Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, February 12, 2007 12:39 PM
To: 'clarson@energen.com'
Cc: Ezeanyim, Richard, EMNRD; Sanchez, Daniel J., EMNRD
Subject: SWD Application: State E #1

30-025-01216

Hello Ms. Larson:
Your proposed SWD in this case is surrounded by up to nine (9) wells which do not have primary or secondary cement across the proposed injection interval sufficient to prevent vertical movement of Saltwater injected under pressure. The Division requires injection to be confined to the intended injection interval in the proposed injection well and in the project area (1/2 mile radius) - See Rule 703.

Due to the volume of work to be done on offsetting wells prior to any injection, the Division is denying this administrative application for Saltwater Disposal.

As your attorney will advise, you are free to present a case for this SWD well before a Division Hearing Examiner.

Thank you for your work on this application,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

Energen applied TWICE to inject into THIS well w/o

Injection Permit Checklist 2/8/07

SWD Order Number ______ Dates: Division Approved ______ District Approved ______

Well Name/Num: STATE E #1 Date Spudded: ______

API Num: (30-) ______ County: LEA

Footages 660FNL/660FEL Sec 3 Tsp 15S Rge 33E

Operator Name: EVERGEN RESOURCES CORPORATION Contact CAROLYN LARSON

Operator Address: 3300 N. A Street BLDG 4 SUITE 100 MIDLAND, TX, 79705

Current Status of Well: ______ Planned Work: ______ Inj. Tubing Size: 2 3/8 @ 4750

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	17 1/2 13 3/8	296	225	DID NOT. CIRC.
Intermediate	11 8 5/8	3,090'	1000	1745
Production	7 7/8 5 1/2	~~[illegible]~~	~~[illegible]~~	6181 / SQZ @ 5965 TOC 3926 CBL
Last DV Tool				
Open Hole/Liner				
Plug Back Depth		9933'		1995 CNL

Diagrams Included (Y/N): Before Conversion ✓ After Conversion NO origin/latest CBL

Checks (Y/N): Well File Reviewed ✓ ELogs in Imaging NO — need ~~[illegible]~~

origin T.S. (intern.)
orig T.S (L.S.)

Intervals:	Depths	Formation	Producing (Yes/No)
~~Salt/Potash~~	——		
~~Capitan Reef~~	——		
~~Cliff House, Etc:~~	——		
Formation Above	4183	SA	
Top Inj Interval	~~4780~~ 4200	SA?	
Bottom Inj Interval	~~5644~~ 7340	SA?	
Formation Below	6027	~~Paddock~~	

6441 Clearfork
7783 ~~ABO~~ 7066 TUBB
5620' = GLORIETA

840 ~~956~~ PSI Max. WHIP

NO Open Hole (Y/N)

No Deviated Hole (Y/N)

Fresh Water: Depths: ______ Wells(Y/N) ______ Analysis Included (Y/N): ✓ Affirmative Statement ✓

Salt Water Analysis: Injection Zone (Y/N/NA) ______ DispWaters (Y/N/NA) ______ Types: SA ATOKA DEV

Notice: Newspaper(Y/N) Both Surface Owner Evergen Mineral Owner(s) ______

Other Affected Parties: Brazos

AOR/Repairs: NumActiveWells 6 Repairs? 3 Producing in Injection Interval in AOR NO

AOR Num of P&A Wells 8 Repairs? 0 Diagrams Included? Yes RBDMS Updated (Y/N) ______

14 Total

Well Table Adequate (Y/N) Yes AOR STRs: Sec ______ Tsp ______ Rge ______ UIC Form Completed (Y/N) ______

New AOR Table Filename ______ Sec ______ Tsp ______ Rge ______ This Form completed ______

Conditions of Approval: Sec ______ Tsp ______ Rge ______ Data Request Sent 2/12/07

Need Geo Tops ~~nonwork~~

need 2005 ATOKA Attempt P&A

AOR Required Work: ______

Required Work to this Well: ______

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: Energen Resources Corporation

ADDRESS: 3300 N. A Street, Bldg. 4, Ste. 100 Midland, TX 79705

CONTACT PARTY: Carolyn Larson PHONE: 432/684-3693

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

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

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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

NAME: Carolyn Larson TITLE: Regulatory Analyst

SIGNATURE: Carolyn Larson DATE: 1-30-07

E-MAIL ADDRESS: clarson@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: Logs submitted w/original drill by Chas. Gillespie in 1957.

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: ENERGEN RESOURCES CORPORATION

WELL NAME & NUMBER: State E #1

WELL LOCATION: 660' FNL & 660' FEL (FOOTAGE LOCATION) | A (UNIT LETTER) | 3 (SECTION) | 15S (TOWNSHIP) | 33E (RANGE)

WELLBORE SCHEMATIC

See attached diagram

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 225 sx. *or* _____ ft³

Top of Cement: Unknown Method Determined: _____

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8"

Cemented with: 1000 sx. *or* _____ ft³

Top of Cement: 1745' Method Determined: Cmt. circulated

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 600 sx. *or* _____ ft³

Top of Cement: 6181'. Method Determined: Cmt. circulated

Total Depth: 9933'

Injection Interval

4780 feet to 5644 perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" J-55 Lining Material: Internal plastic coated (IPC)

Type of Packer: Baker Lok-set

Packer Setting Depth: 4750'

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? _____

   Producing oil well in Permo Upper Penn

2. Name of the Injection Formation: San Andres

3. Name of Field or Pool (if applicable): Saunders; San Andres

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. Yes

   9535-50', 9562-9612', CIBP @ 5675'; 9728-9915' - CIBP @ 9700'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Pennsylvanian - top @ 9303'

ENERGEN RESOURCES CORPORATION

State "E" #1 SWD

Current Condition: TA
30-Jan-2007

Spud Date:
GL Elevation: 4194'
KB Elevation: 4201'
Location: 660' FNL & 660' FEL,
Sec 3, T-15-S, R-33-E
Lea County, NM

Surface Casing:
13-3/8" 36#, J-55
@ 296' in 17-1/2" hole
W/225 sx Class C cmt

296'

TOC at 1745'

Intermediate Casing:
8-5/8" 32 & 36#, J-55 & N-80
@ 3090' in 11" hole
Cmt w/1000 Sx cmt
TOC @1745'

3090'

TOC after Sqz @ 3926'

CICR @ 4750'
CICR @ 4878'
CICR @ 5242'
CICR @ 5432'
CICR @ 5583'

San Andres Perfs

CIBP: Set @ 5675'

TOC @ 6181'

Production Casing:
5-1/2" 17# N-80 & J-55
@ 9933', Cmt w/ 600 sx Cmt
TOC @ 6181
Cmt Sqz Hole @ 5965'
TOC @3926' by CBL

Penn Perfs

CIBP: Set @ 9700' w/20' cmt

Permo Penn Perfs

PBD: 5675'
TD: 9933'

San Andres Perfs: 4780'-4794', 4808-4824',
4836'-4846', 120 Holes, 4 spf
CICR @ 4750'
4900'-4916', 48 Holes, 4 spf
CICR @ 4878'
5288'-5309', 5318'-5338', 123
Holes, 4 spf, CICR @ 5242'
5490'-5518', 84 Holes, 4 spf
CICR @ 5432'
5550'-5558', 5572'-5580',
5592'-5598', 5604'-5618',
5628'-5644' 156 Holes, 4 spf
CICR @ 5583'

Pennsylvanian Perfs: 9535'-9550', 31 Holes, 2 spf
9562'-9612', 41 Holes, 2 spf

Permo Penn Perfs: 9728'-9744', 64 Holes, 4 spf
9750'-9776', 104 Holes, 4 spf
9808'-9828', 80 Holes, 4 spf
9833-'-9855', 44 Holes, 2 spf
9858'-9890', 128 Holes, 4 spf
9905'-9915', 20 Holes, 2 spf
9923'-9927', 8 Holes, 2 spf

ENERGEN RESOURCES CORPORATION

State E #1

660' FNL and 660' FEL
Sec 3, T-15-S, R-33-E
Lea, Co. NM
Saunders San Andres Field
San Andres SWD Procedure

Never Done

Date: December 21, 2006

AFE No: PB120906

Cost: $263,000

WI: 100% NRI: 72.19%

TD: 9933' PBTD: 5675' (CIBP) KB: 4201' GL: 4194'

Surface Casing: 13-3/8" 36#/ft, J-55 at 296'.
Cemented w/225 Class C sx.

Intermediate Casing: 8-5/8" 36#/ft, N-80 Surf-141'
36#/ft, J-55 141-2173'
32#/ft, J-55 2173-3090'
Cemented w/1000 sx Lone Star and Trinity regular.
TOC @ 1745'

Production Casing: 5-1/2" 17#/ft, N-80 Surf to 2095'
J-55 2095 to 9933'
Cemented w/600 Trinity Inferno. TOC at 6181'
Squeeze Hole @ 5965' w/ ??? sx, TOC 3926' by CBL

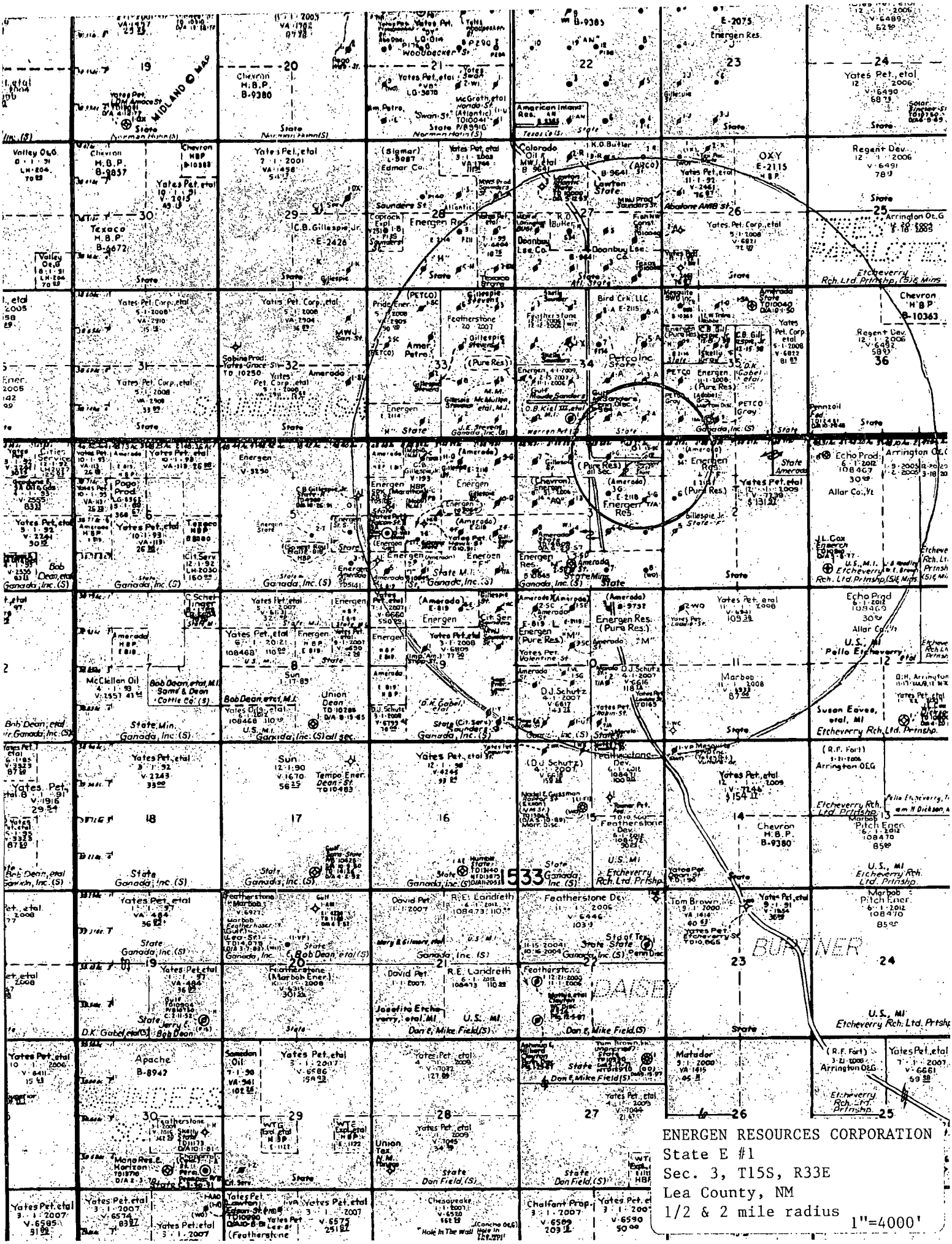
Tubing: None

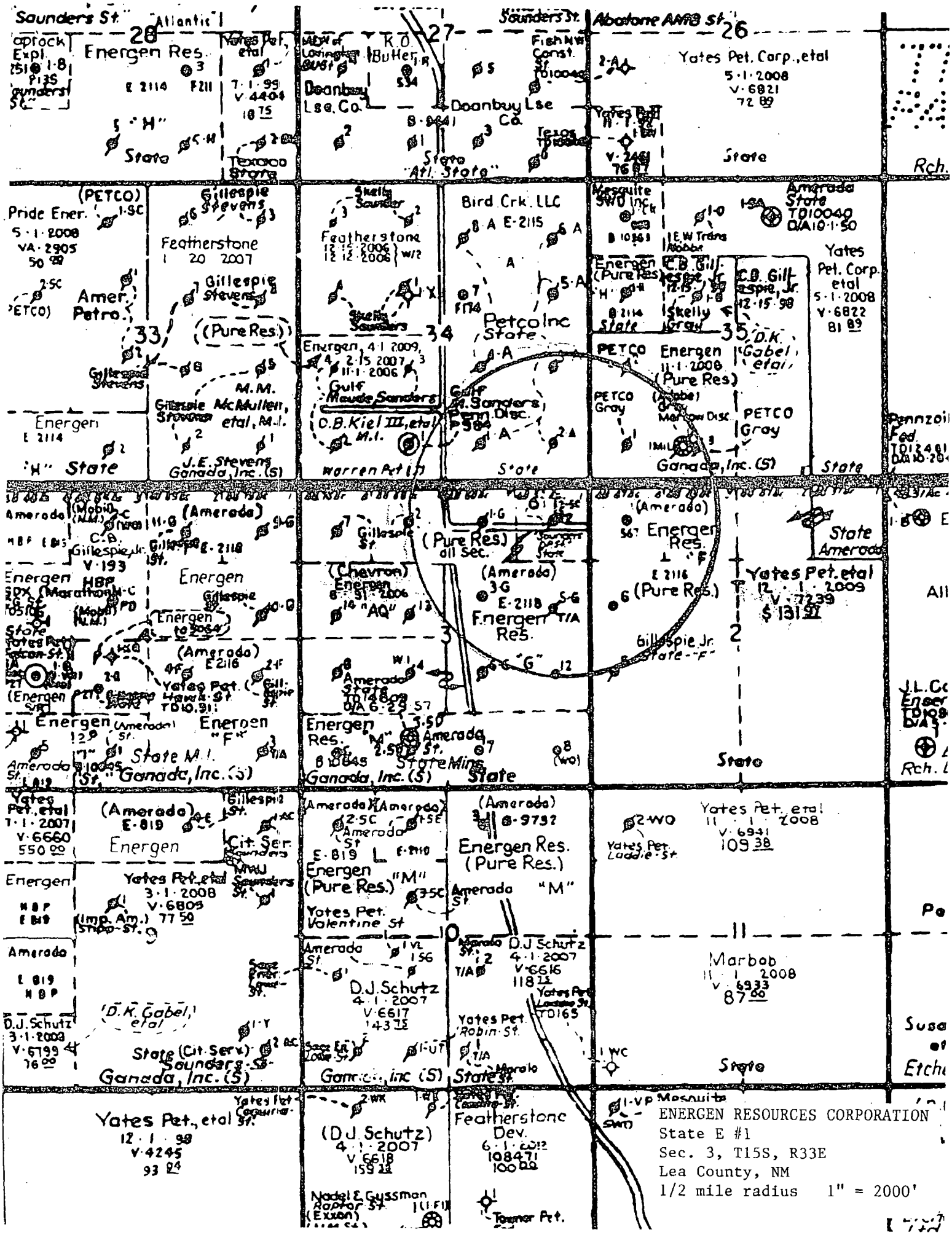
Perforations:

San Andres:
5628-44, 5604-18, 5592-98, 5572-80, 5550-58 156 holes @ 4 SPF
CICR @ 5583'
5490-5518 84 holes @ 4 SPF
CICR @ 5432'
5318-38, 5288-5309 123 hole @ 4 SPF
CICR @ 5242'
4900-16 48 holes @ 4 SPF
CICR @ 4878'
4836-46, 4808-24, 4780-94 120 holes @ 4 SPF
CICR @ 4750'

Pennsylvanian:
9535-50 31 holes at 2 SPF
9562-9612 41 holes at 2 SPF
CIBP at 9700' w/20' cement
CIPB at 5675'

Permo-Penn:
9728-44 64 Holes at 4 SPF
9750-76 104 Holes at 4 SPF
9808-28 80 Holes at 4 SPF
9833-55 44 Holes at 2 SPF
9858-90 128 Holes at 4 SPF
9905-15 20 Holes at 2 SPF
9923-27 8 Holes at 2 SPF


ENERGEN RESOURCES CORPORATION
State E #1
Sec. 3, T15S, R33E
Lea County, NM
1/2 & 2 mile radius
1"=4000'



ENERGEN RESOURCES CORPORATION
State E #1
Sec. 3, T15S, R33E
Lea County, NM
1/2 mile radius 1" = 2000'

AREA OF REVIEW
WELL DATA

	Operator	Well Name	Type	Status	Location	Spud Date	Compl. Date	Total Depth	Construction
	Energen Resources	State F #1	O&G	Active	2D 15S 33E	5/12/1951	7/4/1951	9915'	13-3/8" @298' w/250sx - TOC surface
					660' FNL & 660' FWL				8-5/8" @4240' w/1500sx - TOC 2056'
									5-1/2" @9915' w/600sx - TOC 7138'
**	Chas. Gillespie Jr.	State F #5	O&G	P&A	2L 15S 33E	7/8/1985	8/13/1985	10,126'	13-3/8" @ 352' w/450sx - TOC surface
					1980' FSL & 400' FWL				8-5/8" @ 4273' w/1340sx - Unknown
									5-1/2" @10,126' w/1100sx - TOC 4658'
	Energen Resources	State F #6	O&G	Active	2E 15S 33E	8/6/1985	10/3/1985	10,135'	13-3/8" @365' w/450sx - Circulated
					2120' FNL & 400 FWL				8-5/8" @4230' w/1400sx - Circulated
									5-1/2" @10,122' w/1025sx - TOC 8680'
**	Chas. Gillespie Jr	State G #1	O&G	P&A	3B 15S 33E	10/13/1950	12/15/1950	9906'	11-3/4" @ 313' w/275 sx - Surface
					660' FNL & 1980' FEL				7-5/8" @4246' w/1900 sx - TOC 1631'
									5-/12" @ 9906' w/600 sx - TOC 4860'
**	Chas. Gillespie, Jr.	State G #2	O&G	P&A	3C 15S 33E	12/31/1950	5/11/1951	9915'	11-3/4" @ 297' w/225 sx - TOC Surface
					660' FNL & 1980' FEL				7-5/8" @ 3100' w/1500 sx - TOC 809'
									5-1/2" @ 8208' w/600 sx - TOC 3753'
**	Chas. Gillespie, Jr.	State G #5	O&G	P&A	3H 15S 33E	6/12/1951	7/29/1951	9908'	13-3/8" @295' w/250sx - TOC Surface
					2120' FNL & 660' FEL				8-5/8" @4295' w/1500 sx - TOC 1045'
									5-1/2" @9908' w/600 sx - TOC 7336'
	Energen Resources	State G #3	O&G	Active	3G 15S 33E	4/13/1951	6/3/1951	9905'	13-3/8" @297' w/225sx - TOC surface
					1320' FNL & 1980' FEL				8-5/8" @4225' w/1500sx - TOC 2033'
									5-1/2" @9905' w/600sx - TOC 7070'
	Energen Resources	Saunders Deep State #1	O&G	Active	3A 15S R33E	2/27/2005	5/25/2005	13,548'	13-3/8" @ 413' w/800 sx - TOC surface
					420' FNL & 940' FEL				9-5/8" @ 5870' w/3800 sx - TOC surface
									5-1/2" @ 13,542' w/2000 - TOC 5460'

open below in interval 7336-4716

AREA OF REVIEW
WELL DATA

	Operator	Well Name	Type	Status	Location	Spud Date	Compl. Date	Total Depth	Construction
**	Petroleum Corp. of TX	State A #1	O&G	P&A	34O 14S 33E	6/24/1950	9/24/1950	9940'	13-3/8" @329' w/325sx
					660' FSL & 1980' FEL				8-5/8" @4216' w/1500sx - TOC's unknown
									5-1/2" @9939' w/750sx
**	Breck Operating Corp.	State A #2	O&G	P&A	34P 14S R33E	6/28/1951	9/1/1951	10,107'	13-/3/8" @ 340' w/325sx - TOC surface
					660' FSL & 660' FEL				8-5/8" @4216' w/3300sx - Cmt circulated
									5-1/2" @6039' w/813sx - TOC 3950' TS
**	Petroleum Corp. of TX	State A #3	O&G	P&A	34I 14S 33E	11/16/1951	1/16/1952	9904'	13-3/8" @328' w/300sx - TOC Surface
					1980' FSL & 660' FEL				8-5/8" @4218' w/3000sx - TOC surface
									5-1/2" @9904' w/1097sx - TOC unknown
**	Chas. Gillespie Jr.	Gray 35 #1	O&G	P&A	35N 14S 33E	2/4/1980	5/6/1980	13,062'	13-3/8" @389' w/585sx
					1650' FWL & 660' FSL				8-5/8" @4250' w/1650sx - TOC's unknown
									5-1/2" @13,062' w/1600sx
**	Petroleum Corp. of TX	Gray Shell #1	O&G	P&A	35M 14S 33E	9/16/1951	11/3/1951	9903'	13-3/8" @332' w/325sx - TIC surface
					660' FSL & 660' FWL				8-5/8" @4209' w/3300sx - TOC surface
									5-1/2" @9903' w/1063sx - TOC 4000'
**	Petroleum Corp. of TX	Gray Shell #2	O&G	P&A	35L 14S 33E	4/17/1952	6/6/1952	9909'	13-3/8" @348' w/325sx - TOC surface
					1980' FSL & 660' FWL				8-5/8" @4215' w/3000sx - TOC surface
									5-1/2" @9909' w/950sx - Unknown
**	Petroleum Corp. of TX	Gray Shell #3	O&G	P&A	35N 14S 33E	4/7/1961	5/31/1961	10,032'	8-5/8" @1657' w/685sx - surface
					660' FSL & 1980' FWL				5-1/2" @10,032' w/200sx - TOC unknown
**	Operator when well was plugged. Not currently operating in this area.								

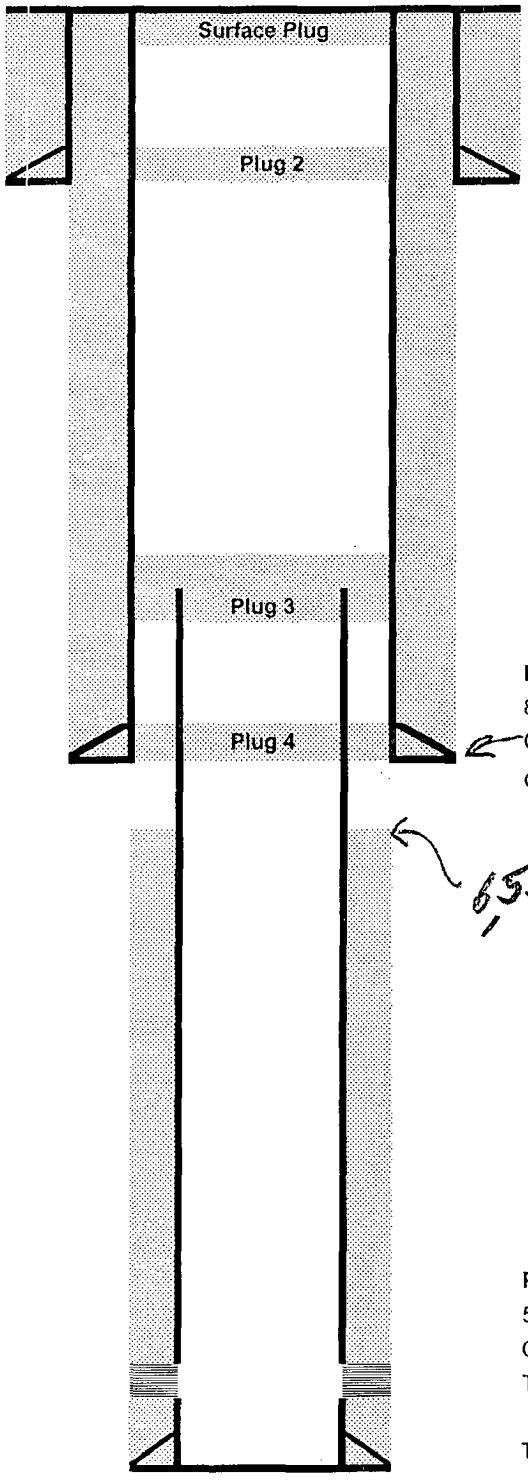
CHARLES B. GILLESPIE, JR.

State "F" Well #5
Saunders Permo Upper Penn
Lea County, New Mexico

1980' FSL & 400' FWL
Section 2, Township 15 South, Range 33 East

API: 3002529306
Date Plugged: 9/26/1996

TD: 10,126'



ONE OFFSET well

Surface Casing:
13-3/8", 61# @ 352'
Cmt w/450 Sx Circulated

Surface Plug: Surface w/15 sx
Plug 2: 335' w/25 sx
Plug 3: 3107' - 3220' w/35
Plug 4: 4300' w/25 sx

Intermediate Casing:
8-5/8", 24# & 32#, @ 4273'
Cmt w/ 1340 sx cmt-circulated
Cut @ 3167' & POOH

Perfs: 9976' - 9982'
9993' - 10,014
2 SPF

Production Casing:
5-1/2", 17#, 10,126'
Cmt w/1100 Sx
TOC tagged @ 4658' prior to P&A

TD: 10,107'

Jones, William V., EMNRD

SWD-2007-B

From: Carolyn Larson [Carolyn.Larson@energen.com]
Sent: Thursday, March 29, 2007 2:44 PM
To: Jones, William V., EMNRD
Subject: SWD Application: State E #1
Attachments: State E 1_20070329151953.pdf

Mr. Jones –
In answer to your e-mail of March 20, Energen still wants this permit to inject and have attached the following for clarification:

1. Newspaper Notice – A copy of what was submitted to the Hobbs Daily News-Sun for publication. I was advised that the legal ad would be published on Saturday, March 31, 2007. Proof of notice will be forwarded when it is received.
2. On March 23 I sent 2 logs to the Hobbs District Office: Cement bond log and a Compensated Neutron Log. These are the only two logs we have.
3. An "after conversion" wellbore diagram
4. A letter from Mark Solari regarding Energen's position on the three wells that "require remedial cementing operations."

With regard to your question on casing and cementing records on the Saunders Deep State #2, the information was filed 1/18/07 and stamped in 1/22/07 in Hobbs. The approved documents were just received in this office last week. Donna Mull, who processes most of the completions, had been off for 3 months with back surgery so paperwork was backed-up. Those files have now been scanned and are on-line.

Originals of the wellbore diagram and Mr. Solari's letter will be placed in the mail to your attention.

Thank you,

Carolyn Larson
Regulatory Analyst
Energen Resources Corp.
(432) 684-3693
(432) 688-3140 FAX

Received 3/29/07

Jones, William V., EMNRD

From: Carolyn Larson [Carolyn.Larson@energen.com]
Sent: Tuesday, March 20, 2007 12:14 PM
To: Jones, William V., EMNRD
Subject: RE: SWD Application: State E #1 API No. 30-025-01216

Mr. Jones -
Item 3 - The deepening was permitted but never done. Decision was made to convert to SWD.

Carolyn Larson
Regulatory Analyst
Energen Resources Corp.
(432) 684-3693
(432) 688-3140 FAX

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Tuesday, March 20, 2007 12:44 PM
To: Carolyn Larson
Cc: Ezeanyim, Richard, EMNRD; Sanchez, Daniel J., EMNRD; Price, Wayne, EMNRD; J. Scott Hall; Brooks, David K., EMNRD; Williams, Chris, EMNRD
Subject: SWD Application: State E #1 API No. 30-025-01216

Hello Ms. Larson:
We received your revised injection permit in which you extended the intended injection interval to depths from 4200 to 7340 feet.

After evaluating this application, we have the following requests and comments:

1) Newspaper Notice:
(a) Your new depth interval now includes additional formations other than just the San Andres. According to records available here, the 4200 to 7340 feet interval includes the Glorieta, Clearfork, and Tubb. Whichever the correct names of the formations, your newspaper notice should include these formation names as injection intervals intended for permitting for injection. The notice now only mentions the San Andres.
(b) Your newspaper notice also has an extremely old address for the OCD.

Please post a new Newspaper Notice with all formation names and with the correct OCD address and send proof of notice to Santa Fe.

2) The OCD web site does not have any elogs on this well. The original elogs should be there as well as the cased hole neutron log run more recently. Send these to Hobbs for scanning as well as both temperature surveys and the CBL run after the San Andres testing/squeezes.

3) The deepening and Atoka completion attempt in this well has no sundrys from Energen in our well file - send a record of this attempt to Hobbs.

4) The Saunders Deep State #2 well within the area of review was recently drilled by Energen but the OCD has no records of the final casing and cementing. Send in records as required showing this information to the Hobbs district office.

5) Send an "after conversion" wellbore diagram to Santa Fe.

6) By extending the permitted injection intervals you have eliminated some wells from required remedial cementing operations.

Jones, William V., EMNRD

From: Jones, William V., EMNRD

Sent: Tuesday, March 20, 2007 10:44 AM

To: 'clarson@energen.com'

Cc: Ezeanyim, Richard, EMNRD; Sanchez, Daniel J., EMNRD; Price, Wayne, EMNRD; J. Scott Hall; Brooks, David K., EMNRD; Williams, Chris, EMNRD

Subject: SWD Application: State E #1 API No. 30-025-01216

Hello Ms. Larson:
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After evaluating this application, we have the following requests and comments:

1) Newspaper Notice:
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(b) Your newspaper notice also has an extremely old address for the OCD.

Please post a new Newspaper Notice with all formation names and with the correct OCD address and send proof of notice to Santa Fe.

2) The OCD web site does not have any elogs on this well. The original elogs should be there as well as the cased hole neutron log run more recently. Send these to Hobbs for scanning as well as both temperature surveys and the CBL run after the San Andres testing/squeezes.

3) The deepening and Atoka completion attempt in this well has no sundrys from Energen in our well file - send a record of this attempt to Hobbs.

4) The Saunders Deep State #2 well within the area of review was recently drilled by Energen but the OCD has no records of the final casing and cementing. Send in records as required showing this information to the Hobbs district office.

5) Send an "after conversion" wellbore diagram to Santa Fe.

6) By extending the permitted injection intervals you have eliminated some wells from required remedial cementing operations. Unfortunately, three wells (all operated by Energen) listed below, would still require remedial cementing to raise cement from the current cement tops to at least above the intermediate casing depths, cover intended injection targets and protect the bradenhead.

State F #1 30-025-08331 (needs cement from 7100 to at least 4200 feet)
State F #6 30-025-29307 (needs cement from 8600 to at least 4200 feet)
State G #3 30-025-01210 (needs cement from 7050 to at least 4200 feet)

After receipt of the requested items, we can prepare this permit for approval by the Division Director. The permit will contain conditions requiring these three wells to be cemented prior to any injection into this well.

Please confirm before the end of March if these items will be provided to the Division and Energen still wants this permit to inject. If we do not hear from you, this permit application will be cancelled from our system.

Thank You,

ENERGEN
RESOURCES

3300 N. "A" Street, Building 4, Suite 100
Midland, Texas 79705

March 29, 2007

New Mexico Oil Conservation Division
Engineering Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. William V. Jones

RE: SWD Application - State "E" #1 SWD
API # 30-025-01216

Dear Mr. Jones,

You wrote Carolyn Larson with Energen Resources Corp. (ERC) an e-mail on March 20, 2007 stating that three (3) active wells in the Area of Review (AOR) did not have cement to the bottom of the intermediate casing and cement would need to be squeezed in these wells before injection could start.

State F #1 API# 30-025-08331
State F #6 API# 30-025-29307
State G #3 API# 30-025-01210

As an alternative to cementing, I respectfully request that ERC be allowed to monitor the bradenhead pressures on these active wells. ERC personnel check the wells daily. Injection would be ceased with any bradenhead pressure change noted, just as ERC would cease injection if the annulus between the tubing and production string were to pressure up. At which point, cement remediation would be preformed on the culprit well. Economics of the project do not support the remediation of all three wells. Surface and intermediate casing in these wells are protecting the fresh water zones. Under the current OCD rules for producing wells without cement, the OCD would request remediation if bradenhead pressure were detected. Therefore ERC believes that this request is reasonable.

Please consider this alternative for approval of the SWD permit.

Respectfully,

Mark Solari
Sr. District Engineer
Energen Resources Corp.
Permian Basin Division

ENERGEN RESOURCES CORPORATION

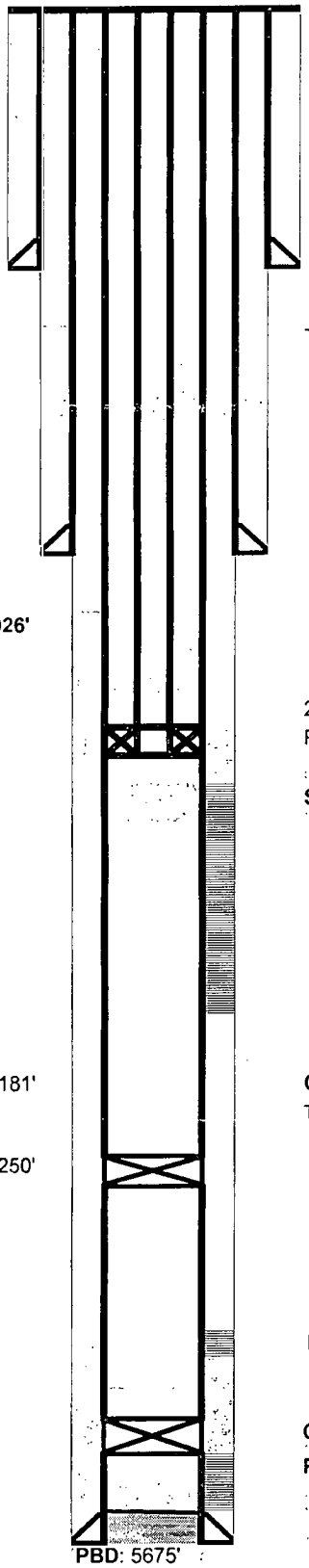
State "E" #1 SWD

Spud Date:

Proposed Condition: SWD
27-Mar-2007

GL Elevation: 4194'
KB Elevation: 4201'
Location: 660' FNL & 660' FEL,
Sec 3, T-15-S, R-33-E
Lea County, NM

Surface Casing:
13-3/8" 36#, J-55
@ 296' in 17-1/2" hole
W/225 sx Class C cmt



296'

TOC at 1745'

Intermediate Casing:
8-5/8" 32 & 36#, J-55 & N-80
@ 3090' in 11" hole
Cmt w/1000 Sx cmt
TOC @1745'

3090'

TOC after Sqz @ 3926'

2-7/8" tbg
Packer w/l 100' of top perf.

San Andres Perfs 4780'-4794', 4808-4824',
4836'-4846', 120 Holes, 4 spf
4900'-4916', 48 Holes, 4 spf
5288'-5309', 5318'-5338', 123
5490'-5518', 84 Holes, 4 spf
5550'-5558', 5572'-5580',
5592'-5598', 5604'-5618',
5628'-5644' 156 Holes, 4 spf

Orig.TOC @ 6181'

Cmt Sqz Hole @ 5965'
TOC @3926' by CBL

CIBP: Set @ 7250'

Production Casing:
5-1/2" 17# N-80 & J-55
@ 9933', Cmt w/ 600 sx Cmt
TOC @ 6181

Pennsylvanian Perfs: 9535'-9550', 31 Holes, 2 spf
9562'-9612', 41 Holes, 2 spf

CIBP: Set @ 9700' w/20' cmt

Permo Penn Perfs: 9728'-9744', 64 Holes, 4 spf
9750'-9776', 104 Holes, 4 spf
9808'-9828', 80 Holes, 4 spf
9833-'-9855', 44 Holes, 2 spf
9858'-9890', 128 Holes, 4 spf
9905'-9915', 20 Holes, 2 spf
9923'-9927', 8 Holes, 2 spf

PBD: 5675'
TD: 9933'

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XX Disposal _____ Storage
Application qualifies for administrative approval? XX Yes _____ No

II. OPERATOR: Energen Resources Corporation

ADDRESS: 3300 N. A Street, Bldg. 4, Suite 100 Midland, TX 79705

CONTACT PARTY: Carolyn Larson PHONE: 432/684-3693

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

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

30-025-01216

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

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

Not Done

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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

NAME: Carolyn Larson TITLE: Regulatory Analyst

SIGNATURE: Carolyn Larson DATE: 3-13-07

E-MAIL ADDRESS: clarson@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: Logs submitted w/original drill by Chas. Gillespie in 1957.

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

**Energen will monitor bradenhead pressure on State F #6 for pressure changes.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: ENERGEN RESOURCES CORPORATION

WELL NAME & NUMBER: State E #1

WELL LOCATION: 660' FNL & 660' FEL | A | 3 | 15S | 33E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

See attached diagram

WELL CONSTRUCTION DATA

Surface Casing

Hole S ze: 17-1/2" Casing Size: 13-3/8"

Cemented with: 225 sx. *or* _____ ft³

Top of Cement: Unknown Method Determined: _____

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8"

Cemented with: 1000 sx. *or* _____ ft³

Top of Cement: 1745' Method Determined: ~~Cmt.~~ circulated

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 600 sx. *or* _____ ft³

Top of Cement: 6181' Method Determined: ~~Cmt~~ circulated

Total Depth: 9933'

Injection Interval

4200 feet to 7340' perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Internal plastic coated (IPC)

Type of Packer: Baker Lok-set

Packer Setting Depth: 4750'

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? _____

   Producing oil well in Permo Upper Penn

2. Name of the Injection Formation: San Andres

3. Name of Field or Pool (if applicable): Saunders; San Andres

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. Yes

   9535-50', 9562-9612', CIBP @5675'; 9728-9915' - CIBP @9700'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Pennsylvanian - top @ 9303'

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northeastern New Mexico	
T. Anhy	1540	T. Canyon		T. Ojo Alamo	T. Penn. "B"
T. Salt		T. Strawn	11,414	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	2515	T. Atoka	11,624	T. Pictured Cliffs	T. Penn. "D"
T. Yates	2660	T. Miss	12,816	T. Cliff House	T. Leadville
T. 7 Rivers	2810	T. Devonian	13,560	T. Menefee	T. Madison
T. Queen	3450	T. Silurian		T. Point Lookout	T. Elbert
T. Grayburg	3860	T. Montoya		T. Mancos	T. McCracken
T. San Andres	4215	T. Simpson		T. Gallup	T. Ignacio Otzte
T. Glorieta	5620	T. McKee		Base Greenhorn	T. Granite
T. Paddock		T. Ellenburger		T. Dakota	T.
T. Blinebry		T. Gr. Wash		T. Morrison	T.
T. Tubb	7060	T. Delaware Sand		T. Todilto	T.
T. Drinkard		T. Bone Springs		T. Entrada	T.
T. Abo	7705	T. Woodford	13,466	T. Wingate	T.
T. Wolfcamp	9175	T.		T. Chinle	T.
T. Penn	9740	T.		T. Permain	T.
T. Cisco (Bough C)		T.		T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from 13,560 to 13,565 No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

IMPORTANT WATER SANDS

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

No. 1, from ..... to ..... feet .....

No. 2, from ..... to ..... feet .....

No. 3. from ..... to ..... feet .....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
Surface	1540	1540	Sand & shale				
1540	2660	1120	Anhydrite and evaporites				
2660	7800	5140	Dolomite, anhydrite shale				
7800	9400	1600	Dolomite, anhydrite, sand, shale				
9400	11624	2224	Limestone, shale				
11624	13400	1776	Sandstone, shale				
13400	13450	50	Limestone, shale				
13450	13560	110'	Shale				
13560	13565	5'	Dolomite				

ENERGEN RESOURCES
State E #1 – API 30-025-01216
UL A/660 FNL & 660 FEL
Section 3, T15S, R33E, Lea County

Plugback (cont)
RIH w/ 5-1/2" CICR, 2-3/8" SN & 171 jts 2-3/8" tubing down to 5466'. Set retainer @ 5432', pressured csg to 500#. Pumped 75 sacks Class "C" cement ; stung out of retainer & reversed 7 bbls of cmt to pit. POH w/tubing. RU Schlumberger WL & perforated additional San Andres w/Titan 4" SDP "EXP-4023-320T guns @ the following intervals: 5288-5209' (63 holes) and 5318-5338' (60 holes). RIH w/2-3/8" X 5-1/2" 'CST' packer, 2-3/8" SN & 166 jts of 2-3/8" tbg down to 5340'.

6/11/05 – 6/23/05
Spotted 100 gals of 15% HCL acid w/ additives. Swabbed tubing down to SN @ 5180' & RD swab. Acidized 3rd interval w/2.1M gallons of 15% HCL/DI acid . Continued swabbing.
RIH w/5-1/2" CICR and batch-mixed 100 sacks of Class "C" cement. Stung into retainer and pumped 24 bbls @ 1.4 BPM. Stung out of retainer & reversed cement to pit. Perforated additional San Andres w/Titan 4" SDP "EXP-4023-32oT" guns 120 degree phase JSPF @ 4900-4916' for a total of 48 holes.
Spotted 100 gals of 15% HCL acid w/additives. Acidized the 4th interval in San Andres w/100 gals of spot acid plus 900 gals of additional 15% HCL acid. Recovered a total of 50 BF for the day. Continue swab testing.

ENERGEN RESOURCES CORPORATION

State "E" #1 SWD

Current Condition: TA
30-Jan-2007

Spud Date:
GL Elevation: 4194'
KB Elevation: 4201'
Location: 660' FNL & 660' FEL,
Sec 3, T-15-S, R-33-E
Lea County, NM

Surface Casing:
13-3/8" 36#, J-55
@ 296' in 17-1/2" hole
W/225 sx Class C cmt

296'

TOC at 1745'

Intermediate Casing:
8-5/8" 32 & 36#, J-55 & N-80
@ 3090' in 11" hole
Cmt w/1000 Sx cmt
TOC @1745'

3090'

OPEN

TOC after Sqz @ 3926'

CMT ↓ 3926' CBL

CICR @ 4750'
CICR @ 4878'
CICR @ 5242'
CICR @ 5432'
CICR @ 5583'

San Andres Perfs

CIBP: Set @ 5675'

CMT ↑ 5,700' CBL

TOC @ 6181'

Ran

CMT ↓ 6,181' CBL

Production Casing:
5-1/2" 17# N-80 & J-55
@ 9933', Cmt w/ 600 sx Cmt
TOC @ 6181
Cmt Sqz Hole @ 5965'
TOC @3926' by CBL

Penn Perfs

CIBP: Set @ 9700' w/20' cmt

Permo Penn Perfs

PBD: 5675'
TD: 9933'

San Andres Perfs: 4780'-4794', 4808-4824', 4836'-4846', 120 Holes, 4 spf
CICR @ 4750'
4900'-4916', 48 Holes, 4 spf
CICR @ 4878'
5288'-5309', 5318'-5338', 123 Holes, 4 spf, CICR @ 5242'
5490'-5518', 84 Holes, 4 spf
CICR @ 5432'
5550'-5558', 5572'-5580', 5592'-5598', 5604'-5618', 5628'-5644' 156 Holes, 4 spf
CICR @ 5583'

Pennsylvanian Perfs: 9535'-9550', 31 Holes, 2 spf
9562'-9612', 41 Holes, 2 spf

Permo Penn Perfs: 9728'-9744', 64 Holes, 4 spf
9750'-9776', 104 Holes, 4 spf
9808'-9828', 80 Holes, 4 spf
9833-'-9855', 44 Holes, 2 spf
9858'-9890', 128 Holes, 4 spf
9905'-9915', 20 Holes, 2 spf
9923'-9927', 8 Holes, 2 spf

ENERGEN RESOURCES CORPORATION

State E #1

660' FNL and 660' FEL
Sec 3, T-15-S, R-33-E
Lea, Co. NM
Saunders San Andres Field
San Andres SWD Procedure

Date: December 21, 2006

AFE No: PB120906

Cost: $263,000

WI: 100% NRI: 72.19%

TD: 9933' PBTD: 5675' (CIBP) KB: 4201' GL: 4194'

Surface Casing: 13-3/8" 36#/ft, J-55 at 296'.
Cemented w/225 Class C sx.

Intermediate Casing: 8-5/8" 36#/ft, N-80 Surf-141'
36#/ft, J-55 141-2173'
32#/ft, J-55 2173-3090'
Cemented w/1000 sx Lone Star and Trinity regular.
TOC @ 1745'

Production Casing: 5-1/2" 17#/ft, N-80 Surf to 2095'
J-55 2095 to 9933'
Cemented w/600 Trinity Inferno. TOC at 6181'
Squeeze Hole @ 5965' w/ ??? sx, TOC 3926' by CBL

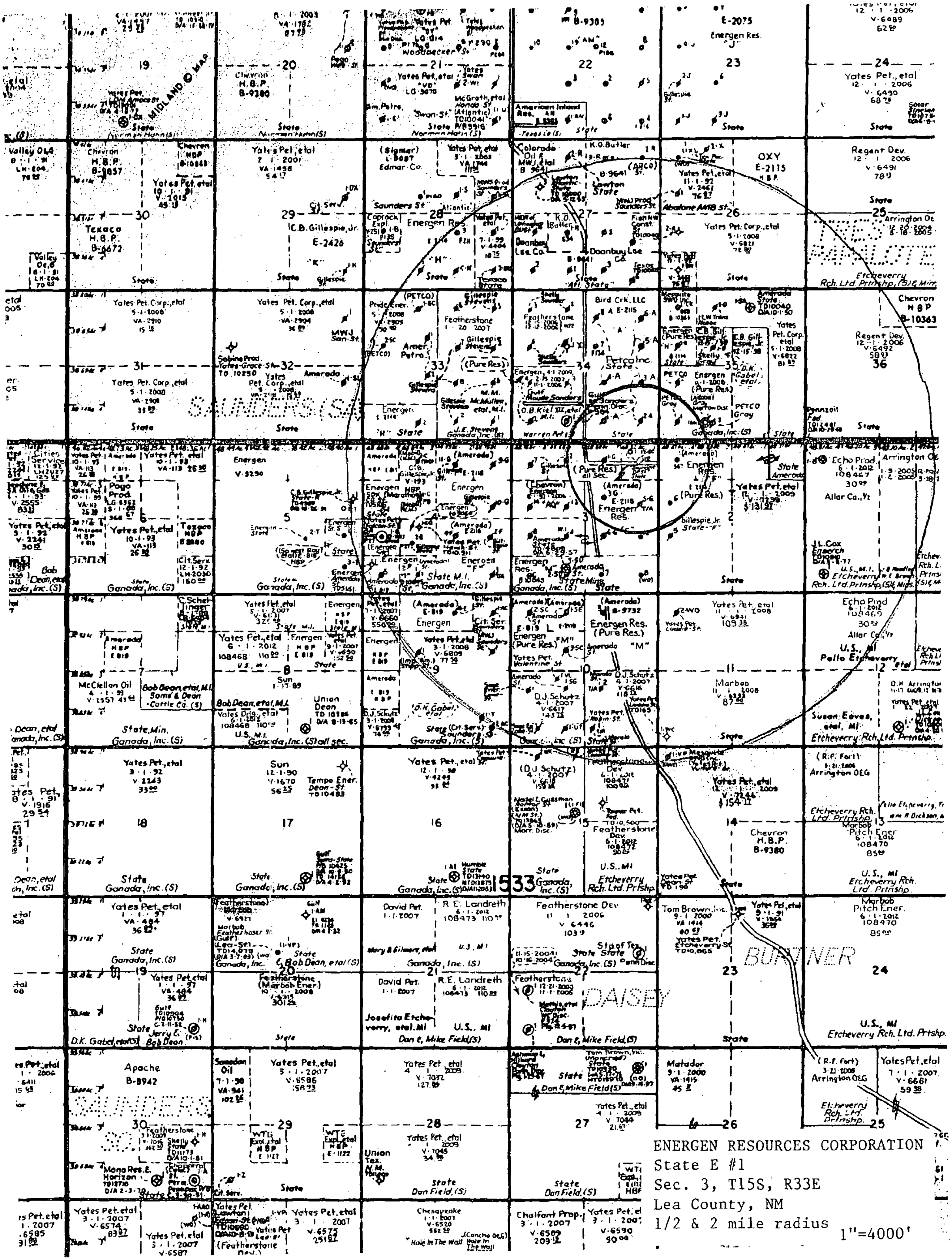
Tubing: None

Perforations:

San Andres:
5628-44, 5604-18, 5592-98, 5572-80, 5550-58 156 holes @ 4 SPF
CICR @ 5583'
5490-5518 84 holes @ 4 SPF
CICR @ 5432'
5318-38, 5288-5309 123 hole @ 4 SPF
CICR @ 5242'
4900-16 48 holes @ 4 SPF
CICR @ 4878'
4836-46, 4808-24, 4780-94 120 holes @ 4 SPF
CICR @ 4750'

Pennsylvanian:
9535-50 31 holes at 2 SPF
9562-9612 41 holes at 2 SPF
CIBP at 9700' w/20' cement
CIPB at 5675'

Permo-Penn:
9728-44 64 Holes at 4 SPF
9750-76 104 Holes at 4 SPF
9808-28 80 Holes at 4 SPF
9833-55 44 Holes at 2 SPF
9858-90 128 Holes at 4 SPF
9905-15 20 Holes at 2 SPF
9923-27 8 Holes at 2 SPF


ENERGEN RESOURCES CORPORATION
State E #1
Sec. 3, T15S, R33E
Lea County, NM
1/2 & 2 mile radius
1"=4000'

Energen Resources

State "F" # 1 Formerly State SD #1

Lea County, New Mexico

Current status: **Pumping**
09 - 23 - 03

Elevation GL: 4183
Elevation DF: 4196'
Elevation KB:
Location: 660' FNL, 660' FWL, Sec 2, T - 15 - S, R - 33 - E
Spudded: 05 - 12 - 51 **Completed:** 07 - 10 - 51
API #: 30 - 025 - 08331

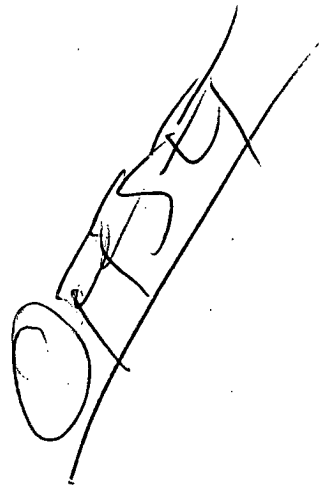
Tubing Detail (Last Available)

#Jts	O.D.	Thread	TAC/Depth	Weight	Grade	TLA	Tally Dated:
233	2-3/8"	8 rd EUE	2 3/8" x 10' @ 9,660'	4.7	8rd	9,669	10/2/2001

SN @ 2 3/8" X 5 1/2" @ 9,663'

Surface csg:
13 3/8", 36#, Armco,
@ 296' w/ 250 sks cmt,
17 1/2" hole

TOC: 8 5/8" @ 2056' TS



Intermediate csg:
8 5/8", 28#, 32#, H-40, J -55, N-80
@ 4240' w/ 1500 sks cmt, 11"
hole.

Sqz csg leak: 5728 - 5791 w/100 sx Class "C" (1/26/87)

TOC: 5 1/2" @ 7138' TS

Perfs: 9772' - 9778', 9686' - 9800' (6/52)
Perfs: 9820' - 9840' (6/58)
Perfs: 9890 - 9910' (7/51)

Production csg:
5 1/2", 15.5#, 17#, J - 55, N - 80,
@ 9,915' w/ 600 sks cmt, 7 7/8" hole.

Open hole: 4 3/4" 9915' - 9985' (1/87)

TD: 9985'

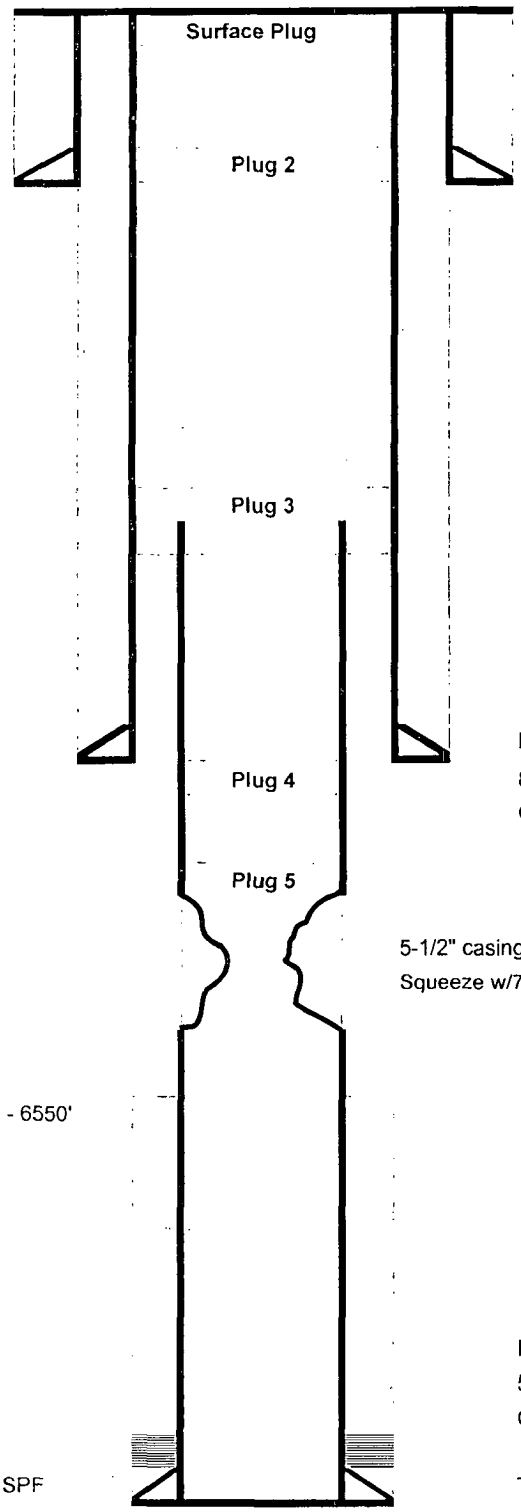
CHARLES B. GILLESPIE, JR.

State "F" Well #5
Saunders Permo Upper Penn
Lea County, New Mexico

1980' FSL & 400' FWL
UL "L", Section 2, Township 15 South, Range 33 East

API: 3002529306
Date Plugged: 9/26/1996

TD: 10,126'



Surface Casing:
13-3/8" 61# @ 352'
Cmt w/450 Sx, Circulated

Surface Plug: 15 Sx
Plug 2: 335' w/25 sx
Plug 3: 3107' - 3220' w/35 sx
Plug 4: 4300' w/25 sx
Plug 5: 4658' - 700 sx Sqz'd into collapsed csg @ 5086'

5-1/2" Csg cut @ 3167'

Intermediate Casing:
8-5/8" 24# & 32# @ 4273'
Cmt w/ 1340 sx, circulated

5-1/2" casing collapsed @ 5086'
Squeeze w/700 sx, top @ 4658'

Production Casing:
5-1/2", 17# @ 10,126'
Cmt w/1100 Sx, TOC 6550'

Perfs: 9976' - 9982' &
9993' - 10,014', 2 SPF

TD: 10,126'

ENERGEN RESOURCES

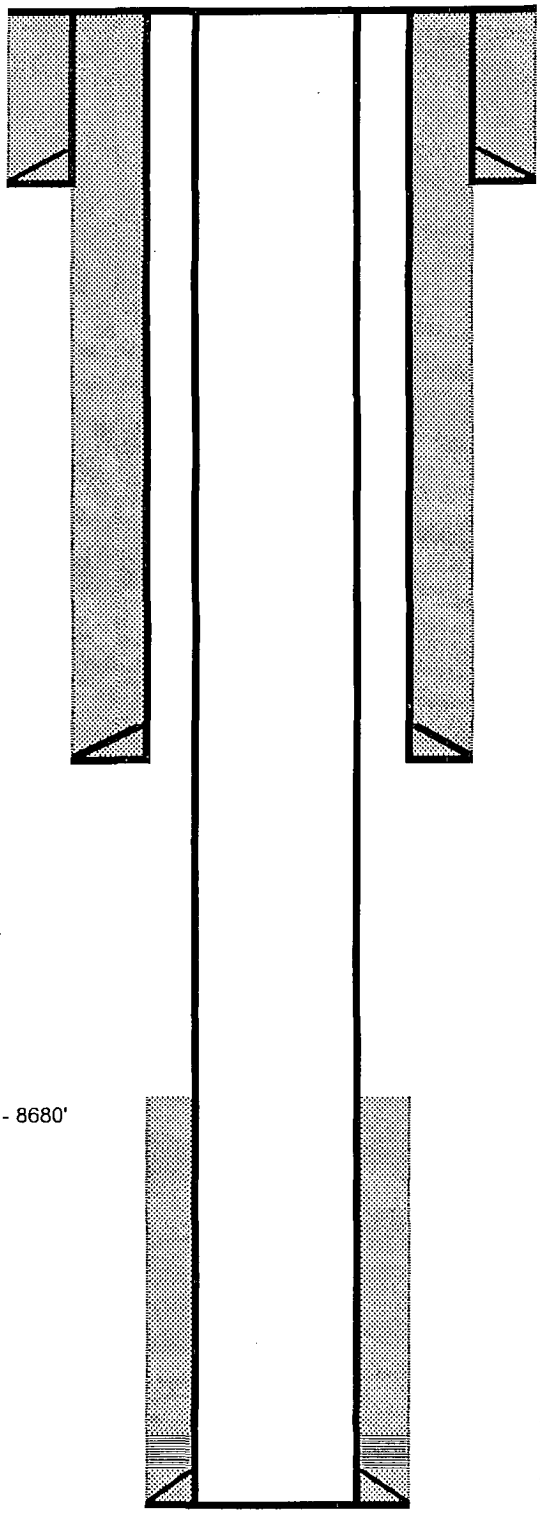
State "F" Well #6
Saunders Permo Upper Penn
Lea County, New Mexico

2120' FNL & 400' FWL
UL "E", Section 2, Township 15 South, Range 33 East

API: 3002529307
Active Producer

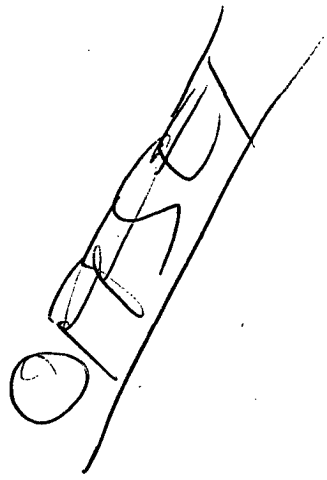
Current Status: Active Producer
2/28/2007

TD: 10,122'



TOC: - 8680'

Surface Casing:
13-3/8" 61# @ 365'
Cmt w/450 Sx, Circulated



Intermediate Casing:
8-5/8" 24# & 32#, J-55 ST&C set @ 4230'
Cmt w/ 1600 sx, circulated

Production Casing:
5-1/2", 17#, N-80 & K-55 LT&C set
@ 10122', Cmt w/1025 Sx, TOC 8680' (CBL)

TD: 10,122'

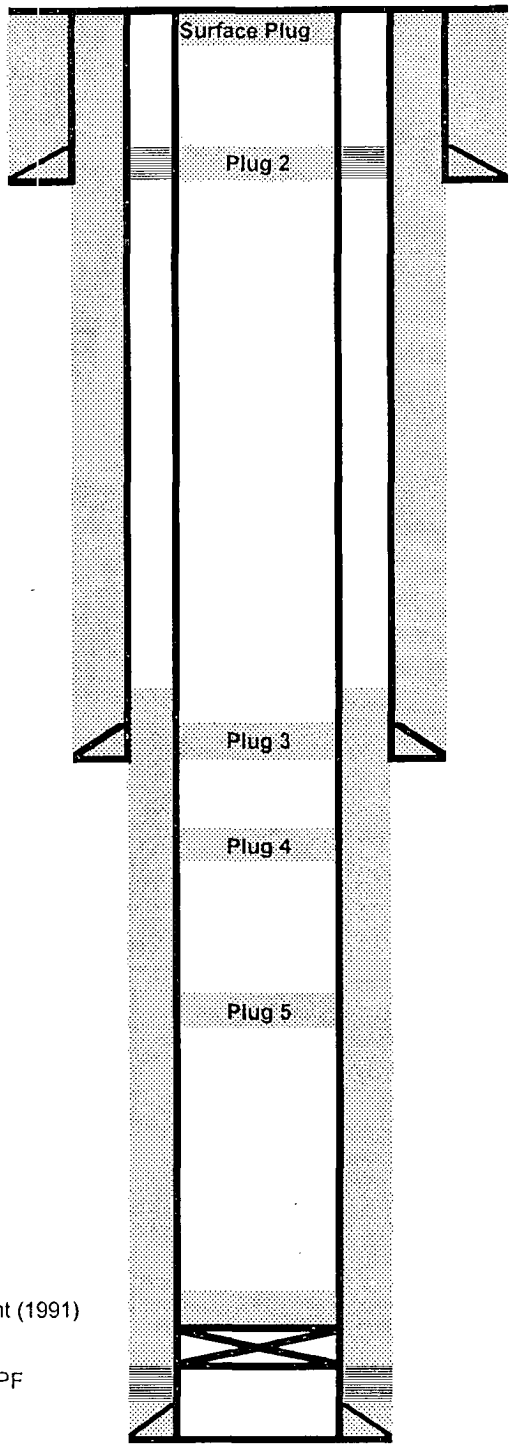
CHARLES B. GILLESPIE, JR.

State "G" Well #1
Saunders Permo Upper Penn
Lea County, New Mexico

660' FNL & 1980' FEL
UL "B", Section 3, Township 15 South, Range 33 East

API: 3002501208
Date Plugged: 11/20/1993

TD: 9906'



Surface Casing:
11-3/4" 47# @ 313'
Cmt w/275 Sx, TOC Circulated

Surface Plug: 15 Sx
Plug 2: Perf 7-5/8" csg @ 363, Sqz 78 SX, TOC tagged @ 258'
Plug 3: 4296' w/30 sx, TOC tagged @ 4168'
Plug 4: 4942' w/30 sx, TOC tagged @ 4819'
Plug 5: 6500' w/25 sx, TOC Unknown

Intermediate Casing:
7-5/8" 26.4# @ 4246'
Cmt w/ 1500 sx, TOC 1631'

CIBP @ 9620' cap w/ 35' cmt (1991)

Perfs: 9870' - 9895', 4 SPF

Production Casing:
5-1/2", 17# @ 9906' in 6-3/4" hole
Cmt w/600 Sx, TOC 4166' (calc)

TD: 9906'