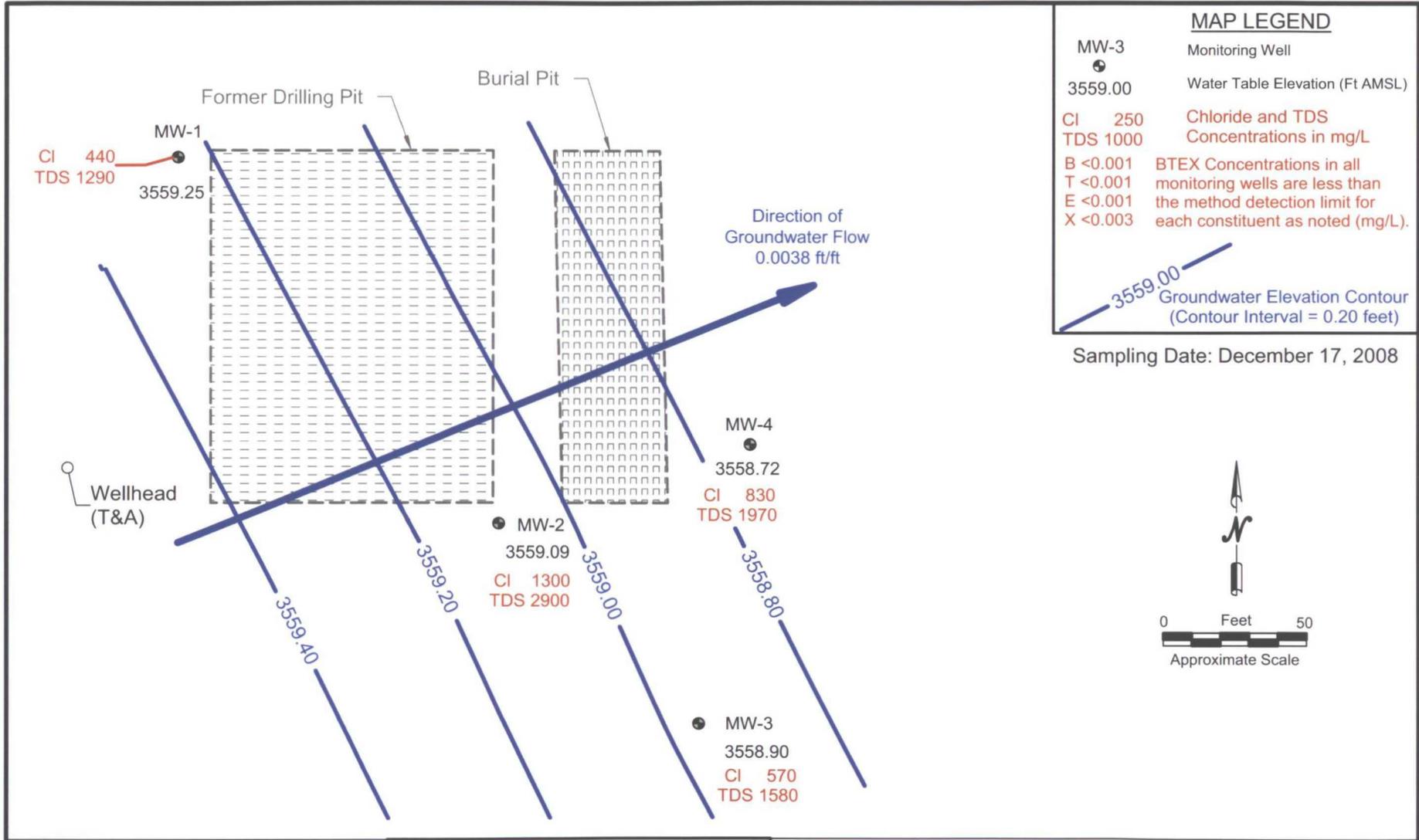
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FIGURE 4B  
 CHLORIDE / TDS CONCENTRATIONS  
 AND GROUNDWATER ELEVATION MAP



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FIGURE 4C  
CHLORIDE, TDS, & BTEX CONCENTRATIONS  
AND GROUNDWATER ELEVATION MAP



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Lea County, New Mexico

FIGURE 4D  
CHLORIDE, TDS, & BTEX CONCENTRATIONS  
AND GROUNDWATER ELEVATION MAP

## 6.0 CONCLUSIONS

- Based on the soil boring data obtained by Elke in February 2008 and by Trident in May and June 2008, the chloride impact to the vadose zone is limited to the area within the perimeter of the former drilling pit.
- 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.
- The base of the aquifer is at approximately 50 ft bgs, where a red clay was encountered during well installations, therefore the saturated thickness is estimated at only 9 feet.
- Chloride and TDS concentrations from groundwater samples collected at monitoring well MW-1, MW-2, MW-3, and MW-4 exceed WQCC standards. The highest chloride and TDS levels have been observed in monitoring well MW-2 with levels of 1,300mg/L and 2,900 mg/L, respectively, during the most recent sampling event in December 2008.
- The distribution of chloride-impacted groundwater may be influenced by both the local (northeast) and regional (southeast) direction of groundwater flow. It may also be influenced by an uneven redbed surface underlying the aquifer, perhaps due to an erosional unconformity (narrow streambed channeling during a fluvial environment of deposition of Tertiary sediments).
- Regulated hydrocarbons (BTEX) are not present in groundwater or the vadose zone.
- 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 one foot per year. It is unlikely a well completed in the area would yield greater than 150 gallons per day which is considered inadequate for any beneficial use. Therefore, there is negligible threat to human health and the environment.

## 7.0 CORRECTIVE ACTION PLAN

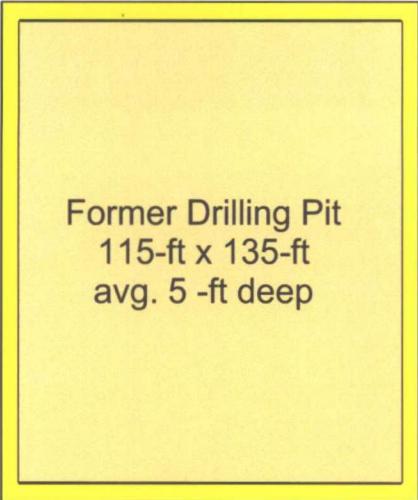
Data collected to date indicates chloride/TDS-impaired groundwater exists beneath the site and chloride concentrations above 1,000 mg/kg exist in the vadose zone below the former drilling pit. The suspected source of the chloride in the vadose zone and groundwater at the site is the former drilling pit.

### 7.1 *Vadose Zone Remedy and Schedule of Activities*

The proposed closure of the former drilling pit is construction of an infiltration barrier to eliminate the potential for migration of residual brines from the vadose zone to groundwater as described below.

1. Expand the existing pit excavation as necessary to create a 3-foot wide area where subsurface impact of pit leakage does not exist (Figure 5, step 1).
2. Use the material from the pit expansion or deepen the excavation as necessary to create a sloping surface on the bottom of the excavation as shown in Figure 5, step 2.
3. Over the sloping surface, place “shingles” of recycled or new 20-mil, reinforced liner material with a permeability of less than  $10^{-9}$  cm/sec. The shingles are laid to shed any infiltrated water from the pit area to native soil and to prevent any upward migration of chloride into the root zone.
4. Backfill the excavation with clean material, beginning with caliche and/or sand and finishing the top of the backfill with about 6-inches of soil that is capable of supporting native vegetation.
5. The new grade is a 3-5% slope that drains to a “ponding area”. The final grade of the surface over the former pit should blend with the surroundings as much as possible. Figure 5, step 3, which shows a 5% slope that resembles a large “pitchers mound”, is one example of a final surface that allows for drainage of storm water away from the former drilling pit.
6. Seed the reclaimed pit with a mixture acceptable to the State Land Office.
7. Submit a drilling pit termination report to the NMOCD to document the vadose zone remedy within 30 days of completion.

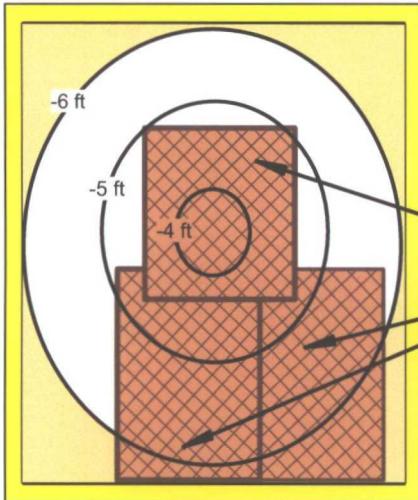
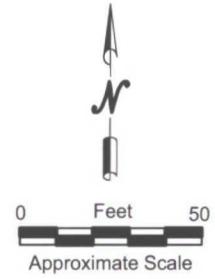
Upon OCD approval of the vadose zone abatement plan, Pride will commence the proposed work elements.



**STEP 1**

Excavate as required to create  
3-foot clean zone around chloride impact

Reserve all topsoil and clean caliche



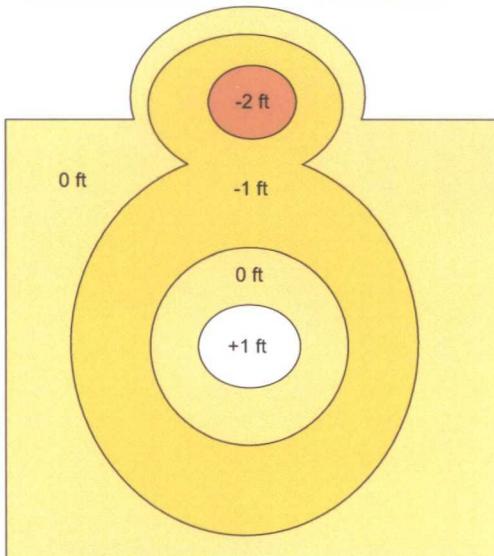
**STEP 2**

Create sloping surface at bottom of excavation

Center of sloping surface should be 3 to 4 feet below grade

Place 20-mil liner "shingles" over prepared surface

Shingles drain to un-impacted caliche



**STEP 3**

Excavate ponding area(s)

Backfill excavation with clean caliche and sand over liner - retain slope

Place about 6-inches of topsoil over clean caliche/sand - retain slope

Grade to allow excess runoff to ponding area

Re-seed with native species or a mix approved by the State Land Office



Pride Energy Company  
State 36 #2 (API # 30-025-36909)  
T19S - R37E - Section 36 - Unit O  
Lea County, New Mexico

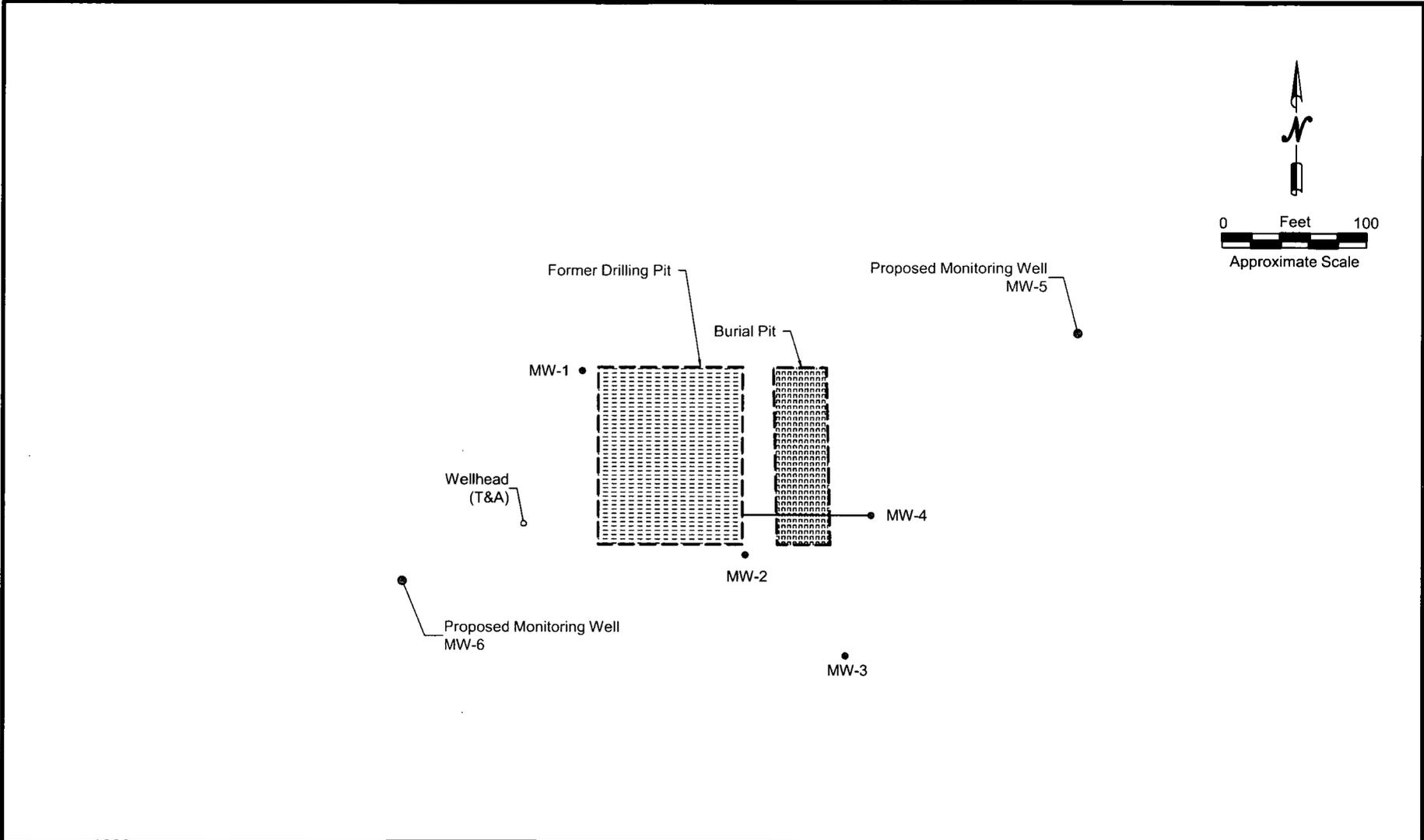
Figure 5  
Drilling Pit Excavation  
and Closure Diagrams

## **7.2 Groundwater Remedy and Schedule of Activities**

Further groundwater delineation (installation and sampling of additional monitoring wells) is necessary before designing the appropriate groundwater remedy. In the interim, Pride Energy proposes the following to address corrective actions to the groundwater:

1. Install one monitoring well approximately 250 feet northeast of the east edge of the former drilling pit to delineate the downgradient extent of chloride and TDS impact. Groundwater samples will be collected only for the constituents of concern (chloride and TDS). The proposed location of this well is noted as MW-5 in Figure 6.
2. The lowest chloride and TDS concentrations observed at the site occur in monitoring well MW-1 with 440 mg/L and 1,900 mg/L, respectively, observed during the most recent sampling event in December 2008. Therefore, the installation of one monitoring well is proposed approximately 150 feet southwest of the west edge of the former drilling pit (MW-6 in Figure 6) to confirm background concentrations. Groundwater samples will be collected only for the constituents of concern (chloride and TDS).
3. Submit a report to the NMOCD to document the completion of the monitoring well installation and two quarters of groundwater sampling and propose recommendations for a natural restoration/monitoring groundwater remedy or a pump-and-use groundwater restoration strategy, if appropriate.
4. Continue quarterly monitoring of all on site monitoring wells. Groundwater depth measurements and analysis for only the constituents of concern (chloride and TDS) will be collected. An annual report will be submitted to NMOCD by April 1, 2010.

Pride will commence the proposed work elements within 30 days upon OCD approval of the corrective action plan described herein. Pride, or its agent, will notify NMOCD of the above activities at least 48 hours before they commence, or of any delays that result due to weather conditions, contractor availability, site access, or other unforeseen matters beyond Pride's control.



PRIDE ENERGY COMPANY  
 STATE 36 #2  
 T19S - R37E - Section 36 - Unit O  
 Lea County, New Mexico

FIGURE 6  
 PROPOSED MONITORING WELL  
 LOCATION MAP

## 8.0 LIMITATIONS

Trident has prepared this Corrective Action Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Trident has examined and relied upon documents obtained from the OCD Online database (<http://ocdimage.emnrd.state.nm.us/imaging/>) as referenced in the report and may have relied on oral statements made by certain individuals. Trident has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Trident has prepared this report, in a professional manner, using the degree of skill and care expected of environmental consultants. Trident also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Pride Energy Company. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Trident and/or Pride.

## APPENDIX A

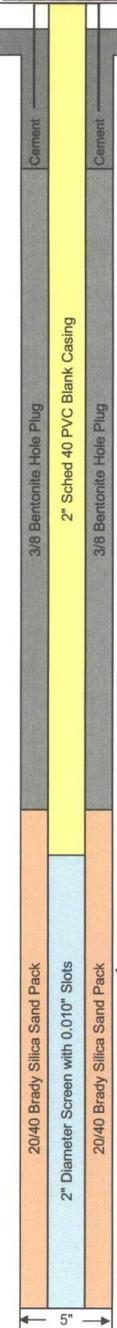
### Lithologic Logs and Monitoring Well Construction Diagrams

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



MONITORING WELL NO.: MW-2 TOTAL DEPTH: 55 ft bgs  
 SITE NAME: State 36 #2 CLIENT: Pride Energy Company  
 CONTRACTOR: Harrison & Cooper, Inc. COUNTY: Lea  
 DRILLING METHOD: Air Rotary STATE: New Mexico  
 START DATE: May 2, 2008 LOCATION: T19S - R37E - Section 36 - Unit Letter O  
 COMPLETION DATE: May 2, 2008 FIELD REP.: Gil Van Deventer  
 PHOTO AT LEFT: View facing southeast showing drilling activities at MW-2 (background) near southeast corner of for  
drilling pit. Located ~145' south & 120' east of existing MW-1 (foreground) at northwest corner of p

Depth	Sample		Chloride (ppm)	Unified Soil Classification Symbol	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
	Time	Type			
		1215			Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
5		1217	96	SM/CAL	Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
10		1218	532		Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
15		1219	340	SS/CAL/SM	Sandstone chunks, indurated caliche, and very fine-grained sand; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2), very hard, dry.
20		1220	383	CAL/SM	Indurated caliche and very fine-grained sand; pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); hard; dry.
25		1224	64	SM/CAL	Very fine-grained sand with decreasing amounts of indurated caliche; very pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); dry.
30		1235	43	GP/SS	Sandstone and gravelly sand; pale yellowish brown (10YR 6/2) and very pale orange (10YR 8/2); very hard; dry.
35		1240	53		Sandstone and gravelly sand; grayish orange pink (5YR 7/2); very hard; dry.
40		1247	64	SW	Fine- to medium-grained sand; moderately well sorted; subrounded grains; light brown (5YR 6/4); dry
45		1250			Fine- to medium-grained sand; moderately well sorted; subrounded grains; light brown (5YR 6/4); moisture increasing
50		1255		SM/SC	Clayey fine-grained sand; light brown 5YR 5/6); moist
55		1300		CL	Clay, moderate reddish brown (10R 4/6); moist
60					

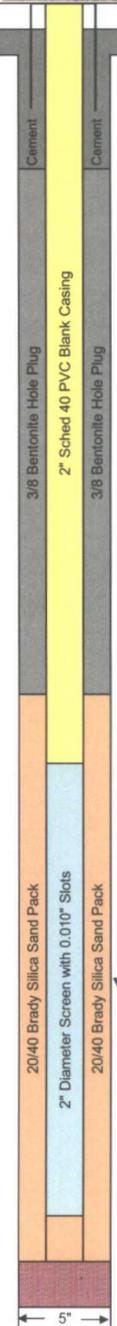


LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



MONITORING WELL NO.: MW-3 TOTAL DEPTH: 51 ft bgs  
 SITE NAME: State 36 #2 CLIENT: Pride Energy Company  
 CONTRACTOR: Harrison & Cooper, Inc. COUNTY: Lea  
 DRILLING METHOD: Air Rotary STATE: New Mexico  
 START DATE: June 5, 2008 LOCATION: T19S - R37E - Section 36 - Unit Letter O  
 COMPLETION DATE: June 5, 2008 FIELD REP.: Gil Van Deventer  
 COMMENTS: Photo at left: view facing southeast showing drilling activities at MW-3 (upper left) located approx. 100 ft southeast of monitoring well MW-2 and 120 feet southeast of former drilling pit (lower right).

Depth	Sample		Chloride (ppm)	Unified Soil Classification Symbol	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
	Time	Type			
Surface		Surface			Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
5		Cuttings		SM/CAL	Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
10		Cuttings	133		Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
15		Cuttings		SS/CAL/SM	Sandstone chunks, indurated caliche, and very fine-grained sand; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2), very hard, dry.
20		Cuttings	89	CAL/SM	Indurated caliche and very fine-grained sand; pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); hard; dry.
25		Cuttings		SM/CAL	Very fine-grained sand with decreasing amounts of indurated caliche; very pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); dry.
30		Cuttings	15		Sandstone and gravelly sand; pale yellowish brown (10YR 6/2) and very pale orange (10YR 8/2); very hard; dry.
35		Cuttings		GP/SS	Sandstone and gravelly sand; grayish orange pink (5YR 7/2); very hard; dry.
40		Cuttings	10		Sandstone and gravelly sand; grayish orange pink (5YR 7/2); very hard; dry.
45		Cuttings		SM/SC/GP	Sandstone and gravelly sand; grayish orange pink (5YR 7/2); wet; making water
50		Cuttings			Clayey gravelly fine-grained sand; light brown 5YR 5/6; wet and making water
55		Cuttings		CL	Clay, moderate reddish brown (10R 4/6); wet
55		Cuttings			Clay, moderate reddish brown (10R 4/6); wet
55		Cuttings			Overdrilled boring into clay redbed at 55 ft bgs; boring caved in with native sand to 53 ft bgs and backfilled with sand pack to 51 ft bgs while completing monitoring well.
60					



LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

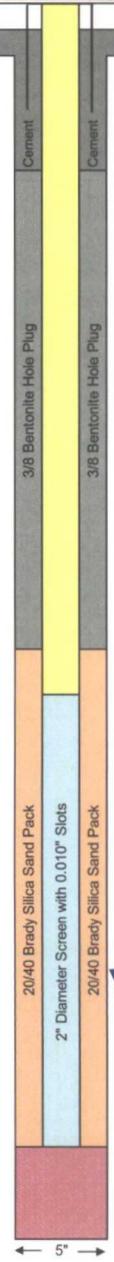


MONITORING WELL NO.: MW-4  
 SITE NAME: State 36 #2  
 CONTRACTOR: Harrison & Cooper, Inc.  
 DRILLING METHOD: Air Rotary  
 START DATE: June 5, 2008  
 COMPLETION DATE: June 5, 2008

TOTAL DEPTH: 48 ft bgs  
 CLIENT: Pride Energy Company  
 COUNTY: Lea  
 STATE: New Mexico  
 LOCATION: T19S - R37E - Section 36 - Unit Letter O  
 FIELD REP.: Gil Van Deventer

COMMENTS: Photo at left: view facing northeast showing drilling activities at MW-4 (background) located approx. 90 ft ENE of monitoring well MW-2 and 90 feet east of former drilling pit (lower left).

Depth	Sample		Chloride (ppm)	Unified Soil Classification Symbol	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
	Time	Type			
Surface		Surface			Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
5		Cuttings		SM/CAL	Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
10		Cuttings	196		Very fine-grained sand with caliche; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2)
15		Cuttings		SS/CAL/SM	Sandstone chunks, indurated caliche, and very fine-grained sand; grayish orange pink (5YR 7/2) and very pale orange (10YR 8/2), very hard, dry.
20		Cuttings	71	CAL/SM	Indurated caliche and very fine-grained sand; pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); hard, dry.
25		Cuttings		SM/CAL	Very fine-grained sand with decreasing amounts of indurated caliche; very pale orange (10YR 8/2) and grayish orange pink (5YR 7/2); dry.
30		Cuttings	6.3	GP/SS	Sandstone and gravelly sand; pale yellowish brown (10YR 6/2) and very pale orange (10YR 8/2); very hard, dry.
35		Cuttings			Sandstone and gravelly sand; grayish orange pink (5YR 7/2); very hard, dry.
40		Cuttings	78	SW	Fine- to medium-grained sand; moderately well sorted; subrounded grains; light brown (5YR 6/4); dry
45		Cuttings			Fine- to medium-grained sand; moderately well sorted; subrounded grains; light brown (5YR 6/4); moisture increasing
50		Cuttings		SM/SC	Clayey fine-grained sand; light brown 5YR 5/6; moist
55				CL	Clay, moderate reddish brown (10R 4/6); moist
60					Overturned boring into clay reached at 52 ft bgs, boring caved with native sand to 46 ft bgs while completing monitoring well



## APPENDIX B

### Photodocumentation

Pride Energy Company – State 36 #2 (API # 30-025-36909)



Panoramic view facing northeast showing former drilling pit in background and well head at lower-right (composite of 3 photos taken on 06-11-2008).



View facing northwest showing completed MW-2 in foreground with former drilling pit in background.



View facing southeast showing drilling of MW-2 in background with MW-1 in foreground.

