

DATE IN <u>9/14/10</u>	SUSPENSE	ENGINEER <u>FW.</u>	LOGGED IN <u>9/14/10</u>	TYPE <u>SWD</u>	APP NO. <u>1025748864</u>
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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



*FASken Oil R*

*Federal 77#2*

## ADMINISTRATIVE APPLICATION CHECKLIST 30-025-29400

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.

Kim Tyson  
 Print or Type Name

*Kim Tyson*  
 Signature

Regulatory Analyst  
 Title

8-13-2010  
 Date

kimt@forl.com  
 e-mail Address

Sent to: Well File  
 CSL on 8-16-2010. WAT

432-687-1777

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: ☒ Secondary-Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: Fasken Oil and Ranch, Ltd.  
ADDRESS: 303 W. Wall St., Ste. 1800, Midland, TX 79701  
CONTACT PARTY: Kim Tyson PHONE: 432-687-1777
- 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? ☐ Yes ☒ 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.
- 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: Kim Tyson TITLE: Regulatory Analyst  
SIGNATURE: Kim Tyson DATE: 8-13-2010  
E-MAIL ADDRESS: kimt@forl.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: \_\_\_\_\_

### III. WELL DATA

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

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.

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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.

## INJECTION WELL DATA SHEET

OPERATOR: Fasken Oil and Ranch, Ltd.WELL NAME & NUMBER: Federal "27" No. 2WELL LOCATION: 560' FSL & 660' FEL  
FOOTAGE LOCATIONUNIT LETTER PSECTION 27TOWNSHIP 18SRANGE 33EWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2" Casing Size: 13 3/8", 48# @ 324'Cemented with: 375 sx. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculatedIntermediate CasingHole Size: 11" Casing Size: 8 5/8", 24 & 28# @ 3700'Cemented with: 1500 sx. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculatedProduction CasingHole Size: 7 7/8" Casing Size: 5 1/2", 15.5, 17 & 20#  
@ 10,700'; DV Tool @ 680'Cemented with: 1525 sx. or ft<sup>3</sup>Top of Cement: 2885' Method Determined: Temp. SurveyTotal Depth: 10,700'Injection Interval5946' feet to 7388'(Perforated or ~~Open Hole~~; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Poly Lined

Type of Packer: Arrowset 1-X Double Grip Packer Nickel Plated

Packer Setting Depth: 5900'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection? Yes X No  
 If no, for what purpose was the well originally drilled? Bone Springs Producer
2. Name of the Injection Formation: Delaware
3. Name of Field or Pool (if applicable): EK; Delaware
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. CIBP @ 10,427' w/ 35' of cmt. on top - Wolfcamp - 10,518' - 10,524'. CIBP @ 8775' w/ 35' of cmt. on top - Bone Springs - 8828' - 8897' & 9429' - 9482'.
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Above: Queen @ +/- 4262'; Below: Bone Springs @ +/- 8830'

### III. Well Data

#### A) Tabular Well Data

1. Federal "27" No. 2  
560' FSL & 660' FEL  
S-27, T-18S, R-33E
2. 13-3/8" @ 324', 17-1/2" hole, cmt w/ 375sx, TOC surface, circ 110 sx.  
8-5/8" @ 3700', 11" hole, cmt w/ 1,500 sx, TOC surface, circ 50 sx  
5-1/2" @ 10,700', 7-7/8" hole, cmt w/ 1,525 sx, TOC @ 2,885' Temp Survey
3. 2-7/8" J-55 8rd EUE poly-lined tubing @ 5,900'
4. Packer Type – 5-1/2" nickel plated Weatherford Arrowset 1-X 10K Double Grip Casing Packer with 1.78" SS seat nipple with nickel-plated TOSSD overshot with top sub. Packer will be set at 5900'.

#### B) Proposed Injection Formation Data

1. Injection Formation Name: Delaware, EK Delaware
2. Injection Interval – 5946' to 7388' perforated.
3. Original Purpose of Well – Bone Spring Producer
4. Previously Perforated Intervals –10,518'-24'; 9,468'-82'; 9,450'-54'; 9,440'-44'; 9,429'-34'; 8,828'-35'; 8,864'-66'; 8,890'-97'; 7365'-69'; 7372'-7388', 5946'-73'
5. Next Higher Oil/Gas Productive Zone – Queen @ +/- 4262'  
Next Lower Oil/Gas Productive Zone – Bone Spring @ +/- 8830'

### VII. Proposed Operation

1. Average Daily Rate – 500 BPD  
Maximum Daily Rate –1500 BPD  
Volume of Fluids to be Injected – 1,000,000 bbls
2. This will be a closed system.
3. Average Injection Pressure – 500 psi  
Maximum Injection Pressure – 1,190 psi
4. Produced water from the Delaware, Bone Springs, and Queen will be injected into the Delaware interval. (See attached compatibility analysis)
5. See attached water analysis from above.

### VIII. Geologic Data

#### 1. Injection Zone Lithology

Depth From (ft)	Depth To (ft)	Thickness (ft)	Lithology
5946	5973	27	Dolomite
6262	6322	60	Sand
6339	6359	20	Sand
6620	6733	113	Sand
7150	7200	50	Sand
7365	7388	75	Sand

2. In this area, freshwater has been encountered from 35' to 195' with water columns ranging from 20' to 153' in thickness. All potential freshwater bearing formations have been sealed off from the wellbore with 324' of 13-3/8" 48# H-40 casing that was cemented to surface with 375 sx of class "C" cement & 3,700' of 8-5/8" 24 & 28# casing that was cemented to surface with 1,500 sx of class "C" cement.

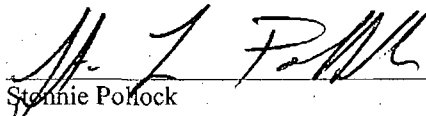
IX. Stimulation Program (See Attached Procedure)

X. Logging and Test Data

1. Logging data previously filed with Commission.
2. Test Data previously filed with Commission.

XI. Affirmative Statement

Fasken Oil and Ranch, Ltd. examined available geologic and engineering data and have found no evidence of any open faults or hydrologic connection between the proposed disposal zone and any underground sources of drinking water.

  
Stennie Pollock

**Convert to Injection**  
**Federal "27" No. 2**  
**560' FSL & 660' FEL**  
**Sec 27, T-18-S, Range 33-E**  
**API #30-025-29400**  
**A.F.E. - Updated**

<b>OBJECTIVE:</b>	Convert to Delaware Injection		
<b>WELL DATA:</b>			
13-3/8" 48# H-40 casing:	Set at 324' w/ 375 sx, circ. 110 sx cement		
8-5/8" 24 & 28# casing:	Set at 3700.00" w/1500 sx, circ. 50 sx cement		
5-1/2" 15.5#, 17#, & 20# casing:	Set at 10,700', DV Tool @ 6,803.27', 1 <sup>st</sup> stage cmt w/775 sx Halliburton Lite; 2 <sup>nd</sup> stage cmt w/750 sx Halliburton Lite – TOC 2885' by TS.		
CIBP:	10,427' w/ 2.5 sx cmt. (TOC 10,405'), 8775' w/ 35' cmt		
PERFS:	10,518'-24'; 9,468'-82'; 9,450'-54'; 9,440'-44'; 9,429'-34'; 8,828'-35'; 8,864'-66'; 8,890'-97'; 7365'-69'; 7372'-7388' 5946'-73'		
KB:	15:50'		
TD:	10,700'		
PBTD:	10,405'		

1. Test rig mast anchors on location.
2. Check with Jimmy Carlile or Kim Tyson to make sure all necessary permits have been obtained.
3. Notify NMOCD of intent to start conversion to injection as per NMOCD Administrative Order – XXXX.
4. Set rig matting boards and RUPU. Receive two sets of pipe racks and half-frac workover tank on location. Build flowline from wellhead to workover tank.
5. Blow down any casing pressure to workover tank. Unseat pump and POW and LD rods and pump. Send rods and pump back to Midland for inspection.
6. NDWH and NU 7-1/16" 3,000 psi manual BOP complete with 2-7/8" pipe rams and blind rams.
7. Unseat TAC and stand back 2-7/8" tubing in derrick.
8. RUWL and RIW with 5-1/2" CIBP and set @ 7,450' with 35' of class "H" cement on top.
9. RIW with 3-1/8" Gamma slick casing gun and perforate Delaware Sands as follows:

7150' - 7200' (51 holes)  
6620' - 6733' (114 holes)  
6339' - 6359' (21 holes)  
6262' - 6322' (61 holes)

247 total holes. All holes should be 1 JSPF, 0.40" EH, 60° phasing, and correlated to Schlumberger Compensated Neutron-Litho Density Open-Hole Log dated 10-16-85 (or GR/CCL log shown to be performed on 6-23-08 – could not find in wellfile). POW, make sure all shots fired, and RDWL.

10. RIW with 5-1/2" RBP with ball catcher, retrieving tool, 10' 2-7/8" tubing sub, 5-1/2" HD compression packer with bypass, 2-7/8" sn, and 2-7/8" tubing and set RBP @ +/- 7250'. POW and set packer @ +/- 7220'. Pressure test RBP to 1,500 psi for 10". Release packer and POW to put packer @ +/- 7100'.
11. With packer bypass open, spot 7-1/2% HCl to EOT. Close packer bypass and break down perfs from 7,150'-7,200'. After breakdown, establish rate and acidize perforations 7150'-7200' with 2,500 gals of 7-1/2% HCl with clay stabilizer dropping 102 7/8" RCN ball sealers evenly displaced for diversion. Max pressure 3,500 psi. Record instantaneous, 5", 10" and 15" shut-in pressures.
12. Flow and swab back acid load to pit. If fluid entry is marginal and will take more than a day of swabbing to recover load, move on with procedure.
13. Release packer, RIW and retrieve RBP @ +/- 7250'. POW and reset RBP @ +/- 6800'. POW and set packer @ +/- 6750' and pressure test RBP to 1,500 psi for 10". Release packer, POW and reset packer @ +/- 6550'.



**Convert to Injection**  
**Federal "27" No. 2**  
**560' FSL & 660' FEL**  
**Sec 27, T-18-S, Range 33-E**  
**API #30-025-29400**  
**A.F.E. - Updated**

**OBJECTIVE:**  
**WELL DATA:**

Convert to Delaware Injection

13-3/8" 48# H-40 casing:	Set at 324' w/ 375 sx, circ. 110 sx cement
8-5/8" 24 & 28# casing:	Set at 3700.00" w/1500 sx, circ. 50 sx cement
5-1/2" 15.5#, 17#, & 20# casing:	Set at 10,700', DV Tool @ 6,803.27', 1 <sup>st</sup> stage cmt w/775 sx Halliburton Lite; 2 <sup>nd</sup> stage cmt w/750 sx Halliburton Lite – TOC 2885' by TS.
CIBP:	10,427' w/ 2.5 sx cmt. (TOC 10,405'), 8775' w/ 35' cmt
PERFS:	10,518'-24'; 9,468'-82'; 9,450'-54'; 9,440'-44'; 9,429'-34'; 8,828'-35'; 8,864'-66'; 8,890'-97'; 7365'-69'; 7372'-7388' 5946'-73'
KB:	15.50'
TD:	10,700'
PBTD:	10,405'

1. Test rig mast anchors on location.
2. Check with Jimmy Carlile or Kim Tyson to make sure all necessary permits have been obtained.
3. Notify NMOCD of intent to start conversion to injection as per NMOCD Administrative Order – XXXX.
4. Set rig matting boards and RUPU. Receive two sets of pipe racks and half-frac workover tank on location. Build flowline from wellhead to workover tank.
5. Blow down any casing pressure to workover tank. Unseat pump and POW and LD rods and pump. Send rods and pump back to Midland for inspection.
6. NDWH and NU 7-1/16" 3,000 psi manual BOP complete with 2-7/8" pipe rams and blind rams.
7. Unseat TAC and stand back 2-7/8" tubing in derrick.
8. RUWL and RIW with 5-1/2" CIBP and set @ 7,450' with 35' of class "H" cement on top.
9. RIW with 3-1/8" Gamma slick casing gun and perforate Delaware Sands as follows:

**7150' - 7200' (51 holes)**  
**6620' - 6733' (114 holes)**  
**6339' - 6359' (21 holes)**  
**6262' - 6322' (61 holes)**

247 total holes. All holes should be 1 JSPF, 0.40" EH, 60° phasing, and correlated to Schlumberger Compensated Neutron-Litho Density Open-Hole Log dated 10-16-85 (or GR/CCL log shown to be performed on 6-23-08 – could not find in wellfile). POW, make sure all shots fired, and RDWL.

10. RIW with 5-1/2" RBP with ball catcher, retrieving tool, 10' 2-7/8" tubing sub, 5-1/2" HD compression packer with bypass, 2-7/8" sn, and 2-7/8" tubing and set RBP @ +/- 7250'. POW and set packer @ +/- 7220'. Pressure test RBP to 1,500 psi for 10". Release packer and POW to put packer @ +/- 7100'.
11. With packer bypass open, spot 7-1/2% HCl to EOT. Close packer bypass and break down perfs from 7,150'-7,200'. After breakdown, establish rate and acidize perforations **7150'-7200' with 2,500 gals of 7-1/2% HCl** with clay stabilizer dropping 102 7/8" RCN ball sealers evenly displaced for diversion. Max pressure 3,500 psi. Record instantaneous, 5", 10" and 15" shut-in pressures.
12. Flow and swab back acid load to pit. If fluid entry is marginal and will take more than a day of swabbing to recover load, move on with procedure.
13. Release packer, RIW and retrieve RBP @ +/- 7250'. POW and reset RBP @ +/- 6800'. POW and set packer @ +/- 6750' and pressure test RBP to 1,500 psi for 10". Release packer, POW and reset packer @ +/- 6550'.

14. Release packer, RIW and retrieve RBP @ +/- 7250'. POW and reset RBP @ +/- 6800'. POW and set packer @ +/- 6750' and pressure test RBP to 1,500 psi for 10". Release packer, POW and reset packer @ +/- 6550'.
15. Open packer bypass and spot 7-12% HCL to EOT. Close packer bypass and break down perfs from 6,620'-6,733'. After breakdown, establish rate and acidize perforations **6620'-6733' with 5,000 gals of 7-12% HCl** with clay stabilizer dropping 226 7/8" RCN ball sealers evenly displaced for diversion. Max pressure 3,500 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
16. Flow and swab back acid load to pit. Make note of any oil or gas show while swabbing as there is a very small chance that this zone might cut some oil.
17. Release packer, RIW and retrieve RBP @ +/- 6800'. POW and reset RBP @ +/- 6450'. POW and set packer @ +/- 6400' and pressure test RBP to 1,500 psi for 10". Release packer, POW and reset packer @ +/- 6200'.
18. Open packer bypass and spot 7-12% HCL to EOT. Close packer bypass and break down perfs from 6,262'-6,322' & 6,339'-6,359'. After breakdown, establish rate and acidize perforations 6,262'-6,322' & 6,339'-6,359' with **4,000 gals of 7-12% HCl** with clay stabilizer dropping 160 7/8" RCN ball sealers evenly displaced for diversion. Max pressure 3,500 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
19. Flow and swab back acid load to pit. Make note of any oil or gas show while swabbing as there is a very small chance that these zones might cut some oil.
20. Unseat packer and RIW and retrieve RBP. RIW past the bottom perforation to knock off any ball sealers still stuck to perforations. POW and LD RBP.
21. RIW with 5-1/2" HD packer, seating nipple and 2-7/8" tubing. Set packer @ +/- 5,900'. RU pump truck and establish injection rate into perforations. Determine the greatest injection rate possible at a maximum pressure of 1,190 psi. If acceptable injection rate is obtained, continue on with procedure. If not, a frac proposal will follow. (Do not frac with RBP with ball catcher on top.)
22. Pressure tubing/casing annulus to 500 psi for 35" on chart recorder. Report results to Midland Office.
23. POW and LD packer and tubing. Send 2-7/8" workstring back to Midland Yard for inspection. Receive 5,900' of 2-7/8" poly-lined J-55 EUE 8rd injection tubing.
24. After obtaining tubing tally, RIW with full nickel plated 5-1/2" Arrowset 1X10 K packer, with mule shoe fg sub on bottom, 4-1/2" X 2-3/8" X 1.78" "F" SS profile with nickel plated TOSSD overshot and top sub, 2-3/8" pin X 2-7/8" box X-O either SS or nickel plated and 2-7/8" poly lined tubing. (Make sure to have Western Falcon service hand on location to drift tubing during first run to make sure tubing ID is good. Tubing drift on 2-7/8" poly lined is 2").
25. RIW and set packer at ± 5900' in 12-14 pts of compression.
26. RU pump truck on tubing casing annulus and load annulus with fw. Close BOP and run pre test to ensure casing and packer are holding. Pressure casing to +/- 550 psi for 35 minutes on chart recorder and report results to Midland office. If a good test is obtained continue with procedure after approval is given by Midland office.
27. Release TOSSD overshot from packer and PU 12-18" above profile nipple. RU pump truck and displace tubing/casing annulus with 2% KCl water containing 55 gallons of packer fluid and 5 gallons O<sub>2</sub> scavenger per 100 bbls water.
28. Engage TOSSD onto packer, ND BOP and NU 2-7/8" slip type tubing hanger flange. NUWH with aluminum-bronze full open gate valve dressed for sour conditions and injection hookup. Make sure tubing string is set high enough that valve handle will not hit on wellhead.
29. Clean location and release all rental equipment. RDPU and return well to production department.
30. Notify NMOCD of intent to run pressure test on annulus. Pressure tubing/casing annulus to 500 psi and record on chart recorder for 30". RDPU.
31. After approval is given from NMOCD and Midland Office, begin injecting into well. Maximum injection pressure – 1,190 psi.
32. Report injection rate, volume, and pressure to Midland Office for daily drilling report.

# Federal "27" No. 2

Operator: **Fasken Oil and Ranch, Ltd.**  
Location: 560' FSL and 660' FEL  
Sec 27, T18S, R33E  
Lea County, NM  
Compl.: 12/1/1985  
API #: 30-025-29400

TD: 10,700'  
PBD: 10,405'  
Casing: 13-3/8" 48# H-40 @ 324'  
w/375sx, circ 110 sx to surf.  
TOC surf  
8-5/8" 24&28# @ 3700'  
w/1500sx Lite, circ 50 sx to surf.  
TOC surf  
5-1/2" 15.5#, 17#, 20# @ 10,700'

DV: 6803.27'  
1st stg 775 sx Lite  
2nd stg 750 sx Lite  
TOC 2885' by Temp

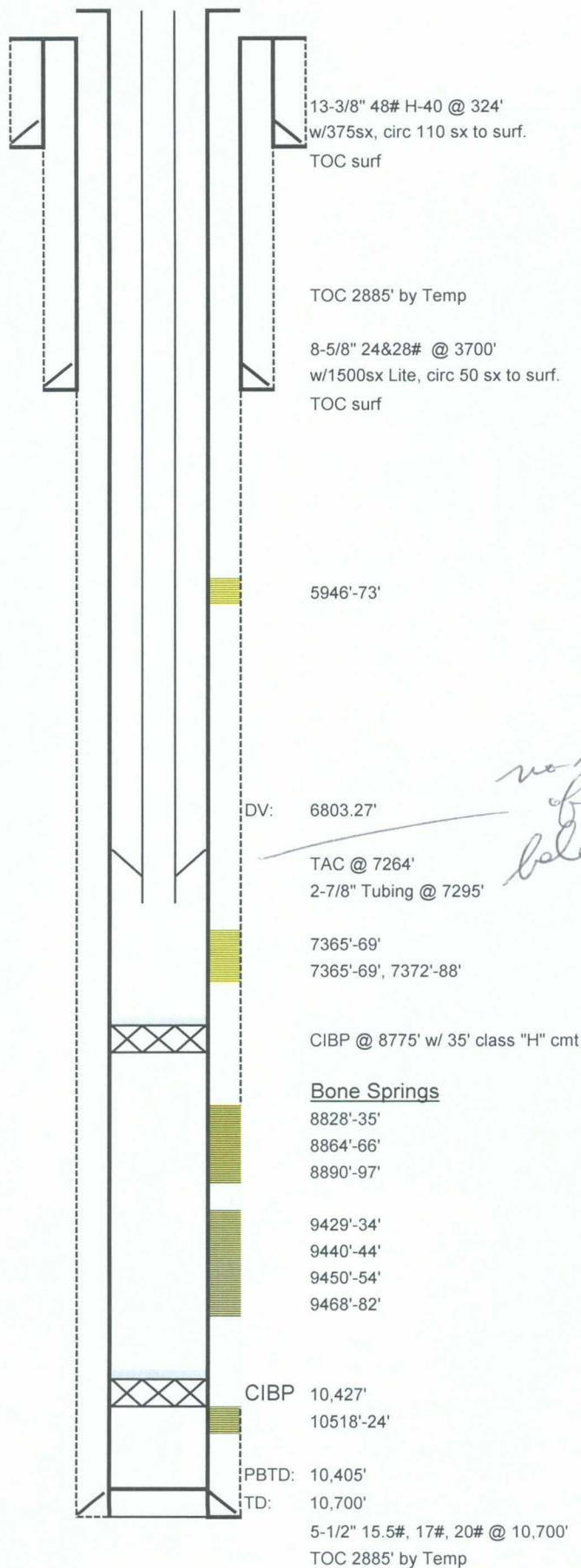
Perfs: Delaware  
5946'-73' ✓  
7365'-69'  
7372'-88' ✓  
Bone Springs  
8828'-35' 9429'-34' 9468'-82'  
8864'-66' 9440'-44' 10518'-24'  
8890'-97' 9450'-54'

CIBP 10,427' w/ 2-1/2 sx cmt.

Hole Sizes 17-1/2" 360'  
11" 3700'  
7-7/8" 10,705'

Current

GL: 3801'  
KB: 3817'



*no need  
of CIRC  
below D.V.*

# Federal "27" No. 2

Operator: **Fasken Oil and Ranch, Ltd.**

Location: 560' FSL and 660' FEL  
Sec 27, T18S, R33E  
Lea County, NM

Compl.: 12/1/1985  
API #: 30-025-29400

TD: 10,700'  
PBD: 10,405'  
Casing: 13-3/8" 48# H-40 @ 324'  
w/375sx, circ 110 sx to surf.  
TOC surf  
8-5/8" 24&28# @ 3700'  
w/1500sx Lite, circ 50 sx to surf.  
TOC surf  
5-1/2" 15.5#, 17#, 20# @ 10,700'

DV: 6803.27'  
1st stg 775 sx Lite  
2nd stg 750 sx Lite  
TOC 2885' by Temp

Perfs: *Delaware*  
5946'-73'  
7365'-69'  
7372'-88'  
*Bone Springs*  
8828'-35' 9429'-34' 9468'-82'  
8864'-66' 9440'-44' 10518'-24'  
8890'-97' 9450'-54'

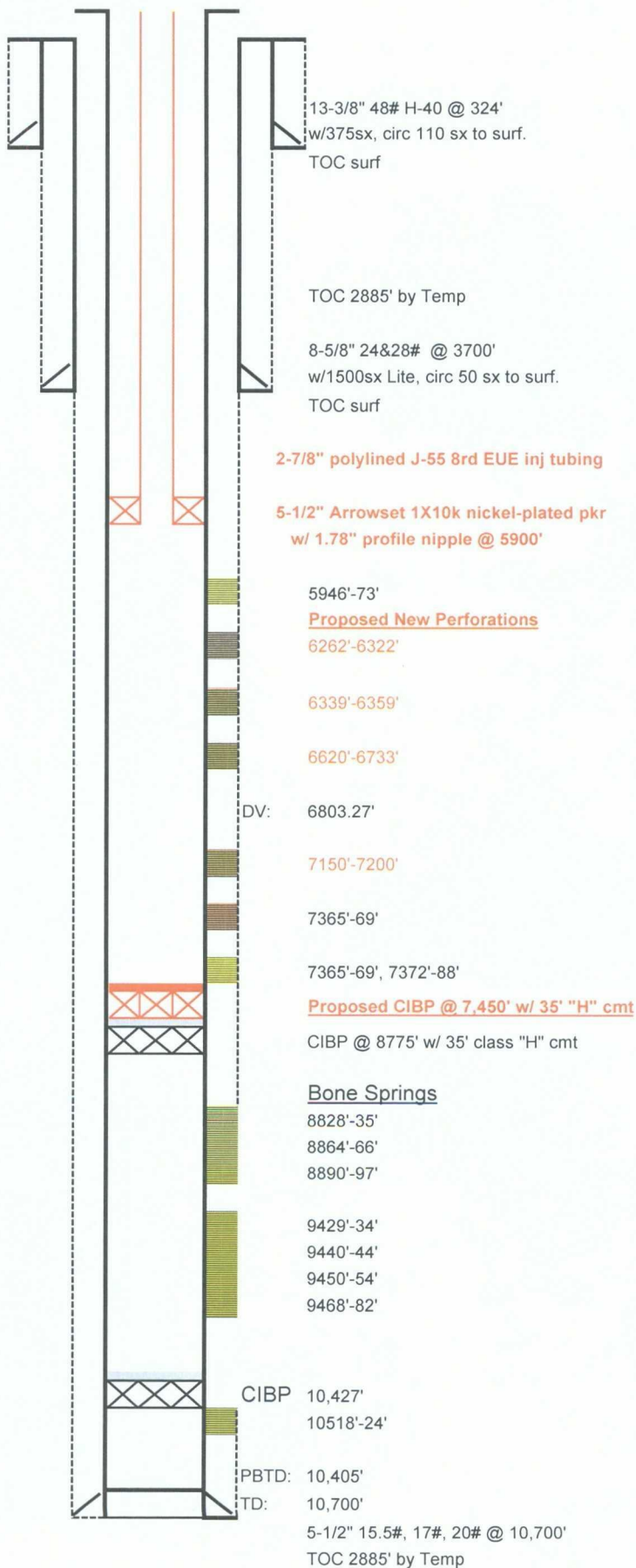
CIBP 10,427' w/ 2-1/2 sx cmt.

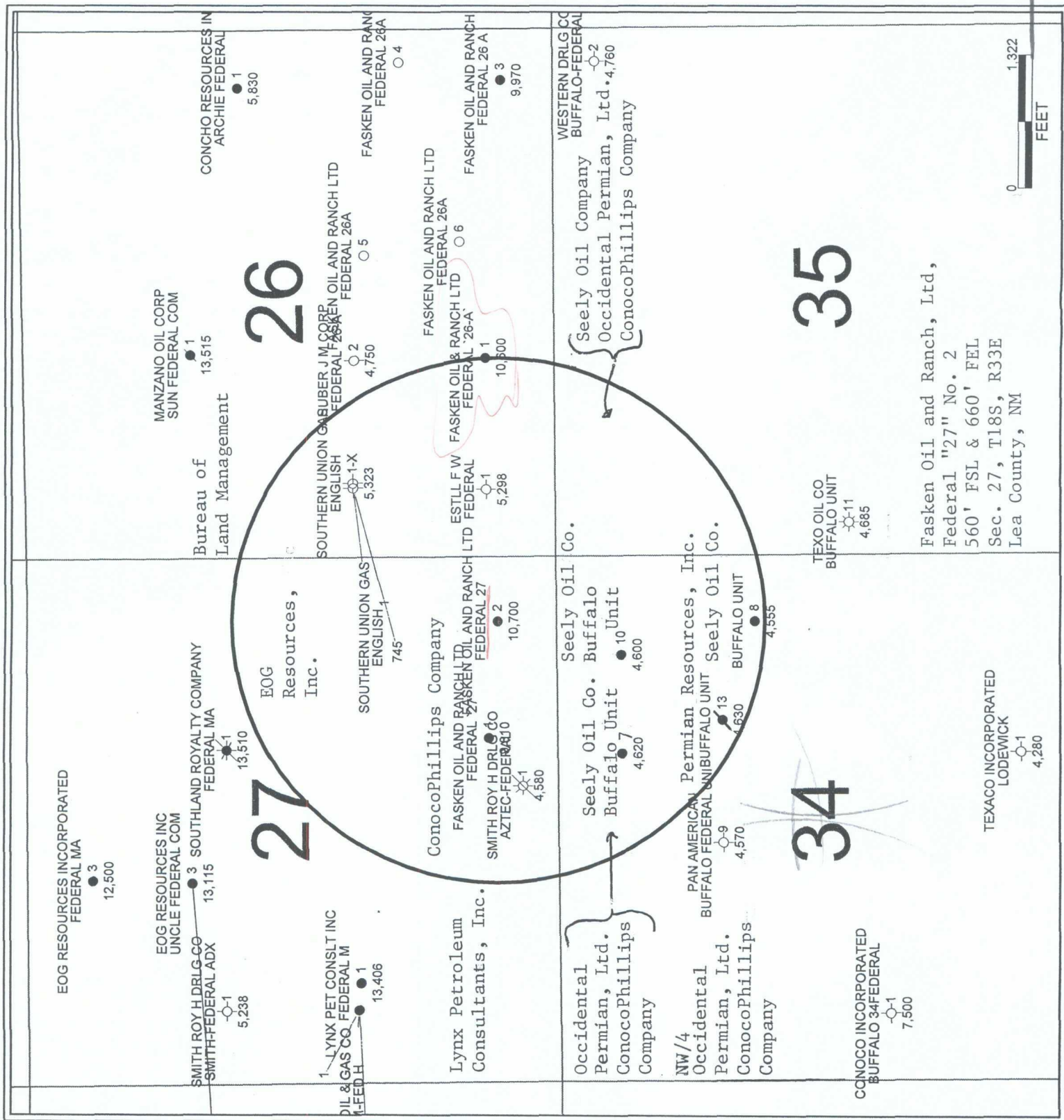
Hole Sizes 17-1/2" 360'  
11" 3700'  
7-7/8" 10,705'

**Proposed**

GL: 3801'

KB: 3817'





# Fasken Oil and Ranch, Ltd.

## Federal "27" No. 2

Table of Well Data within 1/2 Mile

<u>Operator</u>	<u>Well Name and Number</u>	<u>API Number</u>	<u>Oil or Gas</u>	<u>Spud Date</u>	<u>Total Depth</u>	<u>Formation and Perfs</u>
Fasken Oil and Ranch, Ltd.	Federal "27" No. 1	30-025-29250	Oil	06/10/1985	9810'	Bone Springs 8799' - 9462' 9659' - 9766'

**Location:** 660' FSL 1830' FEL  
Sec. 27, T18S, R33E

**Casing:** 13 3/8" at 350' w/ 375 sx - TOC @ Surface  
8 5/8" at 3700' w/ 2075 sx - TOC @ Surface  
5 1/2" at 9810', DV Tool @ 6795' w/ 1535 sx - TOC @ 1130' CBL



Fasken Oil and Ranch, Ltd.	Federal "26A" No. 1	30-025-29249	Oil	10/21/1985	10,600'	Bone Springs 9033' - 10,219'
<b>Location:</b>	660' FSL 1980' FWL Sec. 26, T18S, R33E					Delaware 5252' - 5808'
<b>Casing:</b>	13 3/8" at 365' w/ 375 sx - TOC @ Surface 8 5/8" at 3700' w/ 1400 sx - TOC @ Surface 5 1/2" at 10,363', DV Tool @ 6822' w/ 1895 sx - TOC @ 1330' CBL					Queen 4532' - 4549'





<u>Operator</u>	<u>Well Name and Number</u>	<u>API Number</u>	<u>Oil or Gas</u>	<u>Spud Date</u>	<u>Total Depth</u>	<u>Formation and Perfs</u>
-----------------	-----------------------------	-------------------	-------------------	------------------	--------------------	----------------------------

Southern Union Gas	English No. 1X	30-025-12564	P&A Dry Hole	N/A	5323'	N/A
--------------------	----------------	--------------	-----------------	-----	-------	-----

**Location:** 1980' FSL & 710' FWL  
Sec. 26, T18S, R33E

**Casing:** Well does not penetrate the proposed injection interval.

Southern Union Gas	English No. 1	30-025-01648	P&A Dry Hole	N/A	745'	N/A
--------------------	---------------	--------------	-----------------	-----	------	-----

**Location:** 1980' FSL & 660' FWL  
Sec. 26, T18S, R33E

**Casing:** Well does not penetrate the proposed injection interval.

Estill, F.W.	Federal No. 1	30-025-24475	P&A Dry Hole	7/26/1973	5298'	Queen
--------------	---------------	--------------	-----------------	-----------	-------	-------

**Location:** 660' FSL & 660' FWL  
Sec. 26, T18S, R33E

**Casing:** Well does not penetrate the proposed injection interval.

Operator      Well Name and Number      API Number      Oil or Gas      Spud Date      Total Depth      Formation and Pefs

Roy H. Smith      Aztec-Federal No. 1      30-025-21809      P&A      7-18-1966      4580'      Queen

*SSS*

Location:      330' FSL & 2310' FEL  
Sec. 27, T18S, R33E

Casing:      Well does not penetrate the proposed injection interval.

---

Seely Oil Company      Buffalo Unit No. 7      30-025-21604      Oil

12-28-1965      4620'

Queen  
4519' - 4550'

*SSS*

Location:      660' FNL & 1980' FEL  
Sec. 34, T18S, R33E

Casing:      Well does not penetrate proposed injection interval.

---

Seely Oil Company      Buffalo Unit No. 10      30-025-21957      Oil

1-29-1967      4600'

Queen  
4520' - 4554'

*SSS*

Location:      660' FNL & 990' FEL  
Sec. 34, T18S, R33E

Casing:      Well does not penetrate proposed injection interval.



<u>Operator</u>	<u>Well Name and Number</u>	<u>API Number</u>	<u>Oil or Gas</u>	<u>Spud Date</u>	<u>Total Depth</u>	<u>Formation and Pefs</u>
Permian Resources, Inc.	Buffalo Unit No. 13	30-025-22651	P&A Oil Well	7-4-1968	4630'	Queen 4503' - 4528'

**Location:** 1650' FNL & 1650' FEL  
Sec. 34, T18S, R33E

**Casing:** Well does not penetrate the proposed injection interval.

---

Seely Oil Company	Buffalo Unit No. 8	30-025-21846	Oil	9-6-1966	4555'	Queen 4499' - 4512'
-------------------	--------------------	--------------	-----	----------	-------	------------------------

**Location:** 1980' FNL & 660' FEL  
Sec. 34, T18S, R33E

**Casing:** Well does not penetrate the proposed injection interval.



## Martin Water Laboratories, Inc.

*Analysts & Consultants since 1953*  
Bacterial & Chemical Analysis

Lab #610-75

June 9, 2010

Clay Lamb  
Fasken Oil & Ranch, Ltd.  
303 W. Wall Street, Suite 1800  
Midland, TX 79701

Clay,

In a hypothetical combination of the Bone Spring, Bell & Cherry Canyon, and Queen waters represented by Endura's water analyses, I don't see any significant scaling potential from either calcium sulfate or barium sulfate. Each water does show a positive calcium carbonate tendency and any combination would likely have at least some calcium carbonate tendency. Furthermore, no elemental sulfur or iron sulfide precipitation would be likely due to the absence of free hydrogen sulfide in all three waters. Therefore, based on the evidence provided by these analyses, these waters appear to be compatible.

Best Regards,

Greg Ogden

# Endura Products Corp.

P.O. Box 3394 Midland, Texas 79706  
Phone (915) 684-4233 \* Fax (915) 684-4277

*EK-Bone Spring*

## WATER ANALYSIS

Date 1-14-98 Endura Rep TERRY SOLANSKY Code W-10254  
Sampling Point/Date WELL HEAD 1-12-98 State NEW MEXICO  
Company FASKEN OIL AND RANCH County LEA  
Field: *EK Bone Spring* Lease FEDERAL 27 Well #1

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	75,394	3,278
Total Hardness as Ca <sup>++</sup>	10,800	0
Calcium, Ca <sup>++</sup>	8,880	444
Magnesium, Mg <sup>++</sup>	1,171	98
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++</sup>	114	6

## ANIONS

Chlorides, Cl <sup>-</sup>	135,000	3,803
Sulfate, SO <sub>4</sub> <sup>-</sup>	725	15
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	463	8
Sulfide, S <sup>-</sup>	0	0
Total Dissolved Solids (Calc.)	221,747	

## OTHER PROPERTIES

pH <sup>-</sup>	5.900
Specific Gravity, 60°/60 F	1.142
TURBIDITY	400

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO<sub>3</sub></u>	<u>CASO<sub>4</sub>*2H<sub>2</sub>O</u>	<u>CA SO<sub>4</sub></u>	<u>BA SO<sub>4</sub></u>
80	0.5806	-0.2004	-0.4986	-29.4049
120	1.0239	-0.2117	-0.3294	-29.5753
160	1.7006	-0.2359	-0.1809	-29.7965

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date **5/27/2010** Endura Rep **Norman Smiley**  
Sampling Point/Date **Heater 5/27/2010**  
Company **Fasken Oil and Ranch**  
Formation **EK DELAWARE** Lease **FEDERAL 26 A**  
**(Bell + Cherry Canyon)**

Code **10120892**  
State **New Mexico**  
County **Lea**  
Well **#1 3**

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	75,026	3,262
Total Hardness as Ca++	26,720	0
Calcium Ca++	17,640	882
Magnesium, Mg+	5,537	461
Barium, Ba++	0	0
Iron (Total) Fe+++*	14	1

### ANIONS

Chlorides, Cl-	163,200	4,597
Sulfate, SO4-	450	9
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	24	0
Sulfide, S-*	0	0
Total Dissolved Solid	261,891	

## OTHER PROPERTIES

pH*	6.290
Specific Gravity, 60/60 F.	1.168
Turbidity	152

## SCALING INDICIES

<u>TEMP. F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	0.6263	-0.0199	-0.3789	-29.4917
120	1.1732	-0.0329	-0.2115	-29.6306
160	2.0002	-0.0545	-0.0604	-29.8390

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702

Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date 6/25/03 Endura Rep Greg Archer  
Sampling Point/Date Heater Treater 6/20/03  
Company Fasken Oil & Ranch, LTD  
Formation *Corbin South* Lease FEDERAL 26 A  
*Queen*

Code 101006264  
State New Mexico  
County Lea  
Well #1

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	46,276	2,012
Total Hardness as Ca <sup>++</sup>	6,600	0
Calcium Ca <sup>++</sup>	5,200	260
Magnesium, Mg <sup>++</sup>	854	71
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++*</sup>	8	0

### ANIONS

Chlorides, Cl <sup>-</sup>	82,500	2,324
Sulfate, SO <sub>4</sub> <sup>-</sup>	450	9
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonates, HCO <sub>3</sub> <sup>-</sup>	610	10
Sulfide, S <sup>-*</sup>	0	0
Total Dissolved Solid	135,898	

## OTHER PROPERTIES

pH*	7.355
Specific Gravity, 60/60 F.	1.083
Turbidity	433

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO<sub>3</sub></u>	<u>ASO<sub>4</sub>*2H<sub>2</sub>O</u>	<u>CA SO<sub>4</sub></u>	<u>BA SO<sub>4</sub></u>
80	1.2589	-0.6642	-0.8900	-29.2458
120	1.6052	-0.6730	-0.7183	-29.4553
160	2.1413	-0.6855	-0.5581	-29.6855

## PERFORATIONS

**Fasken Oil and Ranch, Ltd.  
Federal "27" No. 2  
Injection Application  
List of Notified Parties**

**Offset Operators  
within a ½ mile  
radius:**

EOG Resources Inc.  
4000 North Big Spring Street  
Midland, TX 79705-4630  
Attn: Pat Tower, Land Manager

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220-6292

Seely Oil Company  
815 West 10<sup>th</sup> Street  
Fort Worth, TX 76102-3528

ConocoPhillips Company  
600 N. Dairy Ashford  
2 WL-15058  
Houston, TX 77079  
Attn: Tom Scarbrough

Occidental Permian Ltd.  
5 Greenway Plaza East, Suite 110  
Houston, TX 77046  
Attn: Elizabeth S. Bush-Ivie

Fasken Oil and Ranch, Ltd.  
303 W. Wall St., Ste. 1800  
Midland, TX 79701

Lynx Petroleum Consultants, Inc.  
3325 Enterprise Dr.  
Hobbs, NM 88241

**Offset Operators  
within a ½ mile  
radius:**

Estill, F.W.

This party no longer has ownership due to this well being drilled as a dry hole and being plugged and abandoned.

Southern Union Gas

This party no longer has ownership due to this well being drilled as a dry hole and being plugged and abandoned.

Permian Resources, Inc.

P.O. Box 590

Midland, TX 79702

This party no longer has ownership due to this well being Plugged and abandoned on 6-7-2002.

Roy H. Smith Drilling Company

This party no longer has ownership due to this well being Plugged and abandoned.

**Surface Owner:**

Bureau of Land Management

620 E. Greene Street

Carlsbad, NM 88220-6292

**Other Notified  
Parties:**

New Mexico Oil Conservation Division

1625 N. French Drive

Hobbs, NM 88240

# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, JUDY HANNA  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

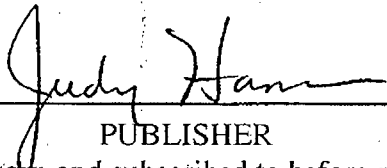
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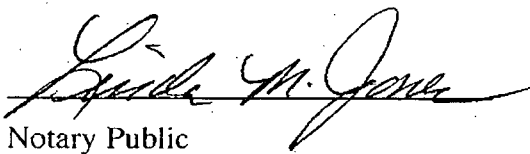
July 16, 2010

and ending with the issue dated

July 16, 2010

  
PUBLISHER

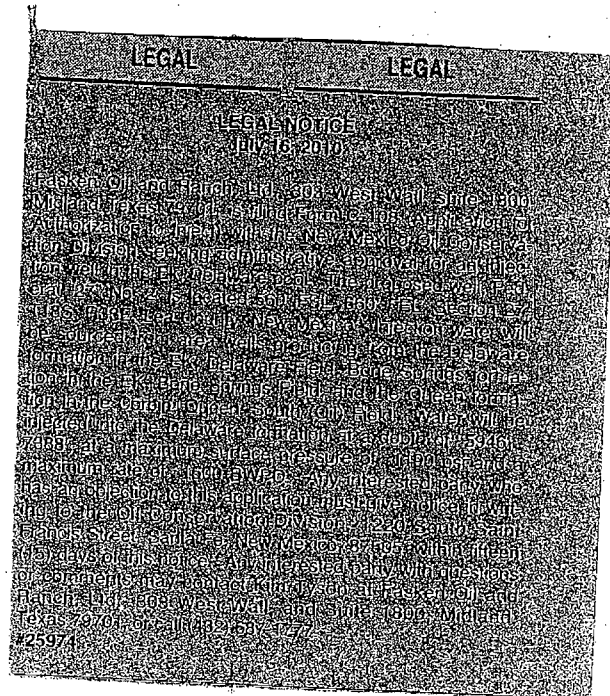
Sworn and subscribed to before me  
this 16th day of  
July, 2010.

  
Notary Public

My commission expires  
June 16, 2013  
(Seal)



This newspaper is duly qualified to  
publish legal notices or  
advertisements within the meaning of  
Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.



67106447                      00055813  
FASKEN OIL AND RANCH, LTD  
303 WEST WALL SUITE 1800  
MIDLAND, TX 79701



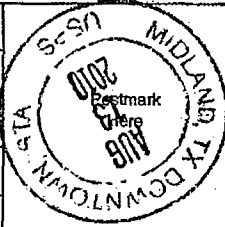
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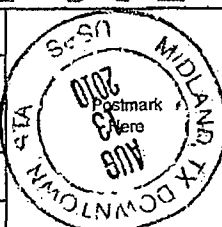
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 FORT WORTH TX 76102-3528

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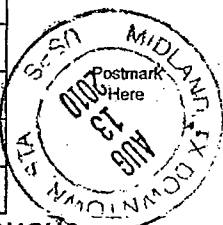
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 CONOCOPHILLIPS COMPANY  
 3300 N DAIRY ASHFORD  
 2 WL-15058  
 MIDLAND TX 79705-5490

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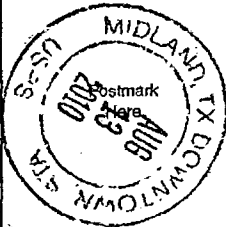
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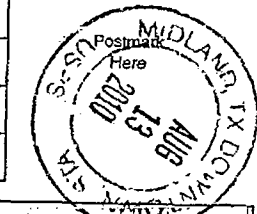
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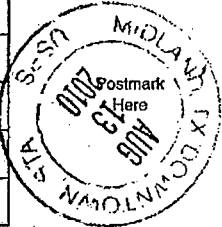
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**PAT TOWER LAND MANAGER  
EOG RESOURCES INC  
4000 N BIG SPRING ST  
MIDLAND TX 79705-4630**

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See Reverse for Instructions

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**FASKEN OIL AND RANCH, LTD.**

303 WEST WALL AVENUE, SUITE 1800  
MIDLAND, TEXAS 79701-5116

(432) 687-1777  
kimt@forl.com

**Kim Tyson  
Regulatory Analyst**

September 14, 2010

Mr. Terry Warnell  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Warnell,

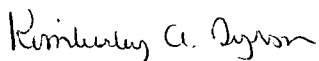
Re: Federal "27" No. 2  
EK; Delaware Pool  
API No. 30-025-29400  
Lea County

I have enclosed a copy of the newspaper clipping for the Federal "27" No. 2 injection application the you requested.

If you have any questions or need any additional information please e-mail me at [kimt@forl.com](mailto:kimt@forl.com) or call me at (432) 687-1777.

Thanks for your help concerning this matter.

Yours truly,



Kimberley A. Tyson  
Regulatory Analyst

# Affidavit of Publication

State of New Mexico,  
County of Lea.

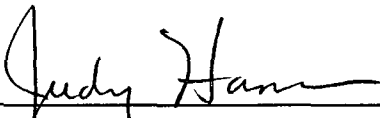
I, JUDY HANNA  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

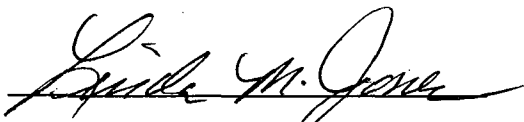
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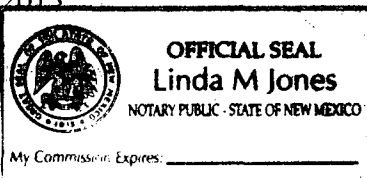
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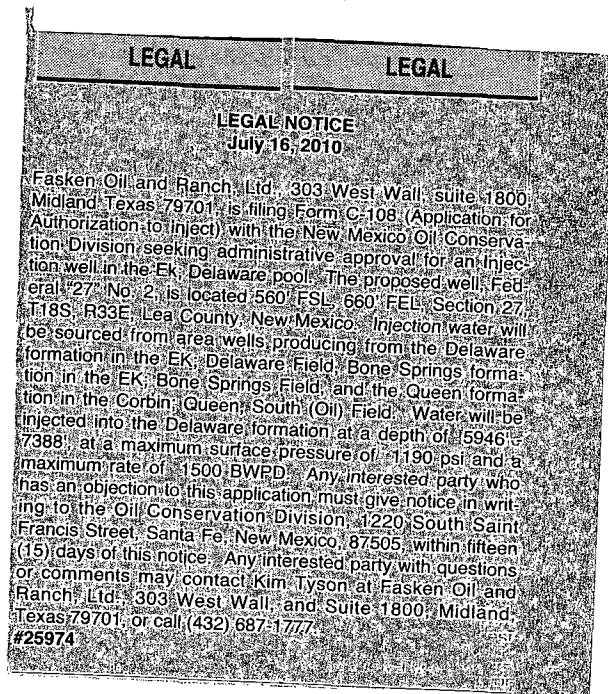
Sworn and subscribed to before me  
this 16th day of  
July, 2010

  
Notary Public

My commission expires  
June 16, 2013  
(Seal)



This newspaper is duly qualified to  
publish legal notices or  
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Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.



*EK Delaware  
(21655)*  
*R - 12223  
No mandator*

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FASKEN OIL AND RANCH, LTD  
303 WEST WALL SUITE 1800  
MIDLAND, TX 79701

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORM APPROVED  
OMB NO 1004-0137  
Expires March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other  
b Type of Completion ☐ New Well ☐ Work Over ☐ Deepen ☒ Plug Back ☐ Diff. Resvr.  
Other

2 Name of Operator  
Fasken Oil and Ranch, Ltd.

3 Address 303 W. Wall St., Ste 1800, Midland, TX 79701

3a Phone No (include area code)  
432-687-1777

4 Location of Well (Report location clearly and in accordance with Federal requirements)\*

At surface 560' FSL & 660' FEL

560' FSL & 660' FEL

At top prod interval reported below

At total depth 560' FSL & 660' FEL

14 Date Spudded  
06/17/2008

15 Date T D Reached  
09/18/2008

16 Date Completed  
☐ D & A ☒ Ready to Prod 7-5-08

18 Total Depth MD 10,700'  
TVD 10,700'

19 Plug Back T D MD 8740'  
TVD 8740'

20 Depth Bridge Plug Set MD 8775' CIBP  
TVD 8775' CIBP

21 Type Electric & Other Mechanical Logs Run (Submit copy of each)  
GR - CCL

22 Was well cored? ☒ No ☐ Yes (Submit analysis)  
Was DST run? ☒ No ☐ Yes (Submit report)  
Directional Survey? ☒ No ☐ Yes (Submit copy)

23 Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No of Sks & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8"	48	Surface	324'		375 sx		Surface	
11"	8 5/8"	24 & 28	Surface	3700'		1200 sx		Surface	
7 7/8"	5 1/2"	15.5, 17	Surface	10,700'	6803'	400 sx Hal Lite		2885' TS	
		& 20				+ 650 sx Hal Lite			

24 Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8"	7295'							

25 Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No Holes	Perf Status
A) Delaware Dolomite	5946'	5973'	5946' - 5973'	.40	28	Open
B) Brushy Canyon Delaware	7365'	7388'	7365' - 7388'	.40	22	Open
C)						
D)						

27 Acid, Fracture, Treatment, Cement Squeeze, etc

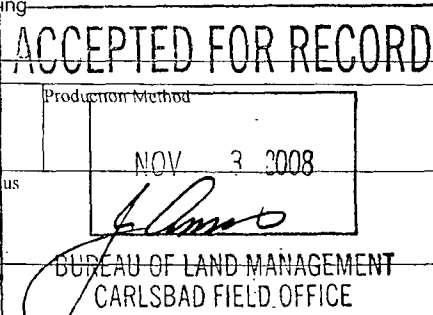
Depth Interval	Amount and Type of Material
5946' - 5973'	2500 gals of 15% FEAS2X HCL acid & 60 ball sealers.
7365' - 7388'	2500 gals of HCL DI acid & 45 ball sealers.

28 Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
7/05/08	9/24/08	24	→	6	3	25	35.9	.846	Pumping
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→	6	3	25	500	Producing	

28a Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						



\*(See instructions and spaces for additional data on page 2)

2A E-K Bone Spring

KZ

at 2550 psi. Displaced 500 gals of acid into perforations w/ 12 bbls of 2% KCl water @ 3.7 bpm @ 2460 psi. ISIP- 1840 psi, 5"- 1755 psi, 10"- 1692 psi, 15"- 1648 psi. Max pressure - 2550 psi, avg. pressure- 2200 psi, avg. rate - 3.7 bpm. Made 6 swab runs and recovered 33 bw and swabbed well dry, waited 30" w/ no fluid entry. SWI and SDON.

**9-16-08 – 9-18-08**

RU Petroplex Acidizing and tested lines to 4000 psi. Pressured csg. annulus to 500 psi and monitored while treating perms 5946'-5973'. Pumped 2500 gals of 15% FEAS2X HCL acid, 60 - 1.3 sg balls sealers. MTP-2513 psi, ATP- 2200 psi. Avg. rate 3.7 bpm. ISIP-1727 psi, 5"-1621 psi, 10"-1585 psi and 15"-1568 psi. LLTR-103 bbls

RIW w/ 223- jts 2-7/8" EUE 8rd 6.50# tubing @ 7295'.

RIW with 2-1/2" x 1-1/2" x 24' RHBC pump with 20' x 1-1/4" gas anchor, STS No-Tap tool w/ 7/8" pins, 14- 1-1/2" "C" sinker bars, 113- 3/4" D rods, 96- 7/8" "D" rods and 64- 1" "D" rods. Spaced pump 20" off bottom. Loaded tbgs. w/ 3 bw and tested to 500 psi w/ no pressure loss. Left well running on hand w/ good pump action. LLTR-180 bw. RDPU.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NEW MEXICO 88240

Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR J.M. Huber Corporation		8. FARM OR LEASE NAME Federal "27"	
3. ADDRESS OF OPERATOR 1900 Wilco Bldg., Midland, Texas 79701		9. WELL NO. 2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 560' FSL and 660' FEL of Section 27		10. FIELD AND POOL, OR WILDCAT EK Bone Spring	
14. PERMIT NO. 30-025-29400		15. ELEVATIONS (Show whether DF, RT, OR, etc.) KB: 3817'	
		12. COUNTY OR PARISH Lea	
		13. STATE New Mexico	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	(Other) Cmt. Production casing	<input checked="" type="checkbox"/>
(Other)	<input type="checkbox"/>	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

10/15/85 TD 7-7/8" hole @ 10,700'.

10/17/85 Ran 276 jts. of 5½" csg & set @ 10,700' as follows from top to bottom:  
49' of 20#, S-95, LTC; 3936' of 15.5#, J-55, LTC; 2412' of 15.5#, K-55, STC;  
787' of 17#, K-55, STC; 350' of 17#, K-55, LTC; 2033' of 17#, L-80, LTC; 127'  
of 20#, N-80, LTC; 1006' of 20#, S-95, LTC; w/DV tool @ 6803'. Cmt'd in two  
stages as follows: 1st STAGE: Pmp'd 400 sx Halliburton Light containing  
6# salt and ¼# Flocele per sk, followed by 375 sx Cl "H" w/0.5% CFR-2 &  
3# salt per sk. 2nd STAGE: Pmp'd 650 sx Halliburton Light containing 6#  
salt & ¼# Flocele per sk, followed by 100 sx Cl "H" w/0.5% CFR-2 & 3# salt  
per sk. Cmt. top @ 2885' by temp. survey. Cmt. & csg will be pressure  
tested when cmt and plugs are drilled out.

18. I hereby certify that the foregoing is true and correct		(915) 682-3794
SIGNED <u>Robert R. Glenn</u>	TITLE <u>District Production Manager</u>	DATE <u>October 22, 1985</u>
(This space for Federal or State office use)		
APPROVED BY <u>ACCEPTED FOR RECORD</u>	TITLE _____	DATE _____
CONDITIONS OF APPROVAL, IF ANY:		

OCT 29 1985

\*See Instructions on Reverse Side

**Jones, William V., EMNRD**

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**From:** Kim Tyson [kimt@forl.com]  
**Sent:** Monday, October 25, 2010 2:30 PM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Disposal application from Fasken: Federal 27#2 30-025-29400

William,

I have sent your e-mail to the engineer for this well to get the information that you have requested. When he gets the information to me I will e-mail it to you.

Thanks for your help.

Kim Tyson

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**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Monday, October 25, 2010 11:18 AM  
**To:** kimt@forl.com  
**Cc:** Brooks, David K., EMNRD; Warnell, Terry G, EMNRD  
**Subject:** Disposal application from Fasken: Federal 27#2 30-025-29400

Hello Kim:

I have this SWD ready to release, but since you are converting a producing Delaware well to an SWD Delaware well and waste issues could be involved:

... please fax or email a "Rate vs Time plot" for this well showing only Delaware production from the date the Delaware was first perforated until now.

Also any statement as to whether or not this well is at its economic limit would be helpful also.

Thank You,

William V Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



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**Jones, William V., EMNRD**

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**From:** Kim Tyson [kimt@forl.com]  
**Sent:** Tuesday, October 26, 2010 7:59 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Federal "27" No. 2 - Injection Application  
**Attachments:** Copy of Fed27-2\_Plot.xls

William,

I have attached a "Rate vs Time plot" showing Delaware production from the date that the Delaware was first produced until now. Below is statement as to whether or not this well is at its economic limit.

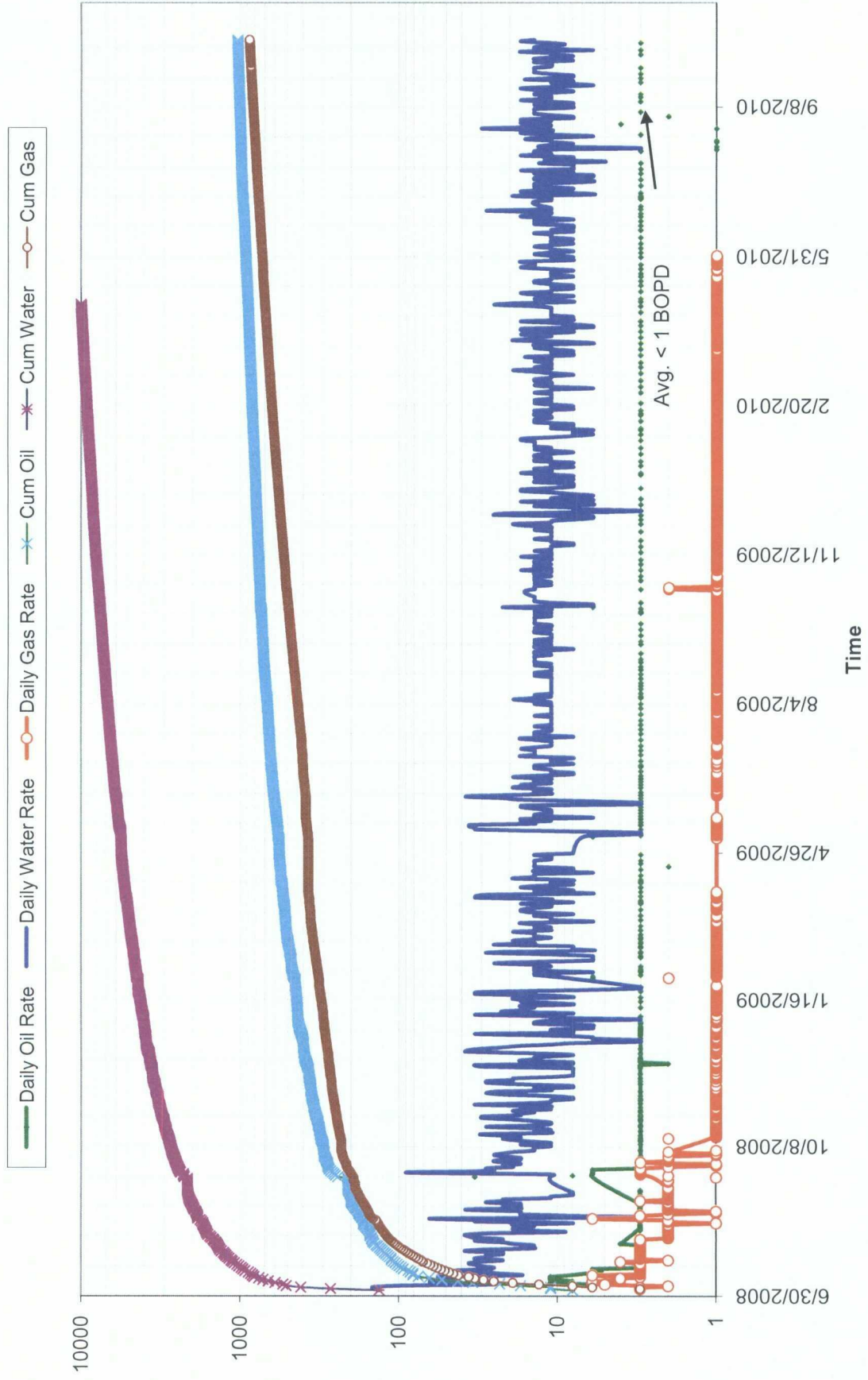
This well is currently at its economic limit at < 1 BOPD. I took a look at the historical opex and found that this well needs to make at least around 30 bopd to break even. The past four months we show to have made 27 bo (June), 30 bo (July), 18 bo (August), and 20 bo (September).

If you have any questions or need any additional information please call me at 432-687-1777 or e-mail me at [kimt@forl.com](mailto:kimt@forl.com).

Thanks for your help concerning this matter.

Kim Tyson

# Federal "27" No. 2 Delaware Production



Injection Permit Checklist (08/27/2010)

WFX PMX SWD 1250 Permit Date 10/25/10 UIC Qtr 0(N/D)

# Wells 1 Well Name(s): Padul 27 #2

API Num: 30-0 25-29400 Spud Date: 12/85 New/Old: N (UIC primacy March 7, 1982)

Footages 560 FSL/660 FEL Unit P Sec 27 Tsp 18S Rce 33E County Lea

General Location:

Operator: Farlow Oil & Ranch, Ltd. Contact: KIM TYSON

OGRID: 151416 RULE 5.9 Compliance (Wells) 2/132 (Finan Assur) OK IS-5.9 OK? OK

Well File Reviewed Current Status: Delam Producer

Planned Work to Well: Perf more Delam interval & Convert

Diagrams: Before Conversion After Conversion Elogs in Imaging File:

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
	Hole.....	Pipe				
New Existing Surface	17 1/2	13 1/8	324'	—	275	CIRC
New Existing Interm	11	8 5/8	3,700	—	150	CIRC
New Existing LongSt	7 7/8	5 1/2	10700 TD	6803	715/150	2885' TS.
New Existing Liner						
New Existing OpenHole						

Depths/Formations: Depths, Ft. Formation Tops? #1223

Formation(s) Above			
Injection TOP:	5946	Del	Max. PSI 1189 OpenHole Perfs
Injection BOTTOM:	7388	Del	Tubing Size 27/8 Packer Depth 5900'
Formation(s) Below	7412 8830	B.S. Bensley	

Capitan Reef? Potash? Noticed? WIPP? Noticed? Salado Top/Bot Cliff House?

Fresh Water: Depths: 35-195' Formation Wells? Analysis? Affirmative Statement

Disposal Fluid Analysis? Sources: Del/Bensley/Quinn (Compatible)

Disposal Interval: Analysis? Production Potential/Testing: Existing Perfs: 5946-7388'

Notice: Newspaper Date 7/16/10 Surface Owner BLM Mineral Owner(s)

RULE 26.7(A) Affected Persons: LTX/Farlow/OXI/Co-Pan/Sally/EOG

AOR: Maps? Well List? Producing in Interval? Wellbore Diagrams?

Active Wells 2 Repairs? Which Wells?

P&A Wells 0 Repairs? Which Wells?

Set CIBP within 200' (Not in Procedure)

Questions: Request Sent Reply: