

**EXON COMPANY, U.S.A.**

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

March 27, 1992

Application for Fluid Injection  
New Mexico "S" State Well No. 104  
Lea County, New Mexico

State of New Mexico  
Energy and Minerals Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504

Exxon Corporation respectfully requests administrative approval of the enclosed application to convert the subject well to fluid injection. In support of this request, Form C-108 and its attachments are enclosed. The proof of publication of a legal notice will be forwarded to you as soon as I receive it. Copies of this application are being sent by certified mail to the leasehold operator within one-half mile of proposed conversion well, and Mr. William Owen Stephens in Eunice, N.M., is being notified as the surface owner.

If you have any questions concerning this application, please call me at (915) 688-7552.

Sincerely,

*Marsha Wilson*

Marsha Wilson  
Environmental and Regulatory Affairs

/mw  
Attachments

c: New Mexico OCD  
District I Office  
Attn: Jerry Sexton  
P.O. Box 1980  
Hobbs, N.M. 88240

Offset Operators

William Owen Stephens  
Eunice, N.M.

## APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no

II. Operator: Exxon Corporation

Address: P.O. Box 1600 Midland TX 79702

Contact party: Patricia Plemons Phone: 915 688-6732

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

IV. Is this an expansion of an existing project?  yes  no  
If yes, give the Division order number authorizing the project \_\_\_\_\_.

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

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

VII. Attach data on the proposed operation, including:

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

\*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source 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: Patricia Plemons Title: Sr. Project Engr

Signature: Patricia Plemons Date: 3-18-92

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Log sent with initial completion report dated 4/46.

## III. WELL DATA

- . 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.

- . 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 name of the next higher and next lower oil or gas zone in the area of the well, if any.

## IV. 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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

## INJECTION WELL DATA SHEET

Exxon Corporation <u>OPERATOR</u>	NM "S" State <u>LEASE</u>	2	22S	37E
104 <u>WELL NO.</u>	1980' FEL 660' FSL <u>FOOTAGE LOCATION</u>	SECTION	TOWNSHIP	RANGE

Schematic

See attached

Tubular DataSurface Casing

Size 10-3/4" Cemented with 400 sx.  
 TOC Surface feet determined by Used 400% excess  
 Hole size 13-3/8"

Intermediate Casing

Size 7-5/8" Cemented with 1400 sx.  
 TOC Surface feet determined by \_\_\_\_\_  
 Hole size 9-7/8"

Long string

Size 5-1/2" Cemented with 500 sx.  
 TOC 1025 feet determined by temp survey  
 Hole size 6-3/4"  
 Total depth 5195'

Injection interval

3890 feet to 4220 feet  
 (perforated or open-hole, indicate which)

Tubing size 2-7/8 lined with cement lined set in a  
(material)  
 Baker TSN or Lockset packer at 3830 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Blinbry - Drinkard - Tubb
3. Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Oil production in the San Angelo formation
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Perfed 5050-5180' and plugged back by setting a CIBP @ 4955' capped w/30' cmt; perfed 3890-4220' and plugged by setting CIBP @ 4020' w/10' cmt cap, set add'l CIBP @ 3880' w/40' cmt cap; perfed 3660-3808'
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.  
Underlying - Glorieta  
Overlying - Grayburg

## SUPPLEMENT TO APPLICATION FOR DISPOSAL AUTHORIZATION

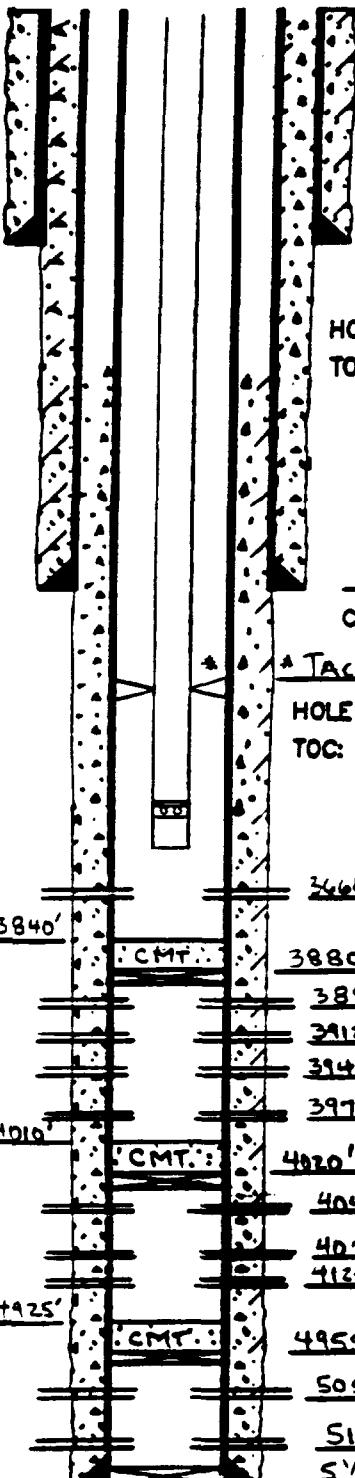
- V. Map is attached.
- VI. Attached are wellbore sketches and tabular data on wells within the area of review.
- VII. Proposed Operations
  - 1. Average daily rate - 100 BPD  
Maximum daily rate - 250 BPD  
Volume of fluids to be injected - 400,000 Bbls
  - 2. System is open.
  - 3. Average injection pressure - 200 psig  
Maximum injection pressure - 775 psig
  - 4. The source of water that will be disposed of is from the Blinebry, Drinkard, Tubb, Abo, and Granite Wash pools. The water is being produced from wells in the Exxon operated New Mexico "S" State lease. Located in Section 2, T-22-S, R-37-E. This salt water is already being disposed into the San Andres formation through a commercial well; therefore, there should be no compatibility problems.
  - 5. NA
- VIII. The proposed interval for injection (3890-4220) in the New Mexico "S" State #104 is a porous and permeable zone within the San Andres dolomite and limestone. The top of the San Andres in this well was encountered at 3825 (SS -463) and the base occurs at the top of the underlying Glorieta at 4985 (-1623) for a total thickness of 1160'. The San Andres interval is stratigraphically equivalent to existing injection in the Warren Petroleum, Eunice Plant #161 (Sec. 3/T22S/R37E), the Agua, #C-2 State SWD (Sec. 2/T22S/R37E) and the Exxon New Mexico "S" State WS #4 (Sec. 2/T22S/R37E). Injected fluids will be confined within the San Andres interval by impermeable limestones that occur near both the top and base of the formation. No updip pathways or open faults are known to exist that would provide a connection with fresh water intervals near the surface. (cross section attached)

Fresh water in this area occurs in formations above the Salado salt and anhydrite. The top of the anhydrite/salt at this location is approximately 2350'. This unit also serves as an effective barrier between injected fluids and fresh water zones near the surface. No fresh water occurs below the proposed injection zone.
- IX. Proposed stimulation program on Exxon New Mexico S State #104 SWD
  - 1. Drill out CIBP's at 3880' and 4020'.
  - 2. Acidize perfs from 3890'-4220' with 4000 gals. 20% HCL using balls to divert.
  - 3. Clean wellbore and prepare to inject.
- X. Logs sent with initial completion report dated 4/46.

- XI. Chemical analysis on 3 fresh water wells within one mile of the proposed disposal well are included.
- XII. There are no indications of open faults or other hydrological connections between the proposed disposal interval and the shallower fresh water zones.
- XIII. A signed statement of mailing of notice is attached, along with proof of publication.

# WELL BORE SKETCH AND WELL HISTORY

ELEV.: KB 3363' - 11.4' ABOVE CHF



TD: 5195' PBD: ±3840'  
ORIG PBD = 5185'

LEASE & WELL NAME: NEW MEXICO "S" STATE # 104  
FIELD: BLINDBRY-DRINKARD-TURO COUNTY: LEA ST: N.M.  
LOCATION: 1980' FEET, 660 FSL, SEC-2, T-22-S,  
R-37 E, 2 MI, SE OF EUNICE, NEW MEXICO  
DATE: 3-25-1991 BY: MAE REV.: BY:

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
10 3/4"	40.5	14-40	359'
7 5/8"	26.4	5-80	2824'

### PRODUCTION CASING

5 1/2"	14*	14-40	5195'

### TUBING

NO. JTS	O.D.	THD.	TYPE	WT.	GDE	SET AT
121	2 3/8"	8 RD EYE	4.7"	J-55	F	3818'

### WELL HISTORY:

4/46 - DRILLING - PERFORATED THE SAN ANGELO FROM 5115'-5180' w/ 4 JSPF  
IP = 664 BOPD, GOR 795

10/72 - ADDED PERFS IN SAN ANGELO.  
PERF 5050'-5085' w/ 1 JSPF

7/73 - PLUG BACK SAN ANGELO, RE-COMPLETE  
IN SAN ANDRES: SET CIBP @ 4955';  
CAPPED w/ 30' CMT. PERFORATED w/ 1 SHOT/5 FT  
3890'-3905' - 4 SHOTS  
3912'-3925' - 4 SHOTS  
3940'-3955' - 4 SHOTS  
3970'-3995' - 7 SHOTS  
4042'-4055' - 4 SHOTS  
4075'-4090' - 4 SHOTS  
4125'-4220' - 20 SHOTS  
47 SHOTS TOTAL

3/80 - SET CIBP @ 4020' + DUMPED  
1 SHOT (± 10') CMT ON TOP

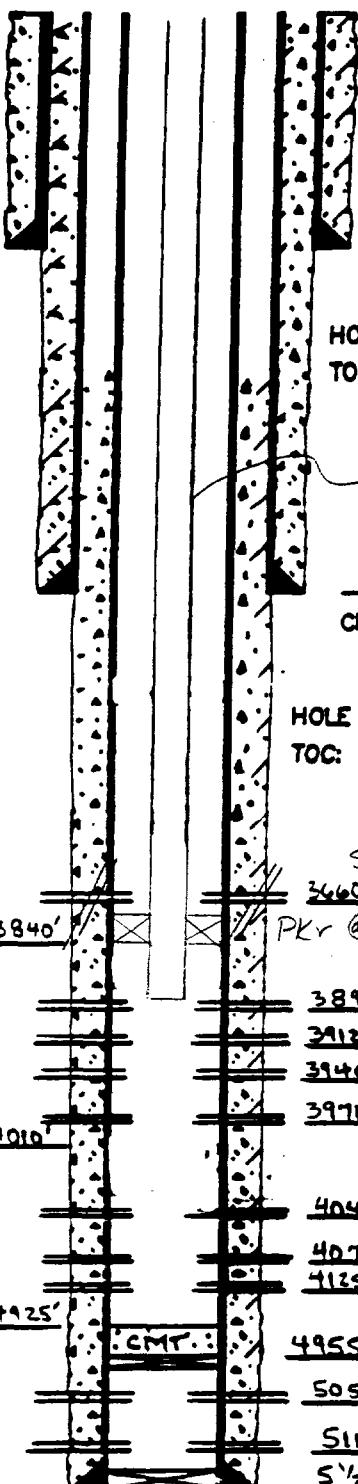
8/80 - PLUG BACK SAN ANDRES AND  
RE-COMPLETE IN GRAYBURY: SET CIBP  
@ 3880' + CAPPED w/ 4 SHOTS (± 40')  
CMT. PERFORATED FROM 3660'-3808' w/  
36 Holes, R14 w/ MUO ST, PS, SN, 120  
JTS TBG. \*\* THERE MAY BE A TAC  
IN STRING. \*\*

Before  
CONVERSION

# WELL BORE SKETCH AND WELL HISTORY

ELEV.: KB 3363' - 11.4' ABOVE CHF

LEASE & WELL NAME: NEW MEXICO "S" STATE #104  
 FIELD: BLINERY-DRINKARD-TUSS COUNTY: LEE ST: NM  
 LOCATION: 1980' FEL, 6600 FSL, SEC-2, T-22-S,  
 R-37 E, 2 MI, SE OF EUNICE, NEW MEXICO  
 DATE: 3-25-1991 BY: MATE REV.: BY:



After conversion

TD: 5195' PBD: 3840'  
 ORIG PBO = 5185'

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
10 3/4"	40.5"	14-40	359'
7 5/8"	26.4"	5-80	2824'

### PRODUCTION CASING

5 1/2"	14"	14-40	5195'

### TUBING

NO. JTS	O.D.	THD.	TYPE	WT.	GDE	SET AT
						.

### WELL HISTORY:

4/46 - DgC° - PERF'D THE SAN ANGELO FROM 5115'-5180' w/ 4 JSPF  
 IP = 664 BOPD, GOR 795

10/72 - ADDED PERFS IN SAN ANGELO.  
 PERF 5050'-5085' w/ 1 JSPF

7/73 - PLUG BACK SAN ANGELO, RE-COMPLETE  
 IN SAN ANDRES: SET CIBP 4955';  
 CAPPED w/ 30' CMT. PERFD w/ 1 SHOT/5 FT  
 3890'-3905' - 4 SHOTS  
 3912'-3925' - 4 SHOTS  
 3940'-3955' - 4 SHOTS  
 3970'-3995' - 7 SHOTS  
 4042'-4055' - 4 SHOTS  
 4075'-4090' - 4 SHOTS  
 4125'-4220' - 20 SHOTS  
 77 SHOTS TOTAL

3/80 - SET CIBP @ 4020' + DUMPED  
 1 SHOT ( $\pm 10'$ ) CMT ON TOP

8/80 - PLUG BACK SAN ANDRES AND  
 RE-COMPLETE IN GRAYBURY: SET CIBP  
 @ 3880' + CAPPED w/ 4 SHOTS ( $\pm 40'$ )  
 CMT. PERFD FROM 3660'-3908' w/  
 36 holes, R14 w/ MUO ST, PS, SN, 120  
 JTS TBC. \*\* THERE MAY BE A TAC  
 IN STRING. \*\*

P. O. BOX 1488  
MONAHANS, TEXAS 79756  
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

708 W INDIANA  
MIDLAND, TEXAS 79701  
PHONE 663-4621

RESULT OF WATER ANALYSES

TO: Ms. Trisha Plemmons  
P. O. Box 3116, Midland, TX 79701

LABORATORY NO. 39287  
SAMPLE RECEIVED 3-16-92  
RESULTS REPORTED 3-17-92

COMPANY Exxon Company, U.S.A. LEASE New Mexico "S"

FIELD OR POOL BDT

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken @ windmill (100 yds S. of Chevron's Rollon Brunson Letter "B" Unit #6.

NO. 2 Raw water - taken @ windmill (200 vds W. of Texaco's Baker "B" Battery #1).

NO. 3 Raw water - taken from water supply well (50 yds N. of John Hendrix Corp. Cessator "L" #2).

NO. 4

REMARKS: Samples taken by Tom Elrod, Martin Water Laboratories, Inc. 3-16-92

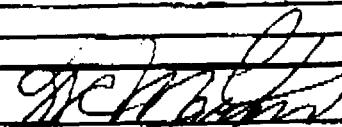
CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0018	1.0015	1.0026	
pH When Sampled				
pH When Received	7.20	7.21	7.17	
Bicarbonate as HCO <sub>3</sub>	293	281	325	
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	152	172	852	
Calcium as Ca	29	36	168	
Magnesium as Mg	19	20	105	
Sodium and/or Potassium	205	99	342	
Sulfate as SO <sub>4</sub>	233	88	488	
Chloride as Cl	81	47	582	
Iron as Fe	0.04	0.04	0.07	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	860	570	2,010	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	9.06	14.90	3.20	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	1.0	2.0	4.6	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct  
to the best of his knowledge and belief.

Form No. 3

By   
Waylan C. Martin, M.A.



03/06/92 TAP

NEW MEXICO S #104 OFFSET WELLS  
WITHIN 1/2 MILE RADIUS

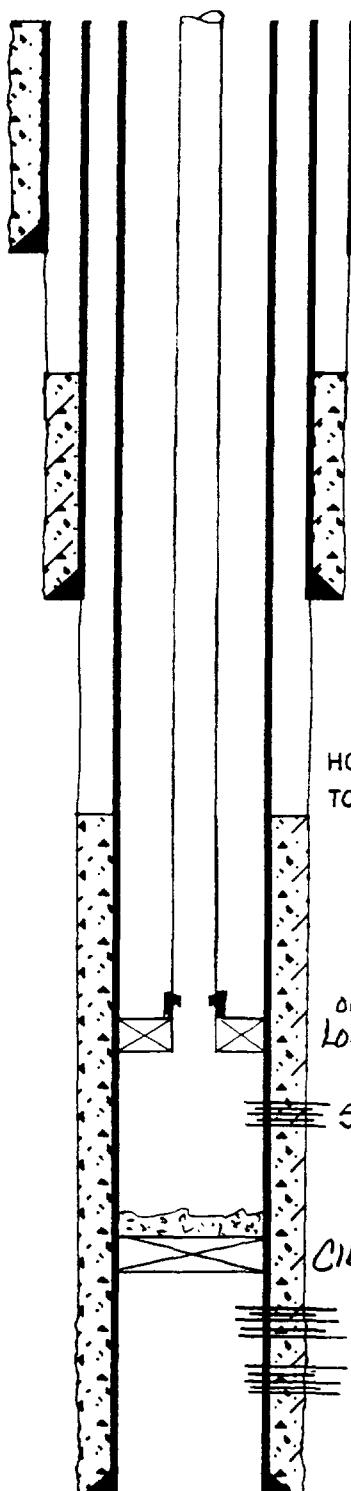
WELL NAME	LOCATION T/R/S	FOOTAGE	DATE DRILLED	DEPTH	COMPLETION (PERFS)	CONSTRUCTION
Walter Lynch #2	22S/37E/1	1980 FS, 660 FW	10-13-45	5220	5100-5160	13-3/8" csg @ 337 w/350 sxs 9-5/8" csg @ 2854 w/2100 sxs 7" csg @ 5170 w/350 sxs
Walter Lynch #3	22S/37E/1	660 FS, 660 FW	11-15-45	5220	5120-5180	13-3/8" csg @ 336 w/250 sxs 9-5/8" csg @ 2856 7" csg
Elliott B-12 #1	22S/37E/12	660 FN, 660 FW	4-3-85	5151	4124-4220	13-3/8" csg @ 169 w/150 sxs 7" csg @ 5151 w/450 sxs
Elliott B-12 #2	22S/37E/12	567 FN, 467 FW	12-12-75	7425	6221-7001 7326-7388	9-5/8" csg @ 1150 w/550 sxs 7" csg @ 7425 w/1250 sxs
Lou Wortham #5	22S/37E/11	990 FN, 1650 FW	12-20-70	4750	4116-4123	9-5/8" csg @ 366 w/200 sxs 7" csg @ 4750 w/450 sxs
Lou Wortham #3	22S/37E/11	660 FN, 1800 FW	11-26-61	3950	3742-3784	8-5/8" csg @ 290 w/225 sx 5-1/2" csg @ 3950 w/350 sx
Anadarko #5	22S/37E/11	660 FN, 1980 FW	7-10-46	5165	5087-5165	13-3/8" csg @ 310 w/300 sxs 8-5/8" csg @ 2798 w/3000 sx 5-1/2" csg @ 5087 w/500 sx
Lou Wortham #13	22S/37E/11	330 FN, 2080 FW	7-18-75	7390	6244-6339 7115-7211	8-5/8" csg @ 1255 w/675 sx 4-1/2" csg @ 7390 w/1300 sx
Lou Wortham #1-C	22S/37E/11	330 FN, 2310 FE	2-13-70	4700	3870-4186 4023-4186	9-5/8" csg @ 354 w/225 sxs 7" csg @ 4700 w/530 sxs
Lou Wortham #1-B	22S/37E/11	660 FN, 1980 FE	4-26-46	5150	5090-5150	13-3/8" csg @ 304 w/850 sxs 8-5/8" csg @ 2794 w/4000 sx 5-1/2" csg @ 5090 w/500 sx
Anadarko #13	22S/37E/11	330 FN, 1980 FE	12-02-78	7580	6344-6411	9-5/8" csg @ 1288 w/650 sxs 7" csg @ 7580 w/2000 sxs
Lou Wortham #3-C	22S/37E/11	660 FN, 990 FE	10-15-83	4320	3830-4320	8-5/8" csg @ 302 w/150 sx 5-1/2" csg @ 3830 w/250 sx
Lou Wortham #2-C	22S/37E/11	1878 FN, 2407 FE	5-11-70	4700	3866-4238	9-5/8" csg @ 355 w/250 sxs 7" csg @ 4700 w/675 sxs
Lou Wortham #1-A	22S/37E/11	660 FN, 660 FE	1-18-46	5147	5095-5147	13-3/8" csg @ 300 8-5/8" csg @ 2807 w/250 sx 5-1/2" csg @ 5095 w/300 sx
Lou Wortham #14	22S/37E/11	520 FN, 330 FE	4-22-76	7540	7289-7515	9-5/8" csg @ 1265 w/650 sxs 7" csg @ 7540 w/2680 sxs
Lou Wortham #19	22S/37E/11	680 FN, 880 FW	2-04-86	7400	6549-7024	9-5/8" csg @ 1200 w/700 sxs 7" csg @ 7400 w/1995 sxs

NOTE: SEE ATTACHED WELLBORE SKETCHES FOR WELLS LOCATED IN  
SECTION 2

# WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB 3364', 10' ABOVE 5 1/2" CHF

LEASE & WELL NAME: PADDOCK UNIT #31  
 FIELD: PADDOCK COUNTY: LEA ST: NM  
 LOCATION: 1980' FSL, 660' FEL, SEC 2, T22S, R37E



HOLE SIZE: 13 1/4"  
 TOC: \_\_\_\_\_

10 3/4 - 342  
 CMT 300 SX

HOLE SIZE: 9 7/8  
 TOC: 1200 (73)

7 5/8 - 2809  
 CMT 2050 SX

HOLE SIZE: 6 3/4  
 TOC: 3400 (73)

ON/OFF TOOL w/ PROFILE  
 LOK-SET PKG @ 4990'

5014'-32' (2SPF)

C18P @ 5086' w/ 10' CMT

5090'-5175' (4SPF)

5195'-5212' (4SPF)

5 1/2 - 5218  
 CMT 400 SX

TD: 5220' PBD: 5214'

DATE: 6-18-91 BY: RS Rose REV.: \_\_\_\_\_ BY: \_\_\_\_\_

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
<u>10 3/4</u>	<u>40.5</u>	<u>H-40</u>	<u>342</u>
<u>7 5/8</u>	<u>26.4</u>	<u>5-80</u>	<u>0-2450</u>
	<u>24</u>	<u>H-40</u>	<u>2450-2809</u>

### PRODUCTION CASING

<u>5 1/2</u>	<u>14</u>	<u>J-55</u>	<u>0-4693</u>
<u>5 1/2</u>	<u>15.5</u>	<u>J-55</u>	<u>4693-5218</u>

### TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
	<u>2 3/8</u>	<u>8RD</u>	<u>EUE</u>	<u>4.7</u>	<u>J-55</u>	<u>4990</u>

### WELL HISTORY:

11/45 DEC PERF 5090'-5175' (4SPF) AND 5195'-5212' (4SPF). ACIDIZE EACH w/ 2000 GAL 20% HCL.

1/53 ACIDIZE 5090'-5212' w/ 1500 GAL GEL AND 10000 GAL UNISOL Acid

10/59 ACIDIZE 5090'-212' w/ 10000 GAL Acid USING BALL SEALERS

AFTER WORK  
SKETCH

DATE : 3/5/86

WELLBORE  
SKETCH

LETS.: WELL : PADDOCK UNIT #4

FIELD: PADDOCK

FIELD SUPT: EB TAYLOR

TUBING: SIZE \_\_\_\_\_ GRADE -  
ITS \_\_\_\_\_ SET \_\_\_\_\_

BOTTOM HOLE ARRANGEMENT.

DF  
ELEV RKB 3370, 13' above.  
GL

Well History

9/46 PERF 5070-5205  
AC w/ 4000 GAL 15% HCL

9/59 AC w/ 10,000 GAL 15% HCL

1/68 PERF 5055-5070  
AC w/ 3000 GAL 15% HCL

: 3/86 Cut CIEP & 13' up  
w/ 25' corr.  
P:H w/ 103  $\pm 2.5'$  HCL

CIEP @ 4985' cap w/ 25' HCL

2  $\frac{3}{8}$ " TBG (PC)

GUIBERSON HOCKWALL PKR @ 5016  
(10 PT TENSION)

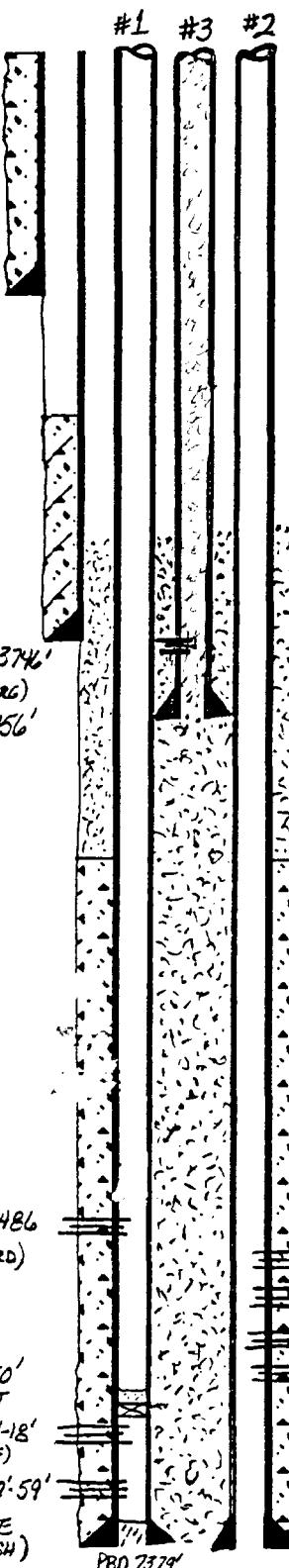
5  $\frac{1}{2}$  14# @ 5209

CMT w/ 300SX TOC 2980 (TS)

PADDOCK  
5055-5205

# WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB 3368', 11' ABOVE GL



LEASE & WELL NAME: NEW MEXICO '8' STATE #25  
 FIELD: B-D-T COUNTY: LEA ST: NM  
 LOCATION: 810' FSL, 230' FWL, SEC 2, T22S, R37E

DATE: 8-1-90 BY: RSB REV.: \_\_\_\_\_ BY: \_\_\_\_\_

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
<u>13 3/8</u>	<u>48</u>	<u>H-40</u>	<u>305'</u>
<u>9 5/8</u>	<u>32.3</u>	<u>H-40</u>	<u>2660'</u>

### PRODUCTION CASING

#2	<u>2 7/8</u>	<u>6.4</u>	<u>J-55 NUE</u>	<u>7393'</u>
#3	<u>2 7/8</u>	<u>6.4</u>	<u>J-55 NUE</u>	<u>5456'</u>
#1	<u>2 7/8</u>	<u>6.4</u>	<u>J-55 NUE</u>	<u>7393'</u>

### TUBING

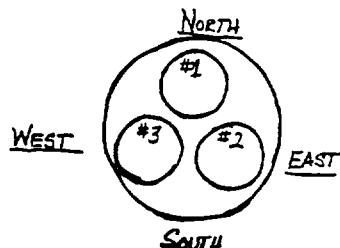
NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
#3	<u>1 1/2</u>	<u>1020</u>		<u>1.87</u>		<u>3817'</u>

### WELL HISTORY:

7/6/3 DEC PERF GRAYBARS IN STRING #3 3678'-3746'  
PERF ABO IN STRING #2 6877'-81', 6884'-97', PERF  
GRANITE WASH 7306-18' & 7341-59'

2/76 SET CIEP IN STRING #1 @ 7250' CAPPED w/ 35' CMT  
PERF STRING #2 6758'-6866', PERF STRING #1  
FROM 6255-6486' (53 SHOTS) PERF STRING #2  
6639'-94'

12/91 String #33 Pumped 26 bbls  
current - CIEP @ surface  
P/EAD



2 7/8" • 7393'  
 CMT 1475 SX

*AFTER WORKOVER  
SKETCH*

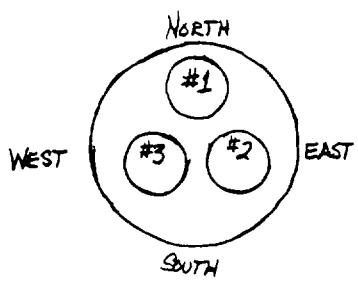
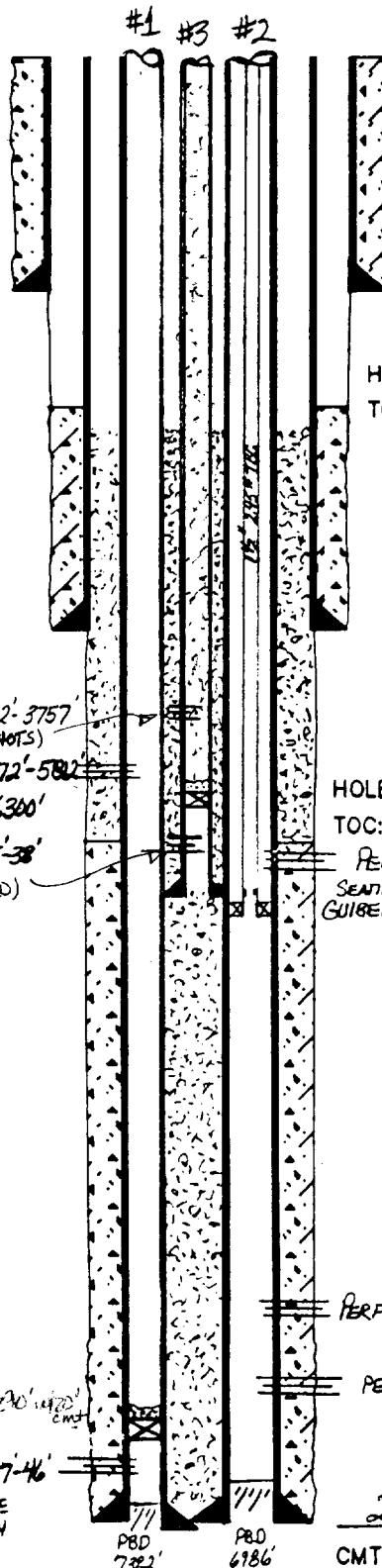
TD: 7395' PBD: \_\_\_\_\_

# WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB 3367', 11' ABOVE GL

LEASE & WELL NAME: NEW MEXICO'S STATE 24  
 FIELD: B-D-T COUNTY: LEA ST.: NM  
 LOCATION: 1650' FSL, 1980' FEI SEC 2 T22S R37E

DATE: 8-8-90 BY: RSB REV.: \_\_\_\_\_ BY: \_\_\_\_\_



PERF 6749'-6873' (ABO)  
 PERFORATION: 6880-86' (ABO)  
 CIBP @ 1670' (120' cut)  
 TD: 7411' PBD: 6986'  
 CMT: 1670 SX

AFTER WORKOVER  
SKETCH

#1 ROD STRING: 2" x 1 1/4" x 62 3/4' RHTC, 210-31" x 25' rods, 78-75' 25' rods, 22' of 3 1/2" subs, 16" x 1 1/4" bush rod, 1-2" x 3 1/4" sub on top of pump

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET
203	1 1/2	10RD		2.45	N-80	600

## WELL HISTORY:

5/63 PERF DRINKARD 6425'-6438', PERF ABO 6870'-6889',  
 PERF GRANITE WASH 7327'-7346'. SAND FRAC GRANITE  
 WASH w/4000#. ACIDIZE ABO w/1000 GALS. SqZ  
 ABO w/5000# REPERF 6880-86'. ACIDIZE ABO w/4  
 2000 GALS. SqZ & REPERF 6880-86'. ACIDIZE w/5000GAL  
 ACIDIZE DRUNKARD w/2200GAL. FRAC w/1000#-in.  
 SET CIBP @ 6300'. PERF GRANITE 3672'-3757' (8  
 HOLES). SAND FRAC w/4000#.

10/63 SAND FRAC ABO w/2500#.

12/67 SAND FRAC GRANITE w/2500#.

3/75 PERF ABO 6749'-6873'. SAND FRAC. PERF 6880-86'  
 SAND FRAC. RAN TIG & PXR.

12/91 String #3 P: A/H  
 cmt to surface  
 String #1 set CIBP @ 7290 w/70' cut  
 Perf 5672-5812' (Blinberry)  
 Frac w/25 bbl 15% NGL w/1000#  
 String swab rods @ 5985'

String #3 has been set since 4/68

# WELLBORE SKETCH

Completion Date

8-76

Flood

B-D-T

Lease & Well #

NM S #33

Elevation

Zone

Location of Work

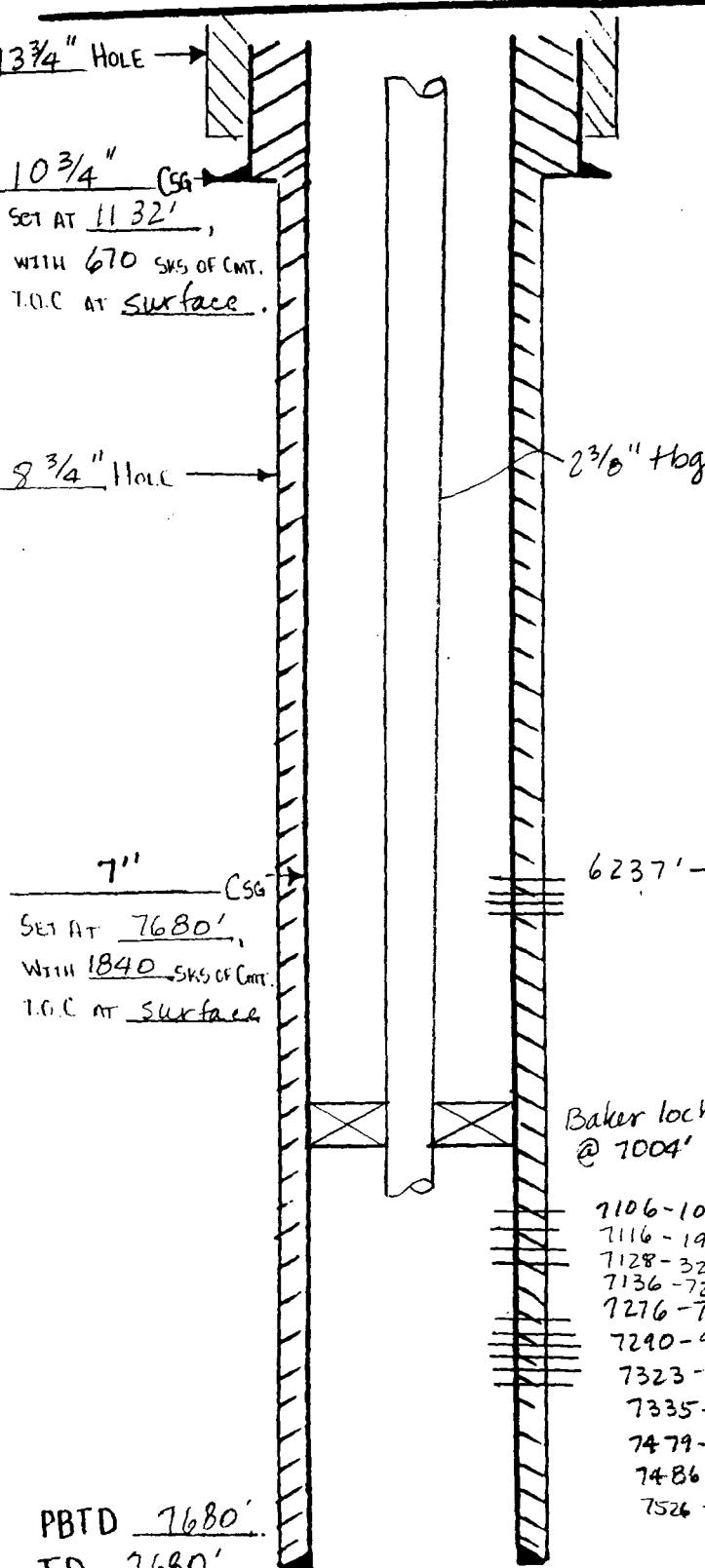
380' FSL 860' FEI SEC 2, T-22S R-37E

Perforations Before Workover

Reservoir Before Workover

Perforations After Workover

Reservoir After Workover

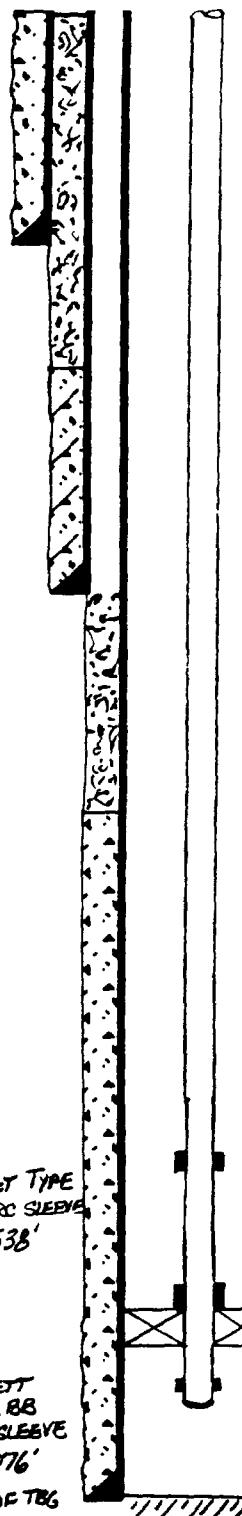


## HISTORY

8-76 DEC completed in Granite Wash  
 Perf 7276-7530 Acid w/5000 gals 15% HCl w/3 gals Corexit 7052  
 Perf 7106-7172' Acid w/6000 gals 15% HCl  
 Perf 6237-6276' Drinkard  
 Acid frac w/7500 gals n-1 pad & 8500 gal gelled 20% HCl

# WELLBORE SKETCH AND WELL HISTORY

ELEV.: KB 3362', 12' ABOVE BHF



GARRET TYPE  
8 CIRC SLEEVE  
@ 5538'

GARRET TYPE 88  
CIRC SLEEVE  
@ 6076'  
END OF TBC  
BULLPLUGGED

TD: 1200' PBD: 6199'

LEASE & WELL NAME: NEW MEXICO 'S' STATE #23  
FIELD: B-D-T COUNTY: LEA ST.: NM  
LOCATION: 990' E E8SL, SEC 2, T 22S, R 37E

DATE: 5-31-91 BY: RS Basie REV.: \_\_\_\_\_ BY: \_\_\_\_\_

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
<u>10 3/4</u>	<u>40.5</u>	<u>H-40</u>	<u>347</u>
<u>7 5/8</u>	<u>24</u>	<u>H-40</u>	<u>2595</u>

### PRODUCTION CASING

<u>5 1/2</u>	<u>14</u>	<u>J-55</u>	<u>0-5528</u>
<u>5 1/2</u>	<u>15.5</u>	<u>J-55</u>	<u>5528-6200</u>

### TUBING

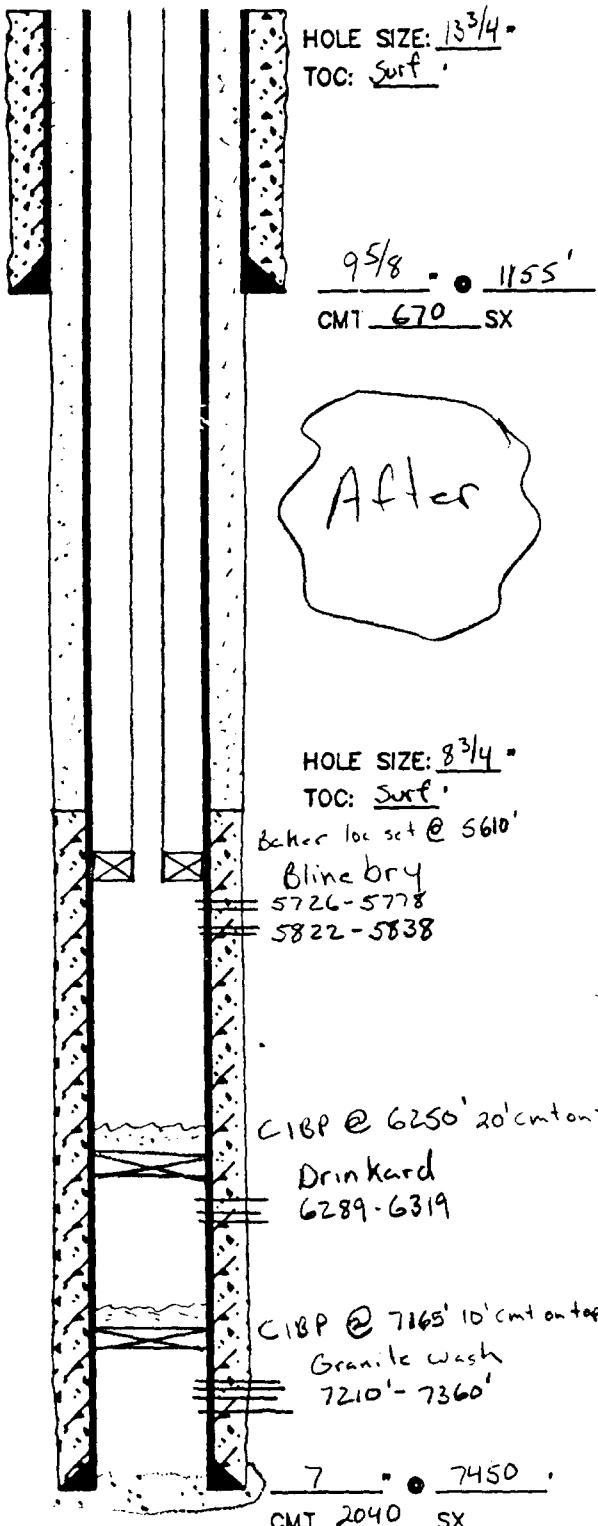
NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
<u>196</u>	<u>2 3/8</u>	<u>8RD</u>	<u>EUE</u>	<u>4.7</u>	<u>J-55</u>	<u>6110'</u>

### WELL HISTORY:

4/55 DEC PERF 5996'-6011', 6023'-48', 6040'-118',  
6128'-46', 6154'-85' (2SPF). ACIDIZE W/  
3000 GAL & 9000 GAL 15%.  
PERF BLINERRY 5428'-70', 5490'-5508',  
5515'-45' (2SPF). ACIDIZE W/500 GALS  
MUD ACID AND 3000 GALS 15%.

# WELLBORE SKETCH AND WELL HISTORY

EV.: KB 3375 • 16' ABOVE GL



LEASE & WELL NAME: New Mexico "S" state #32  
FIELD: BDT COUNTY: Len ST.: N.M.  
LOCATION: Unit G Sec 2 Twp-223 Rge 37e

DATE: 4/18/90 BY: HJM REV.: BY:

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
9 5/8"	36#	K-55 LTC	1155'

### PRODUCTION CASING

7"	20,23,26,29	K-55	7450'

### TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
184	2 3/8	8rd	EUE	4.7		5700

### WELL HISTORY:

12/76 DEC completed in Drinkard & GW  
Perf Granite Wash 7210 - 7360'  
Add w/ 15% HCl, sand oil frac 7279-736  
w/ 30,000 gal gelled oil, 34000# 20-40 sand  
Perf Drinkard 6289 - 6319, Acid frac  
w/ 25000 gal K-1 pad & 20% HCl

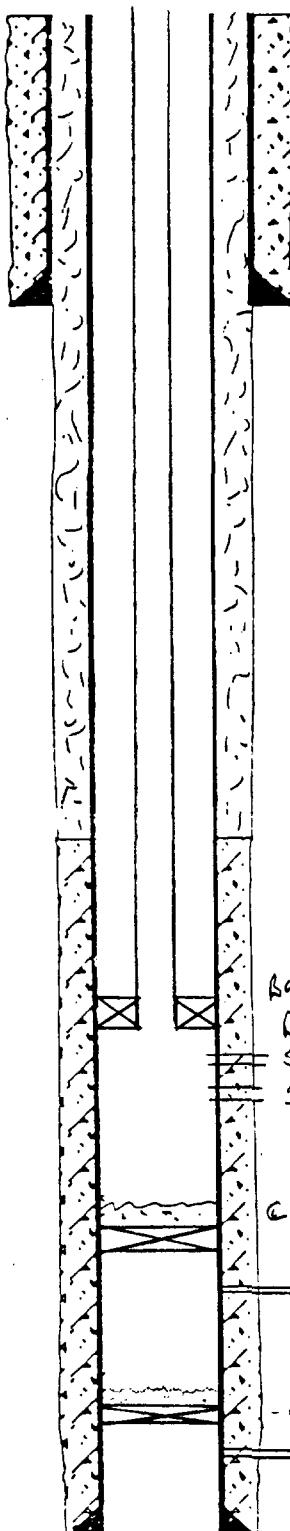
4/90 Set CIBP @ 7165 w/ 20' crnt  
Set CIBP @ 6250 w/ 20' crnt

Perf Bline bry 5726 - 5838'  
Frac 738 bbls slurry, 55000# 20/40 cu.

TD: 7450 ' PBD: 7407 '

## WELLBORE SKETCH AND WELL HISTORY

KB 3383, 15.5' ABOVE SL



LEASE & WELL NAME: N.M. "S" ST. #28  
 FIELD: BOT COUNTY: LEA ST: NM  
 LOCATION: SE/NW, SEC.2, T22S, R37E

DATE: 11/22/85 BY: RWG REV.: 4/17/90 BY: GWM

## CASING RECORD

## SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
10 3/4	40.5 / 41.05	K-55/A	1120'

## PRODUCTION CASING

7	23/26	N-80	7190'

## TUBING

NO. JTS.	O.D.	THD.	TYPE	V.T.	GSE.	SET AT
1841	2 3/8	8rd	CUE	4.7		3700

## WELL HISTORY:

5/76 D&C, PERFL 768-516' (47) TRT w/  
 12000 GAL K-1 + 13000 GAL 20% HCL.  
 IP 221 BO 401 mcf 218W  
 PERFL 6267-447' (51) TRT w/ 17500  
 GAL K-1 + 19,500 GAL 20% HCL.  
 IP 2400 mcf

7190 Set CIBP @ 6740' + capped w/ 20' cmt  
 Set CIBP @ 6158' + capped w/ 20' cmt  
 Perf 5708-5752 (2spf), 5798-5816  
 PPI Acid job w/ 37 bbl acid  
 Frac 28,735 gals Fluid, 6035#/20/40 sand

TD: 7200' PBD: 7067'

Date: 4/19/90

Locality: NEW MEXICO "S" STATE #34

Elev. 3351',  
above \_\_\_\_\_

H2S 0 PPM

Field: BDT

Field Supt: McBEE

tubing size 2 3/8" Grade \_\_\_\_\_

Bottom Hole Arrangement

AFTER  
WELLBORE  
CONFIGURATION

10 3/4" @ 1138'

Well history:

Squeezed

6216'-6263'

DRINKARD

Packer @ +/- 6435'

6460 - 6992

WANTZ ABO

C1BP @ 7500' PBTD @ 7465'

7568' - 7750'

GRANITE WASH

7" casing @ 7847'

TD @ 7847'

11/76 D&C DUAL COMP.

Drinkard perfed, frac w/ 12,000  
gal. K-1 + 13,000 gals 20% HCL.

Acidized w/ 2000 gals 7 1/2% HCL

IP = 1105 MCF/DAY

Abq perfed, frac w/ 15,000 gal. K-1  
+ 16,000 gals. 20% HCL

IP = 12 BBL, 798 MCF/DAY

Granite Wash was tested and  
plugged back.

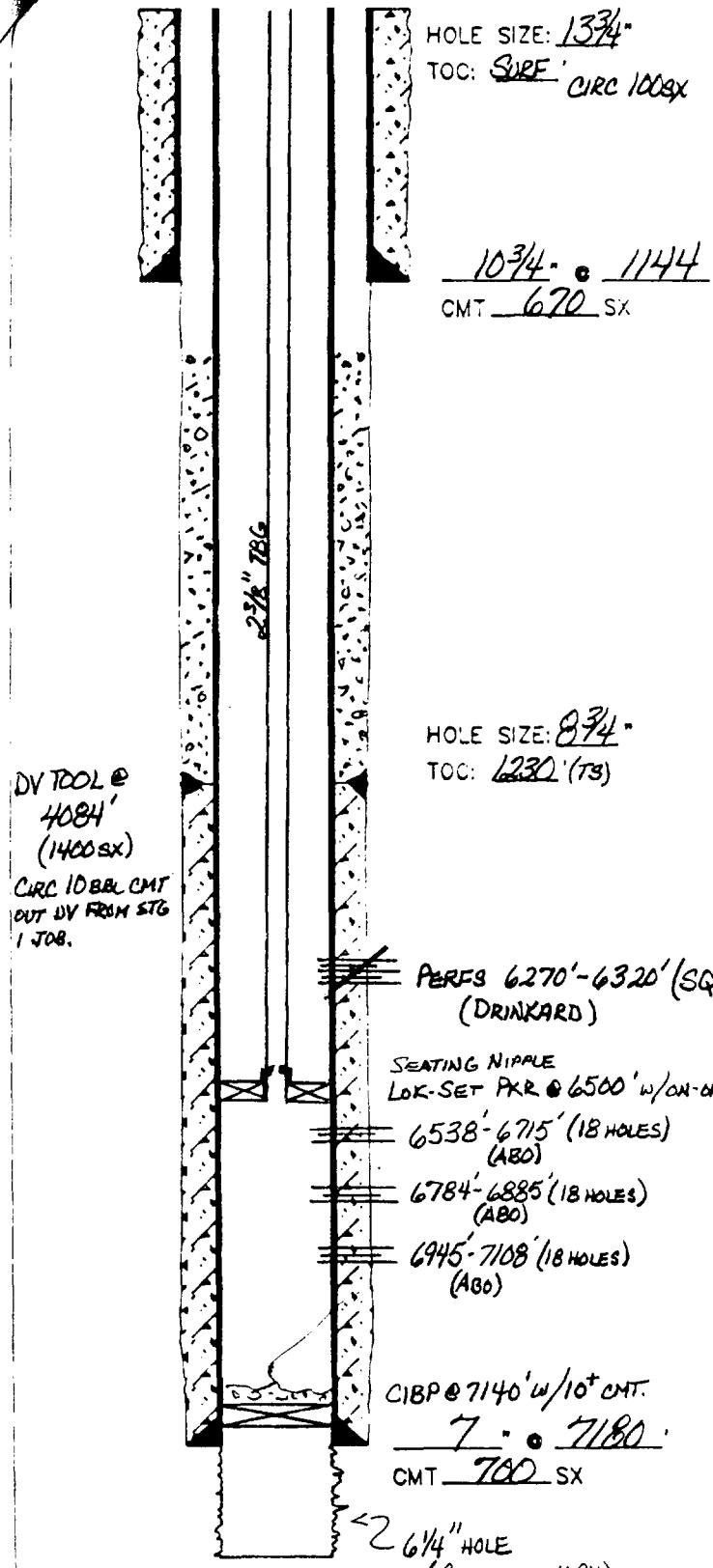
11/90 SQZ Drinkard Perfs 6216-6263'

w/ 75 Sxs, Perf 6460-6992' Abq

Acid w/ 30000 gals SXE

# WELLBORE SKETCH AND WELL HISTORY

KB 3370", 16' ABOVE GL



LEASE & WELL NAME: NEW MEXICO "S" STATE #30  
FIELD: B-D-T COUNTY: LEA ST.: NM  
LOCATION: 2160' FSL, 690' FEL, SEC 2, TWP 22-S,  
R 37E

DATE: 1-11-91 BY: RSB REV.: \_\_\_\_\_ BY: \_\_\_\_\_

## CASING RECORD

### SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
10 3/4	51	K-55	1144

### PRODUCTION CASING

7	26	N-BO	7180'-6440'
7	26	K-55	6440'-4440'
7	23	K-55	4440'-1517'
7	23	K-55	1517'-40'
7	26	K-55	40'-SURF

### TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
	2 3/8"					

### WELL HISTORY:

10/76 D&C AS DUAL COMPLETION.  
ACIDIZE GRANITE WASH w/7000 GALS  
GELED 1570 HCL, PERF DRINKARD  
6270-79, 6291-96, 6305-08, 6312-20'  
(1SPF) ACIDIZE w/100 GAL 20% HCL  
PERF w/7500 GAL K-1 PAW, 8500 GAL 20%  
HCL, RUN 1000' PKR. PUT GRANITE  
WASH ON PMP.

7/91 SET CIBP @ 7140' i cap w/10' CMT  
SPZ 6270-6320', PERF 6538-7108' AB.  
HCD 2 w/59900 gal - SXE

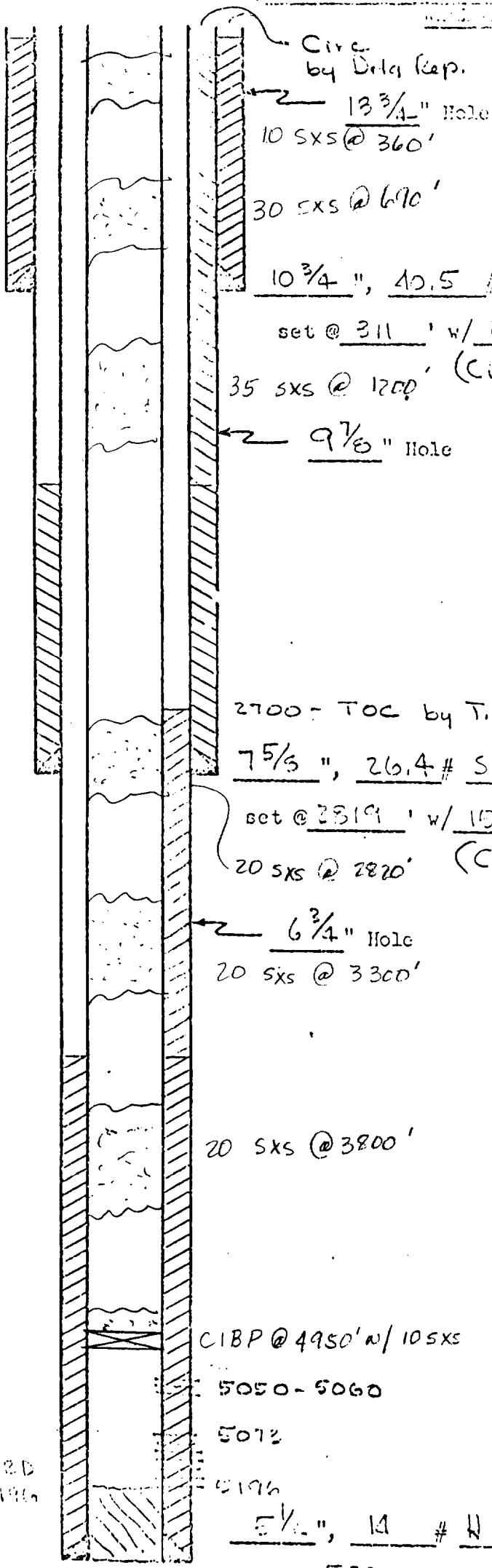
WORKOVER  
AFTER SKETCH

TD: 7610' PBD: 7610'

- PLUG & SPUD -

EXXON'S NH'S/SI #7

(Exxon's NH'S/SI #7)



APN 31931

Date 11-17-73

Field/Pool Name: Paddock (Sect. Land)

Lease Name/Well No.: Paddock (Unit #12)

Field Supt. JCSkerrill

Cost \$

Tbg. Size 2 2/3 Grade C-40

No. Jnts. 168 set at 5173 ①

Bottom Arrangement Bull Plug, Nut, Pin,

Nip, S/N 167 Jnts, Coubs.

Sub 10V X 8 kuf Thrd, Tba, Lubg.

RDB 33 1/0, Zero Ft. Elevation 33 1/0, Pt. 13, Above Oil Str Csg. "FIG"

Loc: Unit N, Sec. 2, T-22-S, R-37-E

① Tbg tally 8-20-51

• 1972 Well Service Report  
Shows 203 rods —  
5019

6/79 Set CIBP @ 4950' spot 10sxs

Spot 20 sxs @ 3800'

20 sxs @ 3300'

20 sxs @ 2820'

35 sxs @ 1200'

Pulled 5 1/2" csg at 690'

30 sxs @ 690'

10 sxs @ 360'

CIBP @ 4950' n/ 10sxs  
5050 - 5060  
5072  
5196

5 1/2", 14 # H 10 csg.

set @ 5700 v/ 280 sxs.

(100 ft. 240 spot + 230 ex. head)

# PLUG & ABANDON

EINCH COASTAL, INC. - Midway District

GULF OF MEXICO

(Excess NM's'st #6)

Circ.  
104. Dril. Rep.  
12 1/4" Hole

API 31929

Date 11-17-76

Field/Pool Name: Padlock (Sec. 11, T-22-S)

Lease Name/Well No.: Padlock Unit #3

Field Supt. \_\_\_\_\_ Cost \$ \_\_\_\_\_

10 3/4", 40.5 # csg. Tbg. 2 2/3 Grade N50

set @ 3800' w/10 sxs No. 171 set

30 sxs @ 1200' (Circ.) Bottom Arrangement Pull Plug, 1 Jnt.

9 1/2" Hole Pwlf. Wip. 2/11, 170 Jnts

1220 - T.O.C. by T.S RDB 2007, Zero Ft. Elev 2007, Pt. 14, Above Oil Str. Csg-  
"Flg"

Loc: Unit J Sec 2 T-22-S R-37-E

198 - 3/4" rods

7 5/8", 26.4-# C-30 csg.

6/79 Set CIBP @ 4795' w/ 10 sxs

set @ 2810' w/1500 sxs

Spot 20 sxs plug @ 3800',

20 sxs plug @ 3300'

20 sxs plug @ 1200'

(Circ.) Pulled 5 1/2" csg @ 700'

6 3/4" Hole

20 sxs @ 3800'

CIBP @ 4945' w/ 10 sxs

5010-5025

5025

} Sqrd. w/50 sxs

5010-5115

PBD - 5150

5120-5204 - Spud w/2-50 sxs sqs.

5 1/2", # csg.

Set @ 5307' w/110 sxs

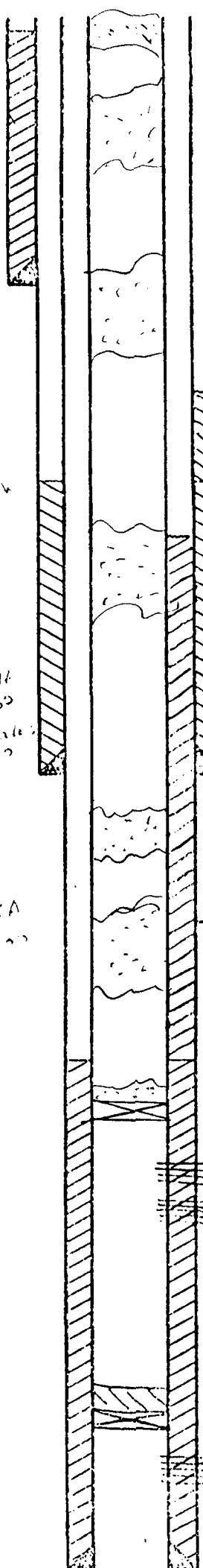
340 sxs neat, 150 sxs 2 1/2 gal.

5065-  
5105

5210 T.D.

# PLUG & ABANDON

EXXON U.S. INC., U.S.A. - An Irving District  
Division of Exxon Corp.



105xs 6 Circ.

13 3/4" Hole

75 sxs 385'

10 3/4", 40.5 # H40 csg.

set @ 234' w/ 350 sxs.

100sxs @ 815' (Circ.)

T.O.C. @ 670' by T.S.

Bottom Arrangement

9 7/8" Hole

T.O.C. @ 1350

by T.S.

40 sxs @ 1200'

1 5/8", 25.4 # S-80 csg.

set @ 2817' w/ 2050 sxs.

20 sxs @ 2867'

6 3/4" Hole

20 sxs @ 3300'

CIBP @ 3700' w/ 100sxs

3892 - 3986

4022 - 82

CIBP @ 5015' w/ 100sxs on top

5015 - 5115

5 1/2", 14 # S-80 csg.

set @ 5135' w/ 400 sxs.

AFB 31969

Date 12-5-18

Field/Pool Name: Eunice So. Salt Antares

N M S State # 2

Lease Name/Well No.: C Paddock Unit # 442

Field Supt. \_\_\_\_\_ Cont \$ \_\_\_\_\_

Tbg. None

Size ----- Grade -----

No. ----- set -----

Jnts. ----- at -----

RDB 3 3/8' Zero Ft. ----- Casing  
Elev 3 3/8' Pt. ----- Above ----- "Flg.

Loc: Unit F Sec 2 T-22-S  
Sec 31-E

9/80 Set CIBP @ 3700' spot 10 sxs

Spot 20sxs @ 3300'

Pulled 5 1/2" csg @ 765'

20 sxs @ 2867'

40 sxs @ 1200'

100sxs @ 815'

75 sxs @ 385'

10 sxs @ surface

Copies of NMOCD Form C-108 were sent to the following by Certified Mail on 3-27-92

OFFSET OPERATORS

EXXON CORPORATION  
C/O SHARON HALL  
MIDLAND TX 79702

MARATHON  
PO BOX 552  
MIDLAND TX 79702

JOHN H HENDRIX CORP  
223 W WALL STE 525  
MIDLAND TX 79701

ORYX ENERGY CO  
PO BOX 1861  
MIDLAND TX 79702-1861

SURFACE OWNER

WILLIAM OWEN STEPHENS  
PO BOX 115  
EUNICE NM 88231

*Marsha Wilson*  
MARSHA WILSON  
ENVIRONMENTAL & REGULATORY AFFAIRS

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE



STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
RECEIVED  
HOBBS DISTRICT OFFICE  
'92 APR 3 AM 9 10  
3-31-92

BRUCE KING  
GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

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

RE: Proposed:

MC \_\_\_\_\_  
DHC \_\_\_\_\_  
NSL \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD X SWD-473  
WFX \_\_\_\_\_  
PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Exon Corp. New Mexico, S State #104-C 2-22-37  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton  
Supervisor, District 1

/ed