

DATE IN 7/20/04	SUSPENSE 3/6/04	ENGINEER WVS	LOGGED IN LR	TYPE SWD	APP NO. PLRD405529079
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



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.

Carolyn Larson
Print or Type Name

Carolyn Larson
Signature

Regulatory Analyst
Title

2/16/04
Date

clarson@energen.com
e-mail Address

RECEIVED
FEB 20 2004
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505
0 ACTIVE AOR wells
1 PEA well
1 TOTAL AOR

+ Rescind SWD-893

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 North "A" St., 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: _____
- 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: 2-16-04
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: Feb. 21, 2003 Application to Inject into Strawn formation. Administrative Order No. SWD-873. Completion unsuccessful.
- 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

OPERATOR: ENERGEN RESOURCES CORPORATIONWELL NAME & NUMBER: Baer #1WELL LOCATION: 1900' FNL & 1650' FWL F 32 15S 35E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17 12/'' Casing Size: 13 3/8''Cemented with: 425 sx. or ft³Top of Cement: Surface Method Determined: circulatedIntermediate CasingHole Size: 11'' Casing Size: 8 5/8''Cemented with: 1450 sx. or ft³Top of Cement: Surface Method Determined: circulatedProduction CasingHole Size: 7 7/8'' Casing Size: 5 1/2''Cemented with: 800 sx. or ft³Top of Cement: 5250' Method Determined: CBLTotal Depth: 11,867'Injection Interval5500 feet to 6200

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: PCID/internally plastic coated

Type of Packer: Baker Lok-set

Packer Setting Depth: 5450'

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? Strawn producer

2. Name of the Injection Formation: San Andres

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

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. _____

Strawn perfs @ 11,594' - 11,644' PROPOSED: CIBP @ 11,450' w/20' cement

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Permo Penn @ 9800'

ENERGEN RESOURCES CORP.

Baer #1

Lea County, NM

GL Elevation: 4003'

KB Elevation: 4020.5' (Est)

Location: 1900' FNL X 1650' FWL,
Sec 32, T-15-S, R-35-E

Current Conditions Active SWD

API: 30-025-29565

Spud: 3/31/86

Completion: 5/11/86

Surface Casing:

13-3/8" 54.5#, J-55
@ 374' in 17-1/2" hole
Cement to surface
w/ 425 sx class "C"

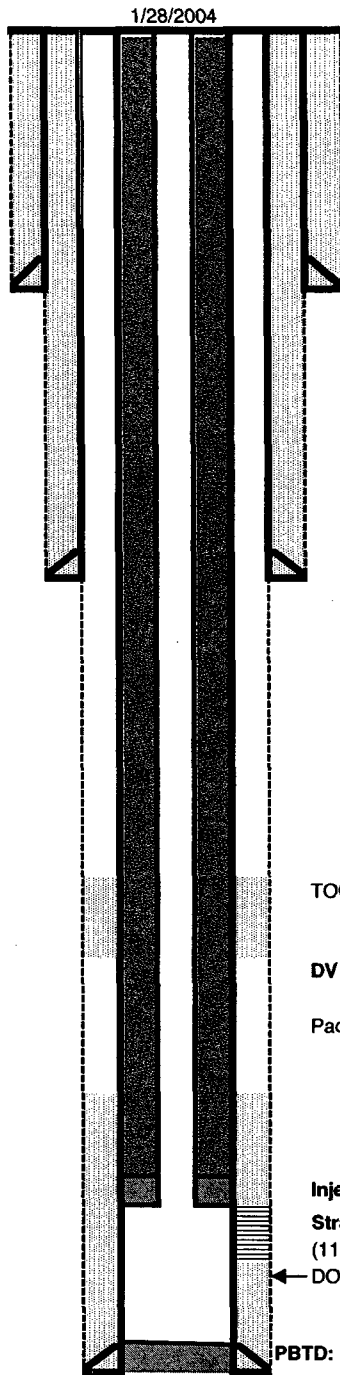
Intermediate Casing:

8-5/8" 32# K-55
@ 3806' in 12 1/2" hole
Cement to Surface
w/ 1050 sx Lite +
400 sx cl "C"

TOC 8,950', CBL

Production Casing:

5-1/2" 17 L-80, N-80 & S-95
@ 11,865' in 7-7/8" hole
Cement to 8950'
w/ 800 sx class "H" thru DV tool
and 850 sx Lite



TOC @ 5250' (CBL)

DV Tool @ 6000'

Packer Fluid circulated on tubing annulus

Injection packer @ ~11,550' on 2-7/8" PCID Tubing

Strawn perfs 11,594-11,644' overall

(11644-11600, 11632-11643, 11622-11628, 11610-11617, 11594-11609)

← DOM @ 11654' (Depth Orientation Marker)

PBTD: 11,788'

TD: 11,867'

ENERGEN RESOURCES CORP.

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Lea County, NM

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400 sx cl "C"

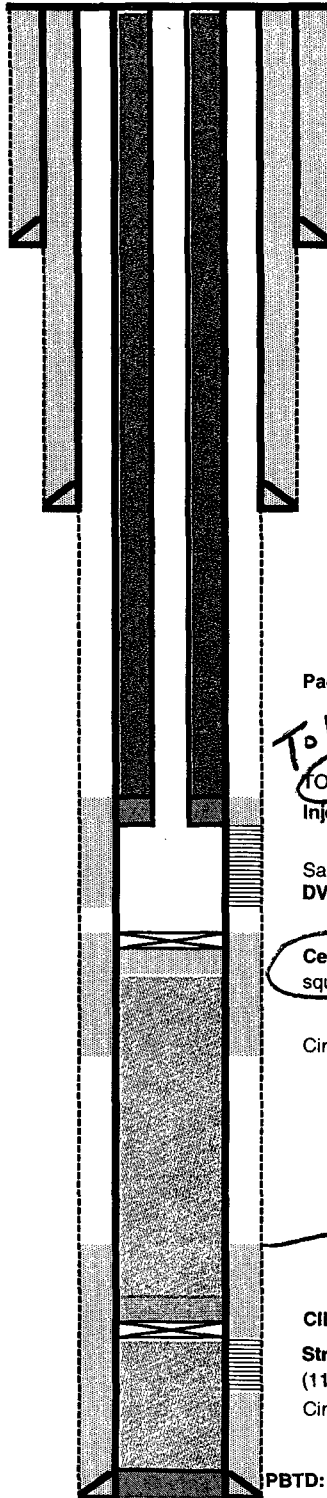
TOC 8,950', CBL

Production Casing:

5-1/2" 17 L-80, N-80 & S-95
@ 11,865' in 7-7/8" hole
Cement to 8950'
w/ 800 sx class "H" thru DV tool
and 850 sx Lite

Proposed Conditions SWD

2/2/2004



Packer Fluid circulated on tubing annulus

TOP STAGE
TOC @ 5250' (CBL)

Injection packer @ ~5450' on 2-7/8" PCID Tubing (Proposed)

San Andres Perfs: 5502-6192' (Proposed)
DV Tool @ 6000'

Cement Retainer @ 6300', Block Sqz with 200 sx cmt thru
squeeze perfs @ 6350' (PROPOSED)

Circulate mud laden 9 PPG fluid below retainer

BOTTOM STAGE
TOC @ 8,950'

CIBP SA ~11,550' Capped with 20' cement (Proposed)

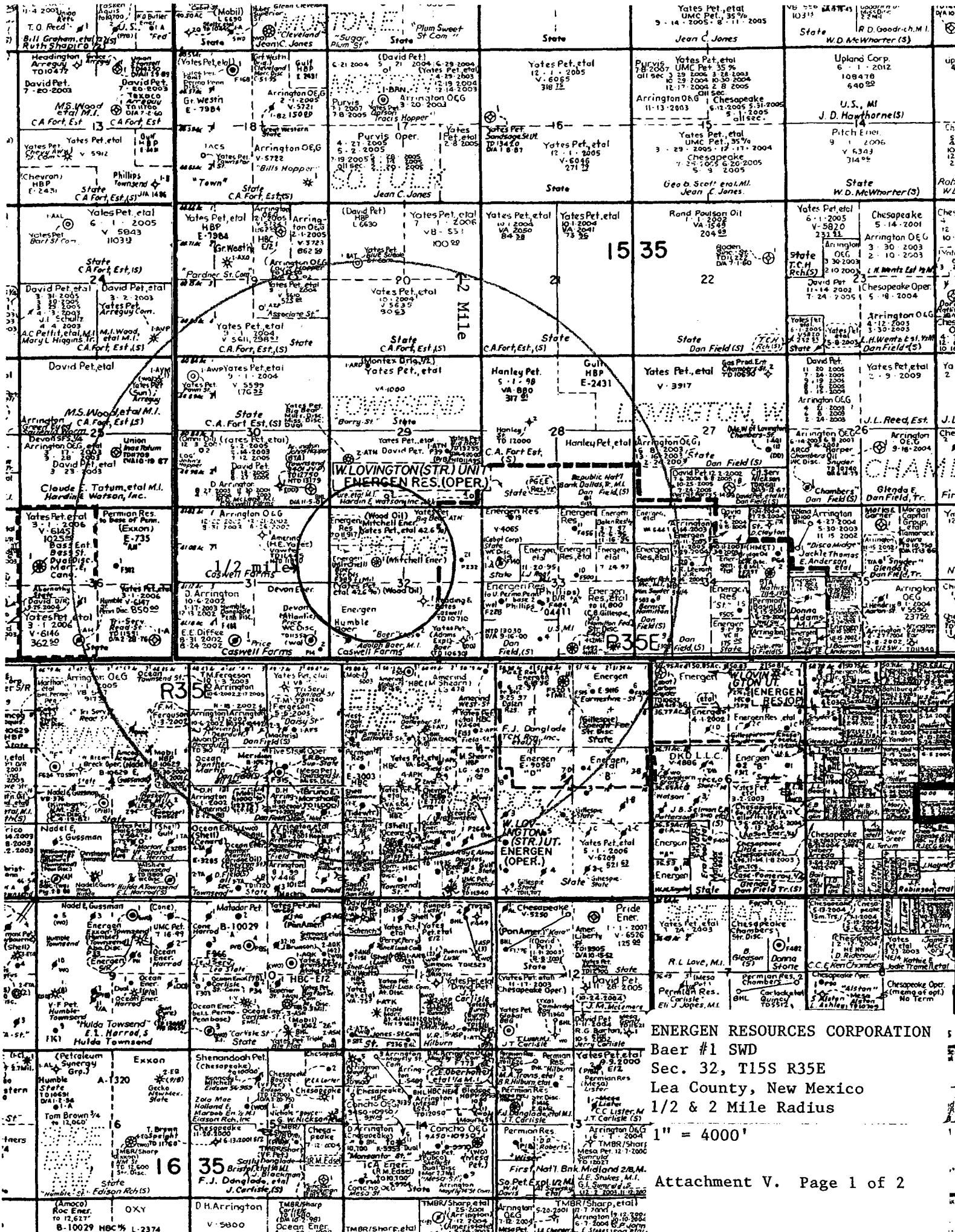
Strawn perfs 11,594' - 11,643'

(11644-11600, 11632-11643, 11622-11628, 11610-11617, 11594-11609)

Circulate mud laden 9 PPG fluid below CIBP (Proposed)

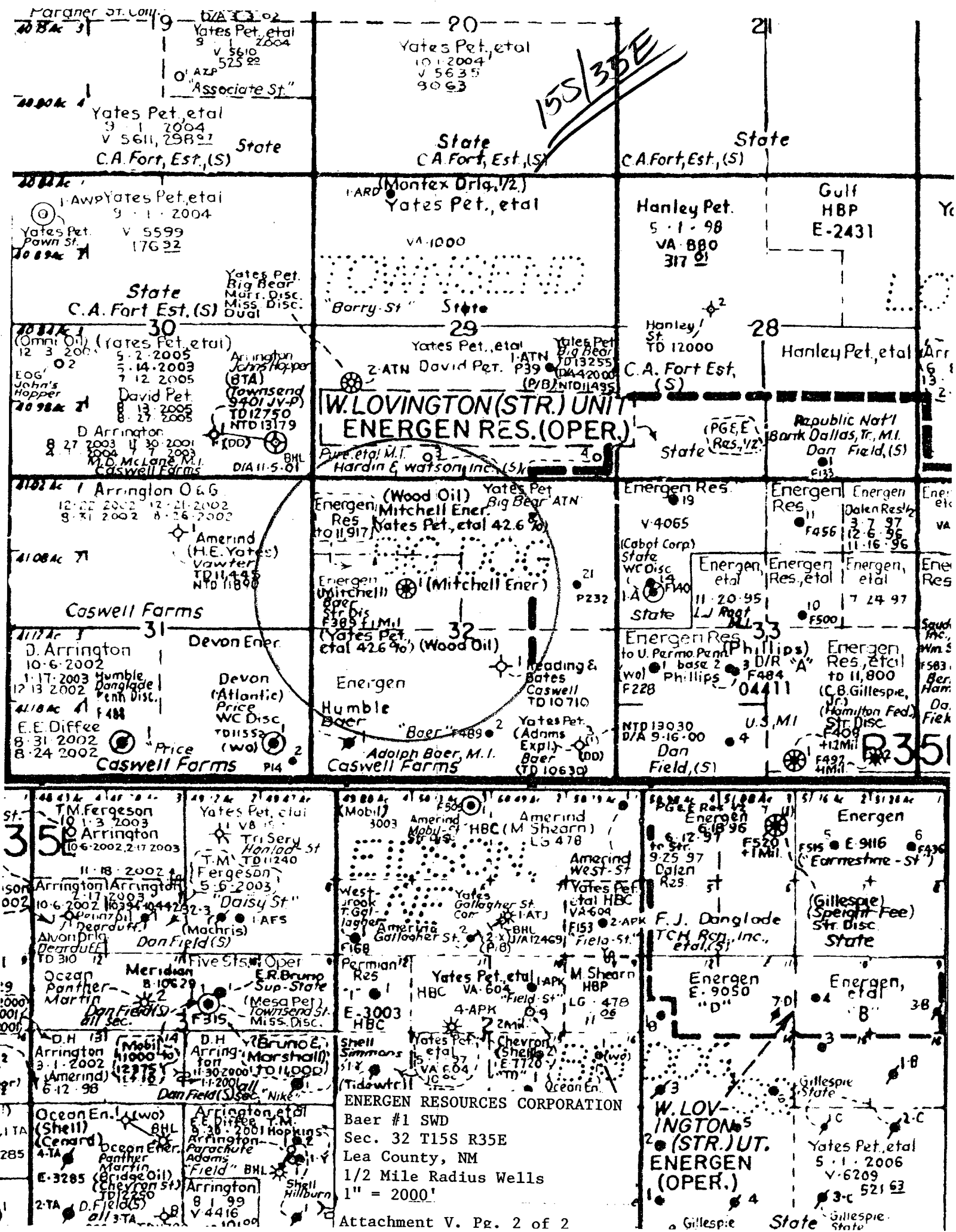
PBTD: 11,788'

TD: 11,867'



ENERGEN RESOURCES CORPORATION
Baer #1 SWD
Sec. 32, T15S R35E
Lea County, New Mexico
1/2 & 2 Mile Radius

1" = 4000'
Attachment V. Page 1 of 2





NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

RECEIVED

MAR 03 2004

Lori Wrotenberg

Director

Oil Conservation Division

**OIL CONSERVATION
DIVISION**

Oil Conservation Division
1220 S. Francis Drive
Santa Fe, NM 87505

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD X _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Energen Resources Corp Baer #1-F 32-153-352
Operator Lease & Well No. Unit S-T-R HPI # 30-025-29565

and my recommendations are as follows:

OK

Yours very truly,

Chris Williams
Chris Williams
Supervisor, District 1

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
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LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease	
State ☐	Fee ☒
5. State Oil & Gas Lease No.	

TYPE OF WELL	
OIL WELL ☒	GAS WELL ☐ DRY ☐ OTHER ☐
TYPE OF COMPLETION	
NEW WELL ☒	WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐

7. Unit Agreement Name
NA
8. Farm or Lease Name
Baer

Name of Operator	
Mitchell Energy Corporation	
Address of Operator	
P.O. Box 4000, The Woodlands, TX 77387-4000	
Location of Well	

9. Well No.
1
10. Field and Pool, or Wildcat
Wildcat

SECTION LETTER <u>F</u>	LOCATED <u>1900</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM <u>West</u> LINE OF SEC. <u>32</u> TWP. <u>15-S</u> RGE. <u>35-E</u> NMPM
-------------------------	---

12. County
Lea

13. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Casinghead
3/31/86	5/3/86	5/11/86	GR 4003' RKB 17.5'	4005'
20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools
11,867'	11,788'	--	→	X
24. Producing Interval(s), of this completion — Top, Bottom, Name				25. Was Directional Survey Made
11,594'-11,660' Strawn				Yes
26. Type Electric and Other Logs Run				27. Was Well Cored
DLL/GR, CNL/FDC, GR/Sonic, Dipmeter				No

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54.5#	374'	17-1/2"	425 sx Cl "C" + 2% CaCl ₂	40 bbls to surf
8-5/8"	32.0#	3806'	12-1/2"	1050 sx Lite + 400 sx Cl "C"	15 bbls to surf
5-1/2"	17.0#	11,865'	7-7/8"	800 sx Cl "H" + 800 sx Lite	-0-
				thru DV tool @ 6000'	

LINER RECORD				TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SIZE	DEPTH SET	PACKER SET	

31. Perforation Record (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
11,594'-11,617'	.27" 47 shots	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,622'-11,628'	.24" 13 shots	11,594'-11,660'	Natural completion
11,632'-11,660'	.24" 54 shots		

33. PRODUCTION							
Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)						
5/11/86	Flowing						
Well Status (Prod. or Shut-in)							
Producing							
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio
5/12/86	24	36/64	→	389	1,061	0	2,727
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)	
200	0	→	389	1,061	0	45° API	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)	Test Witnessed By
Vented	

35. List of Attachments
Electric & other logs & DST's

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Dwaine H. King TITLE Engineer DATE 5/15/86

ENERGY AND MINERALS DEPARTMENT

L CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

NO. OF COPIES RECEIVED		
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LAND OFFICE		
OPERATOR		

5a. Indicate Type of Lease	
State ☐	Fee ☒
5. State Oil & Gas Lease No.	
7. Unit Agreement Name NA	
8. Farm or Lease Name Baer	
9. Well No. 1	
10. Field and Pool, or WHdcat Wildcat	
12. County Lea	

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.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐
2. Name of Operator Mitchell Energy Corporation
3. Address of Operator P.O. Box 4000, The Woodlands, TX 77387-4000
4. Location of Well UNIT LETTER <u>F</u> , <u>1900</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>West</u> LINE, SECTION <u>32</u> TOWNSHIP <u>15-S</u> RANGE <u>35-E</u> NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)
GR 4003' KB 4020.5

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 ☐	OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☒	ALTERING CASING ☐
COMMENCE DRILLING OPS. ☐	PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOBS ☐	OTHER ☐

17. 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.

05/08/86 RU Schlumberger. PU 2-7/8" tbg. Tagged TOC @ 5985'. PU power swivel. DOC cmt & DV tool to 6010'. Circ. Finish GIH w/2-7/8" tbg. Tagged cmt @ 11,657'. DOC stringers to 11,788' (FC). Circ. Test csg to 1000 psi. Displace hole w/275 bbls 2% KCl & 2 drums Coat 1270. LD power swivel & 2-7/8" work string. RU Schlumberger to run CBL.

05/09/86 MORT. Ran CBL log w/X-Y signature. Logger's TD = 11,786'. Driller's TD = 11,788'. TOC @ 8950'. RD Schlumberger. Load out work string. Put production string on rack & tally 1st 181 jts. TIH w/367 jts (11,508.64'), SN & Otis retrievematic pkr w/SN on top of pkr. Set pkr @ 11,515.65' KB w/14,000# compression & SN @ 11,509.64'. Pressure up on backside w/1250 psi. ND BOP. NU Xmas tree. Rig released @ 2230 hrs 5-8-86.

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

SIGNED Bill G. Spencer TITLE Sr. Reg. Affairs Coord. DATE 5/13/86
Eddie W. Seay
APPROVED BY Oil & Gas Inspector TITLE _____ DATE MAY 23 1986
CONDITIONS OF APPROVAL, IF ANY:

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OPERATOR	

L CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease
State ☐ Fee ☒
5. State Oil & Gas Lease No.

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.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐	7. Unit Agreement Name NA
2. Name of Operator Mitchell Energy Corporation	8. Farm or Lease Name Baer
3. Address of Operator P.O. Box 4000, The Woodlands, Texas 77387	9. Well No. 1
4. Location of Well UNIT LETTER F 1900 FEET FROM THE North LINE AND 1650 FEET FROM THE West LINE, SECTION 32 TOWNSHIP 15-S RANGE 35-E NMPM.	10. Field and Pool, or Wildcat WC
15. Elevation (Show whether DF, RT, GR, etc.) 4003' GL	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPWS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	OTHER ☐	CASING TEST AND CEMENT JOB ☒	OTHER DOC and DV tool ☒

17. 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.

4/06/86 - 5/02/86 Drld 7-7/8" to TD of 11,867'.
5/03/86 - 5/04/86 Ran Wellex CNL/FDC, GR/DLL, GR/Sonic and Dipmeter logs.
5/05/86 - 5/06/86 Cmdt 302 jts (11864.6') 5-1/2" 17.0# L-80, N-80, and S-95 8rd csg @ 11865' by Halliburton w/1st stage: 800 sx (944 cf) Class "H" + 0.5% Halad 9 + 6#/sx salt. Est mixing temp - 75°F, est BHT - 168°F. PD @ 1740 hrs 5-5-86 w/2500 psi. Est TOC @ 8950'. Cmdt 2nd stage thru DV tool @ 6000' w/850 sx (1615 cf) Halliburton Light + 1/2#/sx FC + 3#/sx gilsonite. Est mixing temp - 75°F, est BHT - 110°F. PD @ 0005 hrs 5-6-86 w/2500 psi. Did not circ cmt. Ran CBL which indicated TOC @ 5250'.
5/07/86 Ran 2-7/8" tbg and DOC and DV tool. Total WOC time - 34-1/2 hrs, est. Comp strength 3100 psi. Clean out to PBTD 11,788' (FC). Test 5-1/2" csg to 1000 psi. Pull tbg.
5/08/86 Ran 2-7/8" tbg with packer. Set packer @ 11,515'. Released rig @ 2230 hrs. WOCU.

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

Signed G.W. Tullos G.W. Tullos TITLE District Drilling Manager DATE 5-9-86

ORIGINAL SIGNED BY JERRY SEXTON

APPROVED BY DISTRICT SUPERVISOR TITLE DATE MAY 19 1986

CONDITIONS OF APPROVAL, IF ANY:

VI. AREA OF REVIEW WELL DATA

WELL NAME	OPERATOR	LOCATION	TYPE OF WELL	SPUD DATE	COMP. DATE	TD PBD	COMP. INTERVAL	PROD. FORM.	CASING PROGRAM
Big Bear ATN #3 API 30-025-35739	Yates Petroleum Corp.	Sec. 29, T15S, R35E Unit N 330' FSL & 1980' FWL	Permit to Drill 10/19/2003 Expiration	NA	NA	NA	NA	Strawn	Proposed 11 3/4" SRF. @ 400', CMT W/400 SKS. 8 5/8" INT. @ 4950', CMT W/1500 SKS. 5 1/2" PROD. @ 11,900', CMT W/400 SKS TOC - 9200'
Caswell #1 API 30-025-28376	Reading & Bates Petroleum Company	Sec. 32, T15S, R35E Unit 7 1980' FSL & 1980' FEL	Oil P&A Appr. 5/2/1986	9/22/1983	10/6/1983	10,710'	NA	Wolfcamp	13 3/8" SRF. @ 461', CMT W/475 SKS. 8 5/8" INT. @ 4918', CMT W/2075 SKS. 5 1/2" PROD. @ 10,710', CMT W/550 SKS. See attached wellbore diagram

Reading & Bates Petroleum

Caswell #1

Lea, New Mexico

P&A

Current status: P&A
02 - 21 - 03

Elevation GL: 3998.6'
Elevation KB: 3996.9'
Elevation DF: 4024.6'
Location: 1980' FSL, 1980' FEL, Sec 32, T - 15 - S, R - 35 - E
Spudded: 09-21-83
API #: 30 - 025 - 28376

Surface csg:
13 3/8", 54.5#, K - 55, ST&C
@ 461' w/ 475 sks cmt,
17 1/2" hole.
Circ to surface

461'

TOC @ 940' BY Survey

1,824'
SALT

OK

Intermediate csg:
8 5/8", 32#, N - 80 & J-55 ST&C
@ 4918, w/ 1775 sks cmt,
& 300 sx class "C"
Did not circ to surface

4,918' (San Antonio @ 4,645')

6,195' (GLORIETA @ 6,150')

TOC: Unknown @ 8,290'

8,130' ABO

(DRINKARD @ 6,750')

(Tub @ 7,325')

(ABO @ 8,070')

9,690' WC

10,220'
10,220'

Production csg:
5 1/2", 17# & 20# J - 55 & N-80, LT&C
ST&C @ 10,710' w/ 550 sks 50/50 Poz & Class "H".
7 7/8" hole

TD @ 10,710'

350 + 200H

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State ☐ Fee ☒

5. State Oil & Gas Lease No.

7. Unit Agreement Name

8. Farm or Lease Name

CASWELL 32

9. Well No.

1

10. Field and Pool, or Wildcat

Townsend Permo Upper P

12. County

LEA

1a. TYPE OF WELL

OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

2. Name of Operator

READING & BATES PETROLEUM COMPANY

3. Address of Operator

810 North Dixie Blvd. Rm 202 Odessa, Texas 79761

4. Location of Well

UNIT LETTER J LOCATED 1980 FEET FROM THE South LINE AND 1980 FEET FROM

THE East LINE OF SEC. 32 TWP. T-15-S RGE. R-35-E NMPM

15. Date Spudded

9-22-83

16. Date T.D. Reached

10-24-83

17. Date Compl. (Ready to Prod.)

18. Elevations (DF, RKB, RT, GR, etc.)

D.F. 4024.6 GR. 3998.6

19. Elev. Casinghead

3996.9

20. Total Depth

10,710

21. Plug Back T.D.

10,664

22. If Multiple Compl., How Many

23. Intervals Drilled By

Rotary Tools

Cable Tools

0-10,710'

24. Producing Interval(s), of this completion - Top, Bottom, Name

25. Was Directional Surv Made

Yes

26. Type Electric and Other Logs Run

Dual Induction, Gamma Ray, Compensated Densilog, Compensated Neutron, Minilog

27. Was Well Cored

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"		459.57	17 1/2	475 sx Class "C" w/ 2% CaCl	
3 5/8"	32#	4913.55	12 1/4	1775 sx Hall Lite & 300 sx "C"	
5 1/2	17# & 20#	10,708.45	7 7/8	350 sx 50/50 poz mix & 200 sx Class "H"	120,000#

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

30. TUBING RECORD

31. Perforation Record (Interval, size and number)

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

DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)					Well Status (Prod. or Shut-in)	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing 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.)

Test Witnessed By

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED

Donald J. Kipgen

TITLE

Production Supt.

DATE

11-11-83

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto
Maximum deviation 2 deg. by Totco at 2835 feet.

TOOLS USED

Rotary tools were used from 0 feet to 11175 feet, and from feet to feet
Cable tools were used from feet to feet, and from feet to feet

PRODUCTION

Put to Producing June 3, 1956
OIL WELL: The production during the first 24 hours was 406.09 barrels of liquid of which 100 was oil; % was emulsion; % water; and % was sediment. A.P.I.
Gravity 44.0
GAS WELL: The production during the first 24 hours was M.C.F. plus barrel of liquid Hydrocarbon. Shut in Pressure lbs.
Length of Time Shut in

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

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy. 1785	T. Devonian.	T. Ojo Alamo.	
T. Salt. 1895	T. Silurian.	T. Kirtland-Fruitland.	
R. Salt. 2980	T. Montoya.	T. Farmington.	
T. Yates. 2980	T. Simpson.	T. Pictured Cliffs.	
T. 7 Rivers. 3145	T. McKee.	T. Menefee.	
T. Queen. 3565	T. Ellenburger.	T. Point Lookout.	
T. Grayburg. 4590	T. Gr. Wash.	T. Mancos.	
T. San Andres. 4645	T. Granite.	T. Dakota.	
T. Glorieta. 6150	T.	T. Morrison.	
T. Drinkard. 6759	T.	T. Penn.	
T. Tubbs. 7325	T.	T.	
T. Abo. 8070	T.	T.	
Hueco 9703	T.	T.	
T. Penn. 10874	T.	T.	
T. Miss.	T.	T.	

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1785	1785	Red beds and sands				
1785	1895	110	Anhydrite				
1895	2980	1085	Salt				
2980	4590	1610	Sands, Anhy, Dolo, shale				
4590	6150	1560	Dolomite				
6150	6750	600	Sand & Shale				
6750	7325	575	Dolomite				
7325	9703	2378	Sand & Shale				
9703	11175	1472	Shale & Dolomite				
			Shale & Shale				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

June 27, 1956

Company or Operator Humble Oil & Refining Co.

Address P. O. Box 2347, Hobbs, New Mexico

Name M. M. Rogers

Position or Title Agent

Jap

M. M. Rogers

COPY

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OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-1
Revised

5a. Indicate Type of Lease
State ☐ For ☐
5. State Oil & Gas Lease No.

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.

1. ☒ OIL WELL ☐ GAS WELL ☐ OTHER	7. Unit Agreement Name
2. Name of Operator Reading & Bates Petroleum Company	8. Farm or Lease Name Caswell
3. Address of Operator 2412 N. Grandview, Suite 201, Odessa, Texas 79761	9. Well No. 1
4. Location of Well UNIT LETTER <u>J</u> <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE, SECTION <u>32</u> TOWNSHIP <u>T-15-S</u> RANGE <u>R-35-E</u> NMPM.	10. Field and Pool, or Wildcat Townsend Permo Upper
15. Elevation (Show whether DF, RT, GR, etc.) DF 4024.6 GR 3998.6	12. County Lea

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPERATIONS ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	OTHER ☐	CASING TEST AND CEMENT JOB ☐	OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

O. C. C. recommendation by Eddy Seay

Load hole 10# salt gel, tag cut off point @ 8200' approx.

- 1st plug: 100' or cast iron plug 35' cement on top above perms 10-220 to 10-320.
- 2nd plug: 100' @ Wolfcamp 9690'
- 3rd plug: 200' @ ABO 8130' across cut off, also across 5½ cross cut off.
- 4th plug: 100' @ Glorieta 6195'
- 5th plug: 100' across intermediate shoe, 4915'
- 6th plug: 200' salt plug @ 1828'
- 7th plug: 100' across surface shoe @ 460'
- 8th plug: 100' across surface plug.

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

BY Donald J. Kipgen TITLE Area Superintendent DATE 10/22/85

APPROVED BY Ronald M. Conterbury TITLE OIL & GAS INSPECTOR DATE MAY 2 - 1986

CONDITIONS OF APPROVAL, IF ANY:

ENERGEN RESOURCES CORPORATION

Baer #1

1900' FNL & 1650' FWL

Section 32, 15S, 35E

Lea County, NM

VII. Data on the proposed operation:

1. Proposed average daily injection volume: 4000 BWPD
Proposed maximum daily injection volume: 5000 BWPD
2. This will be a closed system.
3. Proposed average daily injection pressure: 2000 psi
Proposed maximum daily injection pressure: 2750 psi
4. Sources of injection water will be produced water from area Strawn wells that have been drilled and that are scheduled to be drilled on the West Lovington Strawn Unit (see list of source wells, Attachment G). A Strawn production water analysis (Attach H1, H2, & H3) taken from the Baer #1 (fresh water well, fish pond, irrigation well-TA, livestock water well & windmill) is attached.
5. Chlorides in all the source wells is expected to be similar to the water analysis in H1 and H2.

VII. Item 4.

List of produced Water Source Wells:

West Lovington Strawn Unit Sections 1, 5, 6, 28, 33, 34, 35

T1S & 16S, R35E, Lea County, NM

Well Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18,

19, 20, 21 and subsequent proposed wells to be drilled in these sections.

IX. Describe the proposed stimulation program, if any.

Well will be acidized with 15,000 gallons of 15% HCL acid if required.

San Andres and Glorieta Injection Zone

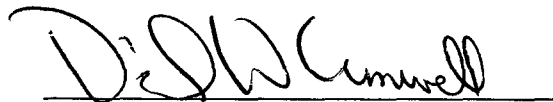
#1 Baer

- VIII. Injection Zone: The San Andres (4545 – 6130') and the Glorieta (6130 – 6196') will be used as water disposal zones. Overall perforations will selectively allow produced water to be injected between 5502 – 6192'. The San Andres lithology is composed mainly of dolostone with primary porosity (intercrystalline) and with secondary porosity (vuggy), as well as scattered nodular anhydrite that occludes the porous fabric. The diagenetic dissolution creates an irregular, permeability network that is often not networked (connected). The depositional environment is shallow marine from intertidal to shelf slope. There has been little tectonic activity in this area, hence, only minor depositional fracturing.

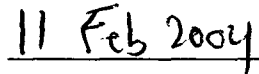
The Glorieta formation is a siliclastic lithology at the base of the San Andres. It is composed predominately of fine-grained quartz grains with intergranular porosity. The shale content adversely effects the effective porosity and permeability.

The Ogallala fresh water aquifer occurs between 60' and 250' beneath the surface. It is protected by two different strings of casing; 13 3/8" set at 374' and 8 5/8" set at 3806'.

- XII I, David Cromwell, have examined available geologic data and find no evidence of open, active faults, which may connect this proposed disposal zone to an underground source of fresh, potable water aquifer.



Signature



Date

ENERGEN RESOURCES CORPORATION

Baer #1
1900' FNL & 1650' FWL
Section 32, 15S, 35E
Lea County, NM

XIII. Item A – Proof of Notice

Surface Owners:

Hardin & Watson, Inc.
Rte 2, Box 43N
Lovington, NM 88260

G. M. Weiser
1300 W. Clayton
Lovington, NM 88260

List of Lease Operators within ½ Mile:

Energen Resources Corporation
3300 N. "A" Street, Bldg. 4, Ste. 100
Midland, TX 79705

David Arrington Oil & Gas Inc.
P. O. Box 2071
Midland, TX 79702

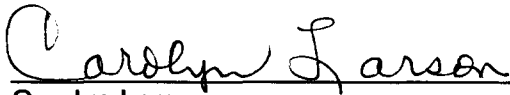
EOG Resources, Inc.
4000 N. Big Spring, Suite 500
Midland, TX 79705

Devon Energy Production Co., L.P.
20 N. Broadway, Suite 1500
Oklahoma City, OK 73102

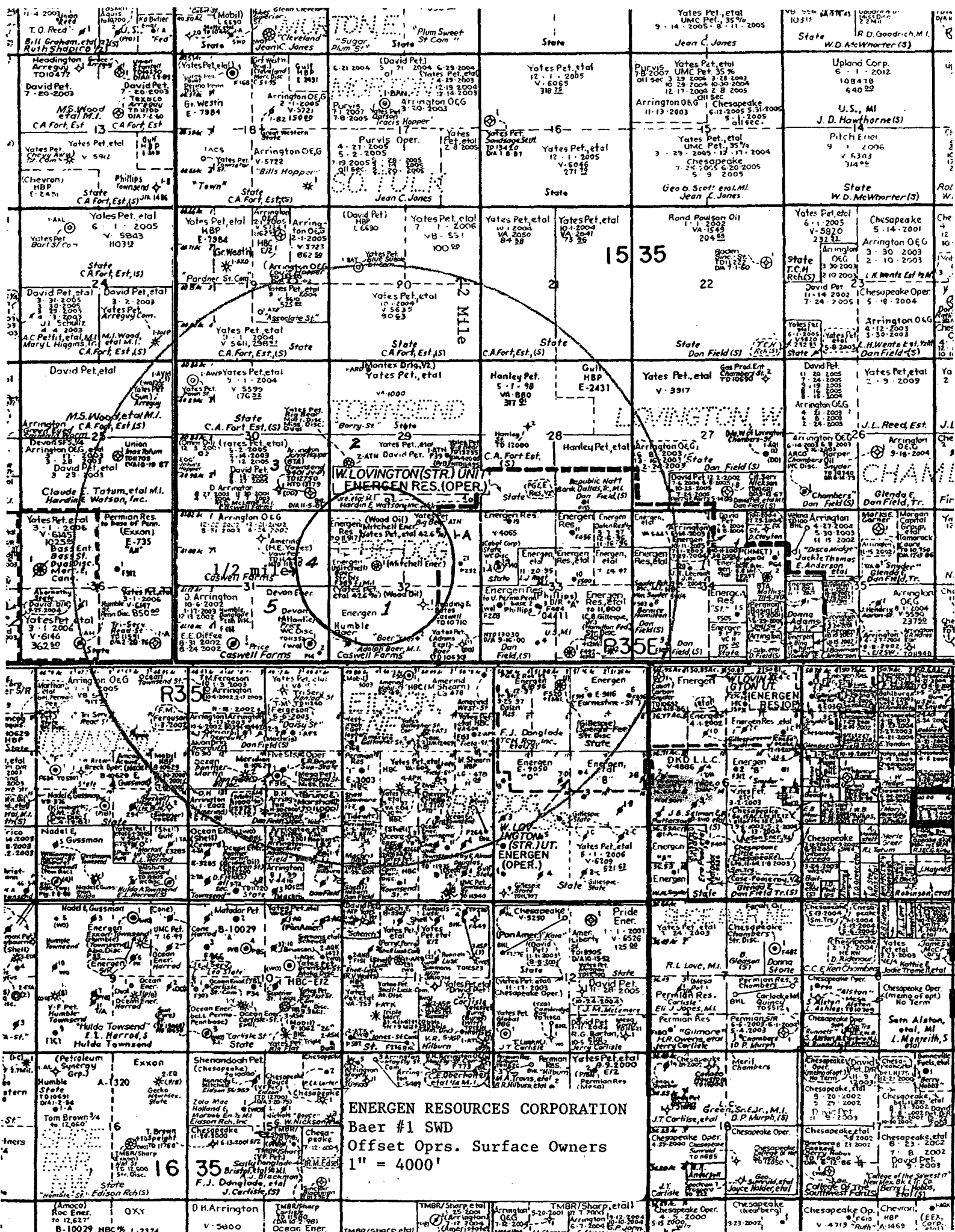
Yates Petroleum Corporation
105 S. 4th Street
Artesia, NM 88210

David Petroleum Corp.
116 W. 1st Street
Roswell, NM 88203

A copy of the C-108 Application for Authorization to Inject/Dispose has been sent to each of the above parties on this the 16th day of February, 2004.



Carolyn Larson
Regulatory Analyst



Tract Information Summary Baer Well #1 SWD Application					
One-half Mile Radius			All in 15S, 35E		
Map No.	Operator & Address	Surface Owner & Address	Lease Name	Well Name & Numbers	Comments
1	Energen Resources Corporation 3300 N. "A" St., Building 4, Suite 100 Midland, TX 79705	Hardin & Watson, Inc. Rte 2, Box 43N Lovington, NM 88260	Baer Lease W/2 & W/2 E/2 Sec 32	Baer #2	
1-A	Energen Resources Corporation 3300 N. "A" St., Building 4, Suite 100 Midland, TX 79705	Hardin & Watson, Inc. Rte 2, Box 43N Lovington, NM 88260	WLSU Tract 24, E/2 E/2 Sec. 32	WLSU Well #21	
2	Yates Petroleum Company	Hardin & Watson, Inc. Rte 2, Box 43N Lovington, NM 88260	Big Bear ATN Lease S/2 Section 29	#1 ATN, #2 ATN, #3 ATN, #4 ATN	No Information other than Location on #2 & #4 Wells
3	David Arrington Oil & Gas, Inc. P.O. Box 2071 Midland, TX 79702 Ph. 915-682-6685; Yates Petroleum Corporation 105 S. 4th St. Artesia, NM 88210 Ph. 505-748-4489; David Petroleum Corp 116 W. 1st St. Roswell, NM 88201 Ph 505-622-8850 EOG Resiources, Inc. 4000 N. Big Spring, Suite 500, Midland, Texas 79705 915-686-3758	Hardin & Watson, Inc. Rte 2, Box 43N Lovington, NM 88260	John's Hopper S/2 Section 30	Permitted Well EOG - John's Hopper No. 2 unit L	Fee Lands Numerous leases shown on County Map all of the parties listed show to be Lessees
4	David Arrington Oil & Gas, Inc. P.O. Box 2071 Midland, TX 79702 Ph. 915-682-6685 EOG Resiources, Inc. 4000 N. Big Spring, Suite 500, Midland, Texas 79705 915-686-3758	Hardin & Watson, Inc. Rte 2, Box 43N Lovington, NM 88260	N/2 Section 31	No Active Wells	Arrington/EOG may only own partial rights
5	Devon Energy Production Company, L.P. 20 N. Broadway, Suite 1500 Oklahoma City, OK 73102 Ph 405-552-4627	G.M. Weiser (own 113 acres) 1300 W. Clayton Lovinmgtion, NM 88260 Hardin & Watson, Inc. (own 47 acres) Rte 2, Box 43N Lovington, NM 88260	J.D. Price SE/4 Section 31	J. D. Price Well #2	

STATE OF TEXAS

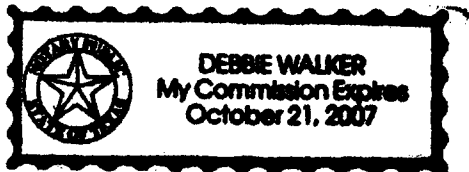
COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Carolyn Larson, a Regulatory Analyst with Energen Resources Corporation, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list have been sent a copy on 2-16-04 of the New Mexico Oil Conservation Division Form C-108 entitled, "Application For Authorization To Inject" for the Baer #1, located in Section 32, T15S, R35E, Lea County, New Mexico.

Energen Resources Corporation

Carolyn Larson
Carolyn Larson

SUBSCRIBED AND SWORN TO before me on 2/16/04.



Debbie Walker
NOTARY PUBLIC, STATE OF TEXAS

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

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

of 1
_____ weeks.

Beginning with the issue dated

February 10 2004

and ending with the issue dated

February 10 2004

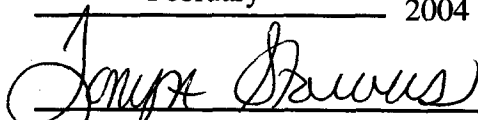


Publisher

Sworn and subscribed to before

me this 11th day of

February 2004



Notary Public.

My Commission expires
November 27, 2004
(Seal)

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

LEGAL NOTICE
February 10, 2004

NOTICE OF APPLICATION FOR DISPOSAL
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 for a salt water disposal well. The proposed well, the Bae #1 is located 1900' FNL & 1650' FWL, Section 32, Township 15 South, Range 35 East, Lea County, New Mexico. Disposal water will be sources from area wells producing from the Strawn formation. The disposal water will be injected into the San Andres formation at a depth of 5500' - 6200' a maximum surface pressure of 2750 psi, and maximum rate of 5000 BWPD.

LEGAL AUTHORITY: Rule 401.C.(1) of the Rules and Regulations of the New Mexico Conservation Commission.

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 S. San Francisco Drive, Santa Fe, New Mexico 87505. Additional information can be obtained by contacting Carolyn Larson, Regulatory Analyst, at 3300 N. "A" Street, Bldg. 4, Ste. 100, Midland, Texas 79705 or (432) 684-3693.

01105161000 02568708
Energen Resources Corporation
3300 North "A" Street
Building 4, Suite 100
MIDLAND, TX 79705