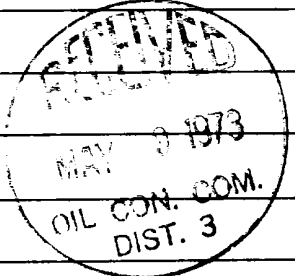


NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>Continental Oil Company</b>		ADDRESS <b>152 North Durbin St., Casper, Wyo. 82601</b>	
LEASE NAME <b>Jicarilla</b>	WELL NO. <b>1</b>	FIELD <b>West Lindreth</b>	COUNTY <b>Rio Arriba</b>
LOCATION UNIT LETTER <b>A</b> ; WELL IS LOCATED <b>915</b> FEET FROM THE <b>North</b> LINE AND <b>330</b> FEET FROM THE <b>East</b> LINE, SECTION <b>30</b> TOWNSHIP <b>25N</b> RANGE <b>4W</b> NMPM.			

## CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	<b>10 3/4"</b>	<b>250'</b>	<b>250</b>	<b>Surface</b>	<b>Circulated</b>
INTERMEDIATE					
LONG STRING	<b>5 1/2"</b>	<b>7500'</b>	<b>350</b>	<b>6100'<sup>±</sup></b>	<b>Circulated</b>
TUBING	<b>2 3/8"</b>	<b>5100'<sup>±</sup></b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Lok-Set @ 5100'<sup>±</sup></b>		
NAME OF PROPOSED INJECTION FORMATION <b>Mesaverde</b>			TOP OF FORMATION <b>4846'</b>		BOTTOM OF FORMATION <b>5585'</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>2 3/8" Tubing</b>		PERFORATIONS OR OPEN HOLE? <b>Perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>5171-80, 5182-92, 5401-06, 5411-32</b>		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Test Cretaceous &amp; Jurassic sands</b>			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>Yes</b>	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH <b>7352-98' (50 sks); 6620-70' (400 sks); 6500-6610' (will squeeze w/100 sks)</b>					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>Unknown</b>		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>3600'<sup>±</sup> (Pictured Cliffs)</b>		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>6750'<sup>±</sup> (Gallup)</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) <b>80</b>	MINIMUM <b>0</b>	MAXIMUM <b>500</b>	OPEN OR CLOSED TYPE SYSTEM <b>Open</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Pressure</b>	APPROX. PRESSURE (PSI) <b>1200 psi - Max.</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - <b>Yes</b>			WATER TO BE DISPOSED OF <b>Yes</b>		ARE WATER ANALYSES ATTACHED? <b>Yes</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Federal Land - Jicarilla Apache Tribe</b>					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>El Paso Natural Gas Co., P.O. Box 1492, El Paso, Texas 79978</b>					
					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER <b>Yes</b>		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>Yes</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA <b>Yes</b>		ELECTRICAL LOG <b>?</b>	
				THE NEW MEXICO STATE ENGINEER <b>?</b>	
				DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>	

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

*J. A. Uhlen*  
(Signature)

Administrative Supervisor  
(Title)

5/2/73  
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

NMOC(3) USGS(2) El Paso File

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

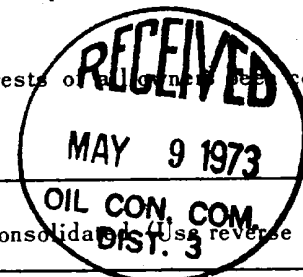
Operator <b>Continental Oil Company</b>			Lease <b>Jicarilla 30</b>		Well No. <b>1</b>
Unit Letter <b>A</b>	Section <b>30</b>	Township <b>25N</b>	Range <b>4W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well:					
<b>915</b> feet from the <b>North</b> line and		<b>330</b> feet from the <b>East</b> line			
Ground Level Elev. <b>6980'</b>	Producing Formation <b>P&amp;A April, 1954</b>	Pool <b>Mesaverde</b>		Dedicated Acreage: <b>160</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all leases be consolidated by communitization, unitization, force-pooling, etc?

☐ Yes   ☐ No   If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

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

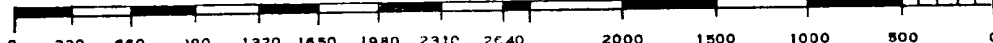
Name *J. A. Urban*  
 Position **Administrative Supervisor**  
 Company **Continental Oil Company**  
 Date **May 2, 1973**

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.*

Date Surveyed \_\_\_\_\_

Registered Professional Engineer  
and/or Land Surveyor

Certificate No. \_\_\_\_\_



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

5. LEASE DESIGNATION AND SERIAL NO.

Contract No. 41

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla 30

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

W. Lindreth - Mesaverde

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

Sec. 30, T25N, R4W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

New Mexico

## SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Water Injection	15. ELEVATIONS (Show whether DF, RT, GR, etc.)
2. NAME OF OPERATOR Continental Oil Company	6980' GR 6990' RBM
3. ADDRESS OF OPERATOR 152 North Durbin St., Casper, Wyo. 82601	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 915' FNL, 330' FEL	
14. PERMIT NO.	

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

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐

Water Injection

X

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐

(Other)

REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐

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

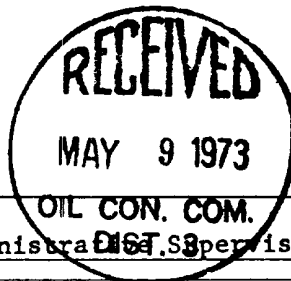
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to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

Well History

Well drilled to TD 8715' and found to be noncommercial. 5½" casing was set at 7500' and cement plug 8625-8475' and 7800-7725'. The Greenhorn was perforated 7398-7352', tested dry and cement squeezed. Perforated 6670-6620', tested dry and cement squeezed. Perforated 6610-6500', tested dry. The well was plugged and abandoned by filling the casing with heavy mud and setting a 15' cement plug at the surface in April, 1964.

Proposed Work

Clean out the well and squeeze cement the perfs 6610-6500'. Perforate at 5500' and cement squeeze, perforate at 4840' and cement squeeze. Drill out cement to 5600', set bridge plug at 5550' and perforate Mesaverde 5180-71', 5192-82', 5406-01' and 5432-11'. Run tubing with packer set at 5100', acidize the perfs with 1000 gallons and connect the well for water injection.



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

SIGNED

*J. A. Allen*

TITLE

Administrator, District Supervisor

DATE

5/2/73

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

\*See Instructions on Reverse Side

USGS(6) NMOCC(2) File

PRODUCED WATER ANALYSIS

See 224-28-2511-411

1. Jicarilla 22 Lease

Sp. Gr. 1.011, Rw @ 73°F .471 ohm meters, pH 7.6

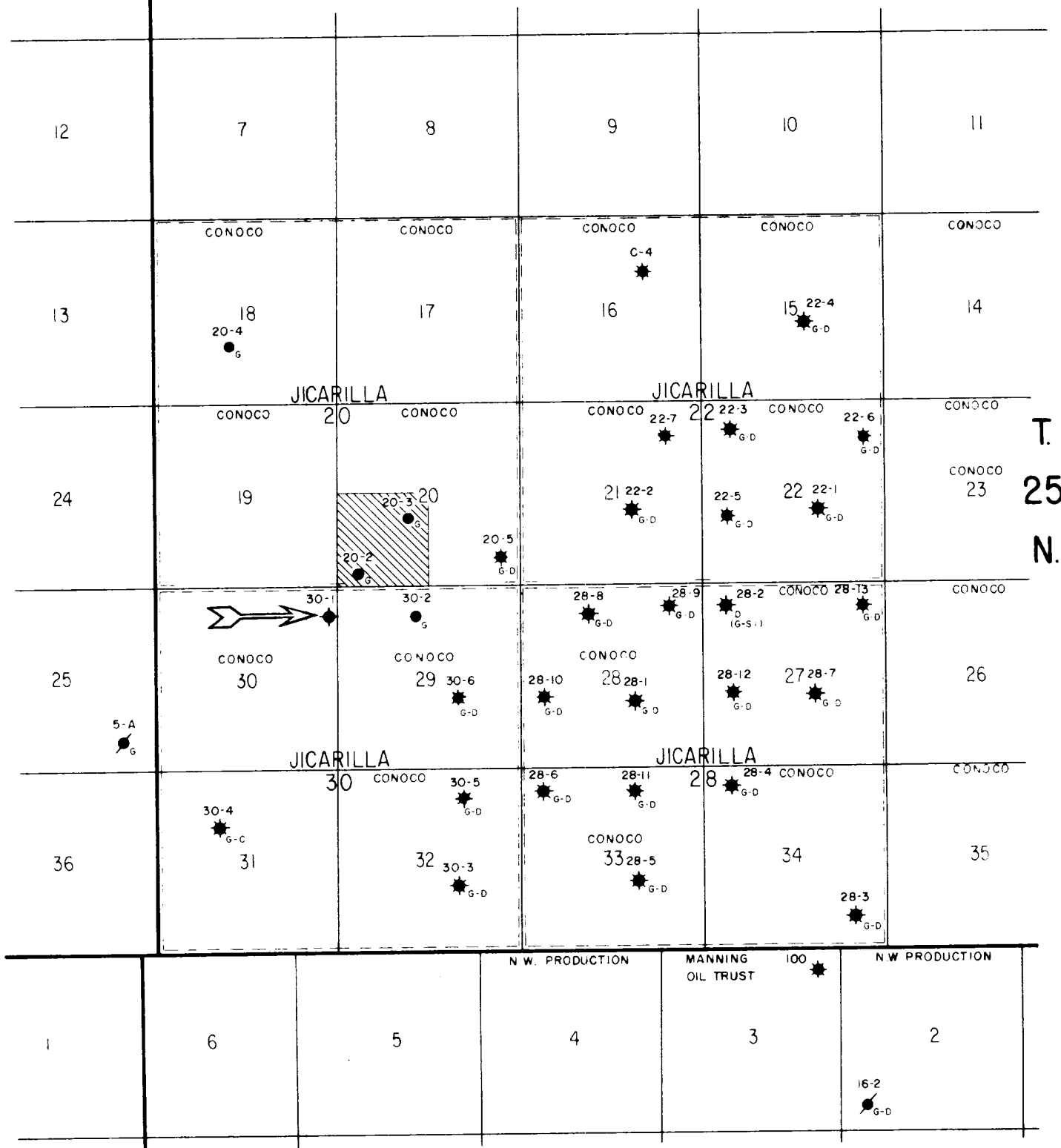
	<u>Meq/L</u>	<u>Mg/L</u>
Total Salts		14,400
H <sub>2</sub> S		0
Cl	188.98	6,700
SO <sub>4</sub>	35.39	1,700
CO <sub>3</sub>	0	0
HCO <sub>3</sub>	10.80	659
Na	222.23	5,110
Mg	3.21	39
Ca	9.78	196
Fe (mg/L)	T 13.7	D 0
Sus. Sol.		120

2. Jicarilla 28 Lease

Sp. Gr. 1.010, Rw @ 73°F .505 ohm meters, pH 7.5

	<u>Meq/L</u>	<u>Mg/L</u>
Total Salts		12,600
H <sub>2</sub> S		0
Cl	183.91	6,520
SO <sub>4</sub>	11.87	570
CO <sub>3</sub>	0	0
HCO <sub>3</sub>	12.19	744
Na	195.30	4,490
Mg	3.04	37
Ca	9.58	192
Fe (mg/L)	T 7.1	D 0.1
Sus. Sol.		105

R. 4 W.



== L E G E N D ==

- LOCATION
- <sub>G</sub> GALLUP OIL WELL
- <sub>D</sub> DAKOTA OIL WELL
- ☀<sub>G D</sub> DUAL - GALLUP (Oil) CHACRA (Gas)  
DUAL - GALLUP (Oil) DAKOTA (Oil-Gas)
- ⦿ SHUT-IN WELL
- ⬤ ABANDONED WELL

**CONTINENTAL OIL COMPANY**  
PRODUCTION DEPARTMENT  
Casper, Wyoming



# WEST LINDRITH BLOCK

## JICARILLA APACHE LEASES

**Contour Interval -**

**County:** Rio Arriba

**State:** New Mexico

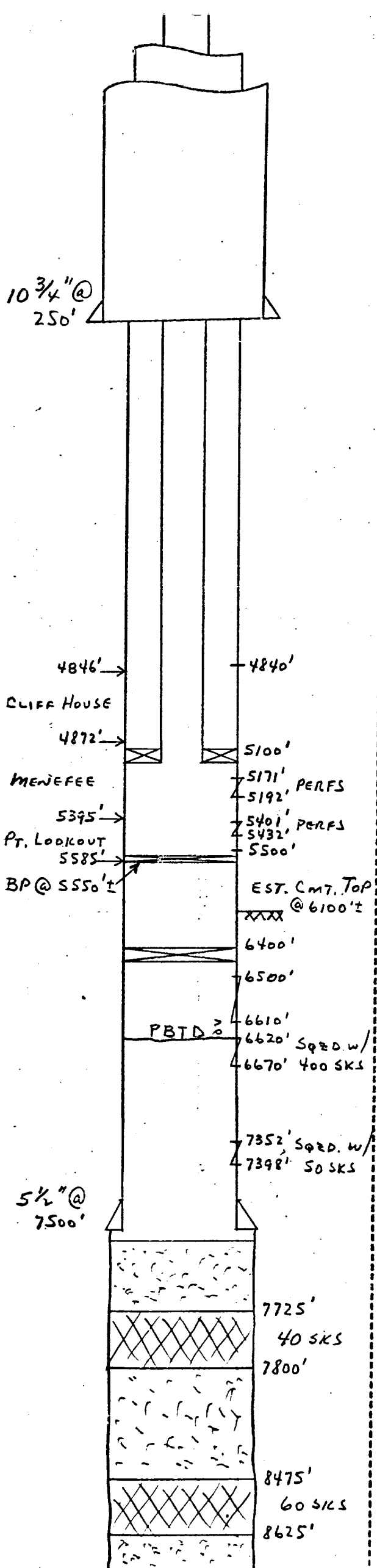
**Engineer:**

**Draftsman:**

**Date:** 7 12-71

Scale  = 4000'

**Well Status Posted to:** 11 - 72



FIELD WEST ) LINDRETH

POOL & WELL NO. MESA VERDE No 30-1

WELL STATUS PROPOSED-PRODUCED WATER DISPOSAL

LOCATION 915 FNL, 330' FEL, (NENE) SEC 30, T25N, R4W, RIO ARRIBA Co., NEW MEXICO

ELEVATION 6980' GRD  RBM

TOTAL DEPTH 8715' PLUG DEPTH 5550' ±

SURFACE CASING 10 3/4", 32.75", J-55 @ 250'

CMTD. W/ 250 SKS

PRODUCTION CASING 5 1/2", 15.5" & 17" J-55 & N-80

@ 7500', CMTD. W/ 350 SKS. SQUEEZED

W/ 670 SKS. EST. CMT. TOP @ 6100' ±

# PROPOSED COMPLETION IN MESA VERDE -

- 1- SET CEMENT RETAINER @ 6400' ±. SQZ. PERFS  
6500'-6610' W/ 100 SKS.
- 2- PERF @ 5500' ± W/ 4 JPF & SQZ. W/ 100 SKS
- 3- PERF @ 4840' ± W/ 4 JPF & SQZ. W/ 100 SKS
- 4- DRILL OUT TO 5600' ±
- 5- SET DRILLABLE B.P. @ 5550' ±
- 6- PERF 5171'-80'; 5182'-92'; 5401'-06';  
5411'-32' TOTAL - 45'
- 7- RUN 2 3/8" TUBING W/ PACKER. SET  
PACKER @ 5100' ±
- 8- ACIDIZE PERFS W/ 1000 GALS 15% HCl  
& PLACE WELL ON INJECTION.

REMARKS ALL MEASUREMENTS FROM RB

TOPS - CLIFF HOUSE - 4846' (MESA VERDE)

MENEFE - 4872'

POINT LOOKOUT - 5395' to 5585'

PREPARED BY: DEAN BARNES DATE: 5-1-72

FIELD WEST LINDRETHPOOL & WELL NO. No 30-1WELL STATUS PRESENT - P/A 4-54LOCATION 915 FNL, 330' FEL, (NENE) SEC 30,  
T25N, R4W, RIO ARRIBA Co., NEW MEXICOELEVATION 6980' GRD 6990' RBMTOTAL DEPTH 8715' PLUG DEPTH 6620'±SURFACE CASING 10 3/4", 32.75" J-55 @ 250'  
CMTD. w/ 250 SKSPRODUCTION CASING 5 1/2", 15.5" & 17" J-55 & N-80  
@ 7500'. CMTD. w/ 350 SKS. EST. CMT.  
TOP @ 6100'±PRESENT COMPLETION P/A 5 1/2" LEFT IN HOLE  
CMT. PLUGS BELOW 5 1/2" - 8475'-8625' &  
7725'-7800' CMT RET. DRILLED OUT & PUSHED  
TO 6620'±

PUMP UNIT

HISTORY COMPLETED IN UPPER NIOBRARA &GREENHORN LS. - NON COMMERCIAL 3-54CMT. PLUGS AS FOLLOWS ON COMPLETION PRIORTO SETTING 5 1/2" CSG - 8475'-8625' &7725'-7800' - PERF GREENHORN 7352'-98'TREATED & TSTD. DRY - SQED w/ 50 SKSPERF ( ? ) SET RETAINER @ 6500'SQED. w/ 670 SKS IN 7 JOBS - DRILLEDOUT TO ? - PERF GREENHORN 6620'-70'TREATED & TSTD DRY - SQED w/ 400 SKS. DRILLEDOUT TO 6620'± PERF 6500'-6610' TREATED &TSTD DRY. P/A BY FILLING CSG. w/HVY MUD & 15 FT. CEMENT PLUG AT SURFACE.REMARKS ALL MEASUREMENTS FROM RB.TOPS - CLIFF HOUSE - 4846' (MESA VERDE)MENEFEE - 4872'POINT LOOKOUT - 5395 GREENHORN - 7338'UPPER NIOBRARA - 6452' LOWER - 6903'PREPARED BY DEAN BARNES DATE: 5-1-7310 3/4" @  
250'4846' →  
CLIFF HOUSE

4872' →

MENEFEE

5395' →  
PT. LOOKOUT  
5585' →EST. CMT. TOP  
@ 6100'

XXXX

6500'

PBTD ?

6610'

6620' SQED. w/

6670' 400 SKS

7352' SQED. w/

7398' 50 SKS

5 1/2" @  
7500'

7725'

40 SKS

7800'

8475'

60 SKS

8625'