DATE IN 7/13/15	SUSPENSE	ENGINEER WJ	LOGGED IN 7/17/15	TYPE SWD	APP NO. pMVJ1519849716

467-A

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

BRAD STAUFFER		SR. DIRECTOR	7-2-15
Print or Type Name	Signature	Title	Date

API # 30-025-03979
KEY RA ST #1

BSTAUFFER@KEYENERGY.COM
e-mail Address

Key Energy Services
1301 McKinney
Suite 1800
Houston, Texas 77010

Telephone: 713.651.4300
Facsimile: 713.652.4005
www.keyenergy.com

July 11, 2015

Certified Mail
Return Receipt Requested-Hand Delivered

To: New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: Key Energy Services, LLC
Form C-108 (Application for Authorization to Inject)
RA State Well No. 1
API No. 30-025-03979
1980' FSL & 1909 FWL, Unit K, Section 31, T-18S, R-36E, NMPM
Eddy, County, New Mexico

Dear Director Catanach:

Enclose please find a hard copy of the Oil Conservation Division Form C-108 (Application for Authorization to inject) for the Key Energy Services, RA State Well No. 1 for your review and approval. Also enclosed is a flash-drive that contains the complete application.

Key Energy Services, LLC had previously used this well as a salt-water disposal well permitted by OCD SWD-467, for injection into the Delaware and San Andres Formations. Key is seeking approval to reenter this well and convert it to a Devonian formation injection well for disposing of area oilfield produced waters.

Key Energy has had subsequent meetings with the New Mexico State Land (SLO) office who owns the surface and minerals. The minerals have been leased out to another party, however the SLO has tentatively indicated that Key can use this well bore subject to OCD approval.

If you have any questions please do not hesitate to call 505-715-2809 or E-mail wayneprice77@earthlink.net

Sincerely,

Wayne Price

Wayne Price-Price LLC
Key NM Agent/Consultant

RECEIVED OCD
2015 JUL 13 P 1:40

Cc: Laura Riley-SLO Assistant Land Commissioner
Brad Stauffer- Key Energy Services LLC-Director of Fluids Management Division
Gary Larson-Attorney

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT	**Oil Conservation Division** **1220 South St. Francis Dr.** **Santa Fe, New Mexico 87505**	FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance X Disposal _____Storage
Application qualifies for administrative approval? **XX** Yes _____No

II. OPERATOR: **Key Energy Services LLC**

ADDRESS: **1301 McKinney Suite 1800 Houston TX 77010**

CONTACT PARTY: **Wayne Price-Price LLC wayneprice77@earthlink.net** PHONE: **505-715-2809**

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.-**Included in application.**

IV. Is this an expansion of an existing project? _____Yes **XX** No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.-**Attached**

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.-**There are no wells located in the Area of Review-See V. (Map)**

VII. Attach data on the proposed operation, including:-**Attached**

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.-**See Attachments.**

IX. Describe the proposed stimulation program, if any.-**See Attachments.**

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).-**See Attachments**

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.-**See Attached.**

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.-**See Attachment XII.**

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.-**See Attachment.**

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Wayne Price-Price LLC TITLE: **Key Energy Agent/Consultant for NM**

SIGNATURE: Wayne Price DATE: **July 04, 2015**

E-MAIL ADDRESS: **wayneprice77@earthlink.net**

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA -**Information Included in Application.**

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE-**Included In Application.**

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108 Application
Key Energy Services LLC
API No. 30-025-03979 1980 FSL & 1909 FWL
UL K-Section 31,T-18S, R-36E NMPM
Lea County, New Mexico

I. The purpose of the application is to request approval to convert the Key Energy Services LLC RA State #1 P&A Well to a commercial produced water disposal well and Inject into the Devonian formation.

Well History: The RA State #1 was originally drilled by Shell Oil company in 1952 as Devonian wildcat to a depth of 12,415'. In addition, OCD C-105's were submitted describing several additional exploratory Drill Stem tests conducted from 3797' to 12,415'. The well was P&A in 1952.

JD Hudgens Inc. reentered the well in 1955, perforated from 3670'-3714' and 4432'-4458', swab and had no show of oil. CW Trainer become operator of record in 1965, sold to Unichem International/Rowland Trucking Co. in 1992.

Unichem International submitted a C-108 to convert well into a SWD in 1992. SWD-467 was approved in 1992 for injection into either; the Delaware and San Andres formations through the open hole interval from approximately 4600 feet to 6425 feet through 2 7/8 inch plastic lined tubing set in a packer located at approximately 4550 feet; or into the Wolfcamp and Devonian formations through the perforated intervals from approximately 9760 feet to 10,250 feet and 12,370 feet to 12,415 feet through 2 7/8 inch plastic lined tubing, set in a packer located either at 9660 feet or 12,270 feet; provided however, if injection does occur into the Wolfcamp and/or Devonian formations, the applicant shall set 5 1/2 inch casing from surface to total depth in the subject well. ***A copy of SWD-467 is attached herein for reference. See Appendix I.***

In 1992 the well was completed by pressurizing and squeezing cement into the upper perfs, test casing, and setting a packer at 4587' and began injecting produced water thru a 2 7/8" tubing into the Delaware-Bone Springs open hole interval down to 6400', where a previous plug was installed.

In 1992 Bob Calhoun became operator and sold to "Key" in 2001. The well was subsequently plugged and abandoned in 2003. The current plugging description and well bore sketch is included in Section III. (Well Data) below.

OLD

II. Key Energy Services LLC (Key)
1301 McKinney Street, Suite 1800
Houston, Texas 77010
Contact Parties: Brad Staffuer- Director of FMS - 713-757-5509
Wayne Price- Price LLC - Consultant 505-715-2809

III. Injection Well Data sheet(s) are attached. Please find attached the current configuration of the well bore construction and schematic, and a copy of the proposed well bore construction and well diagram. ***See Appendix II.***

The well is currently P&A as shown on the attached schematic. Key plans to re-enter wellbore, drill out four existing plugs @ near surface, ~~1850', 4550'~~ and 6425'. Hole will be reamed out to ~~12,265' (Location of bottom plug) and~~ install a 5.5" L-80 20# Liner, with bottom casing shoe set at ~~12,260'~~ and cement circulated to surface with Class "H" cement. The new casing will be pressured tested to 500 psig for 30 minutes.

12370

370

The well will then be drilled out from under plug and deepened to 12,860 ft with 7-7/8" bit and circulated clean.

Key will then install a 3 ½ 7.7# L-80 IPC ERW non-upset tubing with a AS-1 5.5"x 2.81 profile packer set at 12,2~~6~~0 feet.

Key anticipates injecting open hole from ~~12,260~~ 12370 ft to 12,860 ft in the Devonian Limestone/Dolomite formation.

IV. This is not an expansion of an existing project. The well was previously permitted as SWD-467 copy attached for reference. ***See Appendix I.***

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

Attached are two plats, one depicting all wells located within two miles from the proposed RA State #1 disposal well, and another showing all wells located in adjacent sections and a one-half mile area of review circle. Also included is a spreadsheet listing all of the wells in the 2-mile AOR.

Currently there are no wells located within one-half mile of the proposed injection well. ***See Appendix III for AOR Plats and Well list.***

VI. Attach a tabulation of data on all wells of public record within the area of review, which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth,

Corrected

II. Key Energy Services LLC (Key)
1301 McKinney Street, Suite 1800
Houston, Texas 77010
Contact Parties: Brad Staffuer- Director of FMS - 713-757-5509
Wayne Price- Price LLC - Consultant 505-715-2809

III. Injection Well Data sheet(s) are attached. Please find attached the current configuration of the well bore construction and schematic, and a copy of the proposed well bore construction and well diagram. ***See Appendix II.***

The well is currently P&A as shown on the attached schematic. Key plans to re-enter wellbore, drill out four existing plugs @ near surface, 1850', 4550' and 6425'. Hole will be reamed out to 12,370 (Location of bottom plug) and install a 5.5" L-80 20# Liner, with bottom casing shoe set at 12,370' and cement circulated to surface with Class "H" cement. The new casing will be pressured tested to 500 psig for 30 minutes.

wayne price 7/27/15 4:09 PM
Deleted: 12,265'

wayne price 7/27/15 4:10 PM
Deleted: 260

The well will then be drilled out from under plug and deepened to 12,860 ft with 7-7/8" bit and circulated clean.

Key will then install a 3 ½ 7.7# L-80 IPC ERW non-upset tubing with a AS-1 5.5"x 2.81 profile packer set at 12,271 feet.

wayne price 7/27/15 4:10 PM
Deleted: 00

Key anticipates injecting open hole from 12,260 ft to 12,860 ft in the Devonian Limestone/Dolomite formation.

IV. This is not an expansion of an existing project. The well was previously permitted as SWD-467 copy attached for reference. ***See Appendix I.***

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

Attached are two plats, one depicting all wells located within two miles from the proposed RA State #1 disposal well, and another showing all wells located in adjacent sections and a one-half mile area of review circle. Also included is a spreadsheet listing all of the wells in the 2-mile AOR.

Currently there are no wells located within one-half mile of the proposed injection well. ***See Appendix III for AOR Plats and Well list.***

VI. Attach a tabulation of data on all wells of public record within the area of review, which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth,

record of completion, and a schematic of any plugged well illustrating all plugging detail.

As noted above, there are no wells currently located in the area of review. However, there is one well being drilled by Yates Petroleum Corporation that is currently a horizontal well, which when completed, may be slightly inside of Key's Proposed injection well AOR on the far west side.

This well is identified as the JUNCTION BVJ STATE COM Well 2H API # 30-025-41742 located in UL P Section 36-Ts18S-R35E with 160 acres dedicated for UL A, H, I, & P targeting the Vacuum Bone Spring South, at approximately 9,560 feet deep. This well is noted as #42 on the ½ mile AOR Plat. Attached for OCD's review is the Yates C-102. ***See Appendix IV.***

The next closest well identified, is well #54, which is the old P&A Truckers I Brine Station, formally Unichem Intl, Rowland Trucking Co, and now Key Energy Services LLC. This well produced concentrated brine water from the Salado formation at approximately 1800-2600 feet deep. This well was plugged by setting a bridge plug at the casing shoe and filling with cement to the surface and received OCD approval for closure.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;

   The average injection will range from 3000-5000 bbls/day with a maximum of 10,000 bbl/day.

2. Whether the system is open or closed; This system will be open.

3. Proposed average and maximum injection pressure;

   The Devonian is expected to operate on a surface vacuum and Key is requesting the normal .2 psig/ft pressure limit.

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,

   On April 17, 2015 Paladin Energy Corporation submitted local area water compatibility results for their recently converted SWD 1444 to a commercial disposal operation. This well is located about 2.5 miles west of the proposed RA State #1. Key Energy Services LLC operates a large trucking fleet in this area and these same waters will be hauled to Key's well for injection.

Key wishes to piggyback off of these public records and have included them in this report for OCD review. **See Attached Water Results in Appendix V.**

5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, Wells, etc.). **Noted Above.**

VIII. **A.** Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth.

The injection will be open-hole in the Devonian formation. The top of the Devonian in the RA State No. 1 well is approximately 12370(-8525), and is comprised of mainly limestone and porous dolomite. The entire area is overlain with Quaternary Alluvium and Caliche. There is no fresh water below the Devonian.

The nearest production to the RA State No. 1 well is found about 1.5 miles west in the South Vacuum field. This is the Paladin Energy Corp. South Vacuum Unit #352 well. The SVU # 352 was originally completed as a Devonian producer. The well is Currently TA'd from Wolfcamp perforations. The top of the Devonian for the SVU # 352 is about 11570(-7710). There is a NW – SE trending high angle fault that separates the RA State well from the South Vacuum field. The RA State well is on the downside of the South Vacuum fault, and over 800' structurally lower than the SVU #352 well.

Shell Oil Company well originally drilled the RA State in 1952. The Devonian was DST'd and over 4500' of gas cut saltwater was recovered. No other tests were reported. The well was non-productive, and P&A'D by Shell on 11-25-1952. Drill Stem Test Documentation-**See Appendix VI.**

B. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

Groundwater and Surface Water:

Shallow fresh water in the area is primarily derived from the unconfined Ogallala Formation, which is underlain by Triassic Red-Bed clay that acts as a confining layer.

The elevation of the site is 3,838.58 feet above mean sea level and the surface of the underlying red-bed clay is approximately at 3650 feet above mean sea level.

The groundwater depth in this area, below ground level, varies from 40-60ft, thus providing a saturated water zone thickness of approximately 138.58 ft.

The current well bore configuration indicates there is 352 feet of 13 3/8" casing installed, cemented to the surface, providing the required fresh water protection for this well.

A one-mile review of all water wells recorded by the New Mexico Office of the State Engineer are included for reference, noting that Section 31 (site location) currently has no recorded water wells, however an active ranch well is located approximately ¼ mile to the northeast of the site. Also included is a Red-Bed surface contour map for reference.

The High Plains aquifer of New Mexico, i.e Ogallala, extends over a large area and is little affected by faulting and deformation. There has never been a documented case of groundwater contamination arising from the deep known geological structural faults underlying this area.

The site is not located within a flood plain or proximity to a watercourse. See the excerpt from the BLM USGS (Hobbs NM) Topographic map showing surface features and elevation contours. ***See Appendix VII for supporting data and maps.***

IX. Describe the proposed stimulation program, if any;

Conduct a 2500 bbl SRT to establish a rate/pressure. Pump 2500 gallons of 15% HCL, 5% paraffin solvent (xylene), 5% citric acid Job, stage in xylene first into perf zones and hold for 30 min. Then flush with 30bbls of fresh water and soap. Stage acid into perf zones with a 14# salt block on top, hold for 2 hours. Flush away with 200bbls of soap and fresh water. Finish with a 200-gallon bactericide/scale/double inhibitor, and then follow with 200-gallon corrosion inhibitor.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). -

Electric Log Attached-**See Appendix VIII**

XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. -***See Appendix IX.***

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

Wayne Price-Price LLC has reviewed the entire well records for all Area of Review wells and has extensive knowledge of the area pertaining to ground and surface water. The RA State #1 will be properly cased to prevent migration of deep injection fluids or near surface fluids from impacting the local groundwater. There are no known geological structural features in this area that could, would, or have contributed to groundwater contamination from the injection zones of interest, notwithstanding unexpected near surface catastrophic failures.

I hereby certified on behalf of Key Energy Services LLC that this is true and accurate to the best of my professional ability.

Dated: July 04, 2015.

Signed: _____

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

Attached hereto are the "Certified Mail" notices to all offset operators, mineral interest, and landowners, the "Public Notice" as will be published in Lea County, NM, and a Mineral Lease Map, with operator information, obtained from the New Mexico State Land Office. -***See Appendix X.***

Appendix I

A copy of SWD-467 is attached herein for reference.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Same well
Long A 60

ADMINISTRATIVE ORDER NO. SWD-467

APPLICATION OF UNICHEM INTERNATIONAL, INC.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Unichem International, Inc. made application to the New Mexico Oil Conservation Division on February 24, 1992, for permission to complete for salt water disposal its RA State Well No. 1 located in Unit K of Section 31, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations.

(2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified; and

(3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met.

(4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Unichem International, Inc. is hereby authorized to complete its RA State Well No. 1 located in Unit K Section 31, Township 18 South, Range 36 East, NMPM, in either of the two following manners for purposes of salt water disposal:

a) Inject into the Delaware and San Andres formations through the open hole interval from approximately 4600 feet to 6425 feet through 2 7/8 inch plastic lined tubing set in a packer located at approximately 4550 feet; or

OLD EXPIRED PERMIT

b) Inject into the Wolfcamp and Devonian formations through the perforated intervals from approximately 9760 feet to 10,250 feet and 12,370 feet to 12,415 feet through 2 7/8 inch plastic lined tubing set in a packer located either at 9660 feet or 12,270 feet; Provided, however, if injection does occur into the Wolfcamp and/or Devonian formations, the applicant shall set 5 1/2 inch casing from surface to total depth in the subject well.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than .2 psi per foot to either the top of the open hole interval or top of the perforated interval, whichever is applicable.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the subject formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test, so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 20th day of March, 1992.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

William J. LeMay
for

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs

jc\

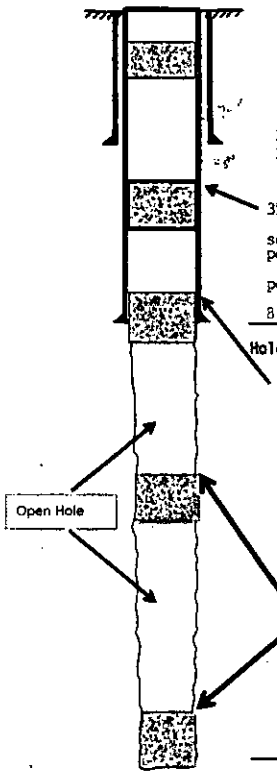
Appendix II

1. Current configuration of the P&A well bore construction.
2. Proposed Injection Well Data Sheet(s).
3. Proposed Well Bore Construction and Well Diagram.

OPERATOR		DATE
Key Energy Services LLC API# 30-025-03979		June 7, 2015
LEASE NA STATE	WELL NO. 1	LOCATION sec 31-T18S-R36E unit K

P&A Status as of June 07, 2015 by: Price LLC

STATUS: P&A



10 sack plug set at surface

13 3/8 csg set at 352' cmtd w/ 300 sxs circulated
17 1/4 hole

35 sack plug set from 1850 to 1950

set CIBP at 3650 + 35' cmt
perf 3670 to 3714 a/ 2000 gal

perf 4432 to 4458 treat w/ 10000 # snd and 10000 gal oil

8 5/8 " casing set at 4600 ' with 3000 sx of _____ cement

Hole size 11 " circulated

Cement Plug 4550-4650' (1/2 in & 1/2 out)

70 sack plug set from 6425 to 6700

60 sack plug set from 12266 to 12415

NO PRODUCTION CASING SET

_____ " casing set at _____ ' with _____ sx of _____ cement

Total Depth 12415 ' Hole size 7 7/8 "

Side 1

INJECTION WELL DATA SHEET

OPERATOR: **Key Energy Services LLC- API # 30-025-03979**

WELL NAME **RA State** NUMBER **#1**

WELL LOCATION:

FOOTAGE 1980 FSL & 1909 FWL

LOCATION UNIT LETTER **"K"** SECTION **31** TOWNSHIP **18S** RANGE **36E**
PROPOSED WELLBORE SCHEMATIC - ***ATTACHED***
WELLBORE SCHEMATIC AS PLUGGED- ***ATTACHED***

WELL CONSTRUCTION DATA

Surface Casing	
Hole Size: **17 1/4"**	Casing Size: **352' of 13 3/8"**
Cemented with: **300 sx.**	*or* **48#**
Top of Cement: **Circulated to Surface**	Method Determined: **OCD Records**
Intermediate Casing	
Hole Size: **11"**	Casing Size: **4600' of 8 5/8"**
Cemented with: **400 sx. neat +2600 sx 4% gel**	*or* **32#**
Top of Cement: **Surface-Circulated**	Method Determined: **OCD Records**
Proposed-Production Casing	
Hole Size: **7-7/8" reamed out and set new casing shoe @ 12,370 ft**	Casing Size: **Proposed 5.5"**
Cemented with: **Class "H" Will be circulated to surface** sx.	*or* 5.5" L-80 20#
Top of Cement: **Proposed Surface**	Method Determined: **TS or observe cement flow back.**
Total Depth: **12,860 feet**	
Proposed-Injection Interval	
12,370 feet	to **12,860 feet**

Packer set at 12,271'- Proposed Open Hole starting 60 ft below PKR. See Attached Proposed Wellbore Schematic

Side 2

INJECTION WELL DATA SHEET

Tubing Size: **3 ½ 7.7# L-80 Non-Upset** Tubing Lining Material: **IPC ERW**

Type of Packer: AS-1 5.5"x 2.81 profile packer

Packer Setting Depth: 12,271 **ft**

Other Type of Tubing/Casing Seal (if applicable): **ON-OFF TOOL**

Additional Data

1. Is this a new well drilled for injection? _____Yes XX No

   If no, for what purpose was the well originally drilled?

   Oil Well in the Arkansas Jct Devonian wildcat to a depth of 12,415'-DRY HOLE

2. Name of the Injection Formation: **Wolfcamp-Devonian**

3. Name of Field or Pool (if applicable): **Old Reeves and Arkansas JCT Devonian.**

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

   Were perforated 4432-4458' and 3670-3714'.
   OCD records indicated these perfs were squeezed with cement in April 1992 in preparation for injection well. See attached OCD C-103.

---

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

There are no other oil or gas producing wells in the area of review. This well was explored from top to bottom, and no apparent hydrocarbon natural resources were found in this well bore.

Well Data Sheet-Proposed

Operator:	Key Energy Services LLC					
Lease:	RA State					
Well #	#1	API# 30-025-03979	UL	Section	Ts	Rg
Location and footage:	1980 FSL & 1909 FWL		K	31	18s	36e

Tubular Data:

Surface Casing:

Size:	13 3/8" 48#	Cemented with:	***Circulated*** sks:
TOC:	Surface	Feet Determimed by:	Calculated: ***Circulated:*** Log: or tag
Hole Size:	17.25"	Csg. Set at	352' ft

Intermediate Casing:

Size:	8-5/8"-32 #	Cemented with:	***Circulated*** sks:
TOC:	94'	Feet Determimed by:	Calculated: ***Circulated:*** Log: or tag
Hole Size:	11"	Csg. Set at	4600 ft

Long String:

Size:		Cemented with:	sks:
TOC:		Feet Determimed by:	
Hole Size:		Csg. Set at	ft
TD		Elevation	

Size:	5.5" L-80 20#	Cemented with:	***Circulate*** sks:
TOC:	Plan to Surface	Feet Determimed by:	Calculated: ***Circulate:*** Log: or tag
Hole Size:	7 7/8"	Csg. Set at	12,370 ft
Total Depth:	12,860 ft		

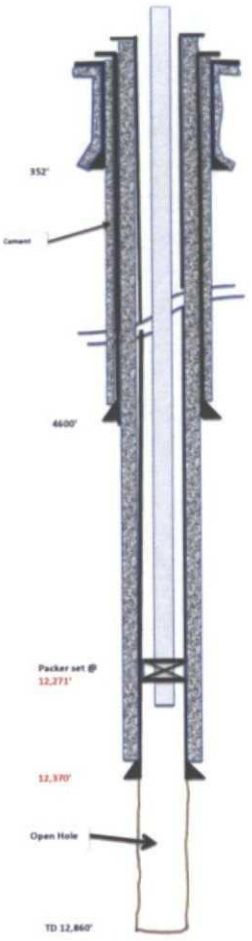
PLUGS: None

Injection Interval: 12,370-12,860' Preforated or Open Hole indicate: Open Hole

Tubing Info: 3.5" 7.7# L-80 IPC ERW Non-Upset
Packer Type: AS-1 5.5" x 2.81 profile Packer
Setting Depth: 12,271 ft

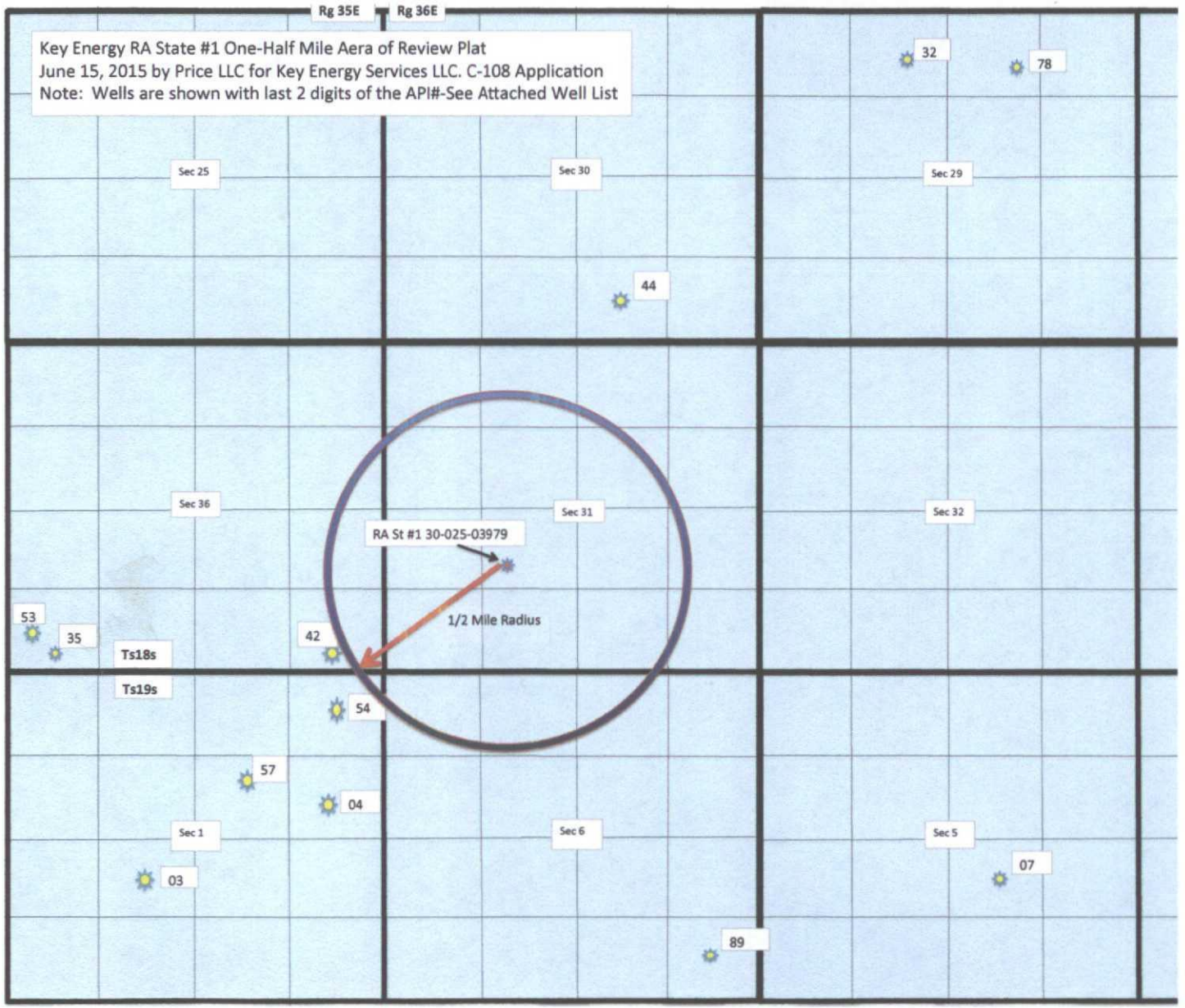
Formation-Injection: Devonian

History: See Write-UP

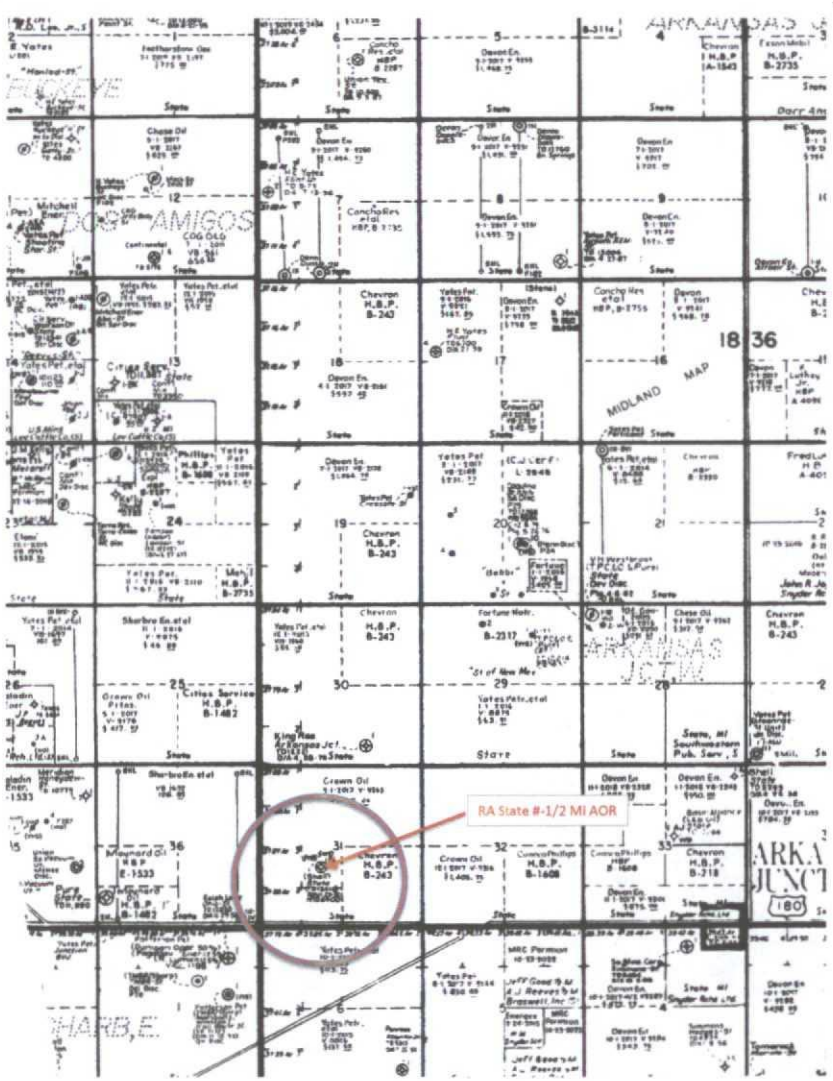


Appendix III

1. One-Half Mile AOR Plat, plus Recent Midland Mineral Ownership Map.
2. Two-Mile AOR Plat.
3. Comprehensive Well list with Notes.


Rg 35E
Rg 36E
Key Energy RA State #1 One-Half Mile Aera of Review Plat
June 15, 2015 by Price LLC for Key Energy Services LLC. C-108 Application
Note: Wells are shown with last 2 digits of the API#-See Attached Well List
Sec 25
Sec 30
Sec 29
32
78
44
Sec 36
Sec 31
Sec 32
RA St #1 30-025-03979
1/2 Mile Radius
53
35
42
Ts18s
Ts19s
54
57
04
Sec 1
Sec 6
Sec 5
03
07
89

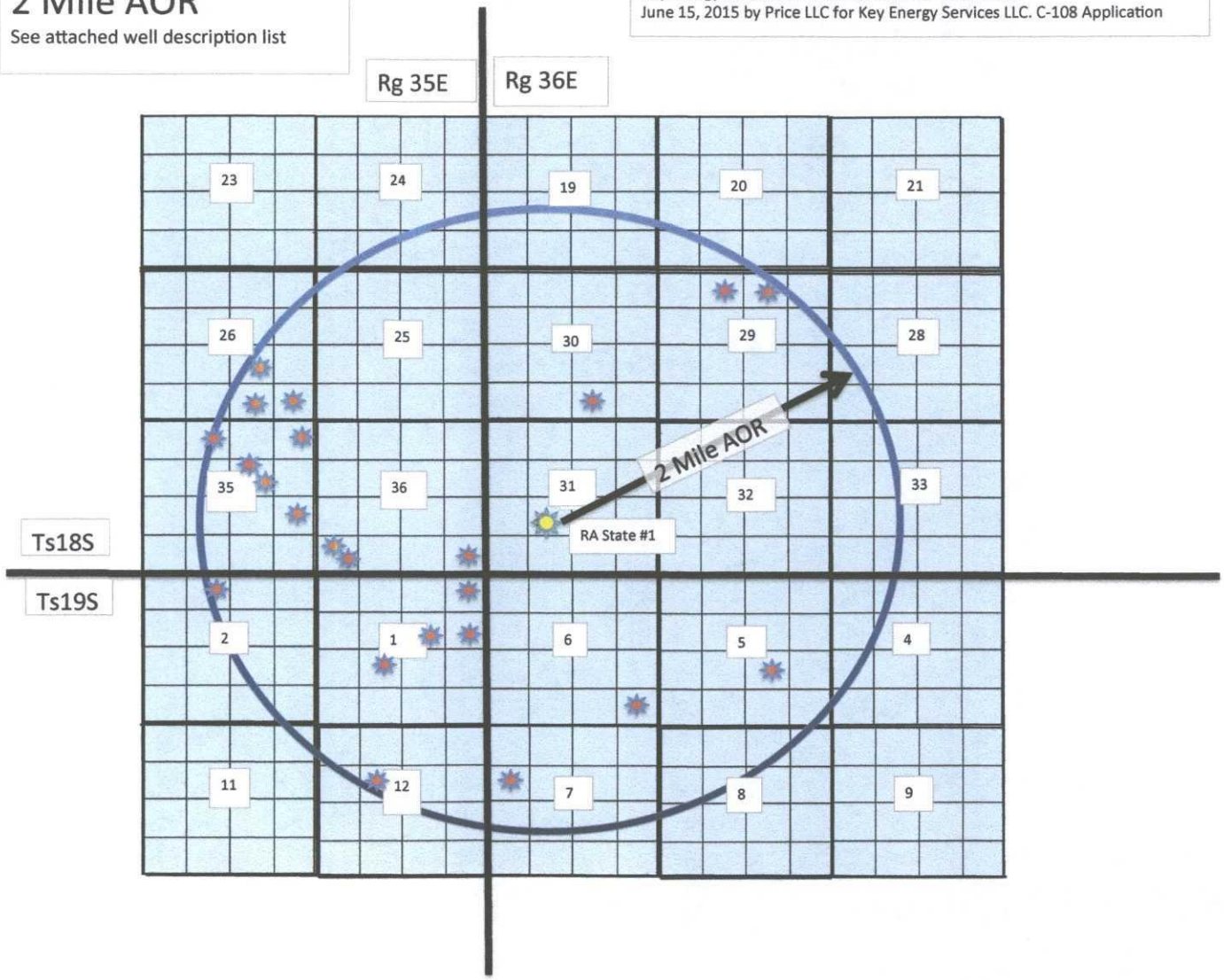
Key Energy Services LLC
RA State #1 1/2 mile AOR
Midland Map Co. June 16, 2105



2 Mile AOR

See attached well description list

Key Energy RA State #1 Two-Mile Aera of Review Plat
June 15, 2015 by Price LLC for Key Energy Services LLC. C-108 Application



Adjacent Sections One Mile

API Number	Well Name	Operator	Location	Formation & Notes:
3002503979	STATE RA No. 001	KEY ENERGY SERVICES, LLC	K-31-18S-36E (1980 FSL & 1909 FWL)	
3002503978	BOBBI STATE WF UNIT No. 006	SUNDOWN ENERGY LP	B -29-18S-36E (990 FNL & 1650 FEL)	Devonian well-dry hole, recompleted ARKANSAS JUNCTION;SAN ANDRES, WEST
3002527032	BOBBI STATE WF UNIT No. 007	SUNDOWN ENERGY LP	C -29-18S-36E (660 FNL & 1980 FWL)	ARKANSAS JUNCTION;SAN ANDRES, WEST
No Wells			Sec 32	
3002526307	BRINE SUPPLY WELL No. 001	SALTY DOG INC	J-5-19S-36E (1980 FSL & 1980 FEL)	Salado
3002503989	PRE-ONGARD WELL No. 001	PRE-ONGARD WELL OPERATOR	P-6-19S-36E (660 FSL & 660 FEL)	Greyburg-San Andres wildcat no Show
3002503154	BRINE STATE No. 001	UNICHEM INTERNATIONAL	A -1-19S-35E (660 FNL & 660 FEL)	Salado
3002528403	PRE-ONGARD WELL No. 001	PRE-ONGARD WELL OPERATOR	K -1-19S-35E (1980 FSL & 1980 FWL)	Proposed Bone Sp-**Never Drilled**
3002532204	IRON HOUSE STATE No. 001	PATTERSON PETROLEUM LLC	H -1-19S-35E (2100 FNL & 990 FEL)	SCHARB;QUEEN, EAST (GAS)
3002533757	TMBR 1 STATE No. 001	MAVERICK OPERATING, LLC	G -1-19S-35E (1750 FNL & 2100 FEL)	SCHARB;DELAWARE, EAST
3002503153	LEA STATE I No. 001	UNION OIL CO OF CALIFORNIA	M -36-18S-35E (997 FSL & 330 FWL)	P&A 1971 11794 check file
3002541742	JUNCTION BVJ STATE No. 001H	YATES PETROLEUM CORPORATION	P -36-18S-35E (250 FSL & 660 FEL)	Vac, Bone Sp, South
3002542335	JUNCTION BVJ STATE No. 002H	YATES PETROLEUM CORPORATION	M -36-18S-35E (330 FSL & 600 FWL)	Vac, Bone Sp, South
No Wells			Sec 25	
3002523444	PRE-ONGARD WELL No. 001	PRE-ONGARD WELL OPERATOR	O-30-18S-36E (660 FSL & 1830 FEL)	

Sections Two Miles

3002503136	REEVES 26 No. 003	PALADIN ENERGY CORP	O -26-18S-35E (660 FSL & 1980 FEL)	REEVES;WOLFCAMP, SOUTH
3002503139	PRE-ONGARD WELL No. 001	PRE-ONGARD WELL OPERATOR	J -26-18S-35E (1980 FSL & 1980 FEL)	
3002541886	PIXLEY BUX STATE No. 001H	YATES PETROLEUM CORPORATION	P -26-18S-35E (200 FSL & 660 FEL)	Vac Bone Spring-New Drill 5 ft increments
3002503150	SOUTH VACUUM UNIT No. 351	PALADIN ENERGY CORP	G -35-18S-35E (1980 FNL & 1980 FEL)	VAC Dev SWD PKR 11595 perf 11,643-11,680 open hole 11,846-12,036
3002503151	SOUTH VACUUM UNIT No. 352	PALADIN ENERGY CORP	I -35-18S-35E (1980 FSL & 660 FEL)	Vac Dev SWD 980 PKR 11,5980 perf 11,630-821
3002503152	SOUTH VACUUM UNIT No. 353	PALADIN ENERGY CORP	C -35-18S-35E (660 FNL & 1980 FWL)	S Vac Dev (perf 11,520-580;11600-670) and MvKee
3002530003	PRE-ONGARD WELL No. 001	PRE-ONGARD WELL OPERATOR	A -35-18S-35E (990 FNL & 330 FEL)	S Vac Penn Strawn Dry Hole
3002536789	SOUTH VACUUM UNIT No. 354	PALADIN ENERGY CORP	G -35-18S-35E (1750 FNL & 1610 FEL)	Wildcat McKee(Gas) and Perf Dev 11,566-576,11630-640,11650-60 Oil with Water Flood
3002541095	GATEWAY 2 STATE No. 001C	CAZA OPERATING, LLC	C -2-19S-35E (376 FNL & 1980 FWL)	Did Not Drill
3002541842	STATE 12 No. 001	MAVERICK OPERATING, LLC	F -12-19S-35E (2310 FNL & 1650 FWL)	Proposed Scharb, wolfcamp
3002528468	STATE NO No. 001	BASIC ENERGY SERVICES, LP	E -7-19S-36E (1980 FNL & 660 FWL)	2100, 4200, 9000-11,000 wildcat bone spring dry hole-Converted to Delaware SWD

Appendix IV

1. Yates C-102- JUNCTION BVJ STATE COM Well 2H API # 30-025-41742 located in UL P Section 36-Ts18S-R35E with 160 acres dedicated for UL A, H, I, & P targeting the Vacuum Bone Spring South, at approximately 9,560 feet deep.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

HOBBSOCD
DEC 11 2014
RECEIVED

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-42335	61900	Vacuum; Bone Spring, South

Property Code	Property Name	Well Number
40458	JUNCTION BVJ STATE COM	2H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORPORATION	3847

Surface Location

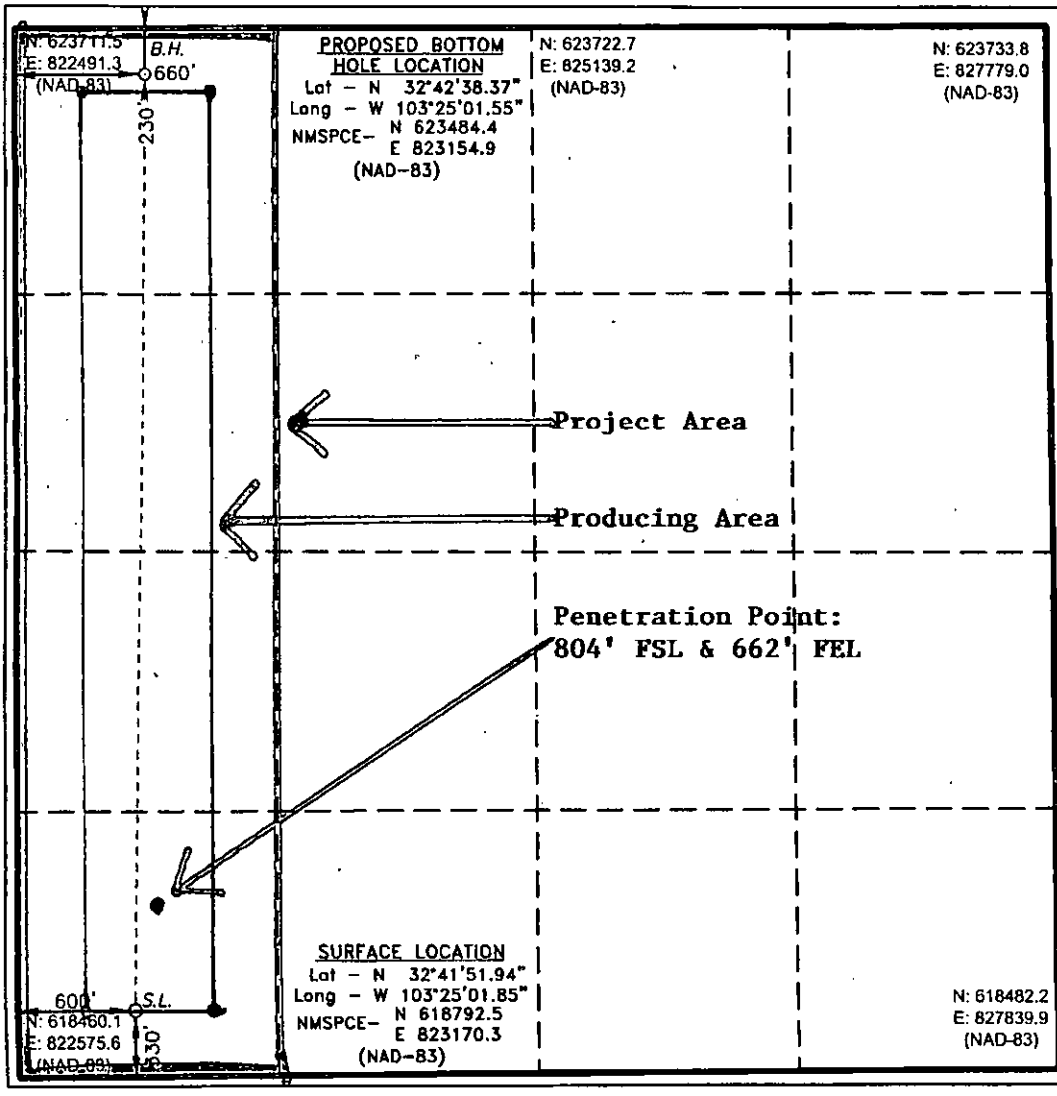
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	36	18 S	35 E		330	SOUTH	600	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	36	18 S	35 E		230	NORTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160.00			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Ysenia Navarrette 10/14
Signature Date

Ysenia Navarrette
Printed Name

ynavarrette@yatespetroleum.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

OCTOBER 06, 2014
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

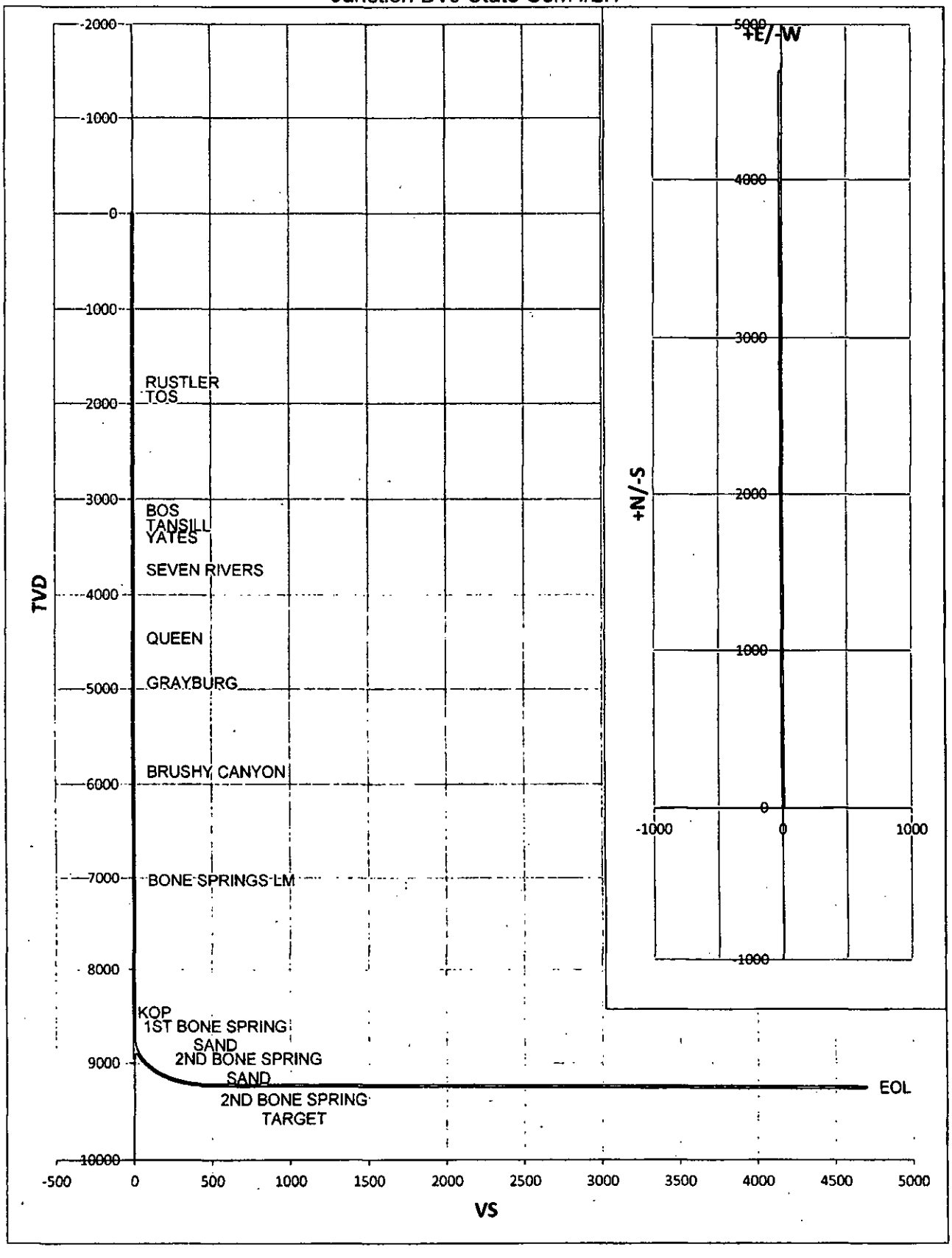
0' 500' 1000' 1500' 2000'
SCALE: 1" = 1000'
WO Num.: 30571

DEC 17 2014

Well Name: Junction BVJ State Com #2H		**Tgt N/-S:**	4691.90		
		Tgt E/-W:	-15.40	**EOC TVD/MD:**	9223.03 / 9492.53
Surface Location: Section 36 , Township 18S Range 35E		**VS:**	4691.93		
Bottom Hole Location: Section 36 , Township 18S Range 35E		**VS Az:**	359.81	**EOL TVD/MD:**	9250.00 / 13710.04

MD	Inc.	Azi.	TVD	+N/-S	+E/-W	VS	DLS	Comments
0	0	0	0	0	0	0	0	
1815.00	0.00	0.00	1815.00	0.00	0.00	0.00	0.00	RUSTLER
1920.00	0.00	0.00	1920.00	0.00	0.00	0.00	0.00	TOS
3115.00	0.00	0.00	3115.00	0.00	0.00	0.00	0.00	BOS
3270.00	0.00	0.00	3270.00	0.00	0.00	0.00	0.00	TANSILL
3315.00	0.00	0.00	3315.00	0.00	0.00	0.00	0.00	YATES
3735.00	0.00	0.00	3735.00	0.00	0.00	0.00	0.00	SEVEN RIVERS
4465.00	0.00	0.00	4465.00	0.00	0.00	0.00	0.00	QUEEN
4935.00	0.00	0.00	4935.00	0.00	0.00	0.00	0.00	GRAYBURG
5865.00	0.00	0.00	5865.00	0.00	0.00	0.00	0.00	BRUSHY CANYON
7020.00	0.00	0.00	7020.00	0.00	0.00	0.00	0.00	BONE SPRINGS LM
8745.58	0.00	0.00	8745.58	0.00	0.00	0.00	0.00	KOP
8750.00	0.53	359.81	8750.00	0.02	0.00	0.02	12.00	
8775.00	3.53	359.81	8774.98	0.91	0.00	0.91	12.00	
8775.02	3.53	359.81	8775.00	0.91	0.00	0.91	12.00	1ST BONE SPRING SAND
8800.00	6.53	359.81	8799.88	3.10	-0.01	3.10	12.00	
8825.00	9.53	359.81	8824.63	6.59	-0.02	6.59	12.00	
8850.00	12.53	359.81	8849.17	11.37	-0.04	11.37	12.00	
8875.00	15.53	359.81	8873.42	17.43	-0.06	17.43	12.00	
8900.00	18.53	359.81	8897.32	24.75	-0.08	24.75	12.00	
8925.00	21.53	359.81	8920.81	33.32	-0.11	33.32	12.00	
8950.00	24.53	359.81	8943.81	43.10	-0.14	43.10	12.00	
8975.00	27.53	359.81	8966.27	54.07	-0.18	54.07	12.00	
9000.00	30.53	359.81	8988.13	66.20	-0.22	66.20	12.00	
9025.00	33.53	359.81	9009.32	79.45	-0.26	79.45	12.00	
9050.00	36.53	359.81	9029.79	93.80	-0.31	93.80	12.00	
9075.00	39.53	359.81	9049.48	109.20	-0.36	109.20	12.00	
9100.00	42.53	359.81	9068.34	125.61	-0.41	125.61	12.00	
9123.13	45.30	359.81	9085.00	141.64	-0.46	141.64	12.00	2ND BONE SPRING SAND
9125.00	45.53	359.81	9086.31	142.99	-0.47	142.99	12.00	
9150.00	48.53	359.81	9103.35	161.28	-0.53	161.28	12.00	
9175.00	51.53	359.81	9119.40	180.43	-0.59	180.44	12.00	
9200.00	54.53	359.81	9134.44	200.41	-0.66	200.41	12.00	
9225.00	57.53	359.81	9148.41	221.14	-0.73	221.14	12.00	
9250.00	60.53	359.81	9161.27	242.57	-0.80	242.57	12.00	
9275.00	63.53	359.81	9172.99	264.65	-0.87	264.65	12.00	
9300.00	66.53	359.81	9183.54	287.31	-0.94	287.31	12.00	
9325.00	69.53	359.81	9192.90	310.49	-1.02	310.49	12.00	
9350.00	72.53	359.81	9201.02	334.13	-1.10	334.13	12.00	
9375.00	75.53	359.81	9207.90	358.16	-1.18	358.16	12.00	
9400.00	78.53	359.81	9213.51	382.52	-1.26	382.52	12.00	
9425.00	81.53	359.81	9217.84	407.14	-1.34	407.14	12.00	
9450.00	84.53	359.81	9220.87	431.95	-1.42	431.96	12.00	
9475.00	87.53	359.81	9222.60	456.89	-1.50	456.89	12.00	
9492.53	89.63	359.81	9223.03	474.41	-1.56	474.41	12.00	2ND BONE SPRING TARGET
13710.04	89.63	359.81	9250.00	4691.90	-15.40	4691.93	0.00	EOL

Junction BVJ State Com #2H



Appendix V

1. Formation Water Results

HOLLAND&HART LLP

Michael H. Feldewert
Recognized Specialist in the Area of Natural Resources - oil and gas law - New Mexico Board of Legal Specialization
mfeldewert@hollandhart.com

April 17, 2015

VIA HAND DELIVERY

David R. Catanach, Director
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Dept.
1220 South St. Francis Drive
Santa Fe, NM 87504

Re: SWD-1444: Paladin Energy Corporation – South Vacuum Unit Well No. 274
Notice of intent to utilize well for commercial disposal operations

Dear Mr. Catanach:

SWD-144 (dated October 8, 2013) authorizes Paladin Energy Corporation to utilize its South Vacuum Unit Well No. 274 (API 30-025-37122), located 960 FSL and 693 FEL (Unit P) of Section 27, T-18-S, R-35-E in Lea County, for disposal of "oil field produced water (UIC Class II only) into the Mississippian formations (including the Chester formation) and Devonian formation through perforations from approximately 10858 feet to 12400 feet." This well is currently injecting produced water from the McKee, Devonian, and Silurian formations as a result of Paladin's offsetting development operations.

Paladin hereby notifies the Division that it intends to utilized this well for commercial disposal operations and anticipates disposal of water from the Bone Spring, Wolfcamp and Yeso formations. Accordingly, enclosed please find an analysis of the formation waters for the Devonian, Wolfcamp, Bone Spring and Yeso formations. A copy of this notice has been provided to the New Mexico State Land Office as the surface owner, as well as the Division's district office..

Thank you for your attention to this matter

Sincerely,

Michael H. Feldewert

cc: Will Jones, New Mexico Oil Conservation Division
Terry Warnell, New Mexico State Land Office
Maxey G. Brown, New Mexico Oil Conservation Division, Hobbs District Office

Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Paladin Energy	Sample #:	27313
Area:	Permian Basin	Analysis ID #:	25870
Lease:	South Vacuum		
Location:	26-1 (Wolfcamp) 0		
Sample Point:	Wellhead		

Sampling Date:	4/6/2015
Analysis Date:	4/10/2015
Analyst:	Catalyst
TDS (mg/l or g/m3):	154323.6
Density (g/cm3):	1.106
Hydrogen Sulfide:	17
Carbon Dioxide:	140
Comments:	

Anions	mg/l	meq/l
Chloride:	93271.1	2630.84
Bicarbonate:	146.0	2.39
Carbonate:		
Sulfate:	700.0	14.57
Borate*:	189.0	1.19

***Calculated based on measured elemental boron.**

Cations	mg/l	meq/l
Sodium:	52410.0	2279.71
Magnesium:	988.5	81.32
Calcium:	4959.0	247.46
Potassium:	1475.0	37.72
Strontium:	185.0	4.22
Barium:	0.0	0.
Iron:	0.0	0.
Manganese:	0.000	0.

pH at time of sampling:	6.87
pH at time of analysis:	
pH used in Calculation:	**6.87**
Temperature @ lab conditions (F):	**75**
Conductivity (micro-ohms/cm):	**182300**
Resistivity (ohm meter):	**.0549**

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.44	6.03	-0.49	0.00	-0.49	0.00	-0.20	0.00	0.00	0.00
100	0.50	7.54	-0.56	0.00	-0.49	0.00	-0.23	0.00	0.00	0.00
120	0.55	9.05	-0.61	0.00	-0.46	0.00	-0.24	0.00	0.00	0.00
140	0.60	10.86	-0.66	0.00	-0.42	0.00	-0.24	0.00	0.00	0.00
160	0.66	12.67	-0.69	0.00	-0.35	0.00	-0.24	0.00	0.00	0.00
180	0.71	14.78	-0.72	0.00	-0.27	0.00	-0.23	0.00	0.00	0.00
200	0.77	16.89	-0.75	0.00	-0.17	0.00	-0.21	0.00	0.00	0.00
220	0.83	19.00	-0.77	0.00	-0.06	0.00	-0.19	0.00	0.00	0.00

Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Paladin Energy	Sample #:	27312
Area:	Permian Basin	Analysis ID #:	25890
Lease:	South Vacuum		
Location:	35-4 (Devonian) 0		
Sample Point:	Wellhead		

Sampling Date:	4/6/2015
Analysis Date:	4/10/2015
Analyst:	Catalyst
TDS (mg/l or g/m3):	44701.1
Density (g/cm3):	1.032
Hydrogen Sulfide:	306
Carbon Dioxide:	80
Comments:	

Anions	mg/l	meq/l
Chloride:	26148.7	737.56
Bicarbonate:	366.0	6.
Carbonate:		
Sulfate:	1020.0	21.24
Borate*:	62.4	0.39

***Calculated based on measured elemental boron.**

Cations	mg/l	meq/l
Sodium:	13960.0	607.23
Magnesium:	365.4	30.06
Calcium:	2363.0	117.91
Potassium:	350.1	8.95
Strontium:	65.5	1.5
Barium:	0.0	0.
Iron:	0.0	0.
Manganese:	0.000	0.

pH at time of sampling:	6.92
pH at time of analysis:	
pH used in Calculation:	**6.92**
Temperature @ lab conditions (F):	**75**
Conductivity (micro-ohms/cm):	**66700**
Resistivity (ohm meter):	**.1499**

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.58	27.83	-0.35	0.00	-0.40	0.00	-0.11	0.00	0.00	0.00
100	0.68	33.20	-0.38	0.00	-0.36	0.00	-0.11	0.00	0.00	0.00
120	0.78	39.23	-0.39	0.00	-0.30	0.00	-0.10	0.00	0.00	0.00
140	0.89	45.27	-0.40	0.00	-0.21	0.00	-0.08	0.00	0.00	0.00
160	0.99	51.30	-0.40	0.00	-0.11	0.00	-0.06	0.00	0.00	0.00
180	1.10	57.01	-0.40	0.00	0.01	5.70	-0.03	0.00	0.00	0.00
200	1.20	62.71	-0.39	0.00	0.14	121.05	0.00	0.34	0.00	0.00
220	1.31	68.07	-0.37	0.00	0.28	216.28	0.04	4.02	0.00	0.00

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Gardendale, TX 79758
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Fax: (432) 224-1038

CATALYST
Oilfield Services

Water Analysis Report

Customer:	Paladin Energy	Sample #:	27314
Area:	Permian Basin	Analysis ID #:	25891
Lease:	Dopplebock		
Location:	8 St Com 1H (Bone Springs) 0		
Sample Point:	Wellhead		

Sampling Date:	3/7/2015
Analysis Date:	4/10/2015
Analyst:	Catalyst
TDS (mg/l or g/m3):	230045.9
Density (g/cm3):	1.159
Hydrogen Sulfide:	17
Carbon Dioxide:	310
Comments:	

Anions	mg/l	meq/l
Chloride:	**141262.3**	**3984.49**
Bicarbonate:	**122.0**	**2.**
Carbonate:		
Sulfate:	**240.0**	**5.**
Borate*:	**283.1**	**1.79**

***Calculated based on measured elemental boron.**

pH at time of sampling:	6.13
pH at time of analysis:	
pH used in Calculation:	**6.13**
Temperature @ lab conditions (F):	**75**

Cations	mg/l	meq/l
Sodium:	**66600.0**	**2896.94**
Magnesium:	**3325.0**	**273.53**
Calcium:	**14840.0**	**740.52**
Potassium:	**2696.0**	**68.95**
Strontium:	**675.8**	**15.43**
Barium:	**0.0**	**0.**
Iron:	**1.6**	**0.06**
Manganese:	**0.147**	**0.01**

Conductivity (micro-ohms/cm):	**230000**
Resistivity (ohm meter):	**.0435**

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.12	2.25	-0.58	0.00	-0.55	0.00	-0.31	0.00	0.00	0.00
100	0.20	3.65	-0.66	0.00	-0.55	0.00	-0.34	0.00	0.00	0.00
120	0.28	5.34	-0.72	0.00	-0.54	0.00	-0.34	0.00	0.00	0.00
140	0.36	6.74	-0.77	0.00	-0.50	0.00	-0.34	0.00	0.00	0.00
160	0.45	8.43	-0.81	0.00	-0.44	0.00	-0.33	0.00	0.00	0.00
180	0.54	10.39	-0.85	0.00	-0.36	0.00	-0.32	0.00	0.00	0.00
200	0.64	12.36	-0.88	0.00	-0.27	0.00	-0.30	0.00	0.00	0.00
220	0.74	14.33	-0.90	0.00	-0.17	0.00	-0.27	0.00	0.00	0.00

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Water Analysis Report

Customer:	Paladin Energy	Sample #:	27315
Area:	Permian Basin	Analysis ID #:	25892
Lease:	Bae		
Location:	14 Fed Com 7H (Yeso) 0		
Sample Point:	Wellhead		

Sampling Date:	3/7/2015
Analysis Date:	4/10/2015
Analyst:	Catalyst
TDS (mg/l or g/m3):	318408.1
Density (g/cm3):	1.219
Hydrogen Sulfide:	17
Carbon Dioxide:	1100
Comments:	

Anions	mg/l	meq/l
Chloride:	195252.1	5507.35
Bicarbonate:	195.0	3.2
Carbonate:		
Sulfate:	340.0	7.08
Borate*:	492.7	3.11

***Calculated based on measured elemental boron.**

pH at time of sampling:	6.45
pH at time of analysis:	
pH used in Calculation:	**6.45**
Temperature @ lab conditions (F):	**75**

Cations	mg/l	meq/l
Sodium:	96940.0	4216.65
Magnesium:	3267.0	268.76
Calcium:	19710.0	983.53
Potassium:	1792.0	45.83
Strontium:	419.3	9.57
Barium:	0.0	0.
Iron:	0.0	0.
Manganese:	0.000	0.

Conductivity (micro-ohms/cm):	**242000**
Resistivity (ohm meter):	**.0413**

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.93	17.35	-0.28	0.00	-0.20	0.00	-0.51	0.00	0.00	0.00
100	0.98	18.90	-0.38	0.00	-0.23	0.00	-0.54	0.00	0.00	0.00
120	1.03	20.20	-0.46	0.00	-0.24	0.00	-0.55	0.00	0.00	0.00
140	1.08	22.01	-0.53	0.00	-0.22	0.00	-0.55	0.00	0.00	0.00
160	1.12	23.56	-0.60	0.00	-0.18	0.00	-0.54	0.00	0.00	0.00
180	1.17	25.64	-0.65	0.00	-0.12	0.00	-0.53	0.00	0.00	0.00
200	1.21	27.45	-0.70	0.00	-0.05	0.00	-0.51	0.00	0.00	0.00
220	1.26	29.52	-0.75	0.00	0.03	9.06	-0.48	0.00	0.00	0.00

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Water Analysis Report

Customer:	Paladin Energy	Sample #:	27316
Area:	Permian Basin	Analysis ID #:	25893
Lease:	Caswell		
Location:	23 Fed 3H (Yeso) 0		
Sample Point:	Wellhead		

Sampling Date:	3/7/2015
Analysis Date:	4/10/2015
Analyst:	Catalyst
TDS (mg/l or g/m3):	253462
Density (g/cm3):	1.174
Hydrogen Sulfide:	17
Carbon Dioxide:	270
Comments:	

Anions	mg/l	meq/l
Chloride:	**154128.9**	**4347.42**
Bicarbonate:	**317.0**	**5.2**
Carbonate:		
Sulfate:	**720.0**	**14.99**
Borate*:	**281.7**	**1.78**

***Calculated based on measured elemental boron.**

pH at time of sampling:	6.85
pH at time of analysis:	
pH used in Calculation:	**6.85**
Temperature @ lab conditions (F):	**75**

Cations	mg/l	meq/l
Sodium:	**85150.0**	**3703.82**
Magnesium:	**1856.0**	**152.68**
Calcium:	**9625.0**	**480.29**
Potassium:	**1156.0**	**29.56**
Strontium:	**227.4**	**5.19**
Barium:	**0.0**	**0.**
Iron:	**0.0**	**0.**
Manganese:	**0.000**	**0.**

Conductivity (micro-ohms/cm):	**227000**
Resistivity (ohm meter):	**.0441**

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	1.18	33.53	-0.24	0.00	-0.19	0.00	-0.31	0.00	0.00	0.00
100	1.20	36.00	-0.33	0.00	-0.21	0.00	-0.34	0.00	0.00	0.00
120	1.22	38.48	-0.41	0.00	-0.21	0.00	-0.36	0.00	0.00	0.00
140	1.23	40.95	-0.48	0.00	-0.19	0.00	-0.36	0.00	0.00	0.00
160	1.24	43.97	-0.53	0.00	-0.14	0.00	-0.36	0.00	0.00	0.00
180	1.26	47.00	-0.58	0.00	-0.08	0.00	-0.35	0.00	0.00	0.00
200	1.29	50.02	-0.63	0.00	-0.01	0.00	-0.34	0.00	0.00	0.00
220	1.33	53.04	-0.67	0.00	0.08	49.47	-0.33	0.00	0.00	0.00

ORD OF DRILL-STEM AND SPECIAL TE

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 12,418' feet, and from ..... feet to ..... feet.

