

06-05-2014
DATE

SUSPENSE

06-06-2014
ENGINEERPRG
LOGGED INSWD
TYPEPEH1415730334
APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Application Acronyms:

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

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

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

Check One Only for [B] or [C]

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

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

- [D] Other: Specify _____

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

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

- [B] Offset Operators, Leaseholders or Surface Owner

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

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

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

- [F] Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

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

Brenda F. Rathjen

Print or Type Name

Signature

Regulatory Analyst 432-688-3323

Energen Resources Corporation

Title

Brenda.rathjen@energen.com

Date

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: Energen Resources Corporation
ADDRESS: 3300 N. "A" St. Bldg. 4 Ste. 100 Midland, TX 79705
CONTACT PARTY: Ken Pittaway - Sr. District Engineer PHONE: 432-686-3596
- 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. See attachment III.
- 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. See Attachment V.
- 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. See Attachment VI.
- VII. Attach data on the proposed operation, including: See Attachment VII.
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. See Attachment VIII.
- IX. Describe the proposed stimulation program, if any. See Attachment IX.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
Logs enclosed. No test data was gathered.
- *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. No known fresh water wells w/in 1 mile.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. See Attachment VIII
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. See Attachment XIV.
- 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: Brenda F. Rathjen TITLE: Regulatory Analyst

SIGNATURE: Brenda F. Rathjen DATE: 5/28/2014

E-MAIL ADDRESS: Brenda.rathjen@energen.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:

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

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.

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

Attachment III

OPERATOR: Energen Resources Corporation OGRID #162928WELL NAME & NUMBER: Red Ruby 35 Federal SWD 1WELL LOCATION: 1100' FNL 830' FEL

FOOTAGE LOCATION

UNIT LETTER
ASECTION
35TOWNSHIP
T23SRANGE
R32EWELLBORE SCHEMATICWELL CONSTRUCTION DATA

Surface Casing

See attached wellbore diagrams.

Hole Size: 17-1/2"Casing Size: 13-3/8" @ 865'Cemented with: 725sx. or _____ ft³Top of Cement: SurfaceMethod Determined: Circ.Intermediate CasingHole Size: 11"Casing Size: 8-5/8" @ 4762'Cemented with: 1575sx. or _____ ft³Top of Cement: SurfaceMethod Determined: Circ.Proposed Injection/Production CasingHole Size: 7-7/8"

Casing

Size: 5-1/2"

Cemented with: _____

sx. or _____

ft³Top of Cement: SurfaceMethod Determined: CalculatedTotal Depth: 6750'Injection Interval5050 feet to 6650 (Perforated)

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET
(Red Ruby 35 Federal SWD 1)

Attachment III

Tubing Size: 3-1/2" Lining Material: IPC (Internal Plastic Coated)

Type of Packer: Baker Lok-set

Packer Setting Depth: 4950'

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

Additional Data

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

If no, for what purpose was the well originally drilled? Drilled and plugged test of Bone Spring to 9100'

2. Name of the Injection Formation: Delaware (Bell Canyon & Cherry Canyon)

3. Name of Field or Pool (if applicable): Triste Draw

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.

SEE ATTACHED Form 3160-4, 3160-5 from Patterson Petroleum Inc.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Next Higher - None Known, Next lower - Brushy Canyon 7030', Bone Spring 8780' Avalon 8890'

Energen Resources
Red Ruby 35 Federal 1 (Dry Hole)
Lea County, New Mexico

Elevation: GL 3681'

KB 3694'

Location: 1100' FNL, 830' FEL

A, Sec 35, T-23-S, R-32-E

Spudded: 7/27/1997

Completed: 8/18/1997

API #: 30-025-34003

P&A: 8/17/1997

Proposed
well

Current Status - P&A
as of 5/2/2014

Surface csg:

13-3/8" 48 & 61#, J-55
Set @ 865', Cmt w/725 sx

Class C, Cmt circulated

TOC @ surface

Hole size 17-1/2"

865'

Cement to Surface with 15 sx from 15'

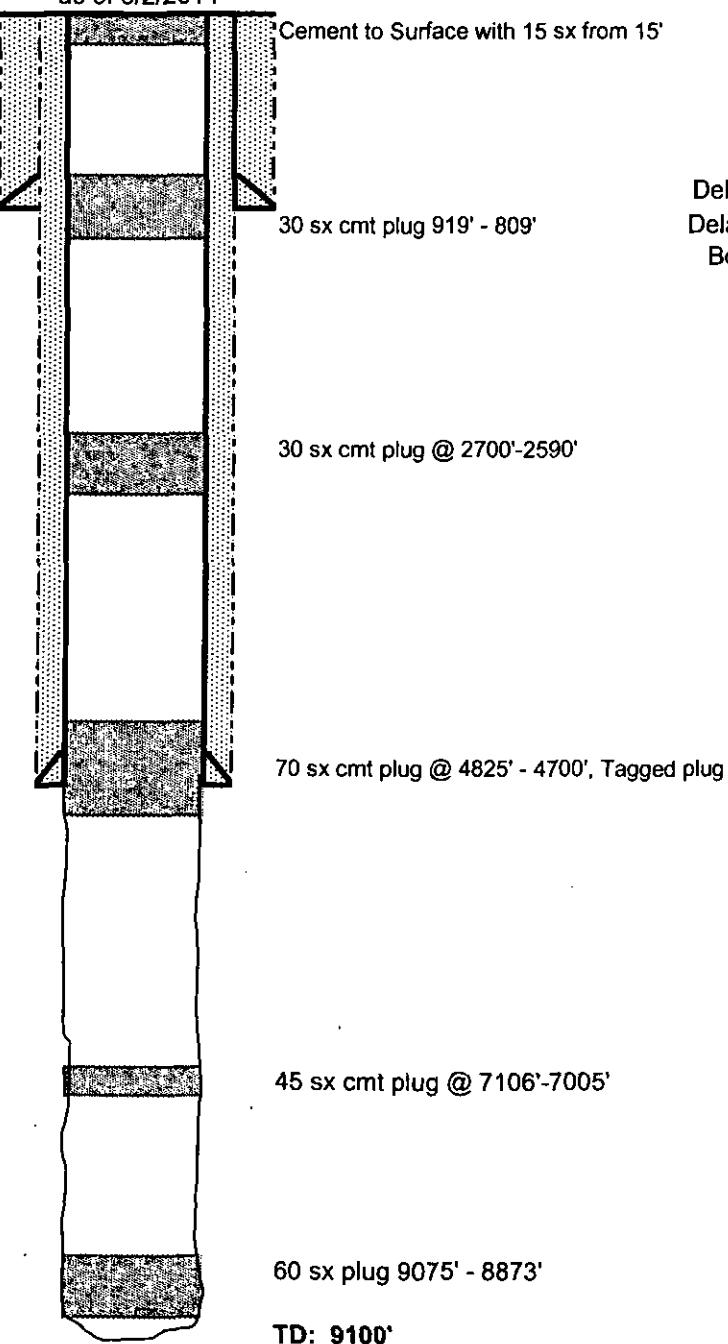
Formation Tops

Rustler: 1218'

Delaware Lime: 4850'

Delaware Sand: 5050'

Bone Springs: 8860'



Production csg:

8-5/8" 32#, NS80 set @ 4762'

Cmt w/1575 sx Class C

TOC @ Surface

Hole size 11"

Energen Resources
Red Ruby 35 Federal SWD 1
Lea County, New Mexico

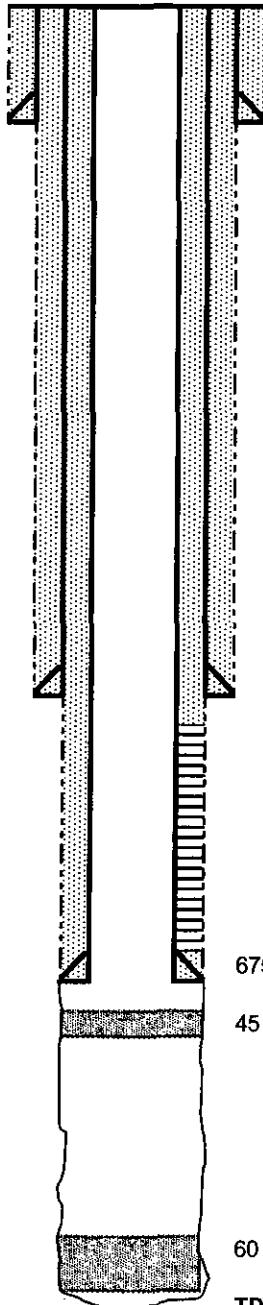
Elevation: GL 3681'
KB 3694'
Location: 1100' FNL, 830' FEL
A, Sec 35, T-23-S, R-32-E
Spudded: 7/27/1997 **Completed:** 8/18/1997
API #: 30-025-34003 **P&A:** 8/17/1997

Surface csg:
13-3/8" 48 & 61#, J-55
Set @ 865', Cmt w/725 sx
Class C, Cmt circulated
TOC @ surface
Hole size 17-1/2"

Intermediate csg:
8-5/8" 32#, NS80 set @ 4762'
Cmt w/1575 sx Class C
TOC @ Surface
Hole size 11"

Injection csg:
5-1/2" 17#, L-80 set @ ~6750'
Cmt to Surface
Hole size 7-7/8" ✓

Proposed Conversion
to SWD well



Perfs: 5050' - 5624', 265' with 1056 perfs
5676' - 6183', 209' with 836 perfs
6210' - 6650', 215' with 860 perfs

1600'

6750' - Bottom plug ✓
45 sx cmt plug @ 7106'-7005'

60 sx plug 9075' - 8873'

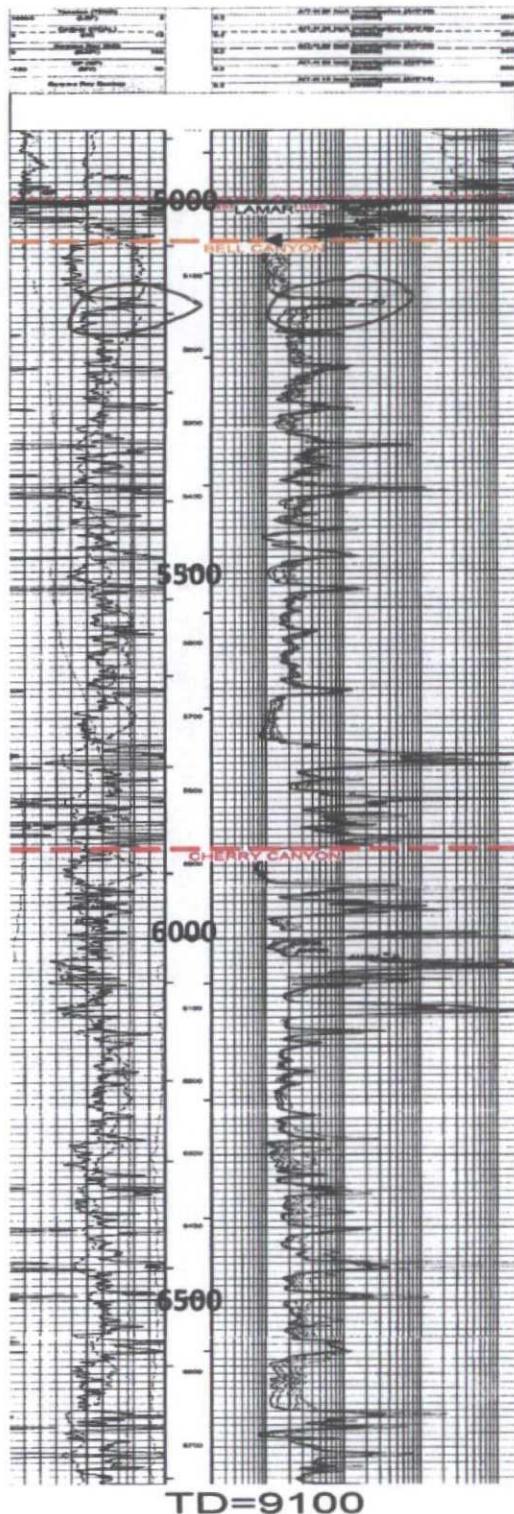
TD: 9100'

30025340030000

PATTERSON PETRLM INC
RED RUBY '35' FEDER 1
1101 FNL/829 FEL

TWP: 23 S - Range: 32 E - Sec. 35

8 5/8 TO 4762'



PLUGS

0-15'
809-919'
2590-2700'
4700-4825'
7000-7106'
8873-9075'

PROPOSED INJECTION
INTERVAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTM-0110
1991
NM 1FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993
5. Lease Designation and Serial No.

NM89059

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPPLICATE

7. If Unit or CA, Agreement Designation

1. Type of Well

 Oil Well Gas Well Other

Dry

2. Name of Operator

Patterson Petroleum, Inc.

8. Well Name and No.

Red Ruby 35 Federal

3. Address and Telephone No.

P.O. Drawer 1416, Snyder, TX 79550 915/573-1938.

9. API Well No.

300253400300

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

10. Field and Pool, or Exploratory Area

Triste Draw

11. County or Parish, State

Lea, NM

1101'FNL&829'FEL SEC 35, T. 23S, R. 32E.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

- 08/16/97 Set 60 sk cement plug from 9075 - 8873'
Set 45 sk cement plug from 7106 - 7005'
Set 70 sk cement plug from 4825 - 4700' Tagged plug
- 08/17/97 Set 30 sk cement plug from 2700 - 2590'
Set 30 sk cement plug from 919 - 809'
Set 15 sk cement plug from 15' - Surface
Welded on dry hole marker.

1991 SEP 19 AM 11:14
FEDERAL LANDS HIGHWAY
RECORDS SOURCE AREA

4. I hereby certify that the foregoing is true and correct

Signed

Title Petroleum Engineer

Date 09/17/97

(This space for Federal or State office use)

ORIG. SGN: DAVID R. GLASS

Approved by

Title

Date SEP 25 1997

Conditions of approval, if any:

18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representation as to any matter within its jurisdiction.

APPROVAL

*See Instruction on Reverse Side

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

(New or other information on reverse side)

Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. TYPE OF WELL:

OIL WELL

GAS WELL

DRY

OTHER

2. TYPE OF COMPLETION:

NEW

WORK OVER

DEEPEN EX

PLUG BACK

PIPE LAYNR.

OTHER

RECEIVED

2. NAME OF OPERATOR

Patterson Petroleum, Inc.

3. ADDRESS AND TELEPHONE NO.

P.O. Drawer 1416, Snyder, TX 79550 915/573-1938

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1101' FNL & 829' FEL

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

05/29/97

15. DATE SPUDDED

16. DATE T.D. REACHED

17. DATE COMPL. (Ready to prod.)

18. ELEVATIONS (DV. RBD. ST. GR. ETC.)*

19. ELEV. CARRYING HEAD

07/27/97

08/15/97

08/18/97

K.B. 3694'

3680'

20. TOTAL DEPTH, MD & TVD

21. PLUG BACK T.D., MD & TVD

**22. IF MULTIPLE COMPL.,
HOW MANY***

**23. INTERVALS
DRILLED BY**

ROTARY TOOLS

CABLE TOOLS

9100'

9100'



X

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

**25. WAS DIRECTIONAL
SURVEY MADE**

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Platform Express (CNL/TDD/AIT/GR)

27. WAS WELL COILED

No

28.

CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8" J55	48# & 61#	865'	17 1/2"	Surface 725 SX "C"	0
8 5/8" NS80	32#	4762'	11"	Surface 1575 SX "C"	0

29.

LINER RECORD

30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACK CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.

PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
					DRYHOLE	

DATE OF TEST	HOURLS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
			→				

FLOW. TUBING PRESS.	FACING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

ACCEPTED FOR RECORD

TEST WITNESSED BY

(DRIG. SEC'D) DAVID R. GLENN

SEP 23 1997

4/19/97

35. LIST OF ATTACHMENTS

SIGNED	TITLE	DATE
<i>John R. Glenn</i>	Petroleum Engineer	09/17/97

*(See Instructions and Spaces for Additional Data on Reverse Side)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
611 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to Appropriate
District Office

OIL CONSERVATION DIVISION

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-34003	Pool Code 96803	Pool Name TRUSTE DRAW BONE SPRING
Property Code 40257	Property Name RED RUBY 35 FEDERAL	Well Number 1D
GRID No. 162928	Operator Name ENERGEN RESOURCES CORPORATION	Elevation 3881'

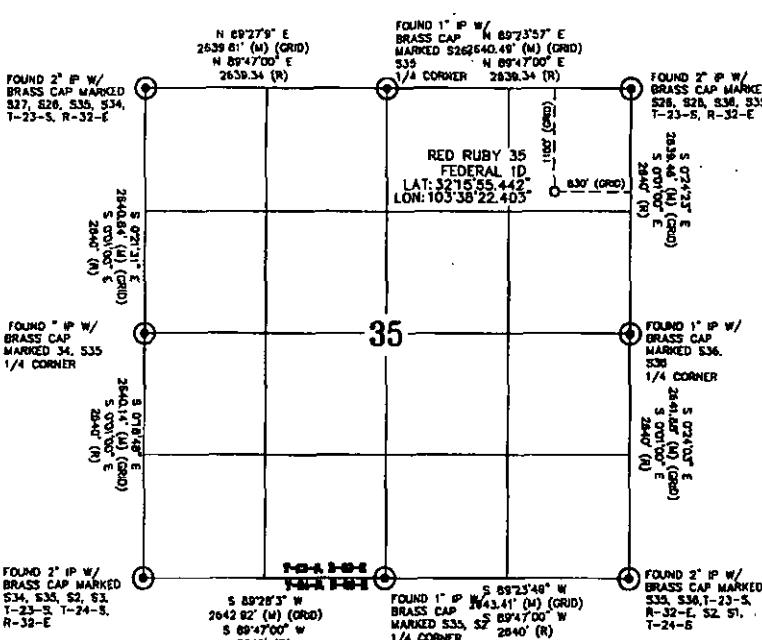
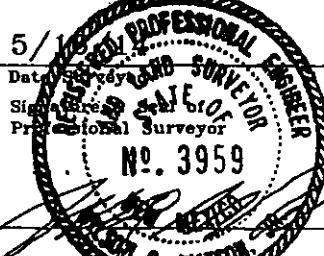
Surface Location

UL or lot No. A	Section 36	Township 23-S	Range 32-E	Lot Idn	Feet from the 1100	North/South line North	Feet from the 830	East/West line East	County LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill			Consolidation Code	Order No.				

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

<p style="text-align: center;">SECTION 35 T-23-S, R-32-E</p>  <p>NOTES: 1. COORDINATES AND BEARINGS ARE BASED ON LAMBERT CONICAL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM NAD 83, CORS 96, TEXAS CENTRAL ZONE WITH A CONVERGENCE ANGLE OF 0.37067599 AND DISTANCES ARE OF GRID VALUE WITH A CENTRAL COMBINED SCALE FACTOR OF 0.99978903. THE POSITIONAL TOLERANCE OF THIS SURVEY EXCEEDS THE REQUIREMENTS FOR A CONSTRUCTION SURVEY. 2. SCALE 1" = 2000'</p>					<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>Date _____</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>5/10/2011 </p> <p>Date Surveyed _____ Signature _____ Professional Surveyor Certificate No. WILSON D. WATSON JR. P.L.S. #3959 WATSON PROFESSIONAL GROUP INC</p>				
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SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38.

GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
				Rustler	1218'	
				Delaware Lime	4850'	
				Delaware Sand	5050'	
				Bone Springs	8860'	

Attachment VII section

Red Ruby 35 Federal SWD 1
Lea County, New Mexico

Includes:

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.
5. A chemical analysis of the disposal zone formation water.

Attachment VII, #1, #3
Red Ruby 35 Federal SWD 1

Energen Resources Corporation, 3300 N. A Street, Bldg. 4, Ste. 100, Midland, Texas 79705, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to inject fluid into a formation productive of oil or gas.

Proposed injection fluid into the Red Ruby 35 Federal SWD 1 is water from area wells producing from the Bone Spring formation.

Disposal water will be injected into the Bell Canyon and Cherry Canyon formations at a depth of 5050'-6650'.

#1. Proposed average daily rate: 4000 BWPD with a maximum daily rate of 10,000 BWPD.
Volume of fluid to be injected : ~20 MMB

#3. Proposed average surface pressure: 800 PSI with a maximum surface pressure of 1010 PSI.

ENERGEN RESOURCES CORPORATION**Red Ruby 35 Federal SWD 1**

1100' FNL and 830' FEL

Sec 35, T-23-S, R-32-E

Lea, Co. NM

Triste Draw Delaware Field
Cherry Canyon SWD Procedure

Date: April 29, 2014

API#: 30-025-34003

AFE No: PB041214

Cost: \$1,703,272

TD: 9100'

PBTD: SURF' (P&A - 8/17/97)

KB: 3694'

GL: 3681'

Surface Casing: 13-3/8" 48-61#/ft, J-55 at 865'.
Cemented w/725 sx Class C, circulated.Intermediate Casing: 8-5/8" 32#/ft, N-80 @ 4762'.
Cemented w/1575 sx Class C, circulated.

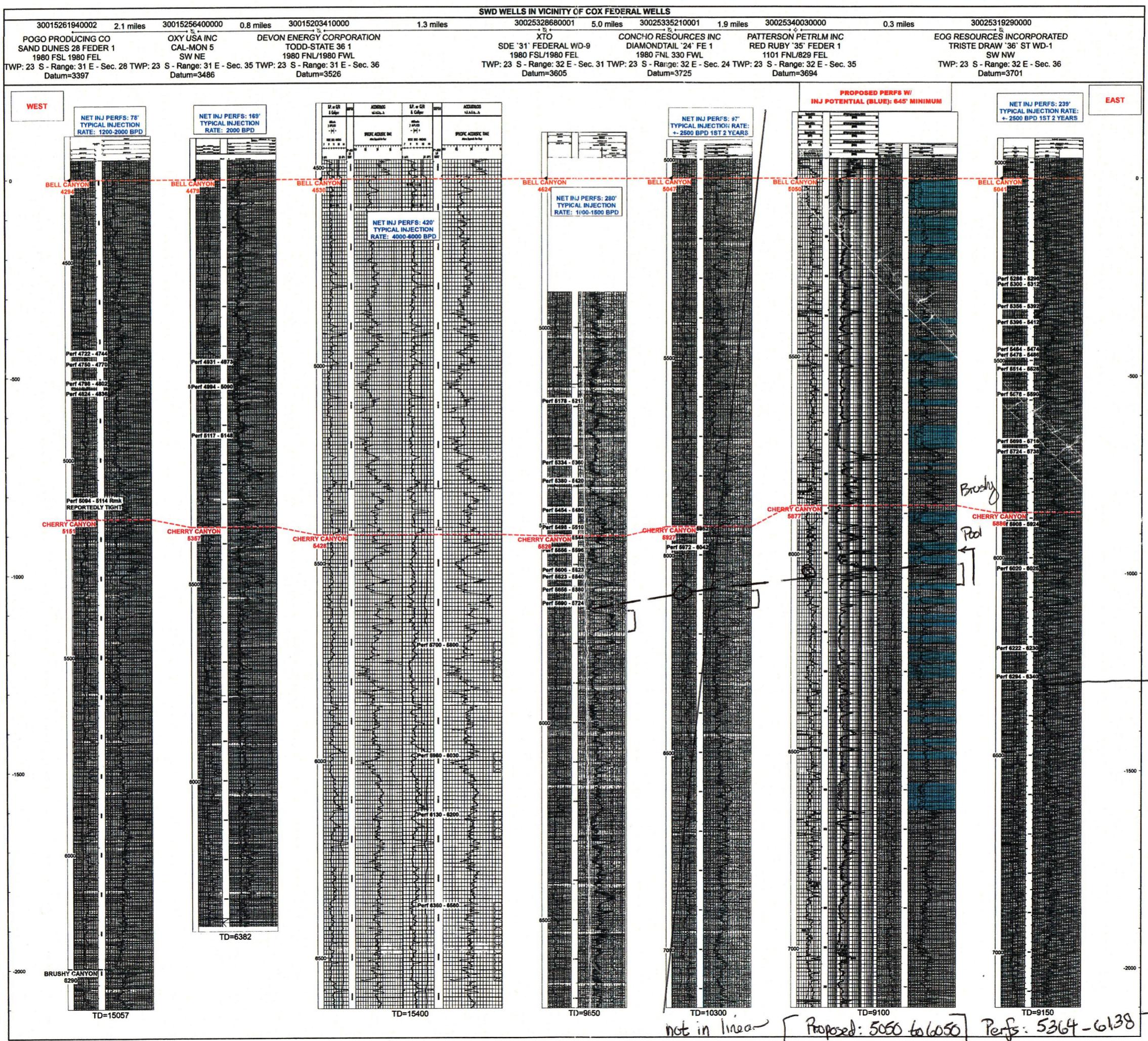
Tubing: None

Perforations: None

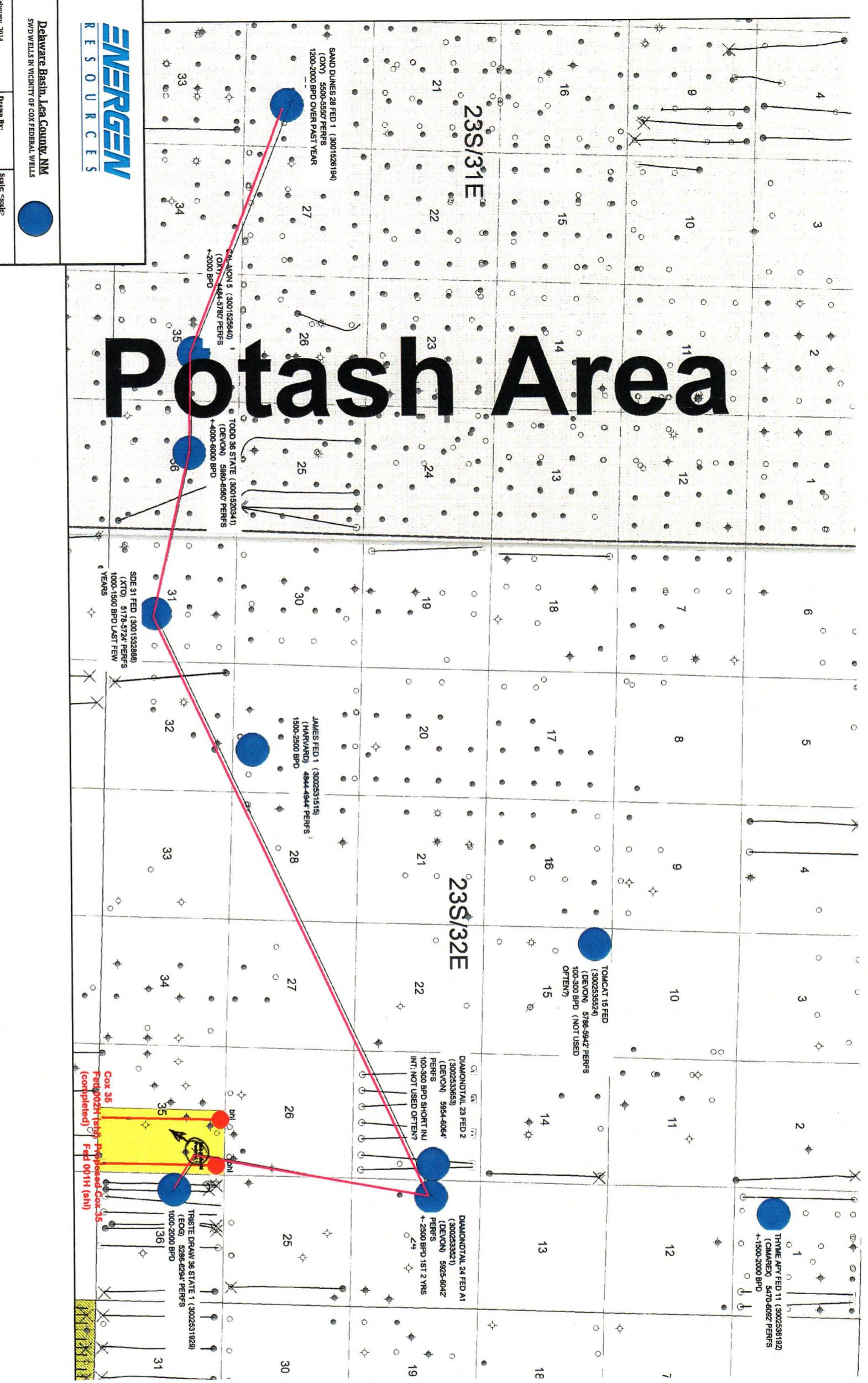
Re-entry Procedure

- 1) Set and test Anchors.
- 2) Dig out to 8-5/8" and prepare wellhead and flange.
 - a) After welding flange, test to 5000 psi against surface plug.
- 3) MIRU Pulling Unit
- 4) Install BOPE. PU Bit and collars and RIH w/tbg.
 - a) PU 6,800 feet of 2 7/8 7.9# PH-6 Workstring, 5 drill collars and a 7 5/8" cut bit.
- 5) RU Reverse Unit. Drill cement plugs @ 15', 809', 2590', and 4700'.
 - a) Drill with 9.0# KCl based drilling mud. Maintain circulation while drilling. Bottoms up after each plug drill.
- 6) Drill to 6,750', Circulate clean.
 - a) CBU x2.
- 7) Prep hole for casing and cement. POOH.
 - a) POOH to surface, PU Casing scrapper, TIH to 6750. Ream if necessary. CBU x1.
- 8) RU to run 5.5" casing. RIH to TD.
 - a) RIH 5.5" 17# L-80 to 6750' feet. Include cmt shoe, floats. Bowspring centralizer every 3rd jt.
- 9) Cement 5.5" casing. WOC.
 - a) Tail slurry 15.2 ppg 65:35 Class C:Poz 25 lbs/sk silica flour + LCM. Slurry to 4500 feet + 50% excess.
 - b) Lead Slurry 12.2 ppg 50:50 Class C:Poz + LCM. Slurry to surface + 25% excess.
 - c) Bump plug to 3000 psi, SI well.
 - d) WOC 36 hrs.

- 10) Run CBL/GR/CCL.
 - a) Run Radial CBL from TD to Surface.
- 11) Perforate & acidize per schedule from 5050' to 6650'
 - a) Perf and Acid via 3 stages.
 - i) Stage 1 6650-6210 215 feet of perfs – 860 perfs - 30,100 gallons of acid
 - ii) Stage 2 6183-5676 209 feet of perfs – 836 perfs – 29,260 gallons of acid plug @ 6200 ft
 - iii) Stage 3 5624-5050 264 feet of perfs – 1056 perfs – 36,960 gallons of acid plug @ 5660 ft
 - b) Set wireline conveyed composite bridge plug between stages
 - c) All shots 4 spf 120 deg phasing 3 ½ inch carrier guns 21 gram charges
 - d) Acid 15% Inhibited HCl. Pumped with acid compatible bio-diverter balls. Acid Matrix rate @ 6 bpm.
 - e) Acid displaced to top perf between stages.
- 12) RIH with PH-6 and drill out plugs using 4 ½ inch cut bit. CBU x1.
- 13) RIH with injection equipment.
 - a) 3.5" 7.7# L-80 tubing. LT at 5010 ft. BHA – X nipple – 1 jt – XN nipple – Baker Super Hornet Packer – Wireline guide.
- 14) Circulated packer fluid.
- 15) Set packer in compression and allow for air to work out of annulus, then pressure test.
 - a) Pressure test to 3000 psi. Hold for 60 minutes.
- 16) ND BOP, NU Injection wellhead.
- 17) Notify OCD personnel for final mechanical integrity testing.
- 18) RDMO pulling unit
- 19) RU SWD facility. Begin injection after C-108 injection permit is approved.



Potash Area



Print Date:	27 February, 2014
Drawn By:	[Signature]
Scale:	<scale>

ATTACHMENT VI

Area of Review
Well Data (1/2 mile)
Red Ruby 35 Federal SWD 1

1

Operator	Well Name	API	Type	Status	Location	Distance	Spud Date	Total Depth	TOC	Record of Completion
Sec 35										
Energen Resources Corporation	Red Ruby 35 Federal #001	30-025-34003	O&G	P&A,	A-35-23S-32E 8/17/1997 1101 FNL 829 FEL	0	07/27/97	9100	Surf	13 3/8 @ 865' 725sx, Surf 8 5/8 @ 4762' 1575sx, Surf 4 1/2 not set. Open hole to 9100. Dry Hole no perfs noted
** Patterson Petroleum LLC (Dry Hole)										
** Tempo Energy Inc.	James Federal #1 SWD ✓	30-025-08128	SWD	P&A 11/24/2003	A-35-23S-32E 660 FNL 660 FEL	479'	01/26/61	5200	4159	8 5/8 @ 309' 220sx, Surf 4 1/2 @ 5159' 200sx, TOC 4159 perf 5070-5097 when converted to SWD
** P M Drilling Co.	James Federal #2 ✓	30-025-08129	O&G	P&A 8/2/1976	B-35-23S-32E 660 FNL 1980 FL	1231'	03/02/61	5200	3975	8 5/8 @ 322' 200sx, Surf 4 1/2 @ 5134' 200sx, TOC 3975' / Calc Perf 5031-5036
** Tempo Energy Inc.	Payne Federal #2 ✓	30-025-08131	O&G	P&A 9/17/1991	C-35-23S-32E 990 FNL 2310 FWL	2145'	05/16/92	5200	4090	10 3/4 @ 317' 220sx, Surf 4 1/2 @ 5074' 200sx, TOC 4090' Perf 5010-5020
** Tempo Energy Inc.	Payne Federal #1 ✓ (Dry Hole)	30-025-08127	O&G	P&A 9/20/1991	F-35-23S-32E 2310 FNL 2310 FWL	2472'	05/20/61	5200	4100	8 5/8 @ 323' 130sx, Surf 4 1/2 @ 5081' 200sx, TOC 4100 Perf 4992-5000, 5014-5021
** Union Oil Company of California	Federal 'WL' #1 ✓	30-025-08132	O&G	P&A 6/23/1981	G-35-23S-32E 1650 FSL 2310 FWL	1586'	03/06/62	5110	Unk	8 5/8 @ 265' 275sx, TOC Unknown 4 1/2 @ 5092' 100sx, TOC Unknown perf 5030-5034
** Union Oil Company of California	Federal 'WL' #2 ✓	30-025-08133	O&G	P&A 11/15/1972	H-35-23S-32E 1650 FNL 990 FEL	559'	03/17/62	5105	Unk	8 5/8 @ 367' 275sx, TOC Unknown 4 1/2 @ 5088' 100sx, TOC Unknown perf 5050-5053
** Tempo Energy Inc.	James Federal #3 ✓ (Dry Hole)	30-025-08130	O&G	P&A 3/7/1962	J-35-23S-32E 1980 FSL 1980 FEL	2474'	06/11/61	5110	326 to Surf	8 5/8 @ 326' 200sx, Surf 4 1/2 not set. Open hole to 5110. Dry Hole no perfs noted
Energen Resources Corporation	Cox 35 Federal 002H	30-025-41521	O&G	Active	O-35-23S-32E 200 FSL 2240 FEL	4219'	01/11/14	10927	Surf	13 3/8 @ 1270' 1000sx, Surf 9 5/8 @ 4849' 2000sx, Surf 5 1/2 @ 15447' 3315sx, TOC 2218' Perf 11463-15391
Sec 36										
** Penroc Oil Corp & & DB Baxter	Triste - State #1 (Dry Hole)	30-025-08135	O&G	P&A 10/13/1962	D-36-23S-32E 330 FNL 330 FWL	1437'	10/04/62	5192	880	7 @ 880' 175sx, Surf 4 1/2 not set. Open hole to 5192. Dry Hole no perfs noted
										5/27/2014

Proposed SWD
Pre-Primacy / Pre-BMW
Perf 5062 to 5100
5070 - 5097 ?
R-3+75 | case 4112
+4ml Bow
1969 to 2003

OK

ATTACHMENT VI

Wells In AOR
 9 P&A Diagrams
 3 P&A List
 12 P&A
 — and 3 Active
 15 total
 Area of Review
 Well Data (1/2 mile)
Red Ruby 35 Federal SWD 1

6
 6 wells
 3 Active / 3 P&A
 3

2

75280'

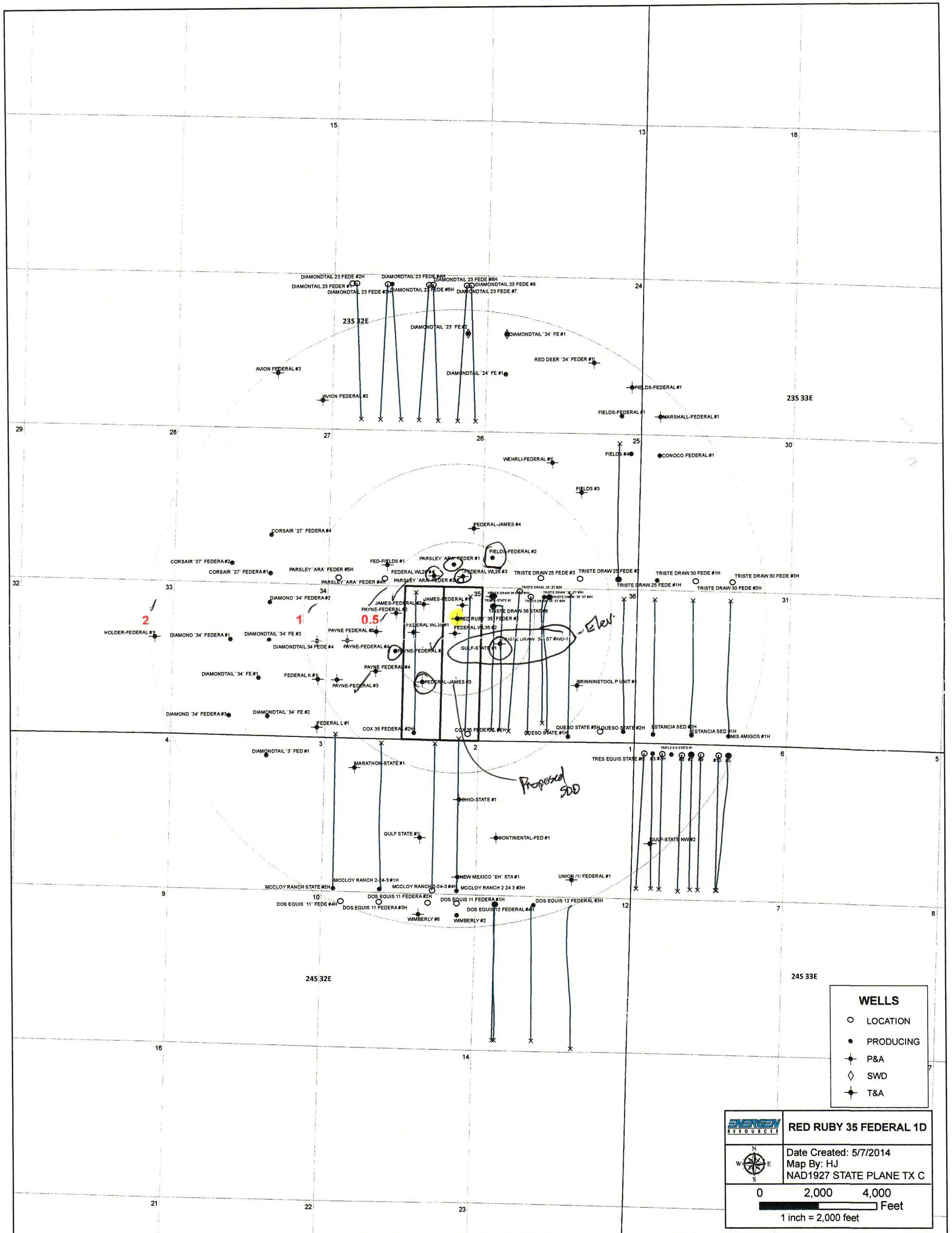
NA

10sx 30 to surface
 20sx 920' to 960'
 20sx 1,178' - 1228'
 20sx 4132' - 4190'
 20sx 4740' - 4782'
 25sx 4982' - 5050'

Operator	Well Name	API	Type	Status	Location	Distance	Spud Date	Total Depth	TOC	Record of Completion
** David Fasken	Gulf-State #1 (Dry Hole)	30-025-08134	O&G	P&A	E-36-23S-32E 3/18/1962	7586'	03/03/62	5206	993	8 5/8 @ 993' 500sx, Surf 4 1/2 not set. Open hole to 5206. Dry Hole no perfs noted
EOG Resources	Triste Draw 36 State #001	30-025-31929	SWD	Active	E-36-23S-32E 1980 FNL 510 FWL	1636'	05/12/93	9150	Surf	13 3/8 @ 652' 700sx, Surf 8 5/8 @ 4867' 2965sx, Surf ✓ 5 1/2 @ 9150' 1460sx, Surf Inj perfs 5286-6294
Cimarex Energy Co.	Triste Draw 36 State #001H	30-025-40184	O&G	Active	D-36-23S-32E 330 FNL 375 FWL	1444'	10/09/11	13942	Surf	13 3/8 @ 1230' 1050sx, Surf 7 @ 4840' 1650sx, Surf ✓ 5 1/2 @ 13297' 2150sx, Surf perf 9500-13896
Cimarex Energy Co.	Triste Draw 36 State #002H	30-025-40665	O&G	New Permit	D-36-23S-32E 150 FNL, 1261, FWL	2305'	Not Drilled			
Sec 25										
** Continental Oil Co.	Fields #002	30-025-08120	O&G	P&A	M-25-23S-32E 2/9/1989	2387'	07/21/62	5206	Unk	7 5/8 @ 395' 200sx, Surf 4 1/2 @ 5206' 200sx, TOC Unknown perf 5074-5076 (1962) perf 5100-5145 (1968 SWD Conversion)
Sec 26										
** Gene A. Snow	Federal "WL" #4	30-025-08124	O&G	P&A	O-26-23S-32E 2/1/1974	1443'	04/05/62	5105	Unk	8 5/8 @ 371' 275sx, Unknown 4 1/2 @ 5095' 100sx, TOC Unknown perf 5047-5053
** Gene A. Snow	Federal "WL" #3	30-025-08123	O&G	P&A	P-26-23S-32E 11/15/1972	1649'	03/26/62	5144	Unk	8 5/8 @ 360' 260sx, Unknown 4 1/2 @ 5140' 100sx, TOC Unknown perf 5071-5073
Yates Petroleum Corporation	Parsely ARA Federal #001	30-025-33863	O&G	Active	P-26-23S-32E 760 FSL 990 FEL	1869'	2/28/97	10325	Surf	20 @ 40' Cement to Surf 1 1/4 @ 630' 600sx, Surf 8 5/8 @ 4835 1600sx, Surf 5 1/2 @ 10325' 1125sx, Surf perf 8971-8987 perf 10027-10075

① James Fed #1 TD 5200' ✓ P&A
 ② James Fed #2 TD 5200' ✓ P&A
 ③ Payne Fed #2 TD 5014' ✓ P&A
 ④ Payne Fed #2 TD 5200' ✓ P&A
 ⑤ Federal WL #1 TD 5105' ✓ P&A
 ⑥ Federal WL #2 TD 5105' ✓ P&A
 ⑦ James Fed #1 TD 5050' ✓ P&A
 ⑧ Triste-State TD 5192' open hole
 ⑨ Gulf State #1 TD 5206' open hole
 5/27/2014

WL 4 Abandoned
 4 1/2 Casing Polled @ 4000'
 4 1/2 inch 4000' to 5095'
 CIBP @ 5000' with 35sx cmt
 35sx 3945 to 4045'
 35sx 1178' to 1278'
 35sx 325' to 425'
 10sx 0' to 10'
 WL 3 casing
 4 1/2 casing



Attachment II

ATTACHMENT VI

Area of Review
Well Data (1/2 mile)
Red Ruby 35 Federal SWD 1

3

Operator	Well Name	API	Type	Status	Location	Distance	Spud Date	Total Depth	TOC	Record of Completion
Yates Petroleum Corporation	Parsely ARA Federal #002H	30-025-41327	O&G	New Permit	P-26-23S-32E 200 FSL 760 FEL	1302'	Not Drilled			NA
Yates Petroleum Corporation	Parsely ARA Federal #003H	30-025-41328	O&G	New Permit	O-26-23S-32E 200 FSL 1980 FEL	1739'	Not Drilled			NA
** Operator when well was plugged.										

Eugen Resources
Red Ruby 35 Federal 1 (Dry Hole)
Lea County, New Mexico

Elevation: GL 3681'

KB 3694'

Location: 1100' FNL, 830' FEL

A, Sec 35, T-23-S, R-32-E

Spudded: 7/27/1997

Completed: 8/18/1997

API #: 30-025-34003

P&A: 8/17/1997

Current Status - P&A
as of 5/2/2014

Surface csg:

13-3/8" 48 & 61#, J-55

Set @ 865', Cmt w/725 sx

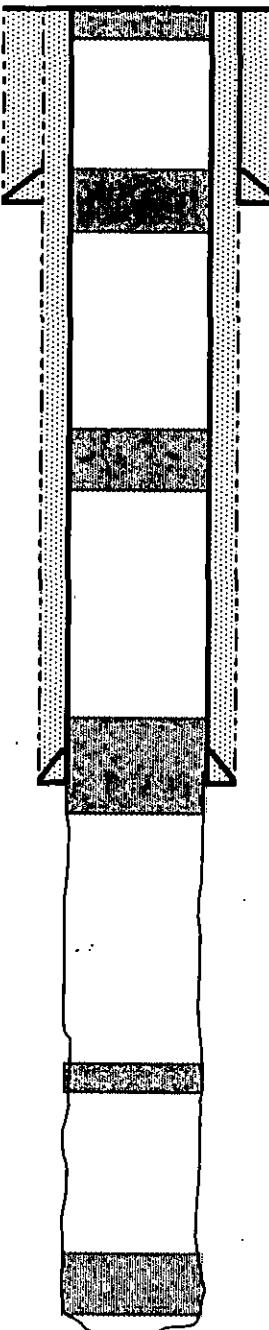
Class C, Cmt circulated

TOC @ surface

Hole size 17-1/2"

865'

Cement to Surface with 15 sx from 15'



Production csg:

8-5/8" 32#, NS80 set @ 4762'

Cmt w/1575 sx Class C

TOC @ Surface

Hole size 11"

Formation Tops

Rustler: 1218'

Delaware Lime: 4850'

Delaware Sand: 5050'

Bone Springs: 8860'

30 sx cmt plug @ 2700'-2590'

70 sx cmt plug @ 4825' - 4700', Tagged plug

45 sx cmt plug @ 7106'-7005'

60 sx plug 9075' - 8873'

TD: 9100'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPPLICATE

1. Type of Well	<input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Dry		7. If Unit or CA. Agreement Designation
2. Name of Operator	Patterson Petroleum, Inc.		
3. Address and Telephone No.	P.O. Drawer 1416, Snyder, TX 79550	915/573-1938	8. Well Name and No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	1101' FNLD 829' FEL SEC 35, T. 23S, R. 32E.		
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	9. API Well No.		
TYPE OF SUBMISSION		TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing	
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off	
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection	
	<input type="checkbox"/> Other _____	<input type="checkbox"/> Dispose Water	
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

13. 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.)*

- 08/16/97 Set 60 sk cement plug from 9075 - 8873'
Set 45 sk cement plug from 7106 - 7005'
Set 70 sk cement plug from 4825 - 4700' Tagged plug
- 08/17/97 Set 30 sk cement plug from 2700 - 2590'
Set 30 sk cement plug from 919 - 809'
Set 15 sk cement plug from 15' - Surface
Welded on dry hole marker.

RECEIVED
FEDERAL BUREAU OF INVESTIGATION
U.S. DEPARTMENT OF JUSTICE
SEP 19 1997

4. I hereby certify that the foregoing is true and correct

Signed David E. Glass Title Petroleum Engineer Date 09/17/97

(This space for Federal or State office use)

Approved by KORIG. SCDJ DAVID E. GLASS Title MANAGER OF FIELD OPERATIONS Date SEP 25 1997
Conditions of approval, if any:

title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FOR APPROVAL

*See Instruction on Reverse Side

Tempo Energy Inc.
James Federal #1 SWD
Lea County, New Mexico

Elevation: GL 3665'

Location: 660' FNL, 660' FEL, A Sec 35, T-23-S, R-32-E

Spudded: 1/26/1961

Completed: 2/10/1961

API #: 30-025-08128

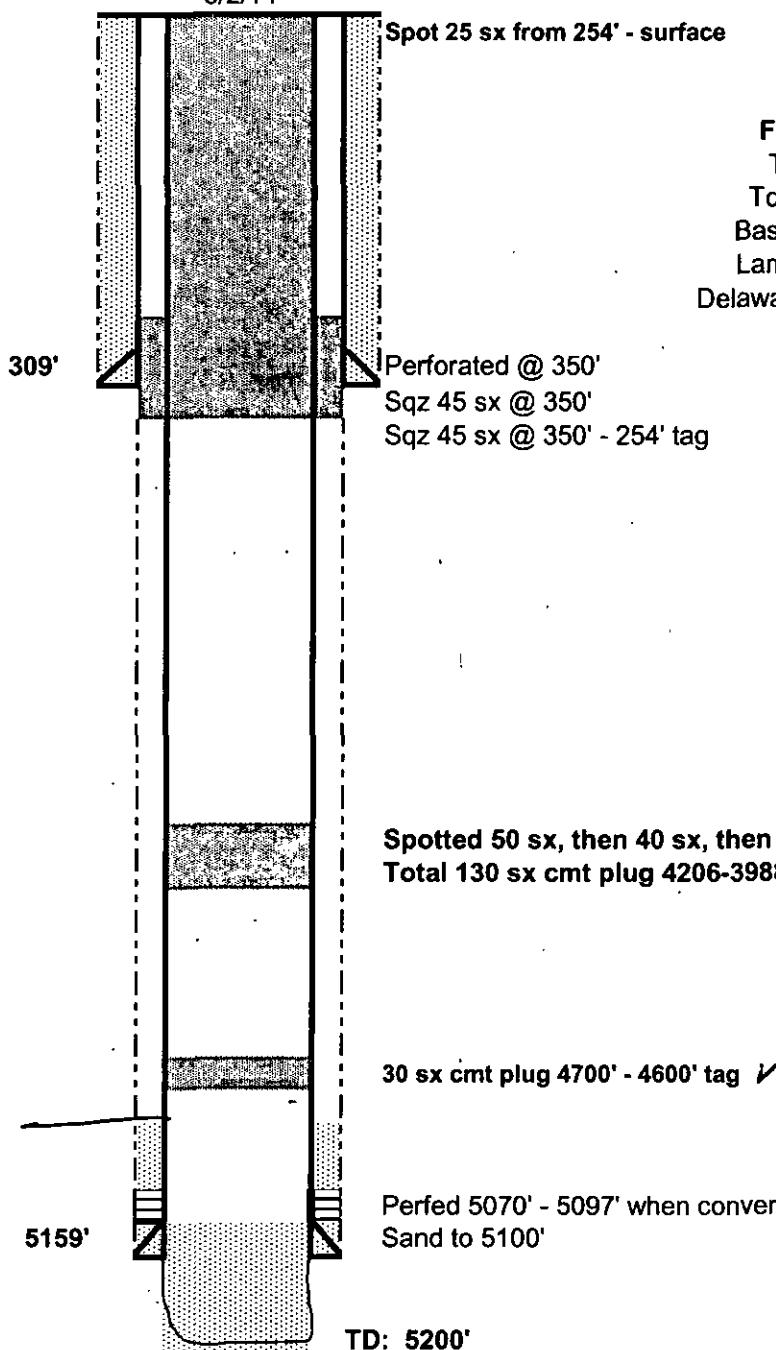
P&A: 11/24/2003

Current Status - P&A

5/2/14

Surface csg:

8-5/8", 24# set @ 309'
 Cmt w/ 220 sx
 Cement circulated
 15" hole



Formation Tops

T/Rustler: 1220'

Top of Salt: 4162'

Base of Salt: 4759'

Lamar Lime: 5005'

Delaware Sand: 5060'

Production csg:

4-1/2" 9.5#
 Set @ 5159'
 Cmt w/200 sx
 TOC @ 4159'
 7-7/8" hole

Submit 3 Copies To Appropriate District Office
District I
 1625 N. French Dr., Hobbs, NM 88240
District II
 1301 W. Grand Ave., Artesia, NM 88210
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources
OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-103
 Revised June 10, 2003

WELL API NO.	30-025-08128-00-00	
5. Indicate Type of Lease	STATE <input type="checkbox"/>	FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.		

7. Lease Name or Unit Agreement Name

James Federal

8. Well Number
001

9. OGRID Number
22223

10. Pool name or Wildcat
Trieste Draw

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		7. Lease Name or Unit Agreement Name		
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> <small>Office SWDOK</small>		James Federal		
2. Name of Operator Tempo Energy, Inc.		8. Well Number		
3. Address of Operator Po Box 1034 Midland, TX 79702		9. OGRID Number		
4. Well Location		10. Pool name or Wildcat		
Unit Letter <u>A</u> : 660' feet from the <u>N</u> line and 660' feet from the <u>E</u> line		Trieste Draw		
Section 35	Township 23S	Range 32E	NMMPM	County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.)				

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK PLUG AND ABANDON

TEMPORARILY ABANDON CHANGE PLANS

PULL OR ALTER CASING MULTIPLE COMPLETION

OTHER:

SUBSEQUENT REPORT OF:

REMEDIAL WORK ALTERING CASING

COMMENCE DRILLING OPNS: PLUG AND ABANDONMENT

CASING TEST AND CEMENT JOB OTHER

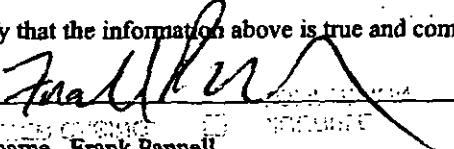
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

11/14/03 MIRU Mayo Mars Pluggers
 11/17/03 Spot 30 sxs @ 4700-4600'
 11/18/03 Spot 50 sxs @ 4206- no tag
 11/19/03 Spot 40 sxs @ 4206- no tag
 11/20/03 Spot 40 sxs @ 4206-3988' Tag
 11/21/03 Perforate @ 350'
 11/21/03 Squeeze 45 sxs @ 350-350' Tag
 11/24/03 Squeeze 45 sxs @ 350-254' Tag
 11/24/03 Spot 25 sxs @ 254' to surface
 Install Dry Hole Marker

Approved as to plugging of the Well Bore.
 Liability under bond is retained until
 surface restoration is completed.



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

SIGNATURE 

TITLE Vice President

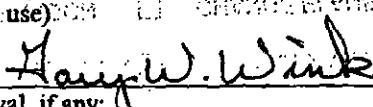
DATE 12/15/03

Type or print name Frank Pannell

E-mail address:

Telephone No. (432) 689-2951

(This space for State use)

APPROVED BY  TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER

DATE DEC 23 2003

Conditions of approval, if any:

Tempo Energy Inc.

Payne Federal #1 (Dry Hole)
Lea County, New Mexico

Elevation: GL 3678'

Location: 2310' FNL, 2310' FWL

F, Sec 35, T-23-S, R-32-E

Spudded: 5/20/1961 Completed: 5/30/1961

API #: 30-025-08127

P&A: 9/20/1991

Current Status - P&A

5/2/14

Surface csg:

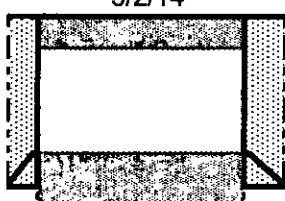
8-5/8", 24# set @ 323'

Cmt w/ 130 sx

Cement circulated

12-1/4" hole

323'



Circulate Cement to Surface with 14 sx from 50'

50 sx cmt plug 431' - 258'

Formation Tops

T/Rustler: 1193'

T/Salt: 4110'

B/Salt: 4693'

T/Lamar: 4934'

T/Delaware Sand: 4985'

Production csg:

4-1/2" 9.5#

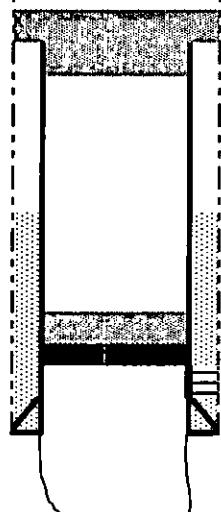
Set @ 5081'

Cmt w/200 sx

TOC @ 4100'

7-7/8" hole

5081'



Cut 4-1/2" Csg @ 3040'

40 sx cmt plug @ 2986' - 3090'

CIBP @ 4902' capped w/35 sx cmt to 4855'

Perf 4992-5000, 5014-5021

TD: 5200'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLEX
(Other instructions
verse side)

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

5. LEASE DESIGNATION AND SERIAL NO.

NM 03226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

RECEIVED
SUNDY 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. GULF WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	2. NAME OF OPERATOR Tempo Energy, Inc.	3. ADDRESS OF OPERATOR 4000 N. Big Spring, Suite 109 Midland, Texas	4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 710th F-2310 E. Mether & 2310 E. West	5. CARLSBAD SOURCE AREA HEADQUARTERS	6. UNIT AGREEMENT NAME Payne Federal	7. FARM OR LEASE NAME Tristi Draw Delaware	8. WELL NO. 35-235-32E	9. FIELD AND POOL, OR WILDCAT 10. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 11. COUNTY OR PARISH Lea	12. STATE NM
14. PERMIT NO.	15. ELEVATIONS (Show whether DE, BT, GR, etc.)								

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

RETAINING WELL
ALTERING CASING
ABANDONMENT*

X

(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.) *

- 9-18-91 Plug # 1. Set 4-1/2" CIBP @ 4900 Ft. capped with 35 SXS Cement to 4855 ft.
9-18-91 Plug # 2. Circ. hole with 10 Lbs. brine with 25 lbs salt water gel per bbl. from 4850 ft. to surf.
9-19-91 Plug # 3. Cut 401.2" casing @ 3040 ft. lay casing down.
9-19-91 Plug # 4. Spot 40 SXS plug inside 4-1/2" casing stub @ 3090 ft. WOC.
9-20-91 Plug # 5. RIH with tubing & tag plug @ 2986 ft.
9-20-91 Plug # 6. Spot 50 SXS plug @ 431 ft. WOC.
9-20-91 Plug # 7. Tag cement plug @ 258 Ft.
9-20-91 Plug # 8. Spot 14 SXS cement from 50 ft. to surf.
9-20-91 Plug # 9. Install dry hole marker.

18. I hereby certify that the foregoing is true and correct

SIGNER

TITLE Acquisition Manager

DATE Sept. 23, 1991

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE 9/30/91

*See Instructions on Reverse Side

71 R

E

Union Oil Company of California

Federal 'WL' #1

Lea County, New Mexico

Elevation: GL 3693'

Location: 1650' FSL, 2310' FWL,

G, Sec 35, T-23-S, R-32-E

Spudded: 3/6/1962

Completed: 3/24/1962

API #: 30-025-08132

P&A: 6/23/1981

Current Status - P&A

5/2/14

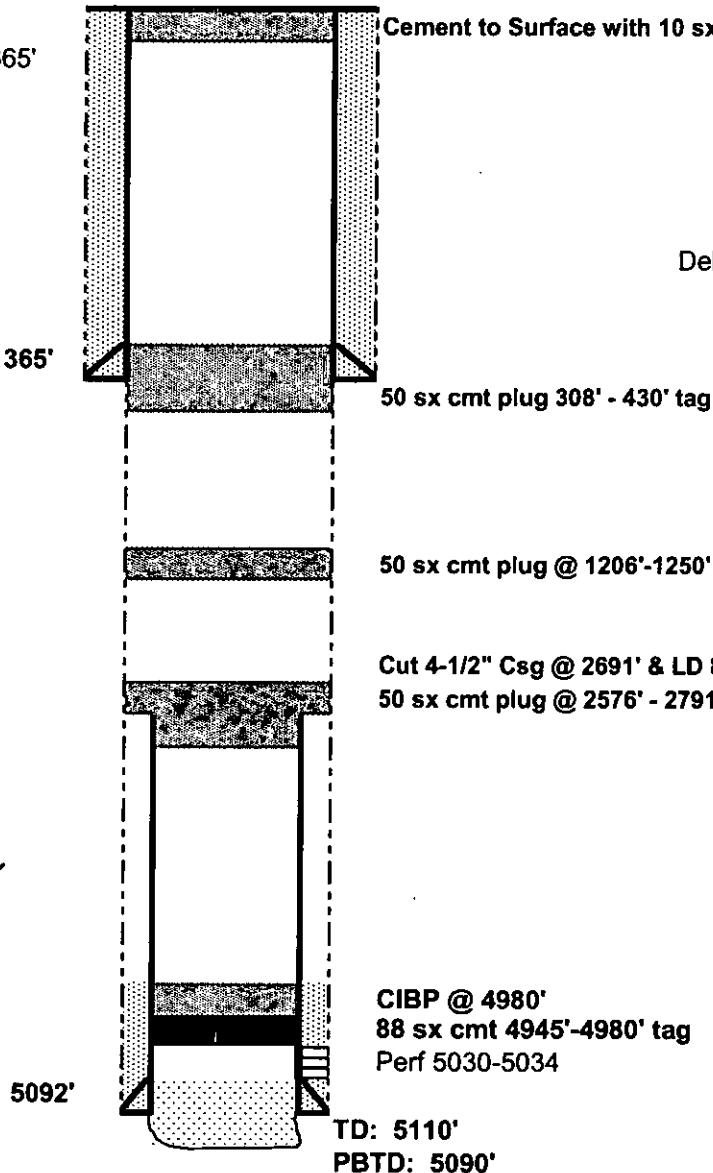
Surface csg:

8-5/8", 24#, J-55 set @ 365'

Cmt w/ 275 sx

TOC unknown

**9.5# mud pumped
between cmt plugs**



(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE
(Other instructions reverse side)

Form approved.
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

NM-04465

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal WL

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

Trieste Draw Delaware

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 35 T-23-S R-32-E

12. COUNTY OR PARISH

Lea

13. STATE
New Mexico

1. OIL GAS OTHER

2. NAME OF OPERATOR

Union Oil Company of California

JUL

3. ADDRESS OF OPERATOR

P. O. Box 671 Midland, Texas

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

SW/4, NE/4, Section 35, T-23-S, R-32-E
1650/N 2310/C

14. PERMIT NO.

15. ELEVATIONS (Show whether DR, RT, GR, etc.)

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

SUBSEQUENT REPORT OF:

FRACURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Other)

(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 soles pertinent to this work.)

- 6-16-81 Rig up PU, pulled rods, pump and tubing.
6-19-81 Set C.I. Bridge Plug in 4-1/2" OD casing at 4,980'. Spotted plug No. 1 from 4,980' to 4,945' with 88 sx cement. Tagged cement at 4,945'.
6-20-81 Shot 4-1/2" OD casing at 2,691'. Pulled and laid down 86 jts. 4-1/2" OD casing.
6-22-81 Ran 2-3/8" OD tubing, spotted plug No. 2 from 2,791' to 2,576' in 4-1/2" OD casing and 7-7/8" open hole with 50 sx cement. Tagged top of cement at 2,576'. Pulled 2-3/8" OD tubing to 1,250', spotted plug No. 3 from 1,250' to 1,206' in 7-7/8" open hole with 50 sx cement. Tagged top of cement at 1,206'.
6-23-81 Pulled 2-3/8" OD tubing to 430', spotted plug No. 4 from 430' to 308' in 7-7/8" open hole and bottom of 8-5/8" OD casing with 50 sx cement. Tagged top of cement at 308'. Spotted plug No. 5 from 30' to surface in top of 8-5/8" OD casing with 10 sx cement. Welded 1/2" steel plate on top of 8-5/8" OD casing. Installed 4" x 4' dry hole marker. 9.5# mud pumped between cement plugs. WELL PLUGGED AND ABANDONED 6-23-81.

18. I hereby certify that the foregoing is true and correct

SIGNED

J.R. Hughes

TITLE Dist. Drilling Supt.

DATE July 9, 1981

(This space for Federal or State oil tax)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

APPROVED

SEP 7 1982

JAMES A. CHURCH DISTRICT SUPERVISOR

*See Instructions on Reverse Side

API 30-025-08132

Union Oil Company of California
Federal 'WL' #2
Lea County, New Mexico

Elevation: GL 3680'

Location: 1650' FNL, 990' FEL,

H, Sec 35, T-23-S, R-32-E

Spudded: 3/17/1962

Completed: 3/25/1962

API #: 30-025-08133

P&A: ~11/15/1972

Current Status - P&A

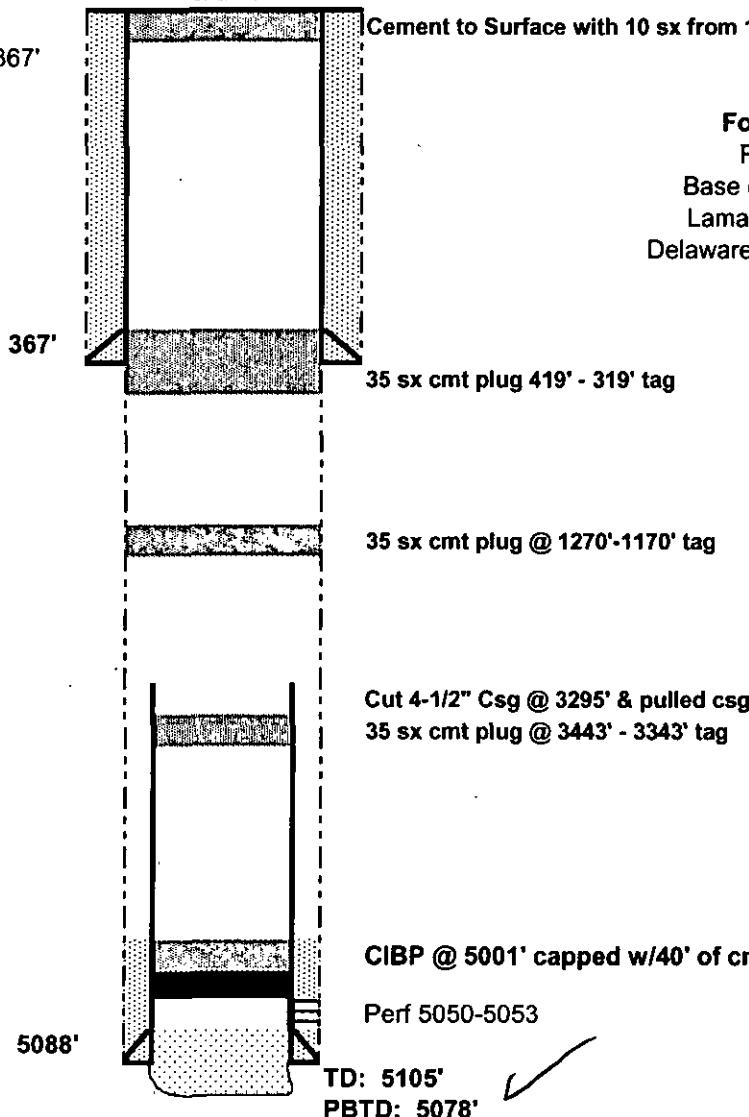
5/2/14

Surface csg:

8-5/8", 24#, J-55 set @ 367'

Cmt w/ 275 sx

TOC unknown



Production csg:

4-1/2" 9.5#, J-55

Set @ 5088'

Cmt w/100 sx

TOC Unknown

7-7/8" hole

Formation Tops

Rustler: 1205'

Base of Salt: 4743'

Lamar Lime: 4987'

Delaware Sand: 5042'

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE.
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-R1424.

API 30-025-08133

6. LEASE DESIGNATION AND SERIAL NO.

NM - 04465

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDY 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 GAS WELL OTHER

30-025-08133

2. NAME OF OPERATOR

Gene A. Snow

3. ADDRESS OF OPERATOR

606 So. 13th, Lovington, N.M.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface1630' FNL & 770' FEL
Sec. 35, T5 23S, Rg 32E

14. PERMIT NO.

15. ELEVATIONS (Show whether DP, ST, GR, etc.)

3630 G.L.

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal Well

9. WELL NO.

2-3

10. FIELD AND POOL, OR WILDCAT

Triste Draw

11. SEC., T., E., M., OR BLK., AND
SURVEY OR AREA

35. 23S, 32E

12. COUNTY OR PARISH 13. STATE
Lea N.M.

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

(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.)

Plugged well in the following manner:

1. Set C.I. bridge plug on wire line @ 5001'
2. Capped plug with 40' of cement by depth 6000'.
3. Located hole with salt mud, mixed 1 sack gel to 4600 ft bridge.
4. Cut 4" casing at 3715'. Full tube casing.
5. Set plug through tubing as follows:

35	the	Cement	spelling	@	3443'	to	3343'
35	"	"	"	@	1270'	to	1170'
35	"	"	"	@	411'	to	311'
10	"	"	"	@	10'	to	0'
6. Installed regulation valves.

I will notify when location is ready for inspection

18. I hereby certify that the foregoing is true and correct

SIGNED

Gene A. Snow

TITLE

DATE

11-15-72

(This space for Federal or State office use)

APPROVAL BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

APPROVED

DATE

MAY 21 1973

*See Instructions on Reverse Side J. L. GORDON
PCTING DISTRICT ENGINEER

Tempo Energy Inc.

James Federal #3 (Dry Hole)
Lea County, New Mexico

Elevation: GL 3633'

Location: 1980' FSL, 1980' FEL

J, Sec 35, T-23-S, R-32-E

Spudded: 6/11/1961 Completed: 6/21/1961

Current Status - P&A

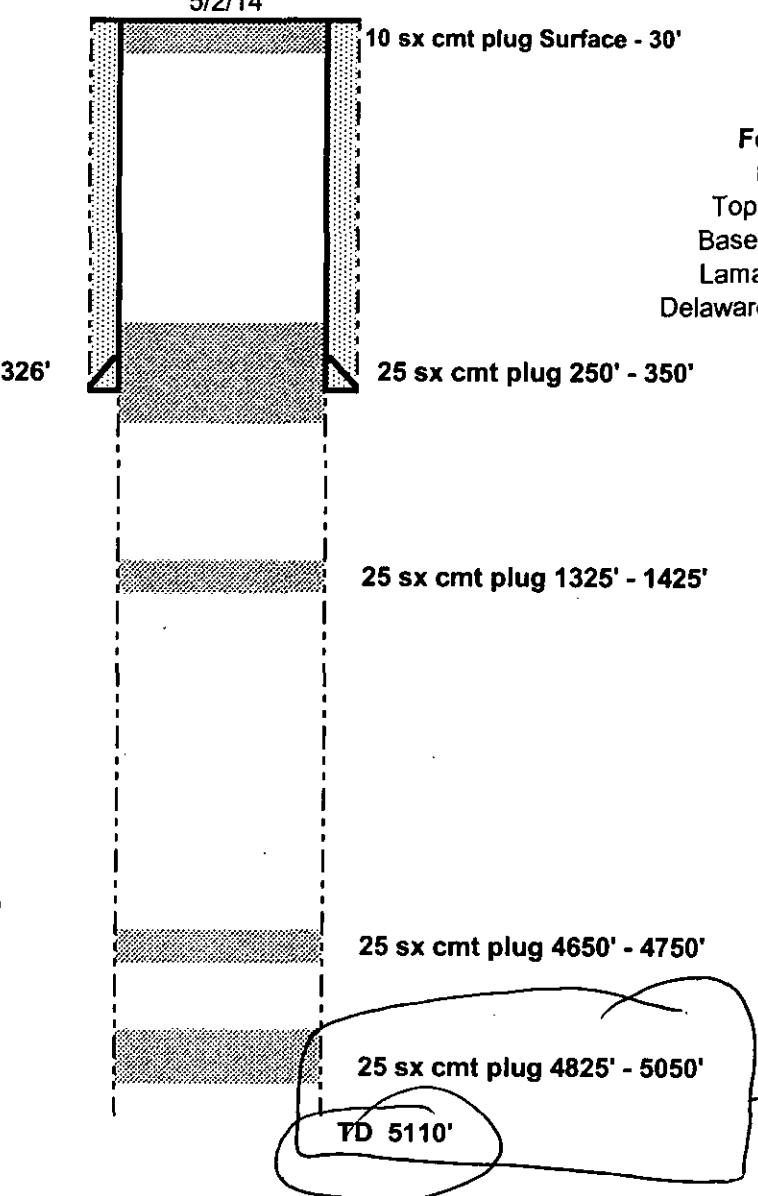
5/2/14

API #: 30-025-08130

P&A: 3/7/1962

Surface csg:

8-5/8", 24# set @ 326'
Cmt w/ 200 sx
Cement circulated
12-1/4" hole



Production csg:

Never Set
Drilled 7-7/8" hole to 5110'

API 30-025-08130

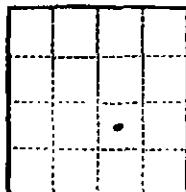
2

APPROVED

Form 6-221a
(Feb. 1961)

MAR 9 1962

(SUBMIT IN TRIPPLICATE)



E. W. STANLEY
DISTRICT ENGINEER

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Inspected 4-7-61
Subsequently converted to water well
C.P. for Federal approval left

Budget Bureau No. 43-B2004.
Approval expires 12-31-61.

Land Office _____

Case No. NM 04465

MAR 8 1962

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	.....	SUBSEQUENT REPORT OF WATER SHUT-OFF	.....
NOTICE OF INTENTION TO CHANGE PLANS	.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	.....	SUBSEQUENT REPORT OF ALTERING CASING	.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	.....	SUBSEQUENT REPORT OF ABANDONMENT	.....
NOTICE OF INTENTION TO PULL OR ALTER CASING	.....	SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL	.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

James Federal

March 7, 1962

Well No. 3 is located 1900 ft. from **S** line and 1900 ft. from **E** line of sec. 35.

SW/4 SE/4

238

328

SWNW

(Sec. and Sec. No.)

(Twp.)

(Range)

(Meridian)

Tri-State Draw

(Field)

Lee

(County or Subdivision)

New Mexico

(State or Territory)

The elevation of the derrick floor above sea level is 3660 ft.

DETAILS OF WORK

(Show names of and expected depths to objective zones; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Cement plug from 4825' to 5050' w/25 sec cement
Cement plug from 4630' to 4750' w/25 sec cement
Cement plug from 1325' to 1425' w/25 sec cement
Cement plug from 250' to 350' w/25 sec cement
Cement plug from 0' to 30' w/30 sec cement
336' of 8 5/8" 24# casing left in hole
T.D. 5140'

Dry hole marker installed

Location cleaned up and ready for inspection

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company J. B. Palmer & A. G. McCarver, P-M Drilling Company

Address 1004 V & J Tower

Midland, Texas

By *Halton Lamm*
Title *Halton Lamm*

Title *Dept.*

000 00000

P M Drilling Co

James Federal #2

Lea County, New Mexico

Elevation: GL 3658'

Location: 660' FNL, 1980' FEL

B, Sec 35, T-23-S, R-32-E

Spudded: 3/2/1961

Completed: 3/16/1961

API #: 30-025-08129

P&A Date: 8/2/1976

Current Status - P&A

5/2/14

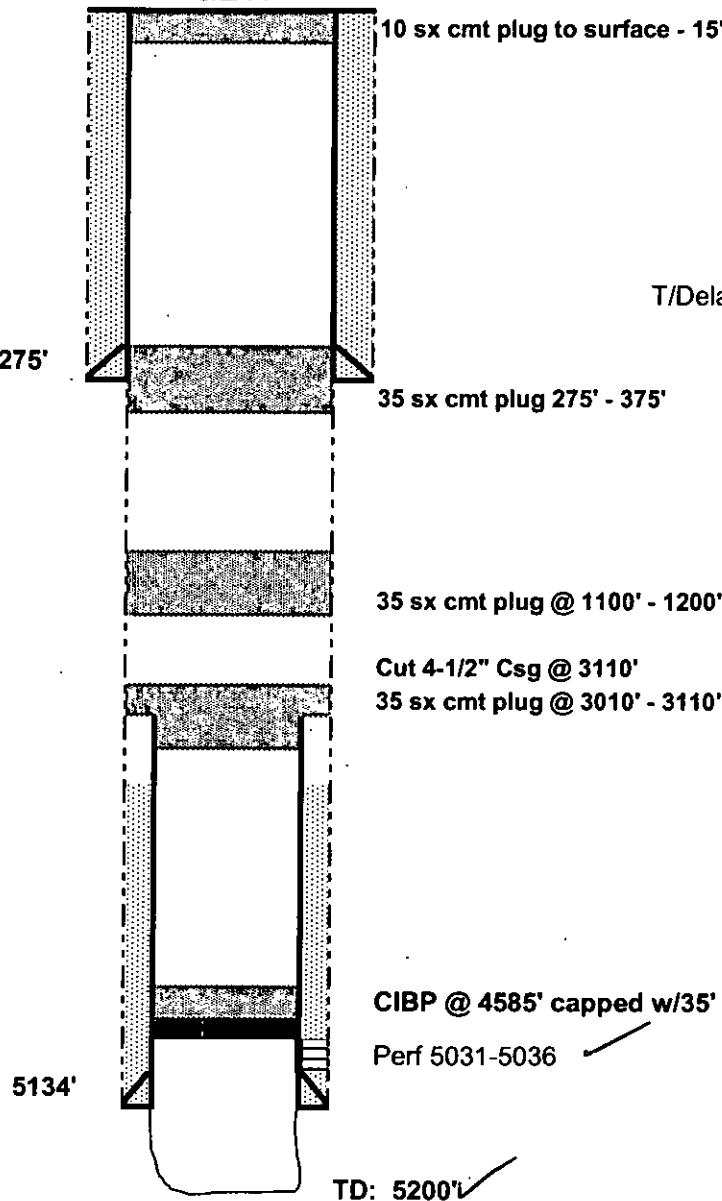
Surface csg:

8-5/8", 24# set @ 322'

Cmt w/ 200 sx

Cement circulated

12-1/4" hole



Formation Tops

T/Rustler: 1220'

T/Salt: 4162'

B/Salt: 4759'

T/Lamar: 5005'

T/Delaware Sand: 5060'

A U T H O R I Z E D
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOL. SURVEYSUBMIT IN TRIPPLICATE.
(Other instructions on reverse side)Form approved.
Budget Control No. 42 R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(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	7. UNIT AGREEMENT NAME Federal James
2. NAME OF OPERATOR P-M Drilling Company	8. FARM OR LEASE NAME 2
3. ADDRESS OF OPERATOR 2900 N. Big Spring, Midland, Texas 79701	9. WELL NO. Triste Draw Delaware
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface Federal James No. 2 Lea County, New Mexico 660'FNL and 1980'FEL Sec. 35	10. FIELD AND POOL, OR WILDLAND SEC. 35, T 23 S., R 32E
11. PERMIT NO.	12. COUNTY OR PARISH [] STATE Lea New Mexico
13. ELEVATIONS (Show whether DE, RT, GR, etc.) 3685.4 GR	

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

OTHERS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other) _____

(Note: Report results of multiple completion of 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 well's pertinent to this work.) *

- 7-24-76 Pulled rods and tubing
 7-25-76 Muddied hole. Set CIBP @ 4585' and dumped 35' of cement on top of plug.
 7-31-76 Cut 4 1/2" casing @ 3110'. Lay down casing.
 8-2-76 Ran tubing to 3110'. Spotted 35 sx cement @ 3110' to 3010'; pulled up and spotted 35 sx cement 1200' to 1100'; pulled up and spotted 35 sx cement 375' to 275' and spotted 10 sx cement 15' to 0'. Welded plate over surface and installed dry hole marker.

Note: Will clean up surface as instructed.

18. I hereby certify that the foregoing is true and correct

SIGNED

B. M. C. L.

TITLE

Owner-Operator

DATE August 30, 1976

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED

MAY 31 1977

BERNARD MOROZ
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

Tempo Energy Inc.
Payne Federal #2
Lea County, New Mexico

Elevation: GL 3691'

Location: 990' FNL, 2310' FWL

C, Sec 35, T-23-S, R-32-E

Spudded: 5/16/1962

Completed: 5/24/1962

API #: 30-025-08131

P&A: 9/17/1991

Current Status - P&A

5/2/14

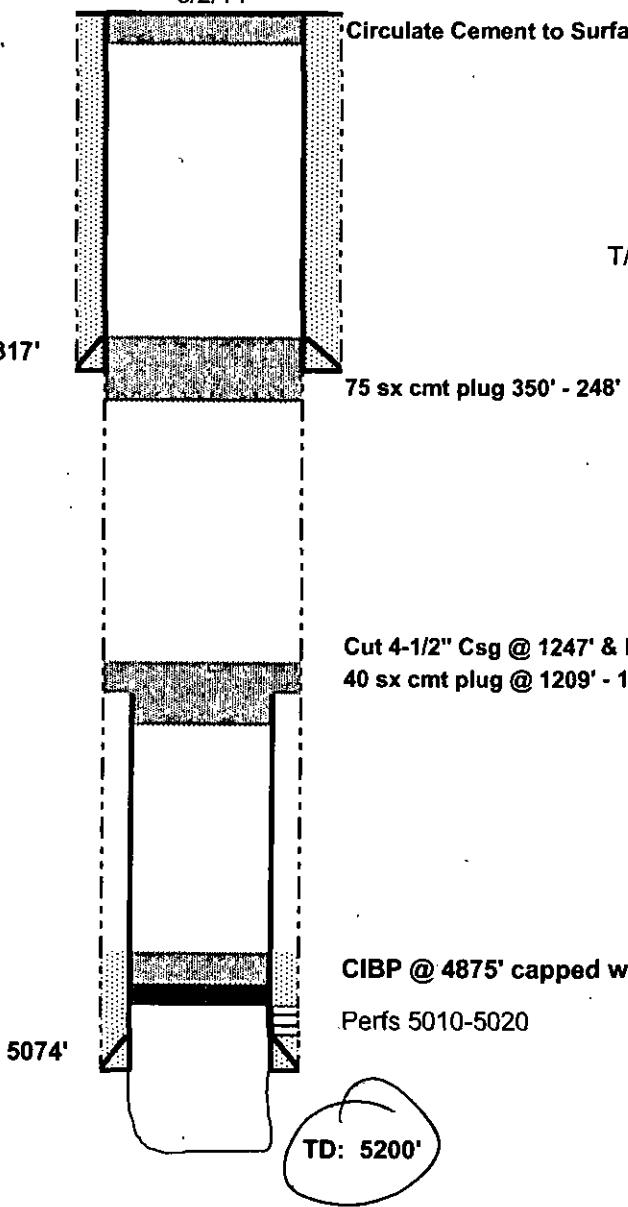
Surface csg:

10-3/4", 32# set @ 317'

Cmt w/ 220 sx

Cement circulated

15" hole



Formation Tops

T/Rustler: 1204'

B/Salt: 4710'

T/Lamar: 4951'

T/Delaware Sand: 5001'

Production csg:

4-1/2" 9.5#

Set @ 5074'

Cmt w/200 sx

TOC @ 4090'

7-7/8" hole

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions on
reverse side)

Expires August 31, 1985
5. LEASE DESIGNATION AND SERIAL

NM 03226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NUMBER

8. FARM OR LEASE NAME

Payne Federal

9. WELL NO.

2

10. FIELD AND POOL OR WILDCAT

Tristi Draw Delaware

11. SEC., T., R., M., OR BBL, AND
SURVEY OR AREA

35-23S-32 East

12. COUNTY OR PARISH 13. STATE

Lea

NM

1. OIL
WELL GAS
WELL OTHER

2. NAME OF OPERATOR

Tempo Energy, Inc.

3. ADDRESS OF OPERATOR

4000 North Big Spring, Suite 109 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

See also space 17 below.)

At surface

C 990 F North & 2310 F West

14. PERMIT NO. 15. ELEVATIONS (Show whether DR, RT, GR, etc.)

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

1. TEST WATER SHUT OFF

2. FRACTURE TREAT

3. SHOTGUN OR ACIDIZE

4. REPAIR WELL

5. OTHER

WATER SHUT OFF

FRACTURE TREATMENT

SHOTGUN OR ACIDIZING

(OTHER)

REPAIRING WELL

ALTERING CASING

ABANDONMENT

X

(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.) *

- 9-13-91 Plug # 1 Set 4-1/2" CIBP @ 4875 Ft. Capped with 3 SXS Cement
9-13-91 Plug # 2 Circ. Hole with 10 # brine with 25 # Salt Gel per bbl.
9-16-91 Plug # 3 Cut 4-1/2" Casing @ 1237 Ft. Laydown 38 Jts.
9-16-91 Plug # 4 Spot 40 SXS plug @ 1300 Ft. WOC 4 hrs. Tag plug @ 1209
9-16-91 Plug # 5 Circ. Hole with 10 # brine with 25 # Salt Gel per bbl.
9-16-91 Plug # 6 Spot 75 SXS @ 350 Ft. POOH WOC
9-17-91 Plug # 7 RIH & Tag plug @ 248 Ft.
9-17-91 Plug # 8 Circ. cement to surf. with 22 SXS from 50 Ft.
9-17-91 Plug # 9 Install Dry Hole Marker

Acknowledged and signed this day of September, 1991
Liberally, and in behalf of the company, and
in witness whereof, I have hereunto affixed my signature.

18. I hereby certify that the foregoing is true and correct

SIGNED 

TITLE President

DATE Sept. 16, 1991

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

DATE 9/27/91

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

71 R API 30-025-08131

E

Penroc Oil Corp and DB Baxter

Triste - State #1

Lea County, New Mexico

Elevation: GL 3687'

Location: 330' FNL, 330' FWL

D, Sec 36, T-23-S, R-32-E

Spudded: 10/4/1962

Completed: Dry Hole

API #: 30-025-08135

P&A: 10/13/1962

Current Status - P&A

5/2/14

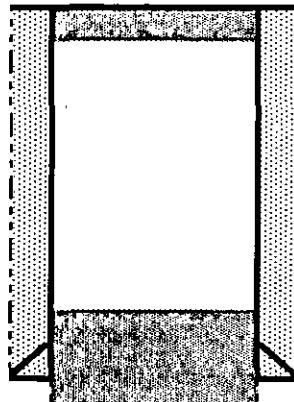
Surface csg:

7", 20# set @ 880'

Cmt w/ 175 sx

Cement circulated

8-3/4" hole



Formation Tops

Red Beds: 0-800

Anhy and Salt: 800

Anhy: 4763

Ls. & Shale: 5012

Ss. & Shale: 5042

Production casing not set

API 30-025-08135

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NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule-1106)

Penroc Oil Corporation and L. D. Baxter

Address Box 1004, Midland, Texas

Lease	Triste State	Well No.	Unit Letter	36	Section	Township	23N	Range	32E
Date Work Performed	1961-1-26	Pool	Triste Draw		County				

THIS IS A REPORT OF: (Check appropriate block)

- Beginning Drilling Operations Casing Test and Cement Job Other (Explain): _____
- Plugging Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

7" Casing set at 880' cemented to surface.

Hole loaded with mud laden fluid.

Drilled 6-1/4" hole to 5192' T. D.

Set 5 sack cement plug from surface to 36'.
 25 sack cement plug from 816' to 950'.
 30 sack cement plug from 5026' to 5192'.

Witnessed by	R. L. Corbell	Position	Lusher	Tom Brown Drilling Company
--------------	---------------	----------	--------	----------------------------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P BTD	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	

Perforated Interval(s)

Open Hole Interval Producing Formation(s)

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

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

Approved by	Name
<i>Leslie H. Clements</i>	<i>W.H. Clements</i>
Title	Position
	V.P. Production
Date	Company
	Penroc Oil Corporation

David Fasken
Gulf- State #1
Lea County, New Mexico

Elevation: GL 3687'

Location: 1980' FNL, 660' FWL

E, Sec 36, T-23-S, R-32-E

Spudded: 3/3/1962

Completed: 3/17/1962

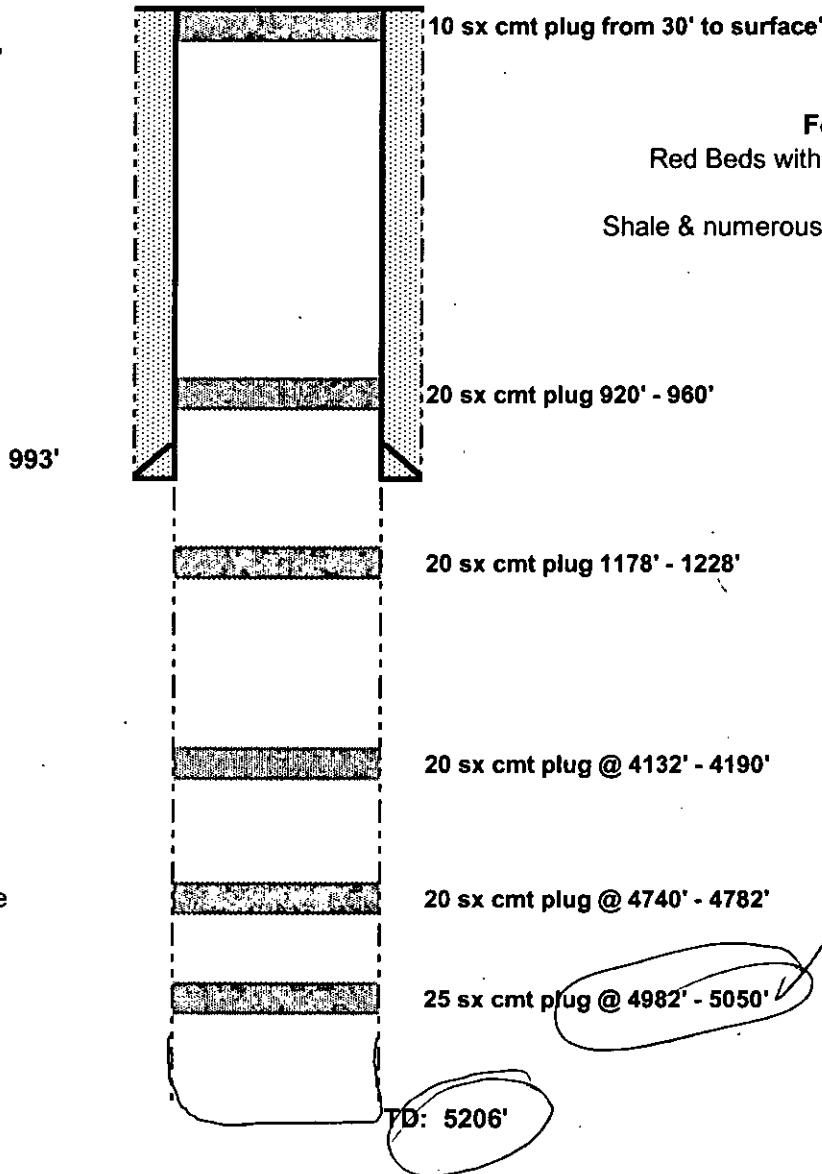
API #: 30-025-08134

P&A: 3/18/1962

Current Status - P&A

5/2/14

Surface csg:
8-5/8", 32# set @ 993'
Cmt w/ 500 sx
Cement circulated
12-1/4" hole



Production Csg:
4 1/2 not set. Dry Hole

Formation Tops

Red Beds with anhydrite Interbeds: 1210'

Anhy and Delomite: 1350'

Shale & numerous anhydrite interbeds: 3520'

Anhydrite: 4175'

Salt: 4370'

Anhydrite: 4475'

Salt: 4755'

Anhydrite: 5000'

Lamar: 5030'

Delaware: 5206'

API 30-025 - 08134

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73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106):

Name of Company	Address										
David Fasken	608 First National Bank Bldg., Midland, Texas										
Lease	Gulf-state	Well No.	1	Unit Letter	B	Section	36	Township	23	Range	32 E
Date Work Performed	March 18, 1962	Pool	Triste Draw			County	Lea				

THIS IS A REPORT OF: (Check appropriate block)

- Beginning Drilling Operations Casing Test and Cement Job Other (Explain):
 Plugging Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

TD 5,206. Used 10# mud in plugging operations and set the following cement plugs; ✓25 sxs. from 4,982' to 5,050', ✓20 sxs. from 4,740' to 4,782', 20 sxs. from 4,132' to 4,190' because of an existing salt section, 20 sxs. from 1,178' to 1,228', 14 sxs. from 920' to 960', and 10 sxs. from surface to 30'. Also, ~~had~~ left 993' of 8-5/8" -32# surface casing in the hole. Mud pits were filled. Location was levelled, cleared of junk and properly marked.

→ Verbal for 20 sxs.

Witnessed by	C. C. Joy	Position	Engineer	Company	David Fasken
--------------	-----------	----------	----------	---------	--------------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	TD	P BTD	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	

Perforated Interval(s)

Open Hole Interval Producing Formation(s)

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

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

OIL CONSERVATION COMMISSION	Approved by		Name		C. C. Joy	
	<i>Joe H. Ray</i>					
Title			Position		Engineer	
Date			Company		David Fasken	

Continental Oil Co.
Fields #002
Lea County, New Mexico

Elevation: GL 3687'

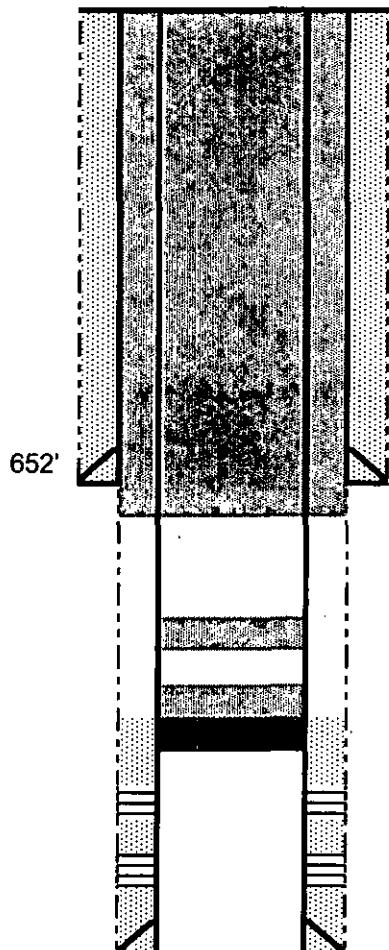
Location: 990' FSL, 330' FWL, Sec 25, T-23-S, R-32-E
M, Sec 25, T-23-S, R-32-E

Spudded: 7/21/1962
API #: 30-025-08120

Completed: 7/30/1962
P&A: 2/9/1989

Current Status - P&A
5/2/2014

Surface csg:
7-5/8", 24#, H-40
Set @ 395'
Cmt w/200 sx
Cement circulated



Production Casing:
4 1/2", 9.5#, J-55
Set @ 5206'
Cmt w/200 sx
TOC unknown

Formation Tops
T/ Salt: 4155'
Castile: 4766'
Lamar: 5013'
Ramsey: 5066'
Ford: 5145'
Olds: 5161'

UNITED STATES
DEPARTM. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions on reverse side)

Expires August 31, 1985
5. LEASE DESIGNATION AND SERIAL NO.

LC-063228

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

RECEIVED

SUNDY NOTICES AND REPORTS ON WEDNESDAY

(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.)

MAR 6 10 33 AM '89

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

Triste Draw Delaware

11. SEC., T., R. M., OR BLK. AND
SURVEY OR AREA

Sec. 25, T-23-S, R-32-E NMF

12. COUNTY OR PARISH

13. STATE

Lea NM

14. PERMIT NO.

15. ELEVATIONS (Show whether DE, RT, GM, etc.)

3713 DE

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHOT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHOT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

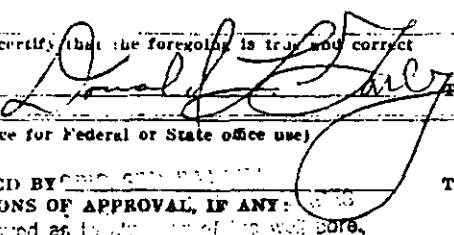
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS: (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent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

1. Moved in, rigged up. Dug pit & installed BOP.
2. Picked up 161 jts of 2 3/8" work string & tagged CICR. Layed down 1 jt. & circulated hole clean & spotted 25' cement plug.
3. Pulled up hole to 4765' & spotted 100' cement plug.
4. POOH w/tubing & pressured up to 800#, casing would not hold.
5. Picked up 4 1/2" packer on 2 3/8" tubing & located hole at 400'. Layed tbg. down.
6. Rigged up wireline, ran in hole w/4 shots to 1175' & perforated casing.
7. Ran tubing in hole to 1000' & squeezed cement to surface between 7 5/8" & 4 1/2" valve. Opened 4 1/2" valve & brought cement to surface. Pumped 287 sx.
8. Dug cellar, cut wellhead off & installed P&A marker. Completed 2/9/89

18. I hereby certify that the foregoing is true and correct

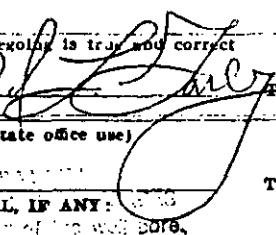
3-1-89 08120

SIGNED


TITLE President

DATE 3/1/89

(This space for Federal or State office use)

APPROVED BY: 

CONDITIONS OF APPROVAL, IF ANY:

Approved as to plan of the well bore,

Lightly under bored to surface and

surface protection is completed.

TITLE

DATE

3-13-89

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

R B

3/3/89

E

Gene A. Snow
Federal 'WL' #4
Lea County, New Mexico

Elevation: GL 3702'

Location: 330' FSL, 1650' FEL

O, Sec 26, T-23-S, R-32-E

Spudded: 4/5/1962

Completed: 4/13/1962

API #: 30-025-08124

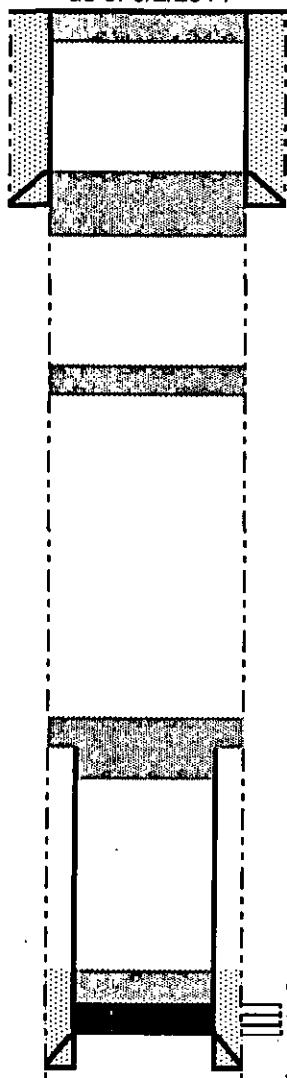
P&A: 2/1/1974

Current Status - P&A

as of 5/2/2014

Surface csg:
8-5/8", 24#, J-55 set @ 371'
Cmt w/ 275 sx
TOC unknown

371'



Cement to Surface with 10 sx from 10'

35 sx cmt plug 425' - 325'

35 sx cmt plug @ 1298'-1198'

Cut 4-1/2" Csg @ 4000' & pulled csg

35 sx cmt plug @ 4045' - 3945'

CIBP @ 5000' capped w/35' of cmt

Perfs 5047-5053

TD: 5105'

Production csg:
4-1/2" 9.5#, J-55
Set @ 5095'
Cmt w/100 sx
TOC Unknown
7-7/8" hole

Formation Tops

Anhydrite: 1223'

Salt: 1362'

Base of Salt: 4741'

Lamar: 4985'

Ramsey: 5038'

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLEX
(Other instructions
verse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM-04465

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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 GAS WELL OTHER

2. NAME OF OPERATOR

Gene A. Snow

3. ADDRESS OF OPERATOR

606 So. 13th Lovington

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

1650' F.E.L. & 330 F.S.L.

Sec. 26, T.S 235, Rg 32 E

14. PERMIT NO.

15. ELEVATIONS (Show whether S.T., BT, GR, etc.)

3701.7 Gr

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal WL

9. WELL NO.

4 - 3

10. FIELD AND POOL, OR WILDCAT

Triste Draw

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

26.TS235.R.32E

12. COUNTY OR PARISH

Luu.

N.M.

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

REPAIRING WELL
ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

(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.)*

Plugged well in following manner:

1. Set C.I. bridge plug @ 5000' by wireline and capped w/ 35' of casing.
2. Landed casing with good mud. Salt mud mixed 1 sack gel to 466ls. of brine water.
3. Cut 4 1/2" Casing @ 4000'. Pulled casing.
4. Set 3 5/8" cement plug 4045' to 3945'.
- " " "
- " " " 1248' to 1178'.
- " " " 425' to 325'.
- " 10 " " " 10' to 0'
5. Installed regulation marker.
6. Location is clear and ready for inspection.

18. I hereby certify that the foregoing is true and correct

SIGNED

Bob Dicus

TITLE

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED

DATE

2-1-74

FEB 9 1978

DATE

ARTHUR R. BROWN

ACTING DISTRICT ENGINEER

reverse side

*See Instructions on Reverse Side

Gene A. Snow
Federal 'WL' #3
Lea County, New Mexico

Elevation: GL 3707'

Location: 330' FSL, 660' FEL

P, Sec 26, T-23-S, R-32-E

Spudded: 3/26/1962

Completed: 4/4/1962

API #: 30-025-08123

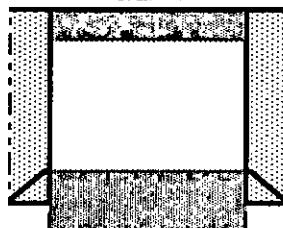
P&A: 11/15/1972

Current Status - P&A

5/2/14

Surface csg:
8-5/8", 24#, J-55 set @ 360'
Cmt w/ 260 sx
TOC unknown

360'



Cement to Surface with 10 sx from 10'

35 sx cmt plug 410' - 310' tag

Formation Tops

Rustler: 1224'

Salt: 1362'

Base of Salt: 4760'

Lamar: 5008'

Ramsey: 5062'

Ford Shale: 5139'

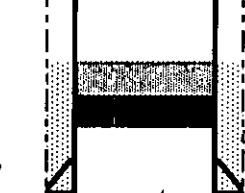
35 sx cmt plug @ 1260'-1160'

Cut 4-1/2" Csg @ 2877' & pulled csg

35 sx cmt plug @ 2898' - 2798'

Production csg:
4-1/2" 9.5#, J-55
Set @ 5140'
Cmt w/100 sx
TOC Unknown
7-7/8" hole

5140'



CIBP @ 5001' capped w/40' of cmt
perf 5071-5073

PBTD: 5115'
TD: 5144'

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE.
(Other instructions on reverse side)Form approved.
Budget Bureau No. 43-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

NM-04465

6. IF INDIAN, ALLOTMENT OR TRIBE NAME

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	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR <i>Gene A. Snow</i>	8. FARM OR LEASE NAME <i>Federal WL</i>
3. ADDRESS OF OPERATOR <i>606 So 13th Lovington N.M.</i>	9. WELL NO. <i>3-3</i>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <i>330 FSL & 660 FEL Sec. 26, T.S. 23E., Rg. 32E</i>	10. FIELD AND POOL, OR WILDCAT <i>Triste Draw</i>
14. PERMIT NO.	15. ELEVATIONS (Show whether sp. ft. m. etc.) <i>3707.1 G.R.</i>
12. COUNTY OR PARISH <i>San Juan</i>	13. STATE <i>N.M.</i>

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

PULL OR ALTER CASING

SHOOT OR ACIDIZE

MULTIPLE COMPLETE

WATER SHUT-OFF

REPAIR WELL

ABANDON*

FRACTURE TREATMENT

REPAIRING WELL

(Other)

CHANGE PLANS

SHOOTING OR ACIDIZING

ALTERING CASING

(Other)

ABANDONMENT*

(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.)

Plugged well in the following manner:

1. Set C.I. bridge plug @ 5000'.
2. Capped bridge plug with 40' of cement by cement bailed.
3. Fired hole with good mud. Salt gel mixed 1 sack to 46 lbs. Brine water.
4. Cut 4 1/2" casing @ 2877'. Pulled casing.
5. Set plugs by tubing as follows:
 35 lbs @ 2893' to 2798'
 " " " 1260' to 1160'
 " " " 410' to 310'
 10 " " 10' to 0'
6. Installed nipple at wire marker.

I will notify when location is ready for inspection

18. I hereby certify that the foregoing is true and correct

SIGNED

Gene A. Snow

TITLE

DATE 11-15-72

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED

TITLE

MAY 21 1973

*See Instructions on Reverse Side

J. L. GORDON
FEDERAL DISTRICT ENGINEER

Analysis of Injection Water

Red Ruby 35 Federal SWD 1
Lea County, New Mexico

Water will be from Cox 35 Federal 2H (drilled), Cox 35 Federal 1H, 3H, & 4H (proposed).
Analysis of Cox 35 Federal 2H water attached.

Disposal zone water analysis is included from a Texaco well, Cherry Canyon,
in Lea County, NM, Sec 30, T21S, R32E.



MIXED WATERS SCALING INDICIES - WATER #1

Company:	Texaco	Date Sampled:	2000
Lease:	Cherry Canyon	Date Analyzed:	2000
Well #:		Lab ID #:	1/0/1900
Location:	Lea Co. NM	Account Manager:	C. Struck
Attenton:	Acct Mgr	Requested By:	Lab
		File Name:	TexacoCherry Canyon-2000
pH:	5.75		
Sp. Gr.:	1.131		
Calcium:	10400 mg/L		
Magnesium:	1944 mg/L		
Sodium:	57856 mg/L		
Barium:	0 mg/L		
Iron:	7.38 mg/L		
Carbonate:	0 mg/L		
Bicarbonate:	37 mg/L		
Sulfate:	1750 mg/L		
Chloride:	112000 mg/L		
TDS:	183977 mg/L		

MIXED WATERS SCALING INDICIES - WATER #2

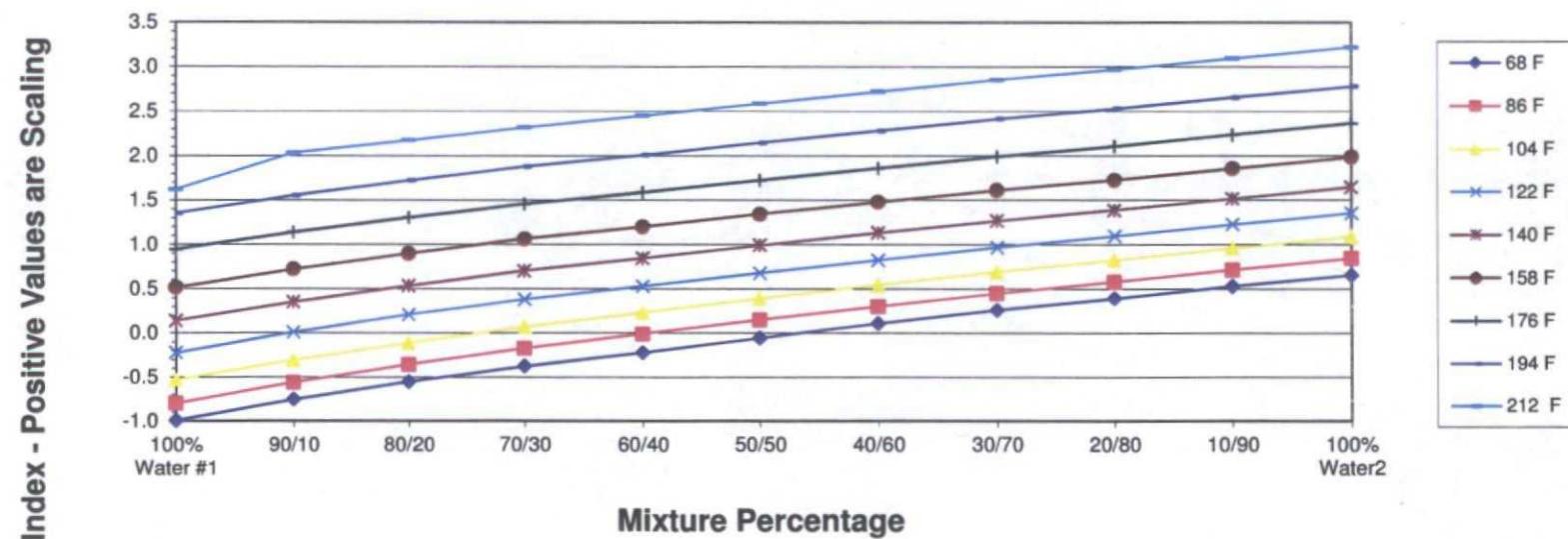
Company:	Energen	Date Sampled:	5/12/14
Lease:	Cox Federal	Date Analyzed:	5/13/14
Well #:	32-2H	Lab ID #:	1/0/1900
Location:	Heater	Account Manager:	C. Struck
Attenton:	Acct Mgr	Requested By:	Lab
		File Name:	EnergenCox Federal32-2H5/12/14
pH:	7.2		
Sp. Gr.:	1.105		
Calcium:	6320 mg/L		
Magnesium:	1580 mg/L		
Sodium:	51227 mg/L		
Barium:	0 mg/L		
Iron:	14 mg/L		
Carbonate:	0 mg/L		
Bicarbonate:	171 mg/L		
Sulfate:	964 mg/L		
Chloride:	94000 mg/L		
TDS:	154441 mg/L		

File Name: TexacoCherry Canyon-Lea Co. NM2000EnergenCox Federal32-2HHeater5/13/14

Calcium Carbonate Scaling Index at Various Temperatures and Various Water #1/Water #2 Compositions

	100% Water #1	90/10	80/20	70/30	60/40	50/50	40/60	30/70	20/80	10/90	100% Water2
68 F	-0.99	-0.75	-0.55	-0.37	-0.22	-0.05	0.11	0.26	0.39	0.53	0.65
86 F	-0.80	-0.56	-0.35	-0.17	-0.01	0.15	0.30	0.45	0.58	0.72	0.84
104 F	-0.53	-0.30	-0.11	0.07	0.23	0.39	0.54	0.69	0.82	0.96	1.08
122 F	-0.22	0.01	0.21	0.38	0.53	0.68	0.82	0.97	1.09	1.22	1.35
140 F	0.14	0.35	0.53	0.70	0.84	0.99	1.13	1.27	1.38	1.52	1.64
158 F	0.51	0.72	0.90	1.06	1.20	1.34	1.48	1.61	1.73	1.86	1.98
176 F	0.94	1.14	1.30	1.45	1.58	1.72	1.86	1.99	2.11	2.24	2.36
194 F	1.35	1.55	1.72	1.87	2.00	2.14	2.28	2.41	2.53	2.65	2.77
212 F	1.61	2.03	2.17	2.31	2.44	2.58	2.72	2.85	2.97	3.09	3.21

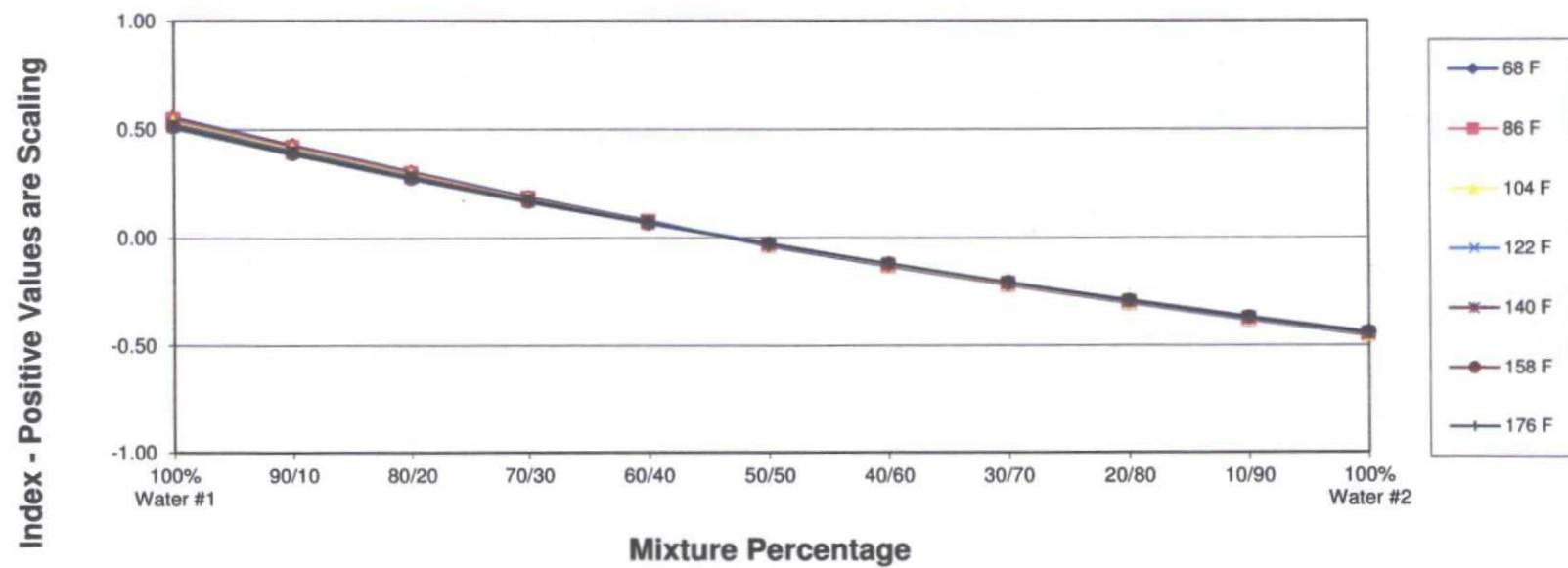
CaCO₃ Scale Index for Mixed Waters



Calcium Sulfate Scaling Index at Various Temperatures and Various Water #1/Water #2 Compositions

	100% Water #1	90/10	80/20	70/30	60/40	50/50	40/60	30/70	20/80	10/90	100% Water #2
68 F	0.55	0.43	0.30	0.19	0.08	-0.04	-0.13	-0.22	-0.31	-0.38	-0.45
86 F	0.54	0.42	0.30	0.18	0.07	-0.04	-0.13	-0.22	-0.30	-0.38	-0.45
104 F	0.53	0.41	0.29	0.18	0.07	-0.03	-0.13	-0.22	-0.30	-0.38	-0.45
122 F	0.52	0.40	0.28	0.18	0.07	-0.03	-0.12	-0.21	-0.30	-0.37	-0.45
140 F	0.52	0.39	0.28	0.17	0.07	-0.03	-0.12	-0.21	-0.30	-0.37	-0.44
158 F	0.51	0.39	0.27	0.17	0.07	-0.03	-0.12	-0.21	-0.29	-0.37	-0.44
176 F	0.50	0.38	0.27	0.16	0.06	-0.03	-0.12	-0.21	-0.29	-0.37	-0.44

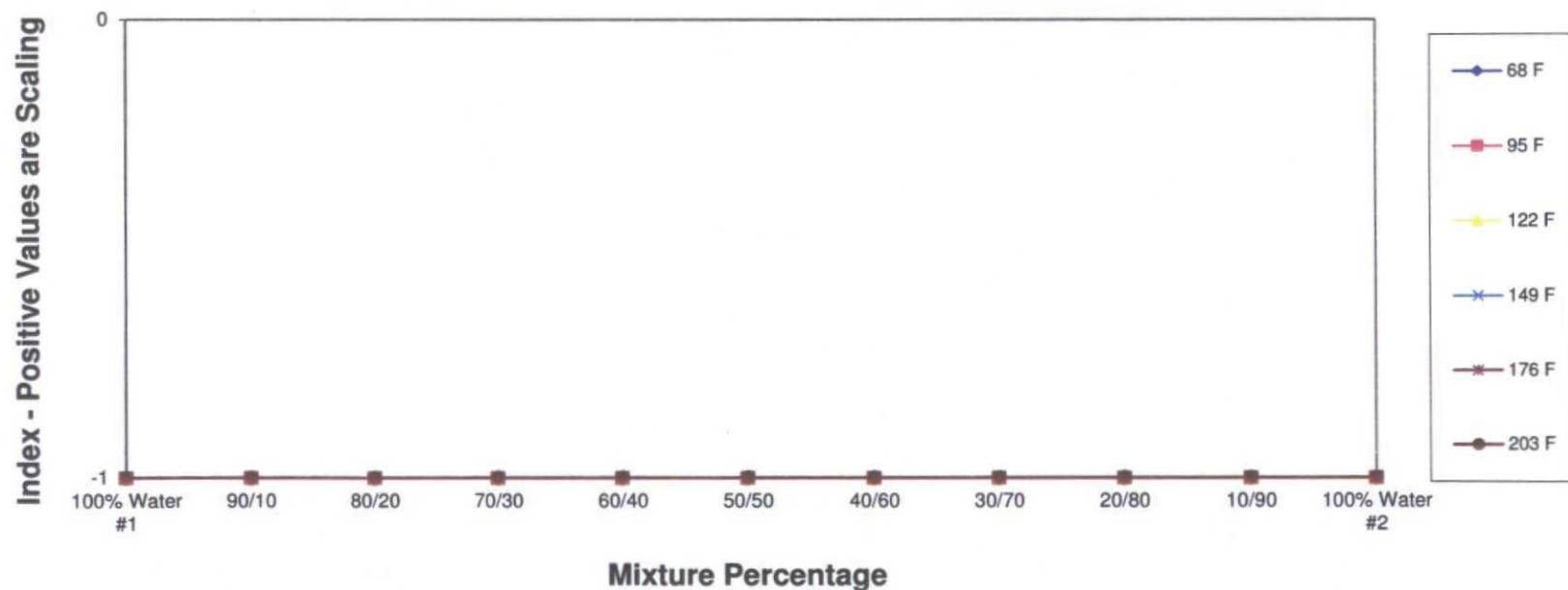
CaSO₄ Scale Index for Mixed Waters



Barium Sulfate Scale Index at Various Temperatures and Various Water #1/Water #2 Compositions

100% Water #1	90/10	80/20	70/30	60/40	50/50	40/60	30/70	20/80	10/90	100% Water #2
68 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
95 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
122 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
149 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
176 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
203 F	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

BaSO₄ Scale Index for Mixed Waters





Permian Basin Area Laboratory
2101 S Market St. / Building B
Midland, TX. 79711

Report Date: 5/16/2014

Complete Water Analysis Report SSP v.8

Customer:	CHEVRON	Sample Point Name	C Fed 912
District:	New Mexico	Sample ID:	201401001963
Sales Rep:	Jeremy Spears	Sample Date:	2/3/2014
Lease:	LOTOS	Log Out Date:	2/23/2014
Site Type:		Analyst:	SS
Sample Point Description:			

CHEVRON, LOTOS

, C Fed 912

Field Data		Analysis of Sample							
		Anions:	mg/L	meq/L	Cations:	mg/L	meq/L		
Initial Temperature (°F):	250	Chloride (Cl ⁻):	160483.0	4527.0	Sodium (Na ⁺):	68542.0	2932.7		
Final Temperature (°F):	55	Sulfate (SO ₄ ²⁻):	306.0	6.4	Potassium (K ⁺):	1364.0	34.9		
Initial Pressure (psi):	80	Borate (H ₂ BO ₃):	ND		Magnesium (Mg ²⁺):	4541.0	373.7		
Final Pressure (psi):	15	Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	25028.0	1248.9		
pH:		Bromide (Br ⁻):	ND		Strontrium (Sr ²⁺):	1434.0	32.7		
pH at time of sampling:	6.2	Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	4.5	0.1		
		Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	41.0	1.5		
		Phosphate (PO ₄ ³⁻):	ND		Manganese (Mn ²⁺):	8.0	0.3		
		Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND			
Alkalinity by Titration:	mg/L	meq/L			Zinc (Zn ²⁺):	ND			
Bicarbonate (HCO ₃ ⁻):	38.0	0.6							
Carbonate (CO ₃ ²⁻):	ND								
Hydroxide (OH ⁻):	ND								
Organic Acids:		mg/L	meq/L						
aqueous CO ₂ (ppm):	260.0	Formate:	ND		Molybdenum (Mo ⁶⁺):	ND			
aqueous H ₂ S (ppm):	ND	Acetate:	ND		Nickel (Ni ²⁺):	ND			
aqueous O ₂ (ppb):	ND	Propionate:	ND		Tin (Sn ²⁺):	ND			
Calculated TDS (mg/L):	261790	Butyrate:	ND		Titanium (Ti ²⁺):	ND			
Density/Specific Gravity (g/cm ³):	1.1722	Valerate:	ND		Vanadium (V ²⁺):	ND			
Measured Density/Specific Gravity	1.1780				Zirconium (Zr ⁴⁺):	ND			
Conductivity (mmhos):	ND				Total Hardness:	82917	N/A		
MCF/D:	No Data								
BOPD:	No Data								
BWPD:	No Data	Anion/Cation Ratio:	0.97		ND = Not Determined				

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
55°F	15 psi	0.74	2.183	0.82	6.461	-0.23	0.000	-0.38	0.000
77°F	22 psi	0.61	2.013	0.96	7.126	-0.17	0.000	-0.24	0.000
98°F	29 psi	0.48	1.780	1.07	7.562	-0.15	0.000	-0.13	0.000
120°F	37 psi	0.35	1.475	1.15	7.893	-0.14	0.000	-0.03	0.000
142°F	44 psi	0.23	1.090	1.23	8.157	-0.14	0.000	0.07	22.267
163°F	51 psi	0.12	0.623	1.29	8.372	-0.15	0.000	0.17	49.690
185°F	58 psi	0.01	0.069	1.34	8.548	-0.15	0.000	0.28	71.819
207°F	66 psi	-0.09	0.000	1.38	8.691	-0.16	0.000	0.39	89.323
228°F	73 psi	-0.18	0.000	1.42	8.807	-0.16	0.000	0.49	102.879
250°F	80 psi	-0.26	0.000	1.45	8.897	-0.18	0.000	0.60	113.171

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
55°F	15 psi	0.40	112.595	-0.38	0.000	-8.66	0.000	-0.45	0.000
77°F	22 psi	0.43	119.082	-0.39	0.000	-8.69	0.000	-0.25	0.000
98°F	29 psi	0.45	122.255	-0.41	0.000	-8.70	0.000	-0.08	0.000
120°F	37 psi	0.46	124.032	-0.43	0.000	-8.71	0.000	0.07	0.781
142°F	44 psi	0.47	125.415	-0.45	0.000	-8.72	0.000	0.19	1.992
163°F	51 psi	0.48	126.967	-0.46	0.000	-8.72	0.000	0.27	2.850
185°F	58 psi	0.49	128.944	-0.48	0.000	-8.72	0.000	0.33	3.425
207°F	66 psi	0.50	131.379	-0.50	0.000	-8.73	0.000	0.37	3.764
228°F	73 psi	0.52	134.133	-0.52	0.000	-8.74	0.000	0.38	3.894
250°F	80 psi	0.54	136.957	-0.53	0.000	-8.75	0.000	0.37	3.822

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

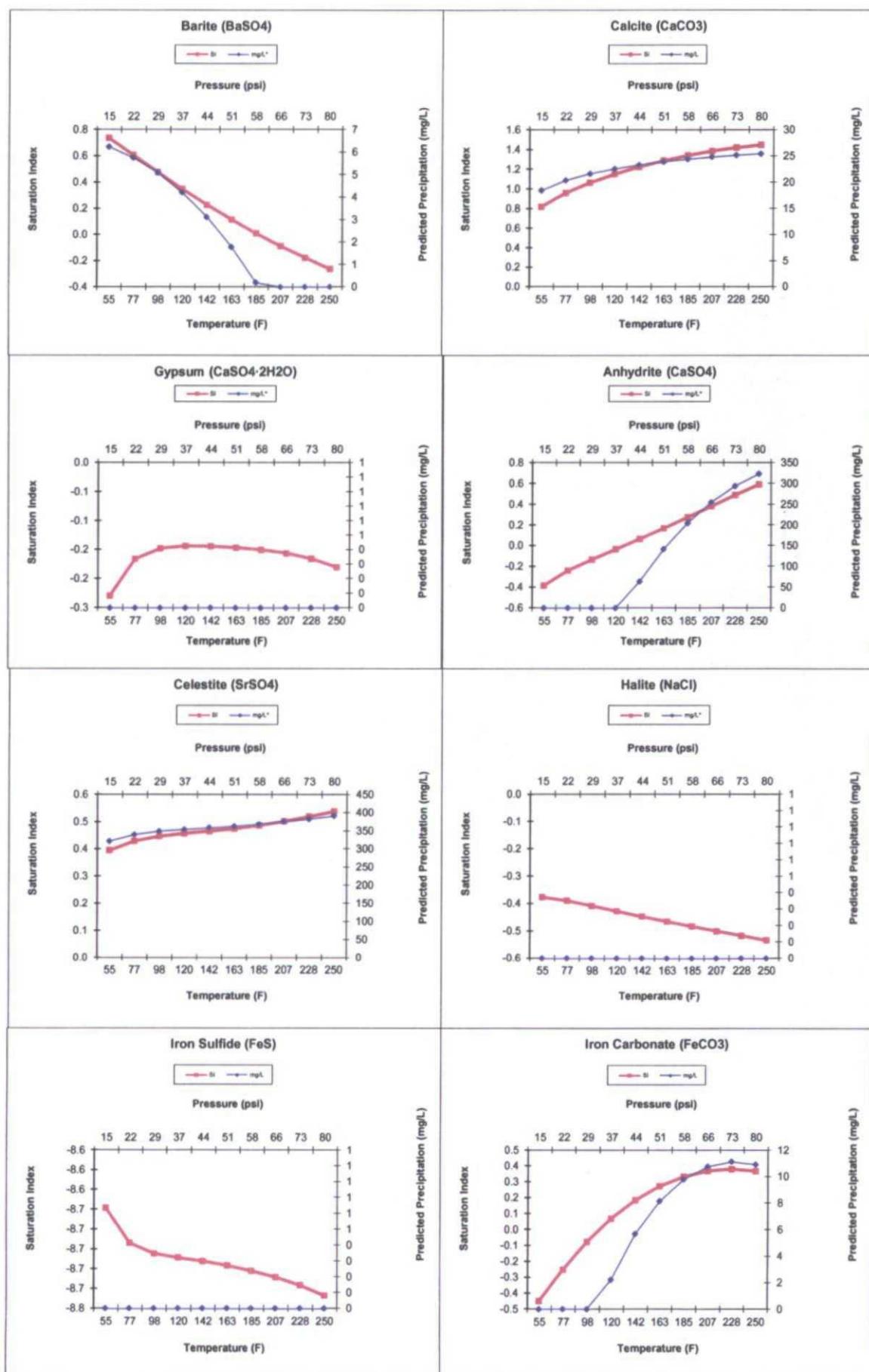
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales

Note 3: Saturation Index predictions on this sheet use pH and alkalinity; %CO₂ is not included in the calculations.



ScaleSoftFilter™
SSP2010

Comments: _____



Ken Pittaway

From: Ken Pittaway
Sent: Monday, May 19, 2014 2:18 PM
To: Brenda Rathjen
Subject: FW: Cherry Canyon

Fyi

Ken Pittaway
Sr. District Engineer
Energen Resources Corp.
432-686-3596

From: Clifton Struck [<mailto:cstruck@keltechinc.com>]
Sent: Monday, May 19, 2014 6:58 AM
To: Eric Fortner; Ken Pittaway; Paul Callaway; Randy Billingsley; Stan Logie; Steve Blevins
Subject: FW: Cherry Canyon

From: John Mosley [<mailto:jmosley@keltechinc.com>]
Sent: Friday, May 16, 2014 11:32 AM
To: 'Clifton Struck'
Subject: Cherry Canyon

The Cherry Canyon well used in the compatibility was located in Lea County, New Mexico in Section 30, Township 21S, Range 32E. The location is approximately 32 miles west of Eunice, NM.

Red Ruby 35 Federal #7

C V P G		TROLEUM INC FEDERAL #1		Inc.	
A-35-T23S-R32E 1101FN 829FE PATTERSON PETROLEUM LP RED RUBY 35 FEDERAL #1		Red Ruby 35 Federal #1 ste Draw			
30-025-34003					
a		STATE: New Me			
2194.1		PLATFORM EXPRESS			
Schlumberger		Array Induction Imag			
		Gamma Ray / MCFL			
FNL & 829' FEL on 35, Town 23S, Range 32E		Elev.: K.B. G.L. D.F.			
anent Datum: Ground Level		Elev.: 3681 F.			
Log Measured From: Kelly Bushing		13.0 F above P			
Drilling Measured From: Kelly Bushing					
Field:	Location:	API Serial No.	SECTION	TOWNSHIP	
Well	Company:	30-025-34003	35	23 S	
Logging Date		15-AUG-1997			
Run Number		One			
Depth Driller		9100 F			
Schlumberger Depth		8080 F			
Bottom Log Interval		9072 F			
Top Log Interval		4754 F			
Casing Driller Size @ Depth		8.625 IN @ 4762 F			
Casing Schlumberger		4754 F			
Bit Size		7.875 IN			
Type Fluid In Hole		Fresh			
Density	Viscosity	8.6 LB/G	29 S		
Fluid Loss	PH		12		
Source Of Sample		Circulation Pit			
RM @ Measured Temperature	RMC @ Measured Temperature	0.455 OHMM	@ 101 DEGF		
RMF @ Measured Temperature	RMC @ Measured Temperature		@		
Source RMF	RMC		@		
RM @ MRT	RMF @ MRT	0.375 @ 124	@ 124		
Maximum Recorded Temperatures		124 DEGF			
Circulation Stopped	Time	15-AUG-1997 3:00			
Logger On Bottom	Time	15-AUG-1997 18:44			
Unit Number	Location	3125 Hobbs, NM			
Recorded By	Kevin Pettyjohn				
Witnessed By	Nolan Von Roeder				

attachment X

Red Ruby 35 Federal #1

		PETROLEUM INC FEDERAL #1		, Inc.	
		Red Ruby 35 Federal #1			
		Site Draw			
		Area		STATE: New Mexico	
		32194.2		PLATFORM EXPRESS 92	
		chlumberger		Compensated Neutron Log	
		01' FNL & 828' FEL		Elev.: K.B. 3694 F	
		ction 35, Town 23S, Range 32E		G.L. 3681 F	
				D.F. 3683 F	
Field	Location	Permanent Datum:	Ground Level	Elev.:	3681 F
		Log Measured From:	Kelly Bushing	13.0 F	above Perm. D.
		Drilling Measured From:	Kelly Bushing		
Field	Location	API Serial No.	SECTION	TOWNSHIP	RANGE
		30-025-34003	35	23 S	32
Logging Date	15 AUG 1997				
Run Number	One				
Depth Driller	8100 F				
Schlumberger Depth	9080 F				
Bottom Log Interval	9082 F				
Top Log Interval	200 F				
Casing Driller Size @ Depth	8.625 IN	@	4762 F	@	
Casing Schlumberger	4754 F				
Bit Size	7.875 IN				
Type Fluid in Hole	Fresh				
Density	8.6 LB/G		29 S		
Fluid Loss	PH		12		
Source Of Sample	Circulation Pit				
RM @ Measured Temperature	0.455 OHMM	@	101 DEGF	@	
RMF @ Measured Temperature		@		@	
RMC @ Measured Temperature		@		@	
Source RMF	RMC				
RM @ MRT	RMF @ MRT	0.375 @ 124		124	@
Maximum Recorded Temperatures		124 DEGF			
Circulation Stopped	Time	15-AUG-1997	3:00		
Logger On Bottom	Time	15-AUG-1997	18:44		
Unit Number	Location	3120 | Hobbs, NM			
Recorded By		Kevin Pettyjohn			
Witnessed By		Nolan Von Roeder			

Brenda Rathjen

To: Brenda Rathjen (Brenda.Rathjen@energen.com)
Subject: FW: COMPLETE WATER ANALYSIS
Attachments: TEXACO CHERRY CANYON & ENERGEN COX FEDERAL 35-2H COMMINGLE PRINT ANALYSIS 051414.pdf; TEXACO CHERRY CANYON & ENERGEN COX FEDERAL 32-2H COMMINGLE PRINT GRAPH 051414.pdf

-----Original Message-----

From: Clifton Struck [<mailto:cstruck@keltechinc.com>]
Sent: Wednesday, May 14, 2014 3:24 PM
To: Randy Billingsley; Steve Blevins; Stan Logie
Subject: FW: COMPLETE WATER ANALYSIS

The waters should be compatible as far as we can tell. We got a water sample from one well that was Cherry Canyon in that area. At high temperature there is calcium carbonate scale. I would recommend injecting scale inhibitor.

Thanks,
Clifton Struck
Account Manager
Kel-Tech, Inc.
432-425-3427

-----Original Message-----

From: Courtney Palmore [<mailto:cpalmore@keltechinc.com>]
Sent: Wednesday, May 14, 2014 11:48 AM
To: Clifton Struck; Clifton Struck (Yahoo acct)
Subject: COMPLETE WATER ANALYSIS

Your message is ready to be sent with the following file or link attachments:

TEXACO CHERRY CANYON & ENERGEN COX FEDERAL 32-2H COMMINGLE PRINT ANALYSIS
051414
TEXACO CHERRY CANYON & ENERGEN COX FEDERAL 32-2H COMMINGLE PRINT GRAPH
051414

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



May 28, 2014

RE: Energen Resources Corporation
Application for Authorization to Inject
Red Ruby 35 Federal SWD 1 / API 30-025-34003
Lea County, New Mexico

Dear Surface Owner and Leaseholders,

Energen Resources Corporation is applying to the New Mexico Oil Conservation Commission (NMOC) in the above-referenced matter to re-enter and convert the Red Ruby Federal 35 Well No. 1 to injection. This letter is being provided with a copy of the application to you as the Surface Owner and Leaseholders within the area of review, per the requirements set forth by the NMOCD.

Should there be any objection to the application; the objection must be filed in writing to:

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

within 15 days of the date of this letter.

If you have any questions, please contact as noted below.

Respectfully,

A handwritten signature in black ink that reads "Brenda F. Rathjen".

Brenda F. Rathjen
Regulatory Analyst
Energen Resources Corporation
432-688-3323 direct
432-687-1155 main
brathjen@energen.com

Sent to: Attached list of Owners (2 pages)

Red Ruby 35 Federal #1 / API 30-025-34003
Surface Owner and Leaseholders w/in area of review:

Conoco, Inc.
P.O. Box 2197
Houston, TX 77001

Certified Mail #7013 1090 0000 5649 2661

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Certified Mail #7013 1090 0000 5649 2654

Oxy Y-1 Company
P.O. Box 27570
Houston, TX 77227

Certified Mail #7013 1090 0000 5649 2647

Abo Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Certified Mail #7013 1090 0000 5649 2630

Myco Industries, Inc.
105 South Fourth Street
Artesia, NM 88210

Certified Mail #7013 1090 0000 5649 2623

Endurance Properties, Inc.
15455 Dallas Parkway, Suite 600
Addison, TX 75001

Certified Mail #7013 1090 0000 5649 2616

Tritex Energy, LLC
P.O. Box 430
Reno, OH 45773

Certified Mail #7013 1090 0000 5649 2609

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

Certified Mail #7013 1090 0000 5649 2593

COG Production, LLC
600 W. Illinois Ave.
Midland, TX 79701

Certified Mail #7013 1090 0000 5649 2586

Red Ruby 35 Federal #1 / API 30-025-34003
Surface Owner and Leaseholders w/in area of review:

Chevron Midcontinent, LP
11111 S. Wilcrest
Houston, TX 77009

Certified Mail #7013 1090 0000 5649 2579

Oxy USA Inc.
5 Greenway Plaza, Suite 110
Houston, TX 77046

Certified Mail #7013 1090 0000 5649 2562

The Allar Company
P.O. Box 1567
Graham, TX 76450

Certified Mail #7013 1090 0000 5649 2555

Twin Montana, Inc
P.O. Box 1210
Graham, TX 76450

Certified Mail #7013 1090 0000 5649 2548

Talus, Inc.
P.O. Box 1210
Graham, TX 76450

Certified Mail #7013 1090 0000 5649 2531

Chevron U.S.A. Inc.
P.O. Box 1635
Houston, TX 77251-1635

Certified Mail #7013 1090 0000 5649 2524

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
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

of 1 issue(s).

Beginning with the issue dated
May 24, 2014
and ending with the issue dated
May 24, 2014



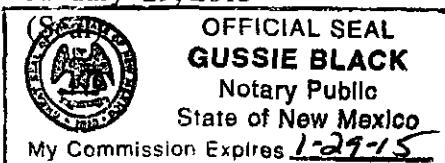
PUBLISHER

Sworn and subscribed to before me
this 27th day of
May, 2014



Notary Public

My commission expires
January 29, 2015



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.

LEGAL	LEGAL
LEGAL NOTICE	
May 24, 2014	
NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT	
Energen Resources Corporation, 3300 N. A Street, Bldg. 4, Ste. 100, Midland, Texas 79705, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to inject fluid into a formation productive of oil or gas.	
The applicant proposes to inject fluid into the Red Ruby 35 Federal SWD 1 for the purpose of disposing of water from area wells producing from the Bone Spring formation. The proposed disposal well is located 1100' FNL & '830' FEL, Section 35, Township 23 South, Range 32 East, Lea County, New Mexico. Disposal water will be injected into the Bell Canyon and Cherry Canyon formations at a depth of 5050'-6650', a maximum surface pressure of 1010 psi, and a maximum rate of 10,000 BWPD.	
Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of this publication, to the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505. Additional information can be obtained by contacting Brenda F. Rathjen, Energen Regulatory Analyst, at 3300 N. A Street, Bldg. 4, Ste. 100, Midland, Texas 79705, or 432-688-3323. #29079	

02107745 00137039
ENERGEN RESOURCES
3300 NORTH A STREET
BUILDING 4, SUITE 100
MIDLAND, TX 79705



RECORDED 2014
COPY
ENCL-6 P 1/2

May 30, 2014

Oil Conservation Division
State of New Mexico
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Re: **Application for Authorization to Inject C-108
Red Ruby 35 Federal SWD 1
API 30-025-34003
Lea County, New Mexico**

Dear Oil Conservation Division,

Enclosed are the original and one copy of the C-108 Application for Authorization to Inject for the Red Ruby 35 Federal SWD 1 in Lea County, New Mexico. An Application for Permit to Drill/Re-enter (APD) has been submitted to the BLM to re-enter this plugged well and convert to a SWD. In conjunction with this submittal to you a copy has been sent to the OCD District office in Hobbs.

If you have any questions or require any additional information, please contact me at 432-688-3323 or via email at Brenda.rathjen@energen.com.

Respectfully,

A handwritten signature in black ink that reads "Brenda F. Rathjen".

Brenda F. Rathjen
Regulatory Analyst
Energen Resources Corporation

A handwritten note in black ink that reads "Thank you!" with a diagonal line underneath it.

Enclosures

cc: Oil Conservation Division
Hobbs, New Mexico



C-108 Review Checklist: Received 06/06/14 Add. Request: 09/21/14 Reply Date: 09/23/14 Suspended: — [Ver 13]

PERMIT TYPE: WFX / PMX / SWD Number: 1501 Permit Date: 09/20/14 Legacy Permits/Orders: NA

Well No. 1 Well Name(s): Red Ruby 35 Federal SWD 16/23/14

API: 30-0 25-34003 Spud Date: 07/27/97 New or Old: New (UIC Class II Primacy 03/07/1982)

Footages 1100 FNL/820 FEL Lot A or Unit A Sec 35 Tsp 23S Rge 32E County Lea

General Location: Six miles east of County Line / 6.5 mi SE of WPP SWD; Delaware (96100) Pool: Triste Draw; Delaware Pool No.: —

BLM 100K Map: 3al Operator: Energen Resources Corp. OGRID: 162928 Contact: Brenda Pathier 9/30/14 No - 9/30/2014

COMPLIANCE RULE 5.9: Total Wells: 1555 Inactive: 13 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes Date: 1/23/14 Yes Only

WELL FILE REVIEWED Current Status: P+A'd in year drilled - no production Plan includes - to run CBL

WELL DIAGRAMS: NEW: Proposed or RE-ENTER: Before Conv. After Conv. Logs in Imaging: —

Planned Rehab Work to Well: Clean out plugs to 4700'; run 5 1/2 inch casing and cement to surface; perf 2000'

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx br Cf	Cement Top and Determination Method
Planned or Existing <input checked="" type="checkbox"/> Surface	<u>1 1/2</u> / <u>13 3/8</u>	<u>0 to 865</u>	<u>Stage Tool</u>	<u>725</u> Cir. to Surface
Planned or Existing <input checked="" type="checkbox"/> Intern/Prod	<u>1 1/2</u> / <u>8 5/8</u>	<u>0 to 4762</u>	<u>None</u>	<u>1515</u> Cir. to Surface
Planned or Existing <input checked="" type="checkbox"/> Intern/Prod	<u>Boar</u> / <u>5 1/2</u>	<u>0 to 6750</u>	<u>None</u>	<u>(?) Nov. calc.</u> Cir. to Surface/CBL
Planned or Existing <input checked="" type="checkbox"/> Prod/Liner	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Planned or Existing <input checked="" type="checkbox"/> Liner	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Planned or Existing <input checked="" type="checkbox"/> OH / (PERF)	<u>open hole below</u>	<u>5060 to 6650</u> <u>5150</u>	<u>Int length</u> <u>1500</u>	<u>Completion/Operation Details:</u>

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.	<u>—</u>	<u>Salado</u>	<u>~1300</u>
Confining Unit: Litho. Struc. Por.	<u>±100</u>	<u>Delaware Lime</u>	<u>~4700</u>
Proposed Inj Interval TOP:	<u>5150</u>	<u>Bell Canyon</u>	<u>5049</u>
Proposed Inj Interval BOTTOM:	<u>6050</u>	<u>Cherry Canyon</u>	<u>5877</u>
Confining Unit: Litho. Struc. Por.	<u>±570</u>	<u>Brushy Canyon</u>	<u>~1220</u>
Adjacent Unit: Litho. Struc. Por.	<u>—</u>	<u>Bone Spring</u>	<u>~8000</u>

AOR: Hydrologic and Geologic Information

POTASH: R-111 P Noticed? Not Required BLM Sec Ord WPP Noticed? NA SALSALADO T: 1300 B: 4700 CLIFF HOUSE NA

FRESH WATER: Aquifer Alluvial / Possible bedrock / Lake/justice Max Depth 350 HYDRO AFFIRM STATEMENT: By Qualified Person

NMOSE Basin: Carlsbad CAPITAN REEF: thru adj NA No. Wells within 1-Mile Radius? FW Analysis

Disposal Fluid: Formation Source(s) Bone Spring Analysis? On Lease Operator Only or Commercial

Disposal Int: Inject Rate (Avg/Max BWPD): 4000 / 10000 Protectable Waters? Source: Produced water System: Closed or Open

HC Potential: Producing Interval? "Delaware" - BC & Brushy C - segregated from initial Formerly Producing? Method: Logs/DST/P&A/Other 2-Mile Radius Pool Map

AOR Wells: 1/2-M Radius Map? Well List? Total No. Wells Penetrating Interval: 15 Horizontals?

Penetrating Wells: No. Active Wells 3 Num Repairs? on which well(s)? — Diagrams?

Penetrating Wells: No. P&A Wells 12 Num Repairs? on which well(s)? Add 100' to top perf due to increased rates Diagrams?

NOTICE: Newspaper Date 05/24/2014 Mineral Owner BLM Surface Owner BLM N. Date 05/28/14

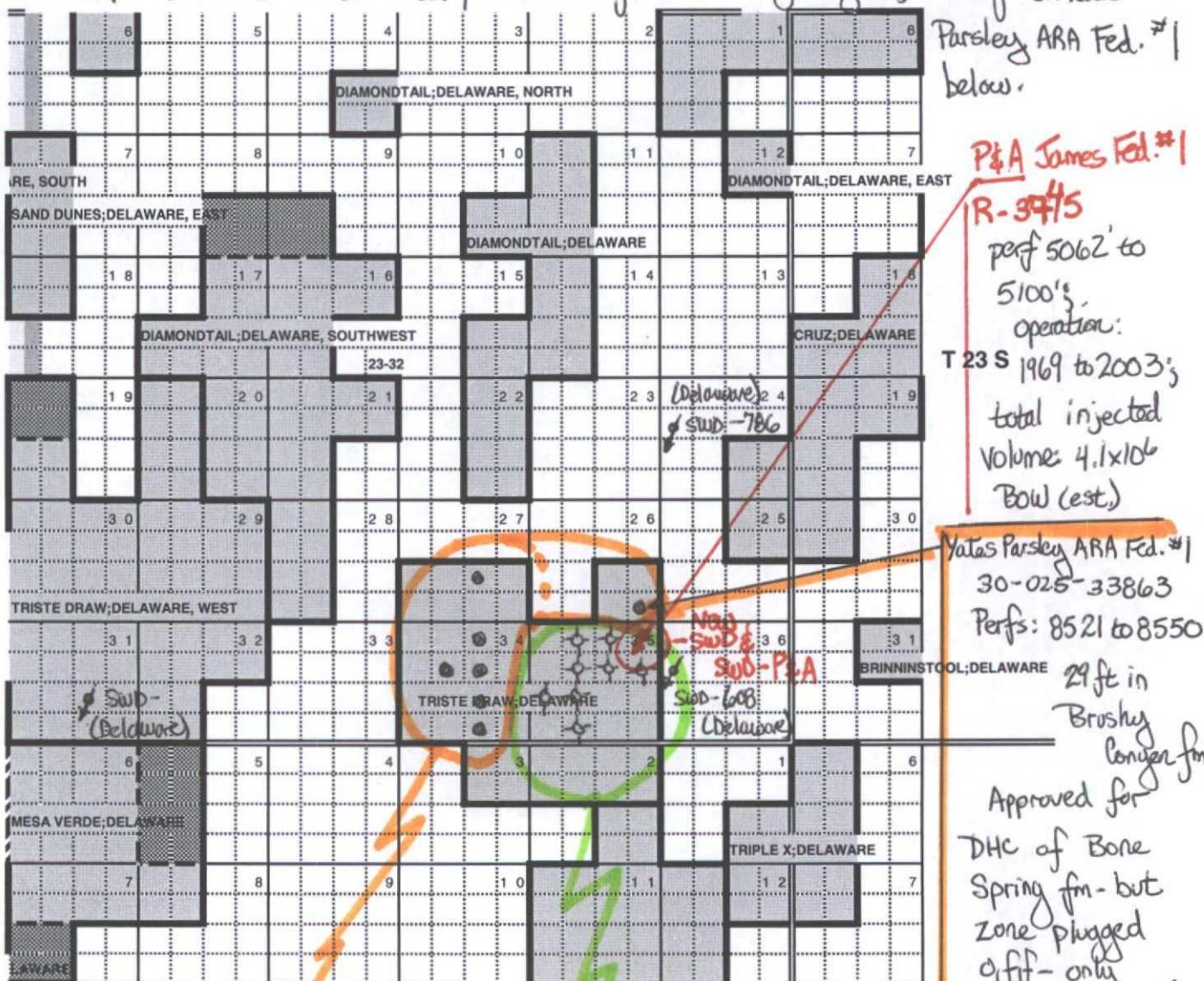
RULE 26.7(A): Identified Tracts? Atlat / OXAUSA COG / El Dorado / Yates / Abo / Moco / Tritex / Endurance / Chevron USA N. Date 05/28/14 M. Date 05/28/14

Permit Conditions: Issues: Top perf's RE: Triste State #1 & James Fed #1; HC potential; injection survey

Add Permit Cond: Top perf at 5150ft; injection survey 1/8 every 4th; Swab test

Delaware Potential - Triste Draw, Delaware (PC 59930)

Proposed well within Triste Draw, Delaware pool. Pool extends over entire Delaware "formation"; two distinct production zones - shallow pay at top of Bell Canyon fm / Lamar (top of Delaware) and deeper pay zone in Brushy Canyon fm (perf intervals from <1,000 ft to 29 ft). Shallow zone wells are plugged and abandoned while the deeper zone shows continued production from Brushy Canyon; see info on Yates Parsley ARA Fed. #1 below.



Deep Zone

Shallow Zone

This portion of pool completed in lower Brushy Canyon fm; several wells approved for PDC with Bone Spring; ~200 to 500 BOPD for 30-day report

This portion of Delaware pool has no current production - wells completed at top of Bell Canyon fm / top of Delaware - 10 to 20-foot net pay

Parsley ARA Fed. #1

P&A James Fed. #1

R-3445

perf 5062' to 5100'; operation:

T 23 S 1969 to 2003;

total injected volume: 4.1×10^6 BOP (est.)

Yates Parsley ARA Fed. #1

30-025-33863

Perfs: 8521 to 8550

29 ft in

Brushy Canyon fm

Approved for

DHC of Bone Spring fm - but zone plugged off - only Delaware perf's open

Production - Yates

Parsley ARA Fed. #1
[30-015-33863]

Rate	BO	BW	McF	Prod. Days
5/14	38	0	0	6 days
6/14	24	0	0	4 days
7/14	33	0	0	5 days

Section VIII, Form C-108 – Supporting Geological Data

With Signature. 9/23/14

Red Ruby 35 Federal 001

Proposed Injection Zone

The proposed injection interval will be selected zones within the Delaware Mountain Group, which consists of three formations, two of which will provide capacity for the injection of produced fluids.

Injection zones will be selected within the upper formation of the Delaware Mountain Group, known as the Bell Canyon Formation; the top of which is located at a depth of 5049', and exhibits a gross thickness of over 800'. Also, porous zones that exist throughout the upper 800' or so of the 1350' thick underlying Cherry Canyon Formation (formation top of 5877') will be viable candidates for injection, thereby making the total injection gross interval equal to approximately 1600'.

Strata that comprise the proposed injection interval consist of very fine-fine-grained, arkosic sandstone, with interbedded siltstone.

If any strata that contain water with </= 10,000 mg/liter happened to be encountered, the expected depth would be ~50' – 1500'. There are no known sources of drinking water below the proposed injection zone.

In review of local geologic data, no evidence is seen of faults or fracture zones that could cause migration of injected fluids into possible shallow fresh water aquifers.

Protection of Potential Shallow Aquifers

There are several units near the surface and shallow subsurface within the subject area that possibly could have aquifer potential. They range from the surficial Quaternary age eolian sands, the Triassic Santa Rosa Formation at approximately 400', the Upper Permian Dewey Lake Formation at approximately 700', and the Upper Permian Rustler Formation, the base of which is estimated to be ~1500'.

The Ruby 35 Federal 001 was drilled by Patterson Petroleum in August 1997, and has 8 5/8 casing set to a depth of 4762'. Based on this fact, the surface casing in this well will more than adequately provide protection for these potential aquifers.

I affirm that all of the above statements are true and correct to the best of my knowledge.

A handwritten signature in black ink, appearing to read "Terry Burns". The signature is fluid and cursive, with a horizontal line extending from the end of the "s" in "Burns" towards the right.

Terry Burns, Senior Geologist

Energen Corporation

Inactive Well List

Total Well Count: 1551 Inactive Well Count: 9
Printed On: Thursday, October 23 2014

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
3	30-039-06514	JICARILLA 108 #013	A-13-26N-05W	A	162928	ENERGEN RESOURCES CORPORATION	J	G	01/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-06384	JICARILLA 110 #003	I-19-25N-05W	I	162928	ENERGEN RESOURCES CORPORATION	J	G	03/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-06106	JICARILLA 123 C #001	I-7-25N-04W	D	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-20730	JICARILLA 67 #011	3-19-25N-05W	L	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	INT TO P&A/BLM 7-7-14		
3	30-039-06347	JICARILLA 98 #001	M-19-26N-03W	M	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	GAVILAN PC/INT TO P&A/BLM 8-5-14		
3	30-039-05498	LINDRITH UNIT #006	B-14-24N-03W	B	162928	ENERGEN RESOURCES CORPORATION	F	G	06/2013	P&A/BLM/9-25-14		
1	30-025-31767	WEST LOVINGTON STRAWN UNIT #002	P-33-15S-35E	P	162928	ENERGEN RESOURCES CORPORATION	F	O	04/2013			
1	30-025-31646	WEST LOVINGTON STRAWN UNIT #007	3-1-16S-35E	C	162928	ENERGEN RESOURCES CORPORATION	P	G	08/2012	STRAWN - CONV FROM WW		
1	30-025-33175	WEST LOVINGTON STRAWN UNIT #013	O-28-15S-35E	O	162928	ENERGEN RESOURCES CORPORATION	P	O	03/2004	STRAWN TA 11/22/10 TA EXP 11/23/2012	T	11/23/2012

WHERE Ogrid:162928, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

Energen Resources Corp.

Inactive Well List

Total Well Count: 1555 Inactive Well Count: 13
Printed On: Tuesday, September 30 2014

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
3	30-039-06514	JICARILLA 108 #013	A-13-26N-05W	A	162928	ENERGEN RESOURCES CORPORATION	J	G	01/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-06384	JICARILLA 110 #003	I-19-26N-05W	I	162928	ENERGEN RESOURCES CORPORATION	J	G	03/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-06106	JICARILLA 123 C #001	I-7-25N-04W	D	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	PC/INT TO P&A/BLM 8-6-14		
3	30-039-20730	JICARILLA 67 #011	3-19-25N-05W	L	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	INT TO P&A/BLM 7-7-14		
3	30-039-06347	JICARILLA 98 #001	M-19-26N-03W	M	162928	ENERGEN RESOURCES CORPORATION	J	G	04/2013	GAVILAN PC/INT TO P&A/BLM 8-5-14		
3	30-039-05498	LINDRITH UNIT #006	B-14-24N-03W	B	162928	ENERGEN RESOURCES CORPORATION	F	G	06/2013			
3	30-039-05519	LINDRITH UNIT #048	O-10-24N-03W	O	162928	ENERGEN RESOURCES CORPORATION	F	G	06/2013	INT TO P&A/BLM 4-10-14		
3	30-039-20919	LINDRITH UNIT #077	N-12-24N-03W	N	162928	ENERGEN RESOURCES CORPORATION	F	G	05/2013	INT TO P&A/BLM 8-27-14		
1	30-025-31767	WEST LOVINGTON STRAWN UNIT #002	P-33-15S-35E	P	162928	ENERGEN RESOURCES CORPORATION	F	O	04/2013			
1	30-025-31848	WEST LOVINGTON STRAWN UNIT #007	3-1-16S-35E	C	162928	ENERGEN RESOURCES CORPORATION	P	G	08/2012	STRAWN - CONV FROM MW		
1	30-025-32B12	WEST LOVINGTON STRAWN UNIT #009	M-34-15S-35E	M	162928	ENERGEN RESOURCES CORPORATION	P	O	06/2013	SIDETRACK 02/22/09 BLM		
1	30-025-33175	WEST LOVINGTON STRAWN UNIT #013	O-28-15S-35E	O	162928	ENERGEN RESOURCES CORPORATION	P	O	03/2004	STRAWN TA 11/22/10 TA EXP 11/23/2012	T	11/23/2012
1	30-025-37846	WEST LOVINGTON STRAWN UNIT #023	O-34-15S-35E	O	162928	ENERGEN RESOURCES CORPORATION	P	O	10/2012	Strawn		

WHERE Ogrid:162928, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period