## APPENDIX C

Laboratory Analytical Reports  
Chain-of-Custody Documentation

# **Analytical Report 300607**

**for**

**R.T. Hicks Consultants, LTD**

**Project Manager: Randy Hicks**

**Pride Energy Company**

**State 36 # 2**

**03-APR-08**



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

Texas certification numbers:

Houston, TX T104704215

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Midland - Corpus Christi - Atlanta



03-APR-08

Project Manager: **Randy Hicks**  
**R.T. Hicks Consultants, LTD**  
901 Rio Grande Blvd. NW, Suite F-142  
Albuquerque, NM 87104

Reference: XENCO Report No: **300607**  
**Pride Energy Company**  
Project Address: T19S-R37E, Section 36, Unit Letter O

**Randy Hicks:**

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 300607. 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. 300607 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 300607**



**R.T. Hicks Consultants, LTD, Albuquerque, NM**

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-27-08 10:50		300607-001



# Certificate of Analysis Summary 300607

## R.T. Hicks Consultants, LTD, Albuquerque, NM

**Project Name: Pride Energy Company**

**Project Id:** State 36 # 2

**Date Received in Lab:** Mar-28-08 02:30 pm

**Contact:** Randy Hicks

**Report Date:** 03-APR-08

**Project Location:** T19S-R37E, Section 36, Unit Letter O

**Project Manager:** Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	300607-001	<i>Field Id:</i>	MW-1
	<i>Depth:</i>		<i>Matrix:</i>	WATER
	<i>Sampled:</i>	Mar-27-08 10:50		
<b>Alkalinity by SM2320B</b>	<i>Extracted:</i>		<i>Analyzed:</i>	Apr-01-08 10:30
	<i>Units/RL:</i>	mg/L RL		
Alkalinity, Carbonate (as CaCO3)		ND	4.00	
Alkalinity, Bicarbonate (as CaCO3)		240	4.00	
Alkalinity, Total (as CaCO3)		240	4.00	
<b>Anions by EPA 300/300.1</b>	<i>Extracted:</i>		<i>Analyzed:</i>	Apr-01-08 21:25
	<i>Units/RL:</i>	mg/L RL		
Chloride		557 D	10.0	
Sulfate		182 D	10.0	
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Apr-01-08 09:28	<i>Analyzed:</i>	Apr-01-08 15:40
	<i>Units/RL:</i>	mg/L RL		
Benzene		ND	0.0010	
Toluene		ND	0.0020	
ylbenzene		ND	0.0010	
m,p-Xylenes		ND	0.0020	
o-Xylene		ND	0.0010	
Xylenes, Total		ND		
Total BTEX		ND		
<b>Metals per ICP by SW846 6010B</b>	<i>Extracted:</i>		<i>Analyzed:</i>	Apr-01-08 10:56
	<i>Units/RL:</i>	mg/L RL		
Calcium		184	0.100	
Magnesium		41.4	0.010	
Potassium		5.09	0.500	
Sodium		164	0.500	
<b>TDS by SM2540C</b>	<i>Extracted:</i>		<i>Analyzed:</i>	Mar-31-08 16:00
	<i>Units/RL:</i>	mg/L RL		
Total dissolved solids		1770	10.0	

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.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

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 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(PQL) and above the SQL(MDL).
  - 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.
- \* Outside XENCO'S scope of NELAC Accreditation

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11381 Meadowglen Lane Suite L Houston, Tx 77082-2647  
9701 Harry Hines Blvd , Dallas, TX 75220  
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238  
2505 N. Falkenburg Rd., Tampa, FL 33619  
5757 NW 158th St, Miami Lakes, FL 33014  
6017 Financial Dr., Norcross, GA 30071

Phone	Fax
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries



Project Name: Pride Energy Company

Work Order #: 300607

Project ID: State 36 # 2

Lab Batch #: 718729

Sample: 300607-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 718729

Sample: 300748-002 S / MS

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 718729

Sample: 300748-002 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 718729

Sample: 506766-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 718729

Sample: 506766-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

^H results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries



Project Name: Pride Energy Company

Work Order #: 300607

Project ID: State 36 # 2

Lab Batch #: 718729

Sample: 506766-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

\* If results are based on MDL and validated for QC purposes.



# Blank Spike Recovery



Project Name: Pride Energy Company

Work Order #: 300607

Project ID:

State 36 # 2

Lab Batch #: 718713

Sample: 718713-1-BKS

Matrix: Water

Date Analyzed: 04/01/2008

Date Prepared: 04/01/2008

Analyst: WRU

Reporting Units: mg/L

Batch #: 1

## BLANK/BLANK SPIKE RECOVERY STUDY

Alkalinity by SM2320B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Alkalinity, Total (as CaCO3)	ND	200	174	87	80-120	

Lab Batch #: 718755

Sample: 718755-1-BKS

Matrix: Water

Date Analyzed: 04/01/2008

Date Prepared: 04/01/2008

Analyst: MAB

Reporting Units: mg/L

Batch #: 1

## BLANK/BLANK SPIKE RECOVERY STUDY

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	5.00	4.99	100	85-115	
Sulfate	ND	5.00	4.78	96	90-110	

Blank Spike Recovery [D] = 100\*[C]/[B]

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



# BS / BSD Recoveries



Project Name: Pride Energy Company

Work Order #: 300607

Analyst: SHE

Lab Batch ID: 718729

Sample: 506766-1-BKS

Date Prepared: 04/01/2008

Batch #: 1

Project ID: State 36 # 2

Date Analyzed: 04/01/2008

Matrix: Water

Units: mg/L

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

Analytes	BTEX by EPA 8021B										
	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
Benzene	ND	0.1000	0.0930	93	0.1	0.0851	85	9	70-125	25	
Toluene	ND	0.1000	0.0933	93	0.1	0.0855	86	9	70-125	25	
Ethylbenzene	ND	0.1000	0.1051	105	0.1	0.0963	96	9	71-129	25	
m,p-Xylenes	ND	0.2000	0.2173	109	0.2	0.1991	100	9	70-131	25	
o-Xylene	ND	0.1000	0.1012	101	0.1	0.0924	92	9	71-133	25	

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

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 - Matrix MSD Recoveries



**Project Name: Pride Energy Company**

**Work Order # :** 300607

**Project ID:** State 36 # 2

**Lab Batch ID:** 718729

**QC- Sample ID:** 300748-002 S

**Batch #:** 1    **Matrix:** Water

**Date Analyzed:** 04/01/2008

**Date Prepared:** 04/01/2008

**Analyst:** SHE

**Reporting Units:** mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0832	83	0.1000	0.0893	89	7	70-125	25	
Toluene	ND	0.1000	0.0834	83	0.1000	0.0893	89	7	70-125	25	
Ethylbenzene	ND	0.1000	0.0937	94	0.1000	0.1011	101	7	71-129	25	
m,p-Xylenes	ND	0.2000	0.1927	96	0.2000	0.2085	104	8	70-131	25	
o-Xylene	ND	0.1000	0.0912	91	0.1000	0.0993	99	8	71-133	25	

**Lab Batch ID:** 718755

**QC- Sample ID:** 300410-001 S

**Batch #:** 1    **Matrix:** Water

**Date Analyzed:** 04/01/2008

**Date Prepared:** 04/01/2008

**Analyst:** MAB

**Reporting Units:** mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Anions by EPA 300/300.1  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	107	5.00	102	0	5.00	102	0	NC	90-110	20	X
Sulfate	333	5.00	303	0	5.00	303	0	NC	90-110	20	X

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference - RPD = 200\*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit



# Sample Duplicate Recovery



Project Name: Pride Energy Company

Work Order #: 300607

Lab Batch #: 718713  
Date Analyzed: 04/01/2008  
QC- Sample ID: 300607-001 D  
Reporting Units: mg/L

Date Prepared: 04/01/2008  
Batch #: 1

Project ID: State 36 # 2  
Analyst: WRU  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Alkalinity by SM2320B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Alkalinity, Total (as CaCO3)	240	270	12	20	
Alkalinity, Bicarbonate (as CaCO3)	240	270	12	20	
Alkalinity, Carbonate (as CaCO3)	ND	ND	NC	20	

Lab Batch #: 718755  
Date Analyzed: 04/01/2008  
QC- Sample ID: 300410-001 D  
Reporting Units: mg/L

Date Prepared: 04/01/2008  
Batch #: 1

Analyst: MAB  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300/300.1	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	107	107	0	20	
Sulfate	333	334	0	20	

Lab Batch #: 718664  
Date Analyzed: 04/01/2008  
QC- Sample ID: 300607-001 D  
Reporting Units: mg/L

Date Prepared: 04/01/2008  
Batch #: 1

Analyst: LATCOR  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Metals per ICP by SW846 6010B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Calcium	184	180	2	25	
Magnesium	41.4	41.4	0	25	
Potassium	5.09	4.91	4	25	
Sodium	164	161	2	25	

Lab Batch #: 718707  
Date Analyzed: 03/31/2008  
QC- Sample ID: 300683-001 D  
Reporting Units: mg/L

Date Prepared: 03/31/2008  
Batch #: 1

Analyst: RBA  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	12500	12500	0	30	

Spike Relative Difference RPD 200 \* |(B-A)/(B+A)|  
All Results are based on MDL and validated for QC purposes.



**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client: RT Hicks  
 Date/ Time: 03.28.08 @ 1430  
 Lab ID #: 300607  
 Initials: JME

**Sample Receipt Checklist**

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	-15 <sup>20</sup> <del>15</del> °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container? / (CB)	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	Yes	(No)		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

**Variance Documentation**

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

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

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

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# Analytical Report 303122

for

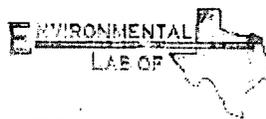
**Pride Energy Company**

**Project Manager: Matt Pride**

**Incorrect Project Name**

**State 36 # 2**

**07-MAY-08**



**12600 West 1-20 East Odessa, Texas 79765**

Texas certification numbers:

Houston, TX T104704215

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Midland - Corpus Christi - Atlanta



07-MAY-08

Project Manager: **Matt Pride**  
**Pride Energy Company**  
P.O. Box 701950

Tulsa, OK 74170

Reference: XENCO Report No: **303122**  
**Pride Energy Company**  
Project Address: T19-S-R37E, Section 36, Unit Letter O

**Matt Pride:**

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 303122. 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 subcontracted 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. 303122 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,

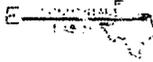
Odessa Laboratory Manager

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# Certificate of Analysis Summary 303122

Pride Energy Company, Tulsa, OK

Project Name: No Project Name Found

Project Id: State 3642

Contact: Matt Pride

Project Location: 119-S-R31L, Section 36, Lm Letter Q

*\* All samples collected from MW-2*

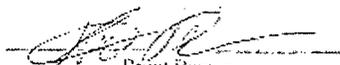
Date Received in Lab: Mon May-05-08 11:05 am

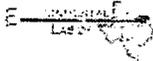
Report Date: 07-MAY-08

Project Manager: Brent Barron, II

Analysis Requested	Lab Id	303122-001	303122-002	303122-003	303122-004	303122-005	303122-006
	Field Id	MW-2(15)	MW-2(16)	MW-2(17)	MW-2(18)	MW-2(15)	MW-2(16)
	Depth	2	2	2	2	2	2
	Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled	May-02-08 08:15	May-02-08 08:18	May-02-08 08:20	May-02-08 08:23	May-02-08 08:15	May-02-08 08:50
	Extracted						
	Analyzed	May-06-08 00:00					
	Units/RL	mg/kg RL					
Chloride		45.71 5.000	53.8 5.000	240.3 5.000	102.9 5.000	63.81 5.000	42.54 5.000

This is a summary report of the data generated by the laboratory. It is not intended to be used as a legal document. The laboratory is not responsible for the accuracy of the data reported in this report. The laboratory is not responsible for the accuracy of the data reported in this report. The laboratory is not responsible for the accuracy of the data reported in this report.

  
 Brent Barron, II  
 Odessa Laboratory Director



# Certificate of Analysis Summary 303122

Pride Energy Company, Tulsa, OK

Project Name: No Project Name Found

Project Id: SMO 3642

Contam: Mm Frile

Project Location: 119-S-8271L, Section 35, Unit Layer C

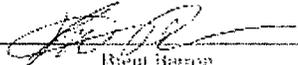
Date Received in Lab: Mon May-05-08 11:05 am

Report Date: 07 MAY 08

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	Job Id:	303122-001	303122-001
	Flight Id:	NW-1 (151)	NW-1 (151)
	Depth:	2	2
	Matrix:	SOIL	SOIL
	Sampled:	May-02-08 08:55	May-02-08 09:00
<b>Chloride by SM4500-CI- B</b>	Received:		
	Analysis:	May-06-08 09:00	May-06-08 09:00
	Units-RL:	mg/kg RL	mg/kg RL
Chloride:		53.18 5,000	65.81 5,000

In compliance with the requirements of the State of Oklahoma, the data generated by this laboratory is based on the use of the methods and procedures used throughout the analytical process. The use of the methods and procedures used throughout the analytical process is based on the use of the methods and procedures used throughout the analytical process. The use of the methods and procedures used throughout the analytical process is based on the use of the methods and procedures used throughout the analytical process.

  
 Brent Barron  
 Odessa Laboratory Director



# Blank Spike Recovery



Project Name: Incorrect Project Name

Work Order #: 303122

Project ID:

Incorrect Project ID

Lab Batch #: 721892

Sample: 721892-1-BKS

Matrix: Solid

Date Analyzed: 05/06/2008

Date Prepared: 05/06/2008

Analyst: LATCUR

Reporting Units: mg/kg

Batch #: 1

### BLANK /BLANK SPIKE RECOVERY STUDY

Chloride by SM4500-Cl- B	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	ND	100.0	95.72	96	70-125	

Lab Batch #: 721893

Sample: 721893-1-BKS

Matrix: Solid

Date Analyzed: 05/06/2008

Date Prepared: 05/06/2008

Analyst: LATCUR

Reporting Units: mg/kg

Batch #: 1

### BLANK /BLANK SPIKE RECOVERY STUDY

Chloride by SM4500-Cl- B	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	ND	100.0	92.52	93	70-125	

Blank Spike Recovery [D] = 100\*[C]/[B]  
 All results are based on MDL and validated for QC purposes



**Environmental Lab of Texas**  
 Variance/ Corrective Action Report- Sample Log-In

Client: State of Texas  
 Date/ Time: 5/20/08 1:00  
 Lab ID #: 103411  
 Order #: CL

**Sample Receipt Checklist:**

	Yes	No	Client initials
#1. Temperature of container correct?	Yes	No	
#2. Shipping container in good condition?	Yes	No	
#3. Custody Seals intact on shipping container cap(s)?	Yes	No	Not Applicable
#4. Custody Seals intact on sample bottle(s) container?	Yes	No	Not Applicable
#5. Chain of Custody present?	Yes	No	
#6. Sample destructive complete of Chain of Custody?	Yes	No	
#7. Chain of Custody signed when requisition received?	Yes	No	
#8. Chain of Custody agrees with sample labels?	Yes	No	ID written on Sample Label
#9. Container labels legible and intact?	Yes	No	Not Applicable
#10. Sample matrix/ properties agree with Chain of Custody?	Yes	No	
#11. Containers supplied by ELCT?	Yes	No	
#12. Samples in proper container/ bottle?	Yes	No	See Below
#13. Samples properly preserved?	Yes	No	See Below
#14. Sample bottles intact?	Yes	No	
#15. Preservatives documented on Chain of Custody?	Yes	No	
#16. Containers documented on Chain of Custody?	Yes	No	
#17. Sufficient sample amount for indicated tests?	Yes	No	See Below
#18. All samples received within sufficient hold time?	Yes	No	See Below
#19. Subcontract of samples?	Yes	No	Not Applicable
#20. VOC samples have zero headspace?	Yes	No	Not Applicable

**Variance Documentation**

Corrected: \_\_\_\_\_ Corrected by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Responsible: \_\_\_\_\_

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

- Check if Not Apply  See attached e-mail file  
 Client understands and would like to proceed with analysis  
 Cooling process had begun immediately after sampling event

# **Analytical Report 303625**

**for**

**Pride Energy Company**

**Project Manager: Matt Pride**

**Pride Energy Company**

**State 36 # 2**

**16-MAY-08**



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

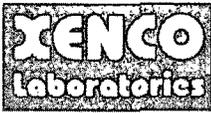
Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

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



16-MAY-08

Project Manager: **Matt Pride**  
**Pride Energy Company**  
P.O. Box 701950

Tulsa, OK 74170

Reference: XENCO Report No: **303625**  
**Pride Energy Company**  
Project Address: T19S-R37E, Section 36, Unit Letter O

**Matt Pride:**

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 303625. 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. 303625 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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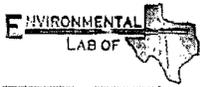


**Sample Cross Reference 303625**

**Pride Energy Company, Tulsa, OK**

Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	May-08-08 16:35		303625-001



# Certificate of Analysis Summary 303625

## Pride Energy Company, Tulsa, OK

**Project Name: Pride Energy Company**

**Project Id:** State 36 # 2

**Date Received in Lab:** May-09-08 05:00 pm

**Contact:** Matt Pride

**Report Date:** 16-MAY-08

**Project Location:** T19S-R37E, Section 36, Unit Letter O

**Project Manager:** Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	303625-001		
	<i>Field Id:</i>	MW-2		
	<i>Depth:</i>			
	<i>Matrix:</i>	WATER		
	<i>Sampled:</i>	May-08-08 16:35		
<b>Alkalinity by SM2320B</b>	<i>Extracted:</i>			
	<i>Analyzed:</i>	May-13-08 15:55		
	<i>Units/RL:</i>	mg/L      RL		
Alkalinity, Total (as CaCO3)		248      4.00		
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	May-14-08 17:58		
	<i>Analyzed:</i>	May-14-08 21:50		
	<i>Units/RL:</i>	mg/L      RL		
Benzene		0.0010    0.0010		
Toluene		ND      0.0020		
Ethylbenzene		ND      0.0010		
m,p-Xylenes		ND      0.0020		
o-Xylene		ND      0.0010		
Xylenes, Total		ND		
Total BTEX		0.001		
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>			
	<i>Analyzed:</i>	May-16-08 13:21		
	<i>Units/RL:</i>	mg/L      RL		
Chloride		1450    50.0		
Fluoride		ND      50.0		
Sulfate		229     50.0		
<b>Metals per ICP by SW846 6010B</b>	<i>Extracted:</i>			
	<i>Analyzed:</i>	May-16-08 14:15		
	<i>Units/RL:</i>	mg/L      RL		
Calcium		293     0.100		
Iron		ND      0.030		
Magnesium		78.0    0.010		
Potassium		9.56    0.500		
Sodium		687     0.500		
<b>TDS by SM2540C</b>	<i>Extracted:</i>			
	<i>Analyzed:</i>	May-12-08 16:45		
	<i>Units/RL:</i>	mg/L      RL		
Total dissolved solids		2730    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 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(PQL) and above the SQL(MDL).
  - 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.
- \* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd , Dallas, TX 75220  
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238  
2505 N. Falkenburg Rd., Tampa, FL 33619  
5757 NW 158th St, Miami Lakes, FL 33014  
6017 Financial Dr., Norcross, GA 30071

Phone	Fax
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries

Project Name: Pride Energy Company

Work Order #: 303625

Project ID: State 36 # 2

Lab Batch #: 722707

Sample: 303625-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 722707

Sample: 303817-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 722707

Sample: 303817-001 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 722707

Sample: 509077-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 722707

Sample: 509077-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: Pride Energy Company

Work Order #: 303625

Project ID: State 36 # 2

Lab Batch #: 722707

Sample: 509077-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

BTEX by EPA 8021B		SURROGATE RECOVERY STUDY			
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



# Blank Spike Recovery

**Project Name: Pride Energy Company**

Work Order #: 303625

Project ID:

State 36 # 2

Lab Batch #: 722887

Sample: 303625-1-BKS

Matrix: Water

Date Analyzed: 05/13/2008

Date Prepared: 05/13/2008

Analyst: WRU

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY						
Alkalinity by SM2320B  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Alkalinity, Total (as CaCO3)	ND	200	174	87	80-120	

Lab Batch #: 722877

Sample: 722877-1-BKS

Matrix: Water

Date Analyzed: 05/16/2008

Date Prepared: 05/16/2008

Analyst: LATCOR

Reporting Units: mg/L

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.01	90	85-115	
Fluoride	ND	2.00	2.04	102	90-110	
Sulfate	ND	10.0	9.25	93	90-110	

Blank Spike Recovery [D] = 100\*[C]/[B]

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



# BS / BSD Recoveries

**Project Name: Pride Energy Company**

**Work Order #: 303625**

**Analyst: SHE**

**Date Prepared: 05/14/2008**

**Project ID: State 36 # 2**

**Date Analyzed: 05/14/2008**

**Lab Batch ID: 722707**

**Sample: 509077-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

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

BTEX by EPA 8021B	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
Analytes											
Benzene	ND	0.1000	0.0813	81	0.1	0.0810	81	0	70-125	25	
Toluene	ND	0.1000	0.0826	83	0.1	0.0840	84	2	70-125	25	
Ethylbenzene	ND	0.1000	0.0910	91	0.1	0.0923	92	1	71-129	25	
m,p-Xylenes	ND	0.2000	0.1924	96	0.2	0.1950	98	1	70-131	25	
o-Xylene	ND	0.1000	0.0931	93	0.1	0.0944	94	1	71-133	25	

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

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 #: 303625  
Lab Batch #: 722877  
Date Analyzed: 05/16/2008  
QC- Sample ID: 303625-001 S  
Reporting Units: mg/L

Date Prepared: 05/16/2008  
Batch #: 1

Project ID: State 36 # 2  
Analyst: LATCOR  
Matrix: Water

## 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	1450	1000	2240	79	85-115	X
Fluoride	ND	200	231	116	90-110	X
Sulfate	229	1000	1120	89	90-110	X

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



**Form 3 - Matrix MSD Recoveries**

**Project Name: Pride Energy Company**

Work Order # 303625

Project ID: State 36 # 2

Lab Batch ID: 722707

QC- Sample ID: 303817-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 05/15/2008

Date Prepared: 05/14/2008

Analyst: SHE

Reporting Units: mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	0.0080	0.1000	0.0880	80	0.1000	0.0982	90	12	70-125	25	
Toluene	ND	0.1000	0.0835	84	0.1000	0.0937	94	11	70-125	25	
Ethylbenzene	ND	0.1000	0.0917	92	0.1000	0.1017	102	10	71-129	25	
m,p-Xylenes	0.0027	0.2000	0.1946	96	0.2000	0.2153	106	10	70-131	25	
o-Xylene	0.0027	0.1000	0.0969	94	0.1000	0.1069	104	10	71-133	25	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
 Relative Percent Difference RPD = 200\*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
 N = See Narrative, EQL = Estimated Quantitation Limit



# Sample Duplicate Recovery

Project Name: Pride Energy Company

Work Order #: 303625

Lab Batch #: 722887

Date Analyzed: 05/13/2008

QC- Sample ID: 303625-001 D

Reporting Units: mg/L

Date Prepared: 05/13/2008

Batch #: 1

Project ID: State 36 # 2

Analyst: WRU

Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Alkalinity by SM2320B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Alkalinity, Total (as CaCO3)	248	240	3	20	

Lab Batch #: 722877

Date Analyzed: 05/16/2008

QC- Sample ID: 303625-001 D

Reporting Units: mg/L

Date Prepared: 05/16/2008

Batch #: 1

Analyst: LATCOR

Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	1450	1450	0	20	
Fluoride	ND	ND	NC	20	
Sulfate	229	228	0	20	

Lab Batch #: 722863

Date Analyzed: 05/16/2008

QC- Sample ID: 303625-001 D

Reporting Units: mg/L

Date Prepared: 05/16/2008

Batch #: 1

Analyst: LATCOR

Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Metals per ICP by SW846 6010B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Calcium	293	297	1	25	
Iron	ND	0.034	NC	25	
Magnesium	78.0	75.4	3	25	
Potassium	9.56	6.83	33	25	F
Sodium	687	635	8	25	

Lab Batch #: 722586

Date Analyzed: 05/12/2008

QC- Sample ID: 303625-001 D

Reporting Units: mg/L

Date Prepared: 05/12/2008

Batch #: 1

Analyst: WRU

Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	2730	3090	12	30	

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



**Environmental Lab of Texas**  
 Variance/ Corrective Action Report- Sample Log-In

Client: Pride / Tident  
 Date/ Time: 05-09-06 C 1700  
 Lab ID #: 303625  
 Initials: JMF

**Sample Receipt Checklist**

			Client Initials		
#1	Temperature of container/ cooler?	<input checked="" type="radio"/> Yes	No	1.5 °C	
#2	Shipping container in good condition?	<input checked="" type="radio"/> Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="radio"/> Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="radio"/> Yes	No	Not Present	
#5	Chain of Custody present?	<input checked="" type="radio"/> Yes	No		
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="radio"/> Yes	No		
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="radio"/> Yes	No		
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	<input checked="" type="radio"/> Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="radio"/> Yes	No		
#11	Containers supplied by ELOT?	<input checked="" type="radio"/> Yes	No		
#12	Samples in proper container/ bottle?	<input checked="" type="radio"/> Yes	No	See Below	
#13	Samples properly preserved?	<input checked="" type="radio"/> Yes	No	See Below	
#14	Sample bottles intact?	<input checked="" type="radio"/> Yes	No		
#15	Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No		
#16	Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No		
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	No	See Below	
#18	All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No	See Below	
#19	Subcontract of sample(s)?	<input checked="" type="radio"/> Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	No	Not Applicable	

**Variance Documentation**

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

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

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

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# **Analytical Report 305357**

**for**

**Pride Energy Company**

**Project Manager: Matt Pride**

**Pride Energy Company**

**State 36 # 2**

**11-JUN-08**



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

Texas certification numbers:

Houston, TX T104704215

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

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Midland - Corpus Christi - Atlanta



11-JUN-08

Project Manager: **Matt Pride**  
**Pride Energy Company**  
P.O. Box 701950

Tulsa, OK 74170

Reference: XENCO Report No: **305357**  
**Pride Energy Company**  
Project Address: T19S-R37E, Section 36, Unit Letter O

**Matt Pride:**

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 305357. 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. 305357 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 305357**



**Pride Energy Company, Tulsa, OK**

Pride Energy Company

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-3 (10')	S	Jun-05-08 12:18		305357-001
MW-3 (20')	S	Jun-05-08 12:20		305357-002
MW-3 (30')	S	Jun-05-08 12:35		305357-003
MW-3 (40')	S	Jun-05-08 12:47		305357-004
MW-4 (10')	S	Jun-05-08 13:53		305357-005
MW-4 (20')	S	Jun-05-08 13:57		305357-006
MW-4 (30')	S	Jun-05-08 14:10		305357-007
MW-4 (40')	S	Jun-05-08 14:20		305357-008



# Certificate of Analysis Summary 305357

Pride Energy Company, Tulsa, OK

Project Name: Pride Energy Company

Project Id: State 36 # 2

Contact: Matt Pride

Project Location: T19S-R37E, Section 36, Unit Letter O

Date Received in Lab: Fri Jun-06-08 01:23 pm

Report Date: 11-JUN-08

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	305357-001	305357-002	305357-003	305357-004	305357-005	305357-006
	Field Id:	MW-3 (10')	MW-3 (20')	MW-3 (30')	MW-3 (40')	MW-4 (10')	MW-4 (20')
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-05-08 12:18	Jun-05-08 12:20	Jun-05-08 12:35	Jun-05-08 12:47	Jun-05-08 13:53	Jun-05-08 13:57
<b>Inorganic Anions by EPA 300</b>	Extracted:						
	Analyzed:	Jun-09-08 17:53					
	Units/RL:	mg/kg RL					
Chloride		133 25.0	88.9 5.00	15.1 5.00	10.2 5.00	196 10.0	71.1 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



# Certificate of Analysis Summary 305357

Pride Energy Company, Tulsa, OK

Project Name: Pride Energy Company

Project Id: State 36 # 2

Contact: Matt Pride

Project Location: T19S-R37E, Section 36, Unit Letter O

Date Received in Lab: Fri Jun-06-08 01:23 pm

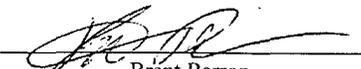
Report Date: 11-JUN-08

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	305357-007	305357-008				
	<b>Field Id:</b>	MW-4 (30')	MW-4 (40')				
	<b>Depth:</b>						
	<b>Matrix:</b>	SOIL	SOIL				
	<b>Sampled:</b>	Jun-05-08 14:10	Jun-05-08 14:20				
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jun-10-08 02:37	Jun-10-08 02:37				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
Chloride		6.34 5.00	77.6 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 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(PQL) and above the SQL(MDL).
  - 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.
- \* Outside XENCO'S scope of NELAC Accreditation

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Blank Spike Recovery



Project Name: Pride Energy Company

Work Order #: 305357

Project ID:

State 36 # 2

Lab Batch #: 724913

Sample: 724913-1-BKS

Matrix: Solid

Date Analyzed: 06/09/2008

Date Prepared: 06/09/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

### BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	11.4	114	75-125	

Lab Batch #: 725010

Sample: 725010-1-BKS

Matrix: Solid

Date Analyzed: 06/10/2008

Date Prepared: 06/10/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

### BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	11.3	113	75-125	

Blank Spike Recovery [D] = 100\*[C]/[B]

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



# Form 3 - MS Recoveries



Project Name: Pride Energy Company

Work Order #: 305357

Project ID: State 36 # 2

Lab Batch #: 724913

Date Prepared: 06/09/2008

Analyst: LATCOR

Date Analyzed: 06/09/2008

Batch #: 1

Matrix: Soil

QC- Sample ID: 305296-001 S

Reporting Units: mg/kg

### 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
Chloride	17.6	100	144	126	75-125	X

Lab Batch #: 725010

Date Prepared: 06/10/2008

Analyst: LATCOR

Date Analyzed: 06/10/2008

Batch #: 1

Matrix: Soil

QC- Sample ID: 305357-007 S

Reporting Units: mg/kg

### 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
Chloride	6.34	100	65.8	59	75-125	X

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



# Sample Duplicate Recovery



Project Name: Pride Energy Company

Work Order #: 305357

Lab Batch #: 724913  
Date Analyzed: 06/09/2008  
QC- Sample ID: 305296-001 D  
Reporting Units: mg/kg

Date Prepared: 06/09/2008  
Batch #: 1

Project ID: State 36 # 2  
Analyst: LATCOR  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	17.6	17.6	0	20	

Lab Batch #: 725010  
Date Analyzed: 06/10/2008  
QC- Sample ID: 305357-007 D  
Reporting Units: mg/kg

Date Prepared: 06/10/2008  
Batch #: 1

Analyst: LATCOR  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	6.34	5.18	20	20	

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



**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client: Pride Energy  
 Date/ Time: 6/6/08 1:23  
 Lab ID #: 205357  
 Initials: CL

**Sample Receipt Checklist**

			Client Initials		
#1	Temperature of container/ cooler?	Yes	No	-1.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by EL0T?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

**Variance Documentation**

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

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

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

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# **Analytical Report 306334**

**for**

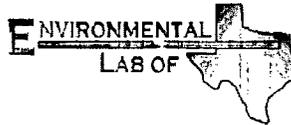
**Pride Energy Company**

**Project Manager: Matt Pride**

**Pride Energy Company**

**State 36 # 2**

**27-JUN-08**



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

Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

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



27-JUN-08

Project Manager: **Matt Pride**  
**Pride Energy Company**  
P.O. Box 701950

Tulsa, OK 74170

Reference: XENCO Report No: **306334**  
**Pride Energy Company**  
Project Address: T19S-R37E, Section 36, Unit Letter O

**Matt Pride:**

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 306334. 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. 306334 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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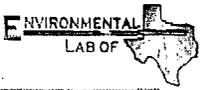
**Sample Cross Reference 306334**



**Pride Energy Company, Tulsa, OK**

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	Jun-17-08 08:50		306334-001
MW-2	W	Jun-17-08 10:30		306334-002
MW-3	W	Jun-17-08 09:20		306334-003
MW-4	W	Jun-17-08 10:00		306334-004



# Certificate of Analysis Summary 306334

## Pride Energy Company, Tulsa, OK

**Project Name: Pride Energy Company**

**Project Id:** State 36 # 2

**Date Received in Lab:** Jun-20-08 05:00 pm

**Contact:** Matt Pride

**Report Date:** 27-JUN-08

**Project Location:** T19S-R37E, Section 36, Unit Letter O

**Project Manager:** Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	306334-001	306334-002	306334-003	306334-004
	<i>Field Id:</i>	MW-1	MW-2	MW-3	MW-4
	<i>Depth:</i>				
	<i>Matrix:</i>	WATER	WATER	WATER	WATER
	<i>Sampled:</i>	Jun-17-08 08:50	Jun-17-08 10:30	Jun-17-08 09:20	Jun-17-08 10:00
<b>Alkalinity by SM2320B</b>	<i>Extracted:</i>				
	<i>Analyzed:</i>	Jun-26-08 10:45	Jun-26-08 10:45	Jun-26-08 10:45	Jun-26-08 10:45
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Alkalinity, Total (as CaCO3)		232 4.00	270 4.00	230 4.00	600 4.00
Alkalinity, Bicarbonate (as CaCO3)		232 4.00	270 4.00	230 4.00	244 4.00
Alkalinity, Carbonate (as CaCO3)		ND 4.00	ND 4.00	ND 4.00	ND 4.00
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>				
	<i>Analyzed:</i>	Jun-23-08 08:50	Jun-23-08 08:50	Jun-23-08 08:50	Jun-23-08 08:50
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Chloride		594 5.00	1980 25.0	733 10.0	1070 12.5
Sulfate		207 5.00	275 25.0	212 10.0	218 12.5
<b>Metals per ICP by SW846 6010B</b>	<i>Extracted:</i>				
	<i>Analyzed:</i>	Jun-23-08 11:59	Jun-23-08 11:59	Jun-23-08 11:59	Jun-23-08 11:59
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Calcium		185 0.100	110 0.100	194 0.100	172 0.100
Magnesium		39.7 0.010	25.9 0.010	42.3 0.010	35.8 0.010
Potassium		4.60 0.500	3.01 0.500	6.74 0.500	8.01 0.500
Sodium		174 0.500	671 0.500	251 0.500	486 0.500
<b>TDS by SM2540C</b>	<i>Extracted:</i>				
	<i>Analyzed:</i>	Jun-23-08 16:30	Jun-23-08 16:30	Jun-23-08 16:30	Jun-23-08 16:30
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Total dissolved solids		1370 5.00	2730 5.00	1810 5.00	2150 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 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(PQL) and above the SQL(MDL).
  - 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.
- \* Outside XENCO'S scope of NELAC Accreditation

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2505 N. Falkenburg Rd., Tampa, FL 33619  
5757 NW 158th St, Miami Lakes, FL 33014  
6017 Financial Dr., Norcross, GA 30071

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Blank Spike Recovery



Project Name: Pride Energy Company

Work Order #: 306334

Project ID:

State 36 # 2

Lab Batch #: 726566

Sample: 726566-1-BKS

Matrix: Water

Date Analyzed: 06/26/2008

Date Prepared: 06/26/2008

Analyst: WRU

Reporting Units: mg/L

Batch #: 1

## BLANK/BLANK SPIKE RECOVERY STUDY

Alkalinity by SM2320B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Alkalinity, Bicarbonate (as CaCO3)	ND	200	176	88	80-120	

Lab Batch #: 726337

Sample: 726337-1-BKS

Matrix: Water

Date Analyzed: 06/23/2008

Date Prepared: 06/23/2008

Analyst: LATCOR

Reporting Units: mg/L

Batch #: 1

## BLANK/BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	11.6	116	80-120	
Sulfate	ND	10.0	12.0	120	80-120	

Blank Spike Recovery [D] = 100\*[C]/[B]

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



# Form 3 - MS Recoveries



Project Name: Pride Energy Company

Work Order #: 306334

Lab Batch #: 726337

Project ID: State 36 # 2

Date Analyzed: 06/23/2008

Date Prepared: 06/23/2008

Analyst: LATCOR

QC- Sample ID: 306329-001 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	2600	500	3270	134	80-120
Sulfate	477	500	1080	121	80-120	X

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



# Sample Duplicate Recovery



Project Name: Pride Energy Company

Work Order #: 306334

Lab Batch #: 726566  
Date Analyzed: 06/26/2008  
QC- Sample ID: 306329-001 D  
Reporting Units: mg/L

Date Prepared: 06/26/2008  
Batch #: 1

Project ID: State 36 # 2  
Analyst: WRU  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Alkalinity by SM2320B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	190	180	20	20	
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	ND	ND	20	20	
Alkalinity, Total (as CaCO <sub>3</sub> )	190	180	20	20	

Lab Batch #: 726337  
Date Analyzed: 06/23/2008  
QC- Sample ID: 306329-001 D  
Reporting Units: mg/L

Date Prepared: 06/23/2008  
Batch #: 1

Analyst: LATCOR  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	2600	2590	20	20	
Sulfate	477	463	20	20	

Lab Batch #: 726094  
Date Analyzed: 06/23/2008  
QC- Sample ID: 306329-001 D  
Reporting Units: mg/L

Date Prepared: 06/23/2008  
Batch #: 1

Analyst: LATCOR  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Metals per ICP by SW846 6010B	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Calcium	ND	603	NC	25	
Magnesium	120	116	3	25	
Potassium	4.41	4.85	10	25	
Sodium	564	575	2	25	
Fluoride	ND	ND	NC	20	

Lab Batch #: 726342  
Date Analyzed: 06/23/2008  
QC- Sample ID: 306329-001 D  
Reporting Units: mg/L

Date Prepared: 06/23/2008  
Batch #: 1

Analyst: WRU  
Matrix: Water

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	5700	5580	2	30	

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



**Environmental Lab of Texas**  
 Variance/ Corrective Action Report- Sample Log-In

Client: Pride Energy  
 Date/ Time: 6-10-08 17:00  
 Lab ID #: 306334  
 Initials: al

**Sample Receipt Checklist**

			Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	No	5-D °C
#2 Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	No	
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	No	<del>Not Present</del>
#4 Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	No	Not Present
#5 Chain of Custody present?	<input checked="" type="checkbox"/> Yes	No	
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	No	
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	No	ID written on Cont./ Lid
#9 Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#11 Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	No	
#12 Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	No	See Below
#13 Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	See Below
#14 Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
#15 Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#16 Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	No	See Below
#18 All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	See Below
#19 Subcontract of sample(s)?	Yes	No	<del>Not Applicable</del>
#20 VOC samples have zero headspace?	Yes	No	<del>Not Applicable</del>

**Variance Documentation**

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

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

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

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event



ANALYTICAL RESULTS FOR  
 TRIDENT ENVIRONMENTAL  
 ATTN: GIL VAN DEVENTER  
 P.O. BOX 7624  
 MIDLAND, TEXAS 79708-7624  
 FAX TO: (413) 403-9968

Receiving Date: 09/11/08  
 Reporting Date: 09/22/08  
 Project Number: STATE 36 #2  
 Project Name: PRIDE ENERGY COMPANY  
 Project Location: T19S-R37E-SEC36 UNIT LETTER O  
 LEA CO., NM

Sampling Date: 09/10/08  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: ML  
 Analyzed By: HM/TR

LAB NUMBE SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:	09/15/08	09/15/08	09/15/08	09/15/08	09/12/08	09/12/08
H15913-1 MW-1	192	164	46.2	5.1	1,880	208
H15913-2 MW-2	753	325	58.3	23.7	5,170	204
H15913-3 MW-3	284	176	48.6	8.7	2,320	216
H15913-4 MW-4	478	144	43.7	22.4	3,050	216
Quality Control	NR	48.1	46.2	3.06	1,406	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	96.2	92.4	102	99.5	NR
Relative Percent Difference	NR	<0.1	9.9	0.3	0.6	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
----------	-------------	-----------	------	-------	-------

	Cl (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	09/12/08	09/12/08	09/12/08	09/12/08	09/12/08	09/16/08
H15913-1 MW-1	440	189	0	254	7.18	1,260
H15913-2 MW-2	1,580	279	0	249	7.06	3,440
H15913-3 MW-3	580	225	0	264	7.14	1,660
H15913-4 MW-4	820	226	0	264	7.25	2,070
Quality Control	490	43.3	NR	976	7.00	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	98.0	108	NR	97.6	100	NR
Relative Percent Difference	<0.1	1.6	NR	1.2	<0.1	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

*[Signature]*  
 Chemist

09-22-08  
 Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



# ARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR  
TRIDENT ENVIRONMENTAL  
ATTN: GIL VAN DEVENTER  
P.O. BOX 7624  
MIDLAND, TX 79708-7624  
FAX TO: (413) 403-9968

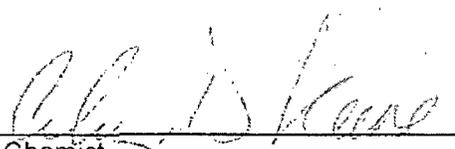
Receiving Date: 09/11/08  
Reporting Date: 09/15/08  
Project Number: STATE 36 #2  
Project Name: PRIDE ENERGY COMPANY  
Project Location: T19S-R37E-SEC36 UNIT LETTER O  
LEA CO., NM

Sampling Date: 09/10/08  
Sample Type: WATER  
Sample Condition: COOL & INTACT  
Sample Received By: ML  
Analyzed By: ZL

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		09/12/08	09/12/08	09/12/08	09/12/08
H15913-1	MW-1	<0.001	<0.001	<0.001	<0.003
H15913-2	MW-2	<0.001	<0.001	<0.001	<0.003
H15913-3	MW-3	<0.001	<0.001	<0.001	<0.003
H15913-4	MW-4	<0.001	<0.001	<0.001	<0.003
Quality Control		0.053	0.045	0.047	0.151
True Value QC		0.050	0.050	0.050	0.150
% Recovery		106	90.0	94.0	101
Relative Percent Difference		1.0	4.3	4.0	2.6

METHOD: EPA SW-846 8021B

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,  
AND TOTAL XYLENES.

