BW - ____28____

ANNUAL REPORTS

2011 & 2014

Key Energy Services
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January 26, 2012

Mr. Jim Griswold
State of New Mexico
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Annual Class III Well Report for the State S. Brine Station
Permit BW-028

Dear Jim:

Enclosed you will find the 2011 Annual Class III Brine Well Report for the State S. Brine Station.

If you have any questions, please contact Dan Gibson at 432.571.7536.

Sincerely,

Robyn Miller, CLA and SWD Compliance Coordinator

Enclosure
cc: Mr. Bob Fisher

ANNUAL CLASS III WELL REPORT FOR 2011

Key Energy Services, Inc.

State S Brine Station

Permit BW-028

API No. 30-025-33547

January 20, 2011

Submitted by: _____

Daniel K. Gibson, P.G.
Corporate Environmental Director
Key Energy Services, Inc.
6 Desta Drive Suite 4300
Midland, Texas 79705
(432) 571-7536 ph
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Section 1- Summary of Operations:

(Permit Condition 21.L.2. "Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Include copy of C-103 if appropriate.")

During the 2011 year there was no major remedial work on the brine well other than the annual open to formation mechanical integrity test (MIT). Since the well-head and tubing was not unseated or pulled, a C-103 is normally not required. However, Key Energy submitted a C-103, which has been included in the MIT Section IV-***Appendix D.***

General housekeeping was routinely performed and on-site training was conducted for awareness of the permit conditions.

Pro-active "Area of Reviews" is being conducted on an on-going basis to ensure the safety of the well system, including cavern subsidence monitoring. (***Appendix E*** shows drawings and data of recent installed subsidence survey markers).

Yearly cavity size calculations will be analyzed to determine cavern stability.

Appendix A has a recent aerial photo of the site for reference.

Section 2- Production Volumes:

(Permit condition 21.L.3. "Production volumes as required from 21.G. including a running total to be carried over to each year. The maximum and average injection pressure.")

(21.G. Requires "The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in the annual report.")

Key has installed an electronic card system that tracks both sales of fresh and brine water. In addition, Key has installed Halliburton flow meters on the well to monitor both water injected and brine produced. Key is anticipating it may install a continuous pressure chart to monitor well pressure.

Monthly, Yearly and Lifetime Injection and Production Volumes:

The monthly, yearly and lifetime fresh water injection and brine production volumes are attached herein for review. The total 2011 brine production volume was 222,286 bbls and the lifetime production volume is 3,989,782 bbls.

Enclosed in the tables section of the report is the injection and production table 1. and the comparison chart of injected water to produced water with comments.

Maximum and Average Injection Pressure:

The maximum injection pressure is 304 psig, which is approximately 100 pounds below the permit maximum of 405 psig. The 304 pounds cannot be exceeded because of pump limitations. The pump is a submersible centrifugal pump, with a pump curve shut in pressure of 300 psig, plus or minus the water tank head pressure of 4 psig.

For this reason, permit condition 21.D. *Well Pressure Limits: "The operator shall have a working pressure limiting device or controls to prevent overpressure."* is conditionally met.

The average injection pressure is noted by Key's personal and is reported to range from 50 psig to 150 psig. This reading is taken from a pressure gauge mounted on the well inlet.

Section 3- Chemical Analysis:

(Permit condition 21.L.4. "A copy of the chemical analysis as required in 21H. "Analysis of injection Fluid and Brine: Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (method 40 CFR 136.3) using EPA methods.")

Please find attached in ***Appendix B*** the latest chemical analysis and chain-of-custody of the brine and fresh water injection water samples collected October 19, 2011 and analyzed by Cardinal Laboratory in Hobbs, NM. The laboratory used common approved EPA methods to analyze and report for major cations and anions of the water samples.

The injection water was collected from the fresh water load line that is connected directly to the fresh water storage tanks and to the inlet side of the injection pump. This sample point is representative of the fresh water at the station. The fresh water is supplied by the City of Eunice and is of high quality that meets EPA's Safe Drinking Water Standards.

The brine water was collected from the brine water load line that is connected directly to the brine water storage tanks and to the outlet side of the injection well. This sample point is representative of the brine water at the station.

The analysis revealed that the brine water is predominately sodium chloride with minor constituents of calcium, magnesium, and potassium combined with sulfate and bi-carbonate. This analysis is very representative of Salado "Salt" formation waters found in the area.

The specific gravity of the brine water was 1.13, which equates to 9.4 lb/gal. This is lower than the usual 10 lb/gal normally produced. This was attributed to the fact that during the test in September, most of the brine water was sold leaving only fresh water for the MIT "Open to Formation Test." This loaded the hole with a large amount of fresh water and the well had not recovered from this event.

To compensate for this, next years test may be ran using nitrogen.

Special Note: The laboratory misread the Chain-of-Custody and mislabeled the Eunice Brine Well as "GUINI" Brine Well.

Section 4- Mechanical Integrity:

(Permit condition 21.L.5. "A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test.")

The BW-28 discharge permit condition 21.E set forth the criteria for running MIT's for this well. This condition also includes a schedule for which type of test is required to be run during various years of the permit. In 2011, an "open to formation" test was ran and witness by Mr. Jim Griswold-OCD. This test was successful and witnessed by the OCD. The MIT test chart is attached in ***Appendix D*** for review.

Section 5- Deviations from Normal Production Methods:

(Permit condition 21.L.6. "Brief explanation describing deviations from normal production methods.")

In 2008 two OCD permitted brine wells collapsed. As a result of those incidents, the OCD issued a temporary moratorium on new brine well permits. During the moratorium OCD facilitated a work group to determine a proper path forward for current and new brine well operations.

As a result of those proceedings, OCD issued instructions to operators to change OCD's previous requirement of injecting fresh water down the annulus and producing brine up the tubing; to injecting fresh water down the tubing and producing brine up the annulus.

On June 1, 2009 Key followed OCD instructions and change the flow pattern. It should be noted that it took over a month in order to obtain 10# brine.

During the 2011 year Key Energy continued the normal flow production procedure and encountered no problems at this time.

Section 6- Leak and Spill Reports:

(Permit condition 21.L.7. "A copy of any leaks and spill reports.")

In 2011 there was one reportable leaks or spills. A Bronco Services truck operator fell asleep while loading his truck and accidently released approximately

100 bbls of brine water, which ran off the loading pad just north of the pad and was contained on-site by the installed stormwater berms. 40 bbls were recovered and a C-141 was submitted to the OCD Hobbs office, with a copy to the Santa Fe office. Remediation corrective action is underway and when complete, a closure report will be submitted to both the Hobbs and Santa Fe offices for final approval. ***Appendix C*** contains a copy the initial C-141 spill report and photos showing remediation efforts.

The brine station is designed with an impermeable liner under the brine tanks and loading pads. The concrete loading pads are designed to catch de-minimis drips from hose connections and is piped to two 250 bbl fiberglass tanks. This liquid material is routinely re-cycled or disposed of at an OCD approved site.

Rainwater that collects inside of the lined bermed area is routinely pumped out and re-cycled or disposed of at an OCD approved site. Very small quantities of rainwater which cannot be pumped is left to evaporate.

The entire facility is bermed to prevent run-on or run-off.

Any reportable or non-reportable spill is cleaned up pursuant to OCD rules and guidance.

Section 7- Groundwater Monitoring:

(Permit condition 21.L.8. "If applicable, results of any groundwater monitoring.")

The BW-28 facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Section 8- Brine Cavity/Subsidence Information:

(Permit condition 21.L.9. Information required from cavity/subsidence 21.F. "The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment.")

The last cavern survey did not provide adequate information pertaining to the size of the cavern. This has been an issue with several brine wells and until the validity of using sonar test is resolved, an alternate method will be employed.

This alternate method has been discussed with Jim Griswold-OCD and it was mutually decided that an estimated worst-case diameter was to be determined in order to provide maximum protection and ensure the permit conditions are being met.

The Solution Mining Research Institute (SMRI), other state agencies, OCD work-group, along with various studies conducted during the permitting of the WIPP

site, has concluded that failures, such as "catastrophic collapses", have a higher probability when the roof diameter of the cavern exceeds a certain value compared to the actual depth of the cavern. This number is typically called D/H where "D" is the diameter of the cavity and "H" is the depth from surface to the casing shoe. Various reports seem to conclude that when a ratio of D/H reaches or exceeds .66 then the probably of collapse increases to a point that the well may be considered un-safe, thus closing procedures such as proper plugging and abandonment, and possible long term subsidence monitoring should be instituted.

The alternate method mentioned above involves calculating the maximum diameter of the cavern by using a worst-case scenario of an ***"upright cone".*** The volume of the cavern is calculated using the lifetime brine production volumes and using a *"rule of thumb"* conversion factor to determine the volumetric size of the cavern. The rule of thumb conversion factor was taken from the 1982 Wilson Report and equates that every barrel of brine produced will create approximately one cubic foot of cavity.

Please find attached in ***Appendix E***, a wellbore sketch, the calculations for the brine well, and the lifetime brine production tally of approximately 3.98 million barrels of brine produced as of December 2011. The maximum diameter was calculated to be approximately 136 feet with a corresponding D/H ratio of .10 updated for the 2011 year.

Comparing the current D/H ratio of .10 to the .66 value mentioned above, it can be concluded that the current brine well status meets and exceeds the recommended safety value by six times.

In an overabundance of pre-caution, Key has installed surveyed subsidence monitoring points and the first annual results are documented in ***Appendix E.***

Section 9- Area of Review Update Summary:

(Permit condition 21.L.10. "An Area of Review (AOR) Summary.")

An extensive AOR review was conducted for the Key Eunice "Old GoldStar" brine well, OCD permit # BW-28, located in UL E (1340 FNL & 330 FWL) of Section 15-Ts21S-R37E. Key used OCD records and field verification to confirm wells in the AOR.

Using OCD on-line files, a well status list and AOR plot plan was constructed (*see **Appendix F***) listing all wells within adjacent quarter sections of the BW-28 location. The list shows API#, Operator well name, UL, Section, Township and Range, footages, Wells within 660 ft and ¼ mile, casing program status, casing/ cementing status, and corrective action required status.

In the 2011 review, there were no new wells added to the list. ***Appendix F*** contains the check-off list showing the OCD wells in all adjacent quarter sections surrounding the BW-28 brine well.

As in 2010, there are 39 wells located within these adjacent units. Within a ¼ miles radius of the brine well there are 15 wells found. Within 660 feet of the brine well there are 4 wells.

This comprehensive list was formulated to provide a baseline for future AOR studies. Since any future brine well will certainly be limited in size, a critical AOR of 660 feet was established and all wells within that radius was researched in greater detail.

The rational of this approach is the fact that brine wells are non-static in terms of size and configuration and the fact that Key has no direct control on wells drilled in close proximity. By just initially focusing on the current wells in the ¼ mile AOR and assuming the status of these wells will remain the same, could be a mistake. Therefore, Key is taking a more dynamic approach and will study wells as the brine well grows, especially wells in the critical zone. We used the current estimated diameter of the brine well i.e. 136 ft (r = 68 ft) up-dated for 2011, and added a 10:1 safety factor which equates to about 660 ft. As the brine well grows, the critical AOR will be expanded and new wells will be added.

All four wells located in the critical zone were reinvestigated by checking the OCD on-line well records. There was no well activity for any of these wells reported since the last 2010 review. ***Appendix F*** contains the last recorded file record for the four wells located in the critical AOR. They are identified as API# 30-025-914, 09913, 06586, and 39277.

This 2011 report includes the investigation of two more wells that are nearest the 660ft critical AOR and within the ¼ mile AOR that have not been investigated. These wells are identified as API # 30-025-06612 and 06614. Every year as the well bore grows additional wells may be added.

The Findings are as follows:

API # 30-025-06612: Chevron State #5, according to OCD records, is located 660 FNL & 990 FWL of UL D Section 15-Ts21s-R37e. It is shown to be located approximately 900 ft to the NE of the BW-28 well. This well was drilled in 1951 with surface casing set at 294 ft and cemented with 300 sacks circulated to surface. Intermediate casing was set at 2974 feet and cemented with 2000 sacks circulated to surface. A long string was ran and set at 8147 feet and cemented with 500 sacks with an estimated top at 2570 feet. There appears to be approximately 400 feet of cement above the bottom of the intermediate string.

It was recompleted as a gas well in the Grayburg at 3841-51 feet.

Conclusions: The OCD reports indicate that the salt section was properly plugged off inside and outside of all casing strings. The salt section (Salado formation) appears to start at about 1360 ft bgl and ends above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

API # 30-025-06614: Apache NEDU 601, according to OCD records, is located 600 FNL & 990 FWL of Section 15-Ts21s-R37e. It is shown to be located approximately 950 ft to the NE of the BW-28 well. This well was drilled in 1952 with surface casing set at 293 feet bgl and cemented with 300 sacks. Intermediate casing was set at 2990 feet and cemented with 2000 sacks. A long string was ran and set at 8142 feet and cemented with 350 sacks. The well was plugged and abandoned in October of 2011.

Conclusions: The OCD reports indicate that the casing strings were properly sealed above and below the salt section. The salt section appears to start at about 1360 ft bgl and ends slightly above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

The well records, for the two afore mentioned wells, is included in ***Appendix F.***

Section 10- Certification (Permit Condition 22.L.11)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Dennis Douglas
Senior Vice President – Fluids Management Services

TABLES

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
1996	October	10,588			10,588				Goldstar SWD
	November	17,770			17,743				
	December	32,223	60,581	60,581	33,004	61,335	61,335		
1997	January	20,194			20,445			estimate (1)	
	February	20,194			20,445			estimate (1)	
	March	20,194	60,582		20,445	61,335		estimate (1)	
	April	48,226			47,714				
	May	38,000			36,571				
	June	47,970	134,196		42,264	126,549			
	July	24,711			24,271				
	August	31,817			31,559				
	September	38,120	94,648		38,697	94,527			
	October	27,462			25,512				
	November	26,618			26,261				
	December	16,137	70,217	359,643	15,850	67,623	350,034		
1998	January	13,301			13,614				
	February	47,212			49,552				
	March	42,337	102,850		44,964	108,130			
	April	27,072			27,519				
	May	18,084			18,161				
	June	26,699	71,855		26,976	72,656			
	July	16,535			15,929				
	August	8,287			7,488				
	September	9,994	34,816		9,021	32,438			
	October	13,312			17,302				
	November	9,822			9,873				
	December	8,287	31,421	240,942	9,497	36,672	249,896		
1999	January	4,026			4,607				
	February	6,867			8,138				
	March	5,641	16,534		6,030	18,775			
	April	7,873			7,338				
	May	34,100			32,461				
	June	20,708	62,681		20,171	59,970			
	July	35,278			34,566				
	August	35,876			35,995				
	September	43,196	114,350		42,724	113,285			
	October	9,700			10,097				
	November	8,383			9,080				
	December	28,662	46,745	240,310	29,721	48,898	240,928		
2000	January	65,492			65,028				
	February	37,709			36,909				
	March	40,409	143,610		40,414	142,351			
	April	20,181			20,404				
	May	52,092			50,373				
	June	41,371	113,644		37,776	108,553			
	July	33,860			31,757				
	August	37,535			35,492				
	September	58,042	129,437		53,288	120,537			
	October	28,777			27,216				
	November	22,677			24,130				
	December	17,670	69,124	455,815	17,369	68,715	440,156		
2001	January	32,427			37,083				
	February	17,493			23,076				
	March	34,050	83,970		33,216	93,375			
	April	32,900			36,064				Change to Yale E. Key
	May	66,724			52,555				
	June	37,607	137,231		42,347	130,966			
	July	16,399			15,588				
	August	10,173			33,664				
	September	16,185	42,757		16,200	65,452			
	October	25,184			24,147				
	November	10,447			8,666				
	December	21,061	56,692	320,650	18,733	51,546	341,339		
2002	January	11,809			10,135				
	February	22,700			23,733				
	March	4,693	39,202		4,369	38,237			
	April	15,160			16,776				
	May	16,321			17,283				
	June	13,938	45,419		15,276	49,335			
	July	8,301			10,688				
	August	7,079			6,842				
	September	18,560	33,940		17,240	34,770			
	October	7,040			7,823				
	November	9,788			10,950				
	December	11,666	28,494	147,055	19,667	38,440	160,782		
2003	January	20,278			23,526				
	February	8,603			5,310				
	March	37,680	66,561		35,548	64,384			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	April	31,782			31,619				
	May	17,767			13,305				
	June	10,733	60,282		9,260	54,184			
	July	27,104			13,927				
	August	9,555			7,197				
	September	7,945	44,604		5,056	26,180			
	October	12,014			10,394				
	November	26,100			12,438				
	December	38,748	76,862	248,309	18,218	41,050	185,798		
2004	January	7,980			8,539				
	February	8,130			8,797				
	March	8,220	24,330		8,894	26,230			
	April	29,898			31,931				
	May	14,233			15,428				
	June	28,716	72,847		30,410	77,769			
	July	1,840			2,060				
	August	29,898			30,201				
	September	20,277	52,015		20,266	52,527			
	October	24,436			23,784				
	November	21,925			22,430				
	December	32,225	78,586	227,778	33,630	79,844	236,370		
2005	January	17,873			19,160				
	February	23,929			24,958				
	March	37,896	79,698		40,435	84,553			
	April	29,882			31,794				
	May	39,575			42,385				
	June	22,766	92,223		23,995	98,174			
	July	7,593			7,640				
	August	31,573			29,316				
	September	47,305	86,471		48,230	85,186			
	October	38,571			51,232				
	November	31,533			27,670				
	December	36,430	106,534	364,926	36,412	115,314	383,227		
2006	January	18,480			19,977				
	February	33,250			35,511				
	March	39,492	91,222		38,630	94,118			
	April	40,194			43,605				
	May	51,009			54,630				
	June	22,374	113,577		24,832	123,067			
	July	38,208			37,613				
	August	35,627			36,201				
	September	48,784	122,619		47,312	121,126			
	October	50,375			51,232				
	November	26,084			27,670				
	December	8,224	84,683	412,101	10,202	89,104	427,415		
2007	January	31,540			33,320				
	February	24,313			25,260				Change to Key Energy Services
	March	40,514	96,367		38,412	96,992			
	April	34,095			35,120				
	May	19,308			23,130				
	June	9,170	62,573		11,009	69,259			
	July	30,857			28,468				
	August	12,394			18,884				
	September	25,970	69,221		23,360	70,712			
	October	7,882			7,643				
	November	2,476			2,630				
	December	3,933	14,291	242,452	4,528	14,801	251,764		
2008	January	1,706			1,982				
	February	5,845			6,203				
	March	21,386	28,937		21,673	29,858			
	April	25,787			22,704				
	May	17,100			19,842				
	June	16,598	59,485		17,479	60,025			
	July	32,458			36,448				
	August	37,458			38,377				
	September	39,945	109,861		37,203	112,028			
	October	25,572			26,551				
	November	27,325			25,792				
	December	26,825	79,722	278,005	28,694	81,037	282,948		
2009	January	20,990			21,310				
	February	650			1,306				
	March	3,249	24,889		3,420	26,036			
	April	5,428			5,360				
	May	1,343			1,762				
	June	630	7,401		1,232	8,354			
	July	1,546			1,673				
	August	881			1,031				
	September	2,672	5,099		2,930	5,634			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	October	9,898			8,861				
	November	3,716			3,618				
	December	1,474	15,088	52,477	2,035	14,514	54,538		
2010	January	0			0				
	February	1,650			1,810				
	March	4,092	5,742		4,789	6,599			
	April	5,092			6,150				
	May	12,256			14,953				
	June	2,099	19,447		2,033	23,136			
	July	5,068			6,322				
	August	10,270			15,126				
	September	11,281	26,619		10,334	31,782			
	October	7,575			8,802				
	November	20,304			24,494				
	December	36,765	64,644	116,452	44,153	77,449	138,966		
2011	January	44,126			52,975				
	February	24,388			29,666				
	March	19,421	87,935		23,284	105,925			
	April	18,356			22,365				
	May	9,828			11,754				
	June	15,661	43,845		18,902	53,021			
	July	17,503			20,961				
	August	14,401			17,273				
	September	5,430	37,334		16,000	54,234			
	October	11,359			8,284				
	November	18,585			19,662				
	December	23,228	53,172	222,286	27,806	55,752	268,932		
TOTAL VOLUMES				3,989,782			4,074,428		

1 - Estimated quarterly production and injection volumes calculated by averaging the previous quarter of data.
bbls - barrels

INJECTION AND PRODUCTION COMPARISON CHART

KEY ENERGY EUNICE BRINE WELL BW-28 STATE #1 API# 30-025-33547

WATER IN-WATER OUT BBLS

YEAR 2011

MONTH	WATER IN	WATER OUT	PSI	RATIO OF WATER IN-OUT	
Jan-11	52,975	44,126	100	16.70%	***
Feb-11	29,666	24,388	100	17.79%	***
Mar-11	23,284	19,421	100	16.59%	***
Apr-11	22,365	18,356	100	17.93%	***
May-11	11,754	9,828	100	16.39%	***
Jun-11	18,902	15,661	100	17.15%	***
Jul-11	20,961	17,503	100	16.50%	***
Aug-11	17,273	14,401	100	16.63%	***
Sep-11	16,000	5,430	100	66.06%	***
Oct-11	8,284	11,359	100	-37.12%	***
Nov-11	19,662	18,585	100	5.48%	***
Dec-11	27,806	23,228	100	16.46%	***
TOTAL	268,932	222,286			

		YEARLY RATIO %	MONTHLY AVERAGE %
BRINE PRODUCTION BBLS	222,286	17.34%	15.44%
FRESH WATER INJECTION BBLS	268,932		

NOTES:

*** Positive % numbers means more Fresh Water injected than brine water produced.

*** Negative % numbers means more Brine Water produced than fresh water injected.

Normal ratios can range from +5% to +15 %; Short term negative ratios are acceptable. Long term negative numbers should be checked out and are not considered normal.

APPENDICES

APPENDIX A

PHOTOGRAPHS


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APPENDIX B

Fresh and Brine Water
LABORATORY REPORT

CHAIN OF CUSTODY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 17, 2011

LESTER WAYNE PRICE, JR

PRICE LLC

312 ENCANTADO RIDGE COURT, NE

RIO RANCHO, NM 87124

RE: ~~GUINI~~ BRINE WELL — EUNICE BRINE WELL

Enclosed are the results of analyses for samples received by the laboratory on 10/19/11 13:30.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESHWATER	H102262-01	Water	19-Oct-11 10:50	19-Oct-11 13:30
BRINE WATER	H102262-02	Water	19-Oct-11 11:00	19-Oct-11 13:30

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	**0.0070**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0610**	0.000500	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.0254**	0.0001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Manganese	ND	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	**0.0033**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Nickel	**0.0014**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Selenium	**0.005**	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.00280**	0.000100	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**229**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**68.0**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**683**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**7.64**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**0.9934**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**70.3**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**433**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**188**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**12.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	ND	0.0500	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Boron	ND	0.300	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Iron	**0.079**	0.060	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0575**	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.407**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Manganese	**0.421**	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Nickel	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Selenium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.0294**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**181**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**136000**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**397000**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**6.80**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**1.131**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**6160**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**210000**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**148**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

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CARDINAL Laboratories

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**96.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	**1.39**	0.500	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Boron	**10.9**	3.00	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Iron	ND	0.600	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL

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Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
Blank (1111412-BLK1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Chromium	ND	0.001	mg/L							
Silver	ND	0.00010	mg/L							
Molybdenum	ND	0.0005	mg/L							
Lead	ND	0.0005	mg/L							
Barium	ND	0.000500	mg/L							
Cadmium	ND	0.00010	mg/L							
Zinc	0.018	0.001	mg/L							B1
Cobalt	ND	0.00010	mg/L							
Copper	ND	0.0001	mg/L							
Manganese	0.0035	0.0005	mg/L							B1
Uranium	ND	0.000100	mg/L							
Arsenic	ND	0.0005	mg/L							
Selenium	ND	0.001	mg/L							
Nickel	ND	0.0005	mg/L							

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Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS (1111412-BS1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Silver	0.0521		mg/L	0.0500		104	85-115			
Molybdenum	0.0542		mg/L	0.0500		108	85-115			
Zinc	0.059		mg/L	0.0500		118	85-115			BS1
Cobalt	0.0515		mg/L	0.0500		103	85-115			
Arsenic	0.0529		mg/L	0.0500		106	85-115			
Nickel	0.0504		mg/L	0.0500		101	85-115			
Uranium	0.0490		mg/L	0.0500		98.0	85-115			
Lead	0.0503		mg/L	0.0500		101	85-115			
Selenium	0.273		mg/L	0.250		109	85-115			
Copper	0.0502		mg/L	0.0500		100	85-115			
Chromium	0.049		mg/L	0.0500		98.6	85-115			
Manganese	0.0429		mg/L	0.0500		85.8	85-115			
Barium	0.0503		mg/L	0.0500		101	85-115			
Cadmium	0.0507		mg/L	0.0500		101	85-115			

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PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS Dup (1111412-BSD1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Uranium	0.0485		mg/L	0.0500		97.0	85-115	1.03	20	
Silver	0.0483		mg/L	0.0500		96.6	85-115	7.57	20	
Nickel	0.0493		mg/L	0.0500		98.6	85-115	2.21	20	
Lead	0.0498		mg/L	0.0500		99.6	85-115	0.999	20	
Chromium	0.049		mg/L	0.0500		98.2	85-115	0.407	20	
Barium	0.0492		mg/L	0.0500		98.4	85-115	2.21	20	
Selenium	0.256		mg/L	0.250		102	85-115	6.43	20	
Cobalt	0.0503		mg/L	0.0500		101	85-115	2.36	20	
Zinc	0.065		mg/L	0.0500		130	85-115	9.52	20	BS1
Molybdenum	0.0523		mg/L	0.0500		105	85-115	3.57	20	
Manganese	0.0443		mg/L	0.0500		88.6	85-115	3.21	20	
Copper	0.0487		mg/L	0.0500		97.4	85-115	3.03	20	
Cadmium	0.0501		mg/L	0.0500		100	85-115	1.19	20	
Arsenic	0.0505		mg/L	0.0500		101	85-115	4.64	20	

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PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Mercury (Total) by CVAA - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111411 - EPA 245.1										
Blank (1111411-BLK1)				Prepared & Analyzed: 27-Oct-11						
Mercury	ND	0.0002	mg/L							
LCS (1111411-BS1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0022		mg/L	0.00200		110	85-115			
LCS Dup (1111411-BSD1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0021		mg/L	0.00200		105	85-115	4.65	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1101905 - SPLP 1312										
Blank (1101905-BLK1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	ND	4.00	mg/L							
LCS (1101905-BS1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	112	4.00	mg/L	100		112	80-120			
LCS Dup (1101905-BSD1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	108	4.00	mg/L	100		108	80-120	3.64	20	
Batch 1102105 - General Prep - Wet Chem										
Blank (1102105-BLK1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (1102105-BS1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			
LCS Dup (1102105-BSD1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120		20	
Alkalinity, Total	120	4.00	mg/L	100		120	80-120	6.90	20	
Duplicate (1102105-DUP1)	**Source: H102248-02**			Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00				20	
Alkalinity, Bicarbonate	156	5.00	mg/L		161			3.15	20	
Alkalinity, Total	128	4.00	mg/L		132			3.08	20	

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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1102105 - General Prep - Wet Chem										
Matrix Spike (1102105-MS1)		**Source: H102248-02**		Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00		70-130			
Alkalinity, Bicarbonate	283	5.00	mg/L		161		70-130			
Alkalinity, Total	232	4.00	mg/L	100	132	100	70-130			
Batch 1102603 - * DEFAULT PREP *** **										
Blank (1102603-BLK1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	ND	5.00	mg/L							
LCS (1102603-BS1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	235		mg/L	240		97.9	80-120			
Duplicate (1102603-DUP1)		**Source: H102277-01**		Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	3260	5.00	mg/L		3260			0.00	20	
Batch 1102705 - General Prep - Wet Chem										
LCS (1102705-BS1)				Prepared & Analyzed: 20-Oct-11						
Conductivity	509		uS/cm	500		102	80-120			
pH	7.11		pH Units	7.00		102	90-110			
Duplicate (1102705-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 20-Oct-11						
pH	7.75	0.100	pH Units		7.73			0.258	20	
Conductivity	1410	1.00	uS/cm		1410			0.00	20	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1103102 - General Prep - Wet Chem										
Blank (1103102-BLK1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	ND	10.0	mg/L							
LCS (1103102-BS1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	20.9	10.0	mg/L	20.0		104	80-120			
LCS Dup (1103102-BSD1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	18.2	10.0	mg/L	20.0		91.0	80-120	13.8	20	
Duplicate (1103102-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 28-Oct-11						
Sulfate	70.1	10.0	mg/L		67.5			3.78	20	
Batch 1110307 - General Prep - Wet Chem										
Duplicate (1110307-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 28-Oct-11						
Specific Gravity @ 60° F	0.9950	0.000	[blank]		0.9969			0.194	200	
Batch 1111105 - Filtration										
Blank (1111105-BLK1)				Prepared & Analyzed: 25-Oct-11						
TSS	ND	2.00	mg/L							
Duplicate (1111105-DUP1)		**Source: H102248-01**		Prepared & Analyzed: 25-Oct-11						
TSS	6.00	2.00	mg/L		6.00			0.00	20	
Batch 1111413 - General Prep										
Blank (1111413-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	ND	0.005	mg/L							

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111413 - General Prep										
LCS (1111413-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.042		mg/L	0.0500		85.0	85-115			
LCS Dup (1111413-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.047		mg/L	0.0500		94.8	85-115	10.9	20	
Batch 1111414 - General Prep										
Blank (1111414-BLK1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	ND	0.200	mg/L							
LCS (1111414-BS1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120			
LCS Dup (1111414-BSD1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120	0.00	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

TOTAL METALS BY ICP - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111410 - EPA 3005										
Blank (1111410-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Aluminum	ND	0.0500	mg/L							
Iron	ND	0.060	mg/L							
Boron	ND	0.300	mg/L							
LCS (1111410-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.86		mg/L	4.00		96.5	85-115			
Aluminum	3.94		mg/L	4.00		98.5	85-115			
Iron	3.89		mg/L	4.00		97.2	85-115			
LCS Dup (1111410-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.89		mg/L	4.00		97.2	85-115	0.774	20	
Iron	3.92		mg/L	4.00		98.0	85-115	0.768	20	
Aluminum	3.95		mg/L	4.00		98.8	85-115	0.253	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

GAL	Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:		BILL TO	
Project Manager:		P.O. #:	
Address:		Company:	
City:	State: NM Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:		State: NM Zip:	
Project Location: EUNICE NM		Phone #:	
Sampler Name:		Fax #:	

FOR LAB USE ONLY				MATRIX							PRESERV.		SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:		ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	
H102262																
1A	Freshwater															
B																
C																
2A	Brine Water															
B																
C																

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 the client for the 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 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.

Relinquished By:	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☐ Yes ☐ No	☐ Yes ☐ No	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

APPENDIX C

C-141 Spill Report and Photos

HOBBS OCD

JUN 06 2011

RECEIVED

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

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

x☐ Initial Report ☐ Final Report

Name of Company Key Energy Service	Contact Bob Fisher
Address Box 99 Eunice, N.M.	Telephone No. 575-394-2581
Facility Name State S Water Station	Facility Type Brine & Fresh Water Sales

Surface Owner Deck Estate	Mineral Owner State of New Mexico	Lease No. MS 0004 0001

LOCATION OF RELEASE API # 30-025-33547-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	15	21S	37E	1340	north	330	west	Lea

Latitude N32° 29' 02.2 Longitude W103° 09' 28.8"

NATURE OF RELEASE

Type of Release over loaded truck	Volume of Release 100 bbls	Volume Recovered 40 bbls
Source of Release transport truck-Bronco Services	Date and Hour of Occurrence 5-30-2011 @ 6 am	Date and Hour of Discovery 5-30-2011 @ 8 am
Was Immediate Notice Given? x☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Noey Franco. Supervisor on duty	
By Whom? John Sanders	Date and Hour 5-30-2011 @ 8 am	
Was a Watercourse Reached? ☐ Yes x☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

GW@63'

Describe Cause of Problem and Remedial Action Taken.*
Bronco Services truck operater fell asleep while loading his truck.

Describe Area Affected and Cleanup Action Taken.*
Area North of the loading docks. Ramon Ponce with Bronco Services Will take care of the clean up & expense

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD 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, NMOCD 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: Robert J Fisher	OIL CONSERVATION DIVISION
Printed Name: Bob Fisher	Approved by. ~~District Supervisor~~ ENV SPECIALIST: Mark E. Fesmire
Title: District Manager	Approval Date: 06/08/11 Expiration Date: 08/08/11
E-mail Address: rfisher@keyenergy.com	Conditions of Approval: SUBMIT FINAL C-141 BY 08/08/11 Attached ☐ IRP-11-11-2761
Date: 5-31-2011 Phone: 575-394-2581	

* Attach Additional Sheets If Necessary

NOV 17 2011

Key Energy BW-28 Brine Spill Area-looking west

Key Energy BW-28 shows loading pad area where brine water ran off pad.

Spill was contained on-site.

APPENDIX D

MIT TEST CHART

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
SEP 22 2011
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO.
30-025-33547

5. Indicate Type of Lease
STATE X☐ FEE ☐

6. State Oil & Gas Lease No.
MS-0004

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
STATE S

1. Type of Well: Oil Well ☐ Gas Well ☐ Other Brine Well

8. Well Number #1

2. Name of Operator
Key Energy Services

9. OGRID Number

3. Address of Operator
Box 99 Eunice, N.M. 88231

10. Pool name or Wildcat
BSW-SALADO

4. Well Location
Unit Letter E : 1340 feet from the N line and 330 feet from the W line
Section 15 Township 21S Range 37E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:			X☐	OTHER: TEST FORMATION TO 350#	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PRESSURE FORMATION TO 350# WITH FRESH WATER FOR 4 HR TEST TEST DATE 9-29-2011

Spud Date: Rig Release Date:

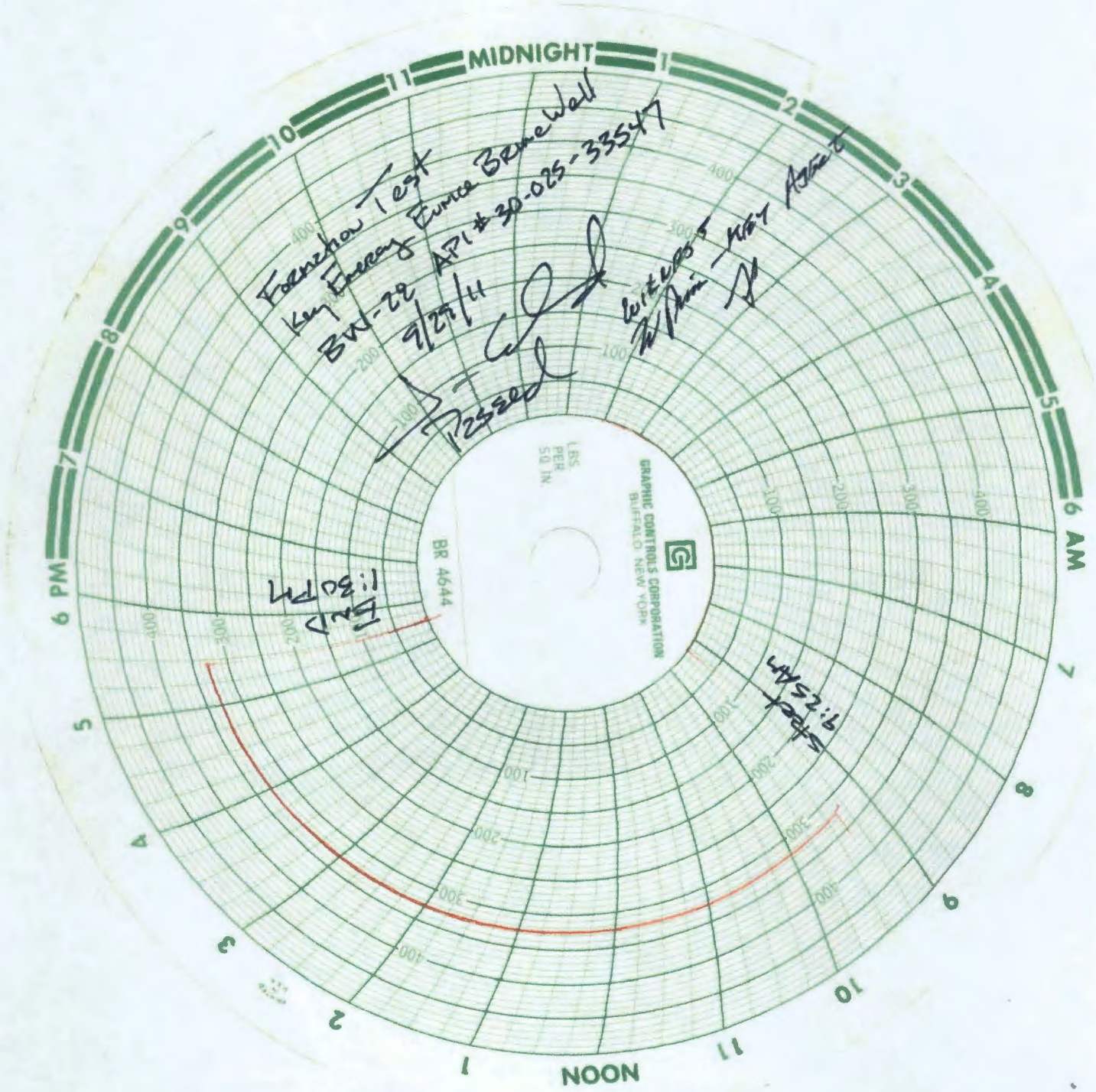
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Robert J. Lubin TITLE District Manager DATE 9/21/011

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE STAFF MGR DATE 9-22-2011
Conditions of Approval (if any):


MIDNIGHT
NOON
6 AM
6 PM
LBS PER SQ IN.
GRAPHIC CONTROLS CORPORATION
BUFFALO NEW YORK
BR 4644
Formation Test
Key Energy Enma Bennewell
BW-22 API # 30-025-33547
9/29/11
Witness
Start 1:30 PM
Start 9:25 AM

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

TO: Key DATE: 07-15-11

This is to certify that:

I, Bud Collins, Technician for American Valve & Meter, Inc., has checked the calibration of the following instrument.

8" Pressure recorder Serial No: 8131

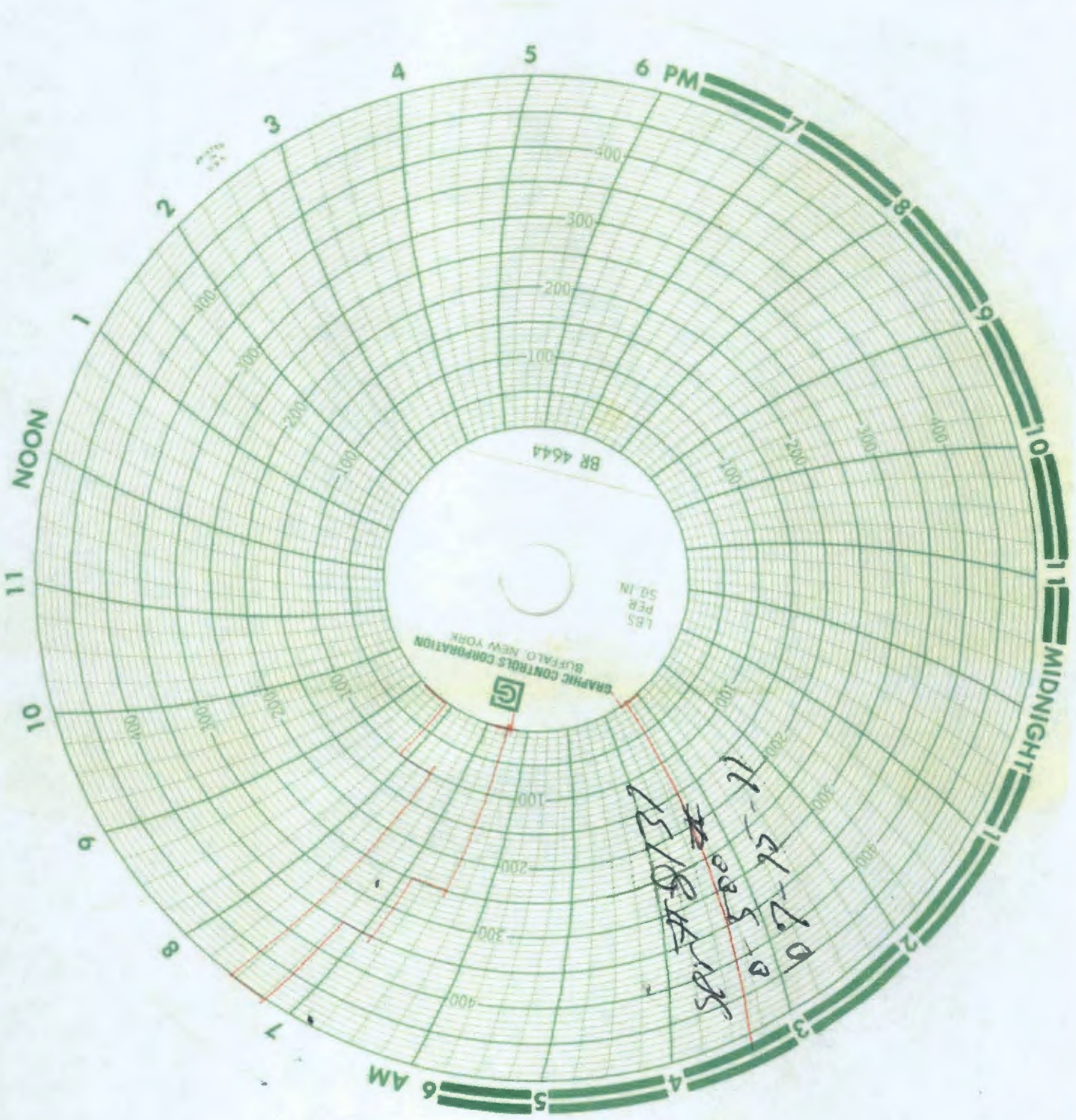
at these points.

Pressure 0-500# Temperature

Test	Found	Left	Test	Found	Left
0		0			
250		250			
350		350			
500		500			
100		100			
0		0			

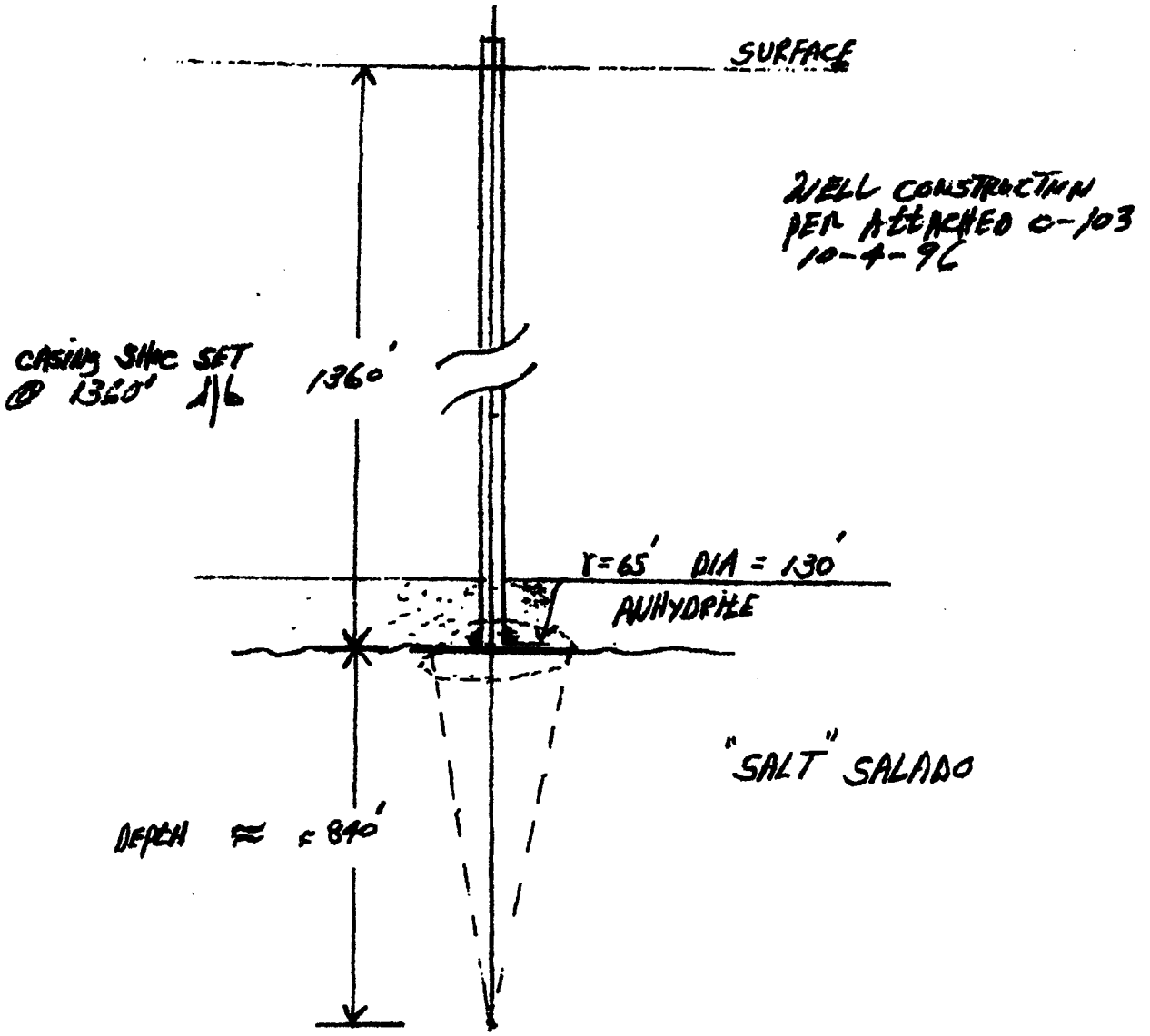
Remarks:

Signature Bud Collins


6 PM
5
4
3
2
1
NOON
11
10
9
8
7
6 AM
5
4
3
2
1
MIDNIGHT
11
10
9
8
7
100
200
300
400
BR 4644
LBS PER 50 IN
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

APPENDIX E

BRINE CAVITY CALCULATIONS



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

Total Brine Produced Thru 2010 = 3,767,496 BBLS ≅ 3.8 M
Thru 2011 3,989,782 BBLS ≅ 4.0 M

2011 NEW CALCULATIONS

$r = \sqrt{\frac{3.8 \times 10^6 \cdot 3}{\pi \cdot 840}}$

$r = 65.78 \simeq 66$ ft

d = diameter = 132 ft

h = 1360 ft

$d/h = .097 \simeq .1$

$r = \sqrt{\frac{4.0 \times 10^6 \cdot 3}{\pi \cdot 840}}$

radius = r = 67.43 ≃ 68 ft

diameter = d = 136 ft

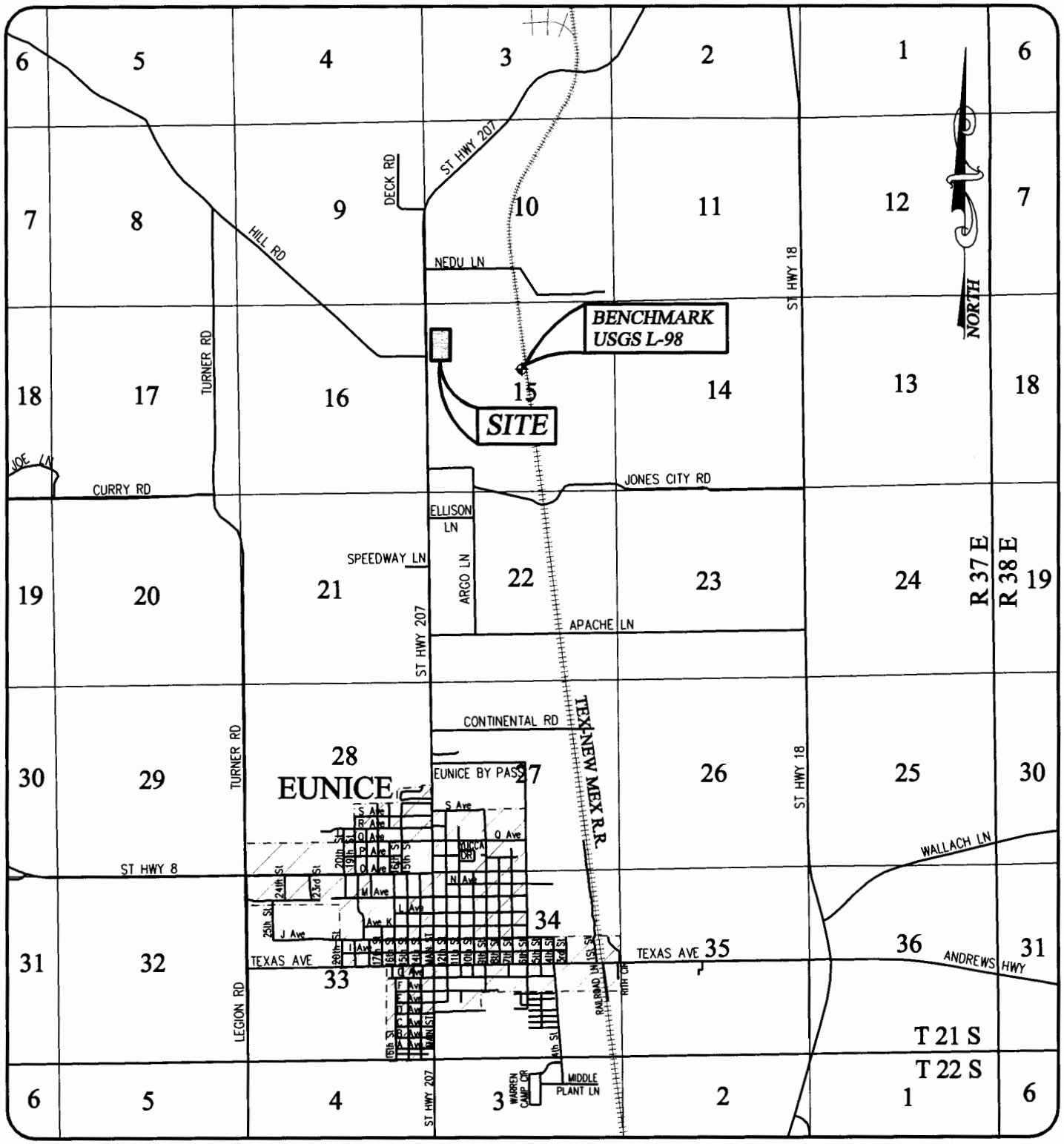
h = 1360 ft

$d/h = .1$

Figure 1

VICINITY MAP

NOT TO SCALE



EUNICE, NEW MEXICO AND SURROUNDING AREA

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

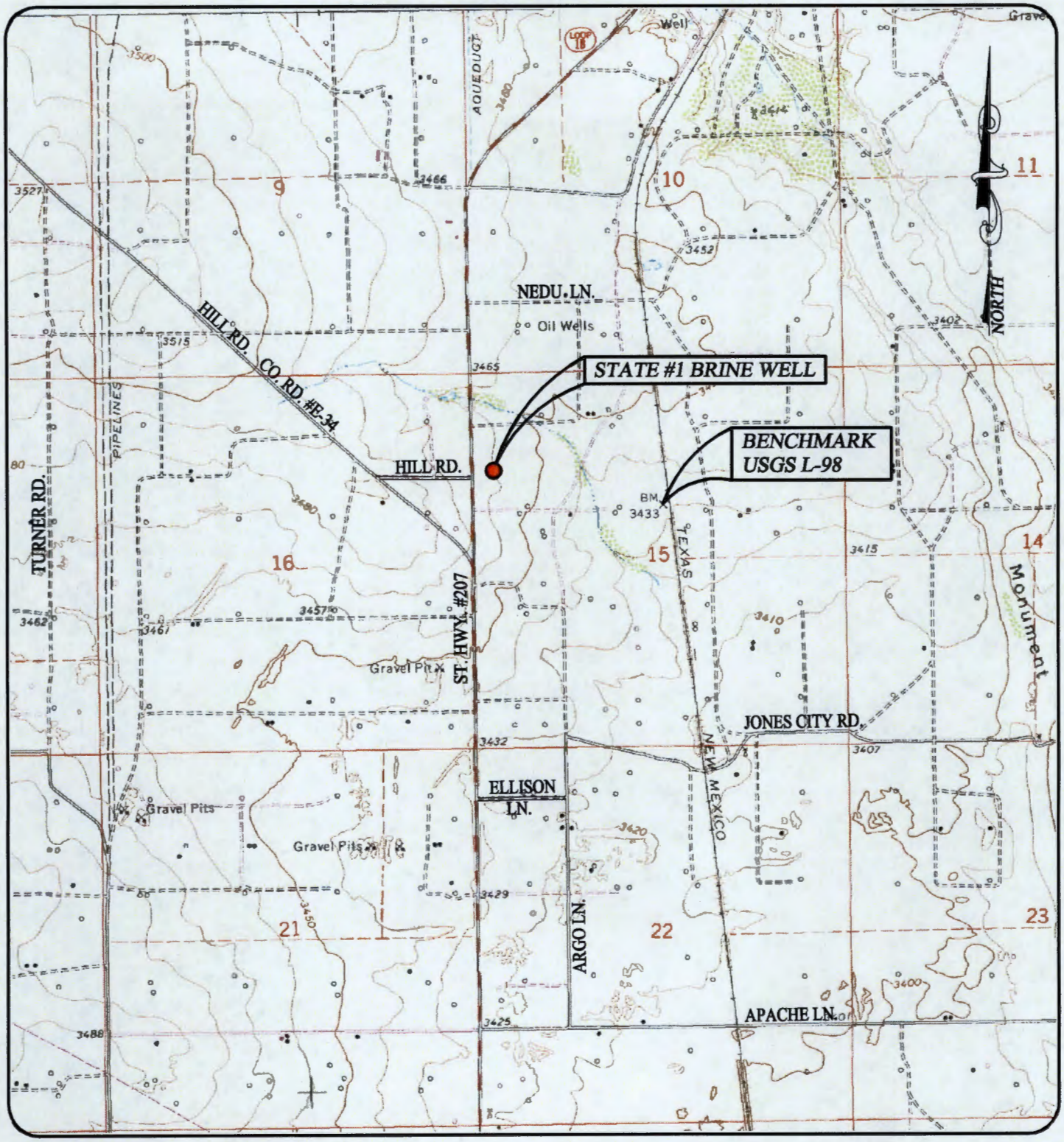
SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

U.S.G.S. MAP

Figure 2

2000 1000 0 2000 4000 FEET

Scale:1"=2000'



U.S.G.S. 7.5' SERIES TOPOGRAPHIC MAPS FOR:
EUNICE, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

LOCATION MAP

Figure 3

1000 500 0 1000 2000 FEET

Scale: 1"=1000'

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

LEGEND

◉ – DENOTES FOUND CORNER AS NOTED

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
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(575) 393-3117

KEY ENERGY SERVICES, LLC

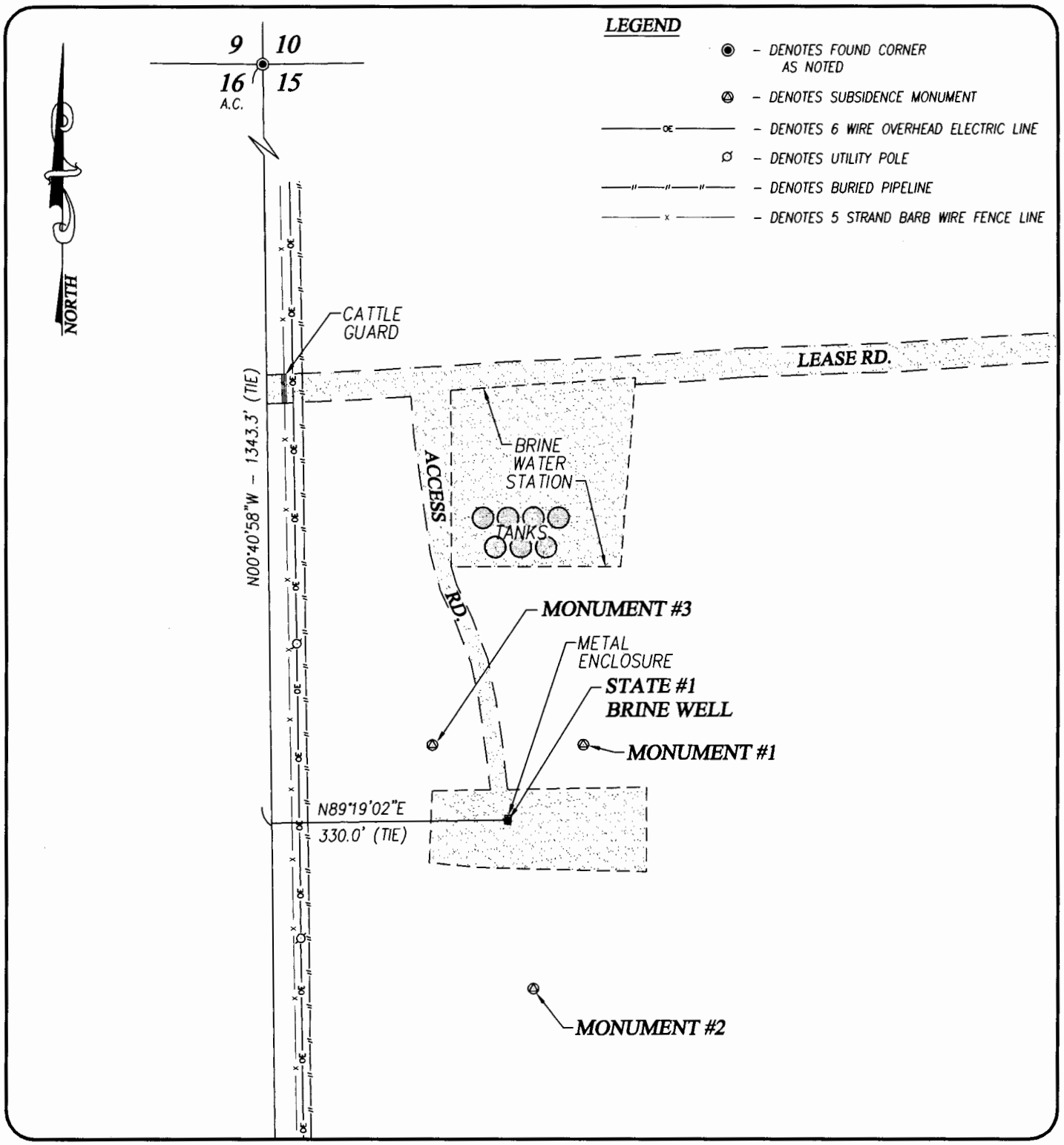
SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

Figure 4

200 100 0 200 400 FEET

Scale:1"=200'



NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

PROVIDING SURVEYING SERVICES SINCE 1946

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KEY ENERGY SERVICES, LLC

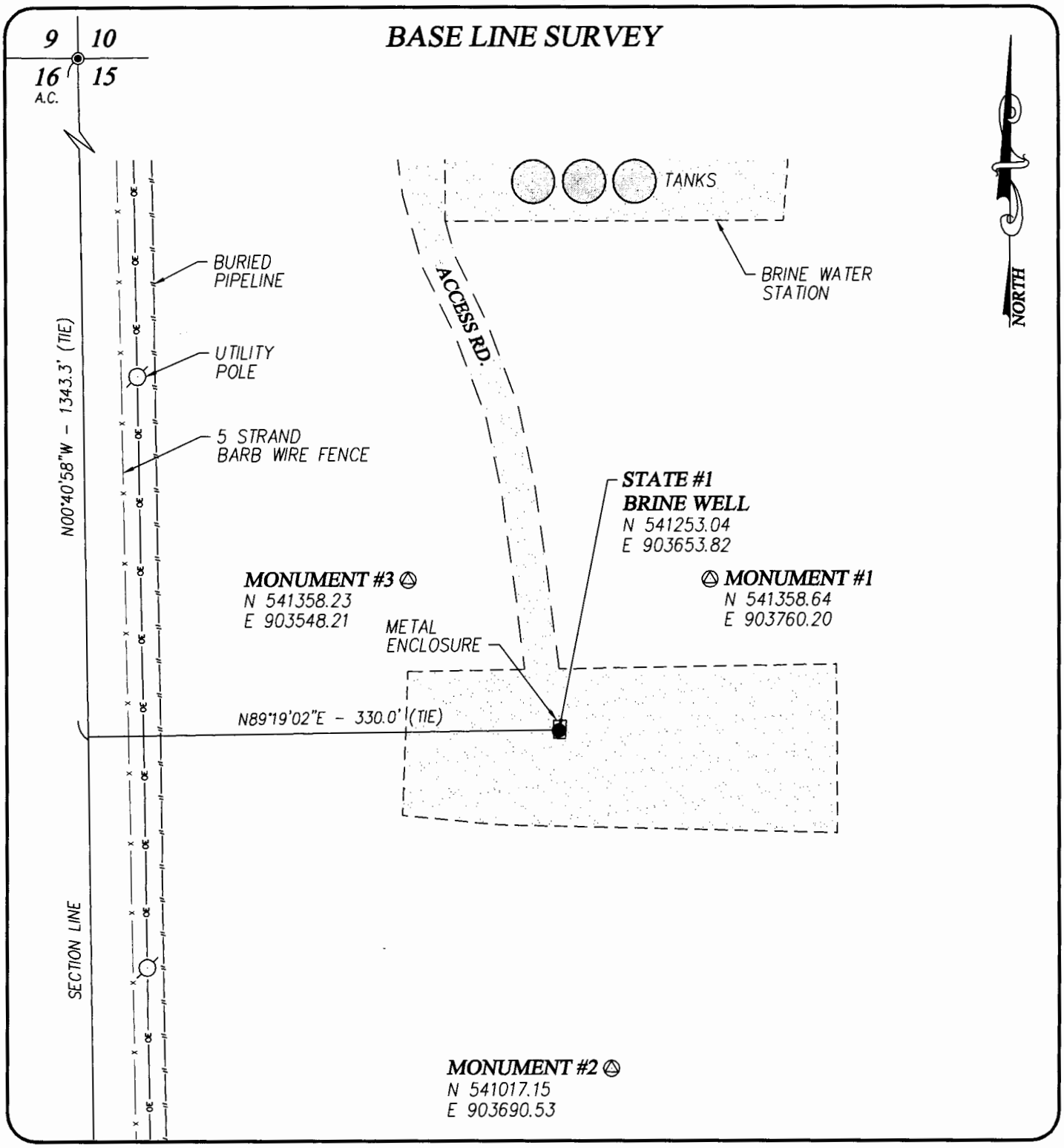
SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

SUBSIDENCE MONUMENT LOCATION MAP

Figure 5

100 50 0 100 200 FEET

Scale: 1"=100'



NOTE

BEARINGS AND COORDINATE VALUES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

(575) 393-3117

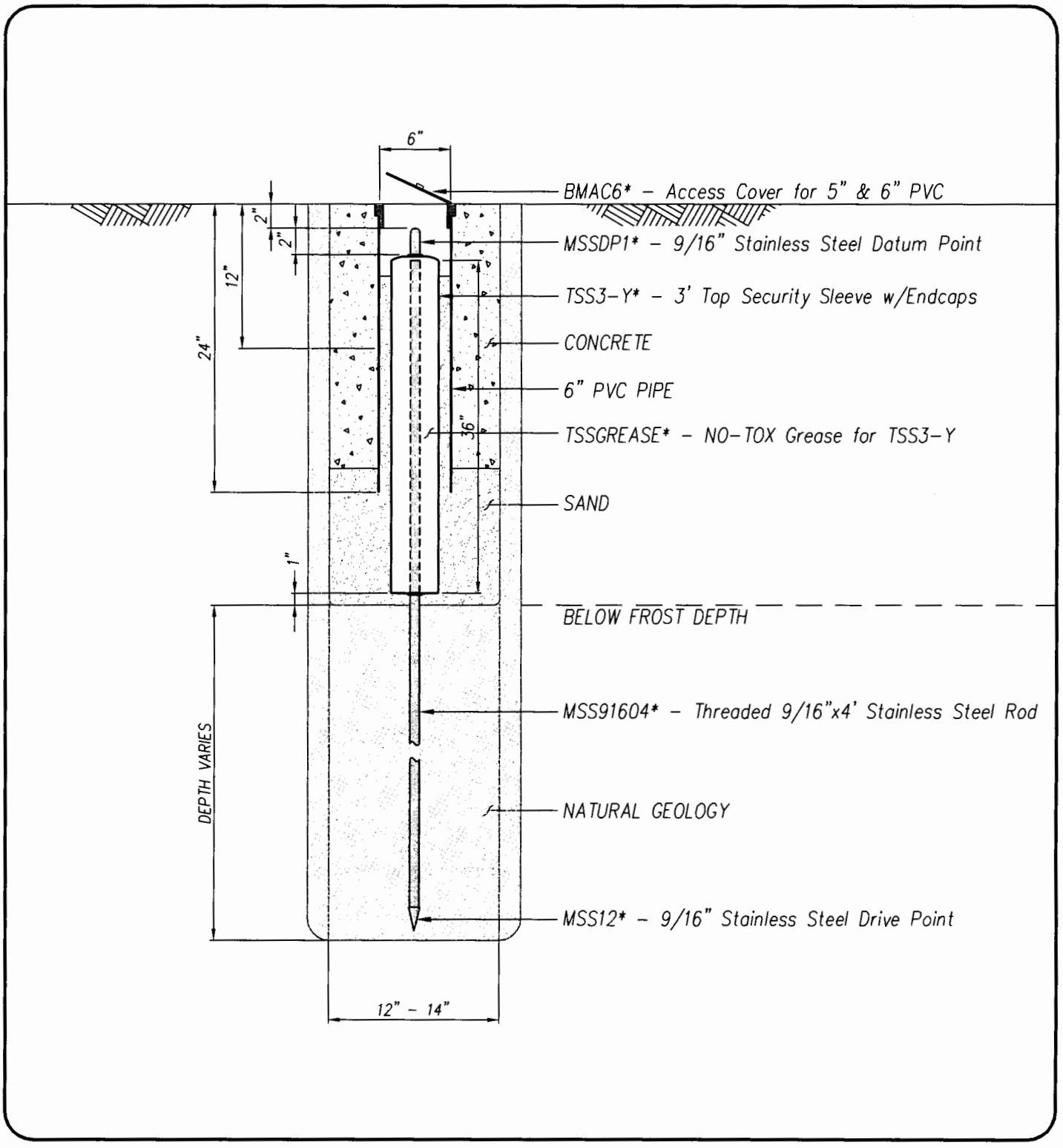
KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Figure 6

BERNTSEN MONUMENT INStALLATION DETAIL

NOT TO SCALE



*REFERENCE:
www.berntsen.com
9/16" STAINLESS STEEL TOP SECURITY SLEEVE MONUMENT

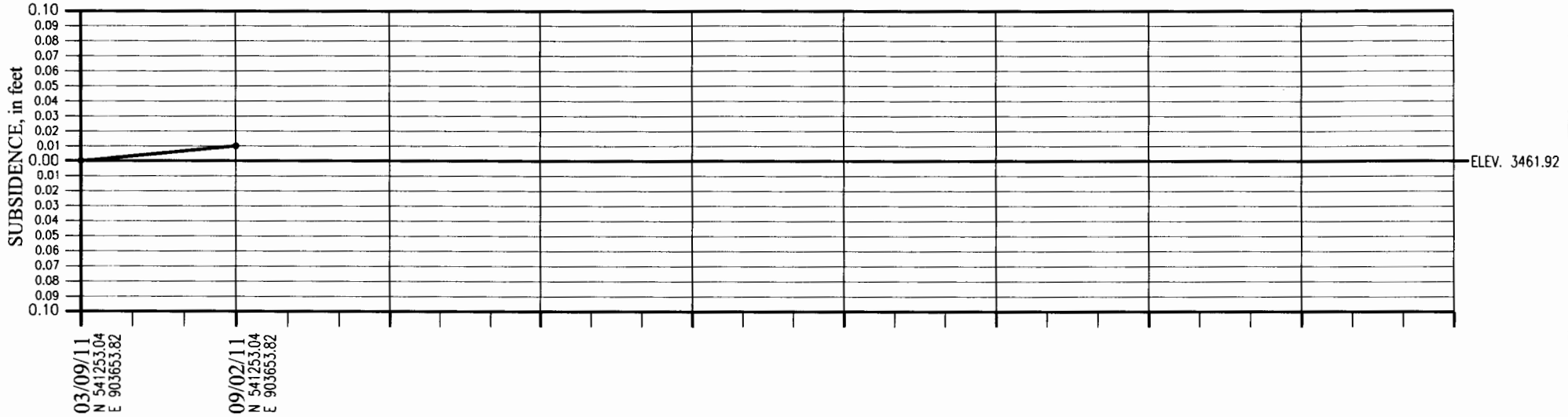
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393–3117

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

VERTICAL SUBSIDENCE TABLE

TOP OF STATE #1 BRINE WELL BASE LINE ELEVATION 3461.92



SUBSIDENCE MONUMENT #1 BASE LINE ELEVATION 3457.93

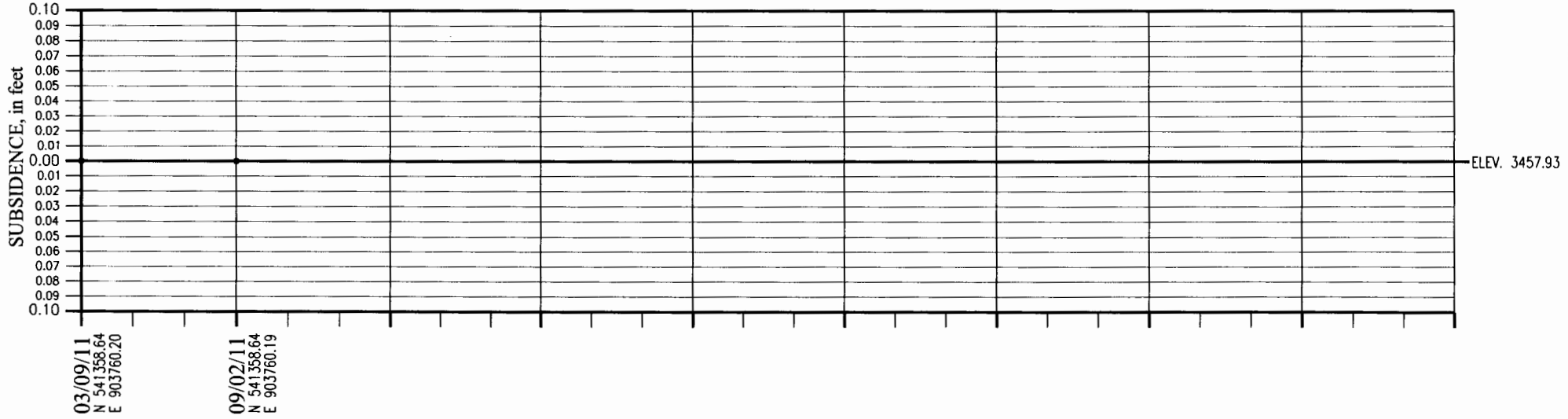


Figure 7A

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

NOTE:

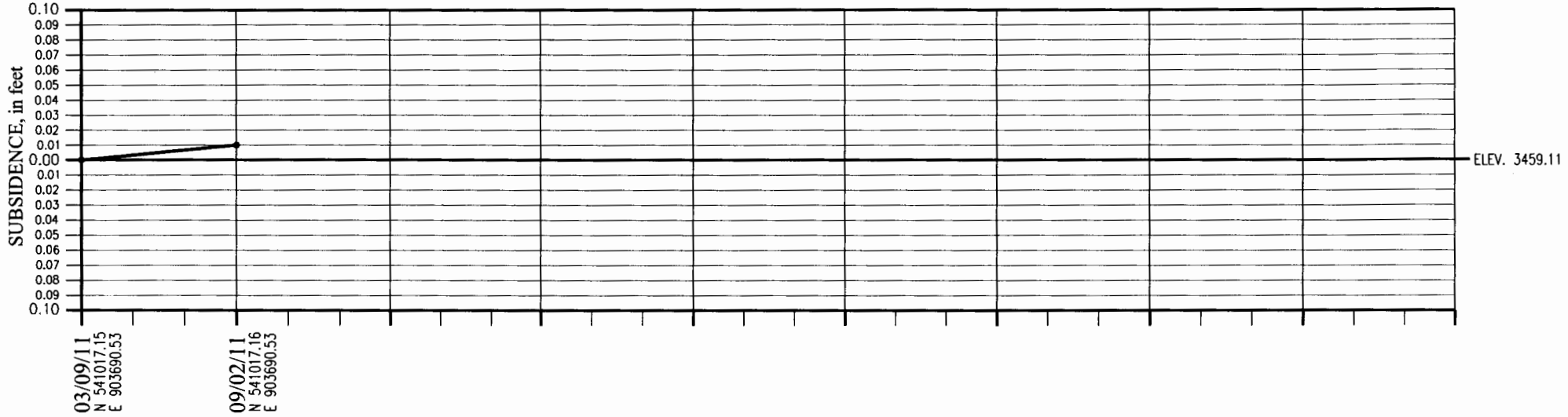
HORIZONTAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.02 FT.
VERTICAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.01 FT.

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

VERTICAL SUBSIDENCE TABLE

SUBSIDENCE MONUMENT #2 BASE LINE ELEVATION 3459.11



SUBSIDENCE MONUMENT #3 BASE LINE ELEVATION 3460.49

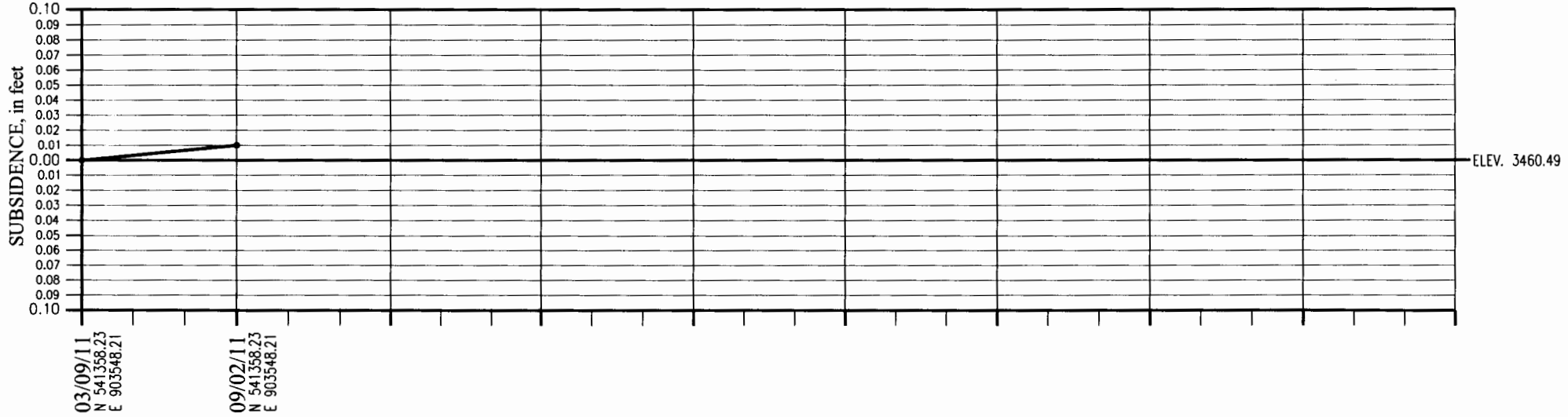


Figure 7B

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

NOTE:

HORIZONTAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.02 FT.
VERTICAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.01 FT.

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE
KEY ENERGY BW-19 CARLSBAD No. 1 WELL IN SECTION 36,
TOWNSHIP 22 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

APPENDIX F

AREA OF REVIEW

- **Well Status List Spreadsheet- 1 page**
- **AOR Plot Plan- 1 page**
- **2011 AOR Check Off List- 9 pages**
- **Critical AOR Wells last OCD file record-4 pages**
- **Two Additional Wells investigated near the Critical AOR-13 pages**

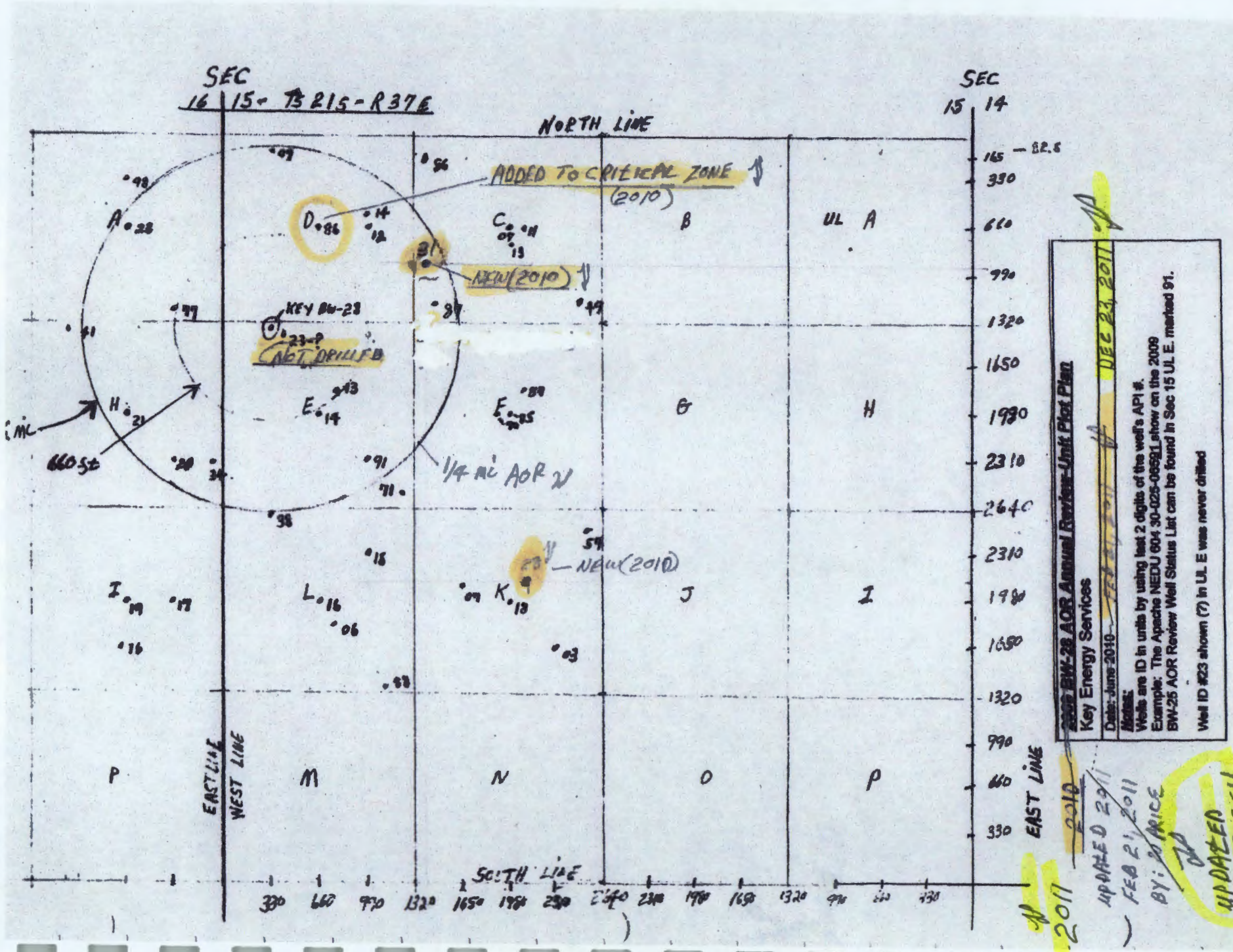
2011 BW-28 AOR Review-- Well Status List

up-dated Dec 23, 2011

	API#	Well Name	UL	Section	Ts	Rg	Footage	Within 1/4 mi AOR * within 660 ft			Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	**30-025-33547**	**Key-State no.001**	**E**	**15**	**21s**	**37e**	**1340 FNL & 330 FWL**	NA			NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-09913	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	yes*	1	1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no			na	na	na
0	30-025-37223**	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	Not Drilled	0	0	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no			na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no			na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no			na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no			na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no			na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	600 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	130 FNL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no			na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no			na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no			na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no			na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no			na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no			na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no			na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no			na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no			na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no			na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no			na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no			na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-25198	Chevron HUNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no			no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	yes*	1	1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06624	Chevron HUNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-36741	Chevron HUNCT 007	H	16	21s	37e	1330 FNL & 1070 FEL	no			na	na	na
1	30-025-37834	Chevron HUNCT 008	H	16	21s	37e	2310 FNL & 030 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no			na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no			na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no			na	na	na
									4	15			

39 Total # of wells in adjacent quarter-sections
15 Total # of wells in 1/4 mile AOR
4 Total # of wells that are or have become within 660 ft of the outside radius of the brine well and casing program will be checked and reported in the next annual report.

Notes:
* Means the well is within 660 ft of the outside radius of the brine well and casing program will be checked annually.
** API # 30-025-37223 not drilled


SEC 16
15 - T 21 S - R 37 E
SEC 15
14
NORTH LINE
EAST LINE
WEST LINE
SOUTH LINE
ADDED TO CRITICAL ZONE (2010)
NEW (2010)
KEY BW-28
23-?
NOT DRILLED
1/4 mi AOR
660 ft
NEW (2010)
2010 BW-28 AOR Annual Review-Unit Plat Plan
Key Energy Services
Date: June 2010
DEC 23, 2011
Notes:
Wells are ID in units by using last 2 digits of the well's API #.
Example: The Apache NEDU 604 30-025-08591 show on the 2009
BW-25 AOR Review Well Status List can be found in Sec 15 UL E. marked 91.
Well ID #23 shown (?) in UL E was never drilled
UPDATED DEC 23, 2011
UPDATED FEB 21, 2011 BY: PATRICE

Well File Search - *Select API Number to View*

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

DEC 2011

7 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506609	C -15-21S-37E	660 FNL & 1980 FWL

Well Name & Number: STATE S No. 002
Operator: CHEVRON U S A INC

3002506611	C -15-21S-37E	660 FNL & 2080 FWL

Well Name & Number: STATE S No. 004
Operator: CHEVRON U S A INC

3002506613	C -15-21S-37E	760 FNL & 1980 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 605
Operator: APACHE CORP

3002534649	C -15-21S-37E	1229 FNL & 2498 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 622
Operator: APACHE CORP

3002534886	C -15-21S-37E	160 FNL & 1350 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 524
Operator: APACHE CORP

3002534887	C -15-21S-37E	1250 FNL & 1368 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 624
Operator: APACHE CORP

3002539831	C -15-21S-37E	990 FNL & 1330 FWL

Well Name & Number: STATE S No. 012
Operator: CHEVRON U S A INC

7 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506603	K -15-21S-37E	1650 FSL & 2310 FWL
	Well Name & Number: ARGO No. 006		
	Operator: APACHE CORP		
○	3002506607	K -15-21S-37E	2080 FSL & 1650 FWL
	Well Name & Number: ARGO No. 011		
	Operator: APACHE CORP		
○	3002509918	K -15-21S-37E	1980 FSL & 1980 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 703		
	Operator: APACHE CORP		
○	3002534657	K -15-21S-37E	2540 FSL & 2482 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 623		
	Operator: APACHE CORP		
○	3002539828	K -15-21S-37E	2190 FSL & 2130 FWL
	Well Name & Number: ARGO No. 014		
	Operator: APACHE CORP		

5 Records Found Displaying Screen 1 of 1

Continue | **Go Back**

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506623	A -16-21S-37E	660 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 057
Operator: APACHE CORP

○	3002525198	A -16-21S-37E	330 FNL & 600 FEL

Well Name & Number: HARRY LEONARD NCT E No. 006
Operator: CHEVRON U S A INC

○	3002539277	A -16-21S-37E	1290 FNL & 330 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 113
Operator: APACHE CORP

3 Records Found Displaying Screen 1 of 1

Continue **Go Back**

Well File Search - *Select API Number to View*

DEC 2011
JP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506606	L -15-21S-37E	1880 FSL & 760 FWL

Well Name & Number: ARGO No. 010
Operator: APACHE CORP

○	3002509915	L -15-21S-37E	2310 FSL & 990 FWL

Well Name & Number: ARGO No. 007
Operator: APACHE CORP

○	3002509916	L -15-21S-37E	1980 FSL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 701
Operator: APACHE CORP

○	3002534888	L -15-21S-37E	1330 FSL & 1142 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 713
Operator: APACHE CORP

○	3002537238	L -15-21S-37E	2630 FSL & 330 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 629
Operator: APACHE CORP

5 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011
LD

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506585	F -15-21S-37E	1980 FNL & 1980 FWL

Well Name & Number: CITIES S STATE No. 002
Operator: APACHE CORP

○	3002506587	F -15-21S-37E	3375 FSL & 3225 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 606
Operator: APACHE CORP

○	3002506590	F -15-21S-37E	1980 FNL & 1880 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 608
Operator: APACHE CORP

3 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011
JP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506586	D -15-21S-37E	660 FNL & 660 FWL ✓

Well Name & Number: STATE S No. 001
Operator: CHEVRON U S A INC

○	3002506612	D -15-21S-37E	660 FNL & 990 FWL ✓

Well Name & Number: STATE S No. 005
Operator: CHEVRON U S A INC

○	3002506614	D -15-21S-37E	600 FNL & 990 FWL ✓

Well Name & Number: NORTHEAST DRINKARD UNIT No. 601
Operator: APACHE CORP

○	3002536809	D -15-21S-37E	130 FNL & 330 FWL ✓

Well Name & Number: NORTHEAST DRINKARD UNIT No. 526
Operator: APACHE CORP

4 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

6 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506591	E -15-21S-37E	2310 FNL & 990 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 604
Operator: APACHE CORP

○	3002509913	E -15-21S-37E	3390 FSL & 4520 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 603
Operator: SHELL WESTERN E & P INC

○	3002509914	E -15-21S-37E	1980 FNL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 602
Operator: APACHE CORP

○	3002533547	E -15-21S-37E	1340 FNL & 330 FWL

Well Name & Number: STATE No. 001
Operator: KEY ENERGY SERVICES, LLC

○	3002535271	E -15-21S-37E	2580 FNL & 1300 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 625
Operator: APACHE CORP

○	3002537223	E -15-21S-37E	1410 FNL & 380 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 628
Operator: APACHE CORP

6 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

Dec 2011
DP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
○ 3002506617	I -16-21S-37E	1980 FSL & 330 FEL

Well Name & Number: STATE DA No. 005
Operator: APACHE CORP

○ 3002506619	I -16-21S-37E	1980 FSL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 078
Operator: APACHE CORP

○ 3002537916	I -16-21S-37E	1650 FSL & 780 FEL

Well Name & Number: STATE DA No. 013
Operator: APACHE CORP

3 Records Found — Displaying Screen 1 of 1

Continue **Go Back**

Well File Search - *Select API Number to View*

DEC 2011

JP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506621	H -16-21S-37E	1980 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 056
Operator: APACHE CORP

○	3002506624	H -16-21S-37E	2310 FNL & 330 FEL

Well Name & Number: HARRY LEONARD NCT E No. 005
Operator: CHEVRON U S A INC

○	3002536741	H -16-21S-37E	1330 FNL & 1070 FEL

Well Name & Number: HARRY LEONARD NCT E No. 007
Operator: CHEVRON U S A INC

○	3002537834	H -16-21S-37E	2310 FNL & 1030 FEL

Well Name & Number: HARRY LEONARD NCT E No. 008
Operator: CHEVRON U S A INC

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-09914	Eunice Blinebry-Tubb-Drinkard-North	22900
7 Property Code	**8 Property Name**	**9**
22503	Northeast Drinkard Unit	602

II. 10 Surface Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	21S	37E		1980	N	660	W	Lea

11 Bottom Hole Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P	1/19/90			

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
-				-	-
40 Choke Size	**41 Oil**	**42 Water**	**43 Gas**	**44 AOF**	**45 Test Method**
-					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY
SUPERVISOR
FIELD REP. II

Title:

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
30-025-09913

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
NORTHEAST DRINKARD UNIT

1. Type of Well:
OIL WELL [X] GAS WELL [ ] OTHER

2. Name of Operator
Shell Western E&P Inc.

8. Well No.
603

3. Address of Operator
P.O. Box 576 Houston, TX 77001-0576 (WCK 5237)

9. Pool name or Wildcat
N. EUNICE BLINEBRY-DRINKARD-TUBB

4. Well Location
Unit Letter I : 3390 Feet From The SOUTH Line and 4620 Feet From The EAST Line

Section 15 Township 21S Range 37E NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3445' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [X]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: [ ]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

11-13 TO 11-22-93:

DMPD 35' CLS C CMT ON TOP OF CBP @ 5696'. SET CICR @ 5551'. SQZD BLINEBRY PERFS 5715' - 5582' W/250 SX CLS C NEAT CMT. STUNG OUT OF CICR. LEFT 185' OF CMT ON TOP OF CICR (TOC @ 5466'). CIRC INHB FL. ISOLATED CSG LK BTW 4934' - 4966'. SET CICR @ 4841'. SQZD CSG LK W/ 200 SX CLS C NEAT. STUNG OUT OF CICR. LEFT 125' CMT ON TOP OF CICR. (TOC @ 4716'.) CIRC INHB FL. PERF 4-WAY SHOT @ 2875'. SET CICR @ 2802'. ESTAB CIRC DWN TBG & OUT 5-1/2 X 8-5/8 ANN. PMPD 400 SX CLS C CMT, UNABLE TO CIRC TO SURF. STUNG OUT OF CICR. LEFT 63' CMT ON TOP OF CICR. CIRC CLN. WOC 8 HRS. RUN TEMP SURVEY & FOUND TOC @ 850'. PERF @ 800'. SET CICR @ 750'. CIRC CLS C CMT TO SURF BTW 5-1/2 X 8-5/8 ANN. STUNG OUT OF CICR. CMT TO SURF IN 5-1/2 PROD CSG. CUT OFF 5-1/2 IN. WELLHEAD. WLD 4 IN. MARKER 3' BELOW GL W/3' ABV GL. BACKFILL PIT & CELLAR. CUT OFF DEADMAN BELOW GL. WELL IS P&A'D.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. Mavis Wrinkle TITLE TECH. MGR. - ASSET ADMIN. DATE 1/07/94

TYPE OR PRINT NAME A. J. DURRANI TELEPHONE NO. 713/544-3797

(This space for State Use)

APPROVED BY Charlie Perrin TITLE OIL & GAS INSPECTOR DATE FEB 15 1995

CONDITIONS OF APPROVAL, IF ANY:

JC

dp

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

RECEIVED
AUG 14 2008
HOBBS OCD

Form C-103
June 19, 2008

WELL API NO. 30-025-06586
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: STATE S
8. Well Number 1
9. OGRID Number 4323
10. Pool name or Wildcat: PENROSE SKELLY GRAYBURG

1. Type of Well: Oil Well ☒ Gas Well ☐ Other
2. Name of Operator: CHEVRON
3. Address of Operator: 15 SMITH ROAD, MIDLAND, TEXAS 79705
4. Well Location
Unit Letter D: 660 feet from the NORTH line and 660 feet from the WEST line
Section 15 Township 21-S Range 37-E NMPM County LEA
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3462'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ACIDIZE & SCALE SQUEEZE	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

07-30-08: MIRU. 07-31-08: REL TAC. TIH W/WS TO 4527. DID NOT TAG FILL. SET PKRS @ 3679. 08-04-08: PMP 28 BBLS ACID TO FILL TBG. WELL ON VAC. ACIDIZE PERFS W/105 BBLS ACID. ALL PERFS OPN VAC. SWAB. 08-05-08: SWAB. 08-06-08: PKR WOULD NOT SET. COLLAR ABOVE PKR IS SPLIT. TIH W/NEW COLLAR. TAG FISH @ 3905. SET PKR. REL PKR. TIH W/PKR TO 3672 & SET. PMP 105 BBLS SCALE INHIB. 08-07-08: REL PKR. TIH W/2 7/8" TBG. EOT @ 4052. 08-08-08: RUN PMP & RODS. RIG DOWN. FINAL REPORT

Spud Date: 07-30-08 Rig Release Date: 8-08-08

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Pinkerton TITLE REGULATORY SPECIALIST DATE 08-11-2008

Type or print name DENISE PINKERTON E-mail address: leakeid@chevron.com PHONE: 432-687-7375

For State Use Only

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE AUG 18 2008

Conditions of Approval (if any):

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

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OCT 26 2009
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State of New Mexico
Minerals & Natural Resources

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

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[3] OGRID Number
Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136	873
	[7] Reason for Filing Code/ Effective Date NC / 10/07/2009

[4] API Number	[5] Pool Name	[6] Pool Code
30 - 0 25-39277	Eunice; Blinebry-Tubb-Drinkard, North	22900
[7] Property Code	[8] Property Name	[9] Well Number
37346	West Blinebry Drinkard Unit	113

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	21S	37E		1290	North	330	East	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
S	10/7/2009	10/07/2009			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
24650	Targa Midstream Services LP 1000 Louisiana Suite 4700 Houston, TX 77262	G
214984	Plains Marketing, LP PO Box 4648 Houston, TX 77210	O

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
09/15/2009	10/07/2009	6912'	6853'	5635'-6712'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
12-1/4"	8-5/8"	1342'	650 sx, circ
7-7/8"	5-1/2"	6912'	1000 sx, circ

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
10/07/2009	10/07/2009	10/19/2009	24 hours		
[37] Choke Size	[38] Oil	[39] Water	[40] Gas		[41] Test Method
	61	61	268		Pumping

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature: Amber Cooke

Printed name: Amber Cooke
Title: Production Engineering Tech
E-mail Address: amber.cooke@apachecorp.com
Date: 10/22/2009
Phone: 918.491.4988

OIL CONSERVATION DIVISION

Approved by:
Title: PETROLEUM ENGINEER
Approval Date: NOV 06 2009

Submit 3 copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

SUNDRY NOTICES AND REPORTS ON WELL

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: STATE S

1. Type of Well: OIL WELL ☐ GAS WELL ☒ OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC

8. Well No. 5

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: Penrose Skelly Grayburg

4. Well Location

Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line

Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3459' KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPERATION	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER: Recompletion	☒		

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Objective: Abandon Drinkard, Complete Penrose Skelly Grayburg

1) Set 5 1/2" CIBP w/35' cement cap - New PBTD=6395'
2) Perf 5 1/2" casing w/8 SPF 3841-51' (80 holes)
3) Acidize perfs w/1550 gal 15% NEFE
4) Ran 2 3/8" tubing w/5 1/2" packer set @ 3781'
5) 04/06/94: Flow 1 oil, 108 wtr, 626 MCF, 23/64" choke @ 210#.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE L W Johnson TITLE Engineering Assistant DATE 4/14/94

TYPE OR PRINT NAME Larry W. Johnson Telephone No. 397-0426

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE APR 18 1994

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised February 10,1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator Name and Address	2 OGRID Number
TEXACO EXPLORATION & PRODUCTION INC P.O. BOX 730, HOBBS, NM 88240	022351
	3 Reason for Filing Code RC

4 API Number	5 Pool Name	6 Pool Code
30 025 06612	Penrose Skelly Grayburg	50350
7 Property Code	**8 Property Name**	**9 Well No.**
011110	STATE S	5

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	15	21S	37E		660	NORTH	990	WEST	LEA

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	F	3/15/94			

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
022628	TEX-NM PIPELINE CO PO BOX 2528, HOBBS, NM 88240	2471910	O	C 15 21S 37E
022345	TEXACO E & P INC PO BOX 3000, TULSA, OK 74102	2471930	G	D 15 21S 37E

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2471950	C 15 21S 37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 Total Depth	28 PBTD	29 Perforations
	3/18/94	8148	6395	3841-51

30 HOLE SIZE	31 CASING & TUBING SIZE	32 DEPTH SET	33 SACKS CEMENT
17 1/2"	13 3/8"	284'	300
11"	8 5/8"	2874'	2000
6 3/4"	5 1/2"	8147'	500

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Date of Test	37 Length of Test	38 Tubing Pressure	39 Casing Pressure
3/18/94	03/17/94	04/07/94	24 HR	210	0
40 Choke Size	**41 Oil - Bbls.**	**42 Water - Bbls.**	**43 Gas - MCF**	**44 AOF**	**45 Test Method**
23/64	1	108	626		F

46 I hereby certify that the rules and regulations of the Oil Conservation

OIL CONSERVATION DIVISION

Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature

Printed Name Larry W. Johnson

Title Engineering Assistant

Date 4/8/94 | Telephone 397-0426

Approved By: ORIGINAL SIGNED BY JERRY SEXTON

Title: DISTRICT I SUPERVISOR

Approval Date: APR 13 1994

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

DeSoto/Nichols 12/93 ver 1.10

2A Pinkard

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised 1-1-89

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL ☐ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☒

b. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Lease Name or Unit Agreement Name: STATE S

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

8. Well No. 5

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: SKELLY PENROSE GRAYBURG

4. Well Location

Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line

Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Proposed Depth	11. Formation	12. Rotary or C.T.
6395'	GRAYBURG	-

13. Elevations (Show whether DF, RT, GR, etc.)	14. Kind and Status Plug Bond	15. Drilling Contractor	16. Approx. Date Work will start
3459' KB	-	-	3/10/94

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	38#	294'	300	CIRC
11"	8 5/8"	24#	2974'	2000	CIRC
6 3/4"	5 1/2"	15.5 & 17#	8147'	500	2570'

1. MIRUPU. Kill well. Pull rods and pump. Install BOP. TOH with tubing.
2. Abandon Drinkard perfs: set 5 1/2" CIBP at 6430' & cap with 35' cement.
3. Run Cement Bond Log and GR-CNL Log.
4. Perforate the Grayburg from 3850' - 3860'.
5. Acidize perfs with 1500 gals 15% NEFE acid.
6. Fracture stimulate perfs with 33,000 gals gel & 110,000 lbs 16/30 sand.
7. Place well on production and test.

OPER. OGRID NO. 022351
PROPERTY NO. 011110
POOL CODE 50350
EFF. DATE 3-9-94
API NO. 30-025-06612

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. A. Dunham TITLE Prod. Engineer DATE 3/7/94

TYPE OR PRINT NAME Dan A. Dunham Telephone No. 397-0425

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

Form C-101

DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

FEB 5 1951

OIL CONSERVATION COMMISSION
ROSWELL, NEW MEXICO OFFICE

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Houston, Texas — Place

January 31, 1951 — Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

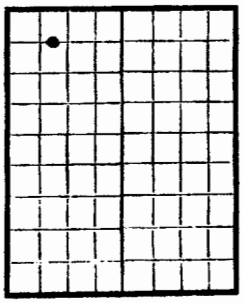
Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Tide Water Associated Oil Company (Company or Operator) State "S" (Lease) Well No. 5 in NW/4 NW/4

of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Field, Lea County.

N



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 660 feet ~~(N.)~~ (S.) of the N line and 990 feet (E.) ~~(W.)~~ of the W line of Section 15, 21S, 37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. B-9186 Assignment No. _____

If patented land the owner is _____

Address _____

If government land the permittee is _____

Address _____

The lessee is Tide Water Associated Oil Company

Address Box 1404, Houston 1, Texas

We propose to drill well with drilling equipment as follows: Rotary

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Blanket Bond dated Nov. 30, 1937, with Saint Paul-Mercury Ind. Co.

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
17 1/2"	13 3/8"	36#	New	280	Cemented	300
11"	8 5/8"	24# and 32#	New	2800'	Cemented	2000
6 3/4"	5 1/2"	17#	New	7800'	Cemented	500

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 7600 feet.

Additional information:

Approved FEB - 5 1951, 19____

except as follows:

OIL CONSERVATION COMMISSION,

By [signature]

Title Oil & Gas Inspector

Sincerely yours,

Tide Water Associated Oil Company (Company or Operator)

By [signature]

J. B. Holloway

Position Authorized Employee

Send communications regarding well to

Name J. E. Springer, c/o Tide Water Assoc. Oil Company,

Address Midland, Texas

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

HOBBS OCD
OCT 24 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO. 30-025-06614
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. BD-9188

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

7. Lease Name or Unit Agreement Name: Northeast Drinkard Unit
8. Well Number: 601
1. Type of Well: Oil Well ☒ Gas Well ☐ Other
2. Name of Operator: Apache Corporation
9. OGRID Number: 873
3. Address of Operator: 303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705
10. Pool name or Wildcat: Eunice, Blinebry-Tubb-Drinkard, N.
4. Well Location
Unit Letter D : 600 feet from the N line and 990 feet from the W line
Section 15 Township 21S Range 37E NMPM County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3459' GR

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water N/A
Pit Liner Thickness: ____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER: drill out & add Plugs			☐	OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

10/10/11 Tag ~~TOC~~ existing CIBP @ 5,620'

10/11/11 Tbg @ 5,620' – Circ hole w/ MLF. Test csg – OK.
Spot 50sx cmt @ 5,620'. Displaced to 5113'.

10/12/11 Perf @ 4,032' – unable to Sqz. Tbg @ 4,082' – Spot 25sx cmt w/2% CaCl – Tag @ 3,885'
Perf @ 3,040' – unable to Sqz. Tbg @ 3,090' – ~~Spot 25sx cmt~~ – Tag @ 2,740' Spot 40sx cmt.
TIH open ended to

10/13/11 Tbg @ 2,246' – Spot 25sx cmt No tag per OCD, mark Whitaker.
Tbg @ 1,306' – Spot 25sx cmt No tag per OCD again.
Tbg @ 400' – Spot 25sx cmt – Tag @ 200'
Perf @ 100' – Circ 50sx cmt to surface. RDMO. Cutoff wh, anchors, clean location. Install dry hole marker.

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

SIGNATURE [signature] TITLE P &A Technician (Basic Energy Services) DATE 10-18-11

Type or print name: Greg Bryant E-mail address: Telephone No. 432-563-3355

For State Use Only

APPROVED BY: [signature] TITLE Staff Mgr DATE 10-25-2011

Conditions of Approval (if any):

OCT 25 2011

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Northeast Drinkard Unit

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 601

2. Name of Operator
Apache Corporation

9. OGRID Number 00873

3. Address of Operator 6120 South Yale, Suite 1500
Tulsa, OK 74136-4224

10. Pool name or Wildcat
Eunice Blinebry - Tubb - Drinkard - North

4. Well Location
Unit Letter D : 660 feet from the South line and 990 feet from the West line
Section 15 Township 21S Range 37E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3459' GR

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type ____ Depth to Groundwater ____ Distance from nearest fresh water well ____ Distance from nearest surface water ____

Pit Liner Thickness: ____ mil Below-Grade Tank: Volume ____ bbls; Construction Material ____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	P AND A [ ]
PULL OR ALTER CASING [ ]	MULTIPLE COMPL [ ]	CASING/CEMENT JOB [X]	
OTHER: [ ]		OTHER: [ ]	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Isolate 5-1/2" casing leak, 4942' - 4974'. TOC @ 5380' per CBL. Perf 5360', set retainer @ 5007'. Squeeze with 125 sx Class C. Pulled out of retainer. Set cmt retainer @ 4880'. Squeeze casing leak with 350 sxs Class C. Set packer @ 5322'. Test squeeze to 500 psi. Did not hold. Test backside to 500 psi, held ok. Set retainer @ 5320' and squeeze with 50 sx Class C w/ CaCl + 150 sx Class C Neat. Test squeeze ok. Acidize Blinebry/Tubb with 5200 gals 15% HCL. Acidize Drinkard with 3000 gals 15% HCl. Return to production.

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

SIGNATURE Elaine Linton TITLE Engineering Technician DATE 01/12/2005

Type or print name Elaine Linton E-mail address: elaine.linton@apachecorp.com Telephone No. (918)491-5362

For State Use Only

APPROVED BY: Gary W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER DATE JAN 14 2005

Conditions of Approval (if any):

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O.Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-06614	Eunice Blinebry-Tubb-Drinkard-North	22900
7 Property Code	**8 Property Name**	**9**
22503	Northeast Drinkard Unit	601

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21S	37E		660	S	990	W	Lea

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P				

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
				-	-

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
-					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: 9/4/98 Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY GARY WINK

Title: FIELD REP II

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature:	Printed Name	Title	Date

Form C-104

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL)-(GAS) ALLOWABLE

It is necessary that this form be submitted by the operator before an initial allowable will be assigned to any completed oil or gas well. Form C-110 (Certificate of Compliance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 P.B. at 60° Fahrenheit.

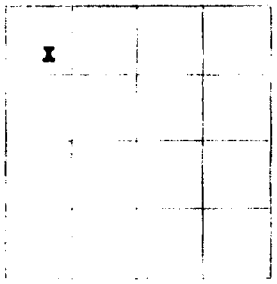
Box 547, Hobbs, New Mexico (Place) — May 1, 1952 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Tide Water Associated Oil Co. (Company or Operator) — State "AB" (Lease) — Well No. 7 — in SW 1/4 NW 1/4

Section 14, T. 21-S R. 37-E, N.M.P.M. Brunson Pool Lea County

Please indicate location:



Unit letter: D

Elevation 3459' Spudded 2-20-52 Completed 4-27-52

Total Depth 8145 P.B.

Top Oil/Gas Pay 7988' Top Water Pay None

Initial Production Test: Pump — Flow 237.71 (BOPD or MCFPD)

Based on 160.95 Bbls. Oil in 16 1/4 Hrs. — Mins.

Method of Test (Pitot, gauge, etc.): —

Size of choke in inches 20/64"

Tubing (Size) 2 3/8" 8055 Feet

Pressures: Tubing 325 psig. Casing Packer set @ 7924'

Gas/Oil Ratio 1076 cu.ft./bbl. Gravity 43.2° A.I.

Casing Perforations:

7988' to 8056'

Acid Record:

5000 Gals 7988 to 8056
— Gals — to —
— Gals — to —

Shooting Record.

— Qts — to —
— Qts — to —
— Qts — to —

Show of Oil, Gas and water

S/ Oil
S/ —
S/ —
S/ —
S/ —
S/ —
S/ —
S/ —

Natural Production Test: None Swabbing Flowing

Test after acid or shot: — Pumping 237.71 Flowing

Casing & Cementing Record

Size	Feet	Sax
13 3/8	293	300
8 5/8	2990	1700
5 1/2	8142'	350

(5½" hung in 8-5/8" csg. @ 2847')

Please indicate below formation Tops (in conformance with geographical section of state):

Southeastern New Mexico		Northwestern New Mexico		Northwestern New Mexico	
T. Anhy		T. Devonian		T. Ojo Alamo	
T. Salt		T. Silurian		T. Kirtland-Fruitland	
B. Salt		T. Montoya		T. Farmington	
T. Yates		T. Simpson	7269'	T. Pictured Cliffs	
T. 7 Rivers		T. McKee	7576'	T. Cliff House	
T. Queen		T. Ellenburger	7976'	T. Menefee	
T. Grayburg		T. Gr. Wash		T. Point Lookout	
T. San Andres	3982'	T. Granite	8143'	T. Mancos	
T. Glorieta	5181'	T.		T. Dakota	
T. Drinkard	6557'	T.		T. Morrison	
T. Tubbs	6155'	T. Connell	7903'	T. Penn	
T. Abo		T.		T.	
T. Penn		T.		T.	
T. Miss		T. T.D.	8145'	T.	

(Please supply required information on reverse side of form)

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
17¼"	13-3/8	293	300	Halliburton	Native	
11"	8-5/8	2990	2000	"	Native	
6-3/4"	5½	8142	350	"	9.3#/gal.	
	(5½" Liner hung in 8-5/8" casing @ 2847')					

PLUGS AND ADAPTERS

Heaving plug—Material..... Length..... Depth Set.....

Adapters — Material..... Size.....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		15% Regular Acid	5000 gals	4-26-52	7988 - 8056	
				(perf. in 5½" liner)		

Results of shooting or chemical treatment No natural production before acid treatment, well flowed 238 BOPD following treatment.

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 8145 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

PRODUCTION

Put to producing 4-27, 19 52

The production of the first 24 hours was 237.71 barrels of fluid of which 100 % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, Be.....

If gas well, cu. ft. per 24 hours..... Gallons gasoline per 1,000 cu. ft. of gas.....

Rock pressure, lbs. per sq. in.....

EMPLOYEES

R. L. Griffin, Driller — D. R. Robbins, Driller

B. N. Gaston, Driller — ....., Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 19 day of May, 19 52

O. C. Lupardus
Notary Public

My Commission expires ....., 1955

Box 547 - Hobbs, New Mexico (Place) 5-16-52 (Date)

Name [illegible] H. P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

March 4, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water

Associated Oil Co. (Company or Operator) State "S" (Lease) Well No. 7 in the

NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M.,

Ware Pool Lea County.

The dates of this work were as follows: February 29, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on February 27, 19 52

and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 8-5/8" casing at 2990' with 2000 sks cement top cement behind 8-5/8" casing is 160' from surface. Casing tested and held 1000 psi for 30 min.

Witnessed by L. W. Hogue (Name) Tide Water Associated Oil Co. (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)

(Title)

(Date), 19

I hereby swear or affirm that the information given above is true and correct.

Name W. P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547 - Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

April 23, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water Associated Oil Co. (Company or Operator) State "B" (Lease) Well No. 7 in the NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Pool Lea County.

The dates of this work were as follows: April 21, 1952

Notice of intention to do the work was ~~(xxxxxx)~~ submitted on Form C-102 on April 19, 19 52, and approval of the proposed plan was ~~(xxxxxx)~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 5½" liner at 6142' w/350 sks regular cement. 5½" liner was hung in 8-5/8" casing at 2847'. Top of cement behind 5½" liner is 5400'. Liner tested and held 1000# for 30 min.

Witnessed by R. W. Hogue (Name) Tide Water Associated Oil Company (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)

Inspector (Title)

(Date) 19

I hereby swear or affirm that the information given above is true and correct.

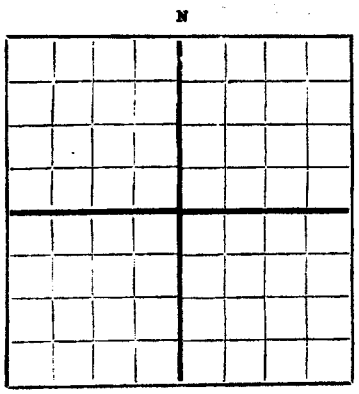
Name H.P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

FORM C-105



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Tide Water Associated Oil Company Box 547, Hobbs, New Mexico
Company or Operator Address

State "S" Well No. 7 in NW/4 of NW/4 of Sec. 15, T. 21-S
Lease

R. 37-E, N. M. P. M., Brunson Field, Lea County.

Well is 600 feet south of the North line and 4380 feet west of the East line of Sec. 15-21S-37E.

If State land the oil and gas lease is No. B - 9188 Assignment No.

If patented land the owner is, Address

If Government land the permittee is, Address

The Lessee is Tide Water Associated Oil Company, Address Box 1404 Houston, 1, Texas

Drilling commenced 2-20- 19 52 Drilling was completed 4-20 19 52

Name of drilling contractor R. F. Moran, Inc., Address Tulsa, Oklahoma

Elevation above sea level at top of casing 3459' feet.

The information given is to be kept confidential until Not confidential 19

OIL SANDS OR ZONES

No. 1, from 7988' to 8056' No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
13-3/8"	36#	Spiral Weld	Armco	280'	Tex. Pattern				Surface Casing
8-5/8"	24 & 32#	8R		2997'	Larkin				Salt String
5-1/2"	17 & 15½"	8R		5288'	Larkin				Production String

MUDDING AND CEMENTING RECORD

Key Energy Services
6 Desta Drive
Suite 4300
Midland, Texas 79705

Telephone: 432.620.0300
Facsimile: 432.571.7173
www.keyenergy.com

January 26, 2012

Mr. Jim Griswold
State of New Mexico
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Annual Class III Well Report for the State S. Brine Station
Permit BW-028

Dear Jim:

Enclosed you will find the 2011 Annual Class III Brine Well Report for the State S. Brine Station.

If you have any questions, please contact Dan Gibson at 432.571.7536.

Sincerely,

Robyn Miller, CLA and SWD Compliance Coordinator

Enclosure
cc: Mr. Bob Fisher

Performance *is* Key

Key Energy Services

ANNUAL CLASS III WELL REPORT FOR 2011

Key Energy Services, Inc.

State S Brine Station

Permit BW-028

API No. 30-025-33547

January 20, 2011

Submitted by: _____

Daniel K. Gibson, P.G.

Corporate Environmental Director

Key Energy Services, Inc.

6 Desta Drive Suite 4300

Midland, Texas 79705

(432) 571-7536 ph

(432) 571-7173 fax

TABLE OF CONTENTS

Section 1- Summary of Operations:

(Permit Condition 21.L.2. "Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Include copy of C-103 if appropriate.")

During the 2011 year there was no major remedial work on the brine well other than the annual open to formation mechanical integrity test (MIT). Since the well-head and tubing was not unseated or pulled, a C-103 is normally not required. However, Key Energy submitted a C-103, which has been included in the MIT Section IV-***Appendix D.***

General housekeeping was routinely performed and on-site training was conducted for awareness of the permit conditions.

Pro-active "Area of Reviews" is being conducted on an on-going basis to ensure the safety of the well system, including cavern subsidence monitoring. (***Appendix E*** shows drawings and data of recent installed subsidence survey markers).

Yearly cavity size calculations will be analyzed to determine cavern stability.

Appendix A has a recent aerial photo of the site for reference.

Section 2- Production Volumes:

(Permit condition 21.L.3. "Production volumes as required from 21.G. including a running total to be carried over to each year. The maximum and average injection pressure.")

(21.G. Requires "The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in the annual report.")

Key has installed an electronic card system that tracks both sales of fresh and brine water. In addition, Key has installed Halliburton flow meters on the well to monitor both water injected and brine produced. Key is anticipating it may install a continuous pressure chart to monitor well pressure.

Monthly, Yearly and Lifetime Injection and Production Volumes:

The monthly, yearly and lifetime fresh water injection and brine production volumes are attached herein for review. The total 2011 brine production volume was 222,286 bbls and the lifetime production volume is 3,989,782 bbls.

Enclosed in the tables section of the report is the injection and production table 1. and the comparison chart of injected water to produced water with comments.

Maximum and Average Injection Pressure:

The maximum injection pressure is 304 psig, which is approximately 100 pounds below the permit maximum of 405 psig. The 304 pounds cannot be exceeded because of pump limitations. The pump is a submersible centrifugal pump, with a pump curve shut in pressure of 300 psig, plus or minus the water tank head pressure of 4 psig.

For this reason, permit condition 21.D. *Well Pressure Limits: "The operator shall have a working pressure limiting device or controls to prevent overpressure."* is conditionally met.

The average injection pressure is noted by Key's personal and is reported to range from 50 psig to 150 psig. This reading is taken from a pressure gauge mounted on the well inlet.

Section 3- Chemical Analysis:

(Permit condition 21.L.4. "A copy of the chemical analysis as required in 21H. "Analysis of injection Fluid and Brine: Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (method 40 CFR 136.3) using EPA methods.")

Please find attached in ***Appendix B*** the latest chemical analysis and chain-of-custody of the brine and fresh water injection water samples collected October 19, 2011 and analyzed by Cardinal Laboratory in Hobbs, NM. The laboratory used common approved EPA methods to analyze and report for major cations and anions of the water samples.

The injection water was collected from the fresh water load line that is connected directly to the fresh water storage tanks and to the inlet side of the injection pump. This sample point is representative of the fresh water at the station. The fresh water is supplied by the City of Eunice and is of high quality that meets EPA's Safe Drinking Water Standards.

The brine water was collected from the brine water load line that is connected directly to the brine water storage tanks and to the outlet side of the injection well. This sample point is representative of the brine water at the station.

The analysis revealed that the brine water is predominately sodium chloride with minor constituents of calcium, magnesium, and potassium combined with sulfate and bi-carbonate. This analysis is very representative of Salado "Salt" formation waters found in the area.

The specific gravity of the brine water was 1.13, which equates to 9.4 lb/gal. This is lower than the usual 10 lb/gal normally produced. This was attributed to the fact that during the test in September, most of the brine water was sold leaving only fresh water for the MIT "Open to Formation Test." This loaded the hole with a large amount of fresh water and the well had not recovered from this event.

To compensate for this, next years test may be ran using nitrogen.

Special Note: The laboratory misread the Chain-of-Custody and mislabeled the Eunice Brine Well as "GUINI" Brine Well.

Section 4- Mechanical Integrity:

(Permit condition 21.L.5. "A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test.")

The BW-28 discharge permit condition 21.E set forth the criteria for running MIT's for this well. This condition also includes a schedule for which type of test is required to be run during various years of the permit. In 2011, an "open to formation" test was ran and witness by Mr. Jim Griswold-OCD. This test was successful and witnessed by the OCD. The MIT test chart is attached in ***Appendix D*** for review.

Section 5- Deviations from Normal Production Methods:

(Permit condition 21.L.6. "Brief explanation describing deviations from normal production methods.")

In 2008 two OCD permitted brine wells collapsed. As a result of those incidents, the OCD issued a temporary moratorium on new brine well permits. During the moratorium OCD facilitated a work group to determine a proper path forward for current and new brine well operations.

As a result of those proceedings, OCD issued instructions to operators to change OCD's previous requirement of injecting fresh water down the annulus and producing brine up the tubing; to injecting fresh water down the tubing and producing brine up the annulus.

On June 1, 2009 Key followed OCD instructions and change the flow pattern. It should be noted that it took over a month in order to obtain 10# brine.

During the 2011 year Key Energy continued the normal flow production procedure and encountered no problems at this time.

Section 6- Leak and Spill Reports:

(Permit condition 21.L.7. "A copy of any leaks and spill reports.")

In 2011 there was one reportable leaks or spills. A Bronco Services truck operator fell asleep while loading his truck and accidently released approximately

100 bbls of brine water, which ran off the loading pad just north of the pad and was contained on-site by the installed stormwater berms. 40 bbls were recovered and a C-141 was submitted to the OCD Hobbs office, with a copy to the Santa Fe office. Remediation corrective action is underway and when complete, a closure report will be submitted to both the Hobbs and Santa Fe offices for final approval. ***Appendix C*** contains a copy the initial C-141 spill report and photos showing remediation efforts.

The brine station is designed with an impermeable liner under the brine tanks and loading pads. The concrete loading pads are designed to catch de-minimis drips from hose connections and is piped to two 250 bbl fiberglass tanks. This liquid material is routinely re-cycled or disposed of at an OCD approved site.

Rainwater that collects inside of the lined bermed area is routinely pumped out and re-cycled or disposed of at an OCD approved site. Very small quantities of rainwater which cannot be pumped is left to evaporate.

The entire facility is bermed to prevent run-on or run-off.

Any reportable or non-reportable spill is cleaned up pursuant to OCD rules and guidance.

Section 7- Groundwater Monitoring:

(Permit condition 21.L.8. "If applicable, results of any groundwater monitoring.")

The BW-28 facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Section 8- Brine Cavity/Subsidence Information:

(Permit condition 21.L.9. Information required from cavity/subsidence 21.F. "The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment.")

The last cavern survey did not provide adequate information pertaining to the size of the cavern. This has been an issue with several brine wells and until the validity of using sonar test is resolved, an alternate method will be employed.

This alternate method has been discussed with Jim Griswold-OCD and it was mutually decided that an estimated worst-case diameter was to be determined in order to provide maximum protection and ensure the permit conditions are being met.

The Solution Mining Research Institute (SMRI), other state agencies, OCD work-group, along with various studies conducted during the permitting of the WIPP

site, has concluded that failures, such as "catastrophic collapses", have a higher probability when the roof diameter of the cavern exceeds a certain value compared to the actual depth of the cavern. This number is typically called D/H where "D" is the diameter of the cavity and "H" is the depth from surface to the casing shoe. Various reports seem to conclude that when a ratio of D/H reaches or exceeds .66 then the probably of collapse increases to a point that the well may be considered un-safe, thus closing procedures such as proper plugging and abandonment, and possible long term subsidence monitoring should be instituted.

The alternate method mentioned above involves calculating the maximum diameter of the cavern by using a worst-case scenario of an ***"upright cone".*** The volume of the cavern is calculated using the lifetime brine production volumes and using a *"rule of thumb"* conversion factor to determine the volumetric size of the cavern. The rule of thumb conversion factor was taken from the 1982 Wilson Report and equates that every barrel of brine produced will create approximately one cubic foot of cavity.

Please find attached in ***Appendix E***, a wellbore sketch, the calculations for the brine well, and the lifetime brine production tally of approximately 3.98 million barrels of brine produced as of December 2011. The maximum diameter was calculated to be approximately 136 feet with a corresponding D/H ratio of .10 updated for the 2011 year.

Comparing the current D/H ratio of .10 to the .66 value mentioned above, it can be concluded that the current brine well status meets and exceeds the recommended safety value by six times.

In an overabundance of pre-caution, Key has installed surveyed subsidence monitoring points and the first annual results are documented in ***Appendix E.***

Section 9- Area of Review Update Summary:

(Permit condition 21.L.10. "An Area of Review (AOR) Summary.")

An extensive AOR review was conducted for the Key Eunice "Old GoldStar" brine well, OCD permit # BW-28, located in UL E (1340 FNL & 330 FWL) of Section 15-Ts21S-R37E. Key used OCD records and field verification to confirm wells in the AOR.

Using OCD on-line files, a well status list and AOR plot plan was constructed (*see **Appendix F***) listing all wells within adjacent quarter sections of the BW-28 location. The list shows API#, Operator well name, UL, Section, Township and Range, footages, Wells within 660 ft and ¼ mile, casing program status, casing/ cementing status, and corrective action required status.

In the 2011 review, there were no new wells added to the list. ***Appendix F*** contains the check-off list showing the OCD wells in all adjacent quarter sections surrounding the BW-28 brine well.

As in 2010, there are 39 wells located within these adjacent units. Within a ¼ miles radius of the brine well there are 15 wells found. Within 660 feet of the brine well there are 4 wells.

This comprehensive list was formulated to provide a baseline for future AOR studies. Since any future brine well will certainly be limited in size, a critical AOR of 660 feet was established and all wells within that radius was researched in greater detail.

The rational of this approach is the fact that brine wells are non-static in terms of size and configuration and the fact that Key has no direct control on wells drilled in close proximity. By just initially focusing on the current wells in the ¼ mile AOR and assuming the status of these wells will remain the same, could be a mistake. Therefore, Key is taking a more dynamic approach and will study wells as the brine well grows, especially wells in the critical zone. We used the current estimated diameter of the brine well i.e. 136 ft (r = 68 ft) up-dated for 2011, and added a 10:1 safety factor which equates to about 660 ft. As the brine well grows, the critical AOR will be expanded and new wells will be added.

All four wells located in the critical zone were reinvestigated by checking the OCD on-line well records. There was no well activity for any of these wells reported since the last 2010 review. ***Appendix F*** contains the last recorded file record for the four wells located in the critical AOR. They are identified as API# 30-025-914, 09913, 06586, and 39277.

This 2011 report includes the investigation of two more wells that are nearest the 660ft critical AOR and within the ¼ mile AOR that have not been investigated. These wells are identified as API # 30-025-06612 and 06614. Every year as the well bore grows additional wells may be added.

The Findings are as follows:

API # 30-025-06612: Chevron State #5, according to OCD records, is located 660 FNL & 990 FWL of UL D Section 15-Ts21s-R37e. It is shown to be located approximately 900 ft to the NE of the BW-28 well. This well was drilled in 1951 with surface casing set at 294 ft and cemented with 300 sacks circulated to surface. Intermediate casing was set at 2974 feet and cemented with 2000 sacks circulated to surface. A long string was ran and set at 8147 feet and cemented with 500 sacks with an estimated top at 2570 feet. There appears to be approximately 400 feet of cement above the bottom of the intermediate string.

It was recompleted as a gas well in the Grayburg at 3841-51 feet.

Conclusions: The OCD reports indicate that the salt section was properly plugged off inside and outside of all casing strings. The salt section (Salado formation) appears to start at about 1360 ft bgl and ends above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

API # 30-025-06614: Apache NEDU 601, according to OCD records, is located 600 FNL & 990 FWL of Section 15-Ts21s-R37e. It is shown to be located approximately 950 ft to the NE of the BW-28 well. This well was drilled in 1952 with surface casing set at 293 feet bgl and cemented with 300 sacks. Intermediate casing was set at 2990 feet and cemented with 2000 sacks. A long string was ran and set at 8142 feet and cemented with 350 sacks. The well was plugged and abandoned in October of 2011.

Conclusions: The OCD reports indicate that the casing strings were properly sealed above and below the salt section. The salt section appears to start at about 1360 ft bgl and ends slightly above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

The well records, for the two afore mentioned wells, is included in ***Appendix F.***

Section 10- Certification (Permit Condition 22.L.11)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Dennis Douglas
Senior Vice President – Fluids Management Services

TABLES

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
1996	October	10,588			10,588				Goldstar SWD
	November	17,770			17,743				
	December	32,223	60,581	60,581	33,004	61,335	61,335		
1997	January	20,194			20,445			estimate (1)	
	February	20,194			20,445			estimate (1)	
	March	20,194	60,582		20,445	61,335		estimate (1)	
	April	48,226			47,714				
	May	38,000			36,571				
	June	47,970	134,196		42,264	126,549			
	July	24,711			24,271				
	August	31,817			31,559				
	September	38,120	94,648		38,697	94,527			
	October	27,462			25,512				
	November	26,618			26,261				
	December	16,137	70,217	359,643	15,850	67,623	350,034		
1998	January	13,301			13,614				
	February	47,212			49,552				
	March	42,337	102,850		44,964	108,130			
	April	27,072			27,519				
	May	18,084			18,161				
	June	26,699	71,855		26,976	72,656			
	July	16,535			15,929				
	August	8,287			7,488				
	September	9,994	34,816		9,021	32,438			
	October	13,312			17,302				
	November	9,822			9,873				
	December	8,287	31,421	240,942	9,497	36,672	249,896		
1999	January	4,026			4,607				
	February	6,867			8,138				
	March	5,641	16,534		6,030	18,775			
	April	7,873			7,338				
	May	34,100			32,461				
	June	20,708	62,681		20,171	59,970			
	July	35,278			34,566				
	August	35,876			35,995				
	September	43,196	114,350		42,724	113,285			
	October	9,700			10,097				
	November	8,383			9,080				
	December	28,662	46,745	240,310	29,721	48,898	240,928		
2000	January	65,492			65,028				
	February	37,709			36,909				
	March	40,409	143,610		40,414	142,351			
	April	20,181			20,404				
	May	52,092			50,373				
	June	41,371	113,644		37,776	108,553			
	July	33,860			31,757				
	August	37,535			35,492				
	September	58,042	129,437		53,288	120,537			
	October	28,777			27,216				
	November	22,677			24,130				
	December	17,670	69,124	455,815	17,369	68,715	440,156		
2001	January	32,427			37,083				
	February	17,493			23,076				
	March	34,050	83,970		33,216	93,375			
	April	32,900			36,064				Change to Yale E. Key
	May	66,724			52,555				
	June	37,607	137,231		42,347	130,966			
	July	16,399			15,588				
	August	10,173			33,664				
	September	16,185	42,757		16,200	65,452			
	October	25,184			24,147				
	November	10,447			8,666				
	December	21,061	56,692	320,650	18,733	51,546	341,339		
2002	January	11,809			10,135				
	February	22,700			23,733				
	March	4,693	39,202		4,369	38,237			
	April	15,160			16,776				
	May	16,321			17,283				
	June	13,938	45,419		15,276	49,335			
	July	8,301			10,688				
	August	7,079			6,842				
	September	18,560	33,940		17,240	34,770			
	October	7,040			7,823				
	November	9,788			10,950				
	December	11,666	28,494	147,055	19,667	38,440	160,782		
2003	January	20,278			23,526				
	February	8,603			5,310				
	March	37,680	66,561		35,548	64,384			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	April	31,782			31,619				
	May	17,767			13,305				
	June	10,733	60,282		9,260	54,184			
	July	27,104			13,927				
	August	9,555			7,197				
	September	7,945	44,604		5,056	26,180			
	October	12,014			10,394				
	November	26,100			12,438				
	December	38,748	76,862	248,309	18,218	41,050	185,798		
2004	January	7,980			8,539				
	February	8,130			8,797				
	March	8,220	24,330		8,894	26,230			
	April	29,898			31,931				
	May	14,233			15,428				
	June	28,716	72,847		30,410	77,769			
	July	1,840			2,060				
	August	29,898			30,201				
	September	20,277	52,015		20,266	52,527			
	October	24,436			23,784				
	November	21,925			22,430				
	December	32,225	78,586	227,778	33,630	79,844	236,370		
2005	January	17,873			19,160				
	February	23,929			24,958				
	March	37,896	79,698		40,435	84,553			
	April	29,882			31,794				
	May	39,575			42,385				
	June	22,766	92,223		23,995	98,174			
	July	7,593			7,640				
	August	31,573			29,316				
	September	47,305	86,471		48,230	85,186			
	October	38,571			51,232				
	November	31,533			27,670				
	December	36,430	106,534	364,926	36,412	115,314	383,227		
2006	January	18,480			19,977				
	February	33,250			35,511				
	March	39,492	91,222		38,630	94,118			
	April	40,194			43,605				
	May	51,009			54,630				
	June	22,374	113,577		24,832	123,067			
	July	38,208			37,613				
	August	35,627			36,201				
	September	48,784	122,619		47,312	121,126			
	October	50,375			51,232				
	November	26,084			27,670				
	December	8,224	84,683	412,101	10,202	89,104	427,415		
2007	January	31,540			33,320				
	February	24,313			25,260				Change to Key Energy Services
	March	40,514	96,367		38,412	96,992			
	April	34,095			35,120				
	May	19,308			23,130				
	June	9,170	62,573		11,009	69,259			
	July	30,857			28,468				
	August	12,394			18,884				
	September	25,970	69,221		23,360	70,712			
	October	7,882			7,643				
	November	2,476			2,630				
	December	3,933	14,291	242,452	4,528	14,801	251,764		
2008	January	1,706			1,982				
	February	5,845			6,203				
	March	21,386	28,937		21,673	29,858			
	April	25,787			22,704				
	May	17,100			19,842				
	June	16,598	59,485		17,479	60,025			
	July	32,458			36,448				
	August	37,458			38,377				
	September	39,945	109,861		37,203	112,028			
	October	25,572			26,551				
	November	27,325			25,792				
	December	26,825	79,722	278,005	28,694	81,037	282,948		
2009	January	20,990			21,310				
	February	650			1,306				
	March	3,249	24,889		3,420	26,036			
	April	5,428			5,360				
	May	1,343			1,762				
	June	630	7,401		1,232	8,354			
	July	1,546			1,673				
	August	881			1,031				
	September	2,672	5,099		2,930	5,634			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	October	9,898			8,861				
	November	3,716			3,618				
	December	1,474	15,088	52,477	2,035	14,514	54,538		
2010	January	0			0				
	February	1,650			1,810				
	March	4,092	5,742		4,789	6,599			
	April	5,092			6,150				
	May	12,256			14,953				
	June	2,099	19,447		2,033	23,136			
	July	5,068			6,322				
	August	10,270			15,126				
	September	11,281	26,619		10,334	31,782			
	October	7,575			8,802				
	November	20,304			24,494				
	December	36,765	64,644	116,452	44,153	77,449	138,966		
2011	January	44,126			52,975				
	February	24,388			29,666				
	March	19,421	87,935		23,284	105,925			
	April	18,356			22,365				
	May	9,828			11,754				
	June	15,661	43,845		18,902	53,021			
	July	17,503			20,961				
	August	14,401			17,273				
	September	5,430	37,334		16,000	54,234			
	October	11,359			8,284				
	November	18,585			19,662				
	December	23,228	53,172	222,286	27,806	55,752	268,932		
TOTAL VOLUMES				3,989,782			4,074,428		

1 - Estimated quarterly production and injection volumes calculated by averaging the previous quarter of data.
bbls - barrels

INJECTION AND PRODUCTION COMPARISON CHART

KEY ENERGY EUNICE BRINE WELL BW-28 STATE #1 API# 30-025-33547

WATER IN-WATER OUT BBLS

YEAR 2011

MONTH	WATER IN	WATER OUT	PSI	RATIO OF WATER IN-OUT	
Jan-11	52,975	44,126	100	16.70%	***
Feb-11	29,666	24,388	100	17.79%	***
Mar-11	23,284	19,421	100	16.59%	***
Apr-11	22,365	18,356	100	17.93%	***
May-11	11,754	9,828	100	16.39%	***
Jun-11	18,902	15,661	100	17.15%	***
Jul-11	20,961	17,503	100	16.50%	***
Aug-11	17,273	14,401	100	16.63%	***
Sep-11	16,000	5,430	100	66.06%	***
Oct-11	8,284	11,359	100	-37.12%	***
Nov-11	19,662	18,585	100	5.48%	***
Dec-11	27,806	23,228	100	16.46%	***
TOTAL	**268,932**	**222,286**			

		YEARLY RATIO %	MONTHLY AVERAGE %
BRINE PRODUCTION BBLS	222,286	17.34%	15.44%
FRESH WATER INJECTION BBLS	268,932		

NOTES:

*** Positive % numbers means more Fresh Water injected than brine water produced.

*** Negative % numbers means more Brine Water produced than fresh water injected.

Normal ratios can range from +5% to +15 %; Short term negative ratios are acceptable. Long term negative numbers should be checked out and are not considered normal.

APPENDICES

APPENDIX A

PHOTOGRAPHS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453 ft
Google

APPENDIX B

Fresh and Brine Water LABORATORY REPORT

CHAIN OF CUSTODY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 17, 2011

LESTER WAYNE PRICE, JR

PRICE LLC

312 ENCANTADO RIDGE COURT, NE

RIO RANCHO, NM 87124

RE: ~~GUINI~~ BRINE WELL — EUNICE BRINE WELL

Enclosed are the results of analyses for samples received by the laboratory on 10/19/11 13:30.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESHWATER	H102262-01	Water	19-Oct-11 10:50	19-Oct-11 13:30
BRINE WATER	H102262-02	Water	19-Oct-11 11:00	19-Oct-11 13:30

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	**0.0070**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0610**	0.000500	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.0254**	0.0001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Manganese	ND	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	**0.0033**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Nickel	**0.0014**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Selenium	**0.005**	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.00280**	0.000100	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**229**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**68.0**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**683**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**7.64**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**0.9934**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**70.3**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**433**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**188**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**12.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	ND	0.0500	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Boron	ND	0.300	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Iron	**0.079**	0.060	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0575**	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.407**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Manganese	**0.421**	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Nickel	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Selenium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.0294**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**181**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**136000**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**397000**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**6.80**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**1.131**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**6160**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**210000**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**148**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**96.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	**1.39**	0.500	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Boron	**10.9**	3.00	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Iron	ND	0.600	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL

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Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
Blank (1111412-BLK1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Chromium	ND	0.001	mg/L							
Silver	ND	0.00010	mg/L							
Molybdenum	ND	0.0005	mg/L							
Lead	ND	0.0005	mg/L							
Barium	ND	0.000500	mg/L							
Cadmium	ND	0.00010	mg/L							
Zinc	0.018	0.001	mg/L							B1
Cobalt	ND	0.00010	mg/L							
Copper	ND	0.0001	mg/L							
Manganese	0.0035	0.0005	mg/L							B1
Uranium	ND	0.000100	mg/L							
Arsenic	ND	0.0005	mg/L							
Selenium	ND	0.001	mg/L							
Nickel	ND	0.0005	mg/L							

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS (1111412-BS1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Silver	0.0521		mg/L	0.0500		104	85-115			
Molybdenum	0.0542		mg/L	0.0500		108	85-115			
Zinc	0.059		mg/L	0.0500		118	85-115			BS1
Cobalt	0.0515		mg/L	0.0500		103	85-115			
Arsenic	0.0529		mg/L	0.0500		106	85-115			
Nickel	0.0504		mg/L	0.0500		101	85-115			
Uranium	0.0490		mg/L	0.0500		98.0	85-115			
Lead	0.0503		mg/L	0.0500		101	85-115			
Selenium	0.273		mg/L	0.250		109	85-115			
Copper	0.0502		mg/L	0.0500		100	85-115			
Chromium	0.049		mg/L	0.0500		98.6	85-115			
Manganese	0.0429		mg/L	0.0500		85.8	85-115			
Barium	0.0503		mg/L	0.0500		101	85-115			
Cadmium	0.0507		mg/L	0.0500		101	85-115			

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS Dup (1111412-BSD1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Uranium	0.0485		mg/L	0.0500		97.0	85-115	1.03	20	
Silver	0.0483		mg/L	0.0500		96.6	85-115	7.57	20	
Nickel	0.0493		mg/L	0.0500		98.6	85-115	2.21	20	
Lead	0.0498		mg/L	0.0500		99.6	85-115	0.999	20	
Chromium	0.049		mg/L	0.0500		98.2	85-115	0.407	20	
Barium	0.0492		mg/L	0.0500		98.4	85-115	2.21	20	
Selenium	0.256		mg/L	0.250		102	85-115	6.43	20	
Cobalt	0.0503		mg/L	0.0500		101	85-115	2.36	20	
Zinc	0.065		mg/L	0.0500		130	85-115	9.52	20	BSI
Molybdenum	0.0523		mg/L	0.0500		105	85-115	3.57	20	
Manganese	0.0443		mg/L	0.0500		88.6	85-115	3.21	20	
Copper	0.0487		mg/L	0.0500		97.4	85-115	3.03	20	
Cadmium	0.0501		mg/L	0.0500		100	85-115	1.19	20	
Arsenic	0.0505		mg/L	0.0500		101	85-115	4.64	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Mercury (Total) by CVAA - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111411 - EPA 245.1										
Blank (1111411-BLK1)				Prepared & Analyzed: 27-Oct-11						
Mercury	ND	0.0002	mg/L							
LCS (1111411-BS1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0022		mg/L	0.00200		110	85-115			
LCS Dup (1111411-BSD1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0021		mg/L	0.00200		105	85-115	4.65	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1101905 - SPLP 1312										
Blank (1101905-BLK1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	ND	4.00	mg/L							
LCS (1101905-BS1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	112	4.00	mg/L	100		112	80-120			
LCS Dup (1101905-BSD1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	108	4.00	mg/L	100		108	80-120	3.64	20	
Batch 1102105 - General Prep - Wet Chem										
Blank (1102105-BLK1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (1102105-BS1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			
LCS Dup (1102105-BSD1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120		20	
Alkalinity, Total	120	4.00	mg/L	100		120	80-120	6.90	20	
Duplicate (1102105-DUP1)	**Source: H102248-02**			Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00				20	
Alkalinity, Bicarbonate	156	5.00	mg/L		161			3.15	20	
Alkalinity, Total	128	4.00	mg/L		132			3.08	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1102105 - General Prep - Wet Chem										
Matrix Spike (1102105-MS1)	**Source: H102248-02**			Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00		70-130			
Alkalinity, Bicarbonate	283	5.00	mg/L		161		70-130			
Alkalinity, Total	232	4.00	mg/L	100	132	100	70-130			
Batch 1102603 - * DEFAULT PREP *** **										
Blank (1102603-BLK1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	ND	5.00	mg/L							
LCS (1102603-BS1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	235		mg/L	240		97.9	80-120			
Duplicate (1102603-DUP1)	**Source: H102277-01**			Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	3260	5.00	mg/L		3260			0.00	20	
Batch 1102705 - General Prep - Wet Chem										
LCS (1102705-BS1)				Prepared & Analyzed: 20-Oct-11						
Conductivity	509		uS/cm	500		102	80-120			
pH	7.11		pH Units	7.00		102	90-110			
Duplicate (1102705-DUP1)	**Source: H102247-01**			Prepared & Analyzed: 20-Oct-11						
pH	7.75	0.100	pH Units		7.73			0.258	20	
Conductivity	1410	1.00	uS/cm		1410			0.00	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1103102 - General Prep - Wet Chem										
Blank (1103102-BLK1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	ND	10.0	mg/L							
LCS (1103102-BS1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	20.9	10.0	mg/L	20.0		104	80-120			
LCS Dup (1103102-BSD1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	18.2	10.0	mg/L	20.0		91.0	80-120	13.8	20	
Duplicate (1103102-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 28-Oct-11						
Sulfate	70.1	10.0	mg/L		67.5			3.78	20	
Batch 1110307 - General Prep - Wet Chem										
Duplicate (1110307-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 28-Oct-11						
Specific Gravity @ 60° F	0.9950	0.000	[blank]		0.9969			0.194	200	
Batch 1111105 - Filtration										
Blank (1111105-BLK1)				Prepared & Analyzed: 25-Oct-11						
TSS	ND	2.00	mg/L							
Duplicate (1111105-DUP1)		**Source: H102248-01**		Prepared & Analyzed: 25-Oct-11						
TSS	6.00	2.00	mg/L		6.00			0.00	20	
Batch 1111413 - General Prep										
Blank (1111413-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	ND	0.005	mg/L							

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111413 - General Prep										
LCS (1111413-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.042		mg/L	0.0500		85.0	85-115			
LCS Dup (1111413-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.047		mg/L	0.0500		94.8	85-115	10.9	20	
Batch 1111414 - General Prep										
Blank (1111414-BLK1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	ND	0.200	mg/L							
LCS (1111414-BS1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120			
LCS Dup (1111414-BSD1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120	0.00	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

TOTAL METALS BY ICP - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111410 - EPA 3005										
Blank (1111410-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Aluminum	ND	0.0500	mg/L							
Iron	ND	0.060	mg/L							
Boron	ND	0.300	mg/L							
LCS (1111410-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.86		mg/L	4.00		96.5	85-115			
Aluminum	3.94		mg/L	4.00		98.5	85-115			
Iron	3.89		mg/L	4.00		97.2	85-115			
LCS Dup (1111410-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.89		mg/L	4.00		97.2	85-115	0.774	20	
Iron	3.92		mg/L	4.00		98.0	85-115	0.768	20	
Aluminum	3.95		mg/L	4.00		98.8	85-115	0.253	20	

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Notes and Definitions

GAL	Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	BILL TO
Project Manager:	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: EUNICE 2D	State: Zip:
Project Location:	Phone #:
Sampler Name:	Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:		ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME
H102262-1	Freshwater														
A															
B															
C															
2	Brine Water														
A															
B															
C															

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 the client for the 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 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.

Relinquished By:	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

APPENDIX C

C-141 Spill Report and Photos

HOBBS OCD

JUN 0 6 2011

RECEIVED

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

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

x☐ Initial Report ☐ Final Report

Name of Company Key Energy Service	Contact Bob Fisher
Address Box 99 Eunice , N.M.	Telephone No. 575-394-2581
Facility Name State S Water Station	Facility Type Brine & Fresh Water Sales

Surface Owner Deck Estate	Mineral Owner State of New Mexico	Lease No. MS 0004 0001

LOCATION OF RELEASE API # 30-025-33547-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	15	21S	37E	1340	north	330	west	Lea

Latitude N32° 29' 02.2 Longitude W103° 09' 28.8"

NATURE OF RELEASE

Type of Release over loaded truck	Volume of Release 100 bbls	Volume Recovered 40 bbls
Source of Release transport truck-Bronco Services	Date and Hour of Occurrence 5-30-2011 @ 6 am	Date and Hour of Discovery 5-30-2011 @ 8 am
Was Immediate Notice Given? x☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Noey Franco. Supervisor on duty	
By Whom? John Sanders	Date and Hour 5-30-2011 @ 8 am	
Was a Watercourse Reached? ☐ Yes x☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

GW@163'

Describe Cause of Problem and Remedial Action Taken.*
Bronco Services truck operater fell asleep while loading his truck.

Describe Area Affected and Cleanup Action Taken.*
Area North of the loading docks. Ramon Ponce with Bronco Services Will take care of the clean up & expense

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD 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, NMOCD 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: Robert J Fisher	OIL CONSERVATION DIVISION	
Printed Name: Bob Fisher	Approved by. ~~District Supervisor~~ ENV SPECIALIST:	
Title: District Manager	Approval Date: 06/08/11	Expiration Date: 08/08/11
E-mail Address: rfisher@keyenergy.com	Conditions of Approval: SUBMIT FINAL C-141 BY 08/08/11	Attached ☐ IRP-11-11-2761
Date: 5-31-2011 Phone: 575-394-2581		

* Attach Additional Sheets If Necessary

NOV 17 2011

Key Energy BW-28 Brine Spill Area-looking west

Key Energy BW-28 shows loading pad area where brine water ran off pad.

Spill was contained on-site.

APPENDIX D

MIT TEST CHART

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
SEP 22 2011
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. 30-025-33547	
5. Indicate Type of Lease STATE X☐ FEE ☐	
6. State Oil & Gas Lease No. MS-0004	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	7. Lease Name or Unit Agreement Name STATE S
1. Type of Well: Oil Well ☐ Gas Well ☐ Other Brine Well	8. Well Number #1
2. Name of Operator Key Energy Services	9. OGRID Number
3. Address of Operator Box 99 Eunice, N.M. 88231	10. Pool name or Wildcat BSW-SALADO

4. Well Location
Unit Letter E : 1340 feet from the N line and 330 feet from the W line
Section 15 Township 21S Range 37E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: X☐		OTHER: TEST FORMATION TO 350# ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PRESSURE FORMATION TO 350# WITH FRESH WATER FOR 4 HR TEST TEST DATE 9-29-2011

Spud Date: Rig Release Date:

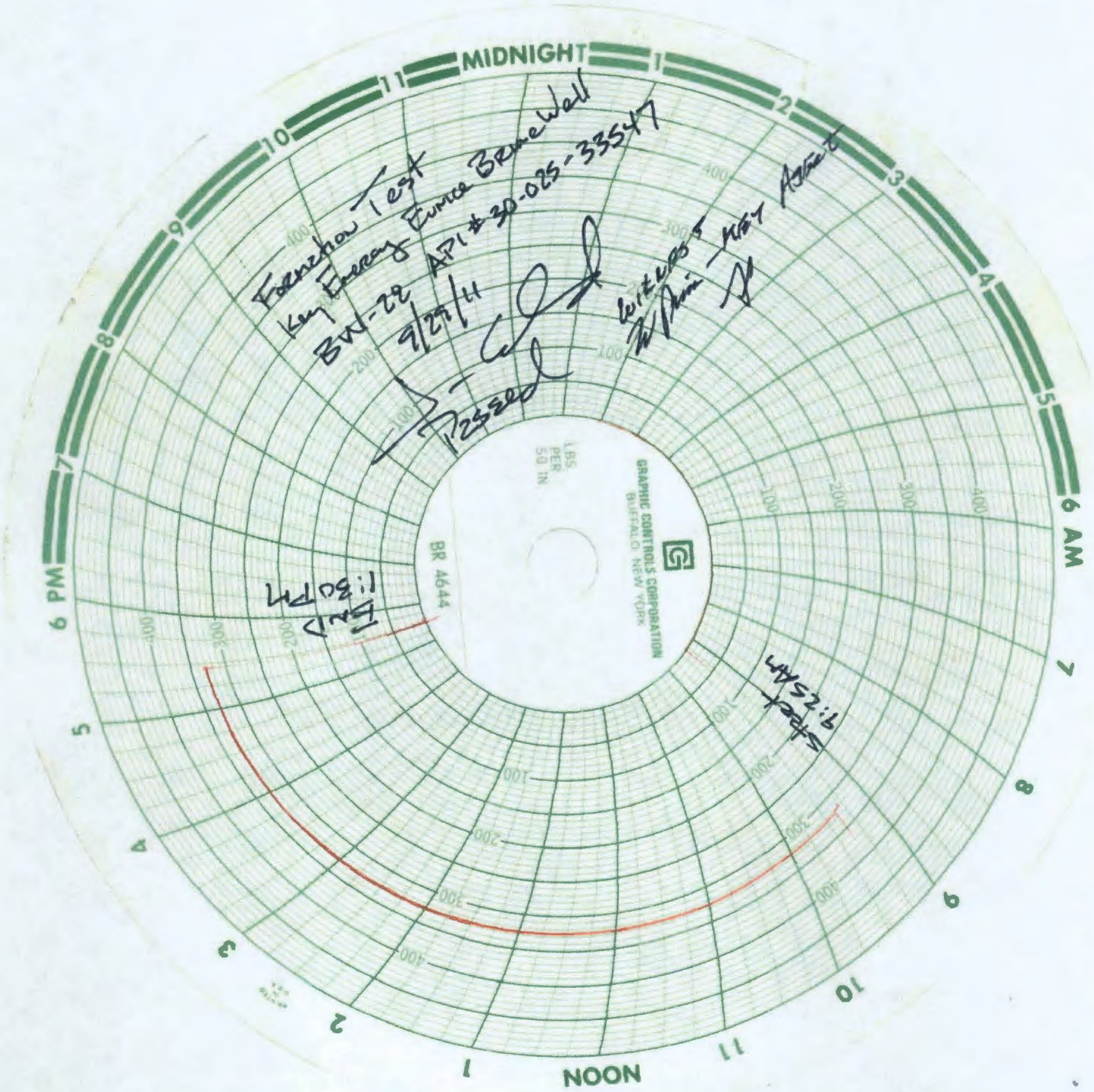
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Robert J. Tubbs TITLE District Manager DATE 9/21/011

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE Staff Mgr DATE 9-22-2011
Conditions of Approval (if any):


MIDNIGHT
NOON
6 AM
6 PM
GRAPHIC CONTROLS CORPORATION
BUFFALO NEW YORK
LBS PER 50 IN
BR 4644
Fracture Test
Key Energy Eunice Brine Well
BW-29 API # 30-025-33547
9/29/11
Witness
Start 1:30PM
Start 9:25AM

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

TO: Key DATE: 07-15-11

This is to certify that:

I, Bud Collins, Technician for American Valve & Meter, Inc., has checked the calibration of the following instrument.

8" Pressure recorder Serial No: 8131

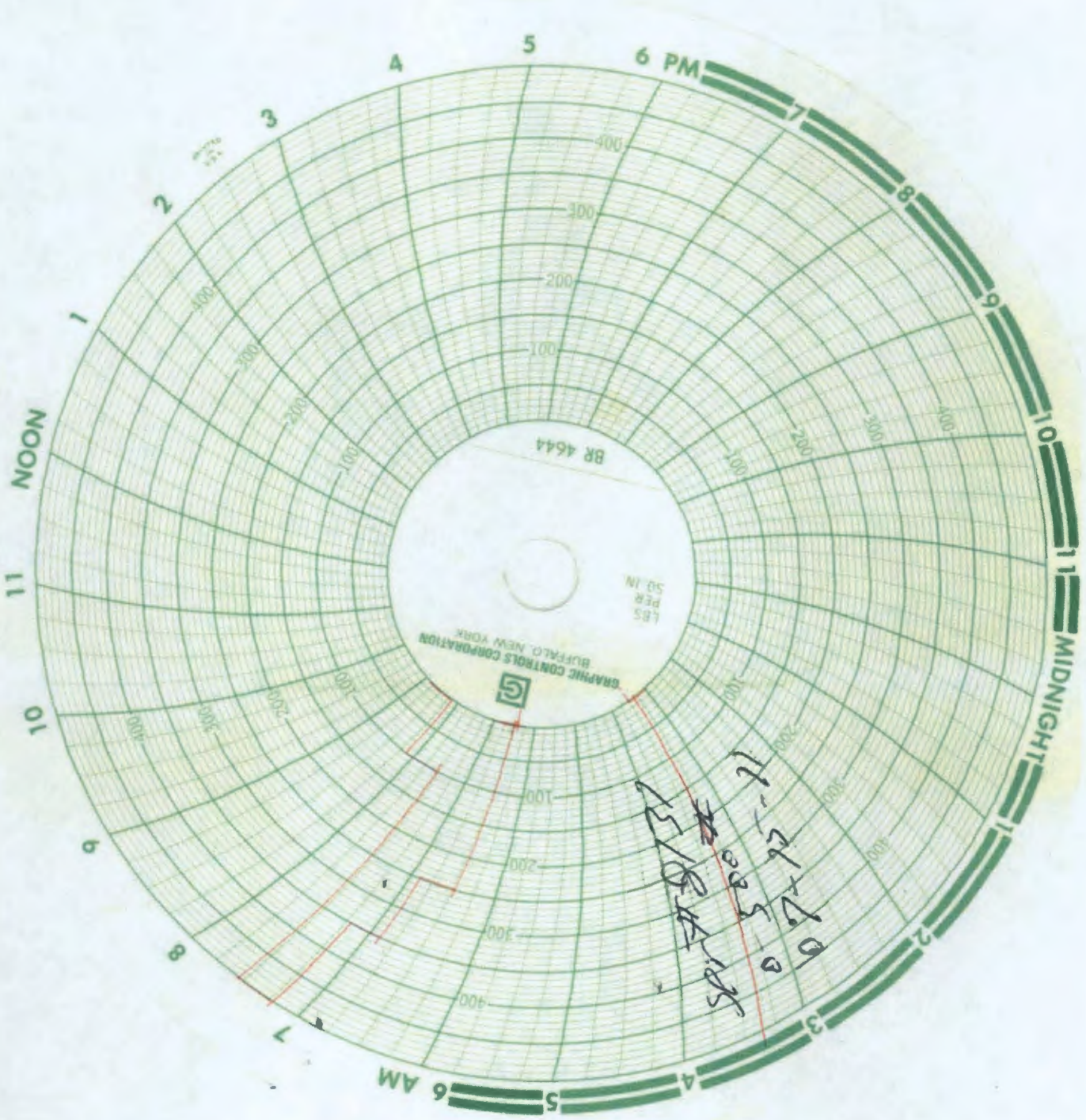
at these points.

Pressure 0-500# Temperature

Test	Found	Left	Test	Found	Left
0		0			
250		250			
350		350			
500		500			
100		100			
0		0			

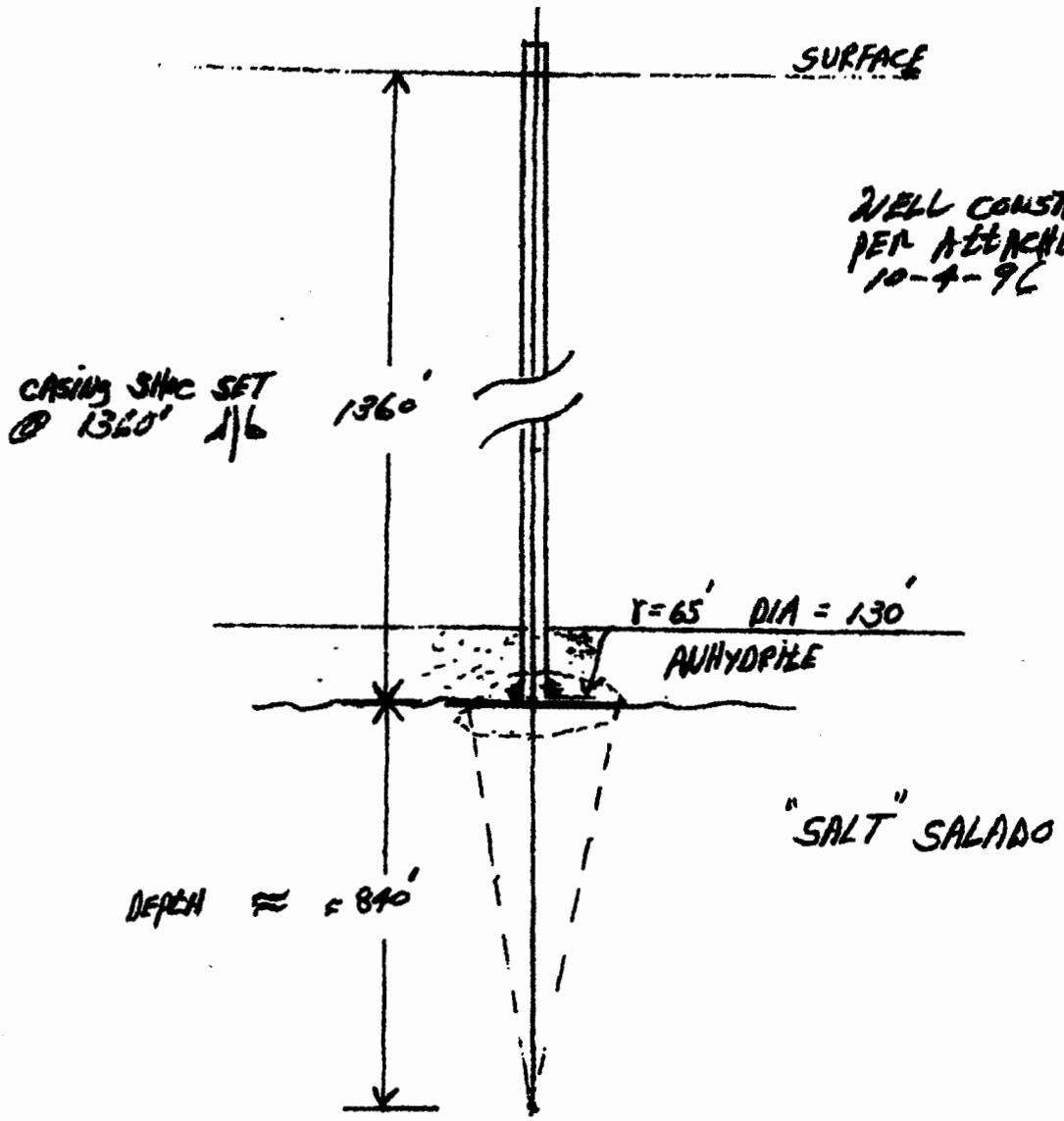
Remarks:

Signature Bud Collins


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
100
200
300
400
BR 4644
LBS PER 50 IN
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

APPENDIX E

BRINE CAVITY CALCULATIONS



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

Total Brine Produced Thru 2010 = 3,767,496 BBLS ≅ 3.8 M
Thru 2011 3,989,782 BBLS ≅ 4.0 M
2011 NEW CALCULATIONS

$r = \sqrt{\frac{3.8 \times 10^6 \cdot 3}{\pi \cdot 840}}$

$r = 65.78 \simeq 66$ ft

d = diameter = 132 ft

h = 1360 ft

$d/h = .097 \simeq .1$

$r = \sqrt{\frac{4.0 \times 10^6 \cdot 3}{\pi \cdot 840}}$

radius = r = 67.43 ≃ 68 ft

diameter = d = 136 ft

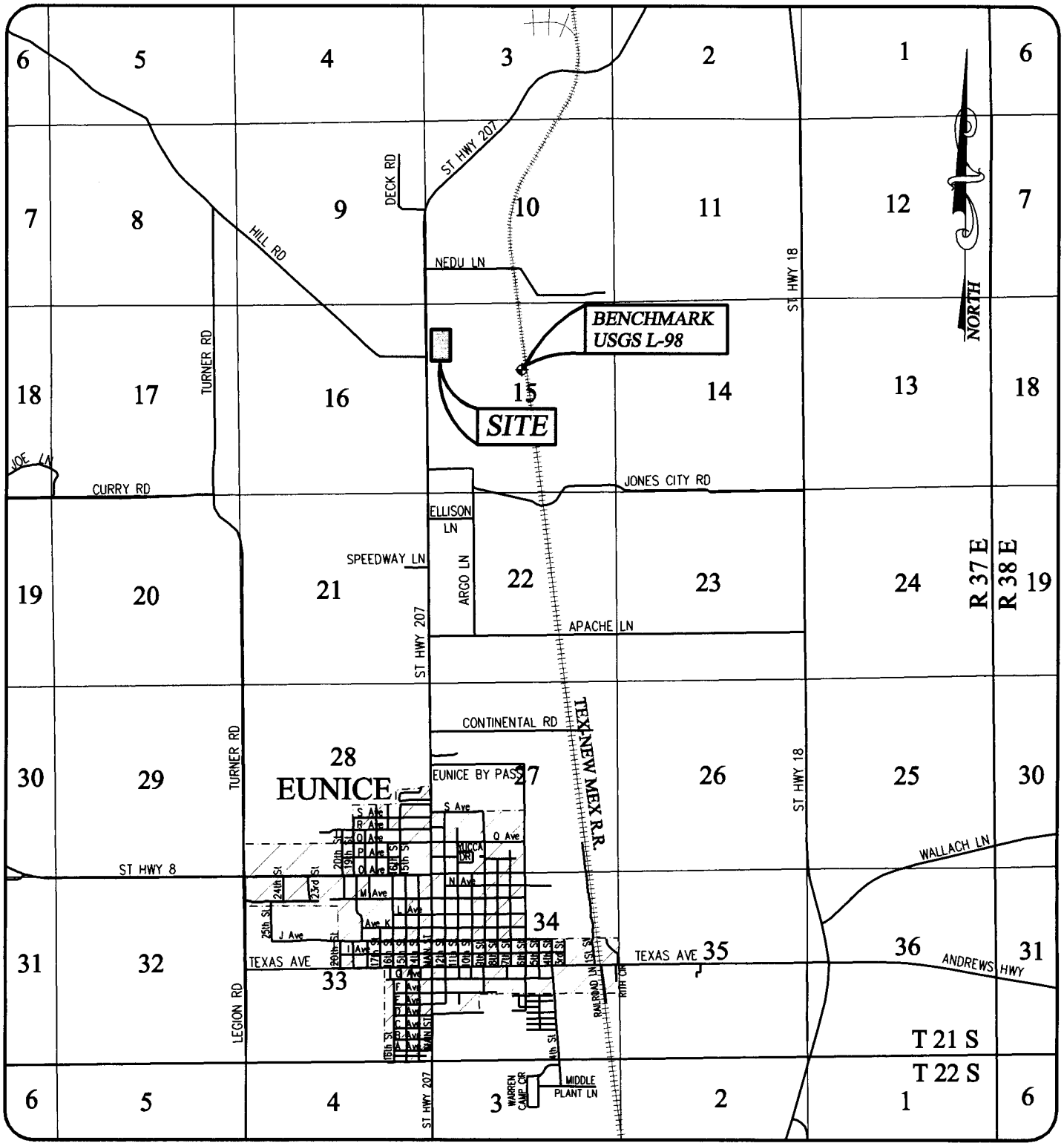
h = 1360 ft

$d/h = .1$

Figure 1

VICINITY MAP

NOT TO SCALE



EUNICE, NEW MEXICO AND SURROUNDING AREA

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

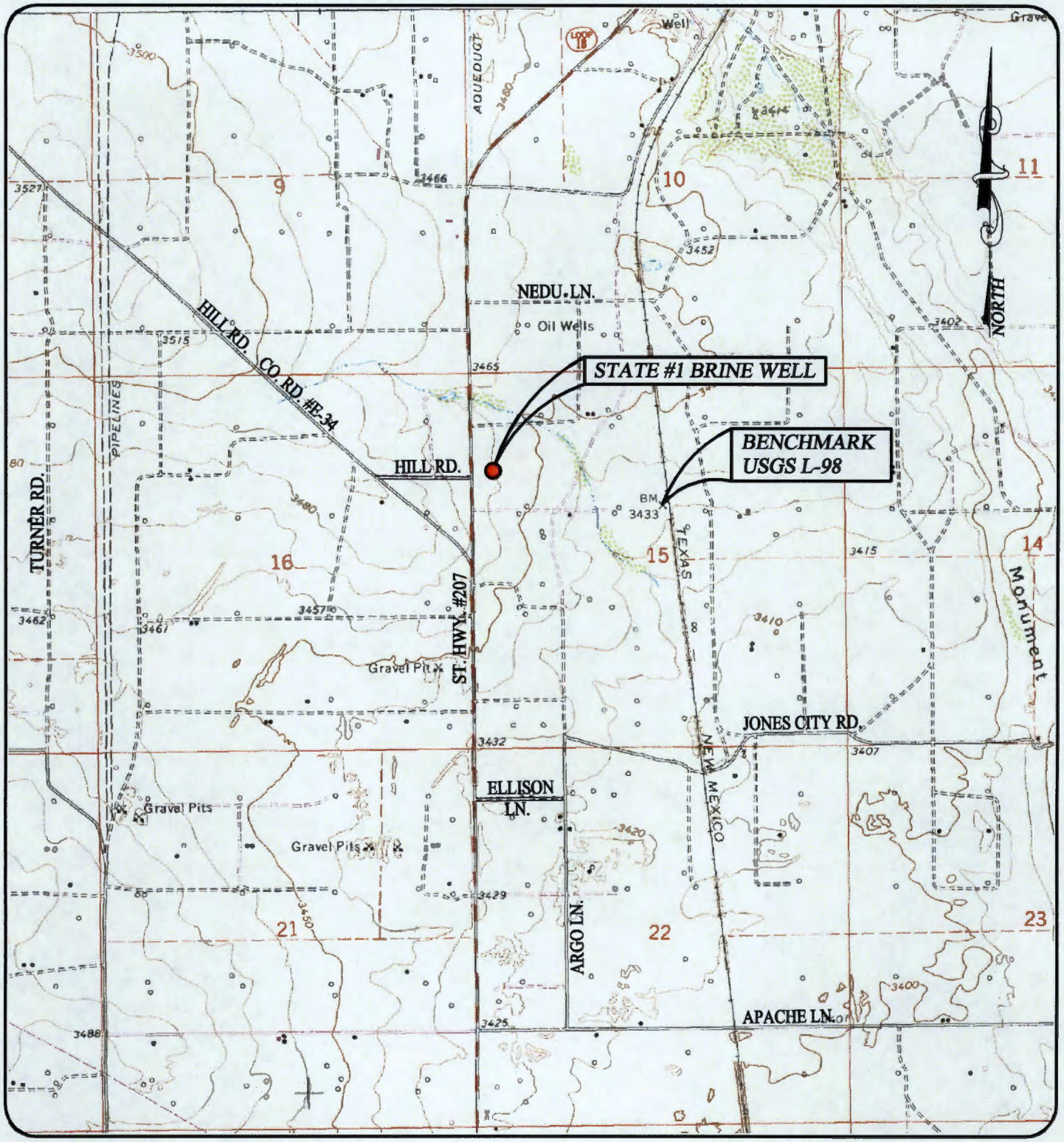
SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

U.S.G.S. MAP

Figure 2

2000 1000 0 2000 4000 FEET

Scale: 1"=2000'



U.S.G.S. 7.5' SERIES TOPOGRAPHIC MAPS FOR:
EUNICE, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

LOCATION MAP

Figure 3

1000 500 0 1000 2000 FEET

Scale: 1"=1000'

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

LEGEND

◉ – DENOTES FOUND CORNER AS NOTED

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

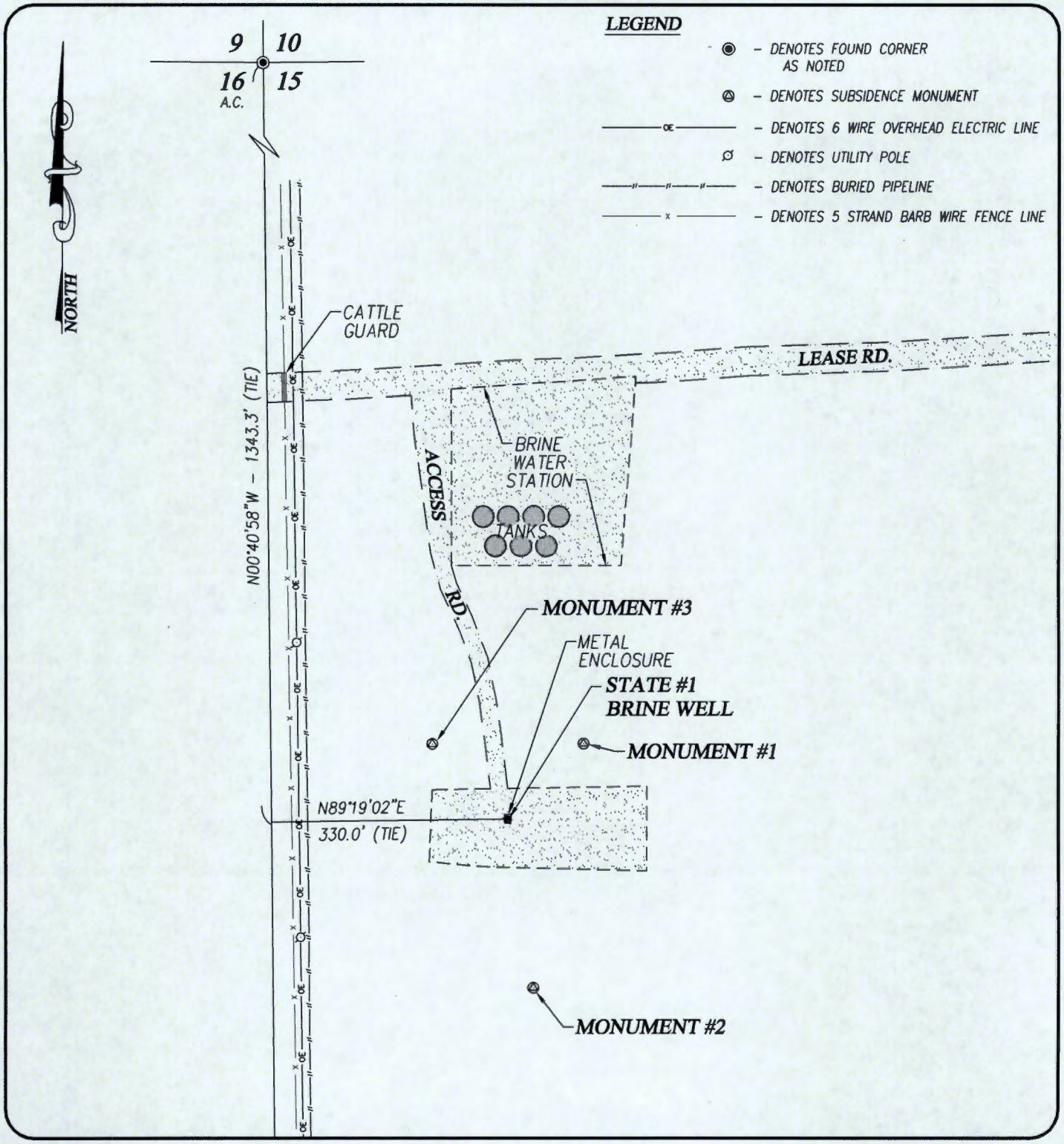
SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

Figure 4

200 100 0 200 400 FEET

Scale:1"=200'



NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

(575) 393-3117

KEY ENERGY SERVICES, LLC

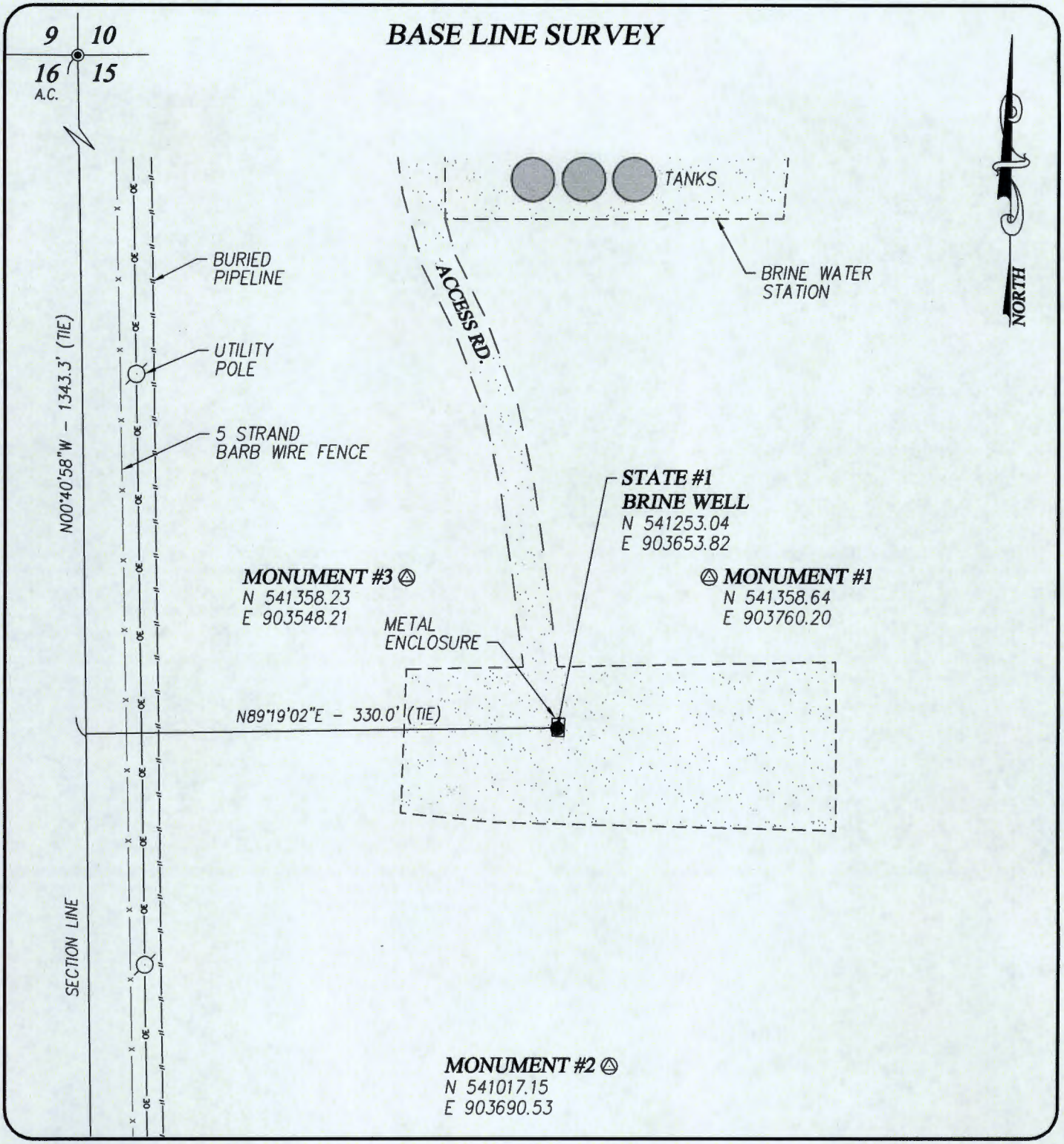
SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

SUBSIDENCE MONUMENT LOCATION MAP

Figure 5

100 50 0 100 200 FEET

Scale: 1"=100'



NOTE

BEARINGS AND COORDINATE VALUES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

(575) 393-3117

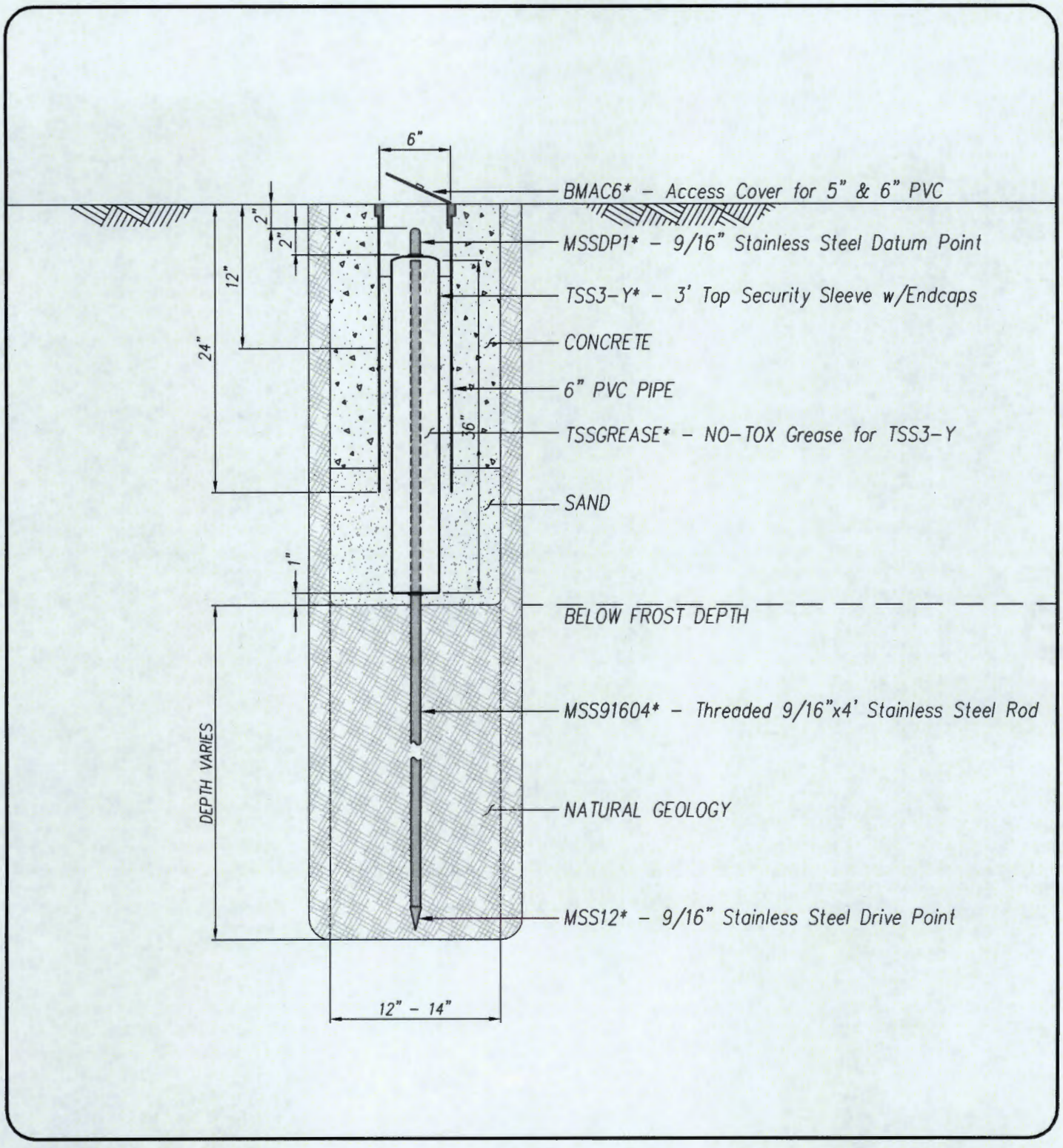
KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Figure 6

BERNTSEN MONUMENT INStALLATION DETAIL

NOT TO SCALE



*REFERENCE:
www.berntsen.com
9/16" STAINLESS STEEL TOP SECURITY SLEEVE MONUMENT

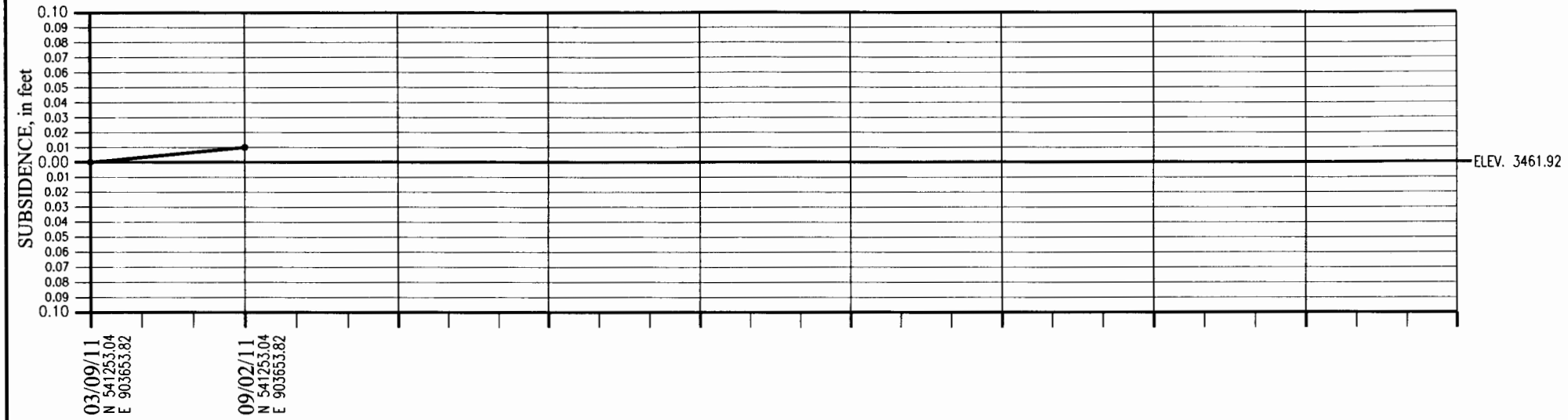
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE
KEY ENERGY STATE #1 BRINE WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

VERTICAL SUBSIDENCE TABLE

TOP OF STATE #1 BRINE WELL BASE LINE ELEVATION 3461.92



SUBSIDENCE MONUMENT #1 BASE LINE ELEVATION 3457.93

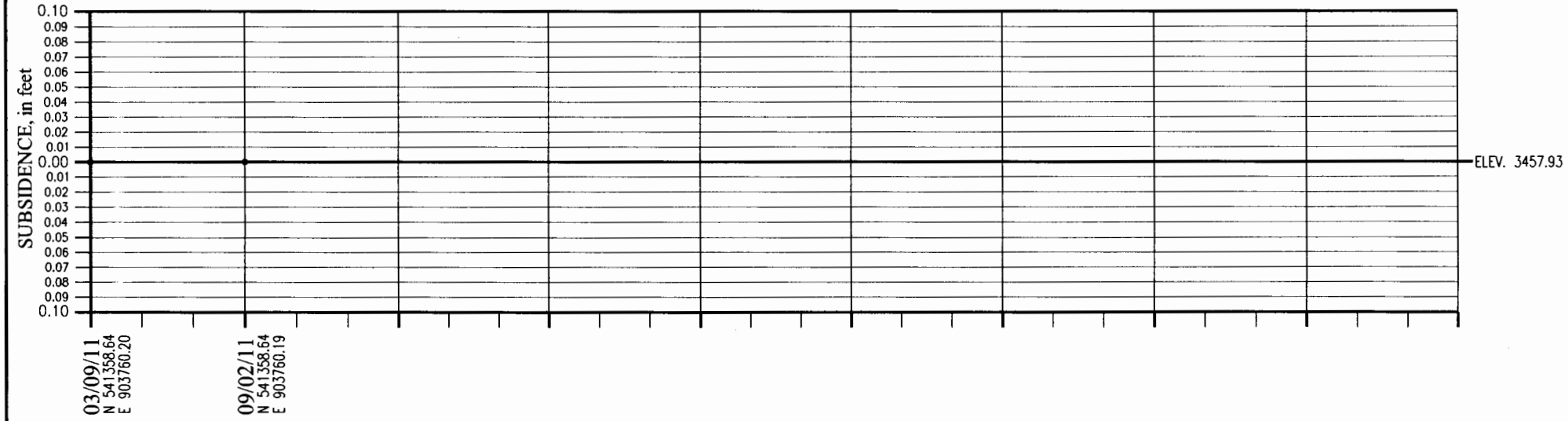


Figure 7A

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

NOTE:

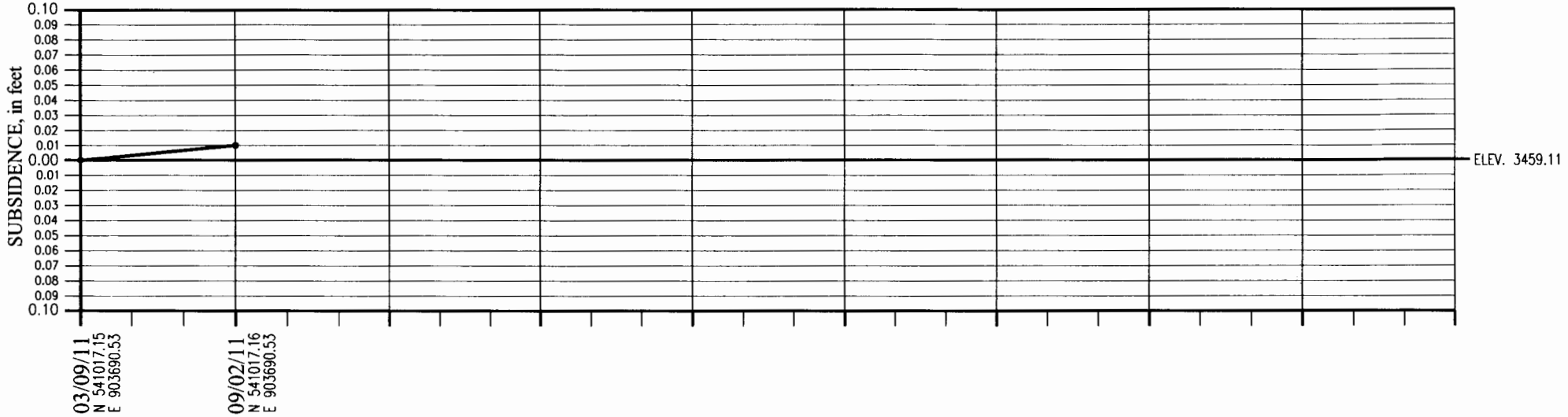
HORIZONTAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.02 FT.
VERTICAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.01 FT.

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE KEY ENERGY STATE #1 BRINE WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

VERTICAL SUBSIDENCE TABLE

SUBSIDENCE MONUMENT #2 BASE LINE ELEVATION 3459.11



SUBSIDENCE MONUMENT #3 BASE LINE ELEVATION 3460.49

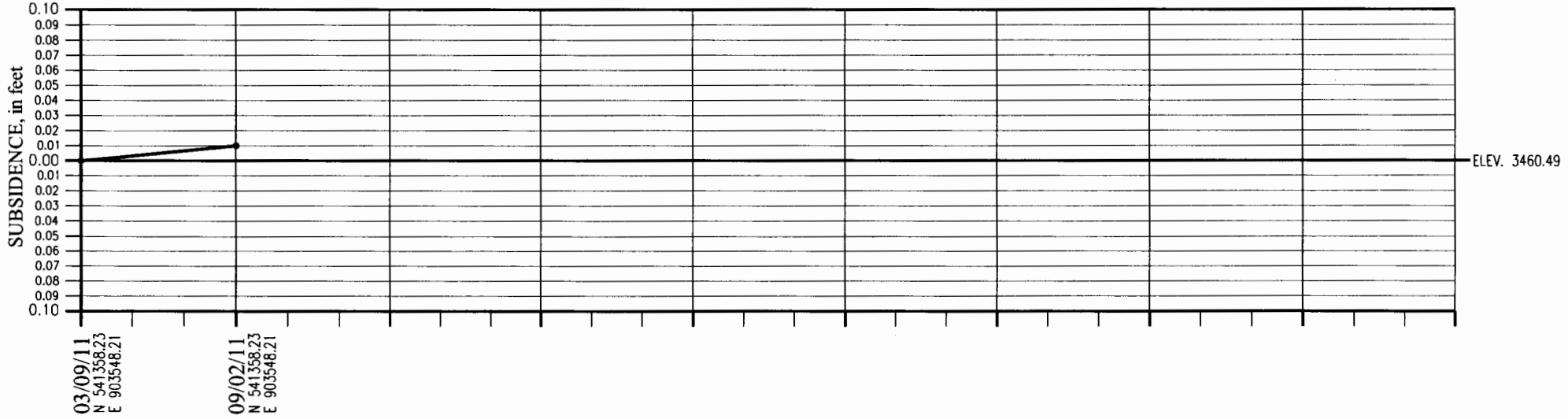


Figure 7B

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

NOTE:

HORIZONTAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.02 FT.
VERTICAL ACCURACY OF EQUIPMENT PER MANUFACTURER ±0.01 FT.

KEY ENERGY SERVICES, LLC

SUBSIDENCE MONITORING FOR THE KEY ENERGY BW-19 CARLSBAD No. 1 WELL IN SECTION 36, TOWNSHIP 22 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

APPENDIX F

AREA OF REVIEW

- **Well Status List Spreadsheet- 1 page**
- **AOR Plot Plan- 1 page**
- **2011 AOR Check Off List- 9 pages**
- **Critical AOR Wells last OCD file record-4 pages**
- **Two Additional Wells investigated near the Critical AOR-13 pages**

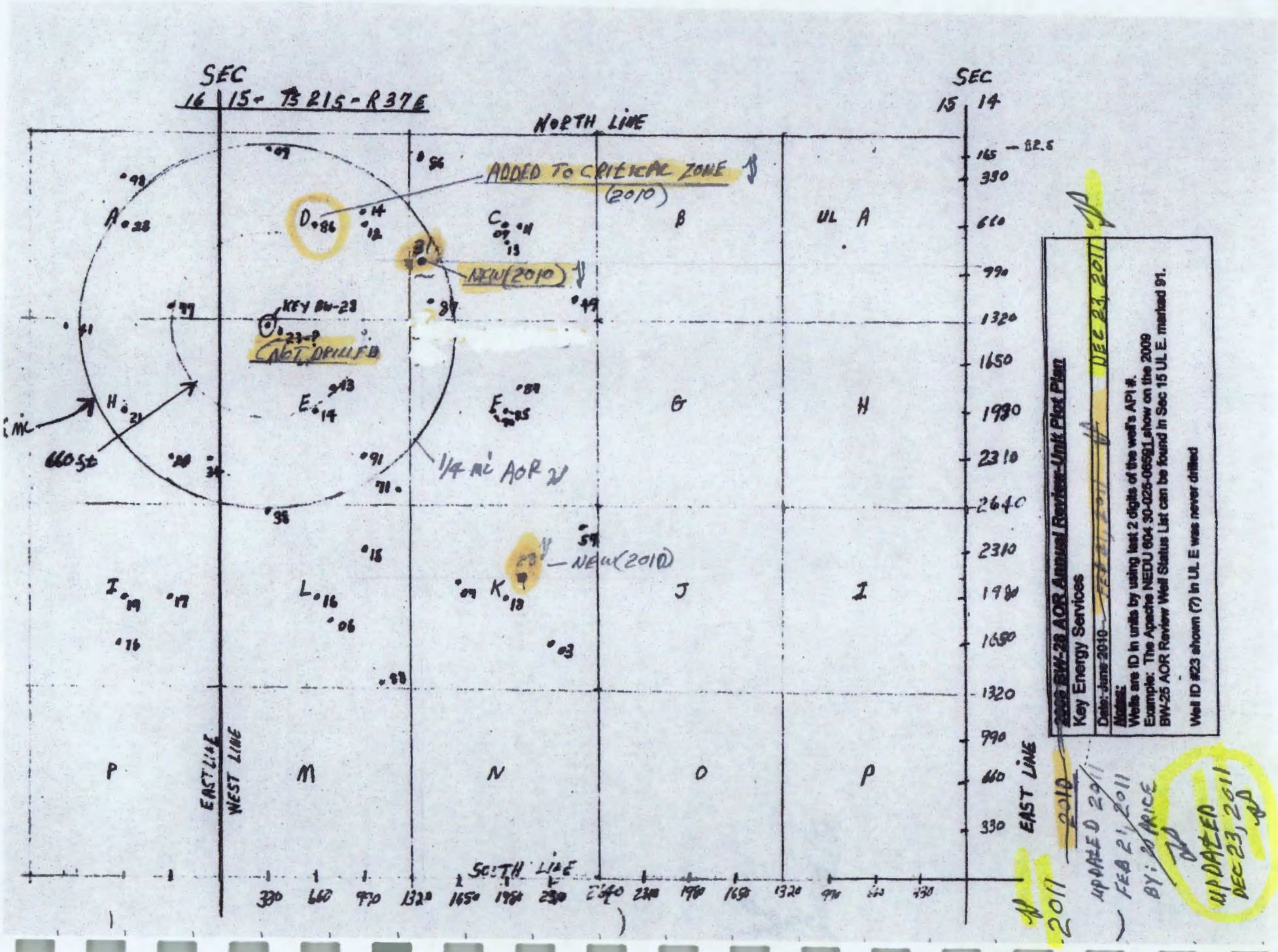
2011 BW-28 AOR Review-- Well Status List

up-dated Dec 23, 2011

	API#	Well Name	UL	Section	Ts	Rg	Footage	Within 1/4 mi AOR * within 660 ft			Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	**30-025-33547**	**Key-State no.001**	**E**	**15**	**21s**	**37e**	**1340 FNL & 330 FWL**	NA			NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-09913	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	yes*	1	1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no			na	na	na
0	30-025-37223**	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	Not Drilled	0	0	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no			na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no			na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no			na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no			na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no			na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	600 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	130 FNL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no			na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no			na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no			na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no			na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no			na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no			na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no			na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no			na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no			na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no			na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no			na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no			na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-25198	Chevron HLNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no			no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	yes*	1	1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06624	Chevron HLNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-36741	Chevron HLNCT 007	H	16	21s	37e	1330 FNL & 1070 FEL	no			na	na	na
1	30-025-37834	Chevron HLNCT 008	H	16	21s	37e	2310 FNL & 030 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no			na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no			na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no			na	na	na
									4	15			

39 Total # of wells in adjacent quarter-sections
15 Total # of wells in 1/4 mile AOR
4 Total # of wells that are or have become within 660 ft of the outside radius of the brine well and casing program will be checked and reported in the next annual report.

Notes:
* Means the well is within 660 ft of the outside radius of the brine well and casing program will be checked annually.
** API # 30-025-37223 not drilled


SEC 16 | 15 - T 21 S - R 37 E
SEC 15 | 14
NORTH LINE
EAST LINE
WEST LINE
SOUTH LINE
ADDED TO CRITICAL ZONE (2010)
NEW (2010)
KEY BW-28
CAN'T DRILL F D
1/4 mi AOR
NEW (2010)
660 St
1 MI
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
UL A
2008 BW-28 AOR Annual Review-Unit Plot Plan
Key Energy Services
Date: June 2010
DEC 23, 2011
Notes:
Wells are ID in units by using last 2 digits of the well's API #.
Example: The Apache NEDU 604 30-025-06591 show on the 2009
BW-25 AOR Review Well Status List can be found in Sec 15 UL E. marked 91.
Well ID #23 shown (?) in UL E was never drilled
2010
2011
UPDATED FEB 21, 2011 BY: B. PRICE
UPDATED DEC 23, 2011 BD

Well File Search - *Select API Number to View*

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

DEC 2011

7 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506609	C -15-21S-37E	660 FNL & 1980 FWL
	Well Name & Number: STATE S No. 002		
	Operator: CHEVRON U S A INC		
○	3002506611	C -15-21S-37E	660 FNL & 2080 FWL
	Well Name & Number: STATE S No. 004		
	Operator: CHEVRON U S A INC		
○	3002506613	C -15-21S-37E	760 FNL & 1980 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 605		
	Operator: APACHE CORP		
○	3002534649	C -15-21S-37E	1229 FNL & 2498 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 622		
	Operator: APACHE CORP		
○	3002534886	C -15-21S-37E	160 FNL & 1350 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 524		
	Operator: APACHE CORP		
○	3002534887	C -15-21S-37E	1250 FNL & 1368 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 624		
	Operator: APACHE CORP		
○	3002539831	C -15-21S-37E	990 FNL & 1330 FWL
	Well Name & Number: STATE S No. 012		
	Operator: CHEVRON U S A INC		

7 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506603	K -15-21S-37E	1650 FSL & 2310 FWL
	Well Name & Number: ARGO No. 006		
	Operator: APACHE CORP		
○	3002506607	K -15-21S-37E	2080 FSL & 1650 FWL
	Well Name & Number: ARGO No. 011		
	Operator: APACHE CORP		
○	3002509918	K -15-21S-37E	1980 FSL & 1980 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 703		
	Operator: APACHE CORP		
○	3002534657	K -15-21S-37E	2540 FSL & 2482 FWL
	Well Name & Number: NORTHEAST DRINKARD UNIT No. 623		
	Operator: APACHE CORP		
○	3002539828	K -15-21S-37E	2190 FSL & 2130 FWL
	Well Name & Number: ARGO No. 014		
	Operator: APACHE CORP		

5 Records Found — Displaying Screen 1 of 1

Continue **Go Back**

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506623	A -16-21S-37E	660 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 057
Operator: APACHE CORP

○	3002525198	A -16-21S-37E	330 FNL & 600 FEL

Well Name & Number: HARRY LEONARD NCT E No. 006
Operator: CHEVRON U S A INC

○	3002539277	A -16-21S-37E	1290 FNL & 330 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 113
Operator: APACHE CORP

3 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506606	L -15-21S-37E	1880 FSL & 760 FWL

Well Name & Number: ARGO No. 010
Operator: APACHE CORP

○	3002509915	L -15-21S-37E	2310 FSL & 990 FWL

Well Name & Number: ARGO No. 007
Operator: APACHE CORP

○	3002509916	L -15-21S-37E	1980 FSL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 701
Operator: APACHE CORP

○	3002534888	L -15-21S-37E	1330 FSL & 1142 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 713
Operator: APACHE CORP

○	3002537238	L -15-21S-37E	2630 FSL & 330 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 629
Operator: APACHE CORP

5 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506585	F -15-21S-37E	1980 FNL & 1980 FWL

Well Name & Number: CITIES S STATE No. 002
Operator: APACHE CORP

○	3002506587	F -15-21S-37E	3375 FSL & 3225 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 606
Operator: APACHE CORP

○	3002506590	F -15-21S-37E	1980 FNL & 1880 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 608
Operator: APACHE CORP

3 Records Found Displaying Screen 1 of 1

Continue **Go Back**

Well File Search - *Select API Number to View*

DEC 2011
LP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506586	D -15-21S-37E	660 FNL & 660 FWL

Well Name & Number: STATE S No. 001
Operator: CHEVRON U S A INC

○	3002506612	D -15-21S-37E	660 FNL & 990 FWL

Well Name & Number: STATE S No. 005
Operator: CHEVRON U S A INC

○	3002506614	D -15-21S-37E	600 FNL & 990 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 601
Operator: APACHE CORP

○	3002536809	D -15-21S-37E	130 FNL & 330 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 526
Operator: APACHE CORP

4 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

6 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506591	E -15-21S-37E	2310 FNL & 990 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 604
Operator: APACHE CORP

○	3002509913	E -15-21S-37E	3390 FSL & 4520 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 603
Operator: SHELL WESTERN E & P INC

○	3002509914	E -15-21S-37E	1980 FNL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 602
Operator: APACHE CORP

○	3002533547	E -15-21S-37E	1340 FNL & 330 FWL

Well Name & Number: STATE No. 001
Operator: KEY ENERGY SERVICES, LLC

○	3002535271	E -15-21S-37E	2580 FNL & 1300 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 625
Operator: APACHE CORP

○	3002537223	E -15-21S-37E	1410 FNL & 380 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 628
Operator: APACHE CORP

6 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

Dec 2011
DP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
○ 3002506617	I -16-21S-37E	1980 FSL & 330 FEL

Well Name & Number: STATE DA No. 005
Operator: APACHE CORP

○ 3002506619	I -16-21S-37E	1980 FSL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 078
Operator: APACHE CORP

○ 3002537916	I -16-21S-37E	1650 FSL & 780 FEL

Well Name & Number: STATE DA No. 013
Operator: APACHE CORP

3 Records Found Displaying Screen 1 of 1

Continue **Go Back**

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

	API Number	ULSTR	Footages
○	3002506621	H -16-21S-37E	1980 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 056
Operator: APACHE CORP

○	3002506624	H -16-21S-37E	2310 FNL & 330 FEL

Well Name & Number: HARRY LEONARD NCT E No. 005
Operator: CHEVRON U S A INC

○	3002536741	H -16-21S-37E	1330 FNL & 1070 FEL

Well Name & Number: HARRY LEONARD NCT E No. 007
Operator: CHEVRON U S A INC

○	3002537834	H -16-21S-37E	2310 FNL & 1030 FEL

Well Name & Number: HARRY LEONARD NCT E No. 008
Operator: CHEVRON U S A INC

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O. Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-09914	Eunice Blinebry-Tubb-Drinkard-North	22900
7 Property Code	**8 Property Name**	**9**
22503	Northeast Drinkard Unit	602

II. * Surface Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	21S	37E		1980	N	660	W	Lea

** Bottom Hole Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P	1/19/90			

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY
DISTRICT I SUPERVISOR

Title: FIELD REP. II

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature | Printed Name | Title | Date

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-09913

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: NORTHEAST DRINKARD UNIT

1. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER

2. Name of Operator: Shell Western E&P Inc.

8. Well No. 503

3. Address of Operator: P.O. Box 576 Houston, TX 77001-0576 (WCK 5237)

9. Pool name or Wildcat: N. EUNICE BLINEBRY-DRINKARD-TUBB

4. Well Location
Unit Letter E : 3390 Feet From The SOUTH Line and 4620 Feet From The EAST Line

Section 15 Township 21S Range 37E NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3445' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [X]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: [ ]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

11-13 TO 11-22-93:

DMPD 35' CLS C CMT ON TOP OF CBP @ 6696'. SET CICR @ 5661'. SQZD BLINEBRY PERFS 5715' - 6682' W/250 SX CLS C NEAT CMT. STUNG OUT OF CICR. LEFT 185' OF CMT ON TOP OF CICR (TOC @ 5466').
CIRC INHIB FL. ISOLATED CSG LK BTW 4934' - 4965'. SET CICR @ 4841'. SQZD CSG LK W/
200 SX CLS C NEAT. STUNG OUT OF CICR. LEFT 125' CMT ON TOP OF CICR. (TOC @ 4715'.)
CIRC INHIB FL. PERF 4-WAY SHOT @ 2875'. SET CICR @ 2802'. ESTAB CIRC DWN TBG & OUT
5-1/2 X 8-5/8 ANN. PMPD 400 SX CLS C CMT, UNABLE TO CIRC TO SURF. STUNG OUT OF CICR.
LEFT 63' CMT ON TOP OF CICR. CIRC CLN. WOC 8 HRS. RUN TEMP SURVEY & FOUND TOC @
250'. PERF @ 800'. SET CICR @ 750'. CIRC CLS C CMT TO SURF BTW 5-1/2 X 8-5/8 ANN.
STUNG OUT OF CICR. CMT TO SURF IN 5-1/2 PROD CSG. CUT OFF 5-1/2 IN. WELLHEAD. WLD 4 IN.
MARKER 3' BELOW GL W/4' ABV GL. BACKFILL PIT & CELLAR. CUT OFF DEADMAN BELOW GL.
WELL IS P&A'D.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. Mora Winder TITLE TECH. MGR. - ASSET ADMIN. DATE 1/07/94

TYPE OR PRINT NAME A. J. DURRANT TELEPHONE NO. 713/544-3797

(This space for State Use)

APPROVED BY Charlie Perrin TITLE OIL & GAS INSPECTOR DATE FEB 15 1995

CONDITIONS OF APPROVAL, IF ANY:

JC

dp

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

RECEIVED
AUG 14 2008
HOBBS OCD

Form C-103
June 19, 2008

	WELL API NO. 30-025-06586
	5. Indicate Type of Lease STATE ☒ FEE ☐
	6. State Oil & Gas Lease No.
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)	7. Lease Name or Unit Agreement Name STATE S
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 1
2. Name of Operator CHEVRON	9. OGRID Number 4323
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705	10. Pool name or Wildcat PENROSE SKELLY GRAYBURG
4. Well Location Unit Letter D: 660 feet from the NORTH line and 660 feet from the WEST line Section 15 Township 21-S Range 37-E NMPM County LEA	
	11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3462'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ACIDIZE & SCALE SQUEEZE	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

07-30-08: MIRU. 07-31-08: REL TAC. TIH W/WS TO 4527. DID NOT TAG FILL. SET PKRS @ 3679. 08-04-08: PMP 28 BBLS ACID TO FILL TBG. WELL ON VAC. ACIDIZE PERFS W/105 BBLS ACID. ALL PERFS OPN VAC. SWAB. 08-05-08: SWAB. 08-06-08: PKR WOULD NOT SET. COLLAR ABOVE PKR IS SPLIT. TIH W/NEW COLLAR. TAG FISH @ 3905. SET PKR. REL PKR. TIH W/PKR TO 3672 & SET. PMP 105 BBLS SCALE INHIB. 08-07-08: REL PKR. TIH W/2 7/8" TBG. EOT @ 4052. 08-08-08: RUN PMP & RODS. RIG DOWN. FINAL REPORT

Spud Date: 07-30-08 Rig Release Date: 8-08-08

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Pinkerton TITLE REGULATORY SPECIALIST DATE 08-11-2008

Type or print name DENISE PINKERTON E-mail address: leakejd@chevron.com PHONE: 432-687-7375

For State Use Only

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE AUG 18 2008

Conditions of Approval (if any):

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

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State of New Mexico
Minerals & Natural Resources

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

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136	873
	[3] Reason for Filing Code/ Effective Date NC / 10/07/2009

[4] API Number	[5] Pool Name	[6] Pool Code
30 - 0 25-38277	Eunice; Blinebry-Tubb-Drinkard, North	22900
[7] Property Code	[8] Property Name	[9] Well Number
37346	West Blinebry Drinkard Unit	113

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	21S	37E		1290	North	330	East	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
S	10/7/2009	10/07/2009			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
24650	Targa Midstream Services LP 1000 Louisiana Suite 4700 Houston, TX 77262	G
214984	Plains Marketing, LP PO Box 4648 Houston, TX 77210	O

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
09/15/2009	10/07/2009	6912'	6853'	5635'-6712'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
12-1/4"	8-5/8"	1342'	850 sx, circ
7-7/8"	5-1/2"	6912'	1000 sx, circ

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
10/07/2009	10/07/2009	10/19/2009	24 hours		
[37] Choke Size	[38] Oil	[39] Water	[40] Gas		[41] Test Method
	61	81	268		Pumping

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature: Amber Cooke

Printed name: Amber Cooke
Title: Production Engineering Tech
E-mail Address: amber.cooke@apachecorp.com
Date: 10/22/2009
Phone: 918.491.4968

OIL CONSERVATION DIVISION

Approved by:
Title: PETROLEUM ENGINEER
Approval Date: NOV 06 2009

Submit 3 copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

SUNDRY NOTICES AND REPORTS ON WELL

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: STATE S

1. Type of Well: OIL WELL ☐ GAS WELL ☒ OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC

8. Well No. 5

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: Penrose Skelly Grayburg

4. Well Location

Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line

Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT,GR, etc.) 3459' KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPERATION	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER: Recompletion			☒

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Objective: Abandon Drinkard, Complete Penrose Skelly Grayburg

1) Set 5 1/2" CIBP w/35' cement cap - New PBTD=6395'
2) Perf 5 1/2" casing w/8 SPF 3841-51' (80 holes)
3) Acidize perfs w/1550 gal 15% NEFE
4) Ran 2 3/8" tubing w/5 1/2" packer set @ 3781'
5) 04/06/94: Flow 1 oil, 108 wtr, 626 MCF, 23/64" choke @ 210#.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Larry Johnson TITLE Engineering Assistant DATE 4/14/94

TYPE OR PRINT NAME Larry W. Johnson Telephone No. 397-0426

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE APR 18 1994

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised February 10,1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator Name and Address	2 OGRID Number
TEXACO EXPLORATION & PRODUCTION INC P.O. BOX 730, HOBBS, NM 88240	022351
	3 Reason for Filing Code RC

4 API Number	5 Pool Name	6 Pool Code
30 025 06612	Penrose Skelly Grayburg	50350
7 Property Code	**8 Property Name**	**9 Well No.**
011110	STATE S	5

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	15	21S	37E		660	NORTH	990	WEST	LEA

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	F	3/15/94			

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
022628	TEX-NM PIPELINE CO PO BOX 2528, HOBBS, NM 88240	2471910	O	C 15 21S 37E
022345	TEXACO E & P INC PO BOX 3000, TULSA, OK 74102	2471930	G	D 15 21S 37E

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2471950	C 15 21S 37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 Total Depth	28 PBTD	29 Perforations
	3/18/94	8148	8395	3841-51

30 HOLE SIZE	31 CASING & TUBING SIZE	32 DEPTH SET	33 SACKS CEMENT
17 1/2"	13 3/8"	284'	300
11"	8 5/8"	2874'	2000
6 3/4"	5 1/2"	8147'	500

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Date of Test	37 Length of Test	38 Tubing Pressure	39 Casing Pressure
3/18/94	03/17/94	04/07/94	24 HR	210	0
40 Choke Size	**41 Oil - Bbls.**	**42 Water - Bbls.**	**43 Gas - MCF**	**44 AOF**	**45 Test Method**
23/64	1	108	626		F

46 I hereby certify that the rules and regulations of the Oil Conservation

OIL CONSERVATION DIVISION

Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature

Printed Name Larry W. Johnson

Title Engineering Assistant

Date 4/8/94 | Telephone 397-0426

Approved By: ORIGINAL SIGNED BY JERRY SEXTON

Title: DISTRICT I SUPERVISOR

Approval Date: APR 13 1994

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

DeSoto/Nichols 12/93 ver 1.10

2A Drinkard

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P O Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised 1-1-89

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL ☐ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☒

b. Type of Well: OIL WELL ☑ GAS WELL ☐ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Lease Name or Unit Agreement Name: STATE S

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

8. Well No. 5

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: SKELLY PENROSE GRAYBURG

4. Well Location

Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line

Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Proposed Depth	11. Formation	12. Rotary or C.T.
6395'	GRAYBURG	-

13. Elevations (Show whether DF, RT, GR, etc.)	14. Kind and Status Plug Bond	15. Drilling Contractor	16. Approx. Date Work will start
3459' KB	-	-	3/10/94

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	38#	294'	300	CIRC
11"	8 5/8"	24#	2974'	2000	CIRC
6 3/4"	5 1/2"	15.5 & 17#	8147'	500	2570'

1. MIRUPU. Kill well. Pull rods and pump. Install BOP. TOH with tubing.
2. Abandon Drinkard perfs: set 5 1/2" CIBP at 6430' & cap with 35' cement.
3. Run Cement Bond Log and GR-CNL Log.
4. Perforate the Grayburg from 3850' - 3860'.
5. Acidize perfs with 1500 gals 15% NEFE acid.
6. Fracture stimulate perfs with 33,000 gals gel & 110,000 lbs 16/30 sand.
7. Place well on production and test.

OPER. OGRID NO. 022351
PROPERTY NO. 01110
POOL CODE 50350
EFF. DATE 3-9-94
API NO. 30-025-06612

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. A. Dunham TITLE Prod. Engineer DATE 3/7/94

TYPE OR PRINT NAME Dan A. Dunham Telephone No. 397-0425

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

Form C-101 NEW M[illegible]CO OIL CONSERVATION COM[illegible]SION

Santa Fe, New Mexico

DUPLICATE

RECEIVED FEB 5 1951 OIL CONSERVATION COMMISSION HOBBS OFFICE

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Houston, Texas — Place

January 31, 1951 — Date

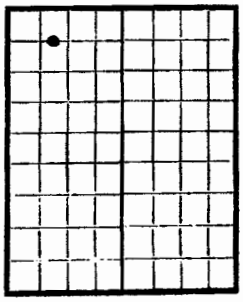
OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Tide Water Associated Oil Company (Company or Operator) State "S" (Lease) Well No. 5 in NW/4 NW/4

of Sec. 15, T. 21-S, R. 37-E, N. M., P. M., Brunson Field, Lea County.



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 660 feet ~~XXX~~ (S.) of the N line and 990 feet (E.) ~~XXX~~ of the W line of Section 15, 21S, 37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. B-9188 Assignment No. _____

If patented land the owner is _____

Address _____

If government land the permittee is _____

Address _____

The lessee is Tide Water Associated Oil Company

Address Box 1404, Houston 1, Texas

We propose to drill well with drilling equipment as follows: Rotary

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Blanket Bond dated Nov. 30, 1937, with Saint Paul-Mercury Ind. Co.

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
17 1/2"	13 3/8"	36#	New	380	Cemented	300
11"	8 5/8"	24# and 32#	New	2800'	Cemented	2000
6 3/4"	5 1/2"	17#	New	7800'	Cemented	500

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 7600 feet.

Additional information:

Approved FEB - 5 1951, 19____

except as follows:

OIL CONSERVATION COMMISSION,

By [signature]

Title Oil & Gas Inspector

Sincerely yours,

Tide Water Associated Oil Company

Company or Operator

By [signature]

J. B. Holloway

Position Authorized Employee

Send communications regarding well to

Name J. E. Springer, c/o Tide Water Assoc. Oil Company,

Address Midland, Texas

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

HOBBS OCD
OCT 24 2011
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No. BD-9188

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

7. Lease Name or Unit Agreement Name: Northeast Drinkard Unit

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

8. Well Number: 601

2. Name of Operator: Apache Corporation

9. OGRID Number: 873

3. Address of Operator: 303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705

10. Pool name or Wildcat: Eunice, Blinebry-Tubb-Drinkard, N.

4. Well Location
Unit Letter D : 600 feet from the N line and 990 feet from the W line
Section 15 Township 21S Range 37E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3459' GR

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water N/A
Pit Liner Thickness: ____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: drill out & add Plugs ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

10/10/11 Tag existing CIBP ~~TOC~~ @ 5,620'

10/11/11 Tbg @ 5,620' – Circ hole w/ MLF. Test csg – OK.
Spot 50sx cmt @ 5,620'. Displaced to 5113'.

10/12/11 Perf @ 4,032' – unable to Sqz. Tbg @ 4,082' – Spot 25sx cmt w/2% CaCl – Tag @ 3,885'
Perf @ 3,040' – unable to Sqz. Tbg @ 3,090' – ~~Spot 25sx cmt~~ – Tag @ 2,740' Spot 40sx cmt.
TIH open ended tbg

10/13/11 Tbg @ 2,246' – Spot 25sx cmt No tag per OCD, mark Whitaker.
Tbg @ 1,306' – Spot 25sx cmt No tag per OCD again.
Tbg @ 400' – Spot 25sx cmt – Tag @ 200'
Perf @ 100' – Circ 50sx cmt to surface. RDMO. Cutoff WH, anchors, clean location. Install dry hole marker.

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

SIGNATURE [signature] TITLE P &A Technician (Basic Energy Services) DATE 10-18-11

Type or print name: Greg Bryant E-mail address: Telephone No. 432-563-3355

For State Use Only

APPROVED BY: [signature] TITLE Staff Mgr DATE 10-25-2011

Conditions of Approval (if any):

OCT 25 2011

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Northeast Drinkard Unit

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 601

2. Name of Operator
Apache Corporation

9. OGRID Number 00873

3. Address of Operator 6120 South Yale, Suite 1500
Tulsa, OK 74136-4224

10. Pool name or Wildcat
Eunice Blinebry - Tubb - Drinkard - North

4. Well Location
Unit Letter D : 660 feet from the South line and 990 feet from the West line
Section 15 Township 21S Range 37E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3459' GR

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[ ]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[X]		
OTHER:	[ ]			OTHER:			[ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Isolate 5-1/2" casing leak, 4942' - 4974'. TOC @ 5380' per CBL. Perf 5360', set retainer @ 5007'. Squeeze with 125 sx Class C. Pulled out of retainer. Set cmt retainer @ 4880'. Squeeze casing leak with 350 sxs Class C. Set packer @ 5322'. Test squeeze to 500 psi. Did not hold. Test backside to 500 psi, held ok. Set retainer @ 5320' and squeeze with 50 sx Class C w/ CaCl + 150 sx Class C Neat. Test squeeze ok. Acidize Blinebry/Tubb with 5200 gals 15% HCL. Acidize Drinkard with 3000 gals 15% HCl. Return to production.

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

SIGNATURE Elaine Linton TITLE Engineering Technician DATE 01/12/2005

Type or print name Elaine Linton E-mail address: elaine.linton@apachecorp.com Telephone No. (918)491-5362

For State Use Only

APPROVED BY: Gary W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER DATE JAN 14 2005

Conditions of Approval (if any):

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O.Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
6 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-06614	Eunice Blinebry-Tubb-Drinkard-North	22900
7 Property Code	**8 Property Name**	**9**
22503	Northeast Drinkard Unit	601

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21S	37E		660	S	990	W	Lea

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	P				

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
				-	-

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
-					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: 9/4/98 Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY GARY WINK

Title: FIELD REP II

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature: Printed Name: Title: Date:

Form C-104

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL)-(GAS) ALLOWABLE

It is necessary that this form be submitted by the operator before an initial allowable will be assigned to any completed oil or gas well. Form C-110 (Certificate of Compliance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 P.B. at 60° Fahrenheit.

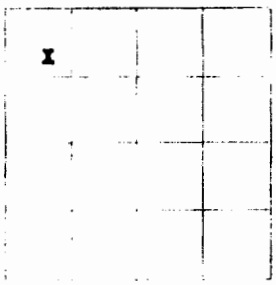
Box 547, Hobbs, New Mexico (Place) — May 1, 1952 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Tide Water Associated Oil Co. (Company or Operator) — State "B" (Lease) — Well No. 7 — in SW 1/4 NW 1/4

Section 14, T. 21-S R. 37-E, N.M.P.M. Brunson Pool Lea County

Please indicate location:



Unit letter: D

Elevation 3459' Spudded 2-20-52 Completed 4-27-52

Total Depth 8145 P.B.

Top Oil/Gas Pay 7988' Top Water Pay None

Initial Production Test: Pump ____ Flow 237.71 (BOPD on [illegible])

Based on 160.95 Bbls. Oil in 16 1/4 Hrs. ____ Mins.

Method of Test (Pitot, gauge, [illegible]): ____

Size of choke in inches 20/64"

Tubing (Size) 2 3/8" 8055 Feet

Pressures: Tubing 325 psig. Casing Packer set @ 7924'

Gas/Oil Ratio 1076 cu.ft./bbl. Gravity 43.2° A.I.

Casing Perforations:

7988' to 8056'

Acid Record:

5000 Gals 7988 to 8056
____ Gals ____ to ____
____ Gals ____ to ____

Shooting Record.

____ Qts ____ to ____
____ Qts ____ to ____
____ Qts ____ to ____

Show of Oil, Gas and water

S/ Oil
S/ ____
S/ ____
S/ ____
S/ ____
S/ ____
S/ ____
S/ ____

Casing & Cementing Record

Size	Feet	Sax
13 3/8	293	300
8 5/8	2990	1700
5 1/2	8142'	350

(5½" hung in 8-5/8" csg. @ 2847')

Natural Production Test: None — Swabbing [illegible] Flowing

Test after acid or shot: ____ Pumping 237.71 Flowing

Please indicate below Formation Tops (in conformance with geographical section of state):

Southeastern New Mexico		Northwestern New Mexico			
T. Anhy		T. Devonian		T. Ojo Alamo	
T. Salt		T. Silurian		T. Kirtland-Fruitland	
B. Salt		T. Montoya		T. Farmington	
T. Yates		T. Simpson	7369'	T. Pictured Cliffs	
T. 7 Rivers		T. McKee	7976'	T. Cliff House	
T. Queen		T. Ellenburger	7976'	T. Menefee	
T. Graybrg		T. Gr. Wash		T. Point Lookout	
T. San Andres	3982'	T. Granite	8141'	T. Mancos	
T. Glorieta	5181'	T.		T. Dakota	
T. Drinkard	6597'	T.		T. Morrison	
T. Tubbs	6155'	T. Connell	7903'	T. Penn	
T. Abo		T.		T.	
T. Penn		T.		T.	
T. Miss		T. T.D.	8145'	T.	

(Please supply required information on reverse side of form)

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
17½"	13-3/8	293	300	Halliburton	Native	
11"	8-5/8	2990	2000	"	Native	
6-3/4"	5½	8142	350	"	9.3#/gal.	
	(5½" Liner hung in 8-5/8" casing @ 2847')					

PLUGS AND ADAPTERS

Heaving plug—Material.....Length.....Depth Set.....

Adapters — Material.....Size.....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		15% Regular Acid	5000 gals	4-26-52	7988 - 8056	
				(perf. in 5½" liner)		

Results of shooting or chemical treatment No natural production before acid treatment, well flowed 238 BOPD following treatment.

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 8145 feet, and from.....feet to.....feet

Cable tools were used from.....feet to.....feet, and from.....feet to.....feet

PRODUCTION

Put to producing 4-27, 1952

The production of the first 24 hours was 237.71 barrels of fluid of which 100 % was oil; .....% emulsion; .....% water; and.....% sediment. Gravity, Be.....

If gas well, cu. ft. per 24 hours.....Gallons gasoline per 1,000 cu. ft. of gas.....

Rock pressure, lbs. per sq. in.....

EMPLOYEES

R. L. Griffin, Driller — D. R. Robbins, Driller

B. N. Gaston, Driller — , Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 19 day of May, 1952

O. C. Lusarders
Notary Public

My Commission expires.....y, 1955

Box 547 - Hobbs, New Mexico (Place) 5-16-52 (Date)

Name [illegible] H.P. Shaakelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

March 4, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water

Associated Oil Co. (Company or Operator) State "S" (Lease) Well No. 7 in the

NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M.,

Hare Pool Lea County.

The dates of this work were as follows: February 29, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on February 27, 19 52

and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 8-5/8" casing at 2990' with 2000 sks cement top cement behind 8-5/8" casing is 160' from surface. Casing tested and held 1000 psi for 30 min.

Witnessed by L. W. Hogue (Name) Tide Water Associated Oil Co. (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)

(Title)

(Date) 19

I hereby swear or affirm that the information given above is true and correct.

Name H. P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547 - Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

April 23, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water Associated Oil Co. (Company or Operator) State "J" (Lease) Well No. 7 in the NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Pool, Lea County.

The dates of this work were as follows: April 21, 1952

Notice of intention to do the work was (~~not~~) submitted on Form C-102 on April 19, 1952, and approval of the proposed plan was (~~not~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 5½" liner at 8142' w/350 sks regular cement. 5½" liner was hung in 8-5/8" casing at 2847'. Top of cement behind 5½" liner is 5400'. Liner tested and held 1000# for 30 min.

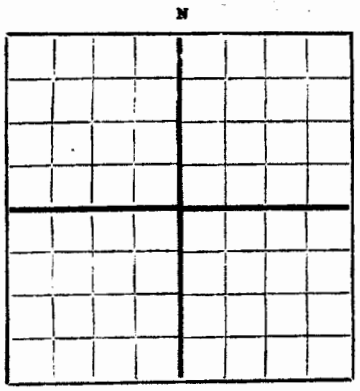
Witnessed by E. W. Hogue (Name) Tide Water Associated Oil Company (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION
Roy Yarbrough (Name)
Inspector (Title)
(Date) 19

I hereby swear or affirm that the information given above is true and correct.

Name H.P. Shackelford
Position District Foreman
Representing Tide Water Associated Oil Co. (Company or Operator)
Address Box 547, Hobbs, New Mexico

FORM C-105



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Tide Water Associated Oil Company (Company or Operator) Box 547, Hobbs, New Mexico (Address)

State "S" (Lease) Well No. # 7 in NW/4 of NW/4 of Sec. 15, T. 21-S

R. 37-E, N. M. P. M., Brunson Field, Lea County.

Well is 600 feet south of the North line and 4380 feet west of the East line of Sec. 15-21S-37E.

If State land the oil and gas lease is No. B - 9188 Assignment No.

If patented land the owner is, Address

If Government land the permittee is, Address

The Lessee is Tide Water Associated Oil Company, Address Box 1404 Houston, 1, Texas

Drilling commenced 2-20- 19 52. Drilling was completed 4-20 19 52

Name of drilling contractor E. F. Moran, Inc., Address Tulsa, Oklahoma

Elevation above sea level at top of casing 3459' feet.

The information given is to be kept confidential until Not confidential 19

OIL SANDS OR ZONES

No. 1, from 7988' to 8056' No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
13-3/8"	36#	Spiral Weld	Armco	280'	Tex. Pattern				Surface Casing
8-5/8"	24 & 32#	8R		2997'	Larkin				Salt String
5-1/2"	17 & 15½"	8R		5288'	Larkin				Production String

MUDDING AND CEMENTING RECORD

APPENDIX C

C-141 Spill Report and Photos

HOBBS OCD

JUN 0 6 2011

RECEIVED

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

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

x☐ Initial Report ☐ Final Report

Name of Company Key Energy Service	Contact Bob Fisher
Address Box 99 Eunice , N.M.	Telephone No. 575-394-2581
Facility Name State S Water Station	Facility Type Brine & Fresh Water Sales

Surface Owner Deck Estate	Mineral Owner State of New Mexico	Lease No. MS 0004 0001

LOCATION OF RELEASE API # 30-025-33547-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	15	21S	37E	1340	north	330	west	Lea

Latitude N32° 29' 02.2 **Longitude** W103° 09' 28.8"

NATURE OF RELEASE

Type of Release over loaded truck	Volume of Release 100 bbls	Volume Recovered 40 bbls
Source of Release transport truck-Bronco Services	Date and Hour of Occurrence 5-30-2011 @ 6 am	Date and Hour of Discovery 5-30-2011 @ 8 am
Was Immediate Notice Given? x☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Noey Franco. Supervisor on duty	
By Whom? John Sanders	Date and Hour 5-30-2011 @ 8 am	
Was a Watercourse Reached? ☐ Yes x☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

GW@163'

Describe Cause of Problem and Remedial Action Taken.*
Bronco Services truck operater fell asleep while loading his truck.

Describe Area Affected and Cleanup Action Taken.*
Area North of the loading docks. Ramon Ponce with Bronco Services Will take care of the clean up & expense

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD 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, NMOCD 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: Robert J Fisher	OIL CONSERVATION DIVISION	
Printed Name: Bob Fisher	Approved by. ~~District Supervisor:~~ ENV SPECIALIST: Geoffrey Leking	
Title: District Manager	Approval Date: 06/08/11	Expiration Date: 08/08/11
E-mail Address: rfisher@keyenergy.com	Conditions of Approval: SUBMIT FINAL C-141 BY 08/08/11	Attached ☐ IRP-11-11-2761
Date: 5-31-2011 Phone: 575-394-2581		

* Attach Additional Sheets If Necessary

NOV 17 2011

Key Energy BW-28 Brine Spill Area-looking west

Key Energy BW-28 shows loading pad area where brine water ran off pad.

Spill was contained on-site.

APPENDIX D

MIT TEST CHART

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
SEP 22 2011
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. 30-025-33547	
5. Indicate Type of Lease STATE X☐ FEE ☐	
6. State Oil & Gas Lease No. MS-0004	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well ☐ Gas Well ☐ Other Brine Well	7. Lease Name or Unit Agreement Name STATE S 8. Well Number #1
2. Name of Operator Key Energy Services	9. OGRID Number
3. Address of Operator Box 99 Eunice, N.M. 88231	10. Pool name or Wildcat BSW-SALADO
4. Well Location Unit Letter E : 1340 feet from the N line and 330 feet from the W line Section 15 Township 21S Range 37E NMPM County LEA	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER:	X☐	OTHER: ☐	TEST FORMATION TO 350#

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PRESSURE FORMATION TO 350# WITH FRESH WATER FOR 4 HR TEST TEST DATE 9-29-2011

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

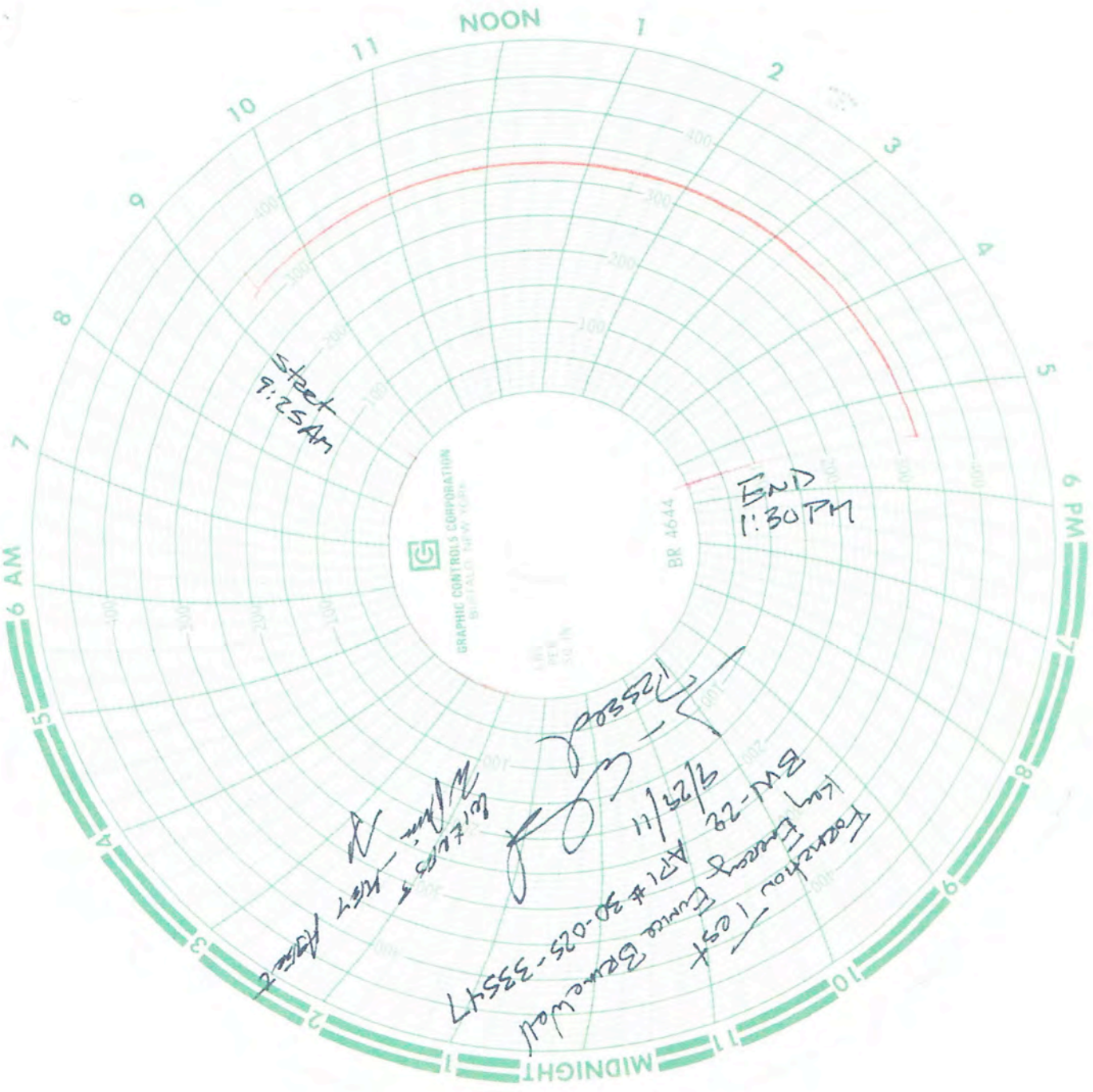
SIGNATURE Robert J. Lahr TITLE District Manager DATE 9/21/011

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE STAFF MGR DATE 9-22-2011

Conditions of Approval (if any):


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
GRAPHIC CONTROLS CORPORATION
BR 4644
Start
9:25AM
END
1:30PM
Excavation Log
Earthwork Service Breakwall
BW-28 AP1# 30-025-33547
11/22/11

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

TO: Key DATE: 07-15-11

This is to certify that:

I, Bud Collins, Technician for American Valve & Meter, Inc., has checked the calibration of the following instrument.

8" Pressure recorder Serial No: B131

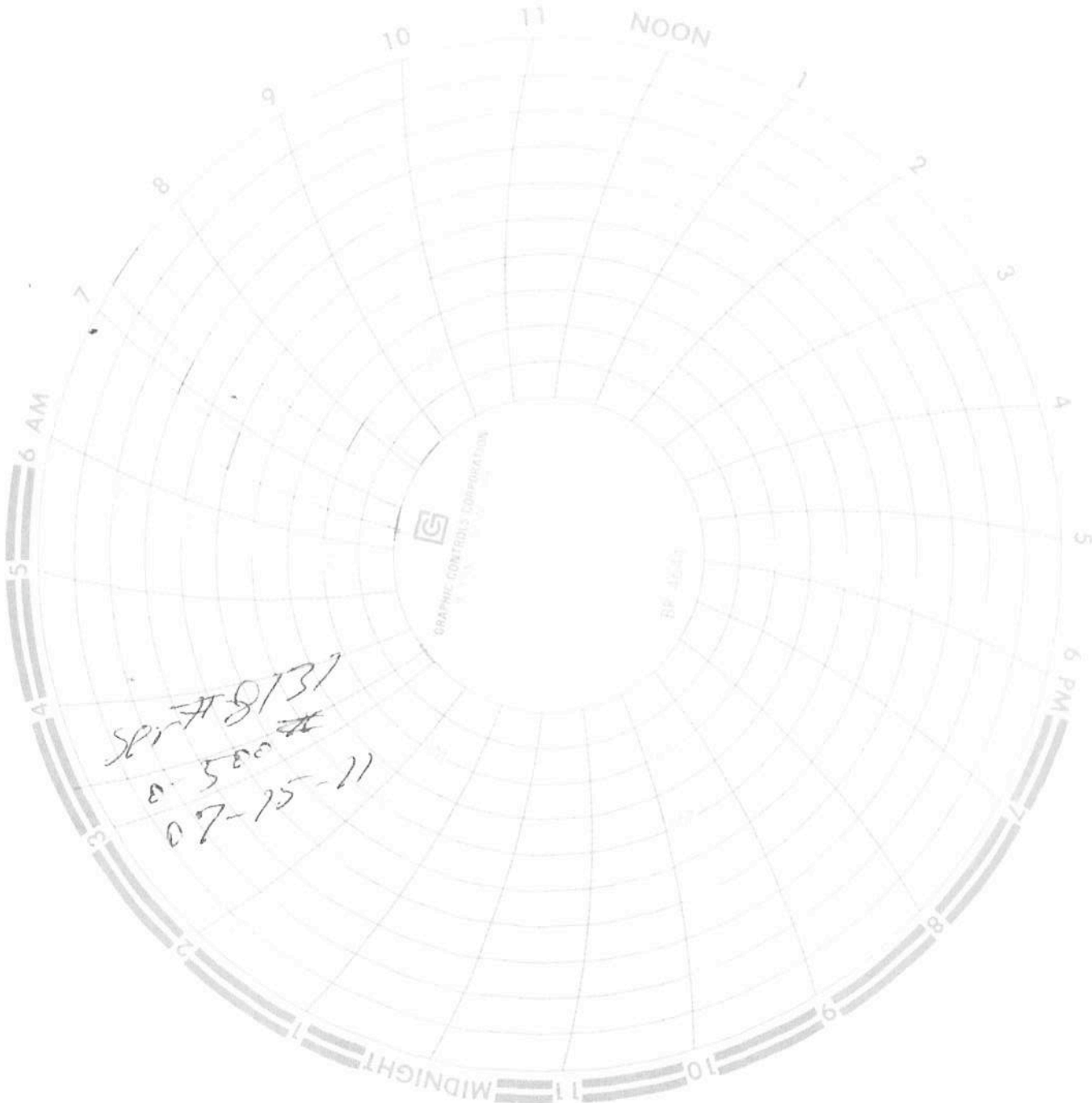
at these points.

Pressure 0-500# Temperature ____

Test	Found	Left	Test	Found	Left
0	___	0	___	___	___
250	___	250	___	___	___
350	___	350	___	___	___
500	___	500	___	___	___
100	___	100	___	___	___
0	___	0	___	___	___

Remarks: ____

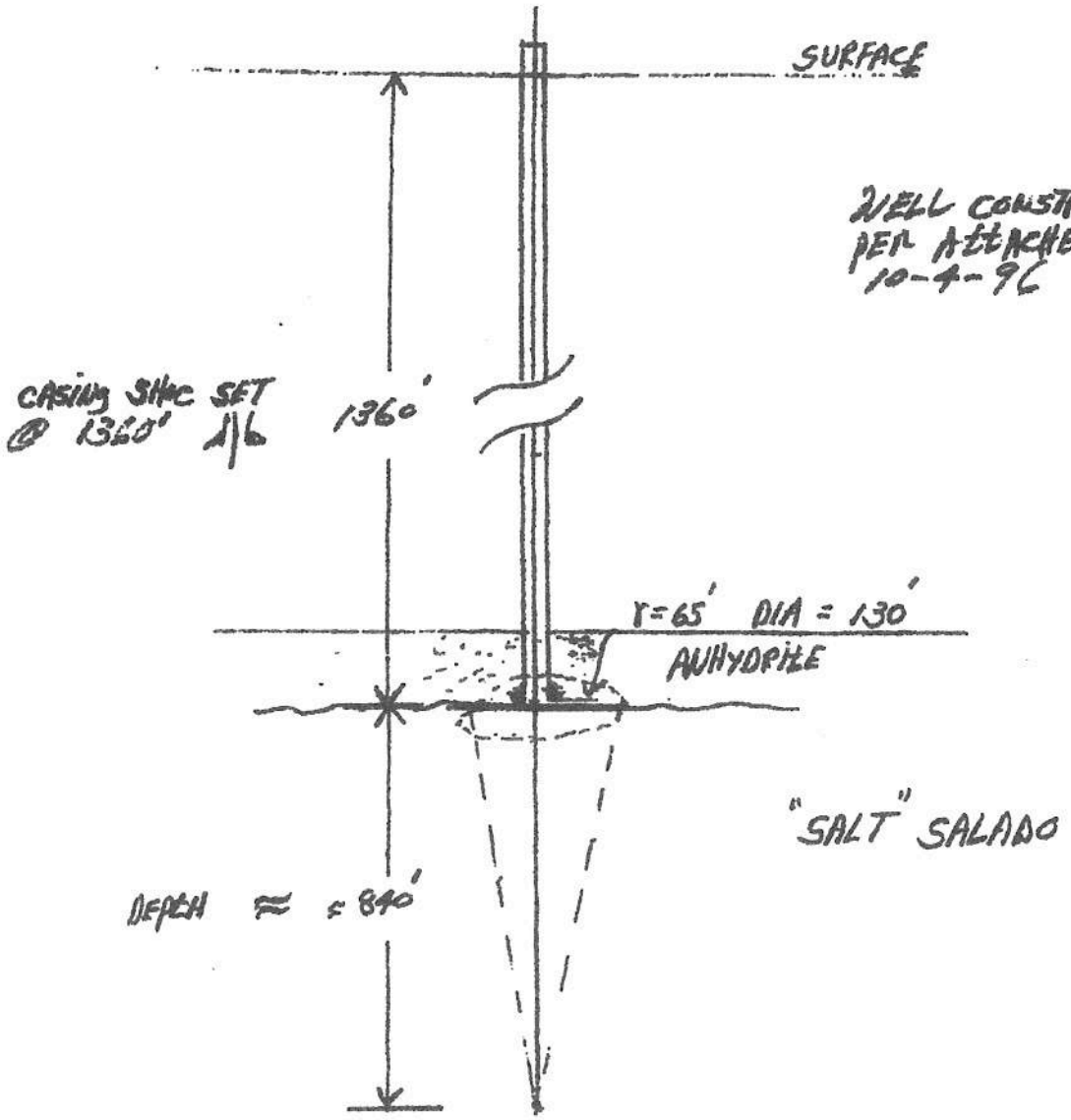
Signature Bud Collins



SP-#8131
8.5 ea
07-15-11

APPENDIX E

BRINE CAVITY CALCULATIONS



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

Total Brine Produced Thru 2010 = 3,767,496 BBLS ≅ 3.8 M
Thru 2011 3,989,782 BBLS ≅ 4.0 M

2011 NEW CALCULATIONS

$r = \sqrt{\frac{3.8 \times 10^6 \cdot 3}{\pi \cdot 840}}$

$r = 65.78 \simeq 66$ ft

d = diameter = 132 ft

h = 1360 ft

$d/h = .097 \simeq .1$

$r = \sqrt{\frac{4.0 \times 10^6 \cdot 3}{\pi \cdot 840}}$

radius = r = 67.43 ≃ 68 ft

diameter = d = 136 ft

h = 1360 ft

$d/h = .1$

Current Subsidence Report will be mailed within 30 days

APPENDIX F

AREA OF REVIEW

- Well Status List Spreadsheet- 1 page
- AOR Plot Plan- 1 page
- 2011 AOR Check Off List- 9 pages
- Critical AOR Wells last OCD file record-4 pages
- Two Additional Wells investigated near the Critical AOR-13 pages

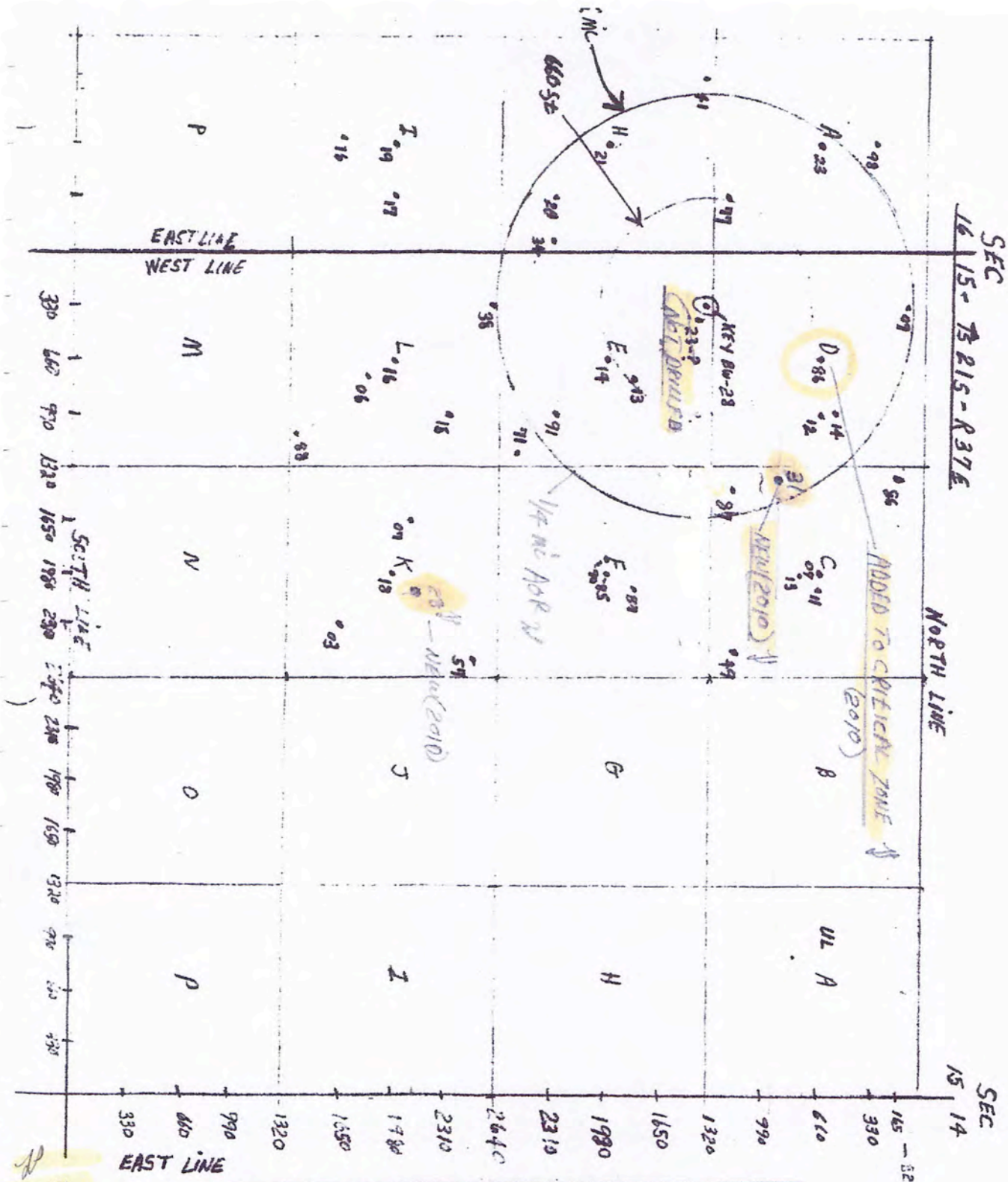
2011 BW-28 AOR Review-- Well Status List

up-dated Dec 23, 2011

	API#	Well Name	UL	Sectior	Ts	Rg	Footage	Within 1/4 mi AOR * within 660 ft			Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	***30-025-33547***	***Key-State no.001***	***E***	***15***	***21s***	***37e***	***1340 FNL & 330 FWL***	NA			NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-09913	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	yes*	1	1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no			na	na	na
0	30-025-37223**	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	Not Drilled	0	0	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no			na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no			na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no			na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no			na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no			na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	600 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	130 FNL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no			na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no			na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no			na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no			na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no			na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no			na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no			na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no			na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no			na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no			na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no			na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no			na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-25198	Chevron HLNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no			no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	yes*	1	1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06624	Chevron HLNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-36741	Chevron HLNCT 007	H	16	21s	37e	1330 FNL & 1070 FEL	no			na	na	na
1	30-025-37834	Chevron HLNCT 008	H	16	21s	37e	2310 FNL & 030 FEL	yes		1	no	check again 2012 report	check again 2012 report
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no			na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no			na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no			na	na	na
									4	15			

39 Total # of wells in adjacent quarter-sections
15 Total # of wells in 1/4 mile AOR
4 Total # of wells that are or have become within 660 ft of the outside radius of the brine well and casing program will be checked and reported in the next annual report.

Notes:
* Means the well is within 660 ft of the outside radius of the brine well and casing program will be checked annually.
** API # 30-025-37223 not drilled



2009 BW-28 AOR Annual Review-Unit Plot Plan

Key Energy Services

Date: June 2010 ~~FEB 21, 2011~~ DEC 23, 2011

Notes:

Wells are ID in units by using last 2 digits of the well's API #.
Example: The Apache NEDU 604 30-025-06591 show on the 2009 BW-25 AOR Review Well Status List can be found in Sec 15 UL E. marked 91.

Well ID #23 shown (?) in UL E was never drilled

~~2011~~ 2010
UPDATED 2011
FEB 21, 2011
BY: JO PRICE

UPDATED
DEC 23, 2011

Well File Search - *Select API Number to View*

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

DEC 2011

7 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506609	C -15-21S-37E	660 FNL & 1980 FWL
Well Name & Number: STATE S No. 002		
Operator: CHEVRON U S A INC		
3002506611	C -15-21S-37E	660 FNL & 2080 FWL
Well Name & Number: STATE S No. 004		
Operator: CHEVRON U S A INC		
3002506613	C -15-21S-37E	760 FNL & 1980 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 605		
Operator: APACHE CORP		
3002534649	C -15-21S-37E	1229 FNL & 2498 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 622		
Operator: APACHE CORP		
3002534886	C -15-21S-37E	160 FNL & 1350 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 524		
Operator: APACHE CORP		
3002534887	C -15-21S-37E	1250 FNL & 1368 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 624		
Operator: APACHE CORP		
3002539831	C -15-21S-37E	990 FNL & 1330 FWL
Well Name & Number: STATE S No. 012		
Operator: CHEVRON U S A INC		

7 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506603	K -15-21S-37E	1650 FSL & 2310 FWL
Well Name & Number: ARGO No. 006		
Operator: APACHE CORP		
3002506607	K -15-21S-37E	2080 FSL & 1650 FWL
Well Name & Number: ARGO No. 011		
Operator: APACHE CORP		
3002509918	K -15-21S-37E	1980 FSL & 1980 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 703		
Operator: APACHE CORP		
3002534657	K -15-21S-37E	2540 FSL & 2482 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 623		
Operator: APACHE CORP		
3002539828	K -15-21S-37E	2190 FSL & 2130 FWL
Well Name & Number: ARGO No. 014		
Operator: APACHE CORP		

5 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506623	A -16-21S-37E	660 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 057
Operator: APACHE CORP

3002525198	A -16-21S-37E	330 FNL & 600 FEL

Well Name & Number: HARRY LEONARD NCT E No. 006
Operator: CHEVRON U S A INC

3002539277	A -16-21S-37E	1290 FNL & 330 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 113
Operator: APACHE CORP

3 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506606	L -15-21S-37E	1880 FSL & 760 FWL
Well Name & Number: ARGO No. 010		
Operator: APACHE CORP		
3002509915	L -15-21S-37E	2310 FSL & 990 FWL
Well Name & Number: ARGO No. 007		
Operator: APACHE CORP		
3002509916	L -15-21S-37E	1980 FSL & 660 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 701		
Operator: APACHE CORP		
3002534888	L -15-21S-37E	1330 FSL & 1142 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 713		
Operator: APACHE CORP		
3002537238	L -15-21S-37E	2630 FSL & 330 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 629		
Operator: APACHE CORP		

5 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
○ 3002506585	F -15-21S-37E	1980 FNL & 1980 FWL
Well Name & Number: CITIES S STATE No. 002		
Operator: APACHE CORP		
○ 3002506587	F -15-21S-37E	3375 FSL & 3225 FEL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 606		
Operator: APACHE CORP		
○ 3002506590	F -15-21S-37E	1980 FNL & 1880 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 608		
Operator: APACHE CORP		

3 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011
LD

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506586	D -15-21S-37E	660 FNL & 660 FWL
Well Name & Number: STATE S No. 001		
Operator: CHEVRON U S A INC		
3002506612	D -15-21S-37E	660 FNL & 990 FWL
Well Name & Number: STATE S No. 005		
Operator: CHEVRON U S A INC		
3002506614	D -15-21S-37E	600 FNL & 990 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 601		
Operator: APACHE CORP		
3002536809	D -15-21S-37E	130 FNL & 330 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 526		
Operator: APACHE CORP		

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

6 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506591	E -15-21S-37E	2310 FNL & 990 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 604
Operator: APACHE CORP

3002509913	E -15-21S-37E	3390 FSL & 4520 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 603
Operator: SHELL WESTERN E & P INC

3002509914	E -15-21S-37E	1980 FNL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 602
Operator: APACHE CORP

3002533547	E -15-21S-37E	1340 FNL & 330 FWL

Well Name & Number: STATE No. 001
Operator: KEY ENERGY SERVICES, LLC

3002535271	E -15-21S-37E	2580 FNL & 1300 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 625
Operator: APACHE CORP

3002537223	E -15-21S-37E	1410 FNL & 380 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 628
Operator: APACHE CORP

6 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

Dec 2011
DP

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506617	I -16-21S-37E	1980 FSL & 330 FEL
Well Name & Number: STATE DA No. 005		
Operator: APACHE CORP		
3002506619	I -16-21S-37E	1980 FSL & 660 FEL
Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 078		
Operator: APACHE CORP		
3002537916	I -16-21S-37E	1650 FSL & 780 FEL
Well Name & Number: STATE DA No. 013		
Operator: APACHE CORP		

3 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506621	H -16-21S-37E	1980 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 056
Operator: APACHE CORP

3002506624	H -16-21S-37E	2310 FNL & 330 FEL

Well Name & Number: HARRY LEONARD NCT E No. 005
Operator: CHEVRON U S A INC

3002536741	H -16-21S-37E	1330 FNL & 1070 FEL

Well Name & Number: HARRY LEONARD NCT E No. 007
Operator: CHEVRON U S A INC

3002537834	H -16-21S-37E	2310 FNL & 1030 FEL

Well Name & Number: HARRY LEONARD NCT E No. 008
Operator: CHEVRON U S A INC

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

District I
P.O. Box 1980, Hobbs, NM 88241-1980

District II
P.O. Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	3 OGRID Number 000873
	2 Reason for Filing Code CG effective 8/1/1998
4 API Number 30-025-09914	5 Pool Name Eunice Blinebry-Tubb-Drinkard-North
	6 Pool Code 22900
7 Property Code 22503	8 Property Name Northeast Drinkard Unit
	9 602

II. 10 Surface Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	21S	37E		1980	N	660	W	Lea

11 Bottom Hole Location

Ul or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P	1/19/90			

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
-				-	-

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
-				-	P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY

Title: DISTRICT I SUPERVISOR

Approval Date: SEP 21 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature | Printed Name | Title | Date

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-04913

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
NORTHEAST DRINKARD UNIT

1. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER

2. Name of Operator
Shell Western E&P Inc.

8. Well No.
603

3. Address of Operator
P.O. Box 576 Houston, TX 77001-0576 (WCK 5237)

9. Pool name or Wildcat
N. EUNICE BLINEBRY-DRINKARD-TUBB

4. Well Location
Unit Letter E : 3390 Feet From The SOUTH Line and 4520 Feet From The EAST Line

Section 15 Township 21S Range 37E NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3445' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: [ ]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

11-13 TO 11-22-93:

DMPD 35' CLS C CMT ON TOP OF CIBP @ 6596'. SET CICR @ 5651'. SQZD BLINEBRY PERFS 5715' - 6682' W/250 SX CLS C NEAT CMT. STUNG OUT OF CICR. LEFT 185' OF CMT ON TOP OF CICR (TOC @ 5466'). CIRC INHIB FL. ISOLATED CSG LK BTW 4934' - 4965'. SET CICR @ 4841'. SQZD CSG LK W/ 200 SX CLS C NEAT. STUNG OUT OF CICR. LEFT 126' CMT ON TOP OF CICR. (TOC @ 4715'.) CIRC INHIB FL. PERF 4-WAY SHOT @ 2875'. SET CICR @ 2802'. ESTAB CIRC DWN TBG & OUT 5-1/2 X 8-5/8 ANN. PMPD 400 SX CLS C CMT, UNABLE TO CIRC TO SURF. STUNG OUT OF CICR. LEFT 63' CMT ON TOP OF CICR. CIRC CLN. WOC 8 HRS. RUN TEMP SURVEY & FOUND TOC @ 850'. PERF @ 800'. SET CICR @ 750'. CIRC CLS C CMT TO SURF BTW 5-1/2 X 8-5/8 ANN. STUNG OUT OF CICR. CMT TO SURF IN 5-1/2 PROD CSG. CUT OFF 5-1/2 IN. WELLHEAD. WLD 4 IN. MARKER 3' BELOW GL W/4' ABV GL. BACKFILL PIT & CELLAR. CUT OFF DEADMAN BELOW GL. WELL IS P&A'D.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. Marcus Windus TITLE TECH. MGR. - ASSET ADMIN. DATE 1/07/94

TYPE OR PRINT NAME A. J. DURRANI TELEPHONE NO. 713/544-3797

(This space for State Use)

APPROVED BY Charles Gholson TITLE DIL & GAS INSPECTOR DATE FEB 15 1995

CONDITIONS OF APPROVAL, IF ANY:

J C

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

RECEIVED
AUG 14 2008
HOBBS OCD

Form C-103
June 19, 2008

WELL API NO. 30-025-06586	
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	STATE S
8. Well Number	1
9. OGRID Number	4323
10. Pool name or Wildcat	PENROSE SKELLY GRAYBURG

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other
2. Name of Operator: CHEVRON
3. Address of Operator: 15 SMITH ROAD, MIDLAND, TEXAS 79705
4. Well Location
Unit Letter D: 660 feet from the NORTH line and 660 feet from the WEST line
Section 15 Township 21-S Range 37-E NMPM County LEA
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3462'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ACIDIZE & SCALE SQUEEZE	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

07-30-08: MIRU. 07-31-08: REL TAC. TIH W/WS TO 4527. DID NOT TAG FILL. SET PKRS @ 3679. 08-04-08: PMP 28 BBLS ACID TO FILL TBG. WELL ON VAC. ACIDIZE PERFS W/105 BBLS ACID. ALL PERFS OPN VAC. SWAB. 08-05-08: SWAB. 08-06-08: PKR WOULD NOT SET. COLLAR ABOVE PKR IS SPLIT. TIH W/NEW COLLAR. TAG FISH @ 3905. SET PKR. REL PKR. TIH W/PKR TO 3672 & SET. PMP 105 BBLS SCALE INHIB. 08-07-08: REL PKR. TIH W/2 7/8" TBG. EOT @ 4052. 08-08-08 RUN PMP & RODS. RIG DOWN. FINAL REPORT

Spud Date: 07-30-08 Rig Release Date: 8-08-08

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Pinkerton TITLE REGULATORY SPECIALIST DATE 08-11-2008

Type or print name DENISE PINKERTON E-mail address: leakejd@chevron.com PHONE: 432-687-7375

For State Use Only

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE AUG 18 2008

Conditions of Approval (if any):

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

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OCT 26 2009
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State of New Mexico
Minerals & Natural Resources

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

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[3] OGRID Number
Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136	873
	[3] Reason for Filing Code/ Effective Date NC / 10/07/2009

[4] API Number	[5] Pool Name	[6] Pool Code
30 - 0 25-39277	Eunice; Blinebry-Tubb-Drinkard, North	22900
[7] Property Code	[8] Property Name	[9] Well Number
37346	West Blinebry Drinkard Unit	113

II. [10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	21S	37E		1290	North	330	East	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
S	10/7/2009	10/07/2009			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
24650	Targa Midstream Services LP 1000 Louisianam Suite 4700 Houston, TX 77262	G
214984	Plains Marketing, LP PO Box 4648 Houston, TX 77210	O

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
09/15/2009	10/07/2009	6912'	6853'	5635'-6712'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
12-1/4"	8-5/8"	1342'	650 sx, circ
7-7/8"	5-1/2"	6912'	1000 sx, circ

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
10/07/2009	10/07/2009	10/19/2009	24 hours		
[37] Choke Size	[38] Oil	[39] Water	[40] Gas		[41] Test Method
	61	81	268		Pumping

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature: Amber Cooke

Printed name: Amber Cooke
Title: Production Engineering Tech
E-mail Address: amber.cooke@apachecorp.com
Date: 10/22/2009
Phone: 918.491.4988

OIL CONSERVATION DIVISION

Approved by:
Title: PETROLEUM ENGINEER
Approval Date: NOV 05 2009

Submit 3 copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

SUNDRY NOTICES AND REPORTS ON WELL

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: STATE S

1. Type of Well: OIL WELL ☐ GAS WELL ☒ OTHER

8. Well No. 5

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC

9. Pool Name or Wildcat: Penrose Skelly Grayburg

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

4. Well Location
Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line
Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT,GR, etc.) 3459' KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPERATION	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER: Recompletion	☒		

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Objective: Abandon Drinkard, Complete Penrose Skelly Grayburg

1) Set 5 1/2" CIBP w/35' cement cap - New PBTD=6395'
2) Perf 5 1/2" casing w/8 SPF 3841-51' (80 holes)
3) Acidize perfs w/1550 gal 15% NEFE
4) Ran 2 3/8" tubing w/5 1/2" packer set @ 3781'
5) 04/06/94: Flow 1 oil, 108 wtr, 626 MCF, 23/64" choke @ 210#.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE W. Johnson TITLE Engineering Assistant DATE 4/14/94

TYPE OR PRINT NAME Larry W. Johnson Telephone No. 397-0426

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE APR 18 1994

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised February 10,1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator Name and Address	2 OGRID Number
TEXACO EXPLORATION & PRODUCTION INC P.O. BOX 730, HOBBS, NM 88240	022351
	3 Reason for Filing Code RC

4 API Number	5 Pool Name	6 Pool Code
30 025 06612	Penrose Skelly Grayburg	50350
7 Property Code	**8 Property Name**	**9 Well No.**
011110	STATE S	5

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	15	21S	37E		660	NORTH	990	WEST	LEA

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	F	3/15/94			

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
022628	TEX-NM PIPELINE CO PO BOX 2528, HOBBS, NM 88240	2471910	O	C 15 21S 37E
022345	TEXACO E & P INC PO BOX 3000, TULSA, OK 74102	2471930	G	D 15 21S 37E

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2471950	C 15 21S 37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 Total Depth	28 PBTD	29 Perforations
	3/18/94	8148	6395	3841-51

30 HOLE SIZE	31 CASING & TUBING SIZE	32 DEPTH SET	33 SACKS CEMENT
17 1/2"	13 3/8"	294'	300
11"	8 5/8"	2974'	2000
6 3/4"	5 1/2"	8147'	500

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Date of Test	37 Length of Test	38 Tubing Pressure	39 Casing Pressure
3/18/94	03/17/94	04/07/94	24 HR	210	0
40 Choke Size	**41 Oil - Bbls.**	**42 Water - Bbls.**	**43 Gas - MCF**	**44 AOF**	**45 Test Method**
23/64	1	108	626		F

46 I hereby certify that the rules and regulations of the Oil Conservation

OIL CONSERVATION DIVISION

Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature

Printed Name Larry W. Johnson

Title Engineering Assistant

Date 4/8/94 Telephone 397-0426

Approved By: ORIGINAL SIGNED BY JERRY SEXTON

Title: DISTRICT I SUPERVISOR

Approval Date: APR 13 1994

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

DeSoto/Nichols 12/93 ver 1.10

2A Pinkard

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

DISTRICT I
P O Box 1980, Hobbs, NM 88240
DISTRICT II
P O Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL ☐ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☒

b. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Lease Name or Unit Agreement Name: STATE S

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

8. Well No. 5

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: SKELLY PENROSE GRAYBURG

4. Well Location
Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line
Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Proposed Depth	11. Formation	12. Rotary or C.T.
6395'	GRAYBURG	-

13. Elevations (Show whether DF, RT, GR, etc.)	14. Kind and Status Plug Bond	15. Drilling Contractor	16. Approx. Date Work will start
3459' KB	--	--	3/10/94

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	36#	294'	300	CIRC
11"	8 5/8"	24#	2974'	2000	CIRC
6 3/4"	5 1/2"	15.5 & 17#	8147'	500	2570'

1. MIRUPU. Kill well. Pull rods and pump. Install BOP. TOH with tubing.
2. Abandon Drinkard perfs: set 5 1/2" CIBP at 6430' & cap with 35' cement.
3. Run Cement Bond Log and GR-CNL Log.
4. Perforate the Grayburg from 3850' - 3860'.
5. Acidize perfs with 1500 gals 15% NEFE acid.
6. Fracture stimulate perfs with 33,000 gals gel & 110,000 lbs 16/30 sand.
7. Place well on production and test.

OPER. OGRID NO. 022351
PROPERTY NO. 01110
POOL CODE 50350
EFF. DATE 3-9-94
API NO. 30-025-06612

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. A. Dunham TITLE Prod. Engineer DATE 3/7/94

TYPE OR PRINT NAME Dan A. Dunham Telephone No. 397-0425

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

Form C-101

DUPLICATE

NEW ... CO OIL CONSERVATION COM ... SION

Santa Fe, New Mexico

FEB 5 1951

OIL CONSERVATION COMMISSION
HOBBS, OFFICE

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Houston, Texas — Place

January 31, 1951 — Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

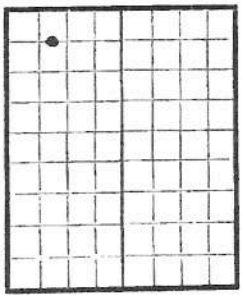
Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Tide Water Associated Oil Company (Company or Operator) State "S" (Lease) Well No. 5 in NW/4 NW/4

of Sec. 15, T 21-S, R 37-E, N. M., P. M., Brunson Field, Lea County.

N



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 660 feet ~~XX~~ (S.) of the N line and 990 feet (E.) ~~XX~~ of the W line of Section 15, 21S, 37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. B-9188 Assignment No. .....

If patented land the owner is .....

Address .....

If government land the permittee is .....

Address .....

The lessee is Tide Water Associated Oil Company

Address Box 1404, Houston 1, Texas

We propose to drill well with drilling equipment as follows: Rotary

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Blanket Bond dated Nov. 30, 1937, with Saint Paul-Mercury Ind. Co.

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
17 1/2"	13 3/8"	36#	New	280	Cemented	300
11"	8 5/8"	24# and 32#	New	2800'	Cemented	2000
6 3/4"	5 1/2"	17#	New	7800'	Cemented	500

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 7600 feet.

Additional information:

Approved FEB - 5 1951, 19....

except as follows:

OIL CONSERVATION COMMISSION,

By [signature]

Title Oil & Gas Inspector

Sincerely yours,

Tide Water Associated Oil Company

Company or Operator

By [signature]

J. B. Holloway

Position Authorized Employee

Send communications regarding well to

Name J. E. Springer, c/o Tide Water Assoc. Oil Company,

Address Midland, Texas

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

HOBBS OCD
OCT 24 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO.	30-025-06614
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	BD-9188
7. Lease Name or Unit Agreement Name	Northeast Drinkard Unit
8. Well Number	601
9. OGRID Number	873
10. Pool name or Wildcat	Eunice, Blinebry-Tubb-Drinkard, N.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator: **Apache Corporation**

3. Address of Operator: **303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705**

4. Well Location
Unit Letter **D** : **600** feet from the **N** line and **990** feet from the **W** line
Section **15** Township **21S** Range **37E** NMPM County **Lea**

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **3459' GR**

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water__N/A_____
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: drill out & add Plugs ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

10/10/11 Tag ~~TOC~~ existing CIBP @ 5,620'

10/11/11 Tbg @ 5,620' – Circ hole w/ MLF. Test csg – OK.
Spot 50sx cmt @ 5,620'. Displaced to 5113'.

10/12/11 Perf @ 4,032' – unable to Sqz. Tbg @ 4,082' – Spot 25sx cmt w/2% CaCl – Tag @ 3,885'
Perf @ 3,040' – unable to Sqz. Tbg @ 3,090' – ~~Spot 25sx cmt~~ – Tag @ 2,740' Spot 40sx cmt.

10/13/11 TIH open ended to
Tbg @ 2,246' – Spot 25sx cmt No tag per OCD, mark Whitaker.
Tbg @ 1,306' – Spot 25sx cmt No tag per OCD again.
Tbg @ 400' – Spot 25sx cmt – Tag @ 200'
Perf @ 100' – Circ 50sx cmt to surface. RDMO. Cutoff WH, anchors, clean location. Install dry hole marker.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

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

SIGNATURE _____ TITLE **P &A Technician (Basic Energy Services)** DATE **10-18-11**

Type or print name: **Greg Bryant** E-mail address: Telephone No. 432-563-3355

For State Use Only

APPROVED BY: _____ TITLE Staff Mgr DATE 10-25-2011
Conditions of Approval (if any):

OCT 25 2011

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Northeast Drinkard Unit

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 601

2. Name of Operator
Apache Corporation

9. OGRID Number 00873

3. Address of Operator 6120 South Yale, Suite 1500
Tulsa, OK 74136-4224

10. Pool name or Wildcat
Eunice Blinebry - Tubb - Drinkard - North

4. Well Location
Unit Letter D : 660 feet from the South line and 990 feet from the West line
Section 15 Township 21S Range 37E NMPM CountyLea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3459' GR

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[ ]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[X]		
OTHER:			[ ]	OTHER:			[ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Isolate 5-1/2" casing leak, 4942' - 4974'. TOC @ 5380' per CBL. Perf 5360', set retainer @ 5007'. Squeeze with 125 sx Class C. Pulled out of retainer. Set cmt retainer @ 4880'. Squeeze casing leak with 350 sxs Class C. Set packer @ 5322'. Test squeeze to 500 psi. Did not hold. Test backside to 500 psi, held ok. Set retainer @ 5320' and squeeze with 50 sx Class C w/ CaCl + 150 sx Class C Neat. Test squeeze ok. Acidize Blinebry/Tubb with 5200 gals 15% HCL. Acidize Drinkard with 3000 gals 15% HCl. Return to production.

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

SIGNATURE Elaine Linton TITLE Engineering Technician DATE 01/12/2005

Type or print name Elaine Linton E-mail address:elaine.linton@apachecorp.com Telephone No. (918)491-5362

For State Use Only

APPROVED BY: Gary W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER DATE JAN 14 2005

Conditions of Approval (if any):

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code: CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-06614	Eunice Blinebry-Tubb-Drinkard-North	22900
7 Property Code	**8 Property Name**	**9**
22503	Northeast Drinkard Unit	601

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21S	37E		660	S	990	W	Lea

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P				

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
-				-	-

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
-					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: 9/4/98

Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY GARY WINK

Title: FIELD REP. II

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature: | Printed Name | Title | Date

Form C-104

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL)-(GAS) ALLOWABLE

It is necessary that this form be submitted by the operator before an initial allowable will be assigned to any completed oil or gas well. Form C-110 (Certificate of Compliance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 P.B. at 60° Fahrenheit.

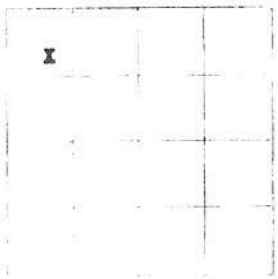
Box 547, Hobbs, New Mexico (Place) — May 1, 1952 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Tide Water Associated Oil Co. (Company or Operator) — State "S" (Lease) — Well No. 7 — in NW 1/4 NW 1/4

Section 1½, T. 21-S R. 37-E, N.M.P.M. Brunson — Pool Lea — County

Please indicate location:



Unit letter: D

Elevation 3459' — Spudded 2-20-52 — Completed 4-27-52

Total Depth 8145 — P.B. —

Top Oil/Gas Pay 7988' — Top Water Pay None

Initial Production Test: Pump — Flow 237.71 (BOPD or ~~MCFPD~~)

Based on 160.95 Bbls. Oil in 16 1/4 Hrs. — Mins.

Method of Test (~~Pitot~~ gauge, ~~separator meter run~~): —

Size of choke in inches 20/64"

Tubing (Size) 2 3/8" — 8055 — Feet

Pressures: Tubing 325 psig. — Casing ~~Packer set @ 7924'~~

Gas/Oil Ratio 1076 cu.ft./bbl. — Gravity 43.2° A.I.

Casing Perforations:

7988' to 8056'

Acid Record:

5000 Gals 7988 to 8056

Gals to

Gals to

Shooting Record.

Qts to

Qts to

Qts to

Show of Oil, Gas and water

S/ Oil

S/

S/

S/

S

S/

S/

S/

Casing & Cementing Record

Size	Feet	Sax
13 3/8	293	300
8 5/8	2990	1700
5 1/2	8142'	350

(5½" hung in 8-5/8" csg. @ 2847')

Natural Production Test: None — ~~Pumping~~ Swabbing — Flowing

Test after acid or shot: — Pumping 237.71 — Flowing

Please indicate below Formation Tops (in conformance with geographical section of state):

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Devonian	T. Ojo Alamo	
T. Salt	T. Silurian	T. Kirtland-Fruitland	
B. Salt	T. Montoya	T. Farmington	
T. Yates	T. Simpson 7369'	T. Pictured Cliffs	
T. 7 Rivers	T. McKee 7576'	T. Cliff House	
T. Queen	T. Ellenburger 7976'	T. Menefee	
T. Graybrg	T. Gr. Wash	T. Point Lookout	
T. San Andres 3982'	T. Granite 8141'	T. Mancos	
T. Glorieta 5181'	T.	T. Dakota	
T. Drinkard 6557'	T.	T. Morrison	
T. Tubbs 6155'	T. Connell 7903'	T. Penn	
T. Abo	T.	T.	
T. Penn	T.	T.	
T. Miss	T. T.D. 8145'	T.	

(Please supply required information on reverse side of form)

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
17½"	13-3/8	293	300	Halliburton	Native	
11"	8-5/8	2990	2000	"	Native	
6-3/4"	5½	8142	350	"	9.3#/gal.	
	(5½" Liner hung in 8-5/8" casing @ 2847')					

PLUGS AND ADAPTERS

Heaving plug—Material..... Length..... Depth Set.....

Adapters — Material..... Size.....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		15% Regular Acid	5000 gals	4-26-52	7988 - 8056	
				(perf. in 5½" liner)		

Results of shooting or chemical treatment No natural production before acid treatment, well flowed 238 BOPD following treatment.

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 8145 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

PRODUCTION

Put to producing 4-27, 1952

The production of the first 24 hours was 237.71 barrels of fluid of which 100 % was oil; ..... %

emulsion; ..... % water; and ..... % sediment. Gravity, Be.....

If gas well, cu. ft. per 24 hours..... Gallons gasoline per 1,000 cu. ft. of gas.....

Rock pressure, lbs. per sq. in.....

EMPLOYEES

R. L. Griffin, Driller D. R. Robbins, Driller

B. H. Gaston, Driller ....., Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 19 day of May, 1952

O. C. Lusparden
Notary Public

My Commission expires 1955

Box 547 - Hobbs, New Mexico (Place) 5-16-52 (Date)

Name H. P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

March 4, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water

Associated Oil Co. (Company or Operator) State "S" (Lease) Well No. 7 in the

NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M.,

Hare Pool Lea County.

The dates of this work were as follows: February 29, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on February 27, 19 52

and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 8-5/8" casing at 2990' with 2000 sks cement top cement behind 8-5/8" casing is 160' from surface. Casing tested and held 1000 psi for 30 min.

Witnessed by L. W. Hogue (Name) Tide Water Associated Oil Co. (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)

(Title)

(Date) 19

I hereby swear or affirm that the information given above is true and correct.

Name H. P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547 - Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

April 23, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted at the top. Tide Water Associated Oil Co. (Company or Operator) State "B" (Lease) Well No. 7 in the NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Pool Lea County.

The dates of this work were as follows: April 21, 1952

Notice of intention to do the work was ~~(was not)~~ submitted on Form C-102 on April 19, 19 52, and approval of the proposed plan was ~~(was not)~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 5½" liner at 8142' w/350 sks regular cement. 5½" liner was hung in 8-5/8" casing at 2847'. Top of cement behind 5½" liner is 5400'. Liner tested and held 1000# for 30 min.

Witnessed by E. W. Hogue (Name) Tide Water Associated Oil Company (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION
Roy Yarbrough (Name)
District (Title)
19 (Date)

I hereby swear or affirm that the information given above is true and correct.

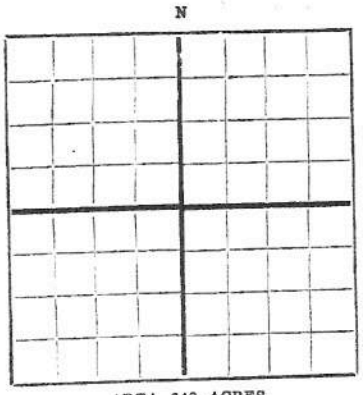
Name H.P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

FORM C-105



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Tide Water Associated Oil Company (Company or Operator) Box 547, Hobbs, New Mexico (Address)

State "S" (Lease) Well No. 7 in NW/4 of NW/4 of Sec. 15, T. 21-S

R. 37-E, N. M. P. M., Brunson Field, Lea County.

Well is 600 feet south of the North line and 4380 feet west of the East line of Sec. 15-21S-37E.

If State land the oil and gas lease is No. B - 9188 Assignment No.

If patented land the owner is ..... Address .....

If Government land the permittee is ..... Address .....

The Lessee is Tide Water Associated Oil Company Address Box 1404 Houston, 1, Texas

Drilling commenced 2-20-52 Drilling was completed 4-20-52

Name of drilling contractor E. F. Moran, Inc. Address Tulsa, Oklahoma

Elevation above sea level at top of casing 3459' feet.

The information given is to be kept confidential until Not confidential 19.....

OIL SANDS OR ZONES

No. 1, from 7988' to 8056' No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
13-3/8"	36#	Spiral Weld	Armco	280'	Tex. Pattern				Surface Casing
8-5/8"	24 & 32#	8R		2997'	Larkin				Salt String
5-1/2"	17 & 15½"	8R		5288'	Larkin				Production String

MUDDING AND CEMENTING RECORD

LAB Order ID # 15012704

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: PRICE LLC **Phone #:** 505-793-5643

Address: (Street, City, Zip) 217 ENCANTADO RIDGE CT NE ALBUQUERQUE NM 87144 **Fax #:** 505-792-5643

Contact Person: LESTER WAYNE PRICE JR **E-mail:** WAPRICE23@HOTMAIL.COM

Invoice to: (If different from above) KEY ENERGY

Project #: NA **Project Name:** EUNICE MAIN

Project Location (including state): EUNICE NM **Sampler Signature:** LWPOR

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
385244	FRESH	1	40ML	X								X		1/26/15	4:15PM
245	BRINE	1	40ML	X								X		1/26/15	4:17PM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	CHLORIDES, TDS, EC	DISSOLVED CHLORIDES				Turn Around Time if different from standard	Hold
385244																				X						
245																				X	X					

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
LESTER WAYNE PRICE JR	PRICE LLC	1/26/15	4:17PM					INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST 1.5 °C OBS 0.3 °C COR 0.2 °C
				BC TA		1-27-15	915	

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review

REMARKS:

NA

"Fresh" sample is Frozen.

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # LS 25041348

LAB COPY

Appendix C- Area of Review

- AOR Well Status List
- AOR Aerial Map

2014 BW-28 AOR Review-- Well Status List

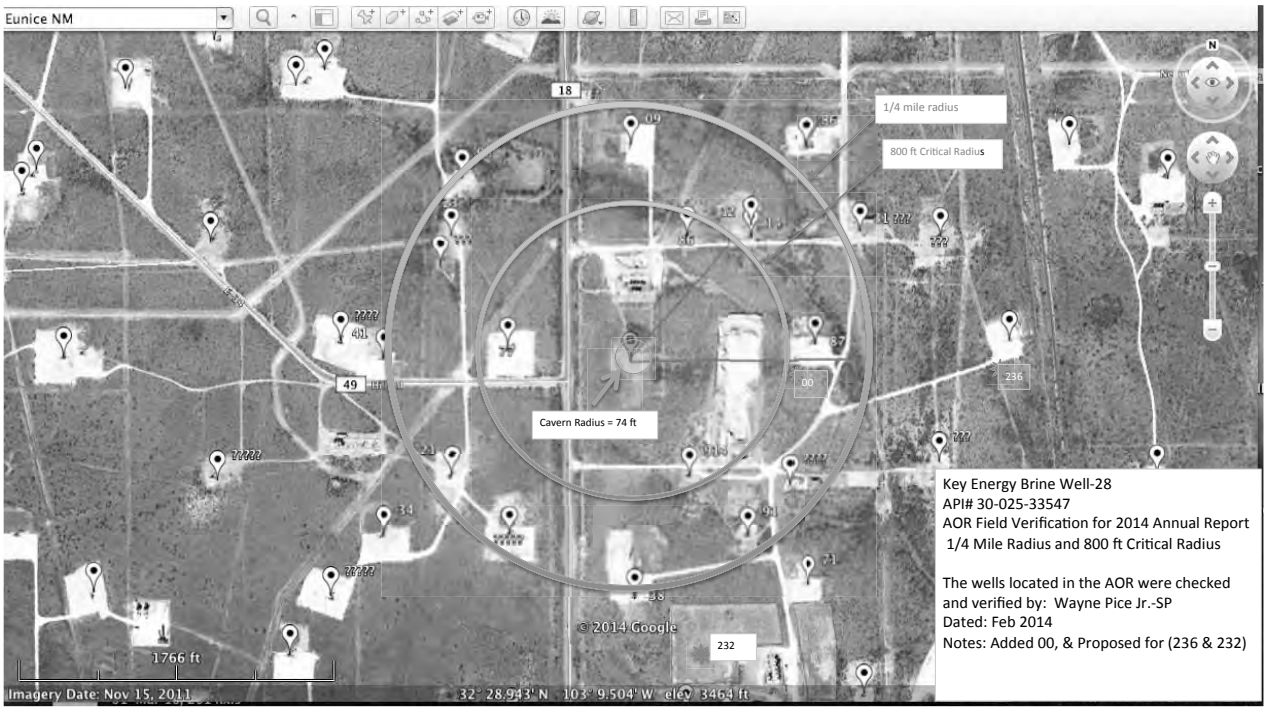
up-dated April 26, 2015

	API#	Well Name	UL	Section	Ts	Rg	Footage	Within 1/4 mi AOR * within 800 ft			Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	***30-025-33547***	***Key-State no.001***	***E***	***15***	***21s***	***37e***	***1340 FNL & 330 FWL***	NA			NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-09913 (P&A)	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	Yes*	1	1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	Yes*	1	1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no			na	na	na
0	30-025-37223 Never Drilled **	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	Never Drilled	0	0	na	na	na
1	30-025-41600 (in Production 2014)	Apache NEDU 544	E	15	21s	37e	1355 FNL &1190 FWL	yes	0	1	Yes	yes	no
0	30-025-42237 (proposed)	Apache NEDU 648	E	15	21s	37e	1640 FNL & 1300 FWL	yes	0	1	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no			na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no			na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no			na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no			na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no			na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-41485	Brammer Engr. St No 12	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	yes+++	yes	no
1	30-025-41583	Apache NEDU 661	C	15	21s	37e	1240 FNL & 1930 FWL	no			na	na	na
1	30-025-41598	Apache NEDU 558	C	15	21s	37e	150 FNL & 2295 FWL	no			na	na	na
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	yes*	1	1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	600 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	130 FNL & 330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no			na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no			na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no			na	na	na
1	30-025-41275	Apache NEDU 650	F	15	21s	37e	2550 FNL & 1925 FWL	no			na	na	na
1	30-025-42236 New	Apache NEDU 647	F	15	21s	37e	1710 FNL & 2360 FWL	no			na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no			na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no			na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no			na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no			na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no			na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no			na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no			na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no			na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no			na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
0	30-025-42232 Proposed	Apache NEDU 639	L	15	21s	37e	1960 FSL & 740 FWL	no			na	na	na
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-25198	Chevron HLNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no			no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	yes*	1	1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06624	Chevron HLNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-36741	Chevron HLNCT 007	H	16	21s	37e	1330 FNL & 1070 FEL	no			na	na	na
1	30-025-37834	Chevron HLNCT 008	H	16	21s	37e	2310 FNL & 030 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no			na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no			na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no			na	na	na
									4	18			

45 Total # of wells in adjacent quarter-sections
18 Total # of wells in 1/4 mile AOR
4 Total # of wells that are or have become within 800 ft of the outside radius of the brine well.

Notes:

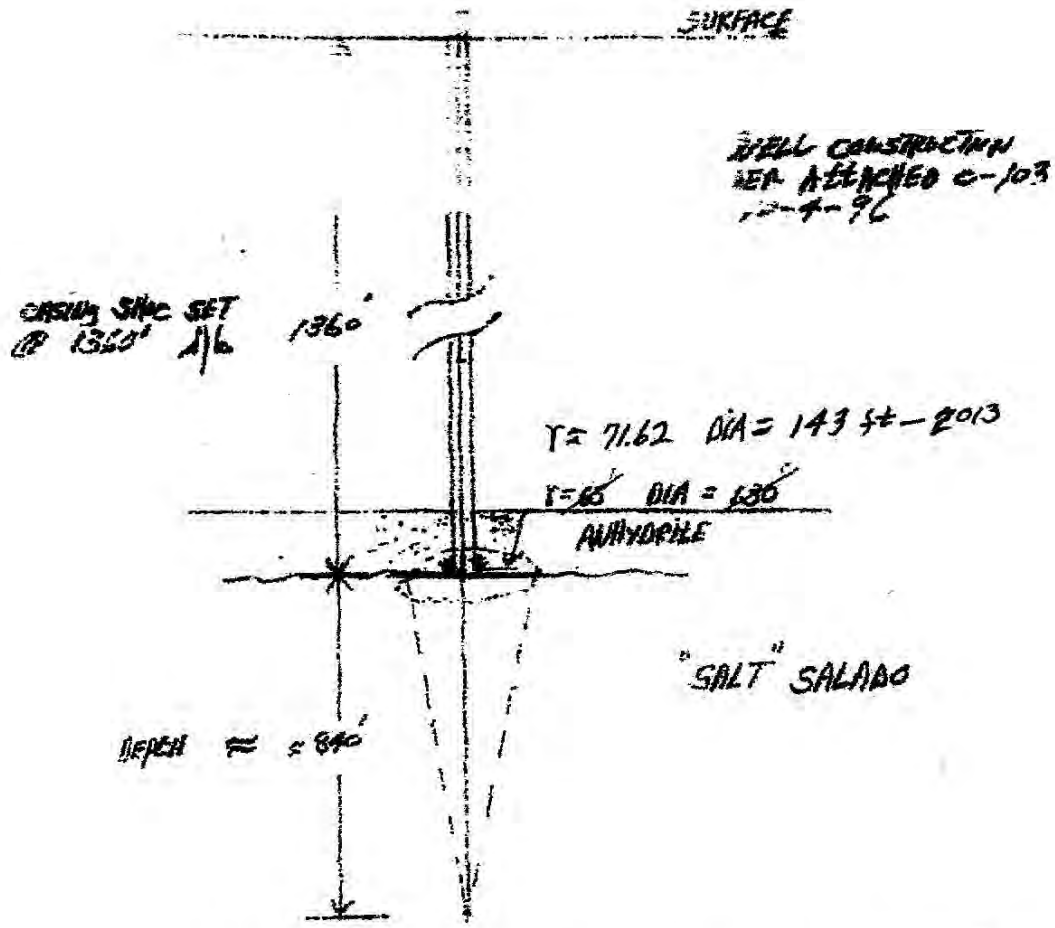
*** Means the well is within the calculated Critical outside radius of the brine well and casing program will be checked annually.**
The Critical Radius of Review is 10x the calucated brine well radius.
**** API # 30-025-37223 not drilled too close to Brine Well**
"+++checked casing 1000 sks for 714 ft3 ok between 7-5/8 and 5.5 covers salt section
2014- 600 & 913 were not actually in Critical radius and was removed until radius encludes them.



Field Notes: Last two or three well digits are the last number for the Well API#.

Appendix D-

- Cavity Calculations
- Cavern Well Bore C-103



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

2012 CALCULATIONS

$r = \sqrt{\frac{7.3 \times}{\pi \cdot 840}}$

$r = 70$ ft

d = diameter ≈ 140 ft

d/h = 130

d/h .103

2013 CALCULATIONS

$r = \sqrt{\frac{4.51 \times 10^6 \times 3}{\pi \cdot 840}}$

$r = 71.62$ ft

$d = 143$ ft

$h = 1360$ ft

$d/h = .105$

2014 CALCULATIONS

$r = \sqrt{\frac{4.82 \times 10^6 \times 3}{\pi \cdot 840}}$

$r = 74'$

$d = 148$ ft

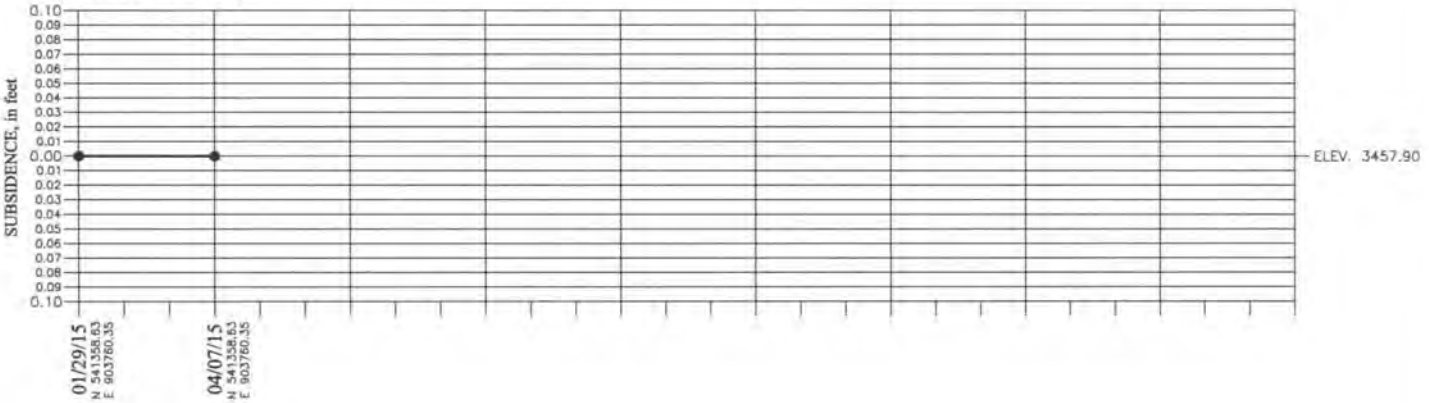
$d/h = \frac{148}{1360} = .109$

Appendix E- Subsidence Reports

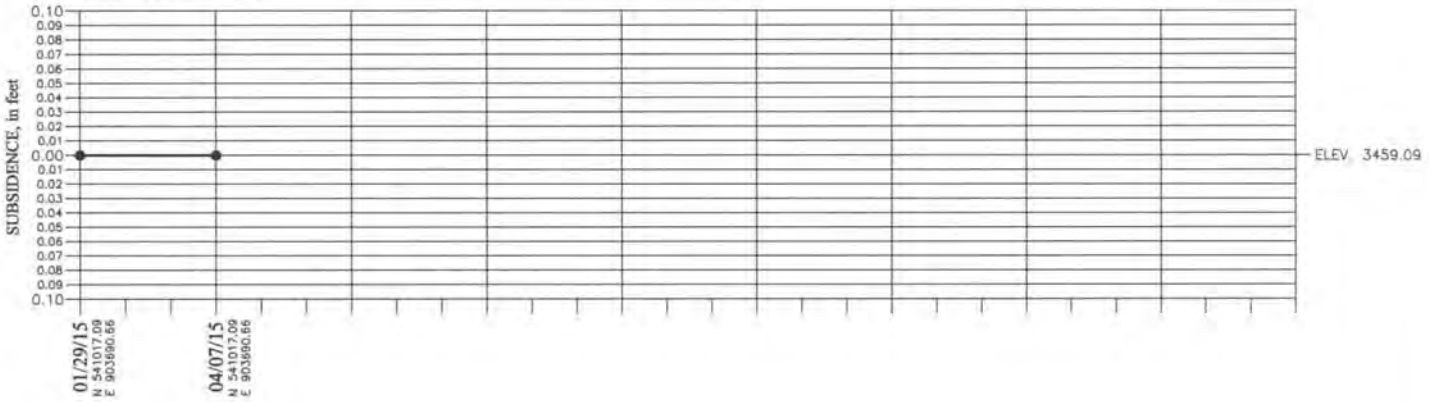
VERTICAL SUBSIDENCE TABLE
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

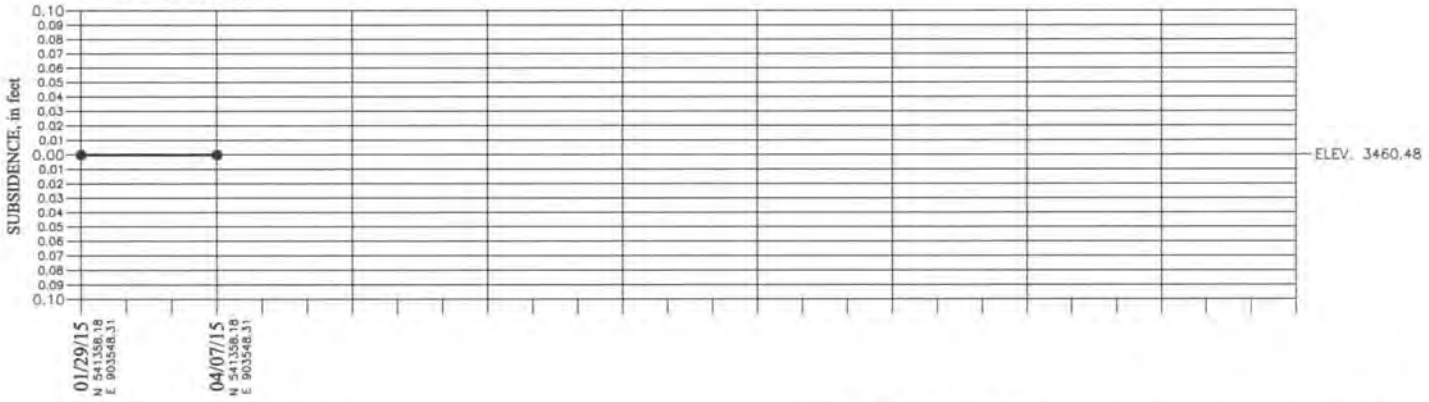
MONUMENT #1



MONUMENT #2



MONUMENT #3



BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CV0320
ELEV. = 3434.37

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

TERRY J. ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 4/28/2015

Terry J. Asel, N.M. R.P.L.S. No. 15079

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 04/07/15	Sheet 1 of 1 Sheets	
W.O. Number: 150129MS-b	Drawn By: KA	Rev:
Date: 04/28/15	150129MS-b	Scale:1"=1000'

Appendix F – Closure Cost Estimate

Appendix "F"

2014 Annual Report
BW-28 Key Energy Closure Cost

Key Energy Rig	$25,000
Halliburton Cement Job	$7,500.00
Post Subsidance Monitoring 5 y	$15,000.00
Tank Removal, Pad Clean-Up	$25,000.00
Consulting fees	$15,000.00
Total Estimate	$87,500

TABLE OF CONTENTS

Section 1- Summary of Operations:

(Permit Condition 21.L.2. "Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Include copy of C-103 if appropriate.")

During the 2011 year there was no major remedial work on the brine well other than the annual open to formation mechanical integrity test (MIT). Since the well-head and tubing was not unseated or pulled, a C-103 is normally not required. However, Key Energy submitted a C-103, which has been included in the MIT Section IV-***Appendix D.***

General housekeeping was routinely performed and on-site training was conducted for awareness of the permit conditions.

Pro-active "Area of Reviews" is being conducted on an on-going basis to ensure the safety of the well system, including cavern subsidence monitoring. (***Appendix E*** shows drawings and data of recent installed subsidence survey markers).

Yearly cavity size calculations will be analyzed to determine cavern stability.

Appendix A has a recent aerial photo of the site for reference.

Section 2- Production Volumes:

(Permit condition 21.L.3. "Production volumes as required from 21.G. including a running total to be carried over to each year. The maximum and average injection pressure.")

(21.G. Requires "The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in the annual report.")

Key has installed an electronic card system that tracks both sales of fresh and brine water. In addition, Key has installed Halliburton flow meters on the well to monitor both water injected and brine produced. Key is anticipating it may install a continuous pressure chart to monitor well pressure.

Monthly, Yearly and Lifetime Injection and Production Volumes:

The monthly, yearly and lifetime fresh water injection and brine production volumes are attached herein for review. The total 2011 brine production volume was 222,286 bbls and the lifetime production volume is 3,989,782 bbls.

Enclosed in the tables section of the report is the injection and production table 1. and the comparison chart of injected water to produced water with comments.

Maximum and Average Injection Pressure:

The maximum injection pressure is 304 psig, which is approximately 100 pounds below the permit maximum of 405 psig. The 304 pounds cannot be exceeded because of pump limitations. The pump is a submersible centrifugal pump, with a pump curve shut in pressure of 300 psig, plus or minus the water tank head pressure of 4 psig.

For this reason, permit condition 21.D. *Well Pressure Limits: "The operator shall have a working pressure limiting device or controls to prevent overpressure."* is conditionally met.

The average injection pressure is noted by Key's personal and is reported to range from 50 psig to 150 psig. This reading is taken from a pressure gauge mounted on the well inlet.

Section 3- Chemical Analysis:

(Permit condition 21.L.4. "A copy of the chemical analysis as required in 21H. "Analysis of injection Fluid and Brine: Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (method 40 CFR 136.3) using EPA methods.")

Please find attached in ***Appendix B*** the latest chemical analysis and chain-of-custody of the brine and fresh water injection water samples collected October 19, 2011 and analyzed by Cardinal Laboratory in Hobbs, NM. The laboratory used common approved EPA methods to analyze and report for major cations and anions of the water samples.

The injection water was collected from the fresh water load line that is connected directly to the fresh water storage tanks and to the inlet side of the injection pump. This sample point is representative of the fresh water at the station. The fresh water is supplied by the City of Eunice and is of high quality that meets EPA's Safe Drinking Water Standards.

The brine water was collected from the brine water load line that is connected directly to the brine water storage tanks and to the outlet side of the injection well. This sample point is representative of the brine water at the station.

The analysis revealed that the brine water is predominately sodium chloride with minor constituents of calcium, magnesium, and potassium combined with sulfate and bi-carbonate. This analysis is very representative of Salado "Salt" formation waters found in the area.

The specific gravity of the brine water was 1.13, which equates to 9.4 lb/gal. This is lower than the usual 10 lb/gal normally produced. This was attributed to the fact that during the test in September, most of the brine water was sold leaving only fresh water for the MIT "Open to Formation Test." This loaded the hole with a large amount of fresh water and the well had not recovered from this event.

To compensate for this, next years test may be ran using nitrogen.

Special Note: The laboratory misread the Chain-of-Custody and mislabeled the Eunice Brine Well as "GUINI" Brine Well.

Section 4- Mechanical Integrity:

(Permit condition 21.L.5. "A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test.")

The BW-28 discharge permit condition 21.E set forth the criteria for running MIT's for this well. This condition also includes a schedule for which type of test is required to be run during various years of the permit. In 2011, an "open to formation" test was ran and witness by Mr. Jim Griswold-OCD. This test was successful and witnessed by the OCD. The MIT test chart is attached in ***Appendix D*** for review.

Section 5- Deviations from Normal Production Methods:

(Permit condition 21.L.6. "Brief explanation describing deviations from normal production methods.")

In 2008 two OCD permitted brine wells collapsed. As a result of those incidents, the OCD issued a temporary moratorium on new brine well permits. During the moratorium OCD facilitated a work group to determine a proper path forward for current and new brine well operations.

As a result of those proceedings, OCD issued instructions to operators to change OCD's previous requirement of injecting fresh water down the annulus and producing brine up the tubing; to injecting fresh water down the tubing and producing brine up the annulus.

On June 1, 2009 Key followed OCD instructions and change the flow pattern. It should be noted that it took over a month in order to obtain 10# brine.

During the 2011 year Key Energy continued the normal flow production procedure and encountered no problems at this time.

Section 6- Leak and Spill Reports:

(Permit condition 21.L.7. "A copy of any leaks and spill reports.")

In 2011 there was one reportable leaks or spills. A Bronco Services truck operator fell asleep while loading his truck and accidently released approximately

100 bbls of brine water, which ran off the loading pad just north of the pad and was contained on-site by the installed stormwater berms. 40 bbls were recovered and a C-141 was submitted to the OCD Hobbs office, with a copy to the Santa Fe office. Remediation corrective action is underway and when complete, a closure report will be submitted to both the Hobbs and Santa Fe offices for final approval. ***Appendix C*** contains a copy the initial C-141 spill report and photos showing remediation efforts.

The brine station is designed with an impermeable liner under the brine tanks and loading pads. The concrete loading pads are designed to catch de-minimis drips from hose connections and is piped to two 250 bbl fiberglass tanks. This liquid material is routinely re-cycled or disposed of at an OCD approved site.

Rainwater that collects inside of the lined bermed area is routinely pumped out and re-cycled or disposed of at an OCD approved site. Very small quantities of rainwater which cannot be pumped is left to evaporate.

The entire facility is bermed to prevent run-on or run-off.

Any reportable or non-reportable spill is cleaned up pursuant to OCD rules and guidance.

Section 7- Groundwater Monitoring:

(Permit condition 21.L.8. "If applicable, results of any groundwater monitoring.")

The BW-28 facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Section 8- Brine Cavity/Subsidence Information:

(Permit condition 21.L.9. Information required from cavity/subsidence 21.F. "The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment.")

The last cavern survey did not provide adequate information pertaining to the size of the cavern. This has been an issue with several brine wells and until the validity of using sonar test is resolved, an alternate method will be employed.

This alternate method has been discussed with Jim Griswold-OCD and it was mutually decided that an estimated worst-case diameter was to be determined in order to provide maximum protection and ensure the permit conditions are being met.

The Solution Mining Research Institute (SMRI), other state agencies, OCD work-group, along with various studies conducted during the permitting of the WIPP

site, has concluded that failures, such as "catastrophic collapses", have a higher probability when the roof diameter of the cavern exceeds a certain value compared to the actual depth of the cavern. This number is typically called D/H where "D" is the diameter of the cavity and "H" is the depth from surface to the casing shoe. Various reports seem to conclude that when a ratio of D/H reaches or exceeds .66 then the probably of collapse increases to a point that the well may be considered un-safe, thus closing procedures such as proper plugging and abandonment, and possible long term subsidence monitoring should be instituted.

The alternate method mentioned above involves calculating the maximum diameter of the cavern by using a worst-case scenario of an "***upright cone".*** The volume of the cavern is calculated using the lifetime brine production volumes and using a *"rule of thumb"* conversion factor to determine the volumetric size of the cavern. The rule of thumb conversion factor was taken from the 1982 Wilson Report and equates that every barrel of brine produced will create approximately one cubic foot of cavity.

Please find attached in ***Appendix E***, a wellbore sketch, the calculations for the brine well, and the lifetime brine production tally of approximately 3.98 million barrels of brine produced as of December 2011. The maximum diameter was calculated to be approximately 136 feet with a corresponding D/H ratio of .10 updated for the 2011 year.

Comparing the current D/H ratio of .10 to the .66 value mentioned above, it can be concluded that the current brine well status meets and exceeds the recommended safety value by six times.

In an overabundance of pre-caution, Key has installed surveyed subsidence monitoring points and the first annual results are documented in ***Appendix E.***

Section 9- Area of Review Update Summary:

(Permit condition 21.L.10. "An Area of Review (AOR) Summary.")

An extensive AOR review was conducted for the Key Eunice "Old GoldStar" brine well, OCD permit # BW-28, located in UL E (1340 FNL & 330 FWL) of Section 15-Ts21S-R37E. Key used OCD records and field verification to confirm wells in the AOR.

Using OCD on-line files, a well status list and AOR plot plan was constructed (*see* ***Appendix F***) listing all wells within adjacent quarter sections of the BW-28 location. The list shows API#, Operator well name, UL, Section, Township and Range, footages, Wells within 660 ft and ¼ mile, casing program status, casing/ cementing status, and corrective action required status.

In the 2011 review, there were no new wells added to the list. ***Appendix F*** contains the check-off list showing the OCD wells in all adjacent quarter sections surrounding the BW-28 brine well.

As in 2010, there are 39 wells located within these adjacent units. Within a ¼ miles radius of the brine well there are 15 wells found. Within 660 feet of the brine well there are 4 wells.

This comprehensive list was formulated to provide a baseline for future AOR studies. Since any future brine well will certainly be limited in size, a critical AOR of 660 feet was established and all wells within that radius was researched in greater detail.

The rational of this approach is the fact that brine wells are non-static in terms of size and configuration and the fact that Key has no direct control on wells drilled in close proximity. By just initially focusing on the current wells in the ¼ mile AOR and assuming the status of these wells will remain the same, could be a mistake. Therefore, Key is taking a more dynamic approach and will study wells as the brine well grows, especially wells in the critical zone. We used the current estimated diameter of the brine well i.e. 136 ft (r = 68 ft) up-dated for 2011, and added a 10:1 safety factor which equates to about 660 ft. As the brine well grows, the critical AOR will be expanded and new wells will be added.

All four wells located in the critical zone were reinvestigated by checking the OCD on-line well records. There was no well activity for any of these wells reported since the last 2010 review. ***Appendix F*** contains the last recorded file record for the four wells located in the critical AOR. They are identified as API# 30-025-914, 09913, 06586, and 39277.

This 2011 report includes the investigation of two more wells that are nearest the 660ft critical AOR and within the ¼ mile AOR that have not been investigated. These wells are identified as API # 30-025-06612 and 06614. Every year as the well bore grows additional wells may be added.

The Findings are as follows:

API # 30-025-06612: Chevron State #5, according to OCD records, is located 660 FNL & 990 FWL of UL D Section 15-Ts21s-R37e. It is shown to be located approximately 900 ft to the NE of the BW-28 well. This well was drilled in 1951 with surface casing set at 294 ft and cemented with 300 sacks circulated to surface. Intermediate casing was set at 2974 feet and cemented with 2000 sacks circulated to surface. A long string was ran and set at 8147 feet and cemented with 500 sacks with an estimated top at 2570 feet. There appears to be approximately 400 feet of cement above the bottom of the intermediate string.

It was recompleted as a gas well in the Grayburg at 3841-51 feet.

Conclusions: The OCD reports indicate that the salt section was properly plugged off inside and outside of all casing strings. The salt section (Salado formation) appears to start at about 1360 ft bgl and ends above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

API # 30-025-06614: Apache NEDU 601, according to OCD records, is located 600 FNL & 990 FWL of Section 15-Ts21s-R37e. It is shown to be located approximately 950 ft to the NE of the BW-28 well. This well was drilled in 1952 with surface casing set at 293 feet bgl and cemented with 300 sacks. Intermediate casing was set at 2990 feet and cemented with 2000 sacks. A long string was ran and set at 8142 feet and cemented with 350 sacks. The well was plugged and abandoned in October of 2011.

Conclusions: The OCD reports indicate that the casing strings were properly sealed above and below the salt section. The salt section appears to start at about 1360 ft bgl and ends slightly above 2800 ft bgl. There have been no reported or noted issues concerning this well in reference to the BW-28 brine well.

Corrective actions: No actions recommended at this time.

The well records, for the two afore mentioned wells, is included in ***Appendix F.***

Section 10- Certification (Permit Condition 22.L.11)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Dennis Douglas
Senior Vice President – Fluids Management Services

TABLES

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
1996	October	10,588			10,588				Goldstar SWD
	November	17,770			17,743				
	December	32,223	60,581	60,581	33,004	61,335	61,335		
1997	January	20,194			20,445			estimate (1)	
	February	20,194			20,445			estimate (1)	
	March	20,194	60,582		20,445	61,335		estimate (1)	
	April	48,226			47,714				
	May	38,000			36,571				
	June	47,970	134,196		42,264	126,549			
	July	24,711			24,271				
	August	31,817			31,559				
	September	38,120	94,648		38,697	94,527			
	October	27,462			25,512				
	November	26,618			26,261				
	December	16,137	70,217	359,643	15,850	67,623	350,034		
1998	January	13,301			13,614				
	February	47,212			49,552				
	March	42,337	102,850		44,964	108,130			
	April	27,072			27,519				
	May	18,084			18,161				
	June	26,699	71,855		26,976	72,656			
	July	16,535			15,929				
	August	8,287			7,488				
	September	9,994	34,816		9,021	32,438			
	October	13,312			17,302				
	November	9,822			9,873				
	December	8,287	31,421	240,942	9,497	36,672	249,896		
1999	January	4,026			4,607				
	February	6,867			8,138				
	March	5,641	16,534		6,030	18,775			
	April	7,873			7,338				
	May	34,100			32,461				
	June	20,708	62,681		20,171	59,970			
	July	35,278			34,566				
	August	35,876			35,995				
	September	43,196	114,350		42,724	113,285			
	October	9,700			10,097				
	November	8,383			9,080				
	December	28,662	46,745	240,310	29,721	48,898	240,928		
2000	January	65,492			65,028				
	February	37,709			36,909				
	March	40,409	143,610		40,414	142,351			
	April	20,181			20,404				
	May	52,092			50,373				
	June	41,371	113,644		37,776	108,553			
	July	33,860			31,757				
	August	37,535			35,492				
	September	58,042	129,437		53,288	120,537			
	October	28,777			27,216				
	November	22,677			24,130				
	December	17,670	69,124	455,815	17,369	68,715	440,156		
2001	January	32,427			37,083				
	February	17,493			23,076				
	March	34,050	83,970		33,216	93,375			
	April	32,900			36,064				Change to Yale E. Key
	May	66,724			52,555				
	June	37,607	137,231		42,347	130,966			
	July	16,399			15,588				
	August	10,173			33,664				
	September	16,185	42,757		16,200	65,452			
	October	25,184			24,147				
	November	10,447			8,666				
	December	21,061	56,692	320,650	18,733	51,546	341,339		
2002	January	11,809			10,135				
	February	22,700			23,733				
	March	4,693	39,202		4,369	38,237			
	April	15,160			16,776				
	May	16,321			17,283				
	June	13,938	45,419		15,276	49,335			
	July	8,301			10,688				
	August	7,079			6,842				
	September	18,560	33,940		17,240	34,770			
	October	7,040			7,823				
	November	9,788			10,950				
	December	11,666	28,494	147,055	19,667	38,440	160,782		
2003	January	20,278			23,526				
	February	8,603			5,310				
	March	37,680	66,561		35,548	64,384			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	April	31,782			31,619				
	May	17,767			13,305				
	June	10,733	60,282		9,260	54,184			
	July	27,104			13,927				
	August	9,555			7,197				
	September	7,945	44,604		5,056	26,180			
	October	12,014			10,394				
	November	26,100			12,438				
	December	38,748	76,862	248,309	18,218	41,050	185,798		
2004	January	7,980			8,539				
	February	8,130			8,797				
	March	8,220	24,330		8,894	26,230			
	April	29,898			31,931				
	May	14,233			15,428				
	June	28,716	72,847		30,410	77,769			
	July	1,840			2,060				
	August	29,898			30,201				
	September	20,277	52,015		20,266	52,527			
	October	24,436			23,784				
	November	21,925			22,430				
	December	32,225	78,586	227,778	33,630	79,844	236,370		
2005	January	17,873			19,160				
	February	23,929			24,958				
	March	37,896	79,698		40,435	84,553			
	April	29,882			31,794				
	May	39,575			42,385				
	June	22,766	92,223		23,995	98,174			
	July	7,593			7,640				
	August	31,573			29,316				
	September	47,305	86,471		48,230	85,186			
	October	38,571			51,232				
	November	31,533			27,670				
	December	36,430	106,534	364,926	36,412	115,314	383,227		
2006	January	18,480			19,977				
	February	33,250			35,511				
	March	39,492	91,222		38,630	94,118			
	April	40,194			43,605				
	May	51,009			54,630				
	June	22,374	113,577		24,832	123,067			
	July	38,208			37,613				
	August	35,627			36,201				
	September	48,784	122,619		47,312	121,126			
	October	50,375			51,232				
	November	26,084			27,670				
	December	8,224	84,683	412,101	10,202	89,104	427,415		
2007	January	31,540			33,320				
	February	24,313			25,260				Change to Key Energy Services
	March	40,514	96,367		38,412	96,992			
	April	34,095			35,120				
	May	19,308			23,130				
	June	9,170	62,573		11,009	69,259			
	July	30,857			28,468				
	August	12,394			18,884				
	September	25,970	69,221		23,360	70,712			
	October	7,882			7,643				
	November	2,476			2,630				
	December	3,933	14,291	242,452	4,528	14,801	251,764		
2008	January	1,706			1,982				
	February	5,845			6,203				
	March	21,386	28,937		21,673	29,858			
	April	25,787			22,704				
	May	17,100			19,842				
	June	16,598	59,485		17,479	60,025			
	July	32,458			36,448				
	August	37,458			38,377				
	September	39,945	109,861		37,203	112,028			
	October	25,572			26,551				
	November	27,325			25,792				
	December	26,825	79,722	278,005	28,694	81,037	282,948		
2009	January	20,990			21,310				
	February	650			1,306				
	March	3,249	24,889		3,420	26,036			
	April	5,428			5,360				
	May	1,343			1,762				
	June	630	7,401		1,232	8,354			
	July	1,546			1,673				
	August	881			1,031				
	September	2,672	5,099		2,930	5,634			

TABLE 1

TABLE 1 2011 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production (bbls)	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection (bbls)	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	October	9,898			8,861				
	November	3,716			3,618				
	December	1,474	15,088	52,477	2,035	14,514	54,538		
2010	January	0			0				
	February	1,650			1,810				
	March	4,092	5,742		4,789	6,599			
	April	5,092			6,150				
	May	12,256			14,953				
	June	2,099	19,447		2,033	23,136			
	July	5,068			6,322				
	August	10,270			15,126				
	September	11,281	26,619		10,334	31,782			
	October	7,575			8,802				
	November	20,304			24,494				
	December	36,765	64,644	116,452	44,153	77,449	138,966		
2011	January	44,126			52,975				
	February	24,388			29,666				
	March	19,421	87,935		23,284	105,925			
	April	18,356			22,365				
	May	9,828			11,754				
	June	15,661	43,845		18,902	53,021			
	July	17,503			20,961				
	August	14,401			17,273				
	September	5,430	37,334		16,000	54,234			
	October	11,359			8,284				
	November	18,585			19,662				
	December	23,228	53,172	222,286	27,806	55,752	268,932		
TOTAL VOLUMES				3,989,782			4,074,428		

1 - Estimated quarterly production and injection volumes calculated by averaging the previous quarter of data.
bbls - barrels

INJECTION AND PRODUCTION COMPARISON CHART

KEY ENERGY EUNICE BRINE WELL BW-28 STATE #1 API# 30-025-33547

WATER IN-WATER OUT BBLS

YEAR 2011

MONTH	WATER IN	WATER OUT	PSI	RATIO OF WATER IN-OUT	
Jan-11	52,975	44,126	100	16.70%	***
Feb-11	29,666	24,388	100	17.79%	***
Mar-11	23,284	19,421	100	16.59%	***
Apr-11	22,365	18,356	100	17.93%	***
May-11	11,754	9,828	100	16.39%	***
Jun-11	18,902	15,661	100	17.15%	***
Jul-11	20,961	17,503	100	16.50%	***
Aug-11	17,273	14,401	100	16.63%	***
Sep-11	16,000	5,430	100	66.06%	***
Oct-11	8,284	11,359	100	-37.12%	***
Nov-11	19,662	18,585	100	5.48%	***
Dec-11	27,806	23,228	100	16.46%	***
TOTAL	268,932	222,286			

		YEARLY RATIO %	MONTHLY AVERAGE %
BRINE PRODUCTION BBLS	222,286	17.34%	15.44%
FRESH WATER INJECTION BBLS	268,932		

NOTES:

*** Positive % numbers means more Fresh Water injected than brine water produced.

*** Negative % numbers means more Brine Water produced than fresh water injected.

Normal ratios can range from +5% to +15 %; Short term negative ratios are acceptable. Long term negative numbers should be checked out and are not considered normal.

APPENDICES

APPENDIX A

PHOTOGRAPHS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Google

APPENDIX B

Fresh and Brine Water
LABORATORY REPORT

CHAIN OF CUSTODY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 17, 2011

LESTER WAYNE PRICE, JR

PRICE LLC

312 ENCANTADO RIDGE COURT, NE

RIO RANCHO, NM 87124

RE: ~~GUINI~~ BRINE WELL ——— EUNICE BRINE WELL

Enclosed are the results of analyses for samples received by the laboratory on 10/19/11 13:30.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESHWATER	H102262-01	Water	19-Oct-11 10:50	19-Oct-11 13:30
BRINE WATER	H102262-02	Water	19-Oct-11 11:00	19-Oct-11 13:30

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	**0.0070**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0610**	0.000500	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.0254**	0.0001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Manganese	ND	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	**0.0033**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Nickel	**0.0014**	0.0005	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Selenium	**0.005**	0.001	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.00010	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.00280**	0.000100	mg/L	1	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**229**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**68.0**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**683**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**7.64**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**0.9934**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**70.3**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**433**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**188**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

FRESHWATER

H102262-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**12.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	ND	0.0500	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Boron	ND	0.300	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL
Iron	**0.079**	0.060	mg/L	1	1111410	JM	26-Oct-11	200.7	GAL

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PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Total Metals by ICPMS									
Arsenic	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Barium	**0.0575**	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cadmium	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Chromium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Cobalt	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Copper	**0.407**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Lead	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Manganese	**0.421**	0.0050	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Molybdenum	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Nickel	ND	0.0500	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Selenium	ND	0.100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Silver	ND	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Uranium	**0.0294**	0.0100	mg/L	100	1111412	JM	02-Nov-11	200.8	GAL
Zinc	ND	0.010	mg/L	10	1111412	JM	11-Nov-11	200.8	GAL
Mercury (Total) by CVAA									
Mercury	ND	0.0002	mg/L	1	1111411	JM	27-Oct-11	245.1	GAL
Inorganic Compounds									
Alkalinity, Bicarbonate	**181**	5.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	
Chloride	**136000**	16.0	mg/L	4	1101905	HM	21-Oct-11	4500-Cl-B	
Conductivity	**397000**	1.00	uS/cm	1	1102705	HM	20-Oct-11	120.1	
Cyanide (total)	ND	0.005	mg/L	1	1111413	CK	26-Oct-11	335.4	GAL
Fluoride	**1.04**	0.200	mg/L	1	1111414	CK	01-Nov-11	4500F C	GAL
pH	**6.80**	0.100	pH Units	1	1102705	HM	20-Oct-11	150.1	
Specific Gravity @ 60° F	**1.131**	0.000	[blank]	1	1110307	HM	28-Oct-11	SM 2710F	
Sulfate	**6160**	10.0	mg/L	1	1103102	HM	28-Oct-11	375.4	
TDS	**210000**	5.00	mg/L	1	1102603	HM	22-Oct-11	160.1	
Alkalinity, Total	**148**	4.00	mg/L	1	1102105	HM	21-Oct-11	310.1M	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

BRINE WATER

H102262-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
TSS	**96.0**	2.00	mg/L	1	1111105	HM	25-Oct-11	160.2	
TOTAL METALS BY ICP									
Aluminum	**1.39**	0.500	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Boron	**10.9**	3.00	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL
Iron	ND	0.600	mg/L	10	1111410	JM	26-Oct-11	200.7	GAL

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Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
Blank (1111412-BLK1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Chromium	ND	0.001	mg/L							
Silver	ND	0.00010	mg/L							
Molybdenum	ND	0.0005	mg/L							
Lead	ND	0.0005	mg/L							
Barium	ND	0.000500	mg/L							
Cadmium	ND	0.00010	mg/L							
Zinc	0.018	0.001	mg/L							B1
Cobalt	ND	0.00010	mg/L							
Copper	ND	0.0001	mg/L							
Manganese	0.0035	0.0005	mg/L							B1
Uranium	ND	0.000100	mg/L							
Arsenic	ND	0.0005	mg/L							
Selenium	ND	0.001	mg/L							
Nickel	ND	0.0005	mg/L							

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Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS (1111412-BS1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Silver	0.0521		mg/L	0.0500		104	85-115			
Molybdenum	0.0542		mg/L	0.0500		108	85-115			
Zinc	0.059		mg/L	0.0500		118	85-115			BS1
Cobalt	0.0515		mg/L	0.0500		103	85-115			
Arsenic	0.0529		mg/L	0.0500		106	85-115			
Nickel	0.0504		mg/L	0.0500		101	85-115			
Uranium	0.0490		mg/L	0.0500		98.0	85-115			
Lead	0.0503		mg/L	0.0500		101	85-115			
Selenium	0.273		mg/L	0.250		109	85-115			
Copper	0.0502		mg/L	0.0500		100	85-115			
Chromium	0.049		mg/L	0.0500		98.6	85-115			
Manganese	0.0429		mg/L	0.0500		85.8	85-115			
Barium	0.0503		mg/L	0.0500		101	85-115			
Cadmium	0.0507		mg/L	0.0500		101	85-115			

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111412 - EPA 3005										
LCS Dup (1111412-BSD1)				Prepared: 01-Nov-11 Analyzed: 02-Nov-11						
Uranium	0.0485		mg/L	0.0500		97.0	85-115	1.03	20	
Silver	0.0483		mg/L	0.0500		96.6	85-115	7.57	20	
Nickel	0.0493		mg/L	0.0500		98.6	85-115	2.21	20	
Lead	0.0498		mg/L	0.0500		99.6	85-115	0.999	20	
Chromium	0.049		mg/L	0.0500		98.2	85-115	0.407	20	
Barium	0.0492		mg/L	0.0500		98.4	85-115	2.21	20	
Selenium	0.256		mg/L	0.250		102	85-115	6.43	20	
Cobalt	0.0503		mg/L	0.0500		101	85-115	2.36	20	
Zinc	0.065		mg/L	0.0500		130	85-115	9.52	20	BSI
Molybdenum	0.0523		mg/L	0.0500		105	85-115	3.57	20	
Manganese	0.0443		mg/L	0.0500		88.6	85-115	3.21	20	
Copper	0.0487		mg/L	0.0500		97.4	85-115	3.03	20	
Cadmium	0.0501		mg/L	0.0500		100	85-115	1.19	20	
Arsenic	0.0505		mg/L	0.0500		101	85-115	4.64	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Total Metals by ICPMS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Mercury (Total) by CVAA - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111411 - EPA 245.1										
Blank (1111411-BLK1)				Prepared & Analyzed: 27-Oct-11						
Mercury	ND	0.0002	mg/L							
LCS (1111411-BS1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0022		mg/L	0.00200		110	85-115			
LCS Dup (1111411-BSD1)				Prepared & Analyzed: 27-Oct-11						
Mercury	0.0021		mg/L	0.00200		105	85-115	4.65	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1101905 - SPLP 1312										
Blank (1101905-BLK1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	ND	4.00	mg/L							
LCS (1101905-BS1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	112	4.00	mg/L	100		112	80-120			
LCS Dup (1101905-BSD1)				Prepared: 17-Oct-11 Analyzed: 20-Oct-11						
Chloride	108	4.00	mg/L	100		108	80-120	3.64	20	
Batch 1102105 - General Prep - Wet Chem										
Blank (1102105-BLK1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (1102105-BS1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			
LCS Dup (1102105-BSD1)				Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	ND	5.00	mg/L				80-120		20	
Alkalinity, Total	120	4.00	mg/L	100		120	80-120	6.90	20	
Duplicate (1102105-DUP1)	**Source: H102248-02**			Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00				20	
Alkalinity, Bicarbonate	156	5.00	mg/L		161			3.15	20	
Alkalinity, Total	128	4.00	mg/L		132			3.08	20	

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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1102105 - General Prep - Wet Chem										
Matrix Spike (1102105-MS1)		**Source: H102248-02**		Prepared & Analyzed: 21-Oct-11						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00		70-130			
Alkalinity, Bicarbonate	283	5.00	mg/L		161		70-130			
Alkalinity, Total	232	4.00	mg/L	100	132	100	70-130			
Batch 1102603 - * DEFAULT PREP *** **										
Blank (1102603-BLK1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	ND	5.00	mg/L							
LCS (1102603-BS1)				Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	235		mg/L	240		97.9	80-120			
Duplicate (1102603-DUP1)		**Source: H102277-01**		Prepared: 22-Oct-11 Analyzed: 26-Oct-11						
TDS	3260	5.00	mg/L		3260			0.00	20	
Batch 1102705 - General Prep - Wet Chem										
LCS (1102705-BS1)				Prepared & Analyzed: 20-Oct-11						
Conductivity	509		uS/cm	500		102	80-120			
pH	7.11		pH Units	7.00		102	90-110			
Duplicate (1102705-DUP1)		**Source: H102247-01**		Prepared & Analyzed: 20-Oct-11						
pH	7.75	0.100	pH Units		7.73			0.258	20	
Conductivity	1410	1.00	uS/cm		1410			0.00	20	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1103102 - General Prep - Wet Chem										
Blank (1103102-BLK1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	ND	10.0	mg/L							
LCS (1103102-BS1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	20.9	10.0	mg/L	20.0		104	80-120			
LCS Dup (1103102-BSD1)				Prepared & Analyzed: 28-Oct-11						
Sulfate	18.2	10.0	mg/L	20.0		91.0	80-120	13.8	20	
Duplicate (1103102-DUP1)		Source: H102247-01		Prepared & Analyzed: 28-Oct-11						
Sulfate	70.1	10.0	mg/L		67.5			3.78	20	
Batch 1110307 - General Prep - Wet Chem										
Duplicate (1110307-DUP1)		Source: H102247-01		Prepared & Analyzed: 28-Oct-11						
Specific Gravity @ 60° F	0.9950	0.000	[blank]		0.9969			0.194	200	
Batch 1111105 - Filtration										
Blank (1111105-BLK1)				Prepared & Analyzed: 25-Oct-11						
TSS	ND	2.00	mg/L							
Duplicate (1111105-DUP1)		Source: H102248-01		Prepared & Analyzed: 25-Oct-11						
TSS	6.00	2.00	mg/L		6.00			0.00	20	
Batch 1111413 - General Prep										
Blank (1111413-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	ND	0.005	mg/L							

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: GUINI BRINE WELL Project Number: NONE GIVEN Project Manager: LESTER WAYNE PRICE, JR Fax To: UNK-NOWN	Reported: 17-Nov-11 11:10

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111413 - General Prep										
LCS (1111413-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.042		mg/L	0.0500		85.0	85-115			
LCS Dup (1111413-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Cyanide (total)	0.047		mg/L	0.0500		94.8	85-115	10.9	20	
Batch 1111414 - General Prep										
Blank (1111414-BLK1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	ND	0.200	mg/L							
LCS (1111414-BS1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120			
LCS Dup (1111414-BSD1)				Prepared & Analyzed: 01-Nov-11						
Fluoride	1.09		mg/L	1.00		109	80-120	0.00	20	

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TOTAL METALS BY ICP - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1111410 - EPA 3005										
Blank (1111410-BLK1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Aluminum	ND	0.0500	mg/L							
Iron	ND	0.060	mg/L							
Boron	ND	0.300	mg/L							
LCS (1111410-BS1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.86		mg/L	4.00		96.5	85-115			
Aluminum	3.94		mg/L	4.00		98.5	85-115			
Iron	3.89		mg/L	4.00		97.2	85-115			
LCS Dup (1111410-BSD1)				Prepared: 25-Oct-11 Analyzed: 26-Oct-11						
Boron	3.89		mg/L	4.00		97.2	85-115	0.774	20	
Iron	3.92		mg/L	4.00		98.0	85-115	0.768	20	
Aluminum	3.95		mg/L	4.00		98.8	85-115	0.253	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

GAL	Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene, Lab Director/Quality Manager

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	BILL TO
Project Manager:	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: EUNICE 19	State: Zip:
Project Location:	Phone #:
Sampler Name:	Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX							PRESERV.		SAMPLING	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER		ACID/BASE	ICE / COOL	OTHER	DATE	TIME
H02263															
14	Freshwater														
B															
C															
2A	Brine water														
B															
C															

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 the client for the 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 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.

Relinquished By:	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☐ Yes ☐ No	☐ Yes ☐ No	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

APPENDIX C

C-141 Spill Report and Photos

HOBBS OCD

JUN 0 6 2011

RECEIVED

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

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

x☐ Initial Report ☐ Final Report

Name of Company Key Energy Service	Contact Bob Fisher
Address Box 99 Eunice , N.M.	Telephone No. 575-394-2581
Facility Name State S Water Station	Facility Type Brine & Fresh Water Sales

Surface Owner Deck Estate	Mineral Owner State of New Mexico	Lease No. MS 0004 0001

LOCATION OF RELEASE API # 30-025-33547-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	15	21S	37E	1340	north	330	west	Lea

Latitude N32° 29' 02.2 **Longitude** W103° 09' 28.8"

NATURE OF RELEASE

Type of Release over loaded truck	Volume of Release 100 bbls	Volume Recovered 40 bbls
Source of Release transport truck-Bronco Services	Date and Hour of Occurrence 5-30-2011 @ 6 am	Date and Hour of Discovery 5-30-2011 @ 8 am
Was Immediate Notice Given? x☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Noey Franco. Supervisor on duty	
By Whom? John Sanders	Date and Hour 5-30-2011 @ 8 am	
Was a Watercourse Reached? ☐ Yes x☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

GW@163'

Describe Cause of Problem and Remedial Action Taken.*
Bronco Services truck operater fell asleep while loading his truck.

Describe Area Affected and Cleanup Action Taken.*
Area North of the loading docks. Ramon Ponce with Bronco Services Will take care of the clean up & expense

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD 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, NMOCD 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: Robert J Fisher	OIL CONSERVATION DIVISION	
Printed Name: Bob Fisher	Approved by ~~District Supervisor~~ ENV SPECIALIST: Geoffrey Leking	
Title: District Manager	Approval Date: 06/08/11	Expiration Date: 08/08/11
E-mail Address: rfisher@keyenergy.com	Conditions of Approval: SUBMIT FINAL C-141 BY 08/08/11	Attached ☐ IRP-11-11-2761
Date: 5-31-2011 Phone: 575-394-2581		

* Attach Additional Sheets If Necessary

NOV 17 2011

Key Energy BW-28 Brine Spill Area-looking west

Key Energy BW-28 shows loading pad area where brine water ran off pad.

Spill was contained on-site.

APPENDIX D

MIT TEST CHART

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
SEP 22 2011
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO.
30-025-33547

5. Indicate Type of Lease
STATE X☐ FEE ☐

6. State Oil & Gas Lease No.
MS-0004

7. Lease Name or Unit Agreement Name
STATE S

8. Well Number #1

9. OGRID Number

10. Pool name or Wildcat
BSW-SALADO

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other Brine Well

2. Name of Operator
Key Energy Services

3. Address of Operator
Box 99 Eunice, N.M. 88231

4. Well Location
Unit Letter E : 1340 feet from the N line and 330 feet from the W line
Section 15 Township 21S Range 37E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	X☐			OTHER: TEST FORMATION TO 350#	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PRESSURE FORMATION TO 350# WITH FRESH WATER FOR 4 HR TEST TEST DATE 9-29-2011

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

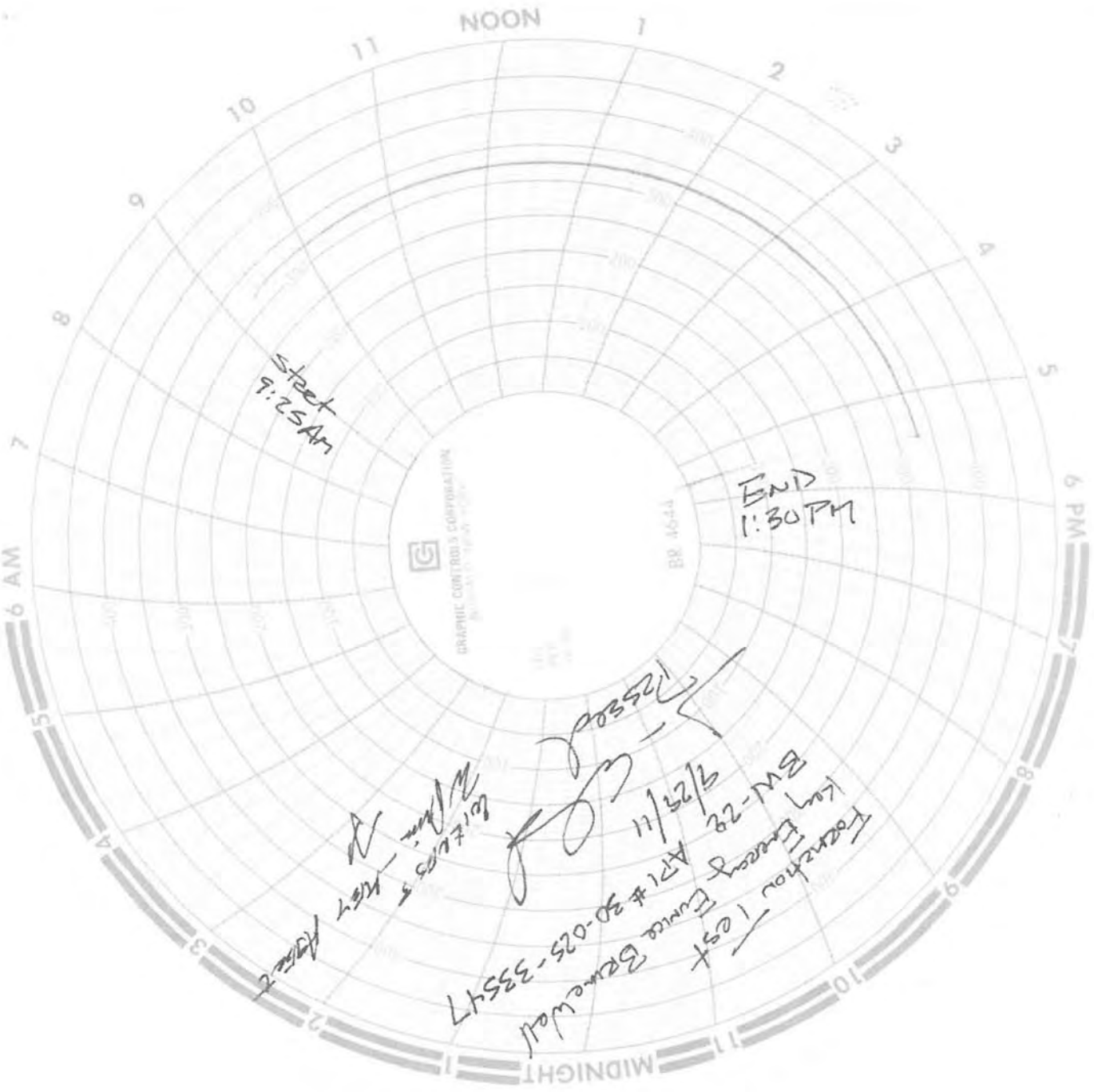
SIGNATURE Robert J. Lubin TITLE District Manager DATE 9/21/011

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE STAFF MGR DATE 9-22-2011

Conditions of Approval (if any):


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
GRAPHIC CONTROLS CORPORATION
BR 4044
Start
9:25 AM
END
1:30 PM
Excavation Log
Long Beach Fence Removal
BW-28 APN 30-025-33547
11/22/11
Notes & Misc

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

TO: Key DATE: 07-15-11

This is to certify that:

I, Bud Collins, Technician for American Valve & Meter, Inc., has checked the calibration of the following instrument.

8" Pressure recorder Serial No: B131

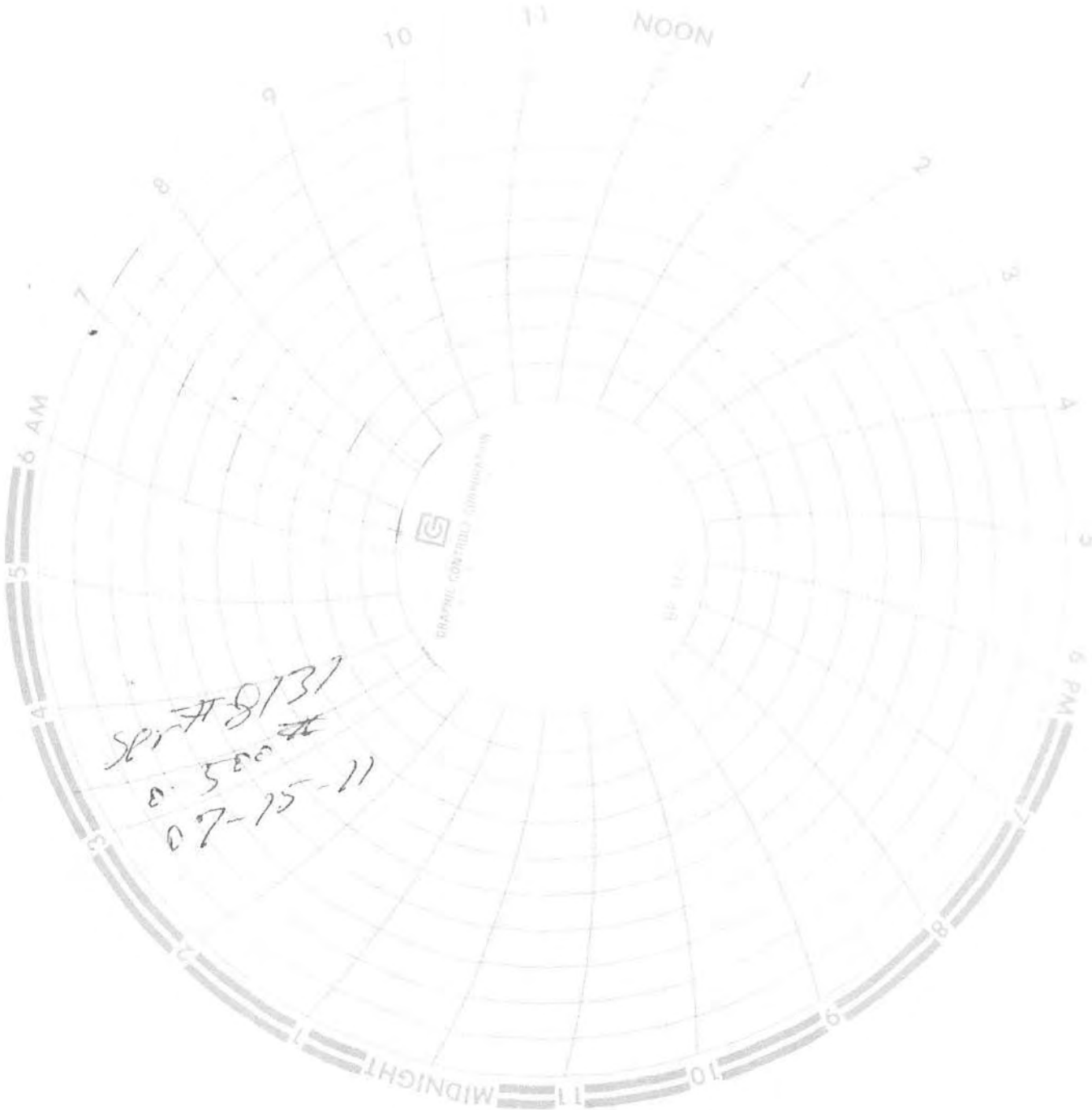
at these points.

Pressure 0-500# Temperature ____

Test	Found	Left	Test	Found	Left
0	___	0	___	___	___
250	___	250	___	___	___
350	___	350	___	___	___
500	___	500	___	___	___
100	___	100	___	___	___
0	___	0	___	___	___

Remarks: ____

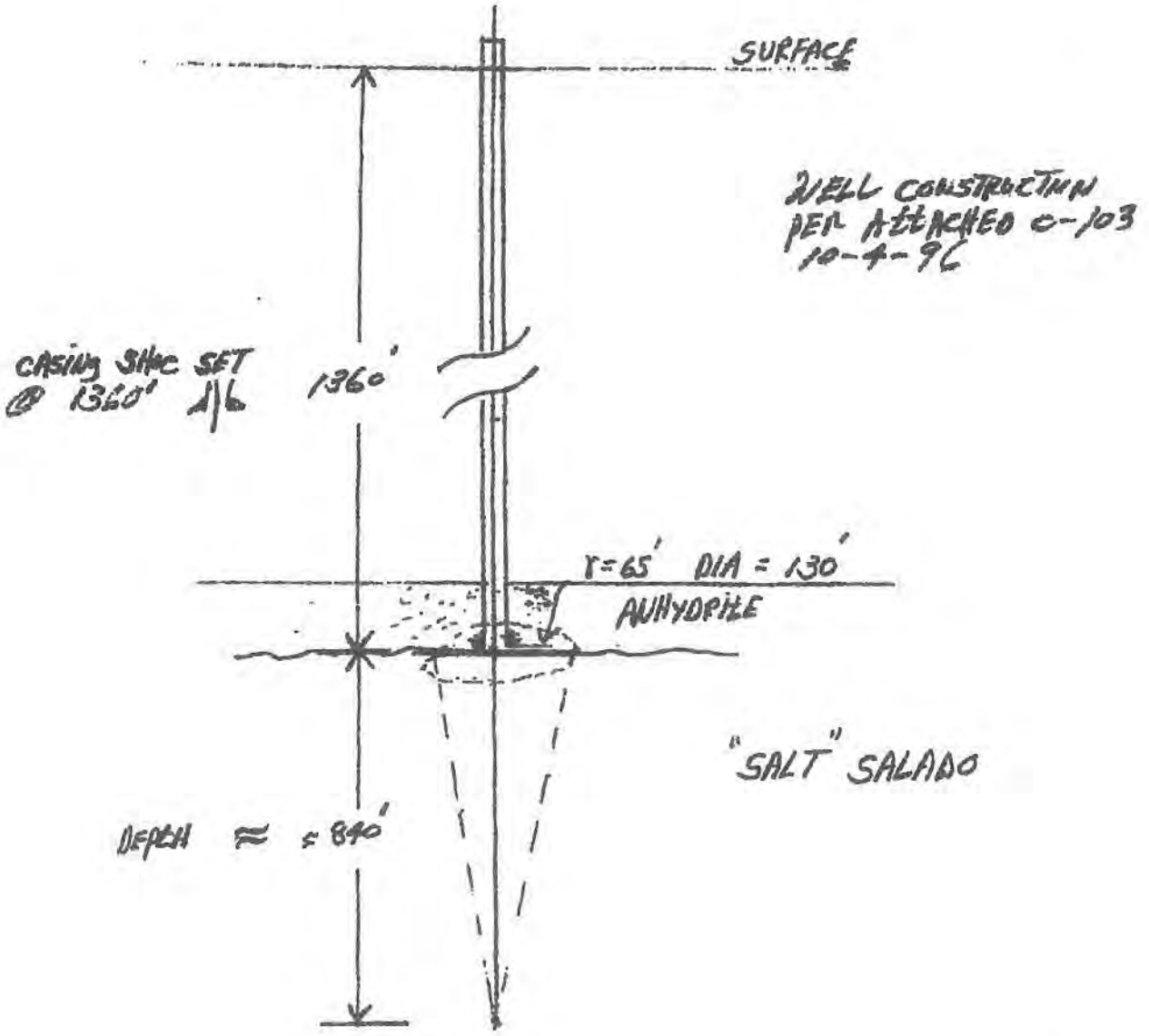
Signature Bud Collins



SP-#8131
07-15-11

APPENDIX E

BRINE CAVITY CALCULATIONS



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

Total Brine Produced Thru 2010 = 3,767,496 BBLS ≅ 3.8 M
Thru 2011 3,989,780 BBLS ≅ 4.0 M

2011 NEW CALCULATIONS

$r = \sqrt{\frac{3.8 \times 10^6 \cdot 3}{\pi \cdot 840}}$

$r = 65.78 \simeq 66$ ft

d = diameter = 132 ft

h = 1360 ft

$d/h = .097 \simeq .1$

$r = \sqrt{\frac{4.0 \times 10^6 \cdot 3}{\pi \cdot 840}}$

radius = r = 67.43 ≃ 68 ft

diameter = d = 136 ft

h = 1360 ft

$d/h = .1$

Current Subsidence Report will be mailed within 30 days

APPENDIX F

AREA OF REVIEW

- Well Status List Spreadsheet- 1 page
- AOR Plot Plan- 1 page
- 2011 AOR Check Off List- 9 pages
- Critical AOR Wells last OCD file record-4 pages
- Two Additional Wells investigated near the Critical AOR-13 pages

2011 BW-28 AOR Review-- Well Status List

up-dated Dec 23, 2011

	API#	Well Name	Lil.	Sectior	Ts	Rg	Footage	Within 1/4 mi AOR + within 660 ft		Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	**30-025-33547**	**Key State no.001**	**E**	**15**	**21s**	**37e**	**1340 FNL & 330 FWL**	NA		NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-09913	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	yes*	1 1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	yes*	1 1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no		na	na	na
0	[illegible]	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	[illegible]	0 0	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no		na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no		na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no		na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no		na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no		na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	yes*	1 1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes	1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	660 FNL & 990 FWL	yes	1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	330 FNL & 330 FWL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no		na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no		na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no		na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no		na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no		na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no		na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no		na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no		na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no		na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no		na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no		na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no		na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-25198	Chevron HLNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no		no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	yes*	1 1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-06624	Chevron HLNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-36741	Chevron HLNCT 067	H	16	21s	37e	1330 FNL & 1070 FEL	no		na	na	na
1	30-025-37834	Chevron HLNCT 066	H	16	21s	37e	2310 FNL & 030 FEL	yes	1	no	check again 2012 report	check again 2012 report
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no		na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no		na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no		na	na	na
									4 15			

39 Total # of wells in adjacent quarter-sections

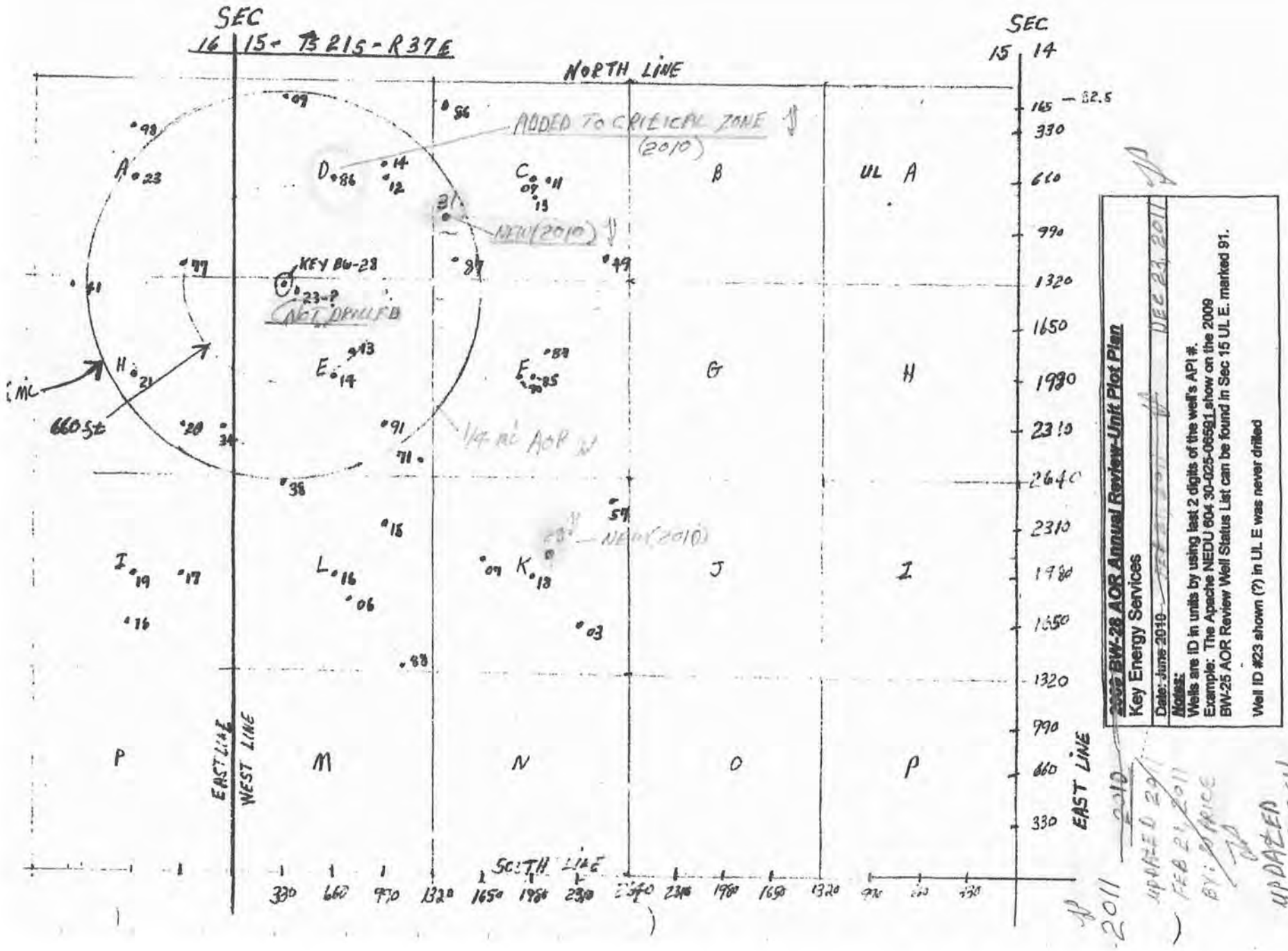
15 Total # of wells in 1/4 mile AOR

4 Total # of wells that are or have become within 660 ft of the outside radius of the brine well and casing program will be checked and reported in the next annual report.

Notes:

* Where the well is within 660 ft of the outside radius of the brine well and casing program will be checked annually.

** API # [illegible] was added


SEC 16 | 15 - T 21S - R 37E
SEC 15 | 14
NORTH LINE
EAST LINE
WEST LINE
SOUTH LINE
ADDED TO CRITICAL ZONE (2010)
NEW (2010)
KEY BW-28
23-?
NOT DRILLED
660 St
1/4 mi AOR
NEW (2010)
UL A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
2008 BW-28 AOR Annual Review-Unit Plot Plan
Key Energy Services
Date: June 2010
DEC 23, 2011
Notes:
Wells are ID in units by using last 2 digits of the well's API #.
Example: The Apache NEDU 604 30-025-06591 show on the 2009
BW-25 AOR Review Well Status List can be found in Sec 15 UL E. marked 91.
Well ID #23 shown (?) in UL E was never drilled
UPDATED DEC 23, 2011

Well File Search - *Select API Number to View*

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

DEC 2011

7 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506609	C -15-21S-37E	660 FNL & 1980 FWL
Well Name & Number: STATE S No. 002		
Operator: CHEVRON U S A INC		
3002506611	C -15-21S-37E	660 FNL & 2080 FWL
Well Name & Number: STATE S No. 004		
Operator: CHEVRON U S A INC		
3002506613	C -15-21S-37E	760 FNL & 1980 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 605		
Operator: APACHE CORP		
3002534649	C -15-21S-37E	1229 FNL & 2498 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 622		
Operator: APACHE CORP		
3002534886	C -15-21S-37E	160 FNL & 1350 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 524		
Operator: APACHE CORP		
3002534887	C -15-21S-37E	1250 FNL & 1368 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 624		
Operator: APACHE CORP		
3002539831	C -15-21S-37E	990 FNL & 1330 FWL
Well Name & Number: STATE S No. 012		
Operator: CHEVRON U S A INC		

7 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506603	K -15-21S-37E	1650 FSL & 2310 FWL
Well Name & Number: ARGO No. 006		
Operator: APACHE CORP		
3002506607	K -15-21S-37E	2080 FSL & 1650 FWL
Well Name & Number: ARGO No. 011		
Operator: APACHE CORP		
3002509918	K -15-21S-37E	1980 FSL & 1980 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 703		
Operator: APACHE CORP		
3002534657	K -15-21S-37E	2540 FSL & 2482 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 623		
Operator: APACHE CORP		
3002539828	K -15-21S-37E	2190 FSL & 2130 FWL
Well Name & Number: ARGO No. 014		
Operator: APACHE CORP		

5 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506623	A -16-21S-37E	660 FNL & 660 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 057

Operator: APACHE CORP

3002525198	A -16-21S-37E	330 FNL & 600 FEL

Well Name & Number: HARRY LEONARD NCT E No. 006

Operator: CHEVRON U S A INC

3002539277	A -16-21S-37E	1290 FNL & 330 FEL

Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 113

Operator: APACHE CORP

3 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

5 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506606	L -15-21S-37E	1880 FSL & 760 FWL
Well Name & Number: ARGO No. 010		
Operator: APACHE CORP		
3002509915	L -15-21S-37E	2310 FSL & 990 FWL
Well Name & Number: ARGO No. 007		
Operator: APACHE CORP		
3002509916	L -15-21S-37E	1980 FSL & 660 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 701		
Operator: APACHE CORP		
3002534888	L -15-21S-37E	1330 FSL & 1142 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 713		
Operator: APACHE CORP		
3002537238	L -15-21S-37E	2630 FSL & 330 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 629		
Operator: APACHE CORP		

5 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506585	F -15-21S-37E	1980 FNL & 1980 FWL
Well Name & Number: CITIES S STATE No. 002		
Operator: APACHE CORP		
3002506587	F -15-21S-37E	3375 FSL & 3225 FEL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 606		
Operator: APACHE CORP		
3002506590	F -15-21S-37E	1980 FNL & 1880 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 608		
Operator: APACHE CORP		

3 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011
10

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506586	D -15-21S-37E	660 FNL & 660 FWL
Well Name & Number: STATE S No. 001		
Operator: CHEVRON U S A INC		
3002506612	D -15-21S-37E	660 FNL & 990 FWL
Well Name & Number: STATE S No. 005		
Operator: CHEVRON U S A INC		
3002506614	D -15-21S-37E	600 FNL & 990 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 601		
Operator: APACHE CORP		
3002536809	D -15-21S-37E	130 FNL & 330 FWL
Well Name & Number: NORTHEAST DRINKARD UNIT No. 526		
Operator: APACHE CORP		

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

6 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506591	E -15-21S-37E	2310 FNL & 990 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 604
Operator: APACHE CORP

3002509913	E -15-21S-37E	3390 FSL & 4520 FEL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 603
Operator: SHELL WESTERN E & P INC

3002509914	E -15-21S-37E	1980 FNL & 660 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 602
Operator: APACHE CORP

3002533547	E -15-21S-37E	1340 FNL & 330 FWL

Well Name & Number: STATE No. 001
Operator: KEY ENERGY SERVICES, LLC

3002535271	E -15-21S-37E	2580 FNL & 1300 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 625
Operator: APACHE CORP

3002537223	E -15-21S-37E	1410 FNL & 380 FWL

Well Name & Number: NORTHEAST DRINKARD UNIT No. 628
Operator: APACHE CORP

6 Records Found — Displaying Screen 1 of 1

Continue | Go Back

Well File Search - *Select API Number to View*

Dec 2011
dp

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506617	I -16-21S-37E	1980 FSL & 330 FEL
Well Name & Number: STATE DA No. 005		
Operator: APACHE CORP		
3002506619	I -16-21S-37E	1980 FSL & 660 FEL
Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 078		
Operator: APACHE CORP		
3002537916	I -16-21S-37E	1650 FSL & 780 FEL
Well Name & Number: STATE DA No. 013		
Operator: APACHE CORP		

3 Records Found Displaying Screen 1 of 1

Continue Go Back

Well File Search - *Select API Number to View*

DEC 2011

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected. The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

4 Records Found — Displaying Screen 1 of 1

API Number	ULSTR	Footages
3002506621	H -16-21S-37E	1980 FNL & 660 FEL
Well Name & Number: WEST BLINEBRY DRINKARD UNIT No. 056		
Operator: APACHE CORP		
3002506624	H -16-21S-37E	2310 FNL & 330 FEL
Well Name & Number: HARRY LEONARD NCT E No. 005		
Operator: CHEVRON U S A INC		
3002536741	H -16-21S-37E	1330 FNL & 1070 FEL
Well Name & Number: HARRY LEONARD NCT E No. 007		
Operator: CHEVRON U S A INC		
3002537834	H -16-21S-37E	2310 FNL & 1030 FEL
Well Name & Number: HARRY LEONARD NCT E No. 008		
Operator: CHEVRON U S A INC		

4 Records Found — Displaying Screen 1 of 1

Continue | Go Back

District I
P.O. Box 1980, Hobbs, NM 88241-1980

District II
P.O. Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	3 OGRID Number 000873 2 Reason for Filing Code CG effective 8/1/1998
4 API Number 30-025-09914	5 Pool Name Eunice Blinebry-Tubb-Drinkard-North
6 Pool Code 22900
7 Property Code 22503	8 Property Name Northeast Drinkard Unit
9 602

II. Surface Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	21S	37E		1980	N	660	W	Lea

Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	P	1/19/90			

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: APPROVED BY

Title: DISTRICT I SUPERVISOR

Approval Date: SEP 21 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature | Printed Name | Title | Date

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-04413

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
NORTHEAST DRINKARD UNIT

1. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER

2. Name of Operator
Shell Western E&P Inc. (OGRID 5237)

8. Well No.
803

3. Address of Operator
P.O. Box 576 Houston, TX 77001-0576

9. Pool name or Wildcat
N. EUNICE BLINEBRY-DRINKARD-TUBB

4. Well Location
Unit Letter E : 3390 Feet From The SOUTH Line and 4620 Feet From The EAST Line

Section 16 Township 21S Range 37E NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3445' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [X]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: [ ]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

11-13 TO 11-22-93:

DMPD 35' CLS C CMT ON TOP OF CIBP @ 5696'. SET CICR @ 5551'. SQZD BLINEBRY PERFS 5715' - 6682' W/250 SX CLS C NEAT CMT. STUNG OUT OF CICR. LEFT 185' OF CMT ON TOP OF CICR (TOC @ 5466'). CIRC INHIB FL. ISOLATED CSG LK BTW 4934' - 4965'. SET CICR @ 4841'. SQZD CSG LK W/ 200 SX CLS C NEAT. STUNG OUT OF CICR. LEFT 126' CMT ON TOP OF CICR. (TOC @ 4715'.) CIRC INHIB FL. PERF 4-WAY SHOT @ 2875'. SET CICR @ 2802'. ESTAB CIRC DWN TBG & OUT 5-1/2 X 8-5/8 ANN. PMPD 400 SX CLS C CMT, UNABLE TO CIRC TO SURF. STUNG OUT OF CICR. LEFT 53' CMT ON TOP OF CICR. CIRC CLN. WOC 8 HRS. RUN TEMP SURVEY & FOUND TOC @ 850'. PERF @ 800'. SET CICR @ 750'. CIRC CLS C CMT TO SURF BTW 5-1/2 X 8-5/8 ANN. STUNG OUT OF CICR. CMT TO SURF IN 5-1/2 PROD CSG. CUT OFF 5-1/2 IN. WELLHEAD. WLD 4 IN. MARKER 3' BELOW GL W/4' ABV GL. BACKFILL PIT & CELLAR. CUT OFF DEADMAN BELOW GL. WELL IS P&A'D.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M. Wisdom TITLE TECH. MGR. - ASSET ADMIN. DATE 1/07/94

TYPE OR PRINT NAME A. J. DURRANI TELEPHONE NO. 713/544-3797

(This space for State Use)

APPROVED BY [illegible] TITLE DIST. SUPV. DATE FEB 15 1995

CONDITIONS OF APPROVAL, IF ANY:

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

RECEIVED
AUG 14 2008
HOBBS OCD

Form C-103
June 19, 2008

WELL API NO. 30-025-06586	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	7. Lease Name or Unit Agreement Name STATE S
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 1
2. Name of Operator CHEVRON	9. OGRID Number 4323
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705	10. Pool name or Wildcat PENROSE SKELLY GRAYBURG
4. Well Location Unit Letter D: 660 feet from the NORTH line and 660 feet from the WEST line Section 15 Township 21-S Range 37-E NMPM County LEA	
	11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3462'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ACIDIZE & SCALE SQUEEZE	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

07-30-08: MIRU. 07-31-08: REL TAC. TIH W/WS TO 4527. DID NOT TAG FILL. SET PKRS @ 3679. 08-04-08: PMP 28 BBLS ACID TO FILL TBG. WELL ON VAC. ACIDIZE PERFS W/105 BBLS ACID. ALL PERFS OPN VAC. SWAB. 08-05-08: SWAB. 08-06-08: PKR WOULD NOT SET. COLLAR ABOVE PKR IS SPLIT. TIH W/NEW COLLAR. TAG FISH @ 3905. SET PKR. REL PKR. TIH W/PKR TO 3672 & SET. PMP 105 BBLS SCALE INHIB. 08-07-08: REL PKR. TIH W/2 7/8" TBG. EOT @ 4052. 08-08-08: RUN PMP & RODS. RIG DOWN. FINAL REPORT

Spud Date: 07-30-08 Rig Release Date: 8-08-08

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Pinkerton TITLE: REGULATORY SPECIALIST DATE: 08-11-2008

Type or print name: DENISE PINKERTON E-mail address: leakejd@chevron.com PHONE: 432-687-7375

For State Use Only

APPROVED BY: Chris Williams TITLE: OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE: AUG 18 2008

Conditions of Approval (if any):

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

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OCT 26 2009
HOBBSOCD

State of New Mexico
Minerals & Natural Resources

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

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Apache Corporation 6120 S Yale Ave Suite 1500 Tulsa, OK 74136	873 [3] Reason for Filing Code/ Effective Date NC / 10/07/2009

[4] API Number	[5] Pool Name	[6] Pool Code
30 - 0 25-39277	Eunice; Blinebry-Tubb-Drinkard, North	22900
[7] Property Code	[8] Property Name	[9] Well Number
37546	West Blinebry Drinkard Unit	113

II. [10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	21S	37E		1290	North	330	East	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
S	10/7/2009	10/07/2009			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
24650	Targa Midstream Services LP 1000 Louisiana Suite 4700 Houston, TX 77262	G
[redacted]		[redacted]
214984	Plains Marketing, LP PO Box 4648 Houston, TX 77210	O
[redacted]		[redacted]
[redacted]		[redacted]
[redacted]		[redacted]

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
09/15/2009	10/07/2009	6912'	6852'	5635'-6712'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
12-1/4"	8-5/8"	1342'	650 sx, circ
7-7/8"	5-1/2"	6912'	1000 sx, circ

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
10/07/2009	10/07/2009	10/19/2009	24 hours		
[37] Choke Size	[38] Oil	[39] Water	[40] Gas		[41] Test Method
	61	61	269		Pumping

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature: Amber Cooke

Printed name: Amber Cooke
Title: Production Engineering Tech
E-mail Address: amber.cooke@apachecorp.com
Date: 10/22/2009
Phone: 918.491.4968

OIL CONSERVATION DIVISION

Approved by:
Title: PETROLEUM ENGINEER
Approval Date: NOV 06 2009

Submit 3 copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

SUNDRY NOTICES AND REPORTS ON WELL

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: STATE S

1. Type of Well: OIL WELL ☐ GAS WELL ☒ OTHER

8. Well No. 5

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC

9. Pool Name or Wildcat: Penrose Skelly Grayburg

3. Address of Operator: P.O. BOX 730, HOBBS, NM 88240

4. Well Location
Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line
Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT,GR, etc.) 3459' KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPERATION	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER: Recompletion			☒

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Objective: Abandon Drinkard, Complete Penrose Skelly Grayburg

1) Set 5 1/2" CIBP w/35' cement cap - New PBTD=6395'
2) Perf 5 1/2" casing w/8 SPF 3841-51' (80 holes)
3) Acidize perfs w/1550 gal 15% NEFE
4) Ran 2 3/8" tubing w/5 1/2" packer set @ 3781'
5) 04/06/94: Flow 1 oil, 108 wtr, 626 MCF, 23/64" choke @ 210#.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE L W Johnson TITLE Engineering Assistant DATE 4/14/94

TYPE OR PRINT NAME Larry W. Johnson Telephone No. 397-0426

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE APR 18 1994

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-104
Revised February 10,1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator Name and Address	2 OGRID Number
TEXACO EXPLORATION & PRODUCTION INC P.O. BOX 730, HOBBS, NM 88240	022351
	3 Reason for Filing Code RC

4 API Number	5 Pool Name	6 Pool Code
30 025 06612	Penrose Skelly Grayburg	50350
7 Property Code	**8 Property Name**	**9 Well No.**
011110	STATE S	5

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	15	21S	37E		660	NORTH	990	WEST	LEA

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
S	F	3/15/94			

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
022628	TEX-NM PIPELINE CO PO BOX 2528, HOBBS, NM 88240	2471910	O	C 15 21S 37E
022345	TEXACO E & P INC PO BOX 3000, TULSA, OK 74102	2471930	G	D 15 21S 37E

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2471950	C 15 21S 37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 Total Depth	28 PBTD	29 Perforations
	3/18/94	8148	6395	3841-51

30 HOLE SIZE	31 CASING & TUBING SIZE	32 DEPTH SET	33 SACKS CEMENT
17 1/2"	13 3/8"	294'	300
11"	8 5/8"	2974'	2000
6 3/4"	5 1/2"	8147'	500

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Date of Test	37 Length of Test	38 Tubing Pressure	39 Casing Pressure
3/18/94	03/17/94	04/07/94	24 HR	210	0
40 Choke Size	**41 Oil - Bbls.**	**42 Water - Bbls.**	**43 Gas - MCF**	**44 AOF**	**45 Test Method**
23/64	1	108	626		F

46 I hereby certify that the rules and regulations of the Oil Conservation

OIL CONSERVATION DIVISION

Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature [signature]

Printed Name Larry W. Johnson

Title Engineering Assistant

Date 4/8/94 Telephone 397-0426

Approved By: ORIGINAL SIGNED BY JERRY SEXTON

Title: DISTRICT I SUPERVISOR

Approval Date: APR 13 1994

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

DeSoto/Nichols 12/93 ver 1.10

I

2A Pinkard

Submit to Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

DISTRICT I
P O Box 1980, Hobbs, NM 88240
DISTRICT II
P O Box Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30 025 06612

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil / Gas Lease No. B-9188

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL ☐ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☒

b. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Lease Name or Unit Agreement Name: STATE S

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

8. Well No. 5

3. Address of Operator: P O BOX 730, HOBBS, NM 88240

9. Pool Name or Wildcat: SKELLY PENROSE GRAYBURG

4. Well Location
Unit Letter D : 660 Feet From The NORTH Line and 990 Feet From The WEST Line
Section 15 Township 21S Range 37E NMPM LEA COUNTY

10. Proposed Depth	11. Formation	12. Rotary or C.T.
6395'	GRAYBURG	-

13. Elevations (Show whether DF, RT, GR, etc.)	14. Kind and Status Plug Bond	15. Drilling Contractor	16. Approx. Date Work will start
3459' KB	-	-	3/10/94

17 PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	36#	294'	300	CIRC
11"	8 5/8"	24#	2974'	2000	CIRC
6 3/4"	5 1/2"	15.5 & 17#	8147'	500	2570'

1. MIRUPU. Kill well. Pull rods and pump. Install BOP. TOH with tubing.
2. Abandon Drinkard perfs: set 5 1/2" CIBP at 6430' & cap with 35' cement.
3. Run Cement Bond Log and GR-CNL Log.
4. Perforate the Grayburg from 3850' - 3860'.
5. Acidize perfs with 1500 gals 15% NEFE acid.
6. Fracture stimulate perfs with 33,000 gals gel & 110,000 lbs 16/30 sand.
7. Place well on production and test.

OPER. OGRID NO. 022351
PROPERTY NO. 01110
POOL CODE 50350
EFF. DATE 3-9-94
API NO. 30-025-06612

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE J. A. Dunham TITLE Prod. Engineer DATE 3/7/94

TYPE OR PRINT NAME Dan A. Dunham Telephone No. 397-0425

(This space for State Use)

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON TITLE DISTRICT I SUPERVISOR DATE

CONDITIONS OF APPROVAL, IF ANY:

DeSoto/Nichols 12-93 ver 1.0

Form C-101

NEW ... 'CO OIL CONSERVATION COM ... SION

Santa Fe, New Mexico

DUPLICATE

1951

OIL CONSERVATION COMMISSION
HOBBS, N. M. OFFICE

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Houston, Texas — Place

January 31, 1951 — Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

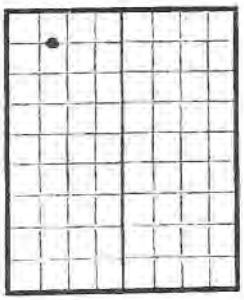
Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Tide Water Associated Oil Company (Company or Operator) State "S" (Lease) Well No. 5 in NW/4 NW/4

of Sec. 15, T 21-S, R 37-E, N. M., P. M., Brunson Field, Lea County.

N



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 660 feet ~~XX~~ (S.) of the N line and 990 feet (E.) ~~XXX~~ of the W line of Section 15, 21S, 37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. B-9188 Assignment No.

If patented land the owner is

Address

If government land the permittee is

Address

The lessee is Tide Water Associated Oil Company

Address Box 1404, Houston 1, Texas

We propose to drill well with drilling equipment as follows: Rotary

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Blanket Bond dated Nov. 30, 1937, with Saint Paul-Mercury Ind. Co.

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
17 1/2"	13 3/8"	36#	New	280	Cemented	300
11"	8 5/8"	24# and 32#	New	2800'	Cemented	2000
6 3/4"	5 1/2"	17#	New	7800'	Cemented	500

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 7600 feet.

Additional information:

Approved FEB - 5 1951, 19

except as follows:

OIL CONSERVATION COMMISSION,

By [illegible]

Title [illegible]

Sincerely yours,

Tide Water Associated Oil Company (Company or Operator)

By J. B. Holloway

Position Authorized Employee

Send communications regarding well to

Name J. E. Springer, c/o Tide Water Assoc. Oil Company,

Address Midland, Texas

Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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

HOBBS OCD
OCT 24 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO.	30-025-06614
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	BD-9188
7. Lease Name or Unit Agreement Name	Northeast Drinkard Unit
8. Well Number	601
9. OGRID Number	873
10. Pool name or Wildcat	Eunice, Blinebry-Tubb-Drinkard, N.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator: **Apache Corporation**

3. Address of Operator: **303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705**

4. Well Location
Unit Letter **D** : **600** feet from the **N** line and **990** feet from the **W** line
Section **15** Township **21S** Range **37E** NMPM County **Lea**

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **3459' GR**

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water__N/A____
Pit Liner Thickness: ____ mil Below-Grade Tank: Volume_____ bbls; Construction Material_____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: drill out & add Plugs ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

10/10/11 Tag ~~TOC~~ existing CIBP @ 5,620'

10/11/11 Tbg @ 5,620' – Circ hole w/ MLF. Test csg – OK.
Spot 50sx cmt @ 5,620'. Displaced to 5113'.

10/12/11 Perf @ 4,032' – unable to Sqz. Tbg @ 4,082' – Spot 25sx cmt w/2% CaCl – Tag @ 3,885'
Perf @ 3,040' – unable to Sqz. Tbg @ 3,090' – ~~Spot 25sx cmt~~ – Tag @ 2,740' Spot 40sx cmt.
TIH open ended to

10/13/11 Tbg @ 2,246' – Spot 25sx cmt No tag per OCD, mark Whitaker
Tbg @ 1,306' – Spot 25sx cmt No tag per OCD again.
Tbg @ 400' – Spot 25sx cmt – Tag @ 200' WITNESS
Perf @ 100' – Circ 50sx cmt to surface. RDMO. Cutoff WH, anchors, clean location. Install dry hole marker.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms. www.emnrd.state.nm.us/ocd.

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

SIGNATURE_____ TITLE **P &A Technician** **(Basic Energy Services)** **DATE** 10-18-11

Type or print name: **Greg Bryant** E-mail address: Telephone No. 432-563-3355

For State Use Only

APPROVED BY_____ TITLE Staff Mgr DATE 10-25-2011
Conditions of Approval (if any):

OCT 25 2011

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Northeast Drinkard Unit

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 601

2. Name of Operator
Apache Corporation

9. OGRID Number 00873

3. Address of Operator 6120 South Yale, Suite 1500
Tulsa, OK 74136-4224

10. Pool name or Wildcat
Eunice Blinebry - Tubb - Drinkard - North

4. Well Location
Unit Letter D : 660 feet from the South line and 990 feet from the West line
Section 15 Township 21S Range 37E NMPM CountyLea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3459' GR

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[ ]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[X]		
OTHER:			[ ]	OTHER:			[ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Isolate 5-1/2" casing leak, 4942' - 4974'. TOC @ 5380' per CBL. Perf 5360', set retainer @ 5007'. Squeeze with 125 sx Class C. Pulled out of retainer. Set cmt retainer @ 4880'. Squeeze casing leak with 350 sxs Class C. Set packer @ 5322'. Test squeeze to 500 psi. Did not hold. Test backside to 500 psi, held ok. Set retainer @ 5320' and squeeze with 50 sx Class C w/ CaCl + 150 sx Class C Neat. Test squeeze ok. Acidize Blinebry/Tubb with 5200 gals 15% HCL. Acidize Drinkard with 3000 gals 15% HCl. Return to production.

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

SIGNATURE Elaine Linton TITLE Engineering Technician DATE 01/12/2005

Type or print name Elaine Linton E-mail address:elaine.linton@apachecorp.com Telephone No. (918)491-5362

For State Use Only

APPROVED BY: Gary W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER DATE JAN 14 2005

Conditions of Approval (if any):

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Apache Corporation 2000 Post Oak Blvd, Suite 100 Houston, TX 77056-4400	000873
	3 Reason for Filing Code CG effective 8/1/1998

4 API Number	5 Pool Name	6 Pool Code
30-025-06614	Eunice Blinebry-Tubb-Drinkard-North	22900

7 Property Code	8 Property Name	9
22503	Northeast Drinkard Unit	601

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21S	37E		660	S	990	W	Lea

11 Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 29 Effective Date	17 C-129 Expiration Date
S	P				

III.

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
037480	EOTT Energy Pipeline LP P O Box 4666 Houston, TX 77210-4666	2264710	O	A, Sec 2, T21S-R37E NEDU Central Battery
024650	Warren Petroleum P O Box 1589 Tulsa, OK 74102	2264730	G	
022628	Texas-New Mexico Pipeline Co P O Box 5568 TA Denver, CO 80217-5578	2264710	O	
020809	Sid Richardson Gasoline Co. 201 Main St., Suite 3000 Ft Worth, TX 76102	2264730	G	

IV Produced Water

23 POD	24 POD ULSTR Location and Description
2264750	A, Sec 2, T21S-R37E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations

30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement

VI Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
				-	-

40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method
-					P

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Pamela M. Leighton

Printed Name: Pamela M. Leighton

Title: Regulatory Analyst

Date: 9/4/98 Phone: 713-296-7120

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY GARY WINK FIELD REP. II

Title:

Approval Date: SEP 24 1998

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature: Printed Name: Title: Date:

Form C-104

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL)-(GAS) ALLOWABLE

It is necessary that this form be submitted by the operator before an initial allowable will be assigned to any completed oil or gas well. Form C-110 (Certificate of Compliance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 P.B. at 60° Fahrenheit.

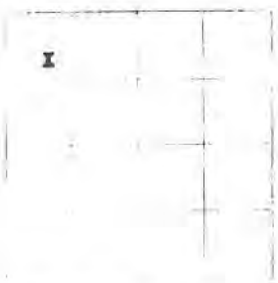
Box 547, Hobbs, New Mexico (Place) — May 1, 1952 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Tide Water Associated Oil Co. (Company or Operator) — State "S" (Lease) — Well No. 7 — in NW 1/4 NW 1/4

Section 1½, T. 21-S R. 37-E, N.M.P.M. Brunson — Pool — Lea — County

Please indicate location:



Unit letter: D

Elevation 3459' — Spudded 2-20-52 — Completed 4-27-52

Total Depth 8145 — P.B. —

Top Oil/Gas Pay 7988' — Top Water Pay None

Initial Production Test: Pump — Flow 237.71 (BOPD ~~or MCFPD~~)

Based on 160.95 Bbls. Oil in 16 1/4 Hrs. — Mins.

Method of Test (Pitot, gauge, ~~separator, meter, pump~~)

Size of choke in inches 20/64"

Tubing (Size) 2 3/8" — 8055 — feet

Pressures: Tubing 325 psig. — Casing Packer set @ 7924'

Gas/Oil Ratio 1076 cu.ft./bbl. — Gravity 43.2° A.I.

Casing Perforations:

7988' to 8056'

Acid Record:

5000 Gals 7988 to 8056

Gals to

Gals to

Shooting Record.

Qts to

Qts to

Qts to

Show of Oil, Gas and water

S/ Oil

S/

S/

S/

S/

S/

S/

Casing & Cementing Record

Size	Feet	Sax
13 3/8	293	300
8 5/8	2990	1700
5 1/2	8142'	350

(5½" hung in 8-5/8" csg. @ 2847')

Natural Production Test: None ~~Pumping~~ Swabbing ~~Flowing~~

Test after acid or shot: — Pumping 237.71 Flowing

Please indicate below formation Tops (in conformance with geographical section of state):

Southeastern New Mexico				Northwestern New Mexico	
T. Anhy		T. Devonian		T. Ojo Alamo	
T. Salt		T. Silurian		T. Kirtland-Fruitland	
B. Salt		T. Montoya		T. Farmington	
T. Yates		T. Simpson	7369'	T. Pictured Cliffs	
T. 7 Rivers		T. McKee	7576'	T. Cliff House	
T. Queen		T. Ellenburger	7976'	T. Menefee	
T. Graybrg		T. Gr. Wash		T. Point Lookout	
T. San Andres	3982'	T. Granite	8141'	T. Mancos	
T. Glorieta	5181'	T.		T. Dakota	
T. Drinkard	6557'	T.		T. Morrison	
T. Tubbs	6155'	T. Connell	7903'	T. Penn	
T. Abo		T.		T.	
T. Penn		T.		T.	
T. Miss		T. T.D.	8145'	T.	

(Please supply required information on reverse side of form)

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
17½"	13-3/8	293	300	Halliburton	Native	
11"	8-5/8	2990	2000	"	Native	
6-3/4"	5½	8142	350	"	9.3#/gal.	
	(5½" Liner hung in 8-5/8" casing - 2647')					

PLUGS AND ADAPTERS

Heaving plug—Material..... Length..... Depth Set.....

Adapters — Material..... Size.....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		15% Regular Acid	5000 gals	4-26-52	7988 - 8056	
				(perf. in 5½" liner)		

Results of shooting or chemical treatment..... No natural production before acid treatment, well flowed 238 BOPD following treatment.

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 8145 feet, and from..... feet to..... feet

Cable tools were used from..... feet to..... feet, and from..... feet to..... feet

PRODUCTION

Put to producing 4-27, 1952

The production of the first 24 hours was 237.71 barrels of fluid of which 100 % was oil; ..... %

emulsion; ..... % water; and ..... % sediment. Gravity, Be.....

If gas well, cu. ft. per 24 hours..... Gallons gasoline per 1,000 cu. ft. of gas.....

Rock pressure, lbs. per sq. in.....

EMPLOYEES

R. E. Griffin, Driller — D. R. Robbins, Driller

B. N. Gaston, Driller — ....., Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 19 day of May, 1952

O. C. Lusardus
Notary Public

My Commission expires ....., 1955

Box 547 - Hobbs, New Mexico (Place) 5-16-52 (Date)

Name H. E. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

March 4, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water

Associated Oil Co. (Company or Operator) State "S" (Lease) Well No. 7 in the

NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M.,

Hare Pool Lea County.

The dates of this work were as follows: February 29, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on February 27, 19 52

and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 8-5/8" casing at 2990' with 2000 sks cement top cement behind 8-5/8" casing is 160' from surface. Casing tested and held 1000 psi for 30 min.

Witnessed by L. W. Hogue (Name) Tide Water Associated Oil Co. (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Name

Title

Date 19

I hereby swear or affirm that the information given above is true and correct.

Name H.P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547 - Hobbs, New Mexico

Form C-103

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

April 23, 1952 (Date) Box 547, Hobbs, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted at the top. Tide Water Associated Oil Co. (Company or Operator) State "B" (Lease) Well No. 7 in the NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Pool Lea County.

The dates of this work were as follows: April 21, 1952

Notice of intention to do the work was ~~(was not)~~ submitted on Form C-102 on April 19, 19 52, and approval of the proposed plan was ~~(was not)~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

We set 5½" liner at 6142' w/350 sks regular cement. 5½" liner was hung in 8-5/8" casing at 2847'. Top of cement behind 5½" liner is 5400'. Liner tested and held 1000# for 30 min.

Witnessed by E. W. Hogue (Name) Tide Water Associated Oil Company (Company) Head Roustabout (Title)

APPROVED:
OIL CONSERVATION COMMISSION
Roy Yarbrough (Name)
District (Title)
(Date) 19

I hereby swear or affirm that the information given above is true and correct.

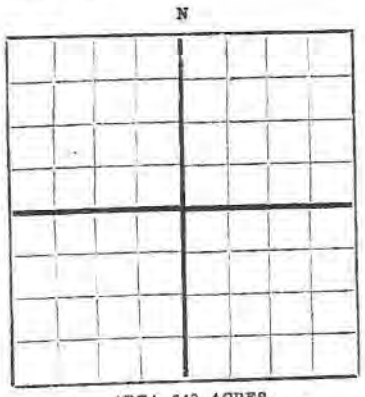
Name H.P. Shackelford

Position District Foreman

Representing Tide Water Associated Oil Co. (Company or Operator)

Address Box 547, Hobbs, New Mexico

FORM C-105



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Tide Water Associated Oil Company (Company or Operator) Box 547, Hobbs, New Mexico (Address)

State "S" (Lease) Well No. 7 in NW/4 of NW/4 of Sec. 15, T. 21-S, R. 37-E, N. M. P. M., Brunson Field, Lea County.

Well is 600 feet south of the North line and 4380 feet west of the East line of Sec. 15-21S-37E.

If State land the oil and gas lease is No. B - 9188 Assignment No.

If patented land the owner is ..... Address .....

If Government land the permittee is ..... Address .....

The Lessee is Tide Water Associated Oil Company Address Box 1404 Houston, 1, Texas

Drilling commenced 2-20-52 Drilling was completed 4-20 19 52

Name of drilling contractor E. F. Moran, Inc. Address Tulsa, Oklahoma

Elevation above sea level at top of casing 3459' feet.

The information given is to be kept confidential until Not confidential 19.....

OIL SANDS OR ZONES

No. 1, from 7988' to 8056' No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
13-3/8"	36#	Spiral Weld	Armco	280'	Tex. Pattern				Surface Casing
8-5/8"	24 & 32#	8R		2997'	Larkin				Salt String
5-1/2"	17 & 15½"	8R		5288'	Larkin				Production String

MUDDING AND CEMENTING RECORD

ANNUAL CLASS III WELL REPORT FOR 2011

Key Energy Services, Inc.

State S Brine Station

Permit BW-028

API No. 30-025-33547

January 20, 2011

Submitted by: _____

Daniel K. Gibson, P.G.

Corporate Environmental Director

Key Energy Services, Inc.

6 Desta Drive Suite 4300

Midland, Texas 79705

(432) 571-7536 ph

(432) 571-7173 fax

ANNUAL CLASS III WELL REPORT FOR 2014

Key Energy Services, Inc. (Key)

State S Brine Station

Permit BW-028

API No. 30-025-33547

May 30, 2015

Submitted by: _____

BJ Sisson I Key Energy Services
Area Manager PB SWD Management
P.O. Box 1294 Brownfield, TX 79316
o: 806.637.3507 I f: 806.637.0054 I c: 806.401.4349
bsisson@keyenergy.com

Prepared By: Wayne Price- Price LLC

505-715-2809
wayneprice77@earthlink.net

ANNUAL CLASS III WELL REPORT FOR 2014

Key Energy Services, Inc. (Key)

State S Brine Station

Permit BW-028

API No. 30-025-33547

May 30, 2015

Submitted by: _____

Daniel K. Gibson, P. G.

Environmental Director

Key Energy Services, Inc.

6 Desta Drive Suite 4300

Midland, Texas 79705

(432) 571-7536 ph

(432) 571-7173 fax

Prepared By: Wayne Price- Price LLC

505-715-2809

wayneprice77@earthlink.net

Bullet Point 2- Summary of Operations:
(Permit Condition 2.J.2 Annual Report: "Summary of Class III well operations for the year including a description and reason for any remedial or major work on the well with a copy of C-103.")

During the 2014 year, there was no major remedial work required at the brine well. General housekeeping was routinely performed and third party (Price LLC) on-site inspections were conducted to ensure permit conditions were being maintained.

Key recently upgraded the State S Brine Station with a Web Based monitoring, Automation System. This system monitors all equipment, fluid levels, and driver access. The ICS system also sends out alarms to personnel via text or Email, as well as, allows users to monitor and control remotely via the WWW.

The OCD held a Brine Well Operators meeting in Hobbs on September 05, 2012 to discuss permit changes. The most notable change by OCD was the removing of the annual "open-to-formation" pressure test requirement. Key Energy Services, Inc. (Key) as most operators, did not run an MIT in 2014.

Yearly cavity size calculations were analyzed to determine cavern size and stability. The calculated cavern radius grew about 2.38 feet this year, from 71.62 ft to 74.0 ft, for an estimated worst-case maximum diameter of 148 ft.

The "Area of Review" reflected no issues and is described in detail below. The cavern subsidence monitors were surveyed and no issues were noted.

Bullet Point 3- Production Volumes:

(Permit condition 2.J.3 "Monthly fluid injection and brine production volume, including the cumulative total carried over each year"

Key has an electronic card system that tracks sales of both fresh and brine water. In addition, Key has Halliburton flow meters on the well to monitor both water injected and brine produced.

Monthly, Yearly and Lifetime Injection and Production Volumes:

The monthly, yearly and lifetime fresh water injection and brine production volumes are attached herein for review in *Appendix A*. The total 2014 brine production volume was 310,392 bbls and the lifetime production volume is 4,820,500 bbls.

Bullet Point 4- "Injection Pressure Data."

(Permit condition 2.J.4 "Injection Pressure Data"

A new submersible centrifugal injection pump was installed in the fresh water storage tank in the 2014 year. The maximum injection pressure is now 450 psig, and has an automatic shut-down switch set at 300 psig, which is approximately105 pounds below the permit maximum of 405 psig.

For this reason, permit condition 3.B.2. **Pressure Limiting Device:** *"The operator shall have a working pressure limiting device or controls to prevent overpressure."* is conditionally met.

The average injection pressure is noted by Key's personal and is reported to range from 50 psig to 150 psig, and usually averages about 120 psig. This reading is taken from a pressure gauge mounted on the wellhead inlet.

Brine Well injection pressure gauge readings are observed and recorded on a daily basis.

Bullet Point 5- Chemical Analysis:

(Permit condition 2.J.5 "A copy of the quarterly chemical analysis shall be included with data summary and all QA/QC information.")

Please find attached in *Appendix B* the 1st, 2nd, and 4th quarter chemical analysis and chain-of-custody of the brine and fresh water injection water samples collected for the annual report. The laboratory used common approved EPA methods to analyze and reporting. This year the 3 rd quarter results were missed due to a new monitoring system being installed. OCD was notified of the event.

The injection water was collected from the fresh water load line that is connected directly to the fresh water storage tanks and to the inlet side of the injection pump. This sample point is representative of the fresh water at the station. The fresh water is supplied by the City of Eunice and is of high quality and meets EPA's Safe Drinking Water Standards.

The brine water was collected from the brine water load line that is connected directly to the brine water storage tanks and to the outlet side of the injection well. This sample point is representative of the brine water at the station.

The analysis revealed that the brine water is predominately sodium chloride with a high density of 1.20 specific gravity. This analysis is very representative of Salado "Salt" formation waters found in the area. The last quarterly report indicated a SG of 1.15, which is probably attributed to the well taken out of service during the fall, but Key will monitor the density to determine if a pattern is devolping.

Bullet Point 6- Mechanical Integrity:

(Permit condition 2.J.6 "Copy of any mechanical integrity test chart, including the type of test, i.e., duration, gauge pressure, etc;")

In 2014, no MIT was required and the next scheduled MIT will occur in 2016, as approved by OCD.

Bullet Point 7- Deviations from Normal Production Methods:

(Permit condition 2.J.7 "Brief explanation describing deviations from normal operations.")

In 2008 two OCD permitted brine wells collapsed. As a result of those incidents, the OCD issued a temporary moratorium on new brine well permits. During the moratorium OCD facilitated a work group to determine a proper path forward for current and new brine well operations.

As a result of those proceedings, OCD issued instructions to operators to change OCD's previous requirement of injecting fresh water down the annuals and producing brine up the tubing; to injecting fresh water down the tubing and producing brine up the annuals.

On June 1, 2009 Key followed OCD instructions and change the flow pattern. It should be noted that it took over a month in order to obtain 10# brine.

During the 2014 year, Key continued the normal flow production procedure and encountered no problems during this time.

Bullet Point 8- Leak and Spill Reports:

(Permit condition 2.J.8 "Results of any leaks and spill reports;")

The brine station is designed with an impermeable liner under the brine tanks and loading pads. The concrete loading pads are designed to catch de-minimis drips from hose connections and are piped to two 250 bbl fiberglass tanks. This liquid material is routinely re-cycled or disposed of at an OCD approved site.

Rainwater that collects inside of the lined bermed area is routinely pumped out and re-cycled or disposed of at an OCD approved site. Small quantities of rainwater, which cannot be pumped are left to evaporate.

The entire facility is bermed to prevent run-on or run-off. Any reportable or non-reportable spill is cleaned up pursuant to OCD rules and guidance.

In 2014 there were no reportable leaks or spills.

Bullet Point 9- Area of Review Update Summary:

(Permit condition 2.J.9 "An Area of Review (AOR) update summary;")

An extensive AOR review was conducted for the Key Eunice "Old GoldStar" brine well, OCD permit # BW-28, located in UL E (1340 FNL & 330 FWL) of Section 15-Ts21S-R37E. Key used OCD records and field verification to confirm wells in the AOR.

Using OCD on-line files, a well status list and aerial AOR plot plan has been constructed (*see Appendix C*) listing all wells within adjacent quarter sections of the BW-28 location. The list shows API#, Operator well name, UL, Section, Township and Range, footages, wells within 800 ft and ! mile, well checked for casing program status, casing/cementing status, and corrective action required status.

There are a total of 45 wells located within these adjacent units, with one added in 2014, and another two have been proposed but not drilled. Within a ! mile radius of the brine well there are 18 wells, and 4 wells are actually within the 800-foot critical radius. One well was actually removed from the list (30-025-41600) as it is not within the critical radius, but was shown last year inappropriately.

This comprehensive list was formulated to provide a baseline for future AOR studies. Since any future brine wells may be limited in size, a critical AOR was established, and all wells within that radius will be researched in greater detail.

The rational of this approach is the fact that brine wells are non-static in terms of size and configuration and the fact that Key has no direct control on wells drilled in close proximity. By just initially focusing on the current wells in the ! mile AOR and assuming the status of these wells will remain the same could be a mistake.

Therefore, Key is taking a more dynamic approach and will study wells as the brine well grows, especially wells in the critical zone. We used the current estimated diameter of the brine well i.e. 148 ft (r = 74.0 ft) up-dated for 2014, and added a 10:1 safety factor which equates to about 740 ft. As the brine well grows, the critical AOR will be expanded and new wells will be added.

All four wells located in the critical zone were reinvestigated by checking the OCD on-line well records. There was no well activity for any of these wells reported since the last review. They are identified as API# 30-025-09914, 30-025-09913 (P&A), 30-025-06586, and 30-025-39277. (Checked by Price LLC, Apr 2015)

Casing programs were checked on wells, API# 30-025-41600 and 30-025-41485, to ensure casing/cement is across the salt section.

Bullet Point 10- Subsidence/Cavern Volumes/Geometric Measurements

(Permit condition 2.J.10. "A summary with interpretations of MIT's, surface subsidence surveys, cavern volume and geometric measurements with conclusion(s) and recommendation(s);")

The last cavern survey did not provide adequate information pertaining to the size of the cavern. This has been an issue with many brine wells and until the validity of using sonar test is resolved, an alternate method will be employed.

This alternate method has been discussed with Jim Griswold-OCD and it was mutually decided that an estimated worst-case diameter was to be determined in order to provide maximum protection and ensure the permit conditions are being met.

The Solution Mining Research Institute (SMRI), other state agencies, OCD work-group, along with various studies conducted during the permitting of the WIPP site, has concluded that failures, such as "catastrophic collapses", have a higher probability when the roof diameter of the cavern exceeds a certain value compared to the actual depth of the cavern. This number is typically called D/H where "D" is the diameter of the cavity and "H" is the depth from surface to the casing shoe. Various reports seem to conclude that when a ratio of D/H reaches or exceeds 0.66 then the probably of collapse increases to a point that the well may be considered un-safe, thus closing procedures, such as proper plugging and abandonment, and possible long term subsidence monitoring should be considered.

The alternate method mentioned above involves calculating the maximum diameter of the cavern by using a worst-case scenario of an "***upright cone".***

The cavern volume is calculated using the lifetime brine production volume and multiplying it by a *"rule of thumb"* conversion factor to determine the volumetric size of the cavern. The rule of thumb conversion factor was taken from the 1982 Wilson Report, which equates that every barrel of brine produced, will create approximately one cubic foot of cavity.

Please find attached in *Appendix D*, a wellbore sketch, the calculations for the brine well, and the lifetime brine production tally of approximately 4.82 million barrels of brine produced as of December 2014. The maximum diameter was calculated to be approximately 148 feet with a corresponding D/H ratio of 0.109, updated for the 2014 year.

Comparing the current D/H ratio of 0.109 to the 0.66 value mentioned above, it can be concluded that the current brine well status meets and exceeds the recommended safety value by six times.

Permit Condition 2.B. SOLUTION CAVERN MONITORING PROGRAM:

1. Surface Subsidence Monitoring Plan: The Permittee shall submit a Surface *Subsidence Monitoring Plan to OCD within 180 days of the effective data of this permit. The Surface Subsidence Monitoring Plan shall specify that the Permittee will install at least three survey monuments and shall include a proposal to monitor the elevation of the monuments at least semiannually.*

The Permittee shall survey each benchmark at least semiannually to monitor for possible surface subsidence and shall tie each survey to the nearest USGS benchmark. The Permittee shall employ a licensed professional surveyor to conduct the subsidence monitoring program. The Permittee shall submit the results of all subsidence surveys to OCD within 15 days of the survey. If the monitored surface subsidence at any measuring point reaches 0.10 feet compared to its baseline elevation, then the Permittee shall suspend operation of the Class III well . If the Permittee cannot demonstrate the integrity of the cavern and well to the satisfaction of OCD, then it shall cease all brine production and submit a corrective action plan to mitigate the subsidence.

Key Response: Key has a surveyed subsidence monitoring systems in-place. Due to an internal mis-communication between Key Departments, Key's consultant, and the Surveying Contractor, the 2014 monitoring was not conducted. Key's consultant, Price LLC, contacted Mr. Jim Griswold, OCD Environmental Bureau Chief, and agreed and received approval to run 4 quarters in 2015, instead of the two required in the permit. The first and second quarters of 2015 have been performed and no unusual readings were noticed.

Special Note: Key ***requested a Minor Modification*** that allows the results be supplied in the annual report, unless there is an exceedance, as noted in the permit. OCD approved the modification and the approval is included in "Appendix E".

2. Solution Cavern Characterization Program: *The Permittee shall submit a Solution Cavern Characterization Plan to characterize the size and shape of the solution cavern using geophysical methods within 180 days of the effective date of this permit. The Permittee shall characterize the size and shape of the solution cavern using a geophysical methods approved by OCD at least once before November 8, 2018. The Permittee shall demonstrate that at least 90% of the calculated volume of salt removed based upon injection and production volumes has been accounted for by the approved geophysical method(s) for such testing to be considered truly representative.*

Solution Cavern Characterization Plan: Key proposed to use a combination of calculated results as determined above, and will experiment with various geophysical methods, including actually performing an "Induced Current Method" and report these results in the annual report.

The 'Induced Current" Method has not been successful, primarily to bad connections and low voltage used. Key will continue trying this method and others as approved by OCD. The old fashion cavern calculation continues to be the best economic method available.

Bullet Point #11- Ratio of Injected/Produced Fluids

(Permit condition 2.J.11 "A summary of the ratio of the volume of injected fluids to the volume of produced brine;")

Enclosed in *Appendix A* is the tables section of the report showing the injection and production data and the comparison chart of injected water to produced water with comments.

The 2014 results show a somewhat normal 16.56% variance, while the total variance during the life of the well is 4.6%.

Special Note: **Key requests a minor modification of the permit requirement 3.K** *"The Permittee shall suspend injection if the monthly injection volume is less than 110% or greater than 120% of associated brine production. If such an event occurs, the Permittee shall notify OCD within 24 hours."*

Dear Jim Giswold-NMOCD Environmental Bureau Chief: As you know, this topic has been discussed and kicked around for a long time. The current permit requirement does not take into account many factors that can cause the variance to be under or over the requirement of 110%-120%. Every year we report this number in the annual report and while the average monthly injection for the year is normally within range, the actual monthly numbers can and are sometimes under and over. There are many reasons for this as we have discussed, and thus the requirement to suspend operations is not based on any real parameter or trend that may be an immediate threat to the well, groundwater or the environment. The current requirement put operators in a continuous violation and interruption of operations. Notwithstanding, if you have a well that takes water without producing, or starts to pressure up, then you know you may have lost circulation or communicated to a pressure zone, then immediate action should be taken and notification to the agency. Currently the permit reads as follows:

The Permittee shall immediately suspend injection and notify the agency within 72 hours, if the Fresh Water Injection does not cause a normal immediate return of Brine Water to the surface, or if the well flows excessively for an unusual amount of time without fresh water injection after the cavern pressure has been stabilized to it's normal operating pressure, or if permittee has become aware of any out of zone injection or communication. The Permittee shall include in each annual report a summary showing the monthly variance, the average monthly variance for the year and the total accumulative variance over the life of the well. The operator shall certify and explain that any yearly variance that falls outside of the range of 20%, (Difference between the Fresh Water input and Brine Water output) will not cause harm to Fresh Water, Public Health or the Environment.

Bullet Point #12- Summary of Activities
(Permit condition 2.J.12 "A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;)

See Bullet Point #2 for summary.

5.B. BONDING OR FINANCIAL ASSURANCE: *The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class III well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.*

Appendix "F" contains a third party closure estimate for the Eunice BW-18 brine well.

Bullet Point #13- Annual Certification

(Permit condition 2.J.13 "Annual Certification in accordance with Permit Condition 2.B.3. ***"2.B.3. Annual Certification:*** *The Permittee shall certify annually that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.")*

Operator Response: Based on all current information and actual on-site observance, the operator of record herby certifies that the current operations pose no threat to public health and the environment at the submission of this report. If any substantial event that, has or may cause, this current certification to change, then the operator will notify OCD and take the necessary actions to protect the public and environment.

By signing the cover sheet of Bullet Point 1 of permit condition 2.J.1, the operator herby certifies this condition of the permit.

Bullet Point 14- Groundwater Monitoring:
(Permit condition 2.J.14 "A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken;")

The BW-28 facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Bullet Point 15- Annual Reporting

(Permit condition 2.J.15 “The Permittee shall file its Annual Report in an electronic format with a hard copy submitted to OCD’s Environmental Bureau.”)

The operator herby submits a PDF file on flash drive and one hard copy.

Appendix A-

- Production Table
- Injection Comparison Chart

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
1996	October	10,588			10,588				Goldstar SWD
	November	17,770			17,743				
	December	32,223	60,581	60,581	33,004	61,335	61,335		
1997	January	20,194			20,445			estimate (1)	
	February	20,194			20,445			estimate (1)	
	March	20,194	60,582		20,445	61,335		estimate (1)	
	April	48,226			47,714				
	May	38,000			36,571				
	June	47,970	134,196		42,264	126,549			
	July	24,711			24,271				
	August	31,817			31,559				
	September	38,120	94,648		38,697	94,527			
	October	27,462			25,512				
	November	26,618			26,261				
	December	16,137	70,217	359,643	15,850	67,623	350,034		
1998	January	13,301			13,614				
	February	47,212			49,552				
	March	42,337	102,850		44,964	108,130			
	April	27,072			27,519				
	May	18,084			18,161				
	June	26,699	71,855		26,976	72,656			
	July	16,535			15,929				
	August	8,287			7,488				
	September	9,994	34,816		9,021	32,438			
	October	13,312			17,302				
	November	9,822			9,873				
	December	8,287	31,421	240,942	9,497	36,672	249,896		
1999	January	4,026			4,607				
	February	6,867			8,138				
	March	5,641	16,534		6,030	18,775			
	April	7,873			7,338				
	May	34,100			32,461				
	June	20,708	62,681		20,171	59,970			
	July	35,278			34,566				
	August	35,876			35,995				
	September	43,196	114,350		42,724	113,285			
	October	9,700			10,097				
	November	8,383			9,080				
	December	28,662	46,745	240,310	29,721	48,898	240,928		
2000	January	65,492			65,028				
	February	37,709			36,909				
	March	40,409	143,610		40,414	142,351			
	April	20,181			20,404				
	May	52,092			50,373				
	June	41,371	113,644		37,776	108,553			
	July	33,860			31,757				
	August	37,535			35,492				
	September	58,042	129,437		53,288	120,537			
	October	28,777			27,216				
	November	22,677			24,130				
	December	17,670	69,124	455,815	17,369	68,715	440,156		
2001	January	32,427			37,083				
	February	17,493			23,076				
	March	34,050	83,970		33,216	93,375			
	April	32,900			36,064				Change to Yale E. Key
	May	66,724			52,555				
	June	37,607	137,231		42,347	130,966			
	July	16,399			15,588				
	August	10,173			33,664				
	September	16,185	42,757		16,200	65,452			
	October	25,184			24,147				
	November	10,447			8,666				
	December	21,061	56,692	320,650	18,733	51,546	341,339		
2002	January	11,809			10,135				
	February	22,700			23,733				
	March	4,693	39,202		4,369	38,237			
	April	15,160			16,776				
	May	16,321			17,283				
	June	13,938	45,419		15,276	49,335			

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	July	8,301			10,688				
	August	7,079			6,842				
	September	18,560	33,940		17,240	34,770			
	October	7,040			7,823				
	November	9,788			10,950				
	December	11,666	28,494	147,055	19,667	38,440	160,782		
2003	January	20,278			23,526				
	February	8,603			5,310				
	March	37,680	66,561		35,548	64,384			
	April	31,782			31,619				
	May	17,767			13,305				
	June	10,733	60,282		9,260	54,184			
	July	27,104			13,927				
	August	9,555			7,197				
	September	7,945	44,604		5,056	26,180			
	October	12,014			10,394				
	November	26,100			12,438				
	December	38,748	76,862	248,309	18,218	41,050	185,798		
2004	January	7,980			8,539				
	February	8,130			8,797				
	March	8,220	24,330		8,894	26,230			
	April	29,898			31,931				
	May	14,233			15,428				
	June	28,716	72,847		30,410	77,769			
	July	1,840			2,060				
	August	29,898			30,201				
	September	20,277	52,015		20,266	52,527			
	October	24,436			23,784				
	November	21,925			22,430				
	December	32,225	78,586	227,778	33,630	79,844	236,370		
2005	January	17,873			19,160				
	February	23,929			24,958				
	March	37,896	79,698		40,435	84,553			
	April	29,882			31,794				
	May	39,575			42,385				
	June	22,766	92,223		23,995	98,174			
	July	7,593			7,640				
	August	31,573			29,316				
	September	47,305	86,471		48,230	85,186			
	October	38,571			51,232				
	November	31,533			27,670				
	December	36,430	106,534	364,926	36,412	115,314	383,227		
2006	January	18,480			19,977				
	February	33,250			35,511				
	March	39,492	91,222		38,630	94,118			
	April	40,194			43,605				
	May	51,009			54,630				
	June	22,374	113,577		24,832	123,067			
	July	38,208			37,613				
	August	35,627			36,201				
	September	48,784	122,619		47,312	121,126			
	October	50,375			51,232				
	November	26,084			27,670				
	December	8,224	84,683	412,101	10,202	89,104	427,415		
2007	January	31,540			33,320				
	February	24,313			25,260				Change to Key Energy Services
	March	40,514	96,367		38,412	96,992			
	April	34,095			35,120				
	May	19,308			23,130				
	June	9,170	62,573		11,009	69,259			
	July	30,857			28,468				
	August	12,394			18,884				
	September	25,970	69,221		23,360	70,712			
	October	7,882			7,643				
	November	2,476			2,630				
	December	3,933	14,291	242,452	4,528	14,801	251,764		
2008	January	1,706			1,982				
	February	5,845			6,203				
	March	21,386	28,937		21,673	29,858			
	April	25,787			22,704				

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	May	17,100			19,842				
	June	16,598	59,485		17,479	60,025			
	July	32,458			36,448				
	August	37,458			38,377				
	September	39,945	109,861		37,203	112,028			
	October	25,572			26,551				
	November	27,325			25,792				
	December	26,825	79,722	278,005	28,694	81,037	282,948		
2009	January	20,990			21,310				
	February	650			1,306				
	March	3,249	24,889		3,420	26,036			
	April	5,428			5,360				
	May	1,343			1,762				
	June	630	7,401		1,232	8,354			
	July	1,546			1,673				
	August	881			1,031				
	September	2,672	5,099		2,930	5,634			
	October	9,898			8,861				
	November	3,716			3,618				
	December	1,474	15,088	52,477	2,035	14,514	54,538		
2010	January	0			0				
	February	1,650			1,810				
	March	4,092	5,742		4,789	6,599			
	April	5,092			6,150				
	May	12,256			14,953				
	June	2,099	19,447		2,033	23,136			
	July	5,068			6,322				
	August	10,270			15,126				
	September	11,281	26,619		10,334	31,782			
	October	7,575			8,802				
	November	20,304			24,494				
	December	36,765	64,644	116,452	44,153	77,449	138,966		
2011	January	44,126			52,975				
	February	24,388			29,666				
	March	19,421	87,935		23,284	105,925			
	April	18,356			22,365				
	May	9,828			11,754				
	June	15,661	43,845		18,902	53,021			
	July	17,503			20,961				
	August	14,401			17,273				
	September	5,430	37,334		16,000	54,234			
	October	11,359			8,284				
	November	18,585			19,662				
	December	23,228	53,172	222,286	27,806	55,752	268,932		
2012	January	21,570			25,897				
	February	12,230			14,854				
	March	10,124	43,924		12,190	52,941			
	April	18,185			22,110				
	May	23,761			28,667				
	June	31,207	73,153		37,707	88,484			
	July	20,931			25,225				
	August	31,025			35,837				
	September	29,414	81,370		34,226	95,288			
	October	17,507			21,138				
	November	28,038			33,360				
	December	23,015	68,560	267,007	25,205	79,703	316,416		
2013	January	16,097			21,395				
	February	17,379			20,812				
	March	14,816	48,292		21,978	64,185			
	April	19,374			23,799				
	May	23,932			25,979				
	June	34,926	78,232		38,500	88,278			
	July	18,446			22,414				
	August	29,958			35,877				
	September	16,923	65,327		20,230	78,521			
	October	22,409			25,868				
	November	14,139			16,972				
	December	24,920	61,468	253,319	29,762	72,602	303,586		
2014	January	31,460			35,865				
	February	38,614			45,444				

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	March	43,210	113,284		50,710	132,019			
	April	36,217			44,597				
	May	45,170			54,007				
	June	24,524	105,911		23,748	122,352			
	July	19,428			20,442				
	August	15,545			24,683				
	September	23,652	58,625		26,341	71,466			
	October	5,692			7,057				
	November	10,914			13,136				
	December	15,966	32,572	310,392	17,466	37,659	363,496		
TOTAL VOLUMES				4,820,500			5,057,926		

1 - Estimated quarterly production and injection volumes calculated by averaging the previous quarter of data.
bbls - barrels

4,820,500

5,057,926

INJECTION AND PRODUCTION COMPARISON CHART

KEY ENERGY EUNICE BRINE WELL BW-28 STATE #1 API# 30-025-33547

WATER IN-WATER OUT BBLS

YEAR 2014

MONTH	WATER IN	WATER OUT	PSI	RATIO OF WATER IN-OUT	
Jan-11	35,865	31,460	120	12.28%	***
Feb-11	45,444	38,614	120	15.03%	***
Mar-11	50,710	43,210	120	14.79%	***
Apr-11	44,597	36,217	120	18.79%	***
May-11	54,007	45,170	120	16.36%	***
Jun-11	23,748	24,524	120	-3.27%	***
Jul-11	20,442	19,428	120	4.96%	***
Aug-11	24,683	15,545	120	37.02%	***
Sep-11	26,341	23,652	120	10.21%	***
Oct-11	7,057	5,692	120	19.34%	***
Nov-11	13,136	10,914	120	16.92%	***
Dec-11	17,466	15,966	120	8.59%	***
TOTAL	**363,496**	**310,392**			

		YEARLY RATIO %	MONTHLY AVERAGE %
BRINE PRODUCTION BBLS	310,392	**14.61%**	**14.43%**
FRESH WATER INJECTION BBLS	363,496		

NOTES:

*** Positive % numbers means more Fresh Water injected than brine water produced.

*** Negative % numbers means more Brine Water produced than fresh water injected.

Normal ratios can range from +5% to +15 %; Short term negative ratios are acceptable. Long term negative numbers should be checked out and are not considered normal.

Appendix B - Chemical Analysis

Summary Report

(Corrected Report)

Wayne Price
Key Energy-Rio Rancho
312 Encanatado Ridge Ct. NE
Rio Rancho, NM 87124

Report Date: April 18, 2014

Work Order: 14040413

Project Name: lst Qtr. Sampling
Project Number: BW-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359741	Fresh	water	2014-04-02	14:30	2014-04-03
359742	Brine	water	2014-04-02	14:30	2014-04-03

Sample: 359741 - Fresh

Param	Flag	Result	Units	RL
Chloride		**71.0**	mg/L	2.5
Density		**1.00**	g/ml	
pH		**8.20**	s.u.	2
Total Dissolved Solids		**421**	mg/L	2.5

Sample: 359742 - Brine

Param	Flag	Result	Units	RL
Chloride		**219000**	mg/L	2.5
Density		**1.19**	g/ml	
Dissolved Sodium		**103000**	mg/L	1
pH		**7.15**	s.u.	2
Total Dissolved Solids	[1]	**298000**	mg/L	2.5

[1]Reanalyzed out of hold time for confirmation.

TRACEANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

Wayne Price
Key Energy-Rio Rancho
312 Encanatado Ridge Ct. NE
Rio Rancho, NM, 87124

Report Date: April 18, 2014

Work Order: 14040413

Project Name: lst Qtr. Sampling
Project Number: BW-28

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359741	Fresh	water	2014-04-02	14:30	2014-04-03
359742	Brine	water	2014-04-02	14:30	2014-04-03

Report Corrections (Work Order 14040413)

- 4/18/14: Reran TDS on sample 359742.

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project lst Qtr. Sampling were received by TraceAnalysis, Inc. on 2014-04-03 and assigned to work order 14040413. Samples for work order 14040413 were received intact at a temperature of 20.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	93996	2014-04-04 at 11:03	111184	2014-04-04 at 11:03
Density	ASTM D854-92	93856	2014-04-09 at 13:45	111019	2014-04-09 at 13:55
Na, Dissolved	S 6010C	93827	2014-04-08 at 14:21	111024	2014-04-09 at 15:10
pH	SM 4500-H+	93747	2014-04-04 at 14:46	110872	2014-04-04 at 14:46
TDS	SM 2540C	94004	2014-04-08 at 16:00	111194	2014-04-08 at 16:00
TDS	SM 2540C	94082	2014-04-16 at 16:00	111286	2014-04-17 at 16:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14040413 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	Sample Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1	**71.0**	mg/L	5	2.50

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	Sample Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Density			**1.00**	g/ml	1	0.00

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	110872	Date Analyzed:	2014-04-04	Analyzed By:	AT
Prep Batch:	93747	Sample Preparation:	2014-04-04	Prepared By:	AT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
pH		1	**8.20**	s.u.	1	2.00

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	111194	Date Analyzed:	2014-04-08	Analyzed By:	RL
Prep Batch:	94004	Sample Preparation:	2014-04-08	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**421**	mg/L	10	2.50

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	Sample Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**219000**	mg/L	5000	2.50

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	Sample Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Density			**1.19**	g/ml	1	0.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	111024	Date Analyzed:	2014-04-09	Analyzed By:	RR
Prep Batch:	93827	Sample Preparation:	2014-04-08	Prepared By:	PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Dissolved Sodium		1	**103000**	mg/L	1000	1.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	110872	Date Analyzed:	2014-04-04	Analyzed By:	AT
Prep Batch:	93747	Sample Preparation:	2014-04-04	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1	**7.15**		s.u.	1	2.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	111286	Date Analyzed:	2014-04-17	Analyzed By:	RL
Prep Batch:	94082	Sample Preparation:	2014-04-16	Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids	1	1	**298000**		mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 111019

QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	QC Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Density			1.00	g/ml	

Method Blank (1) QC Batch: 111024

QC Batch:	111024	Date Analyzed:	2014-04-09	Analyzed By:	RR
Prep Batch:	93827	QC Preparation:	2014-04-08	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		1	<0.172	mg/L	1

Method Blank (1) QC Batch: 111184

QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	QC Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	1.24	mg/L	2.5

Method Blank (1) QC Batch: 111194

QC Batch:	111194	Date Analyzed:	2014-04-08	Analyzed By:	RL
Prep Batch:	94004	QC Preparation:	2014-04-08	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 111286

QC Batch: 111286 Date Analyzed: 2014-04-17 Analyzed By: RL
Prep Batch: 94082 QC Preparation: 2014-04-16 Prepared By: RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<25.0	mg/L	2.5

Duplicates (1) Duplicated Sample: 359764

QC Batch: 110872 Date Analyzed: 2014-04-04 Analyzed By: AT
Prep Batch: 93747 QC Preparation: 2014-04-04 Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1	7.45	7.44	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 359742

QC Batch: 111019 Date Analyzed: 2014-04-09 Analyzed By: CF
Prep Batch: 93856 QC Preparation: 2014-04-09 Prepared By: CF

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Density	1.19	1.19	g/ml	1	0	20

Duplicates (1) Duplicated Sample: 359759

QC Batch: 111194 Date Analyzed: 2014-04-08 Analyzed By: RL
Prep Batch: 94004 QC Preparation: 2014-04-08 Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	501	514	mg/L	10	3	10

Duplicates (1) Duplicated Sample: 359742

QC Batch: 111286 | Date Analyzed: 2014-04-17 | Analyzed By: RL
Prep Batch: 94082 | QC Preparation: 2014-04-16 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	299000	298000	mg/L	2000	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR
Prep Batch: 93827 | QC Preparation: 2014-04-08 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		1	53.1	mg/L	1	52.5	<0.172	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		1	53.2	mg/L	1	52.5	<0.172	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL
Prep Batch: 93996 | QC Preparation: 2014-04-04 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.1	mg/L	1	25.0	1.24	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.1	mg/L	1	25.0	1.24	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111194 | Date Analyzed: 2014-04-08 | Analyzed By: RL
Prep Batch: 94004 | QC Preparation: 2014-04-08 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111286 | Date Analyzed: 2014-04-17 | Analyzed By: RL
Prep Batch: 94082 | QC Preparation: 2014-04-16 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 359723

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR
Prep Batch: 93827 | QC Preparation: 2014-04-08 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		1	3200	mg/L	1	525	2760	84	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		1	3220	mg/L	1	525	2760	88	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 359783

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL
Prep Batch: 93996 | QC Preparation: 2014-04-04 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		[1]	1600	mg/L	50	1250	340	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		[1]	1600	mg/L	50	1250	340	101	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 110872 | Date Analyzed: 2014-04-04 | Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1	s.u.	7.00	7.01	100	98 - 102	2014-04-04

Standard (CCV-1)

QC Batch: 110872 | Date Analyzed: 2014-04-04 | Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1	s.u.	7.00	7.01	100	98 - 102	2014-04-04

Standard (ICV-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		1	mg/L	51.0	51.3	100	90 - 110	2014-04-09

Standard (CCV-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		1	mg/L	51.0	48.5	95	90 - 110	2014-04-09

Standard (CCV-1)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.0	100	90 - 110	2014-04-04

Standard (CCV-2)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.6	102	90 - 110	2014-04-04

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-14-10	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Reanalyzed out of hold time for confirmation.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 1404413 COC #2 Page 1 of 1

TraceAnalysis, Inc.

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1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: KEY ENERGY
Phone #: 505-715-2809
Address: (Street, City, Zip)
Fax #:
Contact Person: WAYNE PRICE
E-mail: WAYNEPRICE77@EARTHLINK.NET NO SPACE
Invoice to: (If different from above) KEY ENERGY
Project #: BW-28
Project Name: 1/4 SAMPLING
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
39741	FRESH	1	1000 ML	X								X		4/2/14	2:30 PM
742	BRINE	1	"	X								X		"	"

LAB # (LAB USE ONLY)	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	CHLORIDES	pH, TDS, DENSITY - SG	SODIUM PA	Turn Around Time if different from standard	Hold
39741																				X	X	X	X	
742																				X	X	X	X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
WAYNE PRICE	KEY	4/3/14	8:45 AM	RCJ	B&C	4-3-14	5:46	INST 20/0 °C OBS °C COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C OBS °C COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST JR °C OBS 3.2 °C COR 2.5 °C

LAB USE ONLY
Intact (Y) N
Headspace Y / N / NA
Log-in-Review

REMARKS: BW-28 1ST QTR SAMPLING

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Carrier # US: 770421862

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Wayne Price
Key Energy Services-Farmington
Rocky Mountain Rigs 26 Rd. 3720
P.O. Box 900
Farmington, NM 87401

Report Date: July 24, 2014

Work Order: 14071639

Project Location: Eunice, NM
Project Name: 1/4 Sampling
Project Number: BW-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
368528	Fresh	water	2014-07-10	15:16	2014-07-11
368529	Brine	water	2014-07-10	15:04	2014-07-11

Sample: 368528 - Fresh

Param	Flag	Result	Units	RL
Chloride		**44.5**	mg/L	2.5
Density		**0.999**	g/ml	
pH		**7.81**	s.u.	2
Total Dissolved Solids		**432**	mg/L	2.5

Sample: 368529 - Brine

Param	Flag	Result	Units	RL
Chloride		**181000**	mg/L	2.5
Density		**1.20**	g/ml	
Dissolved Sodium		**105000**	mg/L	1
pH		**6.85**	s.u.	2
Total Dissolved Solids		**316000**	mg/L	2.5

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Wayne Price
Key Energy Services-Farmington
Rocky Mountain Rigs 26 Rd. 3720
P.O. Box 900
Farmington, NM, 87401

Report Date: July 24, 2014

Work Order: 14071639

Project Location: Eunice, NM
Project Name: 1/4 Sampling
Project Number: BW-28

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
368528	Fresh	water	2014-07-10	15:16	2014-07-11
368529	Brine	water	2014-07-10	15:04	2014-07-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director

Report Contents

Case Narrative

Samples for project 1/4 Sampling were received by TraceAnalysis, Inc. on 2014-07-11 and assigned to work order 14071639. Samples for work order 14071639 were received intact at a temperature of 3.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	96346	2014-07-23 at 14:00	113911	2014-07-23 at 15:31
Density	ASTM D854-92	96173	2014-07-17 at 10:35	113705	2014-07-17 at 10:45
Na, Dissolved	S 6010C	96254	2014-07-21 at 12:38	113856	2014-07-22 at 16:27
pH	SM 4500-H+	96195	2014-07-17 at 14:34	113731	2014-07-17 at 14:34
TDS	SM 2540C	96314	2014-07-17 at 17:00	113871	2014-07-17 at 17:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14071639 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride	B	1,2,3,4,5	**44.5**	mg/L	5	2.50

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	Sample Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	Result	Units	Dilution	RL
Density			**0.999**	g/ml	1	0.00

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	113731	Date Analyzed:	2014-07-17	Analyzed By:	AT
Prep Batch:	96195	Sample Preparation:	2014-07-17	Prepared By:	AT

Parameter	Flag	Cert	Result	Units	Dilution	RL
pH		1,2,4,5	**7.81**	s.u.	1	2.00

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**432**		mg/L	10	2.50

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride		1,2,3,4,5	**181000**		mg/L	5000	2.50

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	Sample Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Density			**1.20**		g/ml	1	0.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	113856	Date Analyzed:	2014-07-22	Analyzed By:	RR
Prep Batch:	96254	Sample Preparation:	2014-07-21	Prepared By:	RR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Dissolved Sodium		2,3,4,5	**105000**		mg/L	1000	1.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	113731	Date Analyzed:	2014-07-17	Analyzed By:	AT
Prep Batch:	96195	Sample Preparation:	2014-07-17	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1,2,4,5	**6.85**		s.u.	1	2.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**316000**		mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 113705

QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	QC Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Density			0.997	g/ml	

Method Blank (1) QC Batch: 113856

QC Batch:	113856	Date Analyzed:	2014-07-22	Analyzed By:	RR
Prep Batch:	96254	QC Preparation:	2014-07-21	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		2,3,4,5	<0.0184	mg/L	1

Method Blank (1) QC Batch: 113871

QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	QC Preparation:	2014-07-17	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 113911

QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	QC Preparation:	2014-07-23	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1,2,3,4,5	1.09	mg/L	2.5

Duplicates

Duplicates (1) Duplicated Sample: 368450

QC Batch: 113705 | Date Analyzed: 2014-07-17 | Analyzed By: CF
Prep Batch: 96173 | QC Preparation: 2014-07-17 | Prepared By: CF

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Density		0.997	0.996	g/ml	1	0	20

Duplicates (1) Duplicated Sample: 365547

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT
Prep Batch: 96195 | QC Preparation: 2014-07-17 | Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1,2,4,5	6.80	7.16	s.u.	1		20

Duplicates (1) Duplicated Sample: 368530

QC Batch: 113871 | Date Analyzed: 2014-07-17 | Analyzed By: RL
Prep Batch: 96314 | QC Preparation: 2014-07-17 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1,2,3,4,5	2220	2200	mg/L	50	1	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR
Prep Batch: 96254 | QC Preparation: 2014-07-21 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	51.5	mg/L	1	52.5	<0.0184	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	50.6	mg/L	1	52.5	<0.0184	96	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 113871 | Date Analyzed: 2014-07-17 | Analyzed By: RL
Prep Batch: 96314 | QC Preparation: 2014-07-17 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	1020	mg/L	10	1000	<25.0	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	1000	mg/L	10	1000	<25.0	100	90 - 110	2	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL
Prep Batch: 96346 | QC Preparation: 2014-07-23 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	24.3	mg/L	1	25.0	1.09	93	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	24.4	mg/L	1	25.0	1.09	93	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 366283

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR
Prep Batch: 96254 | QC Preparation: 2014-07-21 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	888	mg/L	1	525	467	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	985	mg/L	1	525	467	99	75 - 125	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 368528

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL
Prep Batch: 96346 | QC Preparation: 2014-07-23 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	184	mg/L	5	125	44.5	112	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	177	mg/L	5	125	44.5	106	80 - 120	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98 - 102	2014-07-17

Standard (CCV-1)

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98 - 102	2014-07-17

Standard (ICV-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	51.5	101	90 - 110	2014-07-22

Standard (CCV-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	52.8	104	90 - 110	2014-07-22

Standard (CCV-1)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2014-07-23

Standard (CCV-2)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2014-07-23

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2013-083	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 14071639

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: KEY ENERGY — Phone #: 505-715-2809

Address: (Street, City, Zip) — Fax #:

Contact Person: WAYNE PRICE — E-mail: waynepnice77@earthlink.net

Invoice to: (If different from above) KEY ENERGY

Project #: BW-28 — Project Name: Ky sampling

Project Location (including state): EUNICE NM — Sampler Signature: LWPdn

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Chlorides	pH, TDS	Density - SW	Sodium Na	Turn Around Time if different from standard	Hold
368528	Fresh	1	1 Liter	X								X		7/10/14	3:15PM																			X	X	X			
529	Brine	1	1 Liter	X								X		7/10/14	3:04PM																			X	X	X	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
LWPdn	PRICE LLC	7/11/14	4:15PM	Billy Bender		7-11-14		INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST 1.6 °C OBS 4.1 °C COR 3.5 °C
				ASe	TA	7/16/14	09:30	

LAB USE ONLY
Intact Y N
Headspace Y / N / NA
Log-In-Review

REMARKS:

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # LS: ER29525

ORIGINAL COPY

Summary Report

Lester Waynce Price Jr.
Price LLC
312 Encantado Ridge Ct. NE
Rio Rancho, NM 87124

Report Date: February 18, 2015

Work Order: 15012704

Project Location: Eunice, NM
Project Name: Key Eunice Brine

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
385264	Fresh	water	2015-01-20	16:13	2015-01-27
385265	Brine	water	2015-01-20	16:17	2015-01-27

Sample: 385264 - Fresh

Param	Flag	Result	Units	RL
Chloride		**44.1**	mg/L	2.5
Dissolved Sodium	Qs	**310**	mg/L	1
pH		**7.64**	s.u.	2
Specific Gravity		**0.9906**	g/ml	
Total Dissolved Solids		**364**	mg/L	2.5

Sample: 385265 - Brine

Param	Flag	Result	Units	RL
Chloride		**169000**	mg/L	2.5
Dissolved Sodium	Qs	**116000**	mg/L	1
pH		**7.11**	s.u.	2
Specific Gravity		**1.159**	g/ml	
Total Dissolved Solids		**238000**	mg/L	2.5

TRACEANALYSIS, INC.
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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Lester Waynce Price Jr.
Price LLC
312 Encantado Ridge Ct. NE
Rio Rancho, NM, 87124

Report Date: February 18, 2015

Work Order: 15012704

Project Location: Eunice, NM
Project Name: Key Eunice Brine
Project Number: Key Eunice Brine

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
385264	Fresh	water	2015-01-20	16:13	2015-01-27
385265	Brine	water	2015-01-20	16:17	2015-01-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Key Eunice Brine were received by TraceAnalysis, Inc. on 2015-01-27 and assigned to work order 15012704. Samples for work order 15012704 were received intact at a temperature of 0.2 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	101000	2015-02-17 at 15:00	119429	2015-02-17 at 16:06
Na, Dissolved	S 6010C	100546	2015-01-27 at 17:40	119127	2015-02-06 at 09:23
pH	SM 4500-H+	100544	2015-01-27 at 04:00	118893	2015-01-27 at 16:44
Specific Gravity	ASTM D1429-95	100533	2015-01-27 at 13:00	118885	2015-01-27 at 13:10
TDS	SM 2540C	100618	2015-01-28 at 12:10	118979	2015-01-28 at 12:10
TDS	SM 2540C	100787	2015-02-02 at 09:00	119181	2015-02-02 at 17:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15012704 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1,2,3,4,5	**44.1**	mg/L	5	2.50

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	Sample Preparation:	2015-01-27	Prepared By:	RR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Dissolved Sodium	Qs	2,3,4,5	**310**	mg/L	10	1.00

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	118893	Date Analyzed:	2015-01-27	Analyzed By:	AT
Prep Batch:	100544	Sample Preparation:	2015-01-27	Prepared By:	AT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
pH		1,2,4,5	**7.64**	s.u.	1	2.00

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Specific Gravity	Analytical Method:	ASTM D1429-95	Prep Method:	N/A
QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	Sample Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Specific Gravity			**0.9906**		g/ml	1	0.000

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	119181	Date Analyzed:	2015-02-02	Analyzed By:	RL
Prep Batch:	100787	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**364**		mg/L	10	2.50

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride		1,2,3,4,5	**169000**		mg/L	5000	2.50

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	Sample Preparation:	2015-01-27	Prepared By:	RR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Dissolved Sodium	Qs	2,3,4,5	**116000**		mg/L	1000	1.00

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	118893	Date Analyzed:	2015-01-27	Analyzed By:	AT
Prep Batch:	100544	Sample Preparation:	2015-01-27	Prepared By:	AT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
pH		1,2,4,5	**7.11**	s.u.	1	2.00

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Specific Gravity	Analytical Method:	ASTM D1429-95	Prep Method:	N/A
QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	Sample Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Specific Gravity			**1.159**	g/ml	1	0.000

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	118979	Date Analyzed:	2015-01-28	Analyzed By:	RL
Prep Batch:	100618	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**238000**	mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 118885

QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	QC Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Specific Gravity			0.9916	g/ml	

Method Blank (1) QC Batch: 118979

QC Batch:	118979	Date Analyzed:	2015-01-28	Analyzed By:	RL
Prep Batch:	100618	QC Preparation:	2015-01-28	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 119127

QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	QC Preparation:	2015-01-27	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		2,3,4,5	<0.0184	mg/L	1

Method Blank (1) QC Batch: 119181

QC Batch:	119181	Date Analyzed:	2015-02-02	Analyzed By:	RL
Prep Batch:	100787	QC Preparation:	2015-02-02	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 119429

QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	QC Preparation:	2015-02-17	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1,2,3,4,5	0.797	mg/L	2.5

Duplicates

Duplicates (1) Duplicated Sample: 385269

QC Batch: 118885 | Date Analyzed: 2015-01-27 | Analyzed By: CF
Prep Batch: 100533 | QC Preparation: 2015-01-27 | Prepared By: CF

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Gravity		1.074	1.072	g/ml	1	0	200

Duplicates (1) Duplicated Sample: 385269

QC Batch: 118893 | Date Analyzed: 2015-01-27 | Analyzed By: AT
Prep Batch: 100544 | QC Preparation: 2015-01-27 | Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1,2,4,5	6.79	6.78	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 385486

QC Batch: 118979 | Date Analyzed: 2015-01-28 | Analyzed By: RL
Prep Batch: 100618 | QC Preparation: 2015-01-28 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1,2,3,4,5	923	904	mg/L	10	2	10

Duplicates (1) Duplicated Sample: 385552

QC Batch: 119181 | Date Analyzed: 2015-02-02 | Analyzed By: RL
Prep Batch: 100787 | QC Preparation: 2015-02-02 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1,2,3,4,5	219000	219000	mg/L	2000	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 118979 | Date Analyzed: 2015-01-28 | Analyzed By: RL
Prep Batch: 100618 | QC Preparation: 2015-01-28 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	996	mg/L	10	1000	<25.0	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	984	mg/L	10	1000	<25.0	98	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR
Prep Batch: 100546 | QC Preparation: 2015-01-27 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	56.0	mg/L	1	52.5	<0.0184	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	57.2	mg/L	1	52.5	<0.0184	109	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119181 | Date Analyzed: 2015-02-02 | Analyzed By: RL
Prep Batch: 100787 | QC Preparation: 2015-02-02 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	998	mg/L	10	1000	<25.0	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	992	mg/L	10	1000	<25.0	99	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119429 | Date Analyzed: 2015-02-17 | Analyzed By: RL
Prep Batch: 101000 | QC Preparation: 2015-02-17 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	24.2	mg/L	1	25.0	0.797	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	24.4	mg/L	1	25.0	0.797	94	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

Matrix Spike (xMS-1) Spiked Sample: 385041

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR
Prep Batch: 100546 | QC Preparation: 2015-01-27 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	1660	mg/L	1	525	1210	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	Qs	Qs 2,3,4,5	1580	mg/L	1	525	1210	70	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 385174

QC Batch: 119429 | Date Analyzed: 2015-02-17 | Analyzed By: RL
Prep Batch: 101000 | QC Preparation: 2015-02-17 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	2750	mg/L	100	2500	362	96	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	2740	mg/L	100	2500	362	95	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 118893 | Date Analyzed: 2015-01-27 | Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

Standard (CCV-1)

QC Batch: 118893 | Date Analyzed: 2015-01-27 | Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

Standard (ICV-1)

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	51.7	101	90 - 110	2015-02-06

Standard (CCV-1)

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	55.9	110	90 - 110	2015-02-06

Standard (CCV-1)

QC Batch: 119429 Date Analyzed: 2015-02-17 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2015-02-17

Standard (CCV-2)

QC Batch: 119429 Date Analyzed: 2015-02-17 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2015-02-17

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

ANNUAL CLASS III WELL REPORT FOR 2014

Key Energy Services, Inc. (Key)

State S Brine Station

Permit BW-028

API No. 30-025-33547

May 30, 2015

Submitted by:

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Area Manager PB SWD Management
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ANNUAL CLASS III WELL REPORT FOR 2014

Key Energy Services, Inc. (Key)

State S Brine Station

Permit BW-028

API No. 30-025-33547

May 30, 2015

Submitted by: _____

Daniel K. Gibson, P. G.

Environmental Director

Key Energy Services, Inc.

6 Desta Drive Suite 4300

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Prepared By: Wayne Price- Price LLC

505-715-2809

wayneprice77@earthlink.net

Bullet Point 2- Summary of Operations:
(Permit Condition 2.J.2 Annual Report: "Summary of Class III well operations for the year including a description and reason for any remedial or major work on the well with a copy of C-103.")

During the 2014 year, there was no major remedial work required at the brine well. General housekeeping was routinely performed and third party (Price LLC) on-site inspections were conducted to ensure permit conditions were being maintained.

Key recently upgraded the State S Brine Station with a Web Based monitoring, Automation System. This system monitors all equipment, fluid levels, and driver access. The ICS system also sends out alarms to personnel via text or Email, as well as, allows users to monitor and control remotely via the WWW.

The OCD held a Brine Well Operators meeting in Hobbs on September 05, 2012 to discuss permit changes. The most notable change by OCD was the removing of the annual "open-to-formation" pressure test requirement. Key Energy Services, Inc. (Key) as most operators, did not run an MIT in 2014.

Yearly cavity size calculations were analyzed to determine cavern size and stability. The calculated cavern radius grew about 2.38 feet this year, from 71.62 ft to 74.0 ft, for an estimated worst-case maximum diameter of 148 ft.

The "Area of Review" reflected no issues and is described in detail below. The cavern subsidence monitors were surveyed and no issues were noted.

Bullet Point 3- Production Volumes:

(Permit condition 2.J.3 "Monthly fluid injection and brine production volume, including the cumulative total carried over each year"

Key has an electronic card system that tracks sales of both fresh and brine water. In addition, Key has Halliburton flow meters on the well to monitor both water injected and brine produced.

Monthly, Yearly and Lifetime Injection and Production Volumes:

The monthly, yearly and lifetime fresh water injection and brine production volumes are attached herein for review in *Appendix A*. The total 2014 brine production volume was 310,392 bbls and the lifetime production volume is 4,820,500 bbls.

Bullet Point 4- "Injection Pressure Data."

(Permit condition 2.J.4 "Injection Pressure Data"

A new submersible centrifugal injection pump was installed in the fresh water storage tank in the 2014 year. The maximum injection pressure is now 450 psig, and has an automatic shut-down switch set at 300 psig, which is approximately105 pounds below the permit maximum of 405 psig.

For this reason, permit condition 3.B.2. **Pressure Limiting Device:** *"The operator shall have a working pressure limiting device or controls to prevent overpressure."* is conditionally met.

The average injection pressure is noted by Key's personal and is reported to range from 50 psig to 150 psig, and usually averages about 120 psig. This reading is taken from a pressure gauge mounted on the wellhead inlet.

Brine Well injection pressure gauge readings are observed and recorded on a daily basis.

Bullet Point 5- Chemical Analysis:

(Permit condition 2.J.5 "A copy of the quarterly chemical analysis shall be included with data summary and all QA/QC information.")

Please find attached in *Appendix B* the 1st, 2nd, and 4th quarter chemical analysis and chain-of-custody of the brine and fresh water injection water samples collected for the annual report. The laboratory used common approved EPA methods to analyze and reporting. This year the 3 rd quarter results were missed due to a new monitoring system being installed. OCD was notified of the event.

The injection water was collected from the fresh water load line that is connected directly to the fresh water storage tanks and to the inlet side of the injection pump. This sample point is representative of the fresh water at the station. The fresh water is supplied by the City of Eunice and is of high quality and meets EPA's Safe Drinking Water Standards.

The brine water was collected from the brine water load line that is connected directly to the brine water storage tanks and to the outlet side of the injection well. This sample point is representative of the brine water at the station.

The analysis revealed that the brine water is predominately sodium chloride with a high density of 1.20 specific gravity. This analysis is very representative of Salado "Salt" formation waters found in the area. The last quarterly report indicated a SG of 1.15, which is probably attributed to the well taken out of service during the fall, but Key will monitor the density to determine if a pattern is devolping.

Bullet Point 6- Mechanical Integrity:

(Permit condition 2.J.6 "Copy of any mechanical integrity test chart, including the type of test, i.e., duration, gauge pressure, etc;")

In 2014, no MIT was required and the next scheduled MIT will occur in 2016, as approved by OCD.

Bullet Point 7- Deviations from Normal Production Methods:

(Permit condition 2.J.7 "Brief explanation describing deviations from normal operations.")

In 2008 two OCD permitted brine wells collapsed. As a result of those incidents, the OCD issued a temporary moratorium on new brine well permits. During the moratorium OCD facilitated a work group to determine a proper path forward for current and new brine well operations.

As a result of those proceedings, OCD issued instructions to operators to change OCD's previous requirement of injecting fresh water down the annuals and producing brine up the tubing; to injecting fresh water down the tubing and producing brine up the annuals.

On June 1, 2009 Key followed OCD instructions and change the flow pattern. It should be noted that it took over a month in order to obtain 10# brine.

During the 2014 year, Key continued the normal flow production procedure and encountered no problems during this time.

Bullet Point 8- Leak and Spill Reports:

(Permit condition 2.J.8 "Results of any leaks and spill reports;")

The brine station is designed with an impermeable liner under the brine tanks and loading pads. The concrete loading pads are designed to catch de-minimis drips from hose connections and are piped to two 250 bbl fiberglass tanks. This liquid material is routinely re-cycled or disposed of at an OCD approved site.

Rainwater that collects inside of the lined bermed area is routinely pumped out and re-cycled or disposed of at an OCD approved site. Small quantities of rainwater, which cannot be pumped are left to evaporate.

The entire facility is bermed to prevent run-on or run-off. Any reportable or non-reportable spill is cleaned up pursuant to OCD rules and guidance.

In 2014 there were no reportable leaks or spills.

Bullet Point 9- Area of Review Update Summary:

(Permit condition 2.J.9 "An Area of Review (AOR) update summary;")

An extensive AOR review was conducted for the Key Eunice "Old GoldStar" brine well, OCD permit # BW-28, located in UL E (1340 FNL & 330 FWL) of Section 15-Ts21S-R37E. Key used OCD records and field verification to confirm wells in the AOR.

Using OCD on-line files, a well status list and aerial AOR plot plan has been constructed (*see Appendix C*) listing all wells within adjacent quarter sections of the BW-28 location. The list shows API#, Operator well name, UL, Section, Township and Range, footages, wells within 800 ft and ! mile, well checked for casing program status, casing/cementing status, and corrective action required status.

There are a total of 45 wells located within these adjacent units, with one added in 2014, and another two have been proposed but not drilled. Within a ! mile radius of the brine well there are 18 wells, and 4 wells are actually within the 800-foot critical radius. One well was actually removed from the list (30-025-41600) as it is not within the critical radius, but was shown last year inappropriately.

This comprehensive list was formulated to provide a baseline for future AOR studies. Since any future brine wells may be limited in size, a critical AOR was established, and all wells within that radius will be researched in greater detail.

The rational of this approach is the fact that brine wells are non-static in terms of size and configuration and the fact that Key has no direct control on wells drilled in close proximity. By just initially focusing on the current wells in the ! mile AOR and assuming the status of these wells will remain the same could be a mistake.

Therefore, Key is taking a more dynamic approach and will study wells as the brine well grows, especially wells in the critical zone. We used the current estimated diameter of the brine well i.e. 148 ft (r = 74.0 ft) up-dated for 2014, and added a 10:1 safety factor which equates to about 740 ft. As the brine well grows, the critical AOR will be expanded and new wells will be added.

All four wells located in the critical zone were reinvestigated by checking the OCD on-line well records. There was no well activity for any of these wells reported since the last review. They are identified as API# 30-025-09914, 30-025-09913 (P&A), 30-025-06586, and 30-025-39277. (Checked by Price LLC, Apr 2015)

Casing programs were checked on wells, API# 30-025-41600 and 30-025-41485, to ensure casing/cement is across the salt section.

Bullet Point 10- Subsidence/Cavern Volumes/Geometric Measurements

(Permit condition 2.J.10. "A summary with interpretations of MIT's, surface subsidence surveys, cavern volume and geometric measurements with conclusion(s) and recommendation(s);")

The last cavern survey did not provide adequate information pertaining to the size of the cavern. This has been an issue with many brine wells and until the validity of using sonar test is resolved, an alternate method will be employed.

This alternate method has been discussed with Jim Griswold-OCD and it was mutually decided that an estimated worst-case diameter was to be determined in order to provide maximum protection and ensure the permit conditions are being met.

The Solution Mining Research Institute (SMRI), other state agencies, OCD work-group, along with various studies conducted during the permitting of the WIPP site, has concluded that failures, such as "catastrophic collapses", have a higher probability when the roof diameter of the cavern exceeds a certain value compared to the actual depth of the cavern. This number is typically called D/H where "D" is the diameter of the cavity and "H" is the depth from surface to the casing shoe. Various reports seem to conclude that when a ratio of D/H reaches or exceeds 0.66 then the probably of collapse increases to a point that the well may be considered un-safe, thus closing procedures, such as proper plugging and abandonment, and possible long term subsidence monitoring should be considered.

The alternate method mentioned above involves calculating the maximum diameter of the cavern by using a worst-case scenario of an "***upright cone".***

The cavern volume is calculated using the lifetime brine production volume and multiplying it by a *"rule of thumb"* conversion factor to determine the volumetric size of the cavern. The rule of thumb conversion factor was taken from the 1982 Wilson Report, which equates that every barrel of brine produced, will create approximately one cubic foot of cavity.

Please find attached in *Appendix D*, a wellbore sketch, the calculations for the brine well, and the lifetime brine production tally of approximately 4.82 million barrels of brine produced as of December 2014. The maximum diameter was calculated to be approximately 148 feet with a corresponding D/H ratio of 0.109, updated for the 2014 year.

Comparing the current D/H ratio of 0.109 to the 0.66 value mentioned above, it can be concluded that the current brine well status meets and exceeds the recommended safety value by six times.

Permit Condition 2.B. SOLUTION CAVERN MONITORING PROGRAM:

1. Surface Subsidence Monitoring Plan: The Permittee shall submit a Surface *Subsidence Monitoring Plan to OCD within 180 days of the effective data of this permit. The Surface Subsidence Monitoring Plan shall specify that the Permittee will install at least three survey monuments and shall include a proposal to monitor the elevation of the monuments at least semiannually.*

The Permittee shall survey each benchmark at least semiannually to monitor for possible surface subsidence and shall tie each survey to the nearest USGS benchmark. The Permittee shall employ a licensed professional surveyor to conduct the subsidence monitoring program. The Permittee shall submit the results of all subsidence surveys to OCD within 15 days of the survey. If the monitored surface subsidence at any measuring point reaches 0.10 feet compared to its baseline elevation, then the Permittee shall suspend operation of the Class III well . If the Permittee cannot demonstrate the integrity of the cavern and well to the satisfaction of OCD, then it shall cease all brine production and submit a corrective action plan to mitigate the subsidence.

Key Response: Key has a surveyed subsidence monitoring systems in-place. Due to an internal mis-communication between Key Departments, Key's consultant, and the Surveying Contractor, the 2014 monitoring was not conducted. Key's consultant, Price LLC, contacted Mr. Jim Griswold, OCD Environmental Bureau Chief, and agreed and received approval to run 4 quarters in 2015, instead of the two required in the permit. The first and second quarters of 2015 have been performed and no unusual readings were noticed.

Special Note: Key ***requested a Minor Modification*** that allows the results be supplied in the annual report, unless there is an exceedance, as noted in the permit. OCD approved the modification and the approval is included in "Appendix E".

2. Solution Cavern Characterization Program: *The Permittee shall submit a Solution Cavern Characterization Plan to characterize the size and shape of the solution cavern using geophysical methods within 180 days of the effective date of this permit. The Permittee shall characterize the size and shape of the solution cavern using a geophysical methods approved by OCD at least once before November 8, 2018. The Permittee shall demonstrate that at least 90% of the calculated volume of salt removed based upon injection and production volumes has been accounted for by the approved geophysical method(s) for such testing to be considered truly representative.*

Solution Cavern Characterization Plan: Key proposed to use a combination of calculated results as determined above, and will experiment with various geophysical methods, including actually performing an "Induced Current Method" and report these results in the annual report.

The 'Induced Current" Method has not been successful, primarily to bad connections and low voltage used. Key will continue trying this method and others as approved by OCD. The old fashion cavern calculation continues to be the best economic method available.

Bullet Point #11- Ratio of Injected/Produced Fluids

(Permit condition 2.J.11 "A summary of the ratio of the volume of injected fluids to the volume of produced brine;")

Enclosed in *Appendix A* is the tables section of the report showing the injection and production data and the comparison chart of injected water to produced water with comments.

The 2014 results show a somewhat normal 16.56% variance, while the total variance during the life of the well is 4.6%.

Special Note: **Key requests a minor modification of the permit requirement 3.K** *"The Permittee shall suspend injection if the monthly injection volume is less than 110% or greater than 120% of associated brine production. If such an event occurs, the Permittee shall notify OCD within 24 hours."*

Dear Jim Giswold-NMOCD Environmental Bureau Chief: As you know, this topic has been discussed and kicked around for a long time. The current permit requirement does not take into account many factors that can cause the variance to be under or over the requirement of 110%-120%. Every year we report this number in the annual report and while the average monthly injection for the year is normally within range, the actual monthly numbers can and are sometimes under and over. There are many reasons for this as we have discussed, and thus the requirement to suspend operations is not based on any real parameter or trend that may be an immediate threat to the well, groundwater or the environment. The current requirement put operators in a continuous violation and interruption of operations. Notwithstanding, if you have a well that takes water without producing, or starts to pressure up, then you know you may have lost circulation or communicated to a pressure zone, then immediate action should be taken and notification to the agency. Currently the permit reads as follows:

The Permittee shall immediately suspend injection and notify the agency within 72 hours, if the Fresh Water Injection does not cause a normal immediate return of Brine Water to the surface, or if the well flows excessively for an unusual amount of time without fresh water injection after the cavern pressure has been stabilized to it's normal operating pressure, or if permittee has become aware of any out of zone injection or communication. The Permittee shall include in each annual report a summary showing the monthly variance, the average monthly variance for the year and the total accumulative variance over the life of the well. The operator shall certify and explain that any yearly variance that falls outside of the range of 20%, (Difference between the Fresh Water input and Brine Water output) will not cause harm to Fresh Water, Public Health or the Environment.

Bullet Point #12- Summary of Activities
(Permit condition 2.J.12 "A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;)

See Bullet Point #2 for summary.

5.B. BONDING OR FINANCIAL ASSURANCE: *The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class III well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.*

Appendix "F" contains a third party closure estimate for the Eunice BW-18 brine well.

Bullet Point #13- Annual Certification

(Permit condition 2.J.13 "Annual Certification in accordance with Permit Condition 2.B.3. ***"2.B.3. Annual Certification:*** *The Permittee shall certify annually that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.")*

Operator Response: Based on all current information and actual on-site observance, the operator of record herby certifies that the current operations pose no threat to public health and the environment at the submission of this report. If any substantial event that, has or may cause, this current certification to change, then the operator will notify OCD and take the necessary actions to protect the public and environment.

By signing the cover sheet of Bullet Point 1 of permit condition 2.J.1, the operator herby certifies this condition of the permit.

Bullet Point 14- Groundwater Monitoring:
(Permit condition 2.J.14 "A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken;")

The BW-28 facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Bullet Point 15- Annual Reporting

(Permit condition 2.J.15 “The Permittee shall file its Annual Report in an electronic format with a hard copy submitted to OCD’s Environmental Bureau.”)

The operator herby submits a PDF file on flash drive and one hard copy.

Appendix A-

- Production Table
- Injection Comparison Chart

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
1996	October	10,588			10,588				Goldstar SWD
	November	17,770			17,743				
	December	32,223	60,581	60,581	33,004	61,335	61,335		
1997	January	20,194			20,445			estimate (1)	
	February	20,194			20,445			estimate (1)	
	March	20,194	60,582		20,445	61,335		estimate (1)	
	April	48,226			47,714				
	May	38,000			36,571				
	June	47,970	134,196		42,264	126,549			
	July	24,711			24,271				
	August	31,817			31,559				
	September	38,120	94,648		38,697	94,527			
	October	27,462			25,512				
	November	26,618			26,261				
	December	16,137	70,217	359,643	15,850	67,623	350,034		
1998	January	13,301			13,614				
	February	47,212			49,552				
	March	42,337	102,850		44,964	108,130			
	April	27,072			27,519				
	May	18,084			18,161				
	June	26,699	71,855		26,976	72,656			
	July	16,535			15,929				
	August	8,287			7,488				
	September	9,994	34,816		9,021	32,438			
	October	13,312			17,302				
	November	9,822			9,873				
	December	8,287	31,421	240,942	9,497	36,672	249,896		
1999	January	4,026			4,607				
	February	6,867			8,138				
	March	5,641	16,534		6,030	18,775			
	April	7,873			7,338				
	May	34,100			32,461				
	June	20,708	62,681		20,171	59,970			
	July	35,278			34,566				
	August	35,876			35,995				
	September	43,196	114,350		42,724	113,285			
	October	9,700			10,097				
	November	8,383			9,080				
	December	28,662	46,745	240,310	29,721	48,898	240,928		
2000	January	65,492			65,028				
	February	37,709			36,909				
	March	40,409	143,610		40,414	142,351			
	April	20,181			20,404				
	May	52,092			50,373				
	June	41,371	113,644		37,776	108,553			
	July	33,860			31,757				
	August	37,535			35,492				
	September	58,042	129,437		53,288	120,537			
	October	28,777			27,216				
	November	22,677			24,130				
	December	17,670	69,124	455,815	17,369	68,715	440,156		
2001	January	32,427			37,083				
	February	17,493			23,076				
	March	34,050	83,970		33,216	93,375			
									Change to Yale E. Key
	April	32,900			36,064				
	May	66,724			52,555				
	June	37,607	137,231		42,347	130,966			
	July	16,399			15,588				
	August	10,173			33,664				
	September	16,185	42,757		16,200	65,452			
	October	25,184			24,147				
	November	10,447			8,666				
	December	21,061	56,692	320,650	18,733	51,546	341,339		
2002	January	11,809			10,135				
	February	22,700			23,733				
	March	4,693	39,202		4,369	38,237			
	April	15,160			16,776				
	May	16,321			17,283				
	June	13,938	45,419		15,276	49,335			

TABLE 1

TABLE 1 2014 BW-28 Annual Report Brine Well Production Volumes and Lifetime History Volumes

Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	July	8,301			10,688				
	August	7,079			6,842				
	September	18,560	33,940		17,240	34,770			
	October	7,040			7,823				
	November	9,788			10,950				
	December	11,666	28,494	147,055	19,667	38,440	160,782		
2003	January	20,278			23,526				
	February	8,603			5,310				
	March	37,680	66,561		35,548	64,384			
	April	31,782			31,619				
	May	17,767			13,305				
	June	10,733	60,282		9,260	54,184			
	July	27,104			13,927				
	August	9,555			7,197				
	September	7,945	44,604		5,056	26,180			
	October	12,014			10,394				
	November	26,100			12,438				
	December	38,748	76,862	248,309	18,218	41,050	185,798		
2004	January	7,980			8,539				
	February	8,130			8,797				
	March	8,220	24,330		8,894	26,230			
	April	29,898			31,931				
	May	14,233			15,428				
	June	28,716	72,847		30,410	77,769			
	July	1,840			2,060				
	August	29,898			30,201				
	September	20,277	52,015		20,266	52,527			
	October	24,436			23,784				
	November	21,925			22,430				
	December	32,225	78,586	227,778	33,630	79,844	236,370		
2005	January	17,873			19,160				
	February	23,929			24,958				
	March	37,896	79,698		40,435	84,553			
	April	29,882			31,794				
	May	39,575			42,385				
	June	22,766	92,223		23,995	98,174			
	July	7,593			7,640				
	August	31,573			29,316				
	September	47,305	86,471		48,230	85,186			
	October	38,571			51,232				
	November	31,533			27,670				
	December	36,430	106,534	364,926	36,412	115,314	383,227		
2006	January	18,480			19,977				
	February	33,250			35,511				
	March	39,492	91,222		38,630	94,118			
	April	40,194			43,605				
	May	51,009			54,630				
	June	22,374	113,577		24,832	123,067			
	July	38,208			37,613				
	August	35,627			36,201				
	September	48,784	122,619		47,312	121,126			
	October	50,375			51,232				
	November	26,084			27,670				
	December	8,224	84,683	412,101	10,202	89,104	427,415		
2007	January	31,540			33,320				
	February	24,313			25,260				Change to Key Energy Services
	March	40,514	96,367		38,412	96,992			
	April	34,095			35,120				
	May	19,308			23,130				
	June	9,170	62,573		11,009	69,259			
	July	30,857			28,468				
	August	12,394			18,884				
	September	25,970	69,221		23,360	70,712			
	October	7,882			7,643				
	November	2,476			2,630				
	December	3,933	14,291	242,452	4,528	14,801	251,764		
2008	January	1,706			1,982				
	February	5,845			6,203				
	March	21,386	28,937		21,673	29,858			
	April	25,787			22,704				

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Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	May	17,100			19,842				
	June	16,598	59,485		17,479	60,025			
	July	32,458			36,448				
	August	37,458			38,377				
	September	39,945	109,861		37,203	112,028			
	October	25,572			26,551				
	November	27,325			25,792				
	December	26,825	79,722	278,005	28,694	81,037	282,948		
2009	January	20,990			21,310				
	February	650			1,306				
	March	3,249	24,889		3,420	26,036			
	April	5,428			5,360				
	May	1,343			1,762				
	June	630	7,401		1,232	8,354			
	July	1,546			1,673				
	August	881			1,031				
	September	2,672	5,099		2,930	5,634			
	October	9,898			8,861				
	November	3,716			3,618				
	December	1,474	15,088	52,477	2,035	14,514	54,538		
2010	January	0			0				
	February	1,650			1,810				
	March	4,092	5,742		4,789	6,599			
	April	5,092			6,150				
	May	12,256			14,953				
	June	2,099	19,447		2,033	23,136			
	July	5,068			6,322				
	August	10,270			15,126				
	September	11,281	26,619		10,334	31,782			
	October	7,575			8,802				
	November	20,304			24,494				
	December	36,765	64,644	116,452	44,153	77,449	138,966		
2011	January	44,126			52,975				
	February	24,388			29,666				
	March	19,421	87,935		23,284	105,925			
	April	18,356			22,365				
	May	9,828			11,754				
	June	15,661	43,845		18,902	53,021			
	July	17,503			20,961				
	August	14,401			17,273				
	September	5,430	37,334		16,000	54,234			
	October	11,359			8,284				
	November	18,585			19,662				
	December	23,228	53,172	222,286	27,806	55,752	268,932		
2012	January	21,570			25,897				
	February	12,230			14,854				
	March	10,124	43,924		12,190	52,941			
	April	18,185			22,110				
	May	23,761			28,667				
	June	31,207	73,153		37,707	88,484			
	July	20,931			25,225				
	August	31,025			35,837				
	September	29,414	81,370		34,226	95,288			
	October	17,507			21,138				
	November	28,038			33,360				
	December	23,015	68,560	267,007	25,205	79,703	316,416		
2013	January	16,097			21,395				
	February	17,379			20,812				
	March	14,816	48,292		21,978	64,185			
	April	19,374			23,799				
	May	23,932			25,979				
	June	34,926	78,232		38,500	88,278			
	July	18,446			22,414				
	August	29,958			35,877				
	September	16,923	65,327		20,230	78,521			
	October	22,409			25,868				
	November	14,139			16,972				
	December	24,920	61,468	253,319	29,762	72,602	303,586		
2014	January	31,460			35,865				
	February	38,614			45,444				

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Year	Month	Reported Monthly Brine Production	Quarterly Brine Production (bbls)	Annual Brine Production (bbls)	Reported Monthly Freshwater Injection	Quarterly Freshwater Injection (bbls)	Annual Freshwater Injection (bbls)	Comments	Operator
	March	43,210	113,284		50,710	132,019			
	April	36,217			44,597				
	May	45,170			54,007				
	June	24,524	105,911		23,748	122,352			
	July	19,428			20,442				
	August	15,545			24,683				
	September	23,652	58,625		26,341	71,466			
	October	5,692			7,057				
	November	10,914			13,136				
	December	15,966	32,572	310,392	17,466	37,659	363,496		
TOTAL VOLUMES				4,820,500			5,057,926		

1 - Estimated quarterly production and injection volumes calculated by averaging the previous quarter of data.
bbls - barrels

4,820,500

5,057,926

INJECTION AND PRODUCTION COMPARISON CHART

KEY ENERGY EUNICE BRINE WELL BW-28 STATE #1 API# 30-025-33547

WATER IN-WATER OUT BBLS

YEAR 2014

MONTH	WATER IN	WATER OUT	PSI	RATIO OF WATER IN-OUT	
Jan-11	35,865	31,460	120	12.28%	***
Feb-11	45,444	38,614	120	15.03%	***
Mar-11	50,710	43,210	120	14.79%	***
Apr-11	44,597	36,217	120	18.79%	***
May-11	54,007	45,170	120	16.36%	***
Jun-11	23,748	24,524	120	-3.27%	***
Jul-11	20,442	19,428	120	4.96%	***
Aug-11	24,683	15,545	120	37.02%	***
Sep-11	26,341	23,652	120	10.21%	***
Oct-11	7,057	5,692	120	19.34%	***
Nov-11	13,136	10,914	120	16.92%	***
Dec-11	17,466	15,966	120	8.59%	***
TOTAL	**363,496**	**310,392**			

		YEARLY RATIO %	MONTHLY AVERAGE %
BRINE PRODUCTION BBLS	310,392	**14.61%**	**14.43%**
FRESH WATER INJECTION BBLS	363,496		

NOTES:

*** Positive % numbers means more Fresh Water injected than brine water produced.

*** Negative % numbers means more Brine Water produced than fresh water injected.

Normal ratios can range from +5% to +15 %; Short term negative ratios are acceptable. Long term negative numbers should be checked out and are not considered normal.

Appendix B - Chemical Analysis

Summary Report

(Corrected Report)

Wayne Price
Key Energy-Rio Rancho
312 Encanatado Ridge Ct. NE
Rio Rancho, NM 87124

Report Date: April 18, 2014

Work Order: 14040413

Project Name: lst Qtr. Sampling
Project Number: BW-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359741	Fresh	water	2014-04-02	14:30	2014-04-03
359742	Brine	water	2014-04-02	14:30	2014-04-03

Sample: 359741 - Fresh

Param	Flag	Result	Units	RL
Chloride		**71.0**	mg/L	2.5
Density		**1.00**	g/ml	
pH		**8.20**	s.u.	2
Total Dissolved Solids		**421**	mg/L	2.5

Sample: 359742 - Brine

Param	Flag	Result	Units	RL
Chloride		**219000**	mg/L	2.5
Density		**1.19**	g/ml	
Dissolved Sodium		**103000**	mg/L	1
pH		**7.15**	s.u.	2
Total Dissolved Solids	[1]	**298000**	mg/L	2.5

[1] Reanalyzed out of hold time for confirmation.

TRACEANALYSIS, INC.

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200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

Wayne Price
Key Energy-Rio Rancho
312 Encanatado Ridge Ct. NE
Rio Rancho, NM, 87124

Report Date: April 18, 2014

Work Order: 14040413

Project Name: lst Qtr. Sampling
Project Number: BW-28

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359741	Fresh	water	2014-04-02	14:30	2014-04-03
359742	Brine	water	2014-04-02	14:30	2014-04-03

Report Corrections (Work Order 14040413)

- 4/18/14: Reran TDS on sample 359742.

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project lst Qtr. Sampling were received by TraceAnalysis, Inc. on 2014-04-03 and assigned to work order 14040413. Samples for work order 14040413 were received intact at a temperature of 20.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	93996	2014-04-04 at 11:03	111184	2014-04-04 at 11:03
Density	ASTM D854-92	93856	2014-04-09 at 13:45	111019	2014-04-09 at 13:55
Na, Dissolved	S 6010C	93827	2014-04-08 at 14:21	111024	2014-04-09 at 15:10
pH	SM 4500-H+	93747	2014-04-04 at 14:46	110872	2014-04-04 at 14:46
TDS	SM 2540C	94004	2014-04-08 at 16:00	111194	2014-04-08 at 16:00
TDS	SM 2540C	94082	2014-04-16 at 16:00	111286	2014-04-17 at 16:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14040413 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	Sample Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride		1	**71.0**		mg/L	5	2.50

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	Sample Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Density			**1.00**		g/ml	1	0.00

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	110872	Date Analyzed:	2014-04-04	Analyzed By:	AT
Prep Batch:	93747	Sample Preparation:	2014-04-04	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1	**8.20**		s.u.	1	2.00

Sample: 359741 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	111194	Date Analyzed:	2014-04-08	Analyzed By:	RL
Prep Batch:	94004	Sample Preparation:	2014-04-08	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**421**	mg/L	10	2.50

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	Sample Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**219000**	mg/L	5000	2.50

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	Sample Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Density			**1.19**	g/ml	1	0.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	111024	Date Analyzed:	2014-04-09	Analyzed By:	RR
Prep Batch:	93827	Sample Preparation:	2014-04-08	Prepared By:	PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Dissolved Sodium		1	**103000**	mg/L	1000	1.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	110872	Date Analyzed:	2014-04-04	Analyzed By:	AT
Prep Batch:	93747	Sample Preparation:	2014-04-04	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1	**7.15**		s.u.	1	2.00

Sample: 359742 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	111286	Date Analyzed:	2014-04-17	Analyzed By:	RL
Prep Batch:	94082	Sample Preparation:	2014-04-16	Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids	1	1	**298000**		mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 111019

QC Batch:	111019	Date Analyzed:	2014-04-09	Analyzed By:	CF
Prep Batch:	93856	QC Preparation:	2014-04-09	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Density			1.00	g/ml	

Method Blank (1) QC Batch: 111024

QC Batch:	111024	Date Analyzed:	2014-04-09	Analyzed By:	RR
Prep Batch:	93827	QC Preparation:	2014-04-08	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		1	<0.172	mg/L	1

Method Blank (1) QC Batch: 111184

QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	QC Preparation:	2014-04-04	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	1.24	mg/L	2.5

Method Blank (1) QC Batch: 111194

QC Batch:	111194	Date Analyzed:	2014-04-08	Analyzed By:	RL
Prep Batch:	94004	QC Preparation:	2014-04-08	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 111286

QC Batch: 111286 Date Analyzed: 2014-04-17 Analyzed By: RL
Prep Batch: 94082 QC Preparation: 2014-04-16 Prepared By: RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<25.0	mg/L	2.5

Duplicates (1) Duplicated Sample: 359764

QC Batch: 110872 Date Analyzed: 2014-04-04 Analyzed By: AT
Prep Batch: 93747 QC Preparation: 2014-04-04 Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1	7.45	7.44	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 359742

QC Batch: 111019 Date Analyzed: 2014-04-09 Analyzed By: CF
Prep Batch: 93856 QC Preparation: 2014-04-09 Prepared By: CF

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Density	1.19	1.19	g/ml	1	0	20

Duplicates (1) Duplicated Sample: 359759

QC Batch: 111194 Date Analyzed: 2014-04-08 Analyzed By: RL
Prep Batch: 94004 QC Preparation: 2014-04-08 Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	501	514	mg/L	10	3	10

Duplicates (1) Duplicated Sample: 359742

QC Batch: 111286 Date Analyzed: 2014-04-17 Analyzed By: RL
Prep Batch: 94082 QC Preparation: 2014-04-16 Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	299000	298000	mg/L	2000	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR
Prep Batch: 93827 | QC Preparation: 2014-04-08 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		1	53.1	mg/L	1	52.5	<0.172	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		1	53.2	mg/L	1	52.5	<0.172	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL
Prep Batch: 93996 | QC Preparation: 2014-04-04 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.1	mg/L	1	25.0	1.24	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.1	mg/L	1	25.0	1.24	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111194 | Date Analyzed: 2014-04-08 | Analyzed By: RL
Prep Batch: 94004 | QC Preparation: 2014-04-08 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111286 | Date Analyzed: 2014-04-17 | Analyzed By: RL
Prep Batch: 94082 | QC Preparation: 2014-04-16 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1010	mg/L	10	1000	<25.0	101	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 359723

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR
Prep Batch: 93827 | QC Preparation: 2014-04-08 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		1	3200	mg/L	1	525	2760	84	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		1	3220	mg/L	1	525	2760	88	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 359783

QC Batch:	111184	Date Analyzed:	2014-04-04	Analyzed By:	RL
Prep Batch:	93996	QC Preparation:	2014-04-04	Prepared By:	RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1600	mg/L	50	1250	340	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1600	mg/L	50	1250	340	101	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 110872 | Date Analyzed: 2014-04-04 | Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1	s.u.	7.00	7.01	100	98 - 102	2014-04-04

Standard (CCV-1)

QC Batch: 110872 | Date Analyzed: 2014-04-04 | Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1	s.u.	7.00	7.01	100	98 - 102	2014-04-04

Standard (ICV-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		1	mg/L	51.0	51.3	100	90 - 110	2014-04-09

Standard (CCV-1)

QC Batch: 111024 | Date Analyzed: 2014-04-09 | Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		1	mg/L	51.0	48.5	95	90 - 110	2014-04-09

Standard (CCV-1)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.0	100	90 - 110	2014-04-04

Standard (CCV-2)

QC Batch: 111184 | Date Analyzed: 2014-04-04 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.6	102	90 - 110	2014-04-04

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-14-10	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Reanalyzed out of hold time for confirmation.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 1404413 COC #2 Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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1 (800) 378-1296

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Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: KEY ENERGY
Phone #: 505-715-2809
Address: (Street, City, Zip)
Fax #:
Contact Person: WAYNE PRICE
E-mail: WAYNEPRICE77@EARTHLINK.NET NO SPACE
Invoice to: (If different from above) KEY ENERGY
Project #: BW-28
Project Name: 1/4 SAMPLING
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
39741	FRESH	1	1000 ML	X								X		4/2/14	2:30 PM
742	BRINE	1	"	X								X		"	"

LAB #	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	CHLORIDES	pH, TDS, DENSITY - SG	SODIUM	Turn Around Time if different from standard	Hold
39741																			X	X X X			
742																			X	X X X	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
WAYNE PRICE	KEY	4/3/14	8:45 AM	RCJ	BJC	4-3-14	5:46	INST 2.0 °C
								OBS °C
								COR °C
								INST °C
								OBS °C
								COR °C
								INST 1.8 °C
								OBS 3.2 °C
								COR 2.5 °C

LAB USE ONLY
Intact (Y) N
Headspace Y / N / NA
Log-in-Review

REMARKS: BW-28 1ST QTR SAMPLING

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Carrier # FS: 770421862

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Wayne Price
Key Energy Services-Farmington
Rocky Mountain Rigs 26 Rd. 3720
P.O. Box 900
Farmington, NM 87401

Report Date: July 24, 2014

Work Order: 14071639

Project Location: Eunice, NM
Project Name: 1/4 Sampling
Project Number: BW-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
368528	Fresh	water	2014-07-10	15:16	2014-07-11
368529	Brine	water	2014-07-10	15:04	2014-07-11

Sample: 368528 - Fresh

Param	Flag	Result	Units	RL
Chloride		**44.5**	mg/L	2.5
Density		**0.999**	g/ml	
pH		**7.81**	s.u.	2
Total Dissolved Solids		**432**	mg/L	2.5

Sample: 368529 - Brine

Param	Flag	Result	Units	RL
Chloride		**181000**	mg/L	2.5
Density		**1.20**	g/ml	
Dissolved Sodium		**105000**	mg/L	1
pH		**6.85**	s.u.	2
Total Dissolved Solids		**316000**	mg/L	2.5

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Wayne Price
Key Energy Services-Farmington
Rocky Mountain Rigs 26 Rd. 3720
P.O. Box 900
Farmington, NM, 87401

Report Date: July 24, 2014

Work Order: 14071639

Project Location: Eunice, NM
Project Name: 1/4 Sampling
Project Number: BW-28

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
368528	Fresh	water	2014-07-10	15:16	2014-07-11
368529	Brine	water	2014-07-10	15:04	2014-07-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director

Report Contents

Case Narrative

Samples for project 1/4 Sampling were received by TraceAnalysis, Inc. on 2014-07-11 and assigned to work order 14071639. Samples for work order 14071639 were received intact at a temperature of 3.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	96346	2014-07-23 at 14:00	113911	2014-07-23 at 15:31
Density	ASTM D854-92	96173	2014-07-17 at 10:35	113705	2014-07-17 at 10:45
Na, Dissolved	S 6010C	96254	2014-07-21 at 12:38	113856	2014-07-22 at 16:27
pH	SM 4500-H+	96195	2014-07-17 at 14:34	113731	2014-07-17 at 14:34
TDS	SM 2540C	96314	2014-07-17 at 17:00	113871	2014-07-17 at 17:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14071639 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride	B	1,2,3,4,5	**44.5**		mg/L	5	2.50

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	Sample Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Density			**0.999**		g/ml	1	0.00

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	113731	Date Analyzed:	2014-07-17	Analyzed By:	AT
Prep Batch:	96195	Sample Preparation:	2014-07-17	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1,2,4,5	**7.81**		s.u.	1	2.00

Sample: 368528 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**432**	mg/L	10	2.50

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1,2,3,4,5	**181000**	mg/L	5000	2.50

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Density	Analytical Method:	ASTM D854-92	Prep Method:	N/A
QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	Sample Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Density			**1.20**	g/ml	1	0.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	113856	Date Analyzed:	2014-07-22	Analyzed By:	RR
Prep Batch:	96254	Sample Preparation:	2014-07-21	Prepared By:	RR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Dissolved Sodium		2,3,4,5	**105000**	mg/L	1000	1.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	113731	Date Analyzed:	2014-07-17	Analyzed By:	AT
Prep Batch:	96195	Sample Preparation:	2014-07-17	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1,2,4,5	**6.85**		s.u.	1	2.00

Sample: 368529 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**316000**		mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 113705

QC Batch:	113705	Date Analyzed:	2014-07-17	Analyzed By:	CF
Prep Batch:	96173	QC Preparation:	2014-07-17	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Density			0.997	g/ml	

Method Blank (1) QC Batch: 113856

QC Batch:	113856	Date Analyzed:	2014-07-22	Analyzed By:	RR
Prep Batch:	96254	QC Preparation:	2014-07-21	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		2,3,4,5	<0.0184	mg/L	1

Method Blank (1) QC Batch: 113871

QC Batch:	113871	Date Analyzed:	2014-07-17	Analyzed By:	RL
Prep Batch:	96314	QC Preparation:	2014-07-17	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 113911

QC Batch:	113911	Date Analyzed:	2014-07-23	Analyzed By:	RL
Prep Batch:	96346	QC Preparation:	2014-07-23	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1,2,3,4,5	1.09	mg/L	2.5

Duplicates

Duplicates (1) Duplicated Sample: 368450

QC Batch: 113705 | Date Analyzed: 2014-07-17 | Analyzed By: CF
Prep Batch: 96173 | QC Preparation: 2014-07-17 | Prepared By: CF

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Density		0.997	0.996	g/ml	1	0	20

Duplicates (1) Duplicated Sample: 365547

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT
Prep Batch: 96195 | QC Preparation: 2014-07-17 | Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1,2,4,5	6.80	7.16	s.u.	1		20

Duplicates (1) Duplicated Sample: 368530

QC Batch: 113871 | Date Analyzed: 2014-07-17 | Analyzed By: RL
Prep Batch: 96314 | QC Preparation: 2014-07-17 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1,2,3,4,5	2220	2200	mg/L	50	1	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR
Prep Batch: 96254 | QC Preparation: 2014-07-21 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	51.5	mg/L	1	52.5	<0.0184	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	50.6	mg/L	1	52.5	<0.0184	96	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 113871 | Date Analyzed: 2014-07-17 | Analyzed By: RL
Prep Batch: 96314 | QC Preparation: 2014-07-17 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	1020	mg/L	10	1000	<25.0	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	1000	mg/L	10	1000	<25.0	100	90 - 110	2	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL
Prep Batch: 96346 | QC Preparation: 2014-07-23 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	24.3	mg/L	1	25.0	1.09	93	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	24.4	mg/L	1	25.0	1.09	93	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 366283

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR
Prep Batch: 96254 | QC Preparation: 2014-07-21 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	888	mg/L	1	525	467	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	985	mg/L	1	525	467	99	75 - 125	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 368528

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL
Prep Batch: 96346 | QC Preparation: 2014-07-23 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	184	mg/L	5	125	44.5	112	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	177	mg/L	5	125	44.5	106	80 - 120	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98 - 102	2014-07-17

Standard (CCV-1)

QC Batch: 113731 | Date Analyzed: 2014-07-17 | Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98 - 102	2014-07-17

Standard (ICV-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	51.5	101	90 - 110	2014-07-22

Standard (CCV-1)

QC Batch: 113856 | Date Analyzed: 2014-07-22 | Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	52.8	104	90 - 110	2014-07-22

Standard (CCV-1)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2014-07-23

Standard (CCV-2)

QC Batch: 113911 | Date Analyzed: 2014-07-23 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2014-07-23

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2013-083	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 14071639

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
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200 East Sunset Rd., Suite E
El Paso, Texas 79922
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Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: KEY ENERGY — **Phone #:** 505-715-2809

Address: (Street, City, Zip) — **Fax #:**

Contact Person: WAYNE PRICE — **E-mail:** wayneprice77@earthlink.net

Invoice to: (If different from above) KEY ENERGY

Project #: BW-28 — **Project Name:** H2S sampling

Project Location (including state): EUNICE NM — **Sampler Signature:** LUPE

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
368528	Fresh	1	1 Liter	X								X		7/10/14	3:16PM
529	Brine	1	1 Liter	X								X		7/10/14	3:04PM

LAB #	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Chlorides	pH, TDS	Density – SRB	Sodium Na	Turn Around Time if different from standard	Hold
368528																			X	X	X	X		
529																			X	X	X	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
LUPE	PRICE LLC	7/11/14	4:45PM	Billy Bender		7-11-14		INST ____ °C OBS ____ °C COR ____ °C
								INST ____ °C OBS ____ °C COR ____ °C
				A Sue	IA	7/16/14	09:30	INST 1163 °C OBS 4.1 °C COR 3.5 °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review PQ

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # LS: ER 29525

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Lester Waynce Price Jr.
Price LLC
312 Encantado Ridge Ct. NE
Rio Rancho, NM 87124

Report Date: February 18, 2015

Work Order: 15012704

Project Location: Eunice, NM
Project Name: Key Eunice Brine

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
385264	Fresh	water	2015-01-20	16:13	2015-01-27
385265	Brine	water	2015-01-20	16:17	2015-01-27

Sample: 385264 - Fresh

Param	Flag	Result	Units	RL
Chloride		**44.1**	mg/L	2.5
Dissolved Sodium	Qs	**310**	mg/L	1
pH		**7.64**	s.u.	2
Specific Gravity		**0.9906**	g/ml	
Total Dissolved Solids		**364**	mg/L	2.5

Sample: 385265 - Brine

Param	Flag	Result	Units	RL
Chloride		**169000**	mg/L	2.5
Dissolved Sodium	Qs	**116000**	mg/L	1
pH		**7.11**	s.u.	2
Specific Gravity		**1.159**	g/ml	
Total Dissolved Solids		**238000**	mg/L	2.5

TRACEANALYSIS, INC.

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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Lester Waynce Price Jr.
Price LLC
312 Encantado Ridge Ct. NE
Rio Rancho, NM, 87124

Report Date: February 18, 2015

Work Order: 15012704

Project Location: Eunice, NM
Project Name: Key Eunice Brine
Project Number: Key Eunice Brine

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
385264	Fresh	water	2015-01-20	16:13	2015-01-27
385265	Brine	water	2015-01-20	16:17	2015-01-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Key Eunice Brine were received by TraceAnalysis, Inc. on 2015-01-27 and assigned to work order 15012704. Samples for work order 15012704 were received intact at a temperature of 0.2 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	101000	2015-02-17 at 15:00	119429	2015-02-17 at 16:06
Na, Dissolved	S 6010C	100546	2015-01-27 at 17:40	119127	2015-02-06 at 09:23
pH	SM 4500-H+	100544	2015-01-27 at 04:00	118893	2015-01-27 at 16:44
Specific Gravity	ASTM D1429-95	100533	2015-01-27 at 13:00	118885	2015-01-27 at 13:10
TDS	SM 2540C	100618	2015-01-28 at 12:10	118979	2015-01-28 at 12:10
TDS	SM 2540C	100787	2015-02-02 at 09:00	119181	2015-02-02 at 17:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15012704 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride		1,2,3,4,5	**44.1**		mg/L	5	2.50

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	Sample Preparation:	2015-01-27	Prepared By:	RR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Dissolved Sodium	Qs	2,3,4,5	**310**		mg/L	10	1.00

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	118893	Date Analyzed:	2015-01-27	Analyzed By:	AT
Prep Batch:	100544	Sample Preparation:	2015-01-27	Prepared By:	AT

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
pH		1,2,4,5	**7.64**		s.u.	1	2.00

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	Specific Gravity	Analytical Method:	ASTM D1429-95	Prep Method:	N/A
QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	Sample Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Specific Gravity			**0.9906**		g/ml	1	0.000

Sample: 385264 - Fresh

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	119181	Date Analyzed:	2015-02-02	Analyzed By:	RL
Prep Batch:	100787	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**364**		mg/L	10	2.50

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride		1,2,3,4,5	**169000**		mg/L	5000	2.50

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	Sample Preparation:	2015-01-27	Prepared By:	RR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Dissolved Sodium	Qs	2,3,4,5	**116000**		mg/L	1000	1.00

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	118893	Date Analyzed:	2015-01-27	Analyzed By:	AT
Prep Batch:	100544	Sample Preparation:	2015-01-27	Prepared By:	AT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH		1,2,4,5	**7.11**	s.u.	1	2.00

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	Specific Gravity	Analytical Method:	ASTM D1429-95	Prep Method:	N/A
QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	Sample Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Specific Gravity			**1.159**	g/ml	1	0.000

Sample: 385265 - Brine

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	118979	Date Analyzed:	2015-01-28	Analyzed By:	RL
Prep Batch:	100618	Sample Preparation:		Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1,2,3,4,5	**238000**	mg/L	2000	2.50

Method Blanks

Method Blank (1) QC Batch: 118885

QC Batch:	118885	Date Analyzed:	2015-01-27	Analyzed By:	CF
Prep Batch:	100533	QC Preparation:	2015-01-27	Prepared By:	CF

Parameter	Flag	Cert	MDL Result	Units	RL
Specific Gravity			0.9916	g/ml	

Method Blank (1) QC Batch: 118979

QC Batch:	118979	Date Analyzed:	2015-01-28	Analyzed By:	RL
Prep Batch:	100618	QC Preparation:	2015-01-28	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 119127

QC Batch:	119127	Date Analyzed:	2015-02-06	Analyzed By:	RR
Prep Batch:	100546	QC Preparation:	2015-01-27	Prepared By:	PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Sodium		2,3,4,5	<0.0184	mg/L	1

Method Blank (1) QC Batch: 119181

QC Batch:	119181	Date Analyzed:	2015-02-02	Analyzed By:	RL
Prep Batch:	100787	QC Preparation:	2015-02-02	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1,2,3,4,5	<25.0	mg/L	2.5

Method Blank (1) QC Batch: 119429

QC Batch:	119429	Date Analyzed:	2015-02-17	Analyzed By:	RL
Prep Batch:	101000	QC Preparation:	2015-02-17	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1,2,3,4,5	0.797	mg/L	2.5

Duplicates

Duplicates (1) Duplicated Sample: 385269

QC Batch: 118885 | Date Analyzed: 2015-01-27 | Analyzed By: CF
Prep Batch: 100533 | QC Preparation: 2015-01-27 | Prepared By: CF

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Gravity		1.074	1.072	g/ml	1	0	200

Duplicates (1) Duplicated Sample: 385269

QC Batch: 118893 | Date Analyzed: 2015-01-27 | Analyzed By: AT
Prep Batch: 100544 | QC Preparation: 2015-01-27 | Prepared By: AT

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	1,2,4,5	6.79	6.78	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 385486

QC Batch: 118979 | Date Analyzed: 2015-01-28 | Analyzed By: RL
Prep Batch: 100618 | QC Preparation: 2015-01-28 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1,2,3,4,5	923	904	mg/L	10	2	10

Duplicates (1) Duplicated Sample: 385552

QC Batch: 119181 | Date Analyzed: 2015-02-02 | Analyzed By: RL
Prep Batch: 100787 | QC Preparation: 2015-02-02 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	[1,2,3,4,5]	219000	219000	mg/L	2000	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 118979 | Date Analyzed: 2015-01-28 | Analyzed By: RL
Prep Batch: 100618 | QC Preparation: 2015-01-28 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	996	mg/L	10	1000	<25.0	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	984	mg/L	10	1000	<25.0	98	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR
Prep Batch: 100546 | QC Preparation: 2015-01-27 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	56.0	mg/L	1	52.5	<0.0184	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium		2,3,4,5	57.2	mg/L	1	52.5	<0.0184	109	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119181 | Date Analyzed: 2015-02-02 | Analyzed By: RL
Prep Batch: 100787 | QC Preparation: 2015-02-02 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1,2,3,4,5	998	mg/L	10	1000	<25.0	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1,2,3,4,5	992	mg/L	10	1000	<25.0	99	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 119429 | Date Analyzed: 2015-02-17 | Analyzed By: RL
Prep Batch: 101000 | QC Preparation: 2015-02-17 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	24.2	mg/L	1	25.0	0.797	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	24.4	mg/L	1	25.0	0.797	94	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes

Matrix Spike (xMS-1) Spiked Sample: 385041

QC Batch: 119127 | Date Analyzed: 2015-02-06 | Analyzed By: RR
Prep Batch: 100546 | QC Preparation: 2015-01-27 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium		2,3,4,5	1660	mg/L	1	525	1210	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	Qs Qs	2,3,4,5	1580	mg/L	1	525	1210	70	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 385174

QC Batch: 119429 | Date Analyzed: 2015-02-17 | Analyzed By: RL
Prep Batch: 101000 | QC Preparation: 2015-02-17 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2,3,4,5	2750	mg/L	100	2500	362	96	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1,2,3,4,5	2740	mg/L	100	2500	362	95	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: AT

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

Standard (CCV-1)

QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: AT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		1,2,4,5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

Standard (ICV-1)

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	51.7	101	90 - 110	2015-02-06

Standard (CCV-1)

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	55.9	110	90 - 110	2015-02-06

Standard (CCV-1)

QC Batch: 119429 Date Analyzed: 2015-02-17 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2015-02-17

Standard (CCV-2)

QC Batch: 119429 Date Analyzed: 2015-02-17 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	24.3	97	90 - 110	2015-02-17

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 15012704

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: PRICE LLC — **Phone #:** 505-892-6643

Address: (Street, City, Zip) 312 ENCANTADO RIDGE CT NE ALBUQUERQUE NM 87124 — **Fax #:** 505-892-6643

Contact Person: LESTER WAYNE PRICE JR — **E-mail:** WAPRICE23@HOTMAIL.COM

Invoice to: (If different from above) KEY ENERGY

Project #: NA — **Project Name:** EUNICE BRINE WELL

Project Location (including state): EUNICE NM — **Sampler Signature:** LWPJR

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	CHLORIDES, PH, SET, TDS, DISSOLVED SODIUM			Turn Around Time if different from standard	Hold
385264	FRESH	1	4 oz	X								X		1/20/15	4:13PM																		X					
265	BRINE	1	4 oz	X								X		1/20/15	4:17PM																		X	X				

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
LESTER WAYNE PRICE JR	PRICE LLC	1/23/15	4:30PM	Python	Brandon Clark	1/23		INST ____ OBS 2 °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
				BC TA	1-27-15	915		INST 1.3 OBS -0.3 °C COR -0.2 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N NA
Log-in-Review

REMARKS:
NA
"Fresh" sample is Frozen.

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # LS 2S041348

LAB COPY

Appendix C- Area of Review

- AOR Well Status List
- AOR Aerial Map

2014 BW-28 AOR Review-- Well Status List

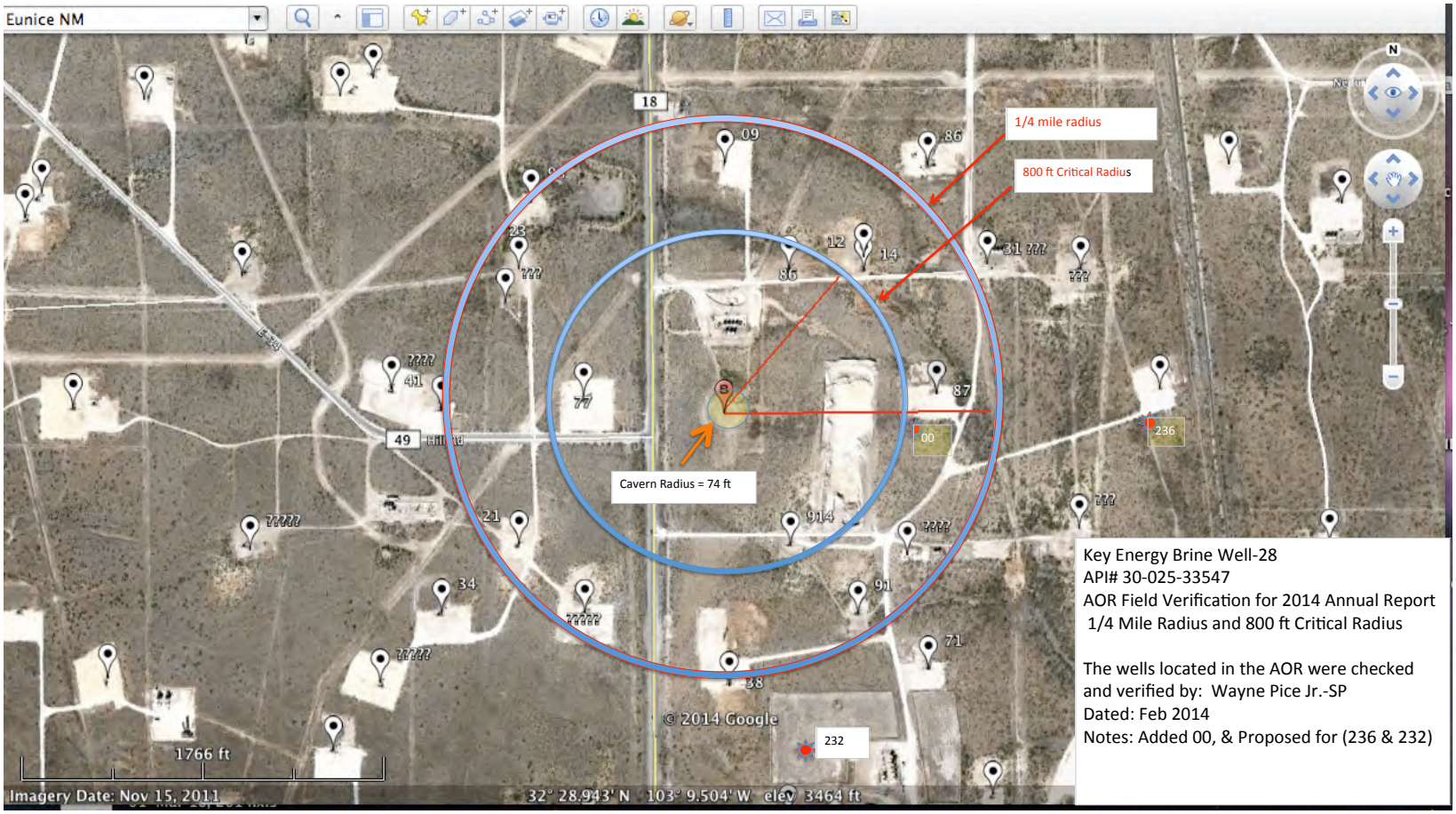
up-dated April 26, 2015

	API #	Well Name	UL	Section	Ts	Rg	Footage	Within 1/4 mi AOR * within 800 ft			Casing Program Checked	Cased/Cemented across salt section	Corrective Action Required
1	*30-025-33547*	*Key-State no.001*	*E*	*15*	*21s*	*37e*	*1340 FNL & 330 FWL*	NA			NA		
1	30-025-06591	Apache NEDU 604	E	15	21s	37e	2310 FNL & 990 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-09913 (P&A)	Shell NEDU 603	E	15	21s	37e	3390 FSL & 4520 FEL	**Yes***	1	1	yes	yes	no
1	30-025-09914	Apache NEDU 602	E	15	21s	37e	1980 FNL & 660 FWL	**Yes***	1	1	yes	yes	no
1	30-025-35271	Apache NEDU 602625	E	15	21s	37e	2580 FNL & 1300 FWL	no			na	na	na
0	30-025-37223 Never Drilled **	Apache NEDU 628	E	15	21s	37e	1410 FNL & 380 FWL	Never Drilled	0	0	na	na	na
1	**30-025-41600 (in Production 2014)**	Apache NEDU 544	E	15	21s	37e	1355 FNL &1190 FWL	yes	0	1	Yes	yes	no
0	**30-025-42237 (proposed)**	Apache NEDU 648	E	15	21s	37e	1640 FNL & 1300 FWL	yes	0	1	na	na	na
1	30-025-06609	Chevron St. 002	C	15	21s	37e	660 FNL & 1980 FWL	no			na	na	na
1	30-025-06611	Chevron St. 004	C	15	21s	37e	660 FNL & 2080 FWL	no			na	na	na
1	30-025-06613	Apache NEDU 605	C	15	21s	37e	760 FNL & 1980 FWL	no			na	na	na
1	30-025-34649	Apache NEDU 622	C	15	21s	37e	1229 FNL & 2498 FWL	no			na	na	na
1	30-025-34886	Apache NEDU 524	C	15	21s	37e	160 FNL & 1350 FWL	no			na	na	na
1	30-025-39831(added 2010)	Chevron State S no. 2	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-34887	Apache NEDU 624	C	15	21s	37e	1250 FNL & 1368 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-41485	Brammer Engr. St No 12	C	15	21s	37e	990 FNL & 1330 FWL	yes		1	yes+++	yes	no
1	30-025-41583	Apache NEDU 661	C	15	21s	37e	1240 FNL & 1930 FWL	no			na	na	na
1	30-025-41598	Apache NEDU 558	C	15	21s	37e	150 FNL & 2295 FWL	no			na	na	na
1	30-025-06586	Chevron St. 001	D	15	21s	37e	660 FNL & 660 FWL	**yes***	1	1	yes	yes	no
1	30-025-06612	Chevron St. 005	D	15	21s	37e	660 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-06614	Apache NEDU 601	D	15	21s	37e	600 FNL & 990 FWL	yes		1	yes	yes	no
1	30-025-36809	Apache NEDU 526	D	15	21s	37e	130 FNL & 330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06585	Apache St. 002	F	15	21s	37e	1980 FNL & 1980 FWL	no			na	na	na
1	30-025-06587	Apache NEDU 606	F	15	21s	37e	3375 FSL & 3225 FEL	no			na	na	na
1	30-025-06590	Apache NEDU 608	F	15	21s	37e	1980 FNL & 1880 FWL	no			na	na	na
1	30-025-41275	Apache NEDU 650	F	15	21s	37e	2550 FNL & 1925 FWL	no			na	na	na
1	**30-025-42236 New**	Apache NEDU 647	F	15	21s	37e	1710 FNL & 2360 FWL	no			na	na	na
1	30-025-06603	Apache Argo 006	K	15	21s	37e	1650 FSL & 2310 FWL	no			na	na	na
1	30-025-06607(added 2010)	Apache Argo 011	K	15	21s	37e	2080 FSL & 1650 FWL	no			na	na	na
1	30-025-09918	Apache NEDU 703	K	15	21s	37e	1980 FSL & 1980 FWL	no			na	na	na
1	30-025-39828	Apache Argo 14	K	15	21s	37e	2190 FSL & 2130 FWL	no			na	na	na
1	30-025-34657	Apache NEDU 623	K	15	21s	37e	2540 FSL & 2482 FWL	no			na	na	na
1	30-025-06606	Apache Argo 010	L	15	21s	37e	1880 FSL & 760 FWL	no			na	na	na
1	30-025-09915	Apache Argo 007	L	15	21s	37e	2310 FSL & 990 FWL	no			na	na	na
1	30-025-09916	Apache NEDU 701	L	15	21s	37e	1980 FSL & 660 FWL	no			na	na	na
1	30-025-34888	Apache NEDU 713	L	15	21s	37e	1330 FSL & 1142 FWL	no			na	na	na
1	30-025-37238	Apache NEDU 629	L	15	21s	37e	2630 FSL & 330 FWL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
0	**30-025-42232 Proposed**	Apache NEDU 639	L	15	21s	37e	1960 FSL & 740 FWL	no			na	na	na
1	30-025-06623	Apache WBDU 057	A	16	21s	37e	660 FNL & 660 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-25198	Chevron HLNCT 006	A	16	21s	37e	330 FNL & 600 FEL	no			no	na	na
1	30-025-39277	Apache WBDU 113	A	16	21s	37e	1290 FNL & 330 FEL	**yes***	1	1	yes	yes	no
1	30-025-06621	Apache WBDU 056	H	16	21s	37e	1980 FNL & 660 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06624	Chevron HLNCT 005	H	16	21s	37e	2310 FNL & 330 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-36741	Chevron HLNCT 007	H	16	21s	37e	1330 FNL & 1070 FEL	no			na	na	na
1	30-025-37834	Chevron HLNCT 008	H	16	21s	37e	2310 FNL & 030 FEL	yes		1	no	Will check if critical radius approaches	Will check if critical radius approaches
1	30-025-06617	Apache St. DA 005	I	16	21s	37e	1980 FSL & 330 FEL	no			na	na	na
1	30-025-06619	Apache WBDU078	I	16	21s	37e	1980 FSL & 660 FEL	no			na	na	na
1	30-025-37916	Apache St. DA 013	I	16	21s	37e	1650 FSL & 780 FEL	no			na	na	na
									4	18			

45 Total # of wells in adjacent quarter-sections
18 Total # of wells in 1/4 mile AOR
4 Total # of wells that are or have become within 800 ft of the outside radius of the brine well.

Notes:

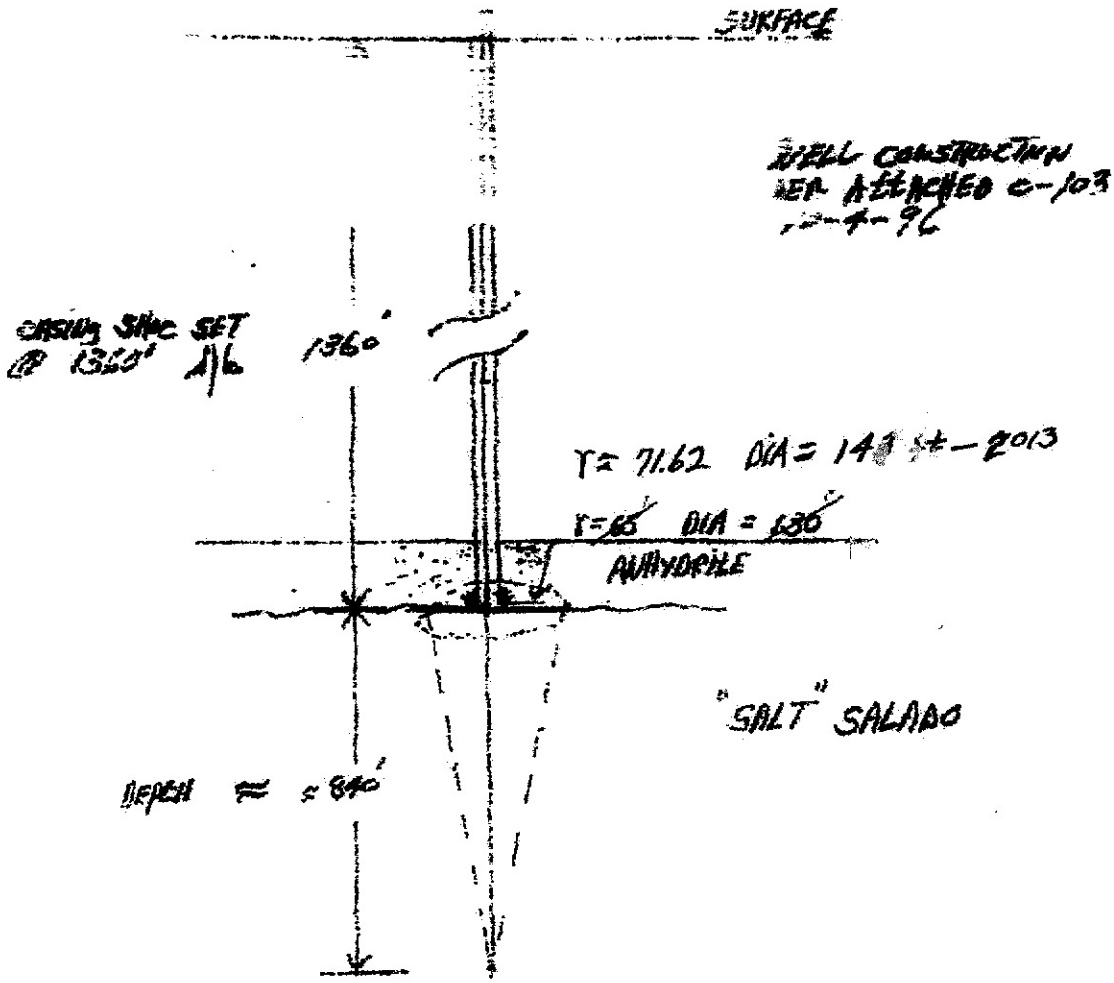
*** Means the well is within the calculated Critical outside radius of the brine well and casing program will be checked annually.**
The Critical Radius of Review is 10x the calucated brine well radius.
**** API # 30-025-37223 not drilled too close to Brine Well**
"+++checked casing 1000 sks for 714 ft3 ok between 7-5/8 and 5.5 covers salt section
2014- 600 & 913 were not actually in Critical radius and was removed until radius encludes them.



Field Notes: Last two or three well digits are the last number for the Well API#.

Appendix D-

- Cavity Calculations
- Cavern Well Bore C-103



$r = \sqrt{\frac{V \cdot 3}{\pi \cdot 840}}$ FROM VOL of INVERTED CONE $V = \frac{1}{3}\pi r^2 \cdot \text{DEPTH}$

2012 CALCULATIONS

$r = \sqrt{\frac{7.3 \times 10^{6} \times 3}{\pi \cdot 840}}$

$r = 70$ ft

d = diameter $\approx$ 140 ft

$h = 136$

$d/h = .103$

2013 CALCULATIONS

$r = \sqrt{\frac{4.51 \times 10^{6} \times 3}{\pi \cdot 840}}$

$r = 71.62$ ft

$d = 143$ ft

$h = 1360$ ft

$d/h = .105$

2014 CALCULATIONS

$r = \sqrt{\frac{4.82 \times 10^{6} \times 3}{\pi \cdot 840}}$

$r = 74'$

$d = 148$ ft

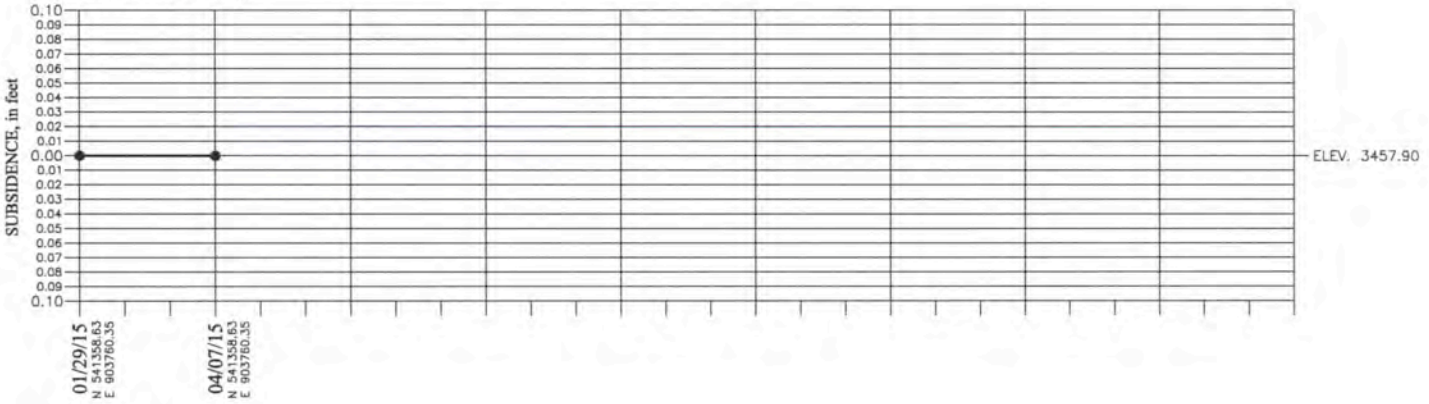
$d/h = \frac{148}{1360} = .109$

Appendix E- Subsidence Reports

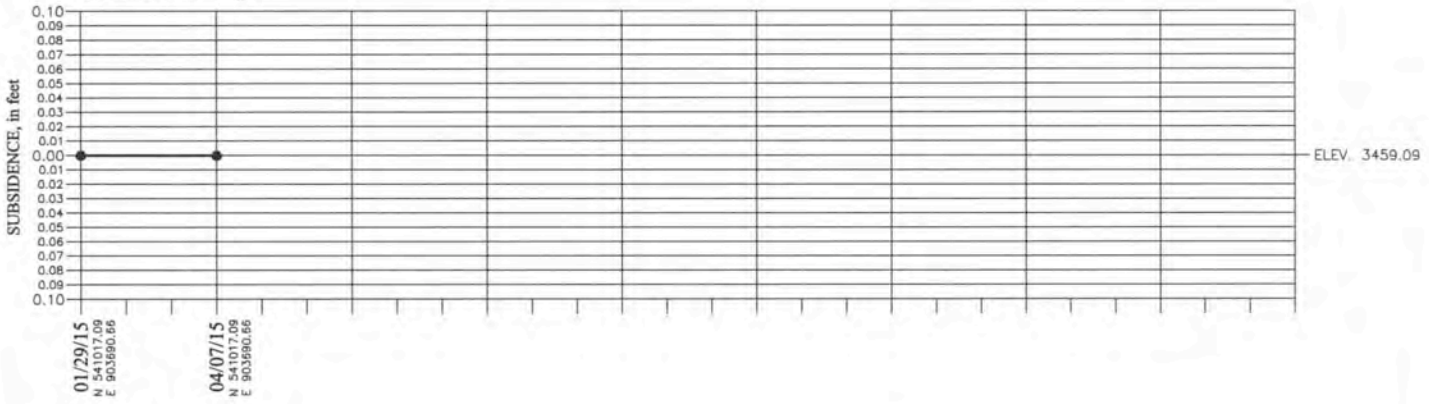
VERTICAL SUBSIDENCE TABLE
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

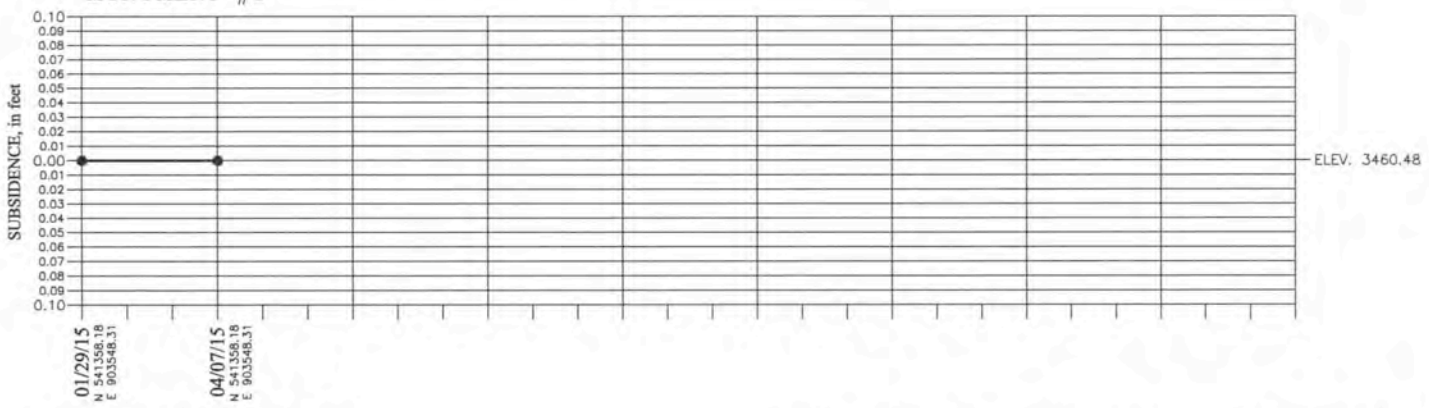
MONUMENT #1



MONUMENT #2



MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 4/28/2015

Terry J. Asel N.M. R.P.L.S. No. 15079

TERRY J ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 04/07/15	Sheet 1 of 1 Sheets	
W.O. Number: 150129MS-b	Drawn By: KA	Rev:
Date: 04/28/15	150129MS-b	Scale: 1"=1000'

Appendix F – Closure Cost Estimate

Appendix "F"

2014 Annual Report
BW-28 Key Energy Closure Cost

Key Energy Rig	$25,000
Halliburton Cement Job	$7,500.00
Post Subsidance Monitoring 5 y	$15,000.00
Tank Removal, Pad Clean-Up	$25,000.00
Consulting fees	$15,000.00
Total Estimate	$87,500

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 18, 2009 7:02 AM
To: 'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'David Pyeatt'; 'garymschubert@aol.com'; 'Gary Schubert'
Cc: Griswold, Jim, EMNRD; VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD
Subject: UIC Class III Well Annual Report Schedule for Submittal & Content REMINDER- 2010
Attachments: Annual Reports 2010.xls

Gentlemen:

Good morning. You may recall an e-mail message from me this past Summer alerting you to the reporting provision of your current discharge permit (permit) and how the New Mexico Oil Conservation Division (OCD) is stepping up its efforts to track reporting under issued permits.

Please find attached a spreadsheet listing the dates that OCD expects to receive your Annual Reports and/or any reporting requirements from your permit. If you are an operator with limited reporting requirements based on your permit, you are welcome to follow the format and content required from more recent permit renewals issued by the OCD, which are more comprehensive and constitute a report, Any renewed permits will likely require similar content anyway.

Please plan on meeting the Annual Report submittal dates in January of 2010 as failure to submit the report will constitute a violation under the Federal Underground Injection Control (UIC) Program and reporting to the United States Environmental Protection Agency, which could result in the shut-in and/or plug and abandonment of your brine production well.

Please contact me if you have questions. Thank you in advance for your cooperation in this matter.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

CC: Brine Well File "Annual Reporting"

NMOCD UIC Annual Reports

11/18/09

Permit ID	Operator	Annual Rpt. Due Date	Submitted	Annual Report Contents
BW-2	Basic Energy	01/31/10		L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information: 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C- 103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21 .1-I. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or easing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.

BW-4	Gandy Corp.	01/31/10	L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information: 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C- 103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21 .1-I. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or easing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.
BW-8	PAB- Salty Dog	Mo. w/ Qtly Rpts.	

BW-22	Gandy Corp.	01/31/10	L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information: 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21.H. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.
BW-25	Basic Energy	01/31/10	6. Production/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.

BW-27	Mesquite	01/01/10
BW-28	ey Ernergy Services LL	01/31/10

7. Production/Injection Volumes: The volumes of fluids injected (fresh water) and produced
(brine) will be recorded monthly and submitted to the OCD Sanla Fe Office in an annual
report due on the first day of January of each year.

L. Annual Report: All operators shall submit an annual report due on January 31 of each
year. The report shall include the following information:

1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW
permit #, API# of well(s), date of report, and person submitting report.
2. Brief summary of brine wells operations including description and reason for
any remedial or major work on the well. Copy of C-103.
3. Production volumes as required above in 21 .G. including a running total should
be carried over to each year. The maximum and average injection pressure.
4. A copy of the chemical analysis as required above in 21 .H.
5. A copy of any mechanical integrity test chart, including the type of test, i.e.
open to formation or casing test.
6. Brief explanation describing deviations from normal production methods.
7. A copy of any leaks and spills reports.
8. If applicable, results of any groundwater monitoring.
9. Information required from cavity/subsidence 21 .F. above.
10. An Area of Review (AOR) summary.
11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.

BW-30	Liquid Resources	01/31/10	L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information: 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit ~, API~ of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21 .H. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5 101.
BW-31	HRC- Schubert	01/31/10	6. Production/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 25, 2009 1:48 PM
To: 'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'Blevins, Sam'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Jones, William V., EMNRD
Subject: New Mexico Oil Conservation Division Class III Solution Mining Well Operator Notice--ANNUAL REPORTS

Gentlemen:

Re: **Annual Reporting**

You are receiving this message because you are currently operating a Underground Injection Control (UIC) Class III Solution Mining Well in New Mexico under an Oil Conservation Division (OCD) Discharge Permit. You may be aware of the most recent events related to OCD Class III Wells in New Mexico and can find out more by visiting the OCD's Webste at http://www.emnrd.state.nm.us/OCD/brinewells.htm and OCD Brine Well Work Group Website at http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pCJC0906359521.

The OCD is writing to inform you that it will be monitoring the receipt of your "Annual Reports" under the applicable section of your OCD discharge permit. The OCD has been deficient in tracking reporting obligations in the past; however, the OCD has recently upgraded our online system to track operators who are not meeting the reporting requirements specified in OCD Discharge Permits. Please plan on submitting the report with the required information by the date required in your discharge permit.

To access your OCD Discharge Permit Online for the date of submittal and contents of the report, please go to OCD Online at http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx (enter "Order Type" as BW and your "Order Number"). If you have not submitted an Annual Report (report) for your well, a historical review of your injection and production records will be required in order to provide cumulative injection and production information in this year's report.

Please contact me if you have questions or need assistance.

Thank you in advance for your cooperation in this matter.

Copy: Brine Well Files BWs 2, 4, 8, 22, 25, 27, 28, 30 & 31

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")