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

PRODUCTION

Put to Producing ....., 19.....

OIL WELL: The production during the first 24 hours was ..... barrels of liquid of which ..... % was was oil; ..... % was emulsion; ..... % water; and ..... % was sediment. A.P.I. Gravity .....

GAS WELL: The production during the first 24 hours was ..... M.C.F. plus ..... barrels of liquid Hydrocarbon. Shut in Pressure ..... lbs.

Length of Time Shut in .....

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico				Northwestern New Mexico	
T. Anhy	1800 (+2016)	T. Devonian	12,340 (-9524)	T. Ojo Alamo	
T. Salt		T. Silurian		T. Kirtland-Fruitland	
B. Salt	3102 (+714)	T. Montoya		T. Farmington	
T. Yates	3316 (+530)	T. Simpson		T. Pictured Cliffs	
T. 7 Rivers		T. McKee		T. Menefee	
T. Queen	4093 (-563)	T. Ellenburger		T. Point Lookout	
T. Grayburg		T. Gr. Wash		T. Mancos	
T. San Andres	5050 (-1294)	T. Granite		T. Dakota	
T. Glorieta		T.		T. Morrison	
T. Drinkard		T.		T. Penn	
T. Tubbs		T.		T.	
T. Abo	8972 (-5126)	T.		T.	
T. Penn	10,907 (-7056)	T.		T.	
T. Miss	11,520 (-7674)	T.		T.	

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	252	252	Surface Sands & Caliche				
252	1800	1548	Red Beds				
1800	3102	1302	Salt and Anhydrite				
3102	6300	3198	Limestone, Dolomite and Shale				
6300	7150	850	Sand, Dolomite and Shale				
7150	12,140	4890	Limestone, Dolomite and Chert				
12,140	12,340	200	Shale				
12,340	12,380	40	Limestone				
12,380	12,418	38	Dolomite				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

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.

December 4, 1952 (Date)

Company or Operator Shell Oil Company Address P. O. Box 1957, Hobbs, New Mexico

Name J. D. Savage J. D. Savage Position or Title Division Exploitation Engineer

Appendix VI

1. Drill Stem Test Documentation

Attachment Form C-105

State RA-1
Reeves Area Wildcat

DST #1: 3797 - 4000' (203' Seven Rivers Dolo.). Tool open 30 minutes thru 5/8" BC and 1" TC on 4 1/2" DS. Immediate weak air blow dying in 8 mins. Rec. 10' mud with no shows. FBHP 0, 15 min. SIBHP 0. HMH 2250. Positive Test.

DST #2: 6629 - 6680' (51' Perm. Dolo.). Tool open 2 1/4 hours thru 5/8" BC and 1" TC on 3 1/2" DS. No gas or fluid to surface. Rec. 280' (2.1 bbls.) sli O&GCM, 140' (1 bbl.) sli GCM with trace saltwater. FBHP 0 - 110 psi, 30 min. SIBHP 1040 psi. HMH 3130 psi. Positive Test.

DST #3: 6902 - 6935' (33' Perm. Dolo.). Tool open 2 hours thru 5/8" BC and 1" TC on 3 1/2" DS. Rec. 180' (.9 bbl.) mud with no shows and 60' (.3 bbl.) sli GCM. HMH 3240 psi, FBHP 15 - 30 psi. SIBHP 3240 psi. Positive Test.

DST #4: 8820 - 8889' (69' Permian Lime). Tool open 30 mins. thru 5/8" BC and 1" TC on 3 1/2" DS. Weak blow immediately dying in 3 mins. Recovered 10' (0.05 bbls.) drlg. mud with no shows. HMH 4200 psi, FBHP 0, 15 min. SIBHP 0. Positive Test.

DST #5: 8972 - 8989' (17' Permian Sand). Tool open 8 mins. thru 5/8" BC and 1" TC on 3 1/2" DS. Very weak blow dying in 1 min. Rec. 10' (0.05 bbls.) drlg. mud with no shows. DST mud filtrate titrated 1400 ppm cl^-. Pit mud titrated 1000 ppm cl^-. FBHP 0, 15 min. SIBHP 0, HMH 4200 psi. Positive Test.

DST #6: 9035 - 9080' (45' Permian). Tool open 1 hour thru 5/8" BC and 1" TC on 3 1/2" DS. Moderate blow throughout test. No gas to surface. Rec. 60' (0.3 bbls.) sli O&GCM. No water. Mud titrated 800 ppm cl^-. Pit mud titrated 800 ppm cl^-. FBHP 60 - 60 psi, 15 min. SIBHP 350 psi, HMH 4185 psi. Positive Test.

DST #7: 9080 - 9300' (220' Permian Sandy Siltstone and Dolomite). Tool open 30 mins. thru 5/8" BC and 1" TC on 3 1/2" DS. Immediate weak air blow died in 20 mins. Closed and reopened tool and had immediate weak air blow which died in 10 mins. Took 15 min. SIBHP. Rec. 30' (.5 bbl.) drlg. fluid with no shows. FBHP 30 - 60 psi, 15 min. SIBHP 60 psi, HMH 4100 psi. Positive Test.

DST #8: 10,240 - 10,278' (38' Permian Dolomite). Tool open 55 mins. thru 5/8" BC and 1" TC on 3 1/2" DS. Immediate very weak air blow dying in less than 1 min. Closed and reopened tool three times with few air bubbles resulting each time. Rec. 110' (0.55 bbls.) drlg. fluid with no shows. FBHP 0, 30 min. SIBHP 0, HMH 4700 psi. Positive Test.

DST #9: 10,270 - 10,278' (108' Lower Permian Sand). Tool open 30 mins. thru 5/8" BC and 1" TC on 3 1/2" DS. Immediate weak air blow dying in 7 mins. After 10 mins. closed and reopened tool and had very weak blow for 1 min. Rec. 140' (0.7 bbl.) drlg. mud with no shows. FBHP 0, 30 min. SIBHP 45 psi, HMH 4790 psi. Positive Test.

DST #10: 10,600 - 10,690' (90' Wolfcamp Lime and Chert). Tool open 2 hours thru 5/8" BC and 1" TC on 3 1/2" DS. Immediate strong blow diminishing to weak in 2 hours. Gas to surface in 24 mins. Rec. 60' (0.45 bbls.) O&GCM and 440' (3.26 bbls.) very heavily O&GCM (est. 40% oil). FBHP 150 - 212 psi, 30 min. SIBHP 495 psi, HMH 4780 psi. Positive Test.

DST #11: 10,775 - 10,929' (154' Lower Wolfcamp and Upper Penn.). Tool open 1 hour thru 5/8" BC and 1" TC on 3 1/2" DS. Immediate weak air blow increasing to fair in 5 mins. Began decreasing and died after total of 10 mins. Took 30 min. shut in. Rec. 40' (0.2 bbls.) very sli O&GCM (filtrate titrated 1136 ppm cl^-, pit mud filtrate 1000 ppm cl^-.). FBHP 0 - 30 psi, 30 min. SIBHP 113 psi, HMH 4962 - 4908 psi. Positive Test.

DST #12: 12,387 - 12,418' (31' Devonian Dolo.). Tool open 3 hours thru 5/8" BC and 1" TC on 3 1/2" DS. Ran 1230' water blanket. Pressure charts indicated tool plugged first 45 mins. of test. After 1 hour had moderately good air blow lasting throughout test. Recovered WB + 460' (3.4 bbls.) gas and salt water cut mud and 4460' (32 bbls.) gas cut salt water. FBHP 875 - 2690 psi, 30 min. SIBHP 4687 psi, HMH 5900 psi. Positive Test.

DST #13: 6282 - 6439' (157' Permian Sand). Tool open 2 hours, 34 mins. thru 5/8" BC and 1" TC on 3 1/2DS. Immediate moderate air blow lasting throughout test. Rec. 230' (1.7 bbls.) drlg. mud + 4600' (34.1 bbls.) mud and air cut salt water with no hydrocarbon shows. FBHP 230 - 2180 psi, 30 min. SIBHP 2410 psi, HMH 2870 psi. Salt water titrated 83,500 ppm cl^-. Positive Test.

PLUGGING RECORD - Poured cement plugs from 12,418 to 12,266', 6700 to 6239', 4600 - 4435', 50 to 0' (Surface). Set 4" marker 6' above ground in 8 5/8" casing. WELL PLUGGED AND ABANDONED 11-25-52.

Appendix VII

1. One-mile review of all water wells recorded by the New Mexico Office of the State Engineer (OSE).
2. Red-Bed surface contour map for reference.

Groundwater and Surface Water:

Shallow fresh water in the area is primarily derived from the unconfined Ogallala Formation, which is underlain by Triassic Red-Bed clay that acts as a confining layer.

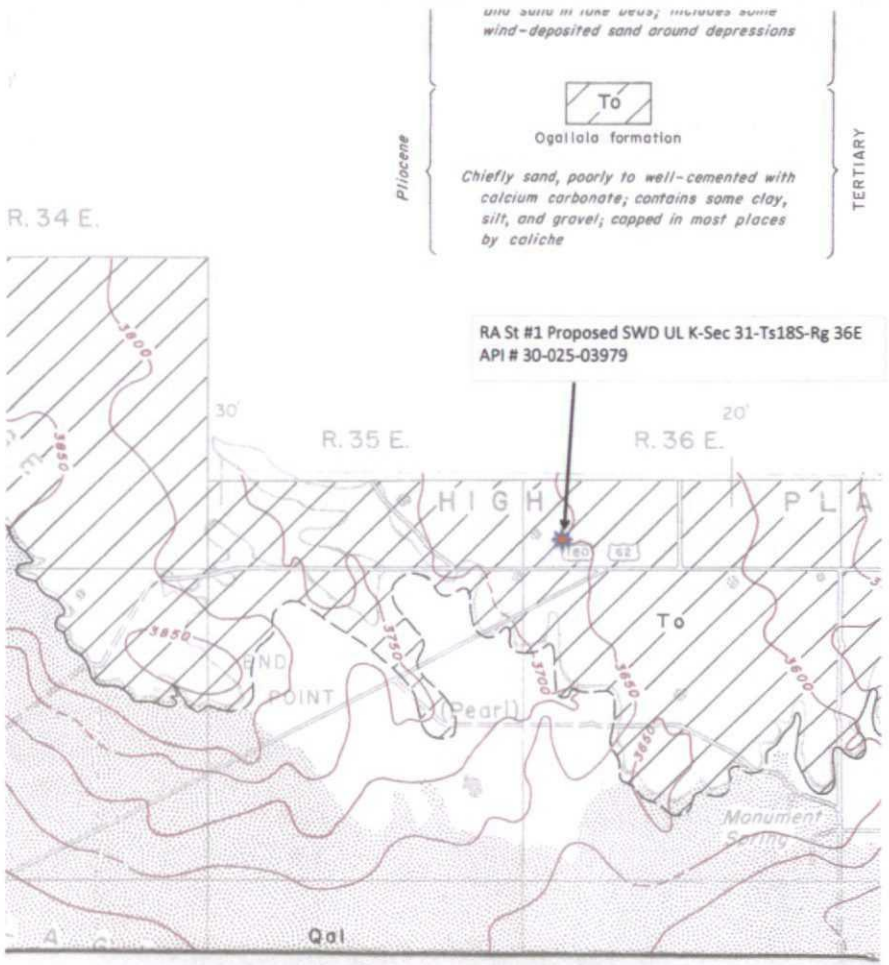
The elevation of the site is 3,838.58 feet above mean sea level and the surface of the underlying red-bed clay is approximately at 3650 feet above mean sea level.

The groundwater depth in this area, below ground level, varies from 40-60ft, thus providing a saturated water zone thickness of approximately 138.58 ft.

The current well bore configuration indicates there is 352 feet of 13 3/8" casing installed, cemented to the surface, providing the required fresh water protection for this well.

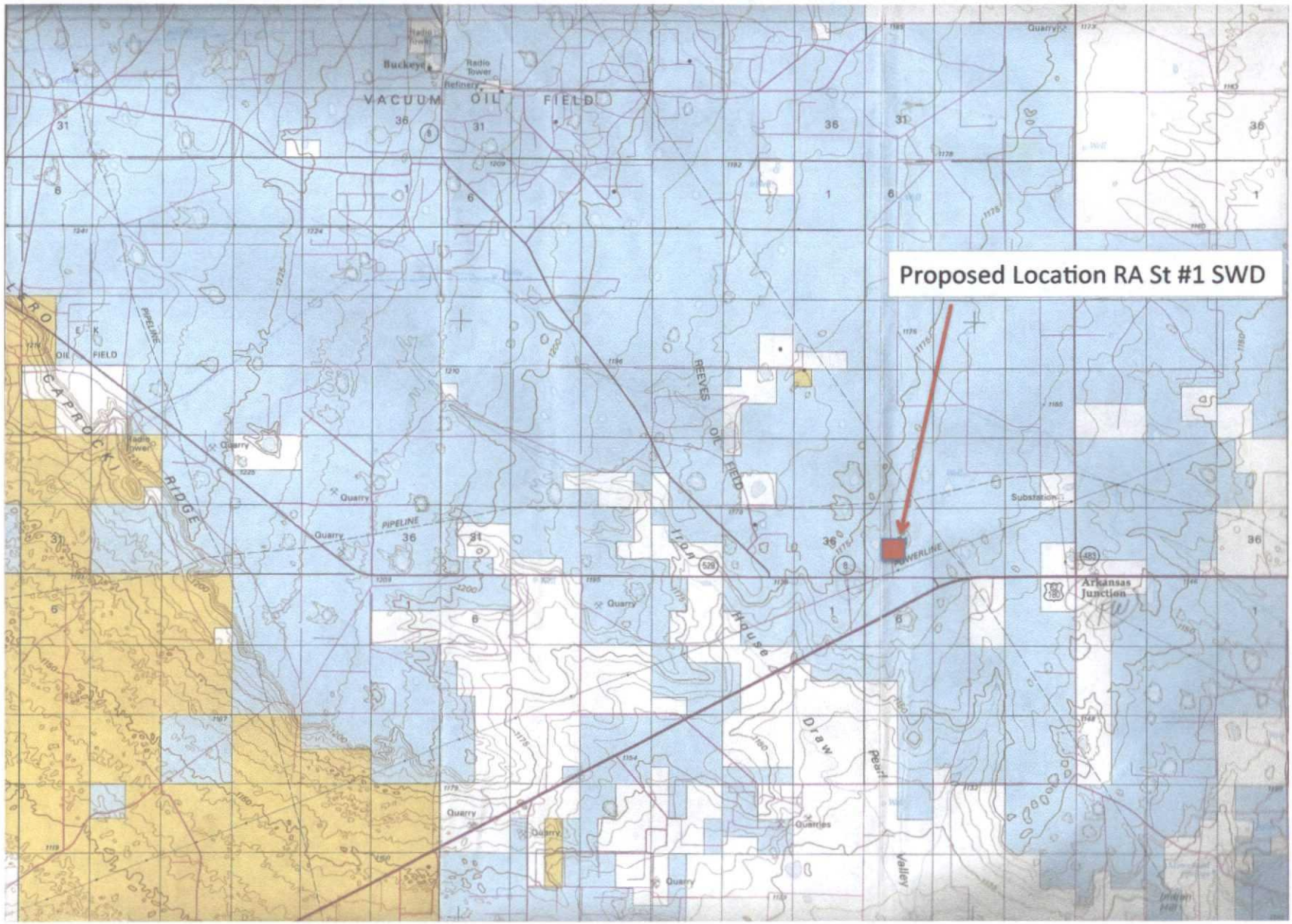
A one-mile review of all water wells recorded by the New Mexico Office of the State Engineer are included for reference, noting that Section 31 (site location) currently has no recorded water wells. Also included is a Red-Bed surface contour map for reference.

