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United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210

December 19, 1978

Beard Oil Company
2000 Classen Center South,
Suite 200
2000 Classen Boulevard
Oklahoma City, Oklahoma 73106

BEARD OIL COMPANY Marcy Federal No. 1 1980 FSL 1980 FWL Sec. 27, T9S, R30E Chaves County Lease No. NM-9209

Above Data Required on Well Sign

Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 10,200 feet to test the Mississippian is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the General Requirements.
3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should be not less than 8" x 5" in size and each page should identify the well.
4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate sandstone brown (Federal Standard Color #595A, color 20318 or 30318).
5. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.
6. A kelly cock will be installed and maintained in operable condition.
7. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- (1) A recording pit level indicator to determine pit volume gains and losses.
- (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
- (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.

Sincerely yours,

(Orig. Sgd.) ALBERT R. STALL

Albert R. Stall
Acting District Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM 9209	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Board Oil Company			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 2000 Classen Center South, Suite 200 2000 Classen Boulevard, Oklahoma City, Oklahoma 73106			8. FARM OR LEASE NAME Marcy Federal.	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1980' FSL and 1980' FWL At proposed prod. zone Same			9. WELL NO. 1	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 12.6 miles east and north of Roswell, N. M.			10. FIELD AND POOL, OR WILDCAT Wildcat	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1980'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 27-T3S-R30E	
16. NO. OF ACRES IN LEASE 1440			12. COUNTY OR PARISH Chaves	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320			13. STATE New Mexico	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None			20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4036.4' GR			22. APPROX. DATE WORK WILL START* As soon as possible after January 1, 1979	

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48# or 54# P10	300'	300 sq regular cement w/2% CaCl, sufficient to circulate
12-1/4" to 1000'	8-5/8"	24# K55	2800'	700 sq lite wt. plus 200 sq regular cement on bottom w/2% CaCl
11" from 1000' to 2800'				
7-7/8"	4-1/2" (or 5-1/2")	11.6# N80 (or 17# K55 and N80)	10200'	Sufficient cement to cover all prospective pay zones plus 500'

Mud program: See reverse.

BOP program: 10" Series 900 hydraulic double ram BOP after setting 8-5/8" casing and Series 900 annular blowout preventer. Operate blind rams on all trips below 1500'. Operate pipe rams each day below 1500'. A kelly cock will be installed and maintained in operable condition at all times.

Gas sales are not dedicated.

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

24.

SIGNED Edward L. Lucking TITLE Agent for Board Oil Company
(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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ARTESIA, NEW MEXICO
DATE 12/5/78

**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 Beard Oil Company		Lease Marcy Federal		Well No. 1
Unit Letter K	Section 27	Township 9 South	Range 30 East	County Chaves
Actual Well Location of Well:				
1980	feet from the South	line and 1980	feet from the West	line
Ground Level Elev. 4066.4	Producing Formation Mississippi	Pool Wildcat	Dedicated Acreage: 320 Acres	

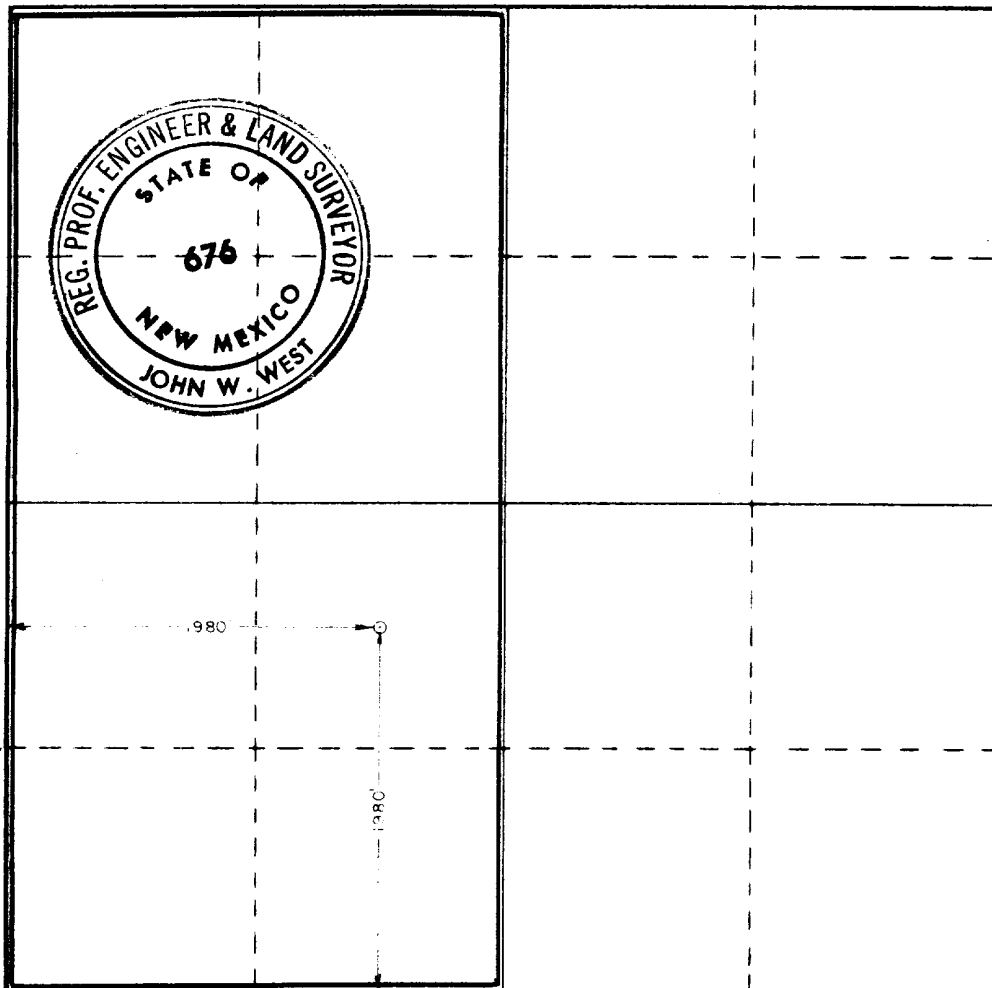
- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests 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 (on 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.

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CERTIFICATION

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

Edward M. Lucking

Name
Edward M. Lucking

Position
Agent for

Company
Beard Oil Company

Date
11/25/78

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
November 16, 1978

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **John W. West 676**
Ronald J. Eidson 3239

APPLICATION FOR DRILLING

Beard Oil Company
Nancy Federal Well No. 1
Section 27-T9S-R30E
Chaves County, New Mexico

In conjunction with Form 9-3313, Application for Permit to Drill subject well, Beard Oil Company submits the following ten items of pertinent information:

1. The geologic surface formation is alluvium and boulder deposits, and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Queen	2270'	Atoka	9250'
Abo Shale	6500'	Atoka Sand	9500'
Wolfcamp	7430'	Mississippi Line	10050'
3. The depths at which anticipated water, oil or gas formations are expected to be encountered:

Water:	No specific data available. Possibly from Triassic formation.		
Oil or gas:	Abo: approximately 6500' to 7430'		
	Wolfcamp: approximately 7430' to 9250'		
	Atoka: approximately 9250' to 10050'		
	Mississippi: approximately 10050' to 10000'		
4. Proposed casing program: See Form 9-3313.
5. Pressure control equipment: See Form 9-3313 and Exhibit B.
6. Mud Program: See Form 9-3313.
7. Auxiliary equipment: Blowout preventer, Inside blowout preventer, Kelly cock.
8. Testing, logging and coring programs:

Logging:	Mud logging equipment will be installed on the well at 6,000'.		
	Open hole logging: Dual Laterolog-SFL from base of intermediate casing to total depth.		
	Gamma Ray Compensated Neutron Density as directed by well site geologist.		
Coring:	No coring is anticipated on this well.		
Samples:	Catch 10' samples from 6000' to total depth.		
Drill stem tests:	Will be taken if shows are encountered and hole conditions permit.		
9. No abnormal pressures or temperatures are anticipated.
10. Anticipated starting date: as soon as possible after January 1, 1979.
Anticipated completion of drilling operations: approximately 45 days after starting date.

MOUNTI-POINT SURFACE USE AND OPERATIONS PLAN

Beard Oil Company
Monte Federal Well No. 1
1020' TSB and 1030' TFL
Section 27-29S-30E
Chaves County, New Mexico
(Exploratory Well)

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This plan is submitted with Form 3-3310, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

- A. Exhibit A is a road map of the area surrounding the wellsite, on a scale of 1/2 inch to a mile, showing in red the existing access roads leading to the proposed location. The wellsite is located approximately 42.6 miles east and north from the intersection of highways 380 and 285 in Roswell, New Mexico (exclusive of the length of the proposed new access road).
 - (1) Proceed east on Highway 380 from the intersection of highways 380 and 285, for a distance of approximately 25.65 miles. At this point, turn left (north) on a dirt road, indicated by several signs including a red and yellow sign reading "Shell Oil Co. - Cato Field."
 - (2) Continue in a generally northbound direction for a distance of approximately 5.5 miles, at which point you will cross a cattle guard with a closed, but not locked, gate. There is a plastic gallon jug hanging from the gate, as a means of identification.
 - (3) Immediately after passing the cattle guard, turn right (east) on an eastbound ranch road running along the north side of a fence, and continue east for about 1.05 miles. En route, you will pass a windmill after about 0.25 miles, and two additional windmills after about another 0.45 miles. About 0.35 miles after passing the two windmills (1.05 miles after entering the ranch road), turn left (north) on another ranch road for a distance of approximately 0.35 miles. The new access road to the location will begin at that point on the right (east) side of the ranch road and is clearly marked with surveyor's ribbons.
- B. The existing ranch road is on ice surface owned by the White Lake Ranch. This road will be improved by blade scraping and the surface will be covered with an appropriate thickness of compacted caliche. The driving surface of the road will be 12 feet in width and the road will be crowned in the center, with drainage on both sides. Turnouts will be constructed at approximately 1/4 mile intervals. No cattle guards or fences are involved.

3. There are several points along the route of the dirt road (Cato road) leading north from Highway 285 which may require repair work in order to make the road satisfactory for the transportation of a drilling rig and for other heavy truck traffic, to and from the proposed location.
2. PLANNED ACCESS ROAD.
 - A. The planned new access road will be built in a generally west-to-east direction, and will be approximately 1240 feet in length. The driving surface will be 12 feet in width. The ground surface over the route of the proposed route is relatively level, with only minor surface undulations. The surface of the road will be covered with six inches of compacted caliche and the center of the road will be crowned, with drainage on both sides of the road. One turnout will be constructed midway in the length of the road. No culverts will be necessary, and no cattle guards or fences are involved.
 - B. The center line of the proposed new road has been staked and flagged, and the route of the road is clearly visible.
3. LOCATION OF EXISTING WELLS.
 - A. Other drilling activity in the vicinity of the proposed well is indicated in Exhibit B. The nearest production is an oil well in Section 32, where there is also a shut-in gas well.
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.
 - A. There are no production facilities on this lease at the present time.
 - B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive of oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.
5. LOCATION AND TYPE OF WATER SUPPLY.
 - A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from privately owned or commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.
6. SOURCE OF CONSTRUCTION MATERIALS.
 - A. Any caliche required for construction of the drilling pad and the new access road, as well as for any resurfacing or repair of the existing access roads, will be obtained either from privately owned sources or from an existing federally-owned pit, and will be hauled to the location over the existing and proposed roads shown in Exhibit A.

7. METHODS OF HANDLING WASTE DISPOSAL.

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted to the USGS for approval.
- D. Oil produced during operations will be collected in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 2 1/2 inches of dirt. All waste materials will be contained to prevent scattering by the wind.
- G. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES.

- A. None required.

9. WELLSITE LAYOUT.

- A. Exhibit C shows the relative location and dimensions of the well pad, reserve pits, and major rig components.
- B. Only minor cut and fill will be necessary to level the drillsite location. It is estimated that a cut of approximately 2 feet will be necessary along the southern and eastern portions of the pad area. The remaining area of the proposed pad is relatively flat, with only minor surface undulations.
- C. The reserve pits will be plastic-lined.
- D. The pad and pit area has been surveyed, staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE.

- A. After finishing drilling and/or completion operations, all equipment and other materials not needed for further operations will be removed. Pits will be filled and the location cleaned of all trash and junk in order to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or

vegetation requirements of the Bureau of Land Management and the U. S. Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. OTHER INFORMATION.

- A. Topography: The proposed wellsite is located in an area which is relatively level, with occasional minor undulations and variations in surface level.
- B. The topsoil at the wellsite is soft sandy loam.
- C. Flora and Fauna: The vegetation cover at the location is sparse, consisting of miscellaneous prairie grass and weeds, mesquite, and shinnery. No wildlife was observed, but it is likely that the area is inhabited by typical semi-arid desert wildlife. The area is used for cattle grazing.
- D. There are no occupied dwellings within several miles of the location. The nearest windmills (two) are located about 1980 feet south and about 1/2 mile west of the drillsite, and there is another windmill about an additional 1/2 mile west of these two.
- E. There are no ponds, lakes, or flowing rivers or streams within several miles of the wellsite.
- F. Surface ownership: The wellsite is on fee land owned by the White Lake Ranch. Minerals are federally owned. An agreement has been reached between Beard Oil Company and the White Lake Ranch concerning surface damages and restoration of the surface, after operations have been completed.
- G. There is no evidence of any significant archeological, historical or cultural sites in the area of the proposed location. An archeological survey has been conducted by the Agency for Conservation Archaeology, Eastern New Mexico University, Portales, New Mexico, and their report has been submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE.

- A. The representative of Beard Oil Company responsible for assuring compliance with the approved surface use plan is:

James W. Vater, Jr.
Vice President - Operations
Beard Oil Company
Suite 200
2000 Classen Center South
2000 Classen Boulevard
Oklahoma City, Oklahoma 73106
Telephone: 405-528-2323 (office)
405-751-4738 (home)

Beard Oil Co.
Marcy Federal #1
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13. CERTIFICATION.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently 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 Beard Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

12/5/78

Date

Edward N. Lucking

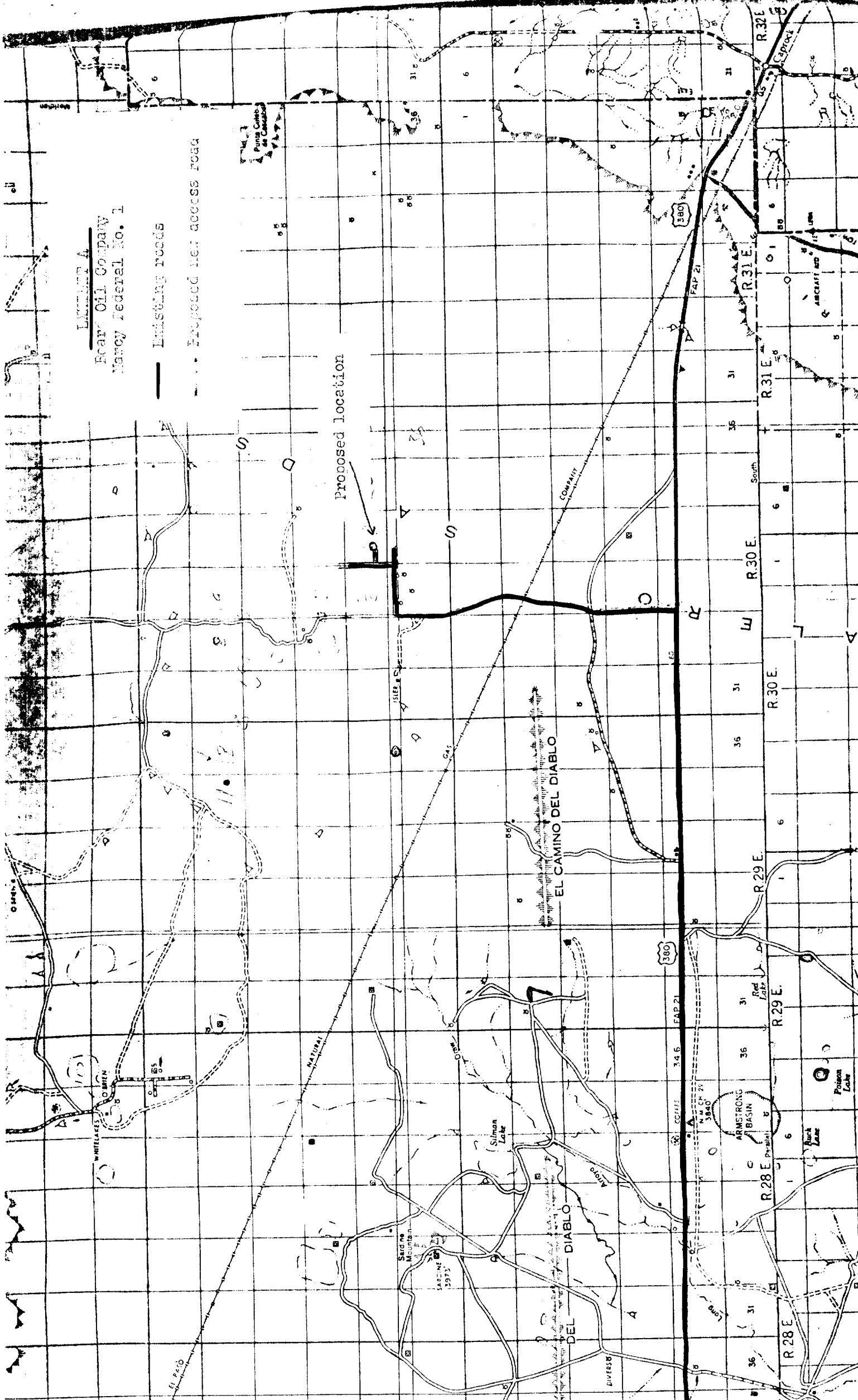
Edward N. Lucking

Agent for Beard Oil Company

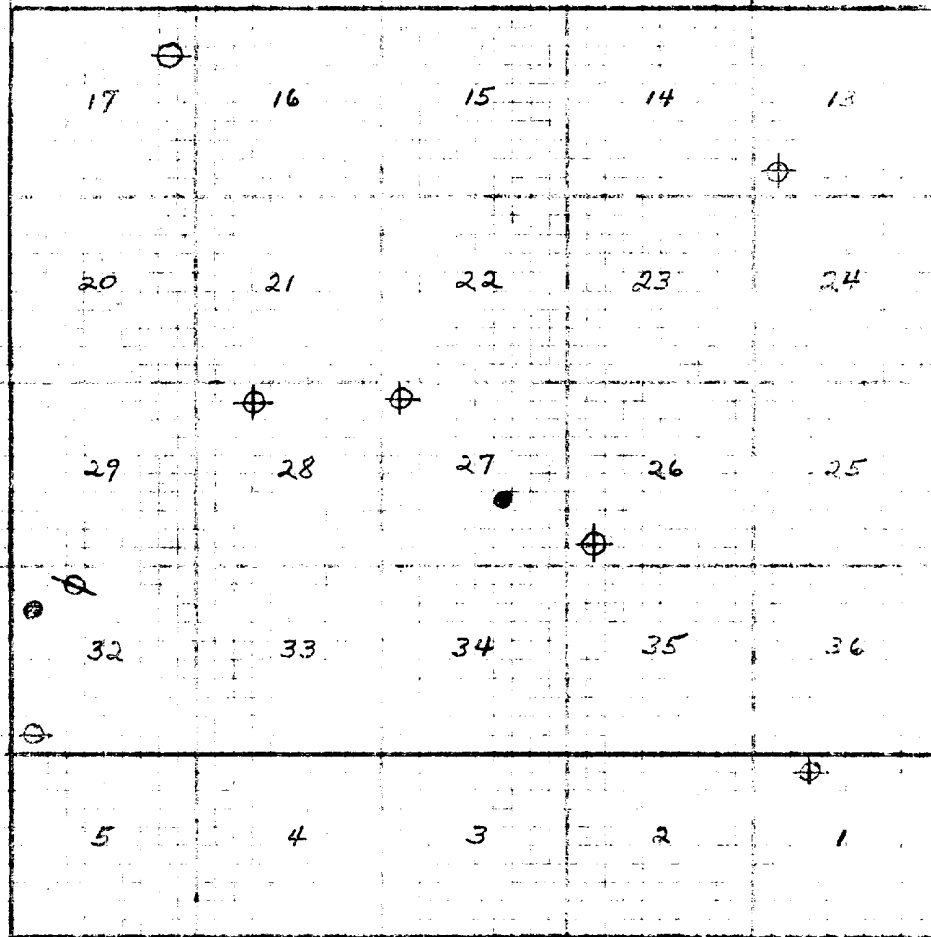
EXHIBIT A
Bears Oil Company
Nancy Federal No. 1

— Existing roads
- - - Proposed new access road

Proposed location



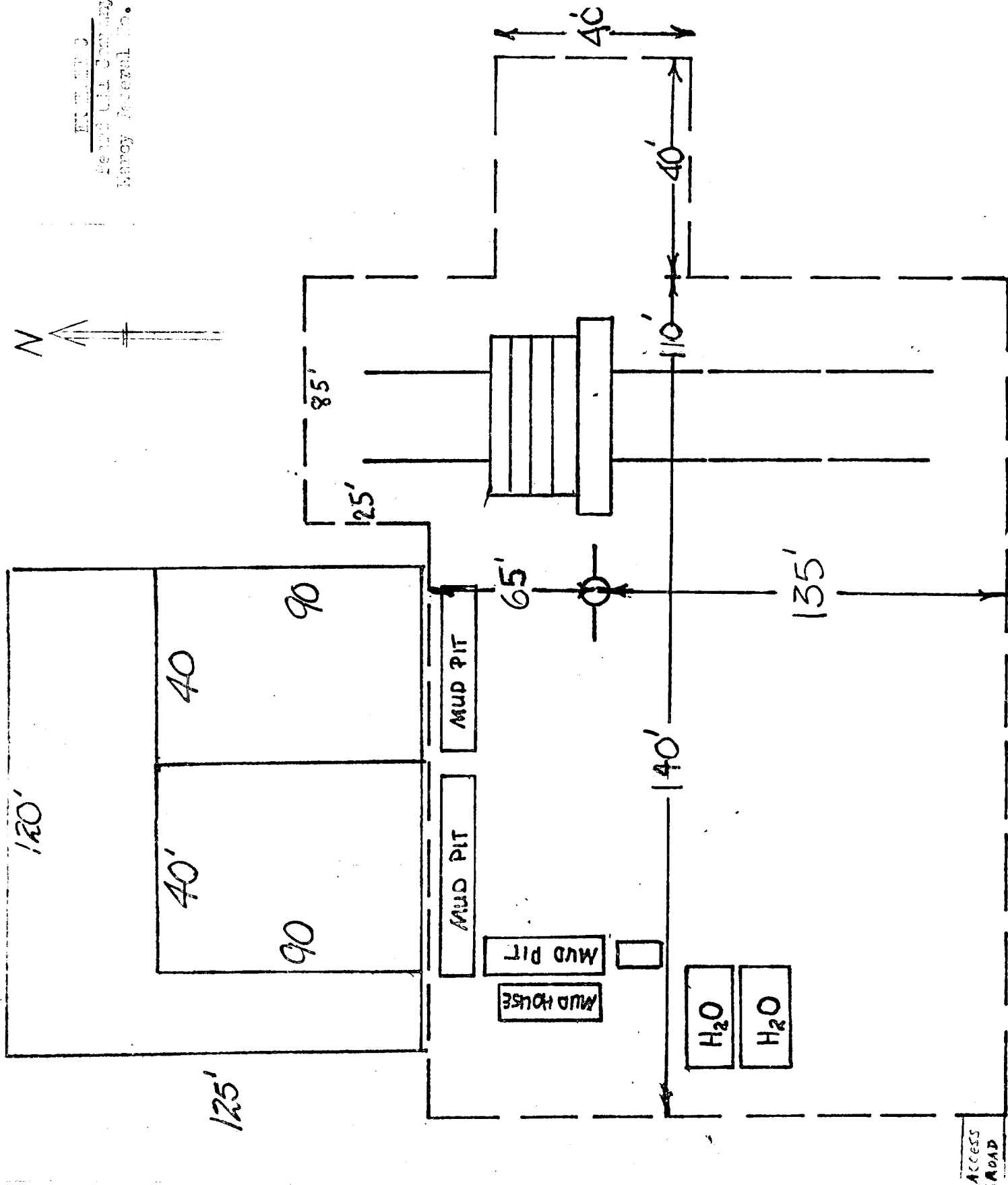
R30E



BEARD OIL COMPANY
 Harco Federal No. 1
 Section 27-T9S-R30E
 Chaves County, N.M.

- ⊕ Abandoned
- ⊙ Salt Water Disposal
- ⊗ Gas Shut-In
- Producing Oil Well
- Proposed location

FIGURE 2
 General Layout
 Survey Section No. 1



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