  
\_\_\_\_\_  
Chemist

  
\_\_\_\_\_  
Date





ANALYTICAL RESULTS FOR  
 TRIDENT ENVIRONMENTAL  
 ATTN: GIL VAN DEVENTER  
 P.O. BOX 7624  
 MIDLAND, TX 79708-7624  
 FAX TO: (413) 403-9968

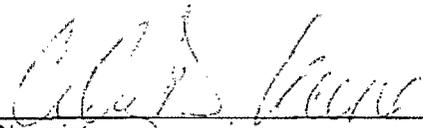
Receiving Date: 12/18/08  
 Reporting Date: 12/23/08  
 Project Number: STATE 36 #2  
 Project Name: PRIDE ENERGY COMPANY  
 Project Location: T19S-R37E-SEC36 UNIT LETTER O  
 ~ LEA CO., NM

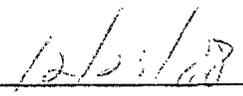
Sampling Date: 12/17/08  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: ML  
 Analyzed By: ZL

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		12/22/08	12/22/08	12/22/08	12/22/08
H16550-1	MW-1	<0.001	<0.001	<0.001	<0.003
H16550-2	MW-2	<0.001	<0.001	<0.001	<0.003
H16550-3	MW-3	<0.001	<0.001	<0.001	<0.003
H16550-4	MW-4	<0.001	<0.001	<0.001	<0.003
Quality Control		0.045	0.046	0.046	0.141
True Value QC		0.050	0.050	0.050	0.150
% Recovery		90.0	92.0	92.0	94.0
Relative Percent Difference		2.7	5.9	7.0	7.4

METHOD: EPA SW-846 8021B

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,  
 AND TOTAL XYLENES.

  
 Chemist

  
 Date



ANALYTICAL RESULTS FOR  
 TRIDENT ENVIRONMENTAL  
 ATTN: GIL VAN DEVENTER  
 P.O. BOX 7624  
 MIDLAND, TEXAS 79708-7624  
 FAX TO: (413) 403-9968

Receiving Date: 12/18/08  
 Reporting Date: 12/23/08  
 Project Number: STATE 36 #2  
 Project Name: PRIDE ENERGY COMPANY  
 Project Location: T19S-R37E-SEC36 UNIT LETTER O  
 LEA CO., NM

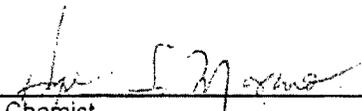
Sampling Date: 12/17/08  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: ML  
 Analyzed By: TR

LAB NUMBE SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:	12/23/08	12/23/08	12/23/08	12/22/08	12/19/08	12/19/08
H16550-1 MW-1	195	172	46.2	5.7	1,850	212
H16550-2 MW-2	583	305	68.0	8.3	4,050	212
H16550-3 MW-3	276	180	48.6	7.9	2,260	224
H16550-4 MW-4	495	156	38.9	9.0	2,930	220
Quality Control	NR	48.1	51.0	2.80	1,423	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	96.2	102	93.3	101	NR
Relative Percent Difference	NR	<0.1	<0.1	2.8	0.2	NR

METHODS:	SM3500-Ca-D 3500-Mg E	8049	120.1	310.1
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	Cl (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	12/22/08	12/22/08	12/19/08	12/19/08	12/19/08	12/22/08
H16550-1 MW-1	440	211	0	259	7.14	1,290
H16550-2 MW-2	1,300	267	0	259	7.08	2,900
H16550-3 MW-3	570	225	0	273	7.16	1,580
H16550-4 MW-4	830	239	0	268	7.26	1,970
Quality Control	500	43.5	NR	1000	7.07	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	100	109	NR	100	101	NR
Relative Percent Difference	<0.1	3.5	NR	<0.1	0.4	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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 Chemist

12-24-08  
 Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. H16550 TRIDENT shall be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



APPENDIX D  
Monitoring Well Sampling Data Forms

**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company WELL ID: MW- 1  
 SITE NAME: State 36 #2 DATE: March 27, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Gil Van Deventer  
 LAT/LONG: N 33° 36' 45.2", W 103° 12' 14.0"

PURGING METHOD:  Hand Bailed  Pump If Pump, Type: \_\_\_\_\_

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alconox  Distilled Water Rinse  Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drums  SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.4 Feet

DEPTH TO WATER: 43.88 Feet

HEIGHT OF WATER COLUMN: 8.52 Feet

WELL DIAMETER: 2.0 Inch

33'-55' bgs Well Screen Interval

4.2 Minimum gallons to purge 3 well volumes

5 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS	
10:32 AM	1	20.1	2.39	7.00	4.2	Silty reddish	
10:35 AM	2	19.2	2.43	7.02	5.7		
10:38 AM	3	19.3	2.33	7.05	5.7	Clearing somewhat	
10:40 AM	4	19.3	2.23	7.07	5.7		
10:48 AM	5	20.1	2.68	7.05	6.2		
10:50 AM						Collected samples in the following containers:	
						2 - 40 ml VOA + + 2 - 500 ml plastic	
:Total Time (hr:min)		:Total Vol (gal)			:Average Flow Rate (gal/min)		

COMMENTS: Hanna Model HI98130 used to obtain temperature, conductivity, & pH, measurements.

Milwaukee Model SM600 used to obtain dissolved oxygen measurements.

Delivered samples to Xenco Laboratories /Environmental Lab of Texas for BTEX, Major Ions, and TDS analyses.

**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company WELL ID: MW- 2  
 SITE NAME: State 36 #2 DATE: May 8, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Gil Van Deventer  
 LAT/LONG: N 33° 36' 45.2", W 103° 12' 14.0"

PURGING METHOD:  Hand Bailed  Pump If Pump, Type: \_\_\_\_\_

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  conox  stilled Water Rinse  her: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drums  SWD Disposal Facility

TOTAL DEPTH OF WELL: 57.5 Feet  
 DEPTH TO WATER: 43.25 Feet  
 HEIGHT OF WATER COLUMN: 14.25 Feet  
 WELL DIAMETER: 2.0 Inch

35'-55' bgs Well Screen Interval  
7.0 Minimum gallons to purge 3 well volumes  
5 Actual Gallons purged

DATE	TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
05/07/08		23	17.6	6.90	7.27	Developed well on May 7, 2008
05/08/08	4:16 PM	2.5	20.5	4.73	7.00	Begin purging on May 8, 2008
05/08/08	4:26 PM	5	20.8	5.28	6.95	Clearing somewhat
05/08/08	4:35 PM	7.5	20.5	5.20	6.77	Collected samples in the following containers:
						2 - 40 ml VOA + + 2 - 500 ml plastic
		:Total Time (hr:min)		:Total Vol (gal)		:Average Flow Rate (gal/min)

COMMENTS: Hanna Model HI98130 used to obtain temperature, conductivity, & pH, measurements.  
Milwaukee Model SM600 used to obtain dissolved oxygen measurements.  
Delivered samples to Xenco Laboratories /Environmental Lab of Texas for BTEX, Major Ions, and TDS analyses.

## WELL DEVELOPMENT LOG

Company Pride Energy Company  
 Well ID State 36 #2 Monitor Well #3 Date Well Drilled June 4, 2008  
 Date Started 06/12/08  
 Date Completed 06/12/08  
 Field Personnel Rozanne Johnson  
 Development Method: Over pumping with alternate pumping rates to minimize the creation of sediment bridging.

### WELL INFORMATION

Description of Measuring Point (MP): The casing lip, indicated by a black mark.

Depth of Well Below MP, ft:	53.79
Depth to Water Below MP, ft:	43.81
Water Column in Well, ft:	9.98
Gallons in Well Column	1.60

### FIELD PARAMETERS

Time	Casing Volume	Conductivity/ms	Temperature/C	pH	TDS/ppm	ORP/MV	Drawdown/ft
9:43	Start Pumping						0.00
9:45	2 Gallons	Sand and Silt No Readings					3.62
9:47	4 Gallons	Sand and Silt No Readings					3.74
9:49	6 Gallons	2.43	22.1	7.18	1783	73	3.89
INCREASED RATE 1.5 GPM							
9:53	12 Gallons	Sand and Silt No Readings					4.85
9:58	19.5 Gallons	1.98	24.1	7.31	1427	144	5.02
DECREASE RATE 1.0 GPM							
10:00	21 Gallons	1.80	22.7	7.42	1286	125	4.51
10:05	27 Gallons						
10:08	30 Gallons	1.76	22.5	7.43	1253	126	3.96
LET WELL RECOVER							
10:08							3.96
10:09							1.41
10:15							0.14

**Comments:** The well responded to the increased and decreased pumping rates with the pump set approximately 1 ft from bottom.  
30 gallons of water was displaced from the well bore which would be approximately 18 well column volumes.  
The well pumped a clear, stream of water with no odor, with the exception of when the pump was started or the rate was increased, the water then turned turbid with sand, but cleared.  
The well will be sampled at a later date for Major cations, anions, and TDS.

## WELL DEVELOPMENT LOG

Company Pride Energy Company  
 Well ID State 36 #2 Monitor Well #4 Date Well Drilled June 4, 2008  
 Date Started 06/12/08  
 Date Completed 06/12/08  
 Field Personnel Rozanne Johnson  
 Development Method: Over pumping with alternate pumping rates to minimize the creation of sediment bridging.

### WELL INFORMATION

Description of Measuring Point (MP): The casing lip, indicated by a black mark.

Depth of Well Below MP, ft:	50.25
Depth to Water Below MP, ft:	43.54
Water Column in Well, ft:	6.71
Gallons in Well Column	1.07

### FIELD PARAMETERS

Time	Casing Volume	Conductivity/ms	Temperature/C	pH	TDS/ppm	ORP/MV	Drawdown/ft
8:50	Start Pumping						0.00
8:52	2 Gallons	Sand and Silt No Readings					0.57
8:54	4 Gallons	Sand and Silt No Readings					0.62
8:56	6 Gallons	3.45	21.2	7.15	2561	62	0.65
INCREASED RATE 1.5 GPM							
9:00	12 Gallons	3.50	20.9	7.11	2633	50	0.89
9:05	19.5 Gallons	3.49	20.8	7.12	2634	56	0.92
DECREASE RATE 1.0 GPM							
9:10	24 Gallons	3.51	21.3	7.16	2633	58	0.71
9:15	29 Gallons	3.51	21.4	7.17	2627	59	0.68
LET WELL RECOVER							
9:15							0.68
9:16							0.19
9:20							0.03

**Comments:** The well responded to the increased and decreased pumping rates with the pump set approximately 1 ft from bottom.  
29 gallons of water was displaced from the well bore which would be approximately 27 well column volumes.  
The well pumped a clear, stream of water with no odor, with the exception of when the pump was started or the rate was increased, the water then turned turbid with sand, but cleared.  
The well will be sampled at a later date for Major cations, anions, and TDS.

**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company  
 SYSTEM: State 36 #2  
 SITE LOCATION: T19S R37E Sec36 Unit O

WELL ID: Monitor Well #1  
 DATE: June 17, 2008  
 SAMPLER: Rozanne Johnson

PURGING METHOD:  Hand Bailed  Pump, Type: Variable Controlled Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

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

TOTAL DEPTH OF WELL: 52.37 Feet  
 DEPTH TO WATER: 43.89 Feet  
 HEIGHT OF WATER COLUMN: 8.48 Feet  
 WELL VOLUME: 1.4 Gal.

2 In. Well Diameter  
6 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
8:41	21.0	2.25	7.16	Silt and Sand
8:43	20.4	2.26	7.10	Clear/Slight Odor
8:45	20.7	2.20	7.11	
8:50				Samples Collected with Disposable Bailer
				Major Ions/TDS (1-1000ml Plastic)

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

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Xenco Laboratories for Major Ions and TDS analysis.

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**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company  
 SYSTEM: State 36 #2  
 SITE LOCATION: T19S R37E Sec36 Unit O

WELL ID: Monitor Well #2  
 DATE: June 17, 2008  
 SAMPLER: Rozanne Johnson

PURGING METHOD:  Hand Bailed  Pump, Type: Variable Controlled Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

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

TOTAL DEPTH OF WELL: 57.61 Feet  
 DEPTH TO WATER: 43.31 Feet  
 HEIGHT OF WATER COLUMN: 14.30 Feet  
 WELL VOLUME: 2.3 Gal.

2 In. Well Diameter  
10 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:18	23.0	23.78	6.79	Silt and Sand
10:20	21.5	8.69	7.02	Silt and Sand
10:22	21.8	6.24	7.03	Silt and Sand
10:24	20.9	5.86	7.03	Clear/Slight Odor
10:26	21.0	5.56	7.03	Clear/Slight Odor
10:30				Samples Collected with Disposable Bailer
				Major Ions/TDS (1-1000ml Plastic)

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

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Xenco Laboratories for Major Ions and TDS analysis.

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**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company  
 SYSTEM: State 36 #2  
 SITE LOCATION: T19S R37E Sec36 Unit O

WELL ID: Monitor Well #3  
 DATE: June 17, 2008  
 SAMPLER: Rozanne Johnson

PURGING METHOD:  Hand Bailed  Pump, Type: Variable Controlled Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

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

TOTAL DEPTH OF WELL: 53.83 Feet

DEPTH TO WATER: 43.83 Feet

HEIGHT OF WATER COLUMN: 10.00 Feet

WELL VOLUME: 1.6 Gal.

2 In. Well Diameter

8 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:20	22.0	2.38	7.21	Silt and Sand
9:22	21.6	2.64	7.26	Silt and Sand
9:24	22.0	2.71	7.16	Clear/No Odor
9:26	21.8	2.74	7.17	Clear/No Odor
9:30				Samples Collected with Disposable Bailer
				Major Ions/TDS (1-1000ml Plastic)

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

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Xenco Laboratories for Major Ions and TDS analysis.

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**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company  
 SYSTEM: State 36 #2  
 SITE LOCATION: T19S R37E Sec36 Unit O

WELL ID: Monitor Well #4  
 DATE: June 17, 2008  
 SAMPLER: Rozanne Johnson

PURGING METHOD:       Hand Bailed  Pump, Type: Variable Controlled Purge Pump

SAMPLING METHOD:     Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

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

TOTAL DEPTH OF WELL:      50.30 Feet

DEPTH TO WATER:          43.54 Feet

HEIGHT OF WATER COLUMN: 6.76 Feet

2 In. Well Diameter

WELL VOLUME:              1.1 Gal.

6 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:45	22.2	3.43	7.29	Silt and Sand
9:47	21.5	3.52	7.18	Silt and Sand
9:49	21.2	3.54	7.21	Clear/No Odor
9:51	21.3	3.55	7.21	Clear/No Odor
10:00				Samples Collected with Disposable Bailer
				Major Ions/TDS (1-1000ml Plastic)

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

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Xenco Laboratories for Major Ions and TDS analysis.

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**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company WELL ID: MW- 1  
 SITE NAME: State 36 #2 DATE: September 10, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: N 33° 36' 45.2", W 103° 12' 14.0"

PURGING METHOD:  Hand Bailed  Pump If Pump, Type Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alcon  Distilled Water  se Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.40 Feet  
 DEPTH TO WATER: 43.97 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 8.43 Feet 4.1 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 6 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
12:25 PM	0					Begin purging
12:29 PM	2	19.1	2.17	7.19		Silt and sand
12:33 PM	4	19.3	2.12	7.23		Clear/Slight Odor
12:37 PM	6	19.4	2.11	7.25		
12:50 PM						Samples Collected with Disposable Bailer
						Samples Collected
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:12	:Total Time (hr:min)		6	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_

Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.

Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company WELL ID: MW- 2  
 SITE NAME: State 36 #2 DATE: September 10, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Type Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alconox  Distilled Water Rinse  Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 57.61 Feet  
 DEPTH TO WATER: 43.37 Feet      30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 14.24 Feet      7.0 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch      8 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
1:15 PM	0					Begin purging
1:19 PM	2					Silt and Sand
1:23 PM	4	19.7	9.79	7.12		Clear/Slight Odor
1:27 PM	6	19.9	5.95	7.09		Clear/Slight Odor
1:31 PM	8	20.1	5.75	7.08		Clear/Slight Odor
						Samples Collected with Disposable Bailer
1:40 PM						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:16	:Total Time (hr:min)		8	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
 Myron Model-6P instrument used to obtain pH, conductivity and temperature measurements.  
 Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

**WELL SAMPLING DATA FORM**

CLIENT: Pride Energy Company WELL ID: MW- 3  
 SITE NAME: State 36 #2 DATE: September 10, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Type Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alcono  Distilled Water  se Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 53.83 Feet  
 DEPTH TO WATER: 43.85 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 9.98 Feet 4.9 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 6 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
11:10 AM	0					Begin purging
11:14 AM	2	19.9	2.52	7.15		Silt and Sand
11:18 AM	4	19.9	2.43	7.11		Clear/No Odor
11:22 AM	6	20.0	2.43	7.12		Clear/No Odor
11:30 AM						Samples Collected with Disposable Bailer
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:12	:Total Time (hr:min)		6	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_

Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.

Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company WELL ID: MW- 4  
 SITE NAME: State 36 #2 DATE: September 10, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Ty; Purge Pump \_\_\_\_\_

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alconox  Distilled Water Rinse  Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 50.30 Feet  
 DEPTH TO WATER: 43.61 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 6.69 Feet 3.3 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 inch 4 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
11:50 AM	0					Begin purging
11:54 AM	2	19.7	3.39	7.25		Clear/No Odor
11:58 AM	4	19.7	3.43	7.26		Clear/No Odor
12:10 PM						Samples Collected with Disposable Bailer
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:08	:Total Time (hr:min)		4	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
 Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.  
 Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company WELL ID: MW- 1  
 SITE NAME: State 36 #2 DATE: December 17, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: N 33° 36' 45.2", W 103° 12' 14.0"

PURGING METHOD:  Hand Bailed  Pump If Pump, Type Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alcond  Distilled Water  Use Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.40 Feet  
 DEPTH TO WATER: 43.96 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 8.44 Feet 4.1 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 6 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
9:25 AM	0					Begin purging
9:29 AM	2	18.8	2.06	7.25		Silt and sand
9:33 AM	4	18.9	2.05	7.16		Clear/Slight Odor
9:37 AM	6	18.9	2.06	7.17		
9:55 AM						Samples Collected with Disposable Bailer
						Samples Collected
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:12	:Total Time (hr:min)		6	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
 Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.  
 Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company WELL ID: MW-2  
 SITE NAME: State 36 #2 DATE: December 17, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Type Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:  
 Gloves  Alconox  Distilled Water Rinse  Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 57.61 Feet  
 DEPTH TO WATER: 43.38 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 14.23 Feet 7.0 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 8 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
10:15 AM	0					Begin purging
10:19 AM	2					Silt and Sand
10:23 AM	4	19.7	9.79	7.12		Clear/Slight Odor
10:27 AM	6	19.9	5.95	7.09		Clear/Slight Odor
10:31 AM	8	20.1	5.75	7.08		Clear/Slight Odor
						Samples Collected with Disposable Bailer
10:40 AM						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:16	:Total Time (hr:min)		8	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
 Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.  
 Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company WELL ID: MW- 3  
 SITE NAME: State 36 #2 DATE: December 17, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Ty, Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:  
 Gloves  Alcono  Distilled Water  se Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 53.83 Feet  
 DEPTH TO WATER: 43.91 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 9.92 Feet 4.9 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 6 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
7:20 AM	0					Begin purging
7:24 AM	2	18.9	2.31	7.20		Silt and Sand
7:28 AM	4	18.7	2.55	7.17		Clear/No Odor
7:32 AM	6	18.8	2.55	7.17		Clear/No Odor
7:50 AM						Samples Collected with Disposable Bailer
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:12	:Total Time (hr:min)		6	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.  
Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

WELL SAMPLING DATA FORM

CLIENT: Pride Energy Company WELL ID: MW- 4  
 SITE NAME: State 36 #2 DATE: December 17, 2008  
 SITE LOCATION: T19S-R37E-Sec 36 Unit O SAMPLER: Rozanne Johnson  
 LAT/LONG: \_\_\_\_\_

PURGING METHOD:  Hand Bailed  Pump If Pump, Tyr Purge Pump

SAMPLING METHOD:  Disposable Bailer  Direct from Discharge Hose  Other: \_\_\_\_\_

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

Gloves  Alcono  Distilled Water R  se Other: \_\_\_\_\_

DISPOSAL METHOD OF PURGE WATER:  Surface Discharge  Drum  SWD Disposal Facility

TOTAL DEPTH OF WELL: 50.30 Feet  
 DEPTH TO WATER: 43.63 Feet 30'-50' bgs Well Screen Interval  
 HEIGHT OF WATER COLUMN: 6.67 Feet 3.3 Minimum gallons to purge 3 well volumes  
 WELL DIAMETER: 2.0 Inch 4 Actual Gallons purged

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	PHYSICAL APPEARANCE AND REMARKS
8:15 AM	0					Begin purging
8:19 AM	2	18.8	3.19	7.28		Clear/No Odor
8:23 AM	4	18.9	3.27	7.26		Clear/No Odor
8:35 AM						Samples Collected with Disposable Bailer
						Major Ions (1-1000ml Plastic)
						BTEX 8021B (2-40 ml glass VOA)
0:08	:Total Time (hr:min)		4	:Total Vol (gal)		0.50 :Average Flow Rate (gal/min)

COMMENTS: \_\_\_\_\_  
 Myron Model 6P instrument used to obtain pH, conductivity and temperature measurements.  
 Delivered samples to Cardinal Laboratories Hobbs, New Mexico for analyses.

APPENDIX E

Preliminary Data and C-144 Submissions

by Elke Environmental

and

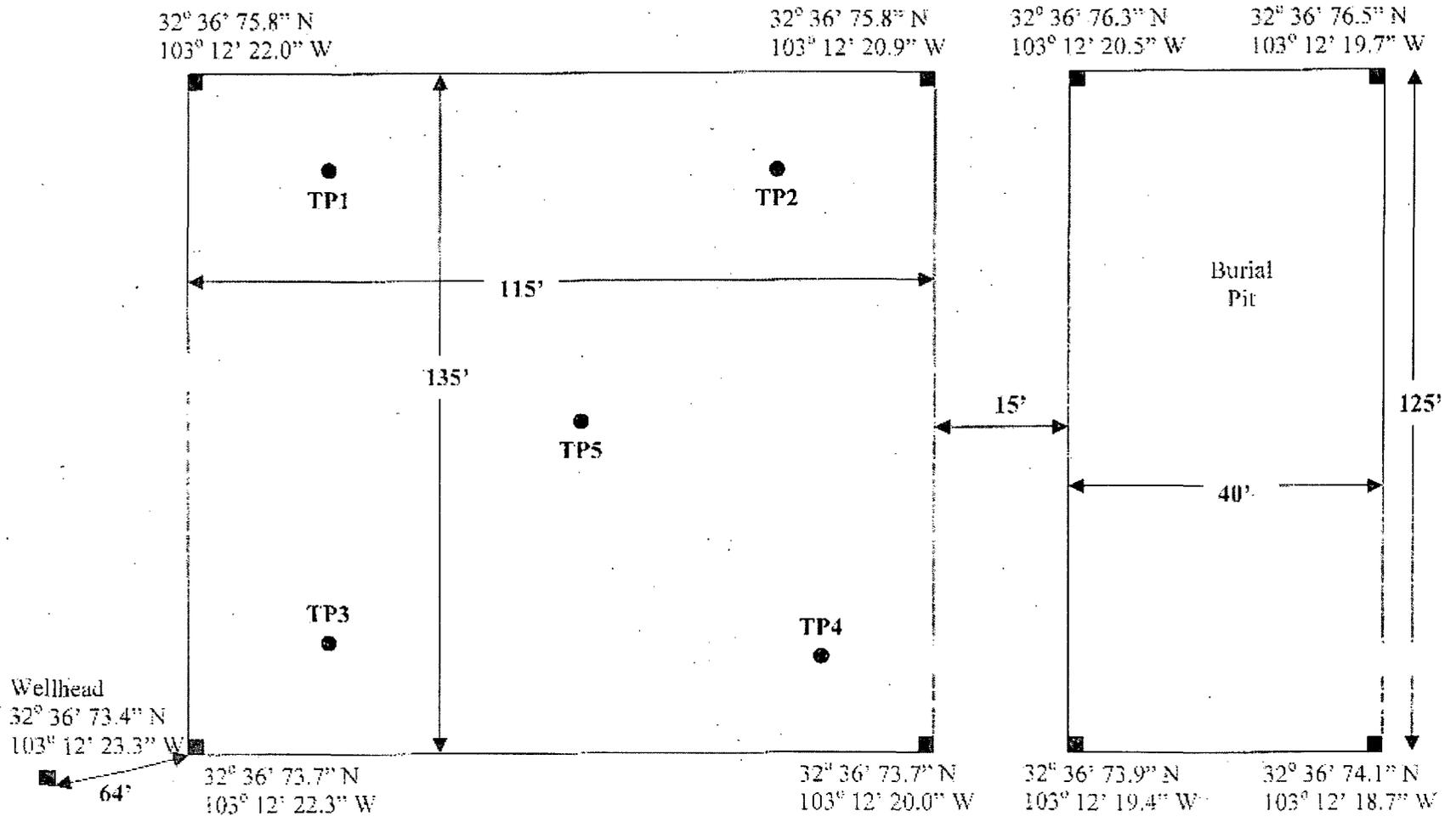
C-141 Release Notification

**Pride Energy**

State of New Mexico 36 #2

UL 'O' Sec. 36 T19S R37E

Lea County, NM



# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Pride Energy

Analyst Jason Jessup

Site State of New Mexico 36 #2

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	2-18-08	8'		11,422		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	10'		2,109		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	12'		10,856		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	14'		22,566		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	16'		1,865		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	18'		14,717		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-18-08	20'		10,613		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-19-08	22'		9,962		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-19-08	24'		10,583		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-28-08	25'		6,248		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-28-08	30'		2,367		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-28-08	35'		3,630		32° 36' 75.2" N 103° 12' 21.9" W
TP1	2-28-08	40'		5,529	23.1	32° 36' 75.2" N 103° 12' 21.9" W
TP2	2-18-08	8'		4,833		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-18-08	10'		2,375		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-18-08	12'		944		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-18-08	14'		823		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-18-08	16'		1,854		32° 36' 75.4" N 103° 12' 20.5" W

# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Pride Energy

Analyst Jason Jessup

Site State of New Mexico 36 #2

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP2	2-18-08	18'		875		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-18-08	20'		1,354		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-19-08	22'		772		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-19-08	23'		580		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-19-08	24'		622		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-28-08	25'		280		32° 36' 75.4" N 103° 12' 20.5" W
TP2	2-28-08	30'		151	5.5	32° 36' 75.4" N 103° 12' 20.5" W
TP3	2-18-08	8'		6,959		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	10'		7,914		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	12'		5,292		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	14'		1,322		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	16'		1,154		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	18'		868		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-18-08	20'		1,422		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-19-08	22'		1,644		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-19-08	23'		666		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-19-08	24'		350		32° 36' 73.7" N 103° 12' 21.7" W
TP3	2-28-08	25'		90	9.3	32° 36' 73.7" N 103° 12' 21.7" W

# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Pride Energy

Analyst Jason Jessup

Site State of New Mexico 36 #2

Sample ID	Date	Depth	TPH / PPM	CI / PPM	PID / PPM	GPS
TP4	2-18-08	8'		14,168		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	10'		21,472		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	12'		21,690		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	14'		13,942		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	16'		13,301		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	18'		1,986		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-18-08	20'		7,344		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-19-08	22'		2,696		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-19-08	23'		1,499		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-19-08	24'		5,217		32° 36' 73.9" N 103° 12' 20.5" W
TP4	2-28-08	25'		221	7.7	32° 36' 73.9" N 103° 12' 20.5" W
TP5	2-18-08	8'		1,159		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	10'		1,197		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	12'		609		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	14'		730		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	16'		603		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	18'		890		32° 36' 74.5" N 103° 12' 21.2" W
TP5	2-18-08	20'		657		32° 36' 74.5" N 103° 12' 21.2" W





# Certificate of Anal: Summary 298237

Elke Environmental, Inc., Odessa, TX

Project Name: Pride Energy

Project Id:

Contact: Logan Anderson

Project Location: State of New Mexico 36 # 2

Date Received in Lab: Sat Feb-23-08 09:28 am

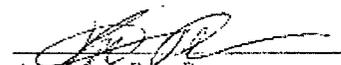
Report Date: 27-FEB-08

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	298237-001	298237-002	298237-003	298237-004	298237-005
	<i>Field Id:</i>	TP1 @ 40'	TP2 @ 30'	TP3 @ 25'	TP4 @ 25'	TP5 @ 25'
	<i>Depth:</i>	40 ft	30 ft	25 ft	25 ft	35 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-22-08 10:10	Feb-22-08 09:35	Feb-22-08 08:45	Feb-22-08 09:00	Feb-22-08 10:50
<b>Determination of Inorganic Anions per Ion Chromatography by</b>	<i>Extracted:</i>					
	<i>Analyzed:</i>	Feb-26-08 08:28	Feb-26-08 10:24	Feb-26-08 16:24	Feb-26-08 16:24	Feb-26-08 15:24
	<i>Units/RL:</i>	mg/kg RL				
Chloride		3540 51.9	62.0 5.11	95.1 8.24	139 5.45	35.5 5.09
<b>Percent Moisture</b>	<i>Extracted:</i>					
	<i>Analyzed:</i>	Feb-25-08 16:57				
	<i>Units/RL:</i>	% RL				
Percent Moisture		3.65	2.12	4.61	3.26	1.73
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Feb-25-08 15:44				
	<i>Analyzed:</i>	Feb-25-08 22:28	Feb-25-08 22:21	Feb-25-08 22:48	Feb-25-08 23:14	Feb-25-08 23:40
	<i>Units/RL:</i>	mg/kg RL				
C6-C14 Gasoline Range Hydrocarbons		ND 15.0				
C12-C28 Diesel Range Hydrocarbons		50.1 15.0	ND 15.0	ND 15.0	ND 15.0	ND 15.0
C28-C35 Oil Range Hydrocarbons		64.5 15.0	ND 15.0	ND 15.0	ND 15.0	ND 15.0
Total TPH		114.7	ND	ND	ND	ND

This analytical report and the related data package representation 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 for the use or site of the data, accuracy, precision, or timeliness of the information presented in this report unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director

# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Monitor Well Report Form

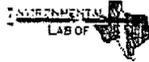
Client Pride Energy Date 2-25-08

Site State of New Mexico 36 #2

Monitor Well ID	Depth of Water	Total Depth of Well	Feet of Water	Gallons of Water to Purge	Gallons of Water Purged	Time
MW-1	43.8'	52.4'	8.6'	4.2	4.25	10:45am

Notes Sampled for TPH 8015M and Chloride

Signature \_\_\_\_\_



# Certificate of Analysis Summary 298423

Elke Environmental, Inc., Odessa, TX

Project Name: Pride Energy

Project Id:

Contact: Logan Anderson

Project Location: State of New Mexico 36 # 2

Date Received in Lab: Wed Feb-27-08 10:41 am

Report Date: 03-MAR-08

Project Manager: Brent Barron, IE

<b>Analysis Requested</b>	<i>Lab Id:</i>	298423-001			
	<i>Field Id:</i>	MW-1			
	<i>Depth:</i>	43.8-52.4 ft			
	<i>Matrix:</i>	WATER			
	<i>Sampled:</i>	Feb-25-08 10:45			
<b>Anions by EPA 300/300.1</b>	<i>Extracted:</i>				
	<i>Analyzed:</i>	Feb-26-08 10:58			
	<i>Units/RL:</i>	mg/L RL			
Chloride		489 5.00			
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Feb-29-08 14:09			
	<i>Analyzed:</i>	Mar-07-08 00:28			
	<i>Units/RL:</i>	mg/L RL			
C6-C12 Gasoline Range Hydrocarbons		ND 1.50			
C12-C18 Diesel Range Hydrocarbons		1.75 1.50			
C28-C35 Oil Range Hydrocarbons		ND 1.50			
Total TPH		1.75			

The analytical report and the associated data package it represents, has been made for your review and confirmation.  
 The interpretations and results reported throughout this analytical report represent the best judgment of ENNGO Laboratories.  
 ENNGO Laboratories accepts no responsibility and makes no warranty, in the use or misuse of the data hereby presented.  
 Our liability is limited to the amount required for this work item, unless otherwise approved in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

  
 Brent Barron  
 Odessa Laboratory Director

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

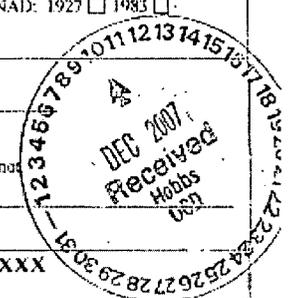
For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes  No

Type of action: Registration of a pit or below-grade tank  Closure of a pit or below-grade tank

Operator: <u>Pride Energy Company</u> Telephone: <u>918-524-9200</u> e-mail address: <u>larrym@pride-energy.com</u>		
Address: <u>P.O. Box 701950 Tulsa, OK 74170-1950</u>		
Facility or well name: <u>State of New Mexico 36 #2</u> API #: <u>30-025-36909</u> U/I. or Qtr/Qtr <u>Q</u> Sec. <u>36</u> T. <u>19S</u> R. <u>37E</u>		
County: <u>Lea</u> Latitude <u>32-16-43.8</u> Longitude <u>103-12-14.4</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b>	<b>Below-grade tank</b>	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/>	Volume: _____ bbl Type of fluid: _____	
Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/>	Construction material: _____	
Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/>	Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not _____	
Pit Volume: _____ bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <b>CW = 48'</b>	Less than 50 feet	(20 points) <b>XXX</b>
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	( 0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	( 0 points) <b>XXX</b>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	( 0 points) <b>XXX</b>
<b>Ranking Score (Total Points)</b>		<b>20 points</b>



If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite  offsite  If offsite, name of facility: \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No  Yes  If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: All excess drilling fluid will be removed. A burial pit will be excavated and lined with a 20 mil liner. The drilling mud will be mixed with Elike Environmental Solidification Product at a 20(mud) to 1(product) ratio to solidify the mud then placed in the burial pit. After all mud is removed the pit bottoms will be sampled Per NMOCD guidelines. The drilling pit will be backfilled with clean native soil and contoured to the surrounding area. A final report will be submitted after completion of the job.

NMOCD Hobbs will be given 48 hrs notice before start of job and 48 hrs notice before testing.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit , or an (attached) alternative OGD-approved plan .

Date: 12-10-07  
Printed Name/Title: Larry Anderson - Agent Signature: [Signature]

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:  
Printed Name/Title: Chris Williams Signature: [Signature] Date: 12/10/07

File Number: \_\_\_\_\_

NEW MEXICO OFFICE OF THE STATE ENGINEER  
WELL RECORD

1. OWNER OF WELL

Name: Pride Energy Work Phone: \_\_\_\_\_  
Contact: \_\_\_\_\_ Home Phone: \_\_\_\_\_  
Address: P.O. Box 701950  
City: Tulsa State: OK Zip: 74170

2. LOCATION OF WELL (A, B, C, or D required, E or F if known)

A. 1/4 1/4 1/4 Section: 36 Township: 19S Range: 37E N.M.P.M.  
in Lea County.

B. X = \_\_\_\_\_ feet, Y = \_\_\_\_\_ feet, N.M. Coordinate System  
Zone in the \_\_\_\_\_ Grad.  
U.S.G.S. Quad Map \_\_\_\_\_

C. Latitude: 32 d 36 m 45.2 Longitude: 103 d 12 m 14.0

D. East \_\_\_\_\_ (m), North \_\_\_\_\_ (m), UTM Zone 13, NAD \_\_\_\_\_ (21 or 83)

E. Tract No. \_\_\_\_\_, Map No. \_\_\_\_\_ of the \_\_\_\_\_ Hydrographic Survey

F. Lot No. \_\_\_\_\_, Block No. \_\_\_\_\_ of Unit/Tract 0 of the  
Subdivision recorded in \_\_\_\_\_ County.

G. Other: \_\_\_\_\_

H. Give State Engineer File Number if existing well: \_\_\_\_\_

I. On land owned by (required): State of New Mexico

3. DRILLING CONTRACTOR

License Number: WD-1456  
Name: White Drilling Company, Inc. Work Phone: 325-893-2950  
Agent: John W. White Home Phone: 325-893-2950  
Mailing Address: P.O. Box 906  
City: Clyde State: TX Zip: 79510

4. DRILLING RECORD: State of New Mexico 36-#2 MW-1

Drilling began: 02/22/08; Completed: 02/22/08; Type tools: Air Rotary  
Size of hole: 6 1/8 in.; Total depth of well: 51.0 ft.;  
Completed well is: shallow (shallow, artesian);  
Depth to water upon completion of well: 41.02 ft.

File Number: \_\_\_\_\_ Form: wr-20 page 1 of 4  
Tap Number: \_\_\_\_\_

File Number: \_\_\_\_\_

NEW MEXICO OFFICE OF THE STATE ENGINEER  
WELL RECORD

5. PRINCIPAL WATER-BEARING STRATA: State of New Mexico 36-#2 MW-1

Depth in Feet		Thickness	Description of water-bearing formation	Estimated Yield (GPM)
From	To	in feet		
28.0	51.0	23.0	Tan sand & red shale.	

6. RECORD OF CASING

Diameter (inches)	Threads per ft.	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
2.0	Sch. 40	4.0	0.0	30.0	31.0			
2.0	.020	4.0	31.0	51.0	20.0		31.0	51.0

7. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole	Sacks	Cubic Feet	Method of Placement
From	To	Diameter	of mud	of Cement	
51.0	29.0	6 1/8	12.0		8/16 sand.
29.0	10.0	6 1/8	2.5		Bentonite Pellets
10.0	0.0	6 1/8	9.0	1.997	Cement

8. PLUGGING RECORD

Plugging Contractor: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Plugging Method: \_\_\_\_\_  
 Date Well Plugged: \_\_\_\_\_  
 Plugging approved by: \_\_\_\_\_  
 State Engineer Representative

No.	Depth in Feet		Cubic feet of Cement
	Top	Bottom	
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____





District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1010 Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Second Report  Final Report

Name of Company	Pride Energy Company	Contact	Matt Pride
Address	P O Box 701950 Tulsa, OK 74170	Telephone No.	918-524-9200
Facility Name	State 36 #2	Facility Type	Drilling Pit
Surface Owner	State	Mineral Owner	State
		API No.	30-025-36909

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	36	19S	37E	990	SOUTH	2310	EAST	LEA

Latitude 32.6121° Longitude 103.2040°

**NATURE OF RELEASE**

Type of Release	Drilling pit fluids	Volume of Release	Unknown	Volume Recovered	None
Source of Release	Drilling pit	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	May 21, 2008 (4:10 PM)
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? By phone to: Glenn von Gonten, NMOC D - Santa Fe Larry Johnson, NMOC D - District I (Hobbs)			
By Whom?	Gilbert Van Deventer (agent for Pride Energy Co.)	Date and Hour	May 22, 2008 (9:30 AM)		
Was a Watercourse Reached?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse Unknown			

If a Watercourse was Impacted, Describe Fully.

In late February 2008 Elke Environmental supervised the installation and sampling of a monitoring well (MW-1) located near the northwest corner of the former drilling pit. Chlorides (557 mg/l) and TDS (1770 mg/l) slightly exceeded the WQCC standards. Since there was a possibility of an upgradient offsite source due to regional impacts in the Monument area, a second monitoring well (MW-2) located at the southeast corner of the drilling pit was installed under the oversight of Trident Environmental on 05/02/08, developed on 05/07/08, and sampled on 05/08/08 to determine if the drilling pit is the source for groundwater impact.

Describe Cause of Problem and Remedial Action Taken.

Review of laboratory analysis of groundwater samples collected from MW-2 (chloride - 1450 mg/l and TDS - 2730 mg/l) confirms downward migration of drilling fluids to water table. A plat map and field and laboratory analytical results are attached.

Describe Area Affected and Cleanup Action Taken.\*

Pride Energy has retained Trident Environmental to develop a site investigation work plan and monitoring program to enable further characterization of the site and a design for an effective abatement option, if necessary. We plan to install one monitoring well ~100 feet southeast of MW-2 to delineate the downgradient extent of the impact (chloride of 250 mg/L or background) and a cross-gradient well about 80 ft east of the east edge of the former drilling pit (for background water quality and water table contouring purposes). We expect that these two additional wells would be the final monitoring wells necessary to fully characterize the site, particularly because of the relatively low level of groundwater impact so far characterized.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC D rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOC D marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC D acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<i>Matthew L. Pride</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name:	By: Pride Production Co., Inc. Title: General Partner	Approved by District Supervisor:	
Title:	By: Matthew L. Pride Title: President	Approval Date:	Expiration Date:
E-mail Address:	mattp@pride-energy.com	Conditions of Approval:	
Date:	May 21, 2008	Phone:	(918) 524-9200
		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary