

DATE <u>8/17/11</u>	SUSPENSE <u>9/2/11</u>	ENGINEER <u>WOB</u>	LOGGED IN	TYPE <u>SWD</u>	APP NO. <u>192-A</u>	RECEIVED OGD
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Aug 17, 2011

## 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.

Eddie W Say Eddie W Say Agent 8/17/2011  
 Print or Type Name Signature Title Date  
say.04@leaco.net  
 e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? X Yes No

II. OPERATOR: Paladin Energy Corp.

ADDRESS: 10290 Monroe Dr., Ste. 301 Dallas, TX 75229

CONTACT PARTY: David Plaisance PHONE: 214-654-0132

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.

IV. Is this an expansion of an existing project? X Yes No  
If yes, give the Division order number authorizing the project: SWD 1092

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.

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.

VII. Attach data on the proposed operation, including:

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.

IX. Describe the proposed stimulation program, if any.

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

\*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.

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.

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

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

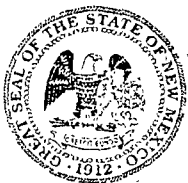
NAME: David Plaisance TITLE: Supt.

SIGNATURE:  DATE: 8/8/11

E-MAIL ADDRESS: dplaisance@paladinenergy.com

\* 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: when drilled in 1960.

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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

ADMINISTRATIVE ORDER SWD-1092

## APPLICATION OF PALADIN ENERGY CORPORATION FOR PRODUCED WATER DISPOSAL, LEA COUNTY, NEW MEXICO

### ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Paladin Energy Corporation made application to the New Mexico Oil Conservation Division on June 29, 2007, for permission to utilize for produced water disposal its Reeves 26 Well No. 4 (API No. 30-025-03137) located 1654 feet from the South line and 1654 feet from the West line of Section 26, Township 18 South, Range 35 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;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

#### IT IS THEREFORE ORDERED THAT:

The applicant is hereby authorized to utilize its Reeves 26 Well No. 4 (API No. 30-025-03137) located 1654 feet from the South line and 1654 feet from the West line of Section 26, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes through perforations in the Wolfcamp formation from 9,883 feet to 10,002 feet and through perforations in the Devonian formation from 11,512 feet to 11,696 feet; through plastic-lined tubing set with a packer located within 100 feet of the top of the perforated injection interval.

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.

After installing injection tubing, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

The wellhead injection pressure on the well shall be limited to **no more than 1,977 psi**. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

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 injection formation. 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 any 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 is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall provide written notice of the date of commencement of injection to the Hobbs district office of the Division.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided

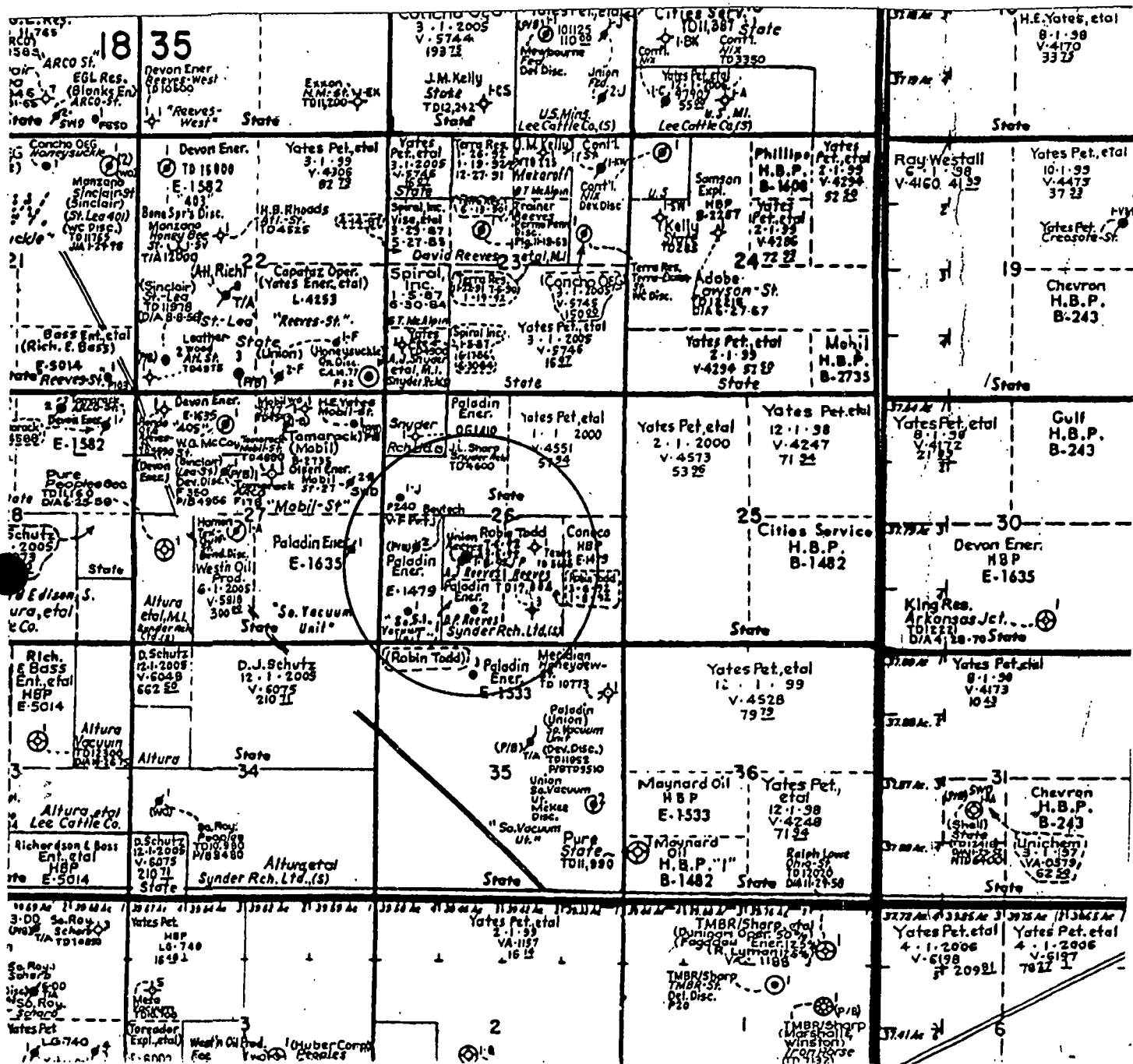
however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on August 6, 2007.

  
MARK E. FESMIRE, P.E.  
Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs



## **ATTACHMENT TO APPLICATION C-108**

Reeves 26 #4  
Unit K, Sect. 26, Tws. 18 S., Rng. 35 E.  
Lea Co., NM

### **III. WELL DATA**

- A.
  - 1) See injection well data sheets and attached schematics.
  - 2) See injection well data sheets and attached schematics.
  - 3) 3 1/2" plastic coated tubing.
  - 4) Baker Tension Packer.
  
- B.
  - 1) Injection formations are the Wolfcamp and Devonian.
  - 2) Injection interval 9800' to 11700' thru perms. and open hole from 11730' to 12230'.
  - 3) Well was drilled as a producer, then P & A and again re-entered.
  - 4) The next higher producing zone is the Bone Springs at approximately 7000'.  
The next lower producing zone is the Silurian at approximately 12,300'.

### **IV. NO.**

### **V. MAP ATTACHED.**

### **VI. LIST OF WELLS AND DATA ATTACHED.**

- VII.** Paladin proposes to pull injector equipment, clear out well bore to shoe at 11730' deepen well in lower Devonian to 12230' and complete in lower Devonian, acidize as needed.

Will re-run injection tubing and packer set at approximately 9790'. Begin injecting into Wolfcamp perms and Devonian perms as approved and add open hole.

- 1) Plan to inject approximately 3000 bpd of produced water from Paladins own operation in offset production.
- 2) Closed system.
- 3) Average injection pressure should be approximately 800# to 1200# or whatever limit OCD allows.
- 4) Analysis attached, only produced water.

5) Water from offset production from McKee, Devonian, and Silurian.

**VIII.** The proposed disposal formations are interbedded shale and limestone. The primary geologic names are the Wolfcamp found from 9500' to 10,100' and the Devonian found from 11512' to 12250'.

The fresh water formation in the area is the Ogallala which ranges in thickness from 100' to 160'. Analysis of water well attached.

**IX. ACID AS NEEDED.**

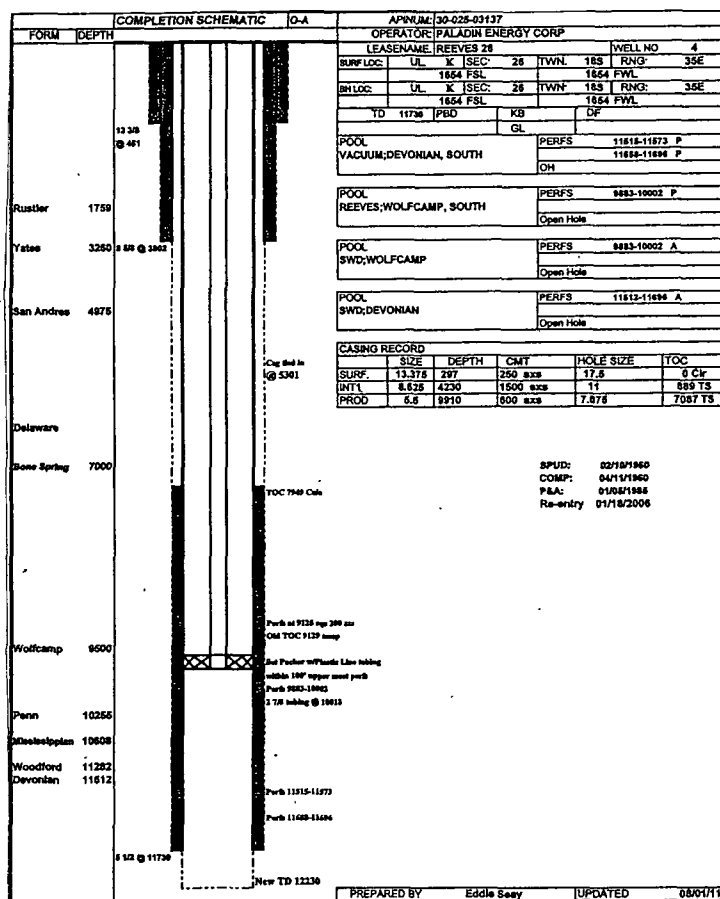
**X. PREVIOUSLY SUBMITTED TO OCD.**

**XI. ATTACHED.**

**XII.** I, Eddie W. Seay, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zones and any underground source of drinking water pertaining to this well.

**XIII. ATTACHED.**

## INJECTION WELL DATA SHEET

OPERATOR: Paladin Energy CorpWELL NAME & NUMBER: Reeves 26 #4API 30-025-03137WELL LOCATION: 1654/S 1654/W  
FOOTAGE LOCATIONK  
UNIT LETTER26  
SECTION18  
TOWNSHIP35 E  
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2 Casing Size: 11 3/4Cemented with: 475 SX. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CircIntermediate CasingHole Size: 11" Casing Size: 8 5/8Cemented with: 1288 SX. or ft<sup>3</sup>Top of Cement: Surface Method Determined: Circ.Production CasingHole Size: 7 7/8" Casing Size: 5 1/2"Cemented with: 370 SX. or ft<sup>3</sup>Top of Cement: 7550 Method Determined: TSTotal Depth: 11730

wolfcamp - perf Injection Interval Devonian - Perf  
9883 - 10002 11515 - 11573  
feet to 11458 - 11496

(Perforated or Open Hole; indicate which)  
open hole from 11730 to 12230

INJECTION WELL DATA SHEET

Tubing Size: 3 1/2 Lining Material: IPC  
 Type of Packer: Baker Tension  
 Packer Setting Depth: 9790  
 Other Type of Tubing/Casing Seal (if applicable): NONE

Additional Data

1. Is this a new well drilled for injection? Yes X No  
 If no, for what purpose was the well originally drilled? oil + gas  
Now permitted as SWD / under (SWD 1092)
2. Name of the Injection Formation: Wolfcamp and Devonian
3. Name of Field or Pool (if applicable): South Vacuum
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. Perf at 9125 seg - w/ 200sx.  
Now injecting into Wolfcamp + Devonian perms.
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Bone springs at 7000'  
Silurian at 12300'

Wells within 0.5 miles of proposed SWD well

operator		well_name	#	tnw	rng	sec	u/l	ftg ns	ftg ew	land	stat	td	county
30-025-03137	PALADIN ENERGY CORP	REEVES 26	4	18S	35E	26	K	1654 S	1654 W	P	A	SWD	11730 Lea

Wells within 1/2 mile that penetrate Devonian formation.

api	operator	well_name	#	tnw	rng	sec	u/l	ftg ns		ftg ew		land	stat	type	td	county	dist to swd
30-025-23900	BAYTECH INC	STATE 26	2	18S	35E	26	L	1980	S	710	W	S	P	O	11700	Lea	1004.20
30-025-03138	PALADIN ENERGY CORP	LEA J STATE	1	18S	35E	26	E	2310	N	330	W	S	P	O	11715	Lea	1889.10
30-025-03135	PALADIN ENERGY CORP	REEVES 26	2	18S	35E	26	N	660	S	1980	W	P	A	O	11750	Lea	1047.81
30-025-03136	PALADIN ENERGY CORP	REEVES 26	3	18S	35E	26	O	660	S	1980	E	P	A	O	12004	Lea	1927.33
30-025-03134	PALADIN ENERGY CORP	SOUTH VACUUM UNIT	261	18S	35E	26	M	660	S	660	W	S	A	O	11755	Lea	1406.15
30-025-37035	PALADIN ENERGY CORP	SOUTH VACUUM UNIT	265	18S	35E	26	L	1940	S	980	W	S	A	G	15248	Lea	736.19
30-025-37122	OLSEN ENERGY INC	SOUTH VACUUM	274	18S	35E	27	P	960	S	693	E	S	A	G	14230	Lea	2456.19
30-025-03144	PURE OIL COMPANY	SOUTH VACUUM UNIT	127	18S	35E	27	I	1980	S	660	E	S	P	O	11755	Lea	2348.68
30-025-03152	PALADIN ENERGY CORP	SOUTH VACUUM UNIT	353	18S	35E	35	C	660	N	1980	W	S	A	O	13761	Lea	2338.44

Wells within 1/2 mile which do not penetrate Devonian formation.

api	operator	well_name	#	tnw	rng	sec	u/l	ftg ns		ftg ew		land	stat	type	td	county	dist to swd
30-025-03139	TEXAS COMPANY	J P REEVES	1	18S	35E	26	J	1980	S	1980	E	P	P	O	5655	Lea	1676.49

# WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC		O-A	APINUM: 30-025-03137	
FORM	DEPTH		OPERATOR: PALADIN ENERGY CORP	
			LEASENAME: REEVES 26	
			WELL NO. 4	
			SURF LOC:	UL: K SEC: 26 TWN: 18S RNG: 35E
			1654 FSL 1654 FWL	
			BH LOC:	UL: K SEC: 26 TWN: 18S RNG: 35E
			1654 FSL 1654 FWL	
			TD 11730	PBD KB DF
			GL	
			POOL VACUUM;DEVONIAN, SOUTH	
			PERFS 11515-11573 P	
			11658-11696 P	
			OH	
Rustler	1759		POOL REEVES;WOLFCAMP, SOUTH	
			PERFS 9883-10002 P	
			Open Hole	
Yates	3260	8 5/8 @ 3802	POOL SWD;WOLFCAMP	
			PERFS 9883-10002 A	
			Open Hole	
San Andres	4975		POOL SWD;DEVONIAN	
			PERFS 11512-11696 A	
			Open Hole	
Casing Record				
	SIZE	DEPTH	CMT	HOLE SIZE
SURF.	13.375	297	250 sxs	17.5
INT1	8.625	4230	1500 sxs	11
PROD	5.5	9910	600 sxs	7.875
TOC				
0 Cir				
889 TS				
7087 TS				
Delaware			Csg tied in @ 5301	
Bone Spring	7000		TOC 7949 Calc	
			Perfs at 9125 sqz 200 sxs	
			Old TOC 9129 temp	
Wolfcamp	9500		Set Packer w/Plastic Line tubing within 100' upper most perfs	
			Perfs 9883-10002	
			2 7/8 tubing @ 10018	
Penn	10255			
Mississippian	10608			
Woodford	11282			
Devonian	11512			
			Perfs 11515-11573	
			Perfs 11658-11696	
			5 1/2 @ 11730	
SPUD: 02/10/1960				
COMP: 04/11/1960				
P&A: 01/05/1985				
Re-entry 01/18/2006				
PREPARED BY: Eddie Seay				
UPDATED 08/01/11				

[illegible]

## WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC		O-A		APINUM: 30-025-23900	
FORM	DEPTH	OPERATOR: BAYTECH INC			
		LEASENAME: STATE 26			WELL NO. 2
		SURF LOC:	UL: L	SEC: 26	TWN: 18S
		1980 FSL			RNG: 35E
		BH LOC:	UL: L	SEC: 26	TWN: 18S
		1980 FSL			RNG: 35E
		TD 11700		PBD	KB
				GL	DF
		POOL VACUUM;DEVONIAN, SOUTH			PERFS 11558-11664
					OH

CASING RECORD					
	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	11 3/4	351	350 sxs	15	0 Cir
INT1	8.625	3810	400 sxs	11	0 Cal
PROD	5.5	11700	400 sxs	7.875	9100 est

SPUD: 10/24/1971

COMP: 12/31/1971

P&A: 01/14/1992

		COMPLETION SCHEMATIC		O-A	APINUM: 30-025-03138																													
FORM	DEPTH				OPERATOR: PALADIN ENERGY CORP																													
					LEASENAME: LEA J STATE				WELL NO. 1																									
		SURF LOC:	UL: E	SEC: 26	TWN: 18S	RNG: 35E																												
		2310 FNL			330 FWL																													
		BH LOC:	UL: E	SEC: 26	TWN: 18S	RNG: 35E																												
		2310 FNL			330 FWL																													
		TD 11715	PBD	KB	DF																													
				GL																														
		<div style="display: flex; justify-content: space-between;"> <div>           Plug 40sx 0-120             PLUG 45 sxs 365-500             PLUG 60 sxs 1600-1800             PLUG 60 sxs 3650-3851         </div> <div>           POOL VACUUM;DEVONIAN, SOUTH             PERFS 11555-11585 P            11450-11478 A            OH         </div> </div>																																
		<b>CASING RECORD</b> <table border="1"> <thead> <tr> <th></th> <th>SIZE</th> <th>DEPTH</th> <th>CMT</th> <th>HOLE SIZE</th> <th>TOC</th> </tr> </thead> <tbody> <tr> <td>SURF.</td> <td>11.75</td> <td>450</td> <td>475 sxs</td> <td>17.5</td> <td>0 Cir</td> </tr> <tr> <td>INT1</td> <td>8.625</td> <td>3801</td> <td>1764 sxs</td> <td>11</td> <td>0 Cir</td> </tr> <tr> <td>PROD</td> <td>5.5</td> <td>11713</td> <td>170 sxs</td> <td>7.875</td> <td>9275 TS</td> </tr> </tbody> </table>										SIZE	DEPTH	CMT	HOLE SIZE	TOC	SURF.	11.75	450	475 sxs	17.5	0 Cir	INT1	8.625	3801	1764 sxs	11	0 Cir	PROD	5.5	11713	170 sxs	7.875	9275 TS
	SIZE	DEPTH	CMT	HOLE SIZE	TOC																													
SURF.	11.75	450	475 sxs	17.5	0 Cir																													
INT1	8.625	3801	1764 sxs	11	0 Cir																													
PROD	5.5	11713	170 sxs	7.875	9275 TS																													
		<div style="display: flex; justify-content: space-between;"> <div>           13 3/8 @ 297 TOC @ 0'             Rustler 1735             Yates 3240            8 5/8 @ 3804 TOC @ 0'             Queen 4433             Bone Spring 6983             Wolfcamp 9328             Penn 10218             Mississippian 10580             Woodford 11253            Devonian 11392         </div> <div>           5 1/2 Cut &amp; Pulled @ 5175            PLUG 80 sxs @ 6273 TOC @ 5085             TOC 9275             PERFS 11438-11478            PERFS 11503-11528            TD 11750         </div> <div>           SPUD: 05/13/1960            COMP: 07/15/1960            P&amp;A: 03/05/2008         </div> </div>																																
		5 1/2 @ 11750 TOC @ 8666'																																
		PREPARED BY: Eddie Seay				UPDATED 08/01/11																												

[illegible]

		<b>COMPLETION SCHEMATIC</b>		<b>O-A</b>	<b>APINUM: 30-025-01213</b>	
<b>FORM</b>	<b>DEPTH</b>				<b>OPERATOR: PALADIN ENERGY CORP</b>	
					<b>LEASENAME: REEVES 26      WELL NO. 6</b>	
		SURF LOC:	UL: 0	SEC: 26	TWN: 18S	RNG: 35E
		BH LOC:	UL: 0	SEC: 26	TWN: 18S	RNG: 35E
		660 FSL			1980 FEL	
		TD 12004 PBD			KB	DF
					GL	
		POOL REEVES;WOLFCAMP, SOUTH				PERFS 9896-10112
						OH
		POOL				PERFS
						Open Hole

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	11.75	453	450 sxs	17.5	0 Cir
INT1	8.625	3801	1500 sxs	12.25	0 Cir
PROD	5.5	10170	115 sxs	7.875	8950 TS

SPUD: 10/16/1959  
 DRY HOLE  
 P&A: 04/07/1962  
 Re-entry: 07/31/2006



## WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC		O-A	
FORM	DEPTH		

# WELLBORE SCHEMATIC AND HISTORY

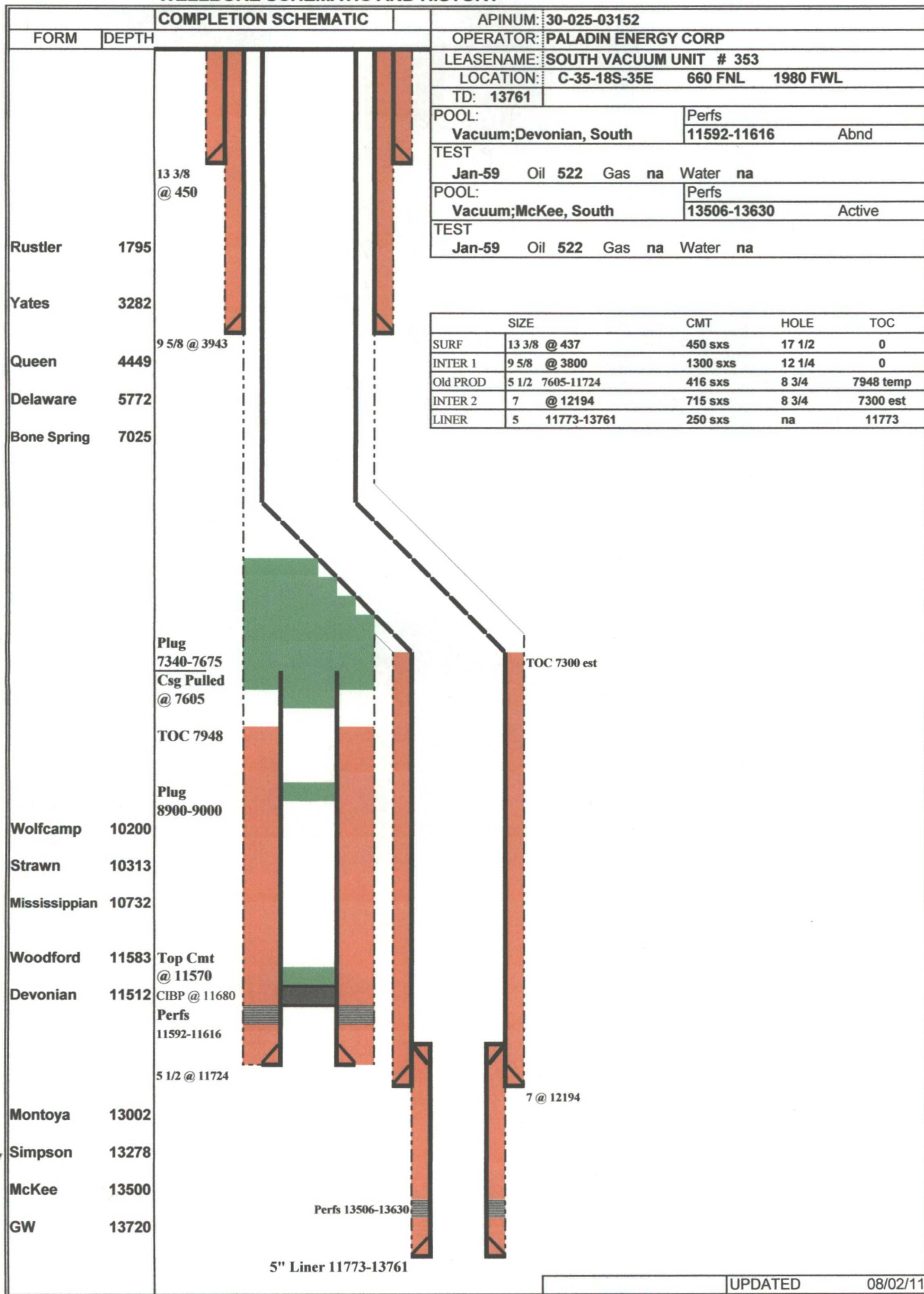
COMPLETION SCHEMATIC		O-A	APINUM: 30-025-37122		
FORM	DEPTH		OPERATOR: OLSEN ENERGY INC		
			LEASENAME: SOUTH VACUUM		
			WELL NO. 274		
			SURF LOC: UL: P SEC: 27 TWN: 18S RNG: 35E		
			960 FSL 693 FEL		
			BH LOC: UL: P SEC: 27 TWN: 18S RNG: 35E		
			960 FSL 693 FEL		
			TD 14230 PBD KB DF		
			GL		
			POOL VACUUM;MCKEE, SOUTH		
			PERFS 13814-13938 P		
OH					
POOL VACUUM;MISSISSIPPIAN, SOUTH					
PERFS 10858-10930 A					
Open Hole					
<b>CASING RECORD</b>					
	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	450	328 sxs	17.5	0 Cir
INT1	9.625	3943	1298 sxs	12.25	0 Cir
PROD	7	12550	810 sxs	8.75	6500 est
PROD	5	12227-14230	262 sxs	na	
<div style="text-align: right;"> <b>SPUD: 04/30/2005</b>  <b>COMP: 09/01/2005</b> </div>					
Rustler	1776				
Yates	3276				
Queen	4478				
Delaware	5834				
Bone Spring	7090				
Wolfcamp	9290				
Strawn	10572				
Mississippian	10996				
Woodford	11583				
Devonian	11754				
Montoya	13336				
McKee	13808				
GW	14036				
<div style="text-align: right;"> <b>PREPARED BY: Eddie Seay</b> </div>					
<div style="text-align: right;"> <b>UPDATED 08/01/11</b> </div>					

# WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC		O-A	APINUM: 30-025-03144	
FORM	DEPTH		OPERATOR: PURE OIL COMPANY	
		Plug 15sx 0-70'	LEASENAME: SOUTH VACUUM UNIT	
			WELL NO. 127	
			SURF LOC: UL: I SEC: 27 TWN: 18S RNG: 35E	
			1980 FSL 660 FEL	
			BH LOC: UL: I SEC: 27 TWN: 18S RNG: 35E	
			1980 FSL 660 FEL	
			TD 11755 PBD KB DF	
			GL	
			POOL VACUUM;DEVONIAN, SOUTH	PERFS 11652-11713
				11590-11634
			OH	
			POOL REEVES;WOLFCAMP, SOUTH DRY	PERFS 9694-9756
			Open Hole	
			POOL VACUUM;BONE SPRING, south	PERFS 8988-9034
			Open Hole	
Rustler	1750			
T. Salt				
B. Salt				
Yates	3253			
Queen	4460	8 5/8 @ 3805 TOC @ 0'	Plug 70 sxs 3558-4028 Cut 5 1/2 @ 3790	
San Andes	5010		Casing Record	
			SIZE	DEPTH
			CMT	HOLE SIZE
			TOC	
			SURF. 11 3/4 454 525 sxs 17 0 Cir	
			INT1 8.625 3805 1150 sxs 11 0 Cir	
			PROD 5.5 3790-11755 550 sxs 7.875 7690 TS	
Bone Spring	7040		Plug 40 sxs 4650-5125 5 1/2 cut @ 5022 could not pull	
			SPUD: 08/02/1959	
			COMP: 10/07/1959	
			P&A: 10/30/1970	
			TOC 7690	
Wolfcamp	9402		Plug 50 sxs 8770-9200 PERFS 8988-9034	
			Baker Model D pkr W/ expandable plug @ 9650	
			PERFS 9694-9756	
Devonin	11572		PERFS 11590-11634 sqz w/ 35 sxs cmnt	
			PERFS 11652-11713	
			5 1/2 @ 11755 TOC @ 7690'	
			TD 11755	

PREPARED BY: Eddie Seay UPDATED 08/01/11

# WELLBORE SCHEMATIC AND HISTORY



UPDATED

08/02/11

# Water Sample Analysis

Pool	Location		Range	Chlorides
	Section	Township		
North Justis Montoya	2	25S	37E	45440
North Justis McKee	2	25S	37E	58220
North Justis Fusselman	2	25S	37E	68533
North Justis Ellenburger	2	25S	37E	34151
Fowler Blinebry	22	24S	37E	116085
Skaggs Grayburg	18	20S	38E	84845
Warren McKee	18	20S	38E	85910
Warren Abo	19	20S	39E	91600
DK Drinkard	30	20S	39E	106855
Littman San Andres	8	21S	38E	38695
East Hobbs grayburg	29	18S	39E	6461
Halfway Yates	16	20S	32E	14768
Arkansas Junction San Andres	12	18S	36E	7171
Pearl Queen	28	19S	35E	114310
Midway Abo	17	17S	37E	36494
Lovinton Abo	31	16S	37E	22933
Lovington San Andres	3	16S	37E	4899
Lovington Paddock	31	16S	37E	93720
Mesa Queen	17	16S	32E	172530
Kemnitz Wolfcamp	27	16S	34E	49345
Hume Queen	9	16S	34E	124960
Anderson Ranch Wolfcamp	2	16S	32E	11040
Anderson Ranch Devonian	11	16S	32E	25702
Anderson Ranch Unit	11	16S	32E	23788
Caudill Devonian	9	15S	36E	20874
Townsend Wolfcamp	6	16S	36E	38695
Dean Permo Penn	5	16S	37E	44730
Dean Devonian	35	15S	36E	19525
South Denton Wolfcamp	26	15S	37E	54315
South Denton Devonian	36	15S	37E	34080
Medicine Rock Devonian	15	15S	38E	39760
Little Lucky-Lake Devonian	29	15S	30E	23288
Wantz Abo	26	21S	37E	132770
Crosby Devonian	18	25S	37E	58220
Scarborough Yates Seven Rivers	7	26S	37E	3443(Reef)
Teague Simpson	34	23S	37E	114665
Teague Ellenburger	34	23S	37E	120345
Rhodes Yates 7 Rivers	27	26S	37E	144485
House SA	11	20S	38E	93365
House Drinkard	12	20S	38E	49700
South Leonard Queen	24	26S	37E	115375
Elliot Abo	2	21S	38E	55380
Scharb Bone Springs	5	19S	35E	30601
EK Queen	13	18S	34E	41890
East EK Queen	22	18S	34E	179630
Maljamar Grayburg SA	22	17S	32E	46079
Maljamar Paddock	27	17S	32E	115375
Maljamar Devonian	22	17S	32E	25418

August 06, 2011

Eddie Seay

Eddie Seay Consulting

601 W. Illinois

Hobbs, NM 88242

RE: REEVES 26 #4

Enclosed are the results of analyses for samples received by the laboratory on 08/03/11 9:00.

Cardinal Laboratories is accredited through Texas NELAP for:

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

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Hope Moreno

Inorganic Technical Director

**Analytical Results For:**

Eddie Seay Consulting  
Eddie Seay  
601 W. Illinois  
Hobbs NM, 88242  
Fax To: (505) 392-6949

Received: 08/03/2011  
Reported: 08/06/2011  
Project Name: REEVES 26 #4  
Project Number: REEVES 26 #4  
Project Location: SECT 26 T-18 R. 35

Sampling Date: 08/02/2011  
Sampling Type: Water  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson


**Sample ID: WW 26-1 (H101609-01)**

Bicarbonate 310.1M		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Alkalinity, Bicarbonate	185	5.00	08/04/2011	ND	ND			0.103	
Calcium SM3500Ca-D		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Calcium	72.1	1.60	08/05/2011	ND	20.8	104	20.0	2.24	
Carbonate 310.1M		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Alkalinity, Carbonate	<0.00	0.00	08/04/2011	ND	ND				
Chloride, SM4500Cl-B		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	4.00	08/04/2011	ND	108	108	100	0.00	
Conductivity 120.1		uS/cm	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity	630	1.00	08/04/2011	ND	1440	102	1410	0.159	
Magnesium SM3500MgE		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Magnesium	17.5	1.00	08/05/2011	ND	52.5	105	50.0	8.58	
pH		pH Units	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
pH	7.43	0.100	08/04/2011		7.10	101	7.00	0.00	
Potassium 8049		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Cardinal Laboratories

\*=Accredited Analyte

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Hope Moreno, Inorganic Technical Director

**Analytical Results For:**

Eddie Seay Consulting  
Eddie Seay  
601 W. Illinois  
Hobbs NM, 88242  
Fax To: (505) 392-6949

Received: 08/03/2011  
Reported: 08/06/2011  
Project Name: REEVES 26 #4  
Project Number: REEVES 26 #4  
Project Location: SECT 26 T-18 R. 35

Sampling Date: 08/02/2011  
Sampling Type: Water  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: WW 26-1 (H101609-01)**

Potassium 8049		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Potassium	1.40	1.00	08/05/2011	ND	7.40	92.5	8.00	14.7	
Sodium Calculated		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sodium	16.0	1.00	08/05/2011	ND					
Sulfate 375.4		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate	66.5	10.0	08/04/2011	ND	20.7	104	20.0	5.97	
TDS 160.1		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS	423	5.00	08/04/2011	ND	258	44800	0.576	4.17	
Total Alkalinity 310.1M		mg/L	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Alkalinity, Total	152	4.00	08/04/2011	ND	112	112	100	3.51	

Cardinal Laboratories

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Hope Moreno, Inorganic Technical Director

**Notes and Definitions**

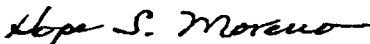
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-8 does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Hope Moreno, Inorganic Technical Director

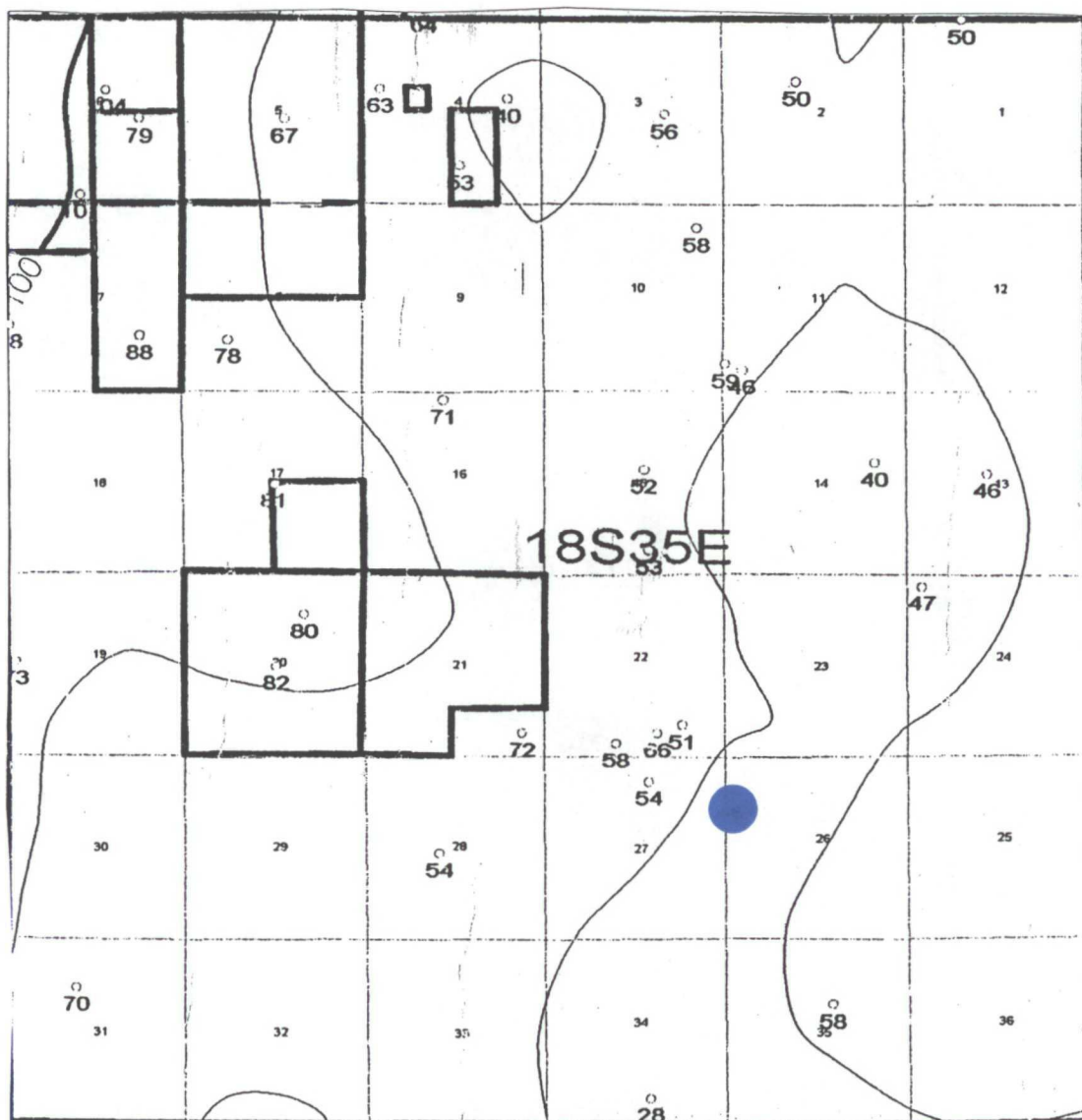


## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <b>Eddie Seay Consulting</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																	
Project Manager: <b>Eddie Seay</b>				P.O. #:				Gen Chem																	
Address: <b>601 W. Illinois</b>				Company:																					
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88242</b>				Attn:																					
Phone #: <b>2-2236</b> Fax #: <b>2-6949</b>				Address:																					
Project #: <b>Reems 26 #4</b> Project Owner: <b>Paladin Co.</b>				City:																					
Project Name: <b>Reems 26 #4 - Water Well</b>				State: Zip:																					
Project Location: <b>Sect 26 T.18 R.35</b>				Phone #:																					
Sampler Name: <b>Eddie Seay</b>				Fax #:																					
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		MATRIX		PRESERV.		SAMPLING															
						GROUNDWATER		ACID/BASE		DATE		TIME													
						WASTEWATER		ICE / COOL																	
						SOIL		OTHER:																	
						OIL		OTHER:																	
						SLUDGE		OTHER:																	
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



● water well location

## **LEASE OWNERS AND OFFSETS**

### **LANDOWNER**

Snyder Ranches, Ltd.  
Box 2158  
Hobbs, NM 88241

### **OFFSET OPERATORS OR MINERAL INTEREST OWNERS**

Paladin Energy Corp.  
10290 Monroe Dr., Ste. 301  
Dallas, TX 75229

Yates Petroleum Corp.  
105 S. Fourth St.  
Artesia, NM 88210

State of New Mexico  
State Land Office  
310 Old Santa Fe Trail  
Box 1148  
Santa Fe, NM 87504

Conoco  
3401 E. 30<sup>th</sup>. St.  
Farmington, NM 87402

Olsen Energy Inc.  
3512 Paesanos Pkwy, Ste. 1  
San Antonio, TX 78231



**PALADIN ENERGY CORP.**

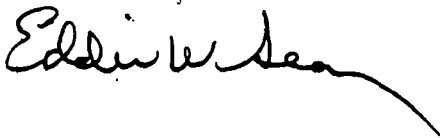
RE: Reeves 26 #4  
Unit K, Sect. 26, T. 18 S., R. 35 E.  
API #30-025-03137

Dear Sir:

In accordance with the Rules and Regulations of the Oil Conservation Division of the State of New Mexico, you are being provided a copy of the C-108, Application for Authorization to Inject in to the above captioned well.

Any questions about the permit can be directed to Eddie W. Seay, (505)392-2236. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days from the date received. The OCD address is 1220 S. Saint Francis Drive, Santa Fe, NM 87504, (505)476-3440.

Thank you,

A handwritten signature in cursive script, appearing to read "Eddie W. Seay", with a long, sweeping underline.

Eddie W. Seay, Agent  
601 W. Illinois  
Hobbs, NM 88242  
(505)392-2236  
seay04@leaco.net

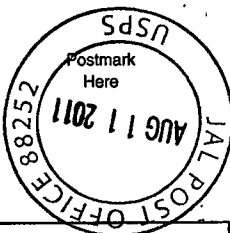
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Total Postage & Fees	\$ 7.03



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 or P.O. Box No. 30th St.  
 City, State, ZIP+4  
**Farmington, NM 87402**

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See Reverse for Instructions

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Total Postage & Fees	\$ 7.03



Sent To  
**Paladin Energy Corp.**  
 Street, Apt. No.,  
 or P.O. Box No. 900 Monroe Dr., Ste. 301  
 City, State, ZIP+4  
**Dallas, TX 75229**

PS Form 3800, August 2006

See Reverse for Instructions

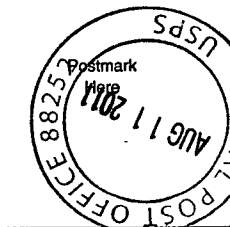
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 or P.O. Box No. Box 2158  
 City, State, ZIP+4  
**Hobbs, NM 88241**

PS Form 3800, August 2006

See Reverse for Instructions

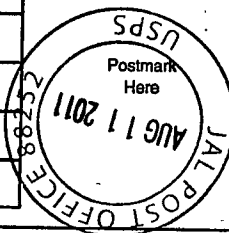
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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.03



Sent To  
**State of New Mexico**  
**State Land Office**  
 Street, Apt. No.,  
 or P.O. Box No. 310 Old Santa Fe Trail, Box 1148  
 City, State, ZIP+4  
**Santa Fe, NM 87504**

PS Form 3800, August 2006

See Reverse for Instructions

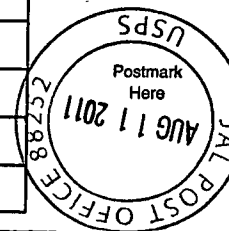
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Certified Fee	2.85
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.03



Sent To  
**Yates Petroleum Corp.**  
 Street, Apt. No.,  
 or P.O. Box No. 605 S. Fourth St.  
 City, State, ZIP+4  
**Artesia, NM 88210**

PS Form 3800, August 2006

See Reverse for Instructions

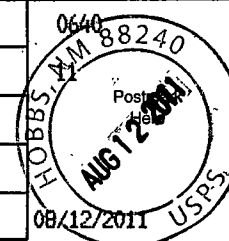
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Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ 6.83



Sent To  
**Olsen Energy Inc.**  
 Street, Apt. No.,  
 or P.O. Box No. 5512 Paesanos Pkwy, Ste. 1  
 City, State, ZIP+4  
**San Antonio, TX 78231**

PS Form 3800, August 2006

See Reverse for Instructions

## **LEGAL NOTICE**

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Paladin Energy Corp., 10290 Monroe Dr., Ste. 301, Dallas, Texas, 75229, is filing a C-108, Application for Salt Water Disposal, application to add open hole section to its already approved SWD, (OCD SWD 1092). The well being applied for is the Reeves 26 #4, API 30-025-03137, located in Unit K, Section 26, Township 18 South, Range 35 East, Lea Co., NM. The approved injection formation is the Wolfcamp from 9883' to 10018' and the Devonian from 11512' to 11696' through perforations. We are seeking to add open hole section from bottom of casing at 11730' to approximately 12230', all in the Devonian. Expected maximum injection rate is 3000 bpd, and the expected maximum injection pressure is 1200 psi or what the OCD allows. Any questions about the application can be directed to Eddie W. Seay, (575)392-2236, or any objection or request for hearing must be directed to the Oil Conservation Division, (505)476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within fifteen (15) days.

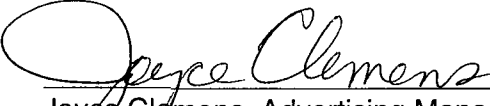
## Affidavit of Publication

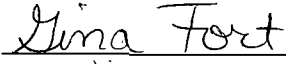
STATE OF NEW MEXICO    )  
  ) ss.  
COUNTY OF LEA            )

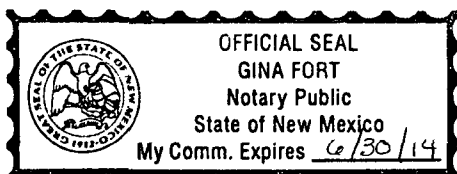
Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county 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 August 6, 2011 and ending with the issue of August 6, 2011.

And that the cost of publishing said notice is the sum of \$ 33.67 which sum has been (Paid) as Court Costs.

  
Joyce Clemens, Advertising Manager  
Subscribed and sworn to before me this 9th day of August, 2011.

  
Gina Fort  
Notary Public, Lea County, New Mexico  
My Commission Expires June 30, 2014



### LEGAL NOTICE

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Paladin Energy Corp., 10290 Monroe Dr., Ste. 301, Dallas, Texas, 75229, is filing a C-108, Application for Salt Water Disposal, application to add open hole section to its already approved SWD, (OCD SWD 1092). The well being applied for is the Reeves 26 #4, API 30-025-03137, located in

Unit - K, Section 26, Township 18 South, Range 35 East, Lea Co. NM. The approved injection formation is the Wolfcamp from 9883' to 10018' and the Devonian from 11512' to 11696' through perforations. We are seeking to add open hole section from bottom of casing at 11730' to approximately 12230', all in the Devonian. Expected maximum injection rate is 3000 bpd, and the expected maximum injection pressure is 1200 psi or

what the OCD allows. Any questions about the application can be directed to Eddie W. Seay, (575)392-2236, or any objection or request for hearing must be directed to the Oil Conservation Division, (505)476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within fifteen (15) days.

Published in the Lovington Leader August 6, 2011.

SWD-1092  
30-025-03137

Well_Name:	REEVES 26 # 004	API:	30-025-03137		
Location:	K-26-18.0S-35E 1654 FSL 1654 FWL				
Lat:	32.71577121	Long:	-103.431262		
Operator Name:	PALADIN ENERGY CORP	County:	Lea		
Land Type:	Private	Well Type:	SWD		
Spud Date:	1/1/1900 1	Plug Date:			
Elevation GL:	3861	Depth TVD:	11730		
Year:	2008				
Pool Name:	SWD;DEVONIAN				
Month	Gas(MCF)	CO2(MCF)	Water(BBLS)	Other(BBLS)	Days Injected
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	75738	0	0
July	0	0	84526	0	0
August	0	0	86157	0	0
September	0	0	76893	0	0
October	0	0	75866	0	0
November	0	0	69498	0	0
December	0	0	72876	0	0
Year:	2009				
Pool Name:	SWD;DEVONIAN				
Month	Gas(MCF)	CO2(MCF)	Water(BBLS)	Other(BBLS)	Days Injected
January	0	0	72292	0	0
February	0	0	65923	0	0
March	0	0	74786	0	0
April	0	0	80650	0	0
May	0	0	68026	0	0
June	0	0	70918	0	0
July	0	0	76769	0	0
August	0	0	61261	0	0
September	0	0	68891	0	0
October	0	0	71115	0	0
November	0	0	48840	0	0
December	0	0	67215	0	0
Year:	2010				
Pool Name:	SWD;DEVONIAN				
Month	Gas(MCF)	CO2(MCF)	Water(BBLS)	Other(BBLS)	Days Injected
January	0	0	31647	0	0
February	0	0	0	0	0
March	0	0	5000	0	0

SWD-1092  
30-025-03137

Well_Name:	REEVES 26 # 004	API:	30-025-03137		
Location:	K-26-18.0S-35E 1654 FSL 1654 FWL				
Lat:	32.71577121	Long:	-103.431262		
Operator Name:	PALADIN ENERGY CORP	County:	Lea		
Land Type:	Private	Well Type:	SWD		
Spud Date:	1/1/1900 1	Plug Date:			
Elevation GL:	3861	Depth TVD:	11730		
April	0	0	15011	0	0
May	0	0	35972	0	0
June	0	0	52294	0	0
July	0	0	53214	0	0
August	0	0	47500	0	0
September	0	0	50763	0	0
October	0	0	52039	0	0
November	0	0	90516	0	0
December	0	0	63447	0	0
Year:	2011				
Pool Name:	SWD;DEVONIAN				
Month	Gas(MCF)	CO2(MCF)	Water(BBLS)	Other(BBLS)	Days Injected
January	0	0	38821	0	0
February	0	0	41750	0	0
March	0	0	48177	0	0
April	0	0	48044	0	0
May	0	0	39835	0	0
June	0	0	43106	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0

Question 6) Please explain why you want to inject into the Wolfcamp and what effect this injection will likely have on existing Wolfcamp producing wells and Wolfcamp oil and gas saturations? Send plots of Wolfcamp production in this area and for this well in particular (labeled as to OCD Pools producing). Send Geologic structure maps as needed to show this well's relative position in the structure and in the reservoir.

Answer to 6a) Paladin wants to dispose of water into the Wolfcamp and Devonian because these formations will take water with no effect on any production in the area. The Wolfcamp production rates are marginal because of low bottom hole pressures and low porosities and permeabilities in the field. Paladin does not believe that injection will cause any change in oil or gas saturations in the Wolfcamp. The majority of the injected water will go into the more porous and permeable Devonian.

6b) Paladin's South Vacuum 26 # 1 and South Vacuum 26 # 3 wells are both Wolfcamp producers in the South Reeves; Wolfcamp Pool. Both are on rod pump. The average production for South Vacuum 26 # 1 and the South Vacuum 26 # 3 well are as follows:

South Vacuum 26 # 1 averages 4 BOPD, 50 MCFGPD, 14 BWPD

South Vacuum 26 # 3 averages 3 BOPD, 10 MCFGPD, 3 BWPD

Question 7) Same as 6) above for the Devonian. Also what is the regional oil-water contact in this Devonian?

Answer to 7a) The effects of re-injection into the Devonian should not adversely effect saturations because the water contact has been at the top of the formation for some time. This is a strong water drive interval and production is through high volume withdraw with only about a 1% oil cut. The South Vacuum; Devonian wells in the vicinity of the proposed SWD well are produced on electrical submersible pumps. The average production from these wells are as follows:

South Vacuum 26 # 5 averages 32 BOPD, 0 MCFGPD, 2390 BWPD

Reeves 26 # 2 averages 21 BOPD, 0 MCFGPD, 3200 BWPD

As evidenced by the large amount of water withdraw from sub pump operations the water contact is at the top of the formation. There is no well capable of flowing to surface and in Paladin's opinion there is no oil-water contact below the intersection of the base of the Woodford Shale and the top of the Devonian formation.

Paladin has not prepared any structure maps of the Wolfcamp or Devonian formations. Paladin does have a recent Geomap structure maps on the Devonian and the Strawn formations. However, the lease agreement with Geomap Company does not permit reproduction and sharing structural maps.

  
Eddie W Seay  
Eddie Seay Consulting

# Inactive Well List

**Total Well Count: 55 Inactive Well Count: 0**

**Printed On: Wednesday, August 17 2011**

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
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WHERE Ogrid:164070, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

**Injection Permit Checklist 2/6/07**

9/2/11

**SWD Order Number** 1092 **Dates:** Division Approved \_\_\_\_\_ District Approved \_\_\_\_\_

**Well Name/Num:** Reeve 26 #4 **Date Spudded:** 1960

**API Num:** (30-) 025-03137 **County:** LEA

**Footages:** 1654 FSL/1654 FWL **Sec:** 26 **Tsp:** 18.5 **Rge:** 35E

**Operator Name:** PALADIN Energy Corp **Contact:** David Plaisance (Eddie Sealy)

**Operator Address:** 10290 Monroe RR, Suite 301 PALEO, TX 75229

**Current Status of Well:** \_\_\_\_\_ **Planned Work:** \_\_\_\_\_ **Inj. Tubing Size:** 3 1/2

	Hole/Pipe Sizes		Depths	Cement	Top/Method
Surface	17 1/2	11 3/4	451	475	CIRC
Intermediate	11	8 5/8	23802	1288	CIRC
Production	7 7/8	5 1/2	11,730	370	7550 TS. (OLD 9/29 TS)
Last DV Tool					
Open Hole/Liner					
Plug Back Depth			11730		

**Diagrams Included (Y/N):** Before Conversion ☒ After Conversion ☒

**Checks (Y/N):** Well File Reviewed \_\_\_\_\_ ELogs in Imaging ☒

*Lease in well or nearby*

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash			
Capitan Reef			
Cliff House, Etc:			
Formation Above			
Top Inj Interval	9883 - 10,002	WOLF CAMP	
Bottom Inj Interval	11512 - 11730	DEVONIAN	
Formation Below	12230		

1977 PSI Max. WHIP  
☒ Open Hole (Y/N) + *re-drill*  
☒ Deviated Hole (Y/N)

9883  
19766  
1977

**Fresh Water:** Depths: 0-160' Wells (Y/N) ☒ Analysis Included (Y/N) ☒ Affirmative Statement ☒

**Salt Water Analysis:** Injection Zone (Y/N/NA) WOLF CAMP Disp Waters (Y/N/NA) \_\_\_\_\_ Types: MCKAY, DAY, SIL

**Notice:** Newspaper (Y/N) \_\_\_\_\_ Surface Owner \_\_\_\_\_ Mineral Owner(s) \_\_\_\_\_

**Other Affected Parties:** Yates, SNYDER, Ronchoi LTD + others

**AOR/Repairs:** NumActiveWells 7 Repairs? \_\_\_\_\_ Producing in Injection Interval in AOR \_\_\_\_\_

**AOR Num of P&A Wells:** 2 Repairs? \_\_\_\_\_ Diagrams Included? \_\_\_\_\_ RBDMS Updated (Y/N) \_\_\_\_\_

**Well Table Adequate (Y/N):** \_\_\_\_\_ **AOR STRs:** Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ **UIC Form Completed (Y/N):** ☒

**New AOR Table Filename:** \_\_\_\_\_ Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ **This Form completed:** \_\_\_\_\_

**Conditions of Approval:** \_\_\_\_\_ Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ **Data Request Sent:** 7/30/07

*reply 8/6/07*

**AOR Required Work:** \_\_\_\_\_

**Required Work to this Well:** \_\_\_\_\_