The site is not located within a flood plain or proximity to a watercourse. See the excerpt from the BLM USGS (Hobbs NM) Topographic map showing surface features and elevation contours.



Contours of the Red-Bed Surface (Excert from Nicholson-Clebch-Ash 1953) Geologic Map of Southern Lea County-Intervals @ 50 ft

RA State Surface Elevation 3838.58 feet ABMSL
RA State Red-Bed Surface = Approximately 3650.00 feet.


Proposed Location RA St #1 SWD
VACUUM OIL FIELD
Buckeye
Radio Tower
Refinery
Quarry
PIPELINE
REEVES OIL FIELD
POWERLINE
Substation
Arkansas Junction
House Draw
Pearl
Valley
Quarries

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 02359		L	LE	3	3	1	01	19S	35E	648277	3618071*	60	28	32
L 03945		L	LE	3	2	2	01	19S	35E	649481	3618479*	125	70	55
L 05434		L	LE	3	2	2	01	19S	35E	649481	3618479*	150	70	80
L 05434 S		L	LE	4	1	2	01	19S	35E	649277	3618477*	125	70	55

Average Depth to Water: **59 feet**

Minimum Depth: **28 feet**

Maximum Depth: **70 feet**

Record Count: 4

PLSS Search:

Section(s): 1 **Township:** 19S **Range:** 35E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 06050	L		LE	1	1		05	19S	36E	651568	3618624*	100	65	35
L 06853	L		LE			2	05	19S	36E	652581	3618449*	110	70	40
L 06938	L		LE	4	1	1	05	19S	36E	651667	3618523*	100	40	60
L 07431 POD4	L		LE			2	05	19S	36E	652776	3618647*	150	70	80
L 12392 POD1	L		LE	1	2	2	05	19S	36E	652700	3618644	79	62	17
L 12393 POD1	L		LE	1	2	2	05	19S	36E	652725	3618713	80	65	15
L 12394 POD1	L		LE	3	2	2	05	19S	36E	652731	3618593	79	60	19
L 12395 POD1	L		LE	3	2	2	05	19S	36E	652731	3618593	80	66	14
L 12396 POD1	L		LE	2	1	2	05	19S	36E	652567	3618797	79	63	16
L 12397 POD1	L		LE	3	2	4	05	19S	36E	652602	3617834	79	62	17
L 12398 POD1	L		LE	3	2	4	05	19S	36E	652604	3617680	77	61	16
L 12399 POD1	L		LE	4	1	4	05	19S	36E	652508	3617715	77	61	16
L 12400 POD1	L		LE	1	2	2	05	19S	36E	652671	3618668	171	62	109
L 12401 POD1	L		LE	4	1	4	05	19S	36E	652584	3617752	149	63	86
L 12417 POD1	L		LE	1	3	2	05	19S	36E	652244	3618329	71	54	17

Average Depth to Water: **61 feet**

Minimum Depth: **40 feet**

Maximum Depth: **70 feet**

Record Count: 15

PLSS Search:

Section(s): 5 **Township:** 19S **Range:** 36E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 02889	L		LE		4	4	06	19S	36E	651183	3617419*	110	65	45
L 07154	L		LE	1	3	2	06	19S	36E	650669	3618309*	130	59	71

Average Depth to Water: **62 feet**

Minimum Depth: **59 feet**

Maximum Depth: **65 feet**

Record Count: 2

PLSS Search:

Section(s): 6 **Township:** 19S **Range:** 36E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 11511		L	LE	2	4	4	25	18S	35E	649646	3620696*	102	62	40

Average Depth to Water: **62 feet**

Minimum Depth: **62 feet**

Maximum Depth: **62 feet**

Record Count: 1

PLSS Search:

Section(s): 25 **Township:** 18S **Range:** 35E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 29 **Township:** 18S **Range:** 36E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 05200 X-5	L		LE				30	18S	36E	650554	3621204*	195	55	140
L 06641	L		LE	4	2	1	30	18S	36E	650410	3621720*	110	42	68

Average Depth to Water: **48 feet**

Minimum Depth: **42 feet**

Maximum Depth: **55 feet**

Record Count: 2

PLSS Search:

Section(s): 30 **Township:** 18S **Range:** 36E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 31 **Township:** 18S **Range:** 36E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 32 **Township:** 18S **Range:** 36E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 36 **Township:** 18S **Range:** 35E

Appendix VIII

1. RA State #1 Electric Log

REPRODUCED BY

West Texas Electrical Log Service

1305 COMMERCE STREET
DALLAS 1, TEXAS

REFERENCE Nº A 2150 -B

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

GAMMA RAY - NEUTRON

COMPANY SHELL OIL CO.

WELL STATE KA # 1

FIELD WILDCAT

LOCATION SEC.31-18S-36E

COUNTY LEA

STATE NEW MEXICO

Location of Well
1980' F SL
1980' F WL
Sec.31-18S-36E

Elevation: D.F. 3845
K.B.
or G.L.

FILING No.

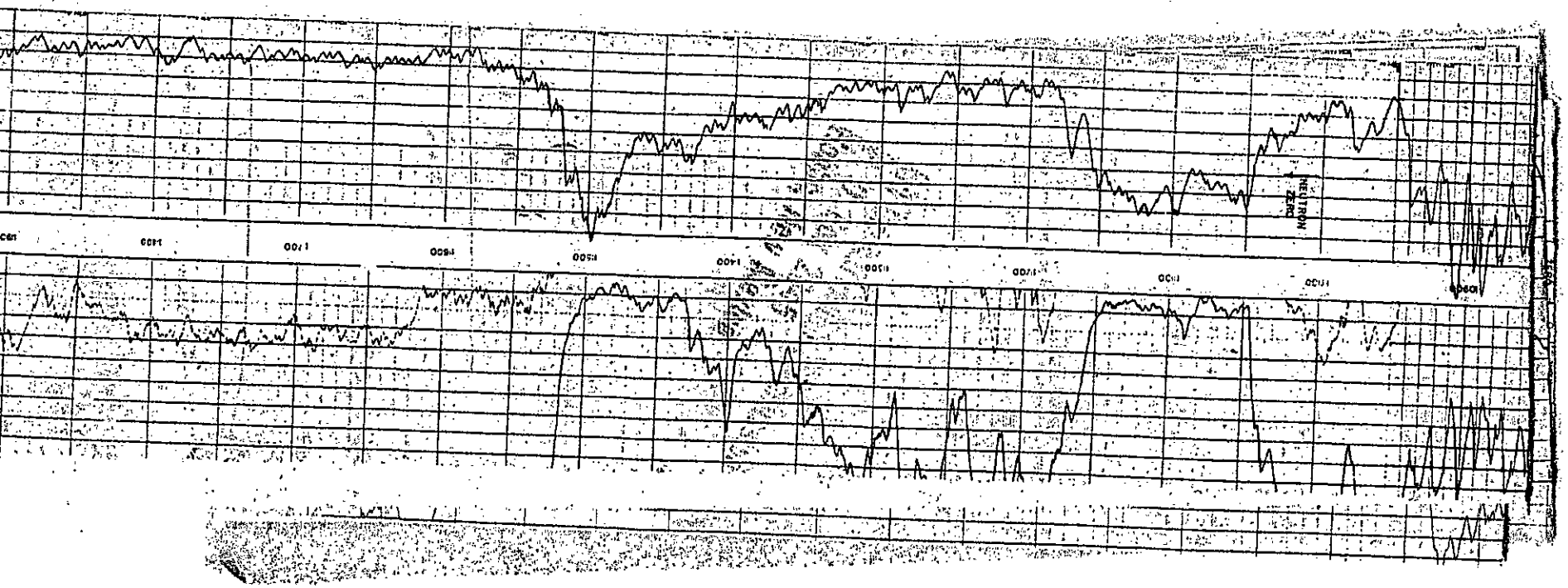
COUNTY Lea
FIELD or LOCATION Wildcat
WELL State KA # 1
COMPANY Shell Oil Co.

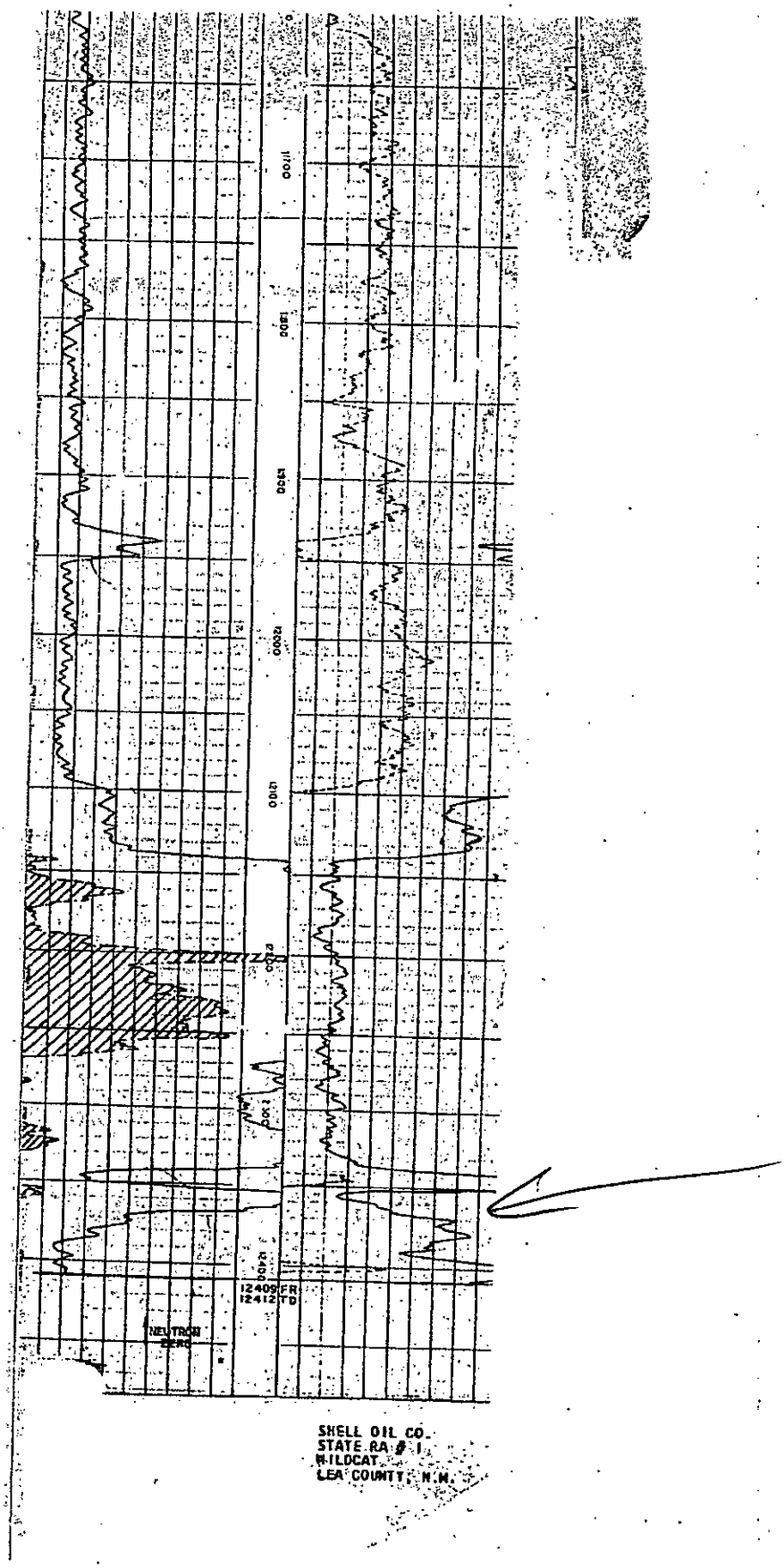
RUN No.	1	2	
Date	9-26-52	11-11-52	
First Reading	10948	12409	
Last Reading	0	100	
Feet Measured	10948	12309	
Csg. Schlum.	4600		
Csg. Driller	4600		
Depth Reached	10951	12412	
Bottom Driller	10945	12418	
Depth Datum	KB 12.4 Abv. GL		
Mud Not.	Hy-Lo-Gel		
" Density	9.0	9.2	
" Viscosity	48	50	
" Resist.	1.94@68 °F	1.92@65 °F	
" Res. RHT	.82@158°F	.78@165F	
" pH	@ °F	@ °F	
" Wtr. Loss	12 CC 30 min.	15 CC 30 min.	
Max. Temp. °F	158	165	
Bit Size	7 7/8" open hole 4600-TD 8 5/8" Casing in 12¼" hole to 2878 8 5/8" Casing in 11" hole to 4600		
Opr. Rig Time	8 Hrs.	6 Hrs.	
Truck No.	V-1-Hobbs-V-1		
Recorded By	Scott	Scott	
Witness By	Hines	Rowley	

REMARKS CORRECTED COPY: Run 1 rerun on run 2.
NEUTRON LOG:
TC=2
Cal-S-44-240-10(200)
Sens 280 Speed 4000 Depth Csg.-0
Sens 200 Speed 4000 Depth Csg.-TD

GAMMA RAY		NEUTRON
0 Radioactivity → Increases		

NEUTRON


NEUTRON
ZERO


12405 FR
12412 TD
NEUTRON
SHELL OIL CO.
STATE RA # 1
WILDCAT
LEA COUNTY, N.M.

Appendix IX

1. Fresh Water analysis for Ranch Well and Key 529 Water Station.


RA St #1 API # 30-025-03979
UL K-Sec 31-Ts18S-R35E
Solar Fresh Water Well
UL A -Sec 1-Ts19s-R35E
529
180
W Carlsbad Hwy
© 2012 Google
©2010 Google


Ranch Stock Tank
RA State #1
West Well
East Well
62
529
W Carlsbad Hwy
© 2015 Google
©2009 Goog
ery Date: Feb 14, 2014
32°41'53.98" N 103°23'44.69" W elev 3842 ft
Eye alt 16172 ft

From: wayne <waprice23@hotmail.com>
Subject: **STOCK TANK**
Date: July 10, 2015 9:04:17 PM MDT
To: wayne price <wayneprice77@earthlink.net>

RANCH STOCK TANK NW of RA STATE ≈ ½ mi

43 ppm cl

GPS
N32, 42.300'
W103, 24.118'

32 42. 1800

103 24. 7.08

HACH FIELD TEST Kit
LOW CL TAB

JP

CARDINAL Laboratories

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

March 12, 2012

WAYNE PRICE

PRICE LLC

312 ENCANTADO RIDGE COURT, NE

RIO RANCHO, NM 87124

RE: SOLAR WELL

Enclosed are the results of analyses for samples received by the laboratory on 02/23/12 14:50. .

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list on accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SOLAR WELL	H200480-01	Water	23-Feb-12 14:07	23-Feb-12 14:50

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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

SOLAR WELL

H200480-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**220**	5.00	mg/L	1	2021403	HM	29-Feb-12	310.1M	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2021403	HM	29-Feb-12	310.1M	
Chloride	**288**	4.00	mg/L	1	2022410	AP	28-Feb-12	4500-Cl-B	
Conductivity	**1350**	1.00	uS/cm	1	2022405	HM	24-Feb-12	120.1	
pH	**7.62**	0.100	pH Units	1	2022918	HM	24-Feb-12	150.1	
Sulfate	**42.8**	10.0	mg/L	1	2022810	HM	28-Feb-12	375.4	
TDS	**746**	5.00	mg/L	1	2030108	HM	28-Feb-12	160.1	
Alkalinity, Total	**180**	4.00	mg/L	1	2021403	HM	29-Feb-12	310.1M	
DISSOLVED METALS BY ICP									
Calcium	**66.2**	1.00	mg/L	1	2031206	CK	01-Mar-12	200.7	GAL
Iron	ND	0.050	mg/L	1	2031206	CK	01-Mar-12	200.7	GAL
Magnesium	**12.6**	1.00	mg/L	1	2031206	CK	01-Mar-12	200.7	GAL
Potassium	**3.72**	1.00	mg/L	1	2031206	CK	01-Mar-12	200.7	GAL
Sodium	**194**	1.00	mg/L	1	2031206	CK	01-Mar-12	200.7	GAL
DISSOLVED METALS BY ICPMS									
Arsenic	**0.0083**	0.0005	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Barium	**0.109**	0.000500	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Cadmium	ND	0.00010	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Chromium	**0.003**	0.001	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Copper	**0.0012**	0.0001	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Lead	ND	0.0005	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Manganese	**0.0501**	0.0005	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Selenium	**0.006**	0.001	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Silver	**0.00020**	0.00010	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Uranium	**0.00240**	0.000100	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL
Zinc	**0.003**	0.001	mg/L	1	2031204	CK	07-Mar-12	200.8	GAL

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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

SOLAR WELL

H200480-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
DISSOLVED MERCURY BY CVAA									
Mercury	ND	0.0002	mg/L	1	2031205	CK	27-Feb-12	245.1	GAL
Volatile Organic Compounds by EPA Method 8021									
Benzene	ND	0.001	mg/L	1	2022301	AP	27-Feb-12	8021B	
Toluene	ND	0.001	mg/L	1	2022301	AP	27-Feb-12	8021B	
Ethylbenzene	ND	0.001	mg/L	1	2022301	AP	27-Feb-12	8021B	
Total Xylenes	ND	0.003	mg/L	1	2022301	AP	27-Feb-12	8021B	
Surrogate: 4-Bromofluorobenzene (PID)		*107 %*	*70.7-118*		*2022301*	AP	*27-Feb-12*	*8021B*	

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2021403 - General Prep - Wet Chem										
Blank (2021403-BLK1)				Prepared & Analyzed: 13-Feb-12						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	9.76	5.00	mg/L							
Alkalinity, Total	8.00	4.00	mg/L							
LCS (2021403-BS1)				Prepared & Analyzed: 13-Feb-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	132	5.00	mg/L				80-120			
Alkalinity, Total	108	4.00	mg/L	100		108	80-120			
LCS Dup (2021403-BSD1)				Prepared & Analyzed: 13-Feb-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120	3.72	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	3.64	20	
Duplicate (2021403-DUP1)		**Source: H200301-01**		Prepared & Analyzed: 13-Feb-12						
Alkalinity, Carbonate	ND	0.00	mg/L		0.00				20	
Alkalinity, Bicarbonate	1180	5.00	mg/L		1100			7.02	20	
Alkalinity, Total	970	4.00	mg/L		900			7.49	20	
Batch 2022405 - General Prep - Wet Chem										
LCS (2022405-BS1)				Prepared & Analyzed: 24-Feb-12						
Conductivity	514		uS/cm	500		103	80-120			
Duplicate (2022405-DUP1)		**Source: H200465-01**		Prepared & Analyzed: 24-Feb-12						
Conductivity	181000	1.00	uS/cm		181000			0.00	20	

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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2022410 - General Prep - Wet Chem										
Blank (2022410-BLK1)				Prepared: 24-Feb-12 Analyzed: 28-Feb-12						
Chloride	ND	4.00	mg/L							
LCS (2022410-BS1)				Prepared: 24-Feb-12 Analyzed: 28-Feb-12						
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (2022410-BSD1)				Prepared: 24-Feb-12 Analyzed: 28-Feb-12						
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
Batch 2022810 - General Prep - Wet Chem										
Blank (2022810-BLK1)				Prepared & Analyzed: 28-Feb-12						
Sulfate	ND	10.0	mg/L							
LCS (2022810-BS1)				Prepared & Analyzed: 28-Feb-12						
Sulfate	18.5	10.0	mg/L	20.0		92.5	80-120			
LCS Dup (2022810-BSD1)				Prepared & Analyzed: 28-Feb-12						
Sulfate	18.0	10.0	mg/L	20.0		90.0	80-120	2.74	20	
Duplicate (2022810-DUP1)		**Source: H200476-03**		Prepared & Analyzed: 28-Feb-12						
Sulfate	371	10.0	mg/L		381			2.66	20	
Batch 2022918 - General Prep - Wet Chem										
LCS (2022918-BS1)				Prepared & Analyzed: 24-Feb-12						
pH	7.05		pH Units	7.00		101	90-110			

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Analytical Results For:

PRICE LLC 312 ENCANTADO RIDGE COURT, NE RIO RANCHO NM, 87124	Project: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2022918 - General Prep - Wet Chem										
Duplicate (2022918-DUP1)		**Source: H200465-01**		Prepared & Analyzed: 24-Feb-12						
pH	6.76	0.100	pH Units		6.76			0.00	20	
Batch 2030108 - Filtration										
Blank (2030108-BLK1)				Prepared & Analyzed: 28-Feb-12						
TDS	ND	5.00	mg/L							
LCS (2030108-BS1)				Prepared & Analyzed: 28-Feb-12						
TDS	244		mg/L	240		102	80-120			
Duplicate (2030108-DUP1)		**Source: H200506-02**		Prepared & Analyzed: 28-Feb-12						
TDS	391	5.00	mg/L		408			4.26	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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Dissolved Metals - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2031206 - Dissolved/Potentially Dissolved Metals										
Blank (2031206-BLK1)				Prepared: 29-Feb-12 Analyzed: 01-Mar-12						
Iron	ND	0.050	mg/L							
Calcium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Magnesium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
LCS (2031206-BS1)				Prepared: 29-Feb-12 Analyzed: 01-Mar-12						
Sodium	8.20		mg/L	8.10		101	85-115			
Calcium	5.12		mg/L	5.00		102	85-115			
Iron	5.20		mg/L	5.00		104	85-115			
Magnesium	26.4		mg/L	25.0		106	85-115			
Potassium	9.93		mg/L	10.0		99.3	85-115			
LCS Dup (2031206-BSD1)				Prepared: 29-Feb-12 Analyzed: 01-Mar-12						
Potassium	9.87		mg/L	10.0		98.7	85-115	0.606	20	
Iron	5.20		mg/L	5.00		104	85-115	0.00	20	
Calcium	5.12		mg/L	5.00		102	85-115	0.00	20	
Sodium	8.21		mg/L	8.10		101	85-115	0.122	20	
Magnesium	26.4		mg/L	25.0		106	85-115	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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

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 2031204 - Dissolved/Potentially Dissolved Metals										
Blank (2031204-BLK1)				Prepared: 28-Feb-12 Analyzed: 07-Mar-12						
Selenium	ND	0.001	mg/L							
Cadmium	ND	0.00010	mg/L							
Copper	ND	0.0001	mg/L							
Lead	ND	0.0005	mg/L							
Barium	ND	0.000500	mg/L							
Manganese	ND	0.0005	mg/L							
Silver	ND	0.00010	mg/L							
Uranium	ND	0.000100	mg/L							
Zinc	ND	0.001	mg/L							
Chromium	ND	0.001	mg/L							
Arsenic	ND	0.0005	mg/L							
LCS (2031204-BS1)				Prepared: 28-Feb-12 Analyzed: 07-Mar-12						
Manganese	0.0497		mg/L	0.0500		99.4	85-115			
Uranium	0.0454		mg/L	0.0500		90.8	85-115			
Selenium	0.235		mg/L	0.250		94.0	85-115			
Copper	0.0463		mg/L	0.0500		92.6	85-115			
Barium	0.0450		mg/L	0.0500		90.0	85-115			
Silver	0.0468		mg/L	0.0500		93.6	85-115			
Arsenic	0.0455		mg/L	0.0500		91.0	85-115			
Cadmium	0.0457		mg/L	0.0500		91.4	85-115			
Lead	0.0459		mg/L	0.0500		91.8	85-115			
Zinc	0.047		mg/L	0.0500		93.6	85-115			
Chromium	0.049		mg/L	0.0500		97.4	85-115			
LCS Dup (2031204-BSD1)				Prepared: 28-Feb-12 Analyzed: 07-Mar-12						
Silver	0.0455		mg/L	0.0500		91.0	85-115	2.82	20	
Manganese	0.0487		mg/L	0.0500		97.4	85-115	2.03	20	
Zinc	0.045		mg/L	0.0500		90.2	85-115	3.70	20	
Selenium	0.223		mg/L	0.250		89.2	85-115	5.24	20	
Uranium	0.0433		mg/L	0.0500		86.6	85-115	4.74	20	
Lead	0.0449		mg/L	0.0500		89.8	85-115	2.20	20	
Chromium	0.047		mg/L	0.0500		94.2	85-115	3.34	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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

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 2031204 - Dissolved/Potentially Dissolved Metals										
LCS Dup (2031204-BSD1)				Prepared: 28-Feb-12 Analyzed: 07-Mar-12						
Copper	0.0448		mg/L	0.0500		89.6	85-115	3.29	20	
Cadmium	0.0457		mg/L	0.0500		91.4	85-115	0.00	20	
Barium	0.0447		mg/L	0.0500		89.4	85-115	0.669	20	
Arsenic	0.0446		mg/L	0.0500		89.2	85-115	2.00	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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

DISSOLVED MERCURY BY CVAA - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2031205 - Dissolved/Potentially Dissolved Metals										
Blank (2031205-BLK1)				Prepared & Analyzed: 27-Feb-12						
Mercury	ND	0.0002	mg/L							
LCS (2031205-BS1)				Prepared & Analyzed: 27-Feb-12						
Mercury	0.0022		mg/L	0.00200		110	85-115			
LCS Dup (2031205-BSD1)				Prepared & Analyzed: 27-Feb-12						
Mercury	0.0022		mg/L	0.00200		110	85-115	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: SOLAR WELL Project Number: NONE GIVEN Project Manager: WAYNE PRICE Fax To: UNK-NOWN	Reported: 12-Mar-12 12:31

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2022301 - Volatiles										
Blank (2022301-BLK1)				Prepared: 23-Feb-12 Analyzed: 26-Feb-12						
Benzene	ND	0.001	mg/L							
Toluene	ND	0.001	mg/L							
Ethylbenzene	ND	0.001	mg/L							
Total Xylenes	ND	0.003	mg/L							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0540*		mg/L	*0.0500*		*108*	*70.7-118*			
LCS (2022301-BS1)				Prepared: 23-Feb-12 Analyzed: 26-Feb-12						
Benzene	0.050	0.001	mg/L	0.0500		101	74.2-130			
Toluene	0.052	0.001	mg/L	0.0500		104	76.9-125			
Ethylbenzene	0.053	0.001	mg/L	0.0500		106	76.9-129			
Total Xylenes	0.163	0.003	mg/L	0.150		108	76.4-126			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0535*		mg/L	*0.0500*		*107*	*70.7-118*			
LCS Dup (2022301-BSD1)				Prepared: 23-Feb-12 Analyzed: 26-Feb-12						
Benzene	0.047	0.001	mg/L	0.0500		94.1	74.2-130	6.76	21.1	
Toluene	0.049	0.001	mg/L	0.0500		97.3	76.9-125	6.98	26.7	
Ethylbenzene	0.050	0.001	mg/L	0.0500		99.2	76.9-129	6.60	31.6	
Total Xylenes	0.152	0.003	mg/L	0.150		101	76.4-126	7.07	30.5	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0531*		mg/L	*0.0500*		*106*	*70.7-118*			

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.
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:	Price LLC	BILL TO	
Project Manager:	WAYNE Price	P.O. #:	
Address:	Wayne price 77@ earthlink.net	Company:	Price LLC
City:	— State: — Zip: —	Attn:	WAYNE
Phone #:	505-715-2809 Fax #: —	Address:	312 Enchanted Ridge
Project #:	— Project Owner: —	City:	Rio Rancho
Project Name:	—	State:	NM Zip: 87124
Project Location:	Lea County	Phone #:	505-715-2809
Sampler Name:	WAYNE PRICE	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	BTEX + 8021	GEN CHEM	WQCC-METALS - DISSOLVED								
H200480																									
1	Solan Well		1	X							X		2/23/12	2:07 PM	XX										
	Solan Well		1	X							X		2/23/12	2:07 PM	XX										
	Solan Well		1	X							X		2/23/12	2:07 PM	X										
	Solan Well		1	X							X		2/23/12	2:07 PM		X									
	Solan Well		1	X							X		2/23/12	2:07 PM			X								

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: 2/23/12	Received By:	
Wayne Price	Time: 2:50 PM	Jodi Henson	
Relinquished By:	Date:	Received By:	
	Time:		

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

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

13°C

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:
WQCC METALS A+B
PLEASE FILTER IN LAB
FOR DISSOLVED.
Sample taken + brought directly to lab.

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

#216

Appendix X

1. Copy of Certified Mail notices to all offset operators, mineral interest, and landowners.
2. Public Notice published in Lea County, NM.
3. Mineral Lease Map, with operator information, obtained from the New Mexico State Land Office. June 2015.

7014 3490 0000 5901 9420

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

HOBBS, NM 88241

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
Snyder Rancher INC
Street & Apt. No., or PO Box No.: PO Box 2158
City, State, ZIP+4: Hobbs, NM 88241

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 5901 9383

U.S. Postal Service™
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Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

MIDLAND, TX 79704

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
Steve Sell
Street & Apt. No., or PO Box No.: PO 5061
City, State, ZIP+4: Midland, TX 79704

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 5901 9406

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

HOUSTON, TX 77002

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
Chevron USA INC
Street & Apt. No., or PO Box No.: 1400 Smith,
City, State, ZIP+4: Houston TX, 77002
Sandy Stedman-Daniel

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 5901 9413

U.S. Postal Service™
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Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

ARTESIA, NM 88210

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
Yates Petroleum Corporation
Street & Apt. No., or PO Box No.: 105 South Fourth St.
City, State, ZIP+4: Artesia, NM 88210

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 5901 9390

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

MIDLAND, TX 79710

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
Crown Oil Partners V, L.P.
Street & Apt. No., or PO Box No.: Brian Arnold, PO 50820
City, State, ZIP+4: Midland, TX 79710

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 5901 9444

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

SANTA FE, NM 87504

OFFICIAL USE

Postage	$3.45
Certified Fee	$0.00
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$2.54

0124
06

Postmark Here

07/11/2015

Sent To
New Mexico State Land Office
Street & Apt. No., or PO Box No.: PO Box 1148
City, State, ZIP+4: Santa Fe, NM 87504
Att: Laura Riley-Assistant Commissioner

PS Form 3800, July 2014 — See Reverse for Instructions

July 04, 2015

Certified Mail
Return Receipt Requested

To: OFFSET OPERATORS/LEASEHOLD OWNERS & SURFACE OWNERS

RE: Key Energy Services, LLC
Form C-108 (Application for Authorization to Inject)
RA State Well No. 1
API No. 30-025-03979
1980' FSL & 1909 FWL, Unit K, Section 31, T-18S, R-36E, NMPM
Eddy, County, New Mexico

Ladies & Gentlemen:

Enclose please find a copy of the Oil Conservation Division Form C-108 (Application for Authorization to inject) for the Key Energy Services, RA State Well No. 1. You are being provided a copy of the application as an off-set operator, offset leaseholder or surface owner. The enclosed flash-drive contains the complete application, and if for some reason you need a hard paper copy please notify us and we will forward you a copy.

Key Energy Services, LLC had previously used this well as a salt-water disposal well permitted by OCD SWD-467, for injection into the Delaware and San Andres Formations.

Key is seeking approval to reenter this well and convert it to a Devonian formation injection well for disposing of area oilfield produced waters.

The new injection interval will be from 12,260 ft to 12,860 ft below surface. The average injection volume rate will range from 3000-5000 bbls/day with a maximum of 10,000 bbl/day. Key is requesting the normal .2 psig/ft pressure limit, or a maximum of 2452 psig for this well.

Interested parties must file objections with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, with 15 days of the date of this publication.

If you should have any questions please contact Wayne Price-Price LLC at 505-715-2809 or E-mail wayneprice77@earthlink.net.

Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, with 15 days.

If you should have any questions please contact me at 505-715-2809 or E-mail wayneprice77@earthlink.net.

Sincerely,

Wayne Price

Wayne Price-Price LLC
312 Encantado Rd CT NE
Rio Rancho, NM 87124
Agent/Consultant for NM Key Services LLC

C-108 Application
Key Energy Services LLC
API No. 30-025-03979 1980 FSL & 1909 FWL
UL K-Section 31,T-18S, R-36E NMPM
Lea County, New Mexico

LEGAL NOTICE WILL BE PUBLISHED IN THE:

Lovington Daily Leader
14 W Ave B
Lovington, NM 88260-4404

A COPY OF THE LEGAL ADVERTISEMENT WILL BE FORWARED TO THE DIVISION UPON PUBLICATION.

Key Energy Services, LLC, (KEY) 1301 McKinney Street, Suite 1800, Houston, Texas 77010, 713-651-4342, has filed a Form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative re-approval for its RA State #1 well API No. 30-025-03979 located 1980 FSL & 1909 FWL, Unit K, Section 31, T-18S, R-36E, NMPM Lea, County, New Mexico.

Key Energy Services, LLC had previously used this well as a salt-water disposal well permitted by OCD SWD-467, for injection into the Delaware and San Andres Formations.

Key is seeking approval to reenter this well and convert it to a Devonian formation injection well for disposing of area oilfield produced waters. The new injection interval will be from 12,260 to 12,860 ft below surface, the average injection volume rate will range from 3000-5000 bbls/day with a maximum of 10,000 bbl/day. Key is requesting the normal .2 psig/ft pressure limit, or a maximum of 2452 psig for this well.

Interested parties must file objections with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, with 15 days of the date of this publication.

If you should have any questions please contact Wayne Price-Price LLC at 505-715-2809 or E-mail wayneprice77@earthlink.net.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Manager of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Legal Notice was published in a regular and entire issue of THE LOVINGTON LEADER and not in any supplement thereof, for one (1) day(s), beginning with the issue of July 14 , 2015 and ending with the issue of July 14 , 2015.

And that the cost of publishing said notice is the sum of $ 40.54 which sum has been (Paid) as Court Costs.

Joyce Clemens

Joyce Clemens, Advertising Manager
Subscribed and sworn to before me this 14th day of July , 2015.

Gina Fort

Gina Fort
Notary Public, Lea County, New Mexico
My Commission Expires June 30, 2018

OFFICIAL SEAL
GINA FORT
Notary Public
State of New Mexico
My Comm. Expires 6/30/18

LEGAL NOTICE

Key Energy Services, LLC, (KEY) 1301 McKinney Street, Suite 1800, Houston, Texas 77010, 713-651-4342, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative re-approval for its RA State #1 well API No. 30-025-03979 located 1980 FSL & 1909 FWL, Unit K, Section 31, T-18S, R-36E, NMPM, Lea, County, New Mexico.

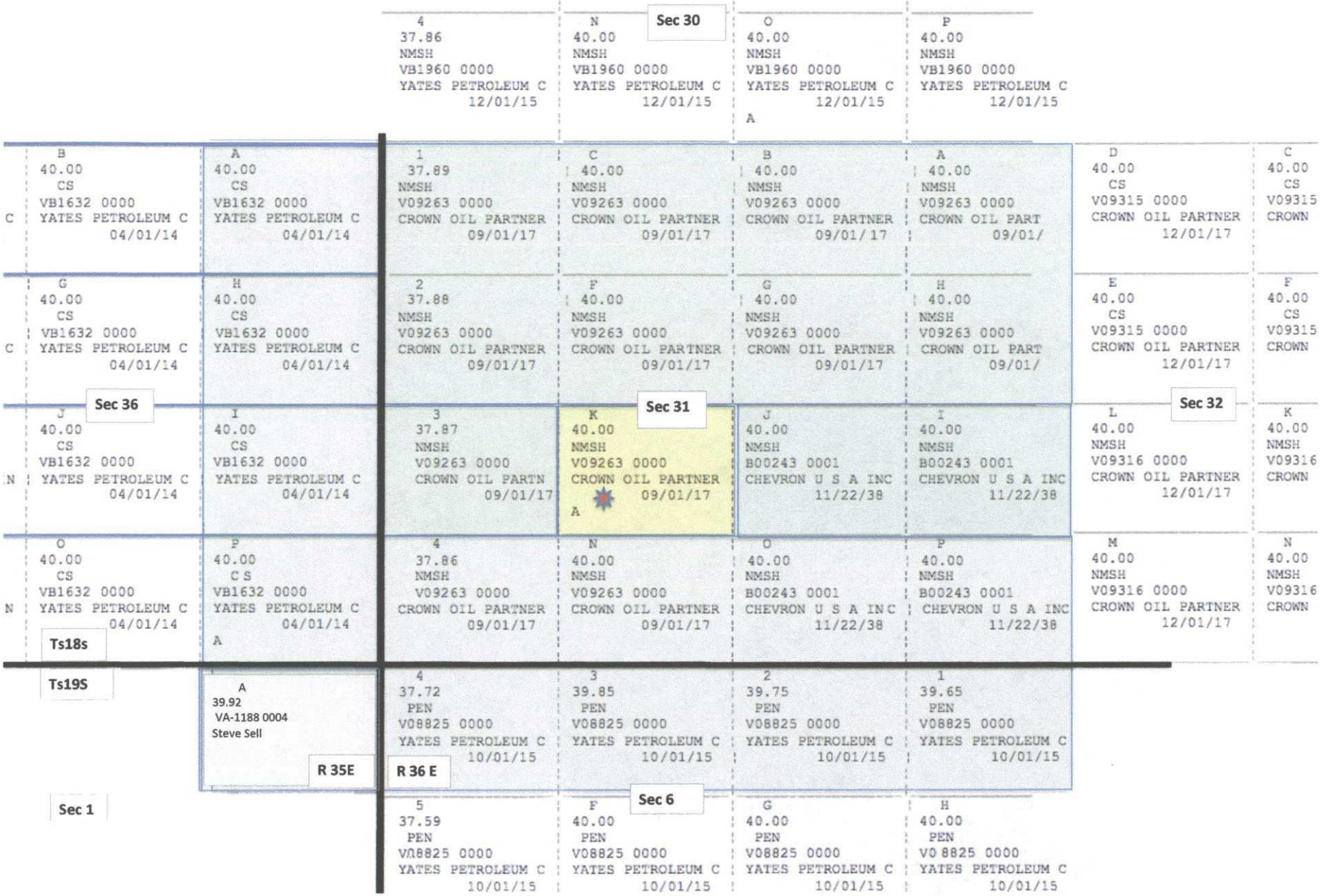
Key Energy Services, LLC had previously used this well as a salt-water disposal well permitted by OCD SWD-467, for injection into the Delaware and San Andres Formations.

Key is seeking approval to reenter this well and convert it to a Devonian formation injection well for disposing of area oilfield produced waters. The new injection interval will be from 12,260 to 12,860 ft below surface, the average injection volume rate will range from 3000-5000 bbls/day with a maximum of 10,000 bbl/day. Key is requesting the normal .2 psig/ft pressure limit, or a maximum of 2452 psig for this well.

Interested parties must file objections with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, with 15 days of the date of this publication.

If you should have any questions please contact Wayne Price-Price LLC at 505-715-2809 or E-mail wayneprice77@earthlink.net

Published in the Lovington Leader July 15, 2015.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CHEVRON U S A INC
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CHEVRON U S A INC
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CHEVRON U S A INC
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YATES PETROLEUM C
10/01/15
3
39.85
PEN
V08825 0000
YATES PETROLEUM C
10/01/15
2
39.75
PEN
V08825 0000
YATES PETROLEUM C
10/01/15
1
39.65
PEN
V08825 0000
YATES PETROLEUM C
10/01/15
Sec 1
Sec 6
5
37.59
PEN
V08825 0000
YATES PETROLEUM C
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F
40.00
PEN
V08825 0000
YATES PETROLEUM C
10/01/15
G
40.00
PEN
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YATES PETROLEUM C
10/01/15
H
40.00
PEN
V08825 0000
YATES PETROLEUM C
10/01/15

STEVE SELL

[List Active Leases] - [List All Leases]

OGRID: 107096
Issuing Agency: SLO
Effective Date: 4/27/94
Last Modified: 12/14/09
Address:

STEVE SELL
P. O. BOX 5061
MIDLAND, TX U.S.A. 79704

Phone: 432-685-1761
Fax: 915-685-0533

CROWN OIL PARTNERS V, L.P.

[List Active Leases] - [List All Leases]

OGRID: 286391

Issuing Agency: SLO

Effective Date: 10/17/11

Last Modified: 6/26/14

Address:

CROWN OIL PARTNERS V, L.P.

BRIAN ARNOLD

PO BOX 50820

MIDLAND, TX 79701

Phone: 432-894-8452

CHEVRON U S A INC
[List Active Leases] - [List All Leases]

OGRID: 4323
Issuing Agency: OCD
Effective Date: 7/26/93
Last Modified: 2/24/14
Address:
CHEVRON U S A INC
SANDY STEDMAN-DANIEL
ATTN: SANDY STEDMAN-DANIEL,
1400 SMITH
HOUSTON, TX U.S.A. 77002

Phone: 713-372-2978
Fax:

YATES PETROLEUM CORPORATION

[List Active Leases] - [List All Leases]

OGRID: 123807
Issuing Agency: SLO
Effective Date: 6/17/94
Last Modified: 5/29/14
Address:

YATES PETROLEUM CORPORATION
105 SOUTH FOURTH STREET
ARTESIA, NM U.S.A. 88210

Phone: 575-748-1471
Fax: 505-748-4572

SNYDER RANCHES INC

[List Active Leases] - [List All Leases]

OGRID: 21059
Issuing Agency: OCD
Effective Date: 7/26/93
Last Modified: 4/28/94
Address:

SNYDER RANCHES INC
PO BOX 2158
HOBBS, NM U.S.A. 88240

Phone:
Fax:

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Thursday, July 23, 2015 6:57 PM
To: wayne price
Subject: RE: Key RA State

Hi Wayne,
All I need now:

a. Copy of newspaper notice which also shows the date posted. 7-14-15
b. Revised pages/diagrams of the C-108 changing 12260 or 12265 to approx.. 12370 (make sure you talk this over with your geologist and get concurrence)
(if Key has proposed this re-entry already to Hobbs OCD, please change that C-101)

So not much else, all easy stuff.

Will

From: Jones, William V, EMNRD
Sent: Monday, July 20, 2015 3:37 PM
To: wayne price
Subject: RE: Key RA State

I'm not in today or Wednesday hearing Thursday meetings tuesday.
I don't remember what else was in the email...?
I will look again late this week or early next.

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: wayne price <wayneprice77@earthlink.net>
Date:07/20/2015 3:08 PM (GMT-07:00)
To: "Jones, William V, EMNRD" <WilliamV.Jones@state.nm.us>
Subject: Key RA State

Now that we are past that hurdle, what do you need from me?

Wayne Price-Price LLC

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Friday, July 17, 2015 4:16 PM
To: 'bstauffer@keyenergy.com'; 'wayneprice77@earthlink.net'
Cc: Goetze, Phillip, EMNRD; Kautz, Paul, EMNRD; Sanchez, Daniel J., EMNRD; Sharp, Karen, EMNRD; McMillan, Michael, EMNRD
Subject: SWD Application for Commercial Disposal from Key Energy Services, LLC.: proposed re-entry well RA State SWD Well No. 1 30-025-03979 K-31-18S-36E-Lea County

Hello Brad and Wayne,
Thanks for the SWD application – I can tell lots of work went into it,

Here is some feedback,

a. Please plan on logging/mudlogging and turning those logs into the OCD for our files.
Thanks for sending a log with the application – there are NO logs on the OCD web site for this 1952 model well.
You would think after it has been re-entered so many times, that there would be some logging done and the OCD would have a copy of those?

b. Please send a copy of the actual posting in the Lea County newspaper.

c. It's a small thing, but if you request to put SWD as part of the well name, it makes it easier to track.

The biggest items:

d. Please modify the planned casing program to case off the Mississippian and Woodford – set 5-1/2" pipe at approx. 12370 feet instead of the proposed 12260 feet.
The Devonian is being advertised for disposal and the top in this well is clearly at 12370, not 12260 feet.

e. Our database shows the Key Energy operates 8 wells and two of those are inactive....
So I believe that Key is out of compliance with Rule 5.9 and therefore, we are prohibited from releasing SWD permits until this is in order.
Please let me know when this is good to go.... work with Daniel Sanchez on an "agreed compliance order" or the OCD district office to reduce the number of inactive wells.

Also, must let you know, that we have been instructed to only retain SWD applications for 30 days.

Many Regards,
Will Jones

William V. Jones, P.E., District IV Supervisor
Oil Conservation Division http://www.emnrd.state.nm.us/ocd/
1220 South St. Francis Drive, Santa Fe, NM 87505
P: 505.476.3477 C: 505.419.1995

C-108 Review Checklist: Received ________ Add. Request: ________ Reply Date: ________ Suspended: ________ [Ver 14]

PERMIT TYPE: WFX / PMX / (SWD) Number: 467-A Permit Date: 7/30/15 Legacy Permits/Orders: 467

~~Well No.~~ ________ Well Name(s): RA State SWD #1

API : 30-025-03979 Spud Date: 1952 New or Old: ___ (*UIC Class II Primacy 03/07/1982*)

Footages 1980 FSL/1909 FWL ~~Lot~~ ___ or Unit K Sec 31 Tsp 18S Rge 36E County LEA

General Location: Arkansas Junction Pool: ________ Pool No.: ________

BLM 100K Map: ________ Operator: Key Energy Services, LLC OGRID: 19797 Contact: Brad Stoffers

COMPLIANCE RULE 5.9: Total Wells: 8 Inactive: 2 Fincl Assur: OK Compl. Order? ____ **IS 5.9 OK?** ____ **Date:** ____

WELL FILE REVIEWED ✓ Current Status: P&A 9/21/01

WELL DIAGRAMS: NEW: Proposed ○ or **RE-ENTER:** Before Conv. ✓ After Conv. ○ Logs in Imaging: ________

Planned Rehab Work to Well: RE-Enter / Run CSG / Drill O.H. / Tubing / Dispose

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned __or Existing __Surface	17 1/4 - 13 3/8	352		300	✓
Planned__or Existing __ Interm/Prod	11" - 8 5/8	4600'		3000 SX	✓
Planned__or Existing __Interm/Prod					
Planned__or Existing __(Prod/Liner)					
Planned__or Existing ~~Liner~~	7 7/8 - 5 1/2	12370 ~~12260~~		Plan To CIRC	
Planned__or Existing (OH) / PERF		12260 - 12860	Inj Length 600'		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.			
Confining Unit: ~~Litho. Struc. Por.~~	-12370	Dev	✓
Proposed Inj Interval TOP:	~~12260~~ 12370	Dev	
Proposed Inj Interval BOTTOM:	12860	Dev	
Confining Unit: Litho. Struc. Por.			
Adjacent Unit: Litho. Struc. Por.			

Completion/Operation Details:

Drilled TD 12475 ~~PBTD~~ ________

NEW TD 12,860 ~~NEW PBTD~~ ________

NEW Open Hole ✓ or NEW Perfs ○

Tubing Size 3 1/2 in. Inter Coated? ✓

Proposed Packer Depth ________ ft

Min. Packer Depth ________ (100-ft limit)

Proposed Max. Surface Press. ________ psi

Admin. Inj. Press 2474 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

~~**POTASH: R-111-P** ○ *Noticed?*~~ ____ **BLM Sec Ord** ○ ~~**WIPP** ○ *Noticed?*~~ ____ **SALT/SALADO** T:____ B:____ ~~**CLIFF HOUSE**~~

FRESH WATER: Aquifer ________ Max Depth 150' **HYDRO AFFIRM STATEMENT By Qualified Person** ✓

NMOSE Basin: ________ ~~**CAPITAN REEF: thru** ○ **adj** ○ **NA** ○~~ **No. Wells within 1-Mile Radius?** 1 **FW Analysis** ✓

Disposal Fluid: Formation Source(s) ________ Analysis? ✓ On Lease ○ Operator Only ○ or Commercial ✓

Disposal Int: Inject Rate (Avg/Max BWPD): ________ Protectable Waters? NO Source: Sample Well System: Closed ○ or Open ○

HC Potential: Producing Interval? NO Formerly Producing? NO Method: Logs/(DST)/P&A/Other ________ 2-Mile Radius Pool Map ✓

AOR Wells: 1/2-M Radius Map? ✓ Well List? ✓ Total No. Wells Penetrating Interval: 0 Horizontals? ____

Penetrating Wells: No. Active Wells 0 Num Repairs? 0 on which well(s)? ________ Diagrams? ____

Penetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? ________ Diagrams? ____

NOTICE: Newspaper Date 7/14/15 Mineral Owner SLO Surface Owner SLO N. Date 7/11/15

RULE 26.7(A): Identified Tracts? ____ Affected Persons: Yates / Skyrock / Stovesdell / Chain Oil N. Date 7/11/15

Permit Conditions: Issues: Run LOGS / MUDLOG