Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-025-21796

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

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

2. NAME OF OPERATOR: Continental Oil Company

3. ADDRESS OF OPERATOR: Box 460 Hobbs N.M. 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2210' FNL + 990' FEL
At proposed prod. zone: Same.

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.: 12

10. FIELD AND POOL, OR WILDCAT: W. Lindrith Gallup Dakota ext

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 30, T-25N, R-4W.

12. COUNTY OR PARISH: Rio Arriba | 13. STATE: N.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

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: 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH: 7840'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 7021' GR.

22. APPROX. DATE WORK WILL START*: As Soon as Poss.ble

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	New 8 5/8"	24#	1000'	600 SX Circ.
7 7/8"	New 5 1/2"	15.5# + 17#	7840'	1108 SX

IT IS Proposed to drill a straight hole to a total depth of 7840' and complete as a West Lindrith Gallup Dakota oil well.

See attached for B.O.P. Program

See attached Proposed well Plan for formation tops, Logging, etc.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 Wm. A. Butterfield TITLE Admin. Supv. DATE 5-16-78

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Oral

JUN 2 1978

*See Instructions On Reverse Side

11,565 - Durango (6), Gas O. N.M., Exxon, MJL, BEA, F, Log(2).

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

☆ GPO 782-931

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	Lease	Well No.
CONTINENTAL OIL COMPANY	Jicarilla 30	12

Unit Letter	Section	Township	Range	County
H	30	25N	4W	Rio Arriba

Actual Footage Location of Well: 2210 feet from the North line and 990 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
7021	Gallup-Dakota	West Lindrith Gallup-Dakota ~~Ext~~	160 Acres

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

