30-005-62915

Form 3160-3
(December 1990)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

RECEIVED
OCT 21 1992
OCD
ARTESIA, OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM 88078

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: ---

8. FARM OR LEASE NAME, WELL NO.: Federal A-28 #1

9. API WELL NO.: 30-005-62915

10. FIELD AND POOL, OR WILDCAT: Wildcat Pre-Cambrian

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28, T16S, R17E

12. COUNTY OR PARISH: Chaves

13. STATE: NM

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: J. Cleo Thompson

3. ADDRESS AND TELEPHONE NO.: 325 N. St. Paul Suite 4500, Dallas, TX 75201 214/953-1177

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 610 FNL & 2030 FWL of Sec.
At proposed prod. zone: Same
Ut. C

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 30 miles west of Hope, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	1360	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
---	4700'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5400' Ground Level

22. APPROX. DATE WORK WILL START*: As soon as possible

23. PROPOSED CASING AND CEMENTING PROGRAM [Penasco Wtr. Basin]

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	13 3/8 J-55	54.5	40	See Below CIRCULATE
12 1/4	9 5/8 J-55	36	1200	See Below CIRCULATE
8 3/4	5 1/2 J-55	14	4700	See Below (tieback)

13 3/8" Casing- Set @ about 40' w/rat hole machine & cement to surface w/ready-mix.

9 5/8" Casing- Circulate cement to surface w/245 sks Class C plus 6% gel & 2% calcium chloride & 1/4# flocele/sk. followed by 200 sks class C w/2% calcium chloride.

5 1/2" Casing- Tie-back to 9 5/8" csg by cementing w/700 sks of Premium Plus 50/50 Pozmix A containing 2% gel, 0.5% Halad 322 and 2.5 lbs salt/sk.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Part ID-1
10-30-92
Newbo + API

BUREAU OF LAND MANAGEMENT
RECEIVED
SEP 03 1992
CARLSBAD, N.M.
Carlsbad, New Mexico

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED [signature] TITLE Supt. DATE 9-1-92

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE 10-20-92

*See Instructions On Reverse Side

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
J. Cleo Thompson	Federal A-28	1

Unit Letter	Section	Township	Range	County
C	28	16 South	17 East NMPM	Chaves

Actual Footage Location of Well:
610 feet from the North line and 2030 feet from the West line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
5410	Wildcat	----	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

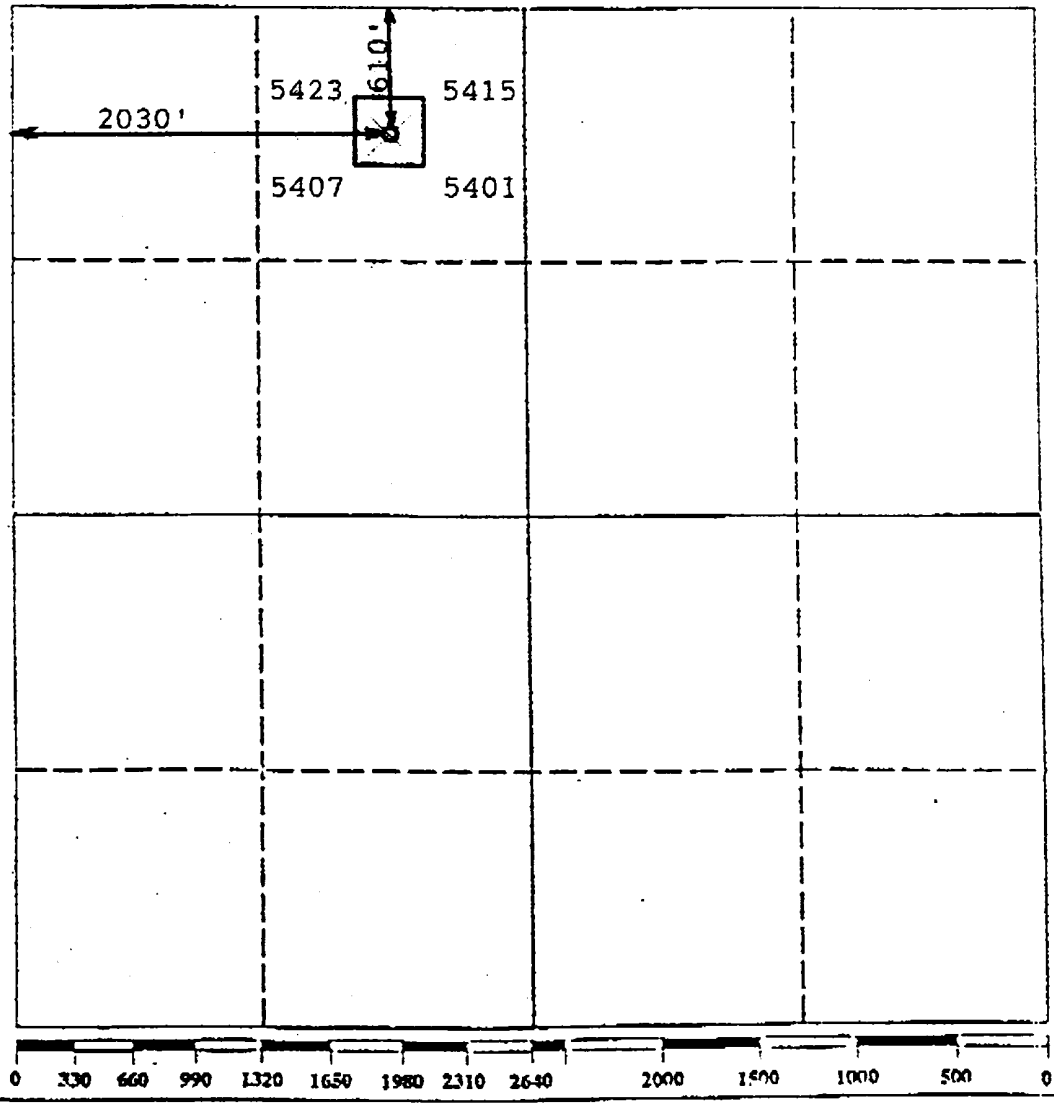
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature

Berry M. Breining

Printed Name

Superintendent

Position

J. Cleo Thompson

Company

9-4-92

Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Sept. 3, 1992

Signature & Seal of Professional Surveyor

P.R. Patterson

Certificate No. 8112

APPLICATION FOR PERMIT TO DRILL
J. CLEO THOMPSON
FEDERAL A-28 WELL #1
Sec.28, T16S, R17E
CHAVES COUNTY, NM

In conjunction with Form 3160-3, Application for Permit to Drill, J. Cleo Thompson submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1&2, and with all other applicable federal and state regulations.

1. The geologic surface formation is of Permian Age.

2. Estimated tops of geologic markers are as follows:

Glorieta	465	Pre Cambrian	4240
Tubb	1615		
Abo	1965		
Fusselman	3790		

3. The estimated depths at which water, oil, or gas formations are expected to be encountered:

* - Water: 160'

** - Oil or gas:	Pennsylvanian	3500
	Fusselman	3790
	Ellenberger	4100

* Groundwater to be protected by 9 5/8" surface casing with cement circulated to the surface.

** Potentially productive horizons to be protected by 5 1/2" production casing with cement tied back to approximately 1200'.

4. Proposed Casing Program: See Form 3160-3 and Exhibit F.

5. Pressure control Equipment: See Exhibit E.

6. Mud Program: See Exhibit G.

7. Auxiliary Equipment: As required and dictated by well conditions.

8. Testing, Logging, and Coring programs: See Exhibit H.

9. Abnormal Pressures, Temperatures, or other hazards:
-Lost circulation is anticipated in the Glorieta & possibly the Fusselman.
-No high pressure zones are anticipated.

10. Anticipated Starting Date: As soon as possible.

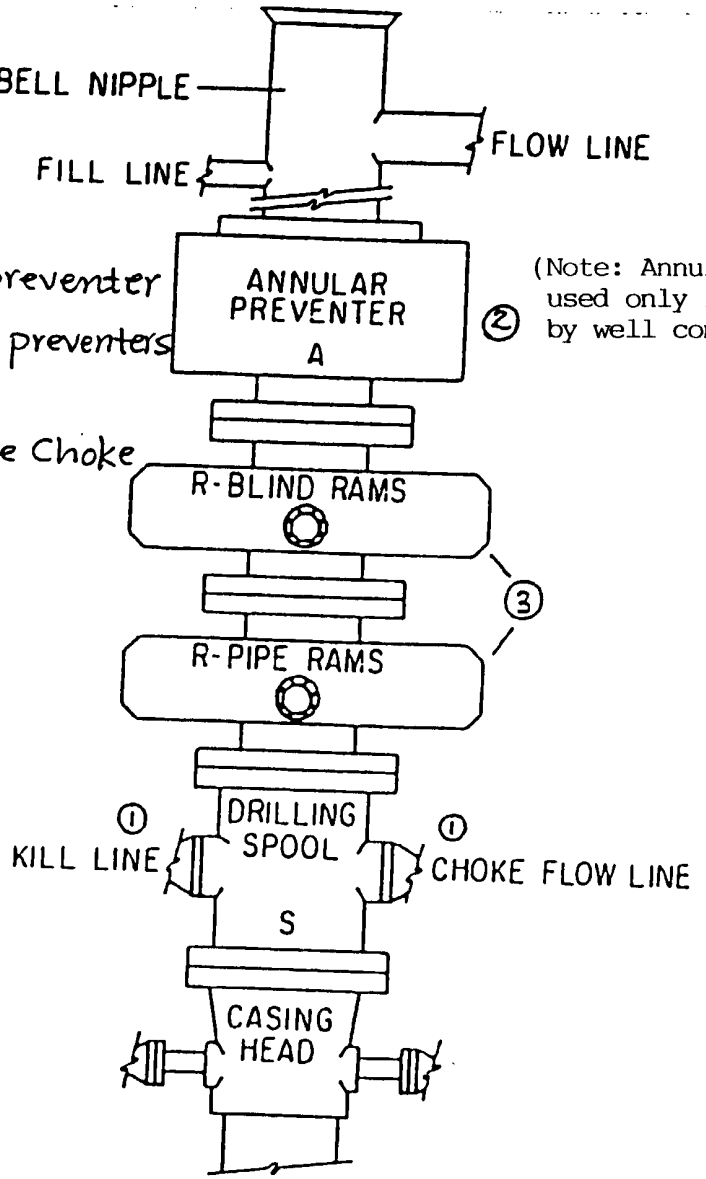
11. All above ground, permanently installed, equipment is to be painted Carlsbad Canyon (Old Sandstone Brown)-Munsell Soil Color chart No. 2.5Y 6/2, to reduce the visual impact of color.

EXHIBIT E

Blowout Preventers & Choke Manifold

J. CLEO THOMPSON
Federal A-28 Well #1
610 FNL & 2030 FWL
Sec. 28, T16S, R17E
Chaves County, NM

① 3" Series 900 Valve
② Series 900 Annular preventer
③ Series 900 Ram-Type preventers
④ 2" series 900 valve
⑤ 2" series 900 Adjustable Choke



3000 PSI
Working Pressure
(Series 900 Flanges)

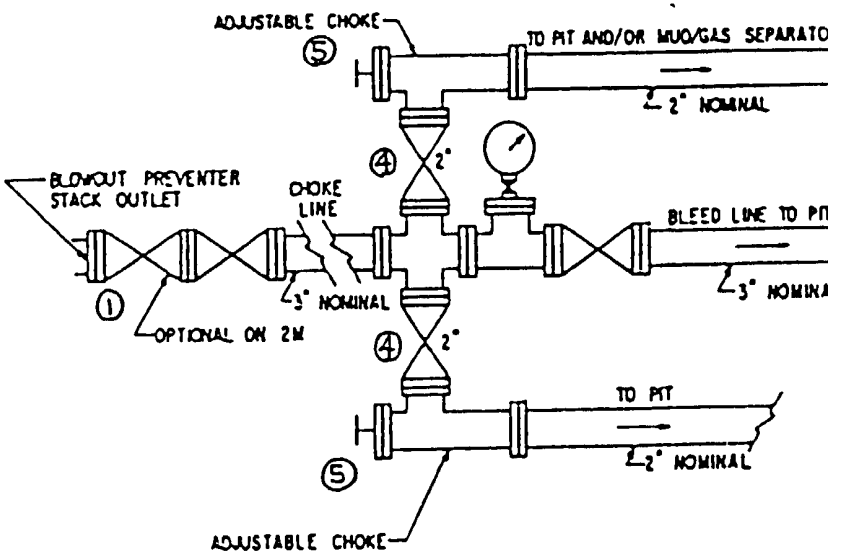


EXHIBIT F
SUMMARY of DRILLING PROGRAM
J. CLEO THOMPSON
FEDERAL A-28 WELL #1
Sec. 28, T16S, R17E
Chaves County, NM

1. Set one jt of 13 3/8" conductor at about 40' with rat hole machine and circulate with ready mix cement.

2. Move in and rig up rotary drilling rig. Drill 12 1/4" hole to 1200' with fresh water gel spud mud.

3. Set 9 5/8" casing at 1200' in Glorieta using regular guide shoe on bottom and insert float on top of bottom joint. Cement with 245 sacks Class C containing 6% gel and 2% calcium chloride and 1/4 lb flocele per sack followed by 200 sacks Class C with 2% calcium chloride. This slurry design includes 100% excess volume and should circulate cement to surface. Thread-Lok will be used on first and second joints in hole and 8 centralizers will be run on bottom joints.

4. Wait on cement 12 hrs while nippling up BOP stack. Test BOPs and 9 5/8" casing to 1000 psi.

5. Drill out cement and drill 8 3/4" hole to TD at about 4700'. A fresh water mud system will be used with controlled water loss of 15cc out from under 9 5/8" casing at 1200' and reduced to about 10 cc before drilling the Abo at 1965'. Mud weight will range from 8.6 to 8.9 ppg. No high pressure zones are anticipated; main problems will be seepage and possible lost circulation. See attached mud program (Exhibit G) and drilling program (Exhibit H) for details. A mud logging unit will be in use from 1200' to TD to help evaluate samples and shows for exact drill stem test intervals.

6. If well is indicated to be a producer, 5 1/2" 14# J-55 casing will be run to TD and cemented with 700 sks of Premium Plus 50/50 Pozmix A containing 2% gel, 0.5% Halad 322 and 2.5 lbs salt/sk. This volume should be sufficient to bring the cement back into the 9 5/8 casing at 1200'. Float shoe and collar and adequate number of centralizers will be used as determined by pay intervals. Cement will be displaced with 2% KCl water.

7. Completion method will be dictated by well logs, samples and drill stem test data.

EXHIBIT G
Federal A-28 Well #1

Date August 26, 1992

Company J. CLEO THOMPSON Location Sec. 28, T-16-S, R-17-E

Well Name Thimble Canyon Prospect County Chaves State New Mexico

CASING PROGRAM

13 3/8" @ 50' (Conductor)

9 5/8" @ 1,200'

4 1/2" or 5 1/2" @ 5,000'±

RECOMMENDED DRILLING FLUIDS PROPERTIES

Depth	Mud Weight	Viscosity	API Filtrate	pH	
0 - 1,200'	8.4-9.0	32-38	NC	10.0	

Drill with Fresh Water Gel (15-20 lb/bbl), Lime (1-2 lb/bbl) spud mud, circulating steel pits. Add Cottonseed Hulls and Cedar Plug for seepage or lost circulation.

1,200' - 5,000'±	8.6-8.9	32-34	15cc	9.5-10.5	

Return to steel pits, treat make-up water with Soda Ash (hardness below 100 mg/l) and Caustic Soda (.3-.5 lb/bbl). Mix Fresh Water Gel (10-12 lb/bbl) for viscosity and Poly Pac (1.0-1.5 lb/bbl) for filtration control. Maintain yield point in the 6-8 lb/100 ft^2 range for optimum hole cleaning and minimal hole erosion.

With property adjustments as dictated by hole conditions, this fluid should provide excellent properties for drilling, testing, logging and casing operations.

EXHIBIT H

J. CLEO THOMPSON
DRILLING PROGRAM
24 August 1992

Lease & Well No.:	Federal A-28 #1
County:	Chaves,NM
Field:	Wildcat/Thimble Canyon Prospect
Location:	2030'FWL & 610'FNL Sec.28 T-16-S, Range 17 East
Elevation:	5,400'
TD/Objective:	Ellenburger (approx. 4,700')
Casing:	1) 13 3/8" @ 40'(circ. cement) 2) 9 5/8" @ 1200' (TOC into 13 3/8") 3) 5 1/2" @ 4700'
Mud:	1) 0' to 40' - Native/Spud 2) 40' to 1200' - Native/Spud 3) 1200' to TD - Fresh 32-34 visc.; 12-15 cc WL
Electric Logs:	1) No logs @ intermediate depth 2) Gamma Ray: TD to surface Neutron/Density: TD to 1200' PE curve: TD to 1200' Micro/Induction: TD to 1200'
Drill Stem Tests:	1) Possible Pennsylvian 3500 2) Possible Fusselman 3790 3) Possible Ellenburger 4240
Cores:	None
Mud Logger's Unit:	from 1200' to TD

jnb
8/24/92

SURFACE USE PLAN
J. CLEO THOMPSON
Federal A-28 Well #1
2030' FWL & 610' FNL
Sec. 28, T16S, R17E
Chaves County, NM

1. EXISTING ROADS - Area map, Exhibit "A", is a reproduction of the U.S.G.S. New Mexico 15 minutes quadrangle. Existing and proposed roads are shown on the exhibit. All roads shall be maintained in a condition equal that which existed prior to the start of construction.

   A. Exhibit "A" shows the proposed development well site as staked.

   B. From Hope, NM go 30 miles west on U.S. Highway 82 to flagged cattle guard on right hand side of highway. Turn right through cattle guard, go approximately 500' north on lease road to location.

2. PLANNED ACCESS ROADS - Approximately 500 l.f. of old access road will be re-built.

   A. The access road will be crowned and ditched to a 12'-00" wide travel surface with a 40' right-of-way.

   B. Gradient on all roads will be less than 5.00%.

   C. No turnouts will be necessary.

   D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.

   E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.

   F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the topography.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS

   A. Water wells - Well for livestock approximately 500' south of proposed location.

   B. Disposal wells - None known.

   C. Drilling wells - None.

   D. Producing wells - None.

   E. Abandoned wells - None.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

A. Exhibit "B" (Scale 1" = 40') shows the proposed well site layout.

B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface conditions encountered during pit construction indicate that lining is needed for lateral containment of fluids.

D. If needed, the reserve pit is to be lined with PVC or polyethylene liner. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'-00" over the reserve pits dikes where the liner will be anchored down.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM

4. If, upon completion, the well is a producer, J. Cleo Thompson, will furnish maps or plats showing On Well Pad facilities and Off Well pad facilities (if needed) on a Sundry Notice before construction of these facilities starts.

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be purchased locally from a private source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "A".

7. METHODS FOR HANDLING WASTE DISPOSAL

A. 1. Drill cuttings will be disposed of in the reserve pit.

2. Trash, waste paper, and garbage will either be contained in a fenced trash trailer or in a trash pit, fenced with mesh wire to prevent wind-scattering during storage. When the rig moves out, all trash and debris left at the site will be contained to prevent scattering and will be buried at least 36" deep within a reasonable period of time.

Burial of refuse on-site is prohibited. SJS

3. Sacked drilling mud remaining after completion of the well will be picked up by the supplier, including broken sacks.

4. Sewage from trailer houses will drain into holes with minimum depth of 10'00". These holes will be covered during drilling and backfilled upon completion. A "porta John" will be provided for the rig crews. This will be properly maintained during the drilling operations and removed upon completion of the well.

5. Chemicals remaining after completion of the well will be stored in the manufacturers containers and picked up by the supplier.

B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site.

standards.

If the well is a dry hole, the pad and road area will be recontoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

11. OTHER INFORMATION

A. The topography is of a rolling terrain with vegetation of scrub juniper and native grass. The soils are sand over caliche base.

B. The surface is used mainly for livestock grazing. It is administered by the BLM and is being leased to Tom E. Runyan, Jr., Hope, New Mexico.

C. Archaeological study is being conducted for the location and new access road. The report will be submitted separately when completed.

D. The only building in the area is a fruit stand next to US Highway 82 which is unoccupied except during fruit harvest time.

12. OPERATOR'S REPRESENTATIVE- field representative for contact regarding compliance with the Surface Use Plan is:

Before and after construction

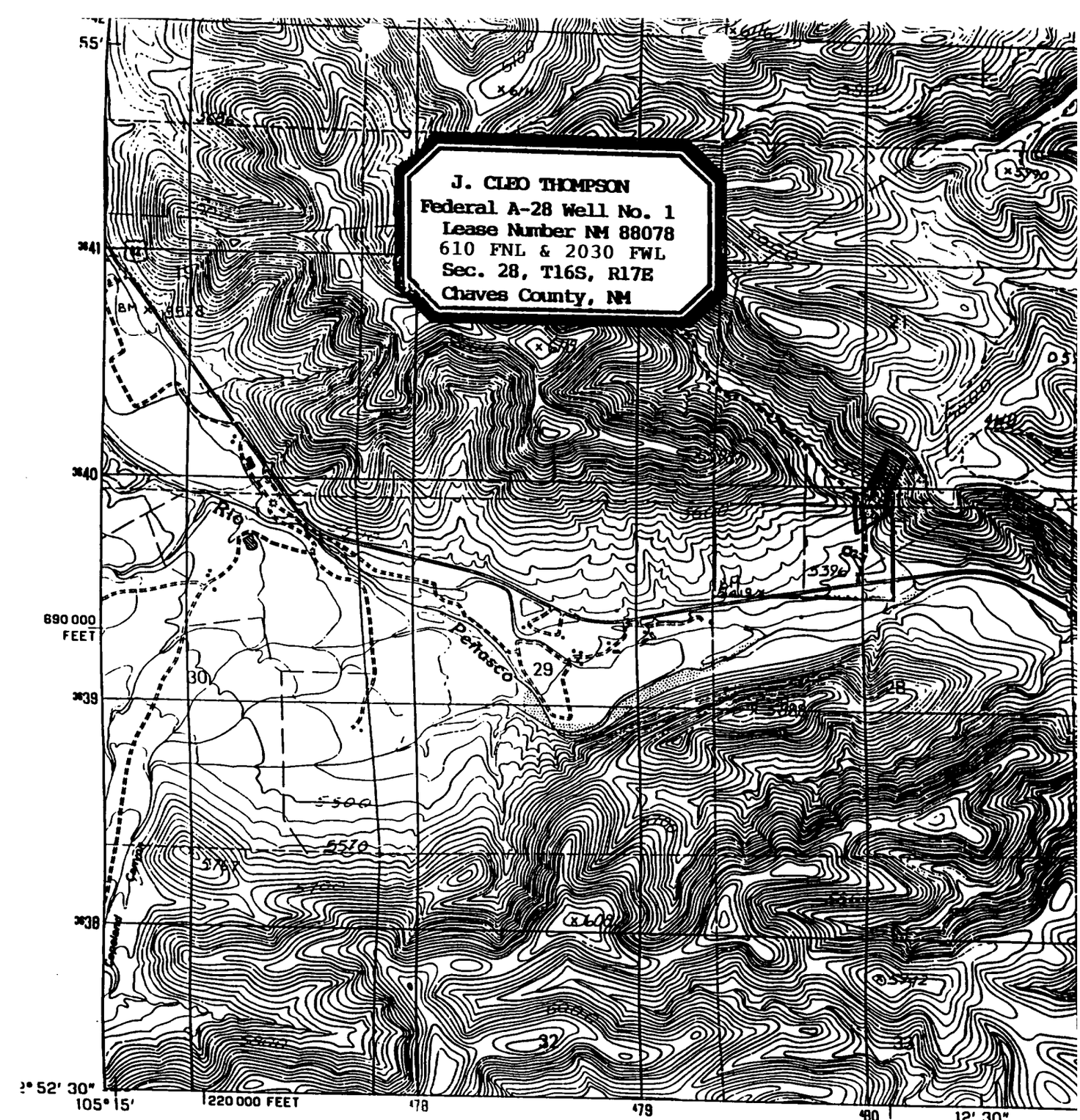
Mr. Amador Pando
Box 186
Loco Hills, NM 88255
(505) 677-2396

13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by J. Cleo Thompson and its contractors/subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

NAME: Berry M. Breining Signed 

DATE: August 31, 1992

TITLE: Superintendent



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS, NOS/NOAA
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1959
FIELD CHECKED 1962
LIMITED REVISION FROM AERIAL PHOTOGRAPHS TAKEN 1982
FIELD CHECKED ..... 1985 MAP EDITED 1989
PROJECTION ..... TRANSVERSE MERCATOR
GRID: 1000-METER UNIVERSAL TRANSVERSE MERCATOR ..... ZONE 13
10,000-FOOT STATE GRID TICKS ..... NEW MEXICO, EAST ZONE
UTM GRID DECLINATION ..... 0°06' WEST
1989 MAGNETIC NORTH DECLINATION ..... 10° EAST
VERTICAL DATUM ..... NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM ..... 1927 NORTH AMERICAN DATUM

To place on the predicted North American Datum of 1983, move the projection lines as shown by dashed corner ticks (7 meters south and 49 meters east)

There may be private inholdings within the boundaries of any Federal and State Reservations shown on this map

Public Land Survey System is shown as published in 1962 and verified or supplemented in 1985

NOTICE OF STAKING

Attachment: A

PROVISIONAL MAP
Produced from original manuscript drawings. Information shown as of date of field check.

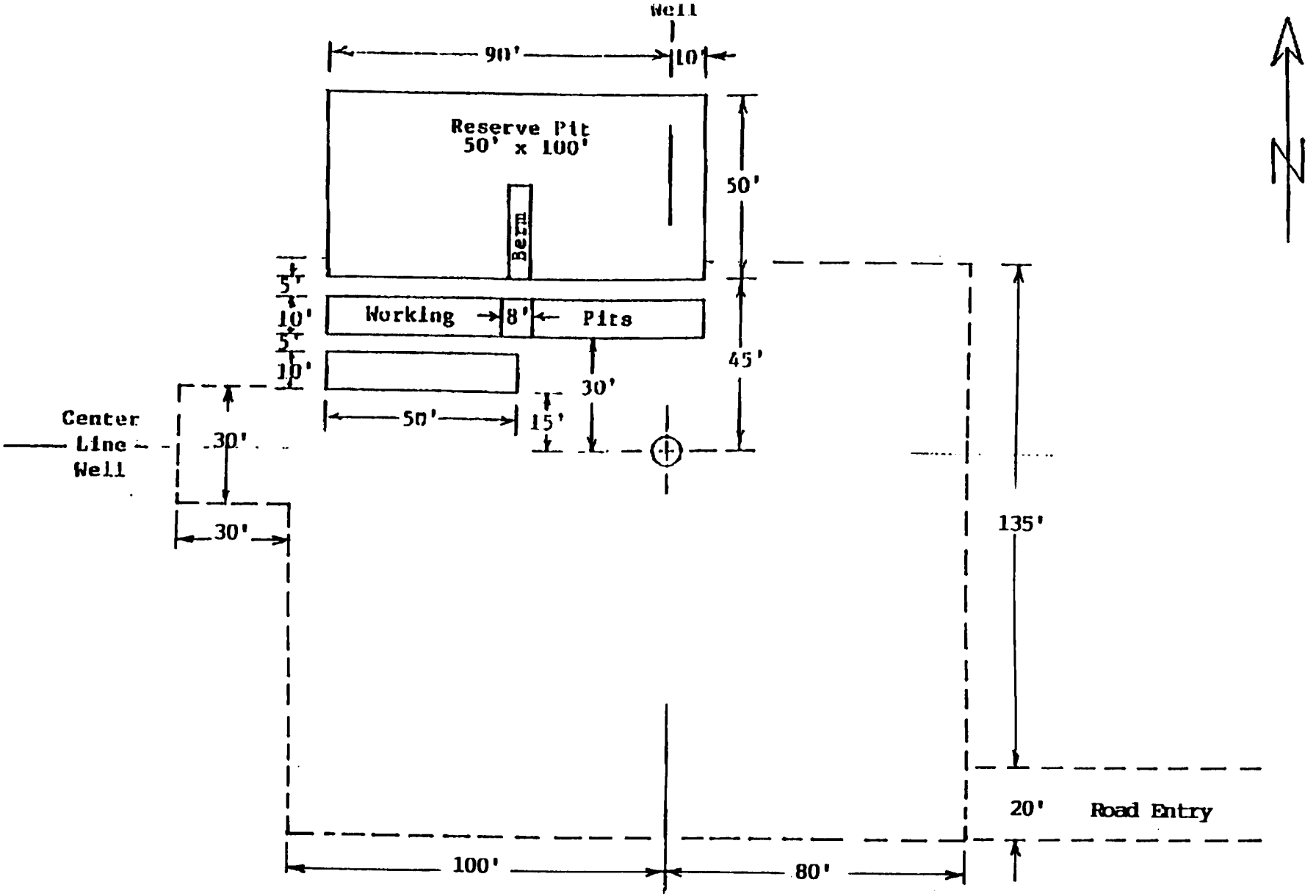
SCALE 1:24 000

1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 .5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10,000
FEET

CONTOUR INTERVAL 20 FEET

To convert feet to meters multiply by .3048
To convert meters to feet multiply by 3.2808

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY



NOTICE OF STAKING

Attachment: B

J. CLEO THOMPSON
Federal A-28 Well No. 1

Well Pad Sketch
August 21, 1992

Scale: 1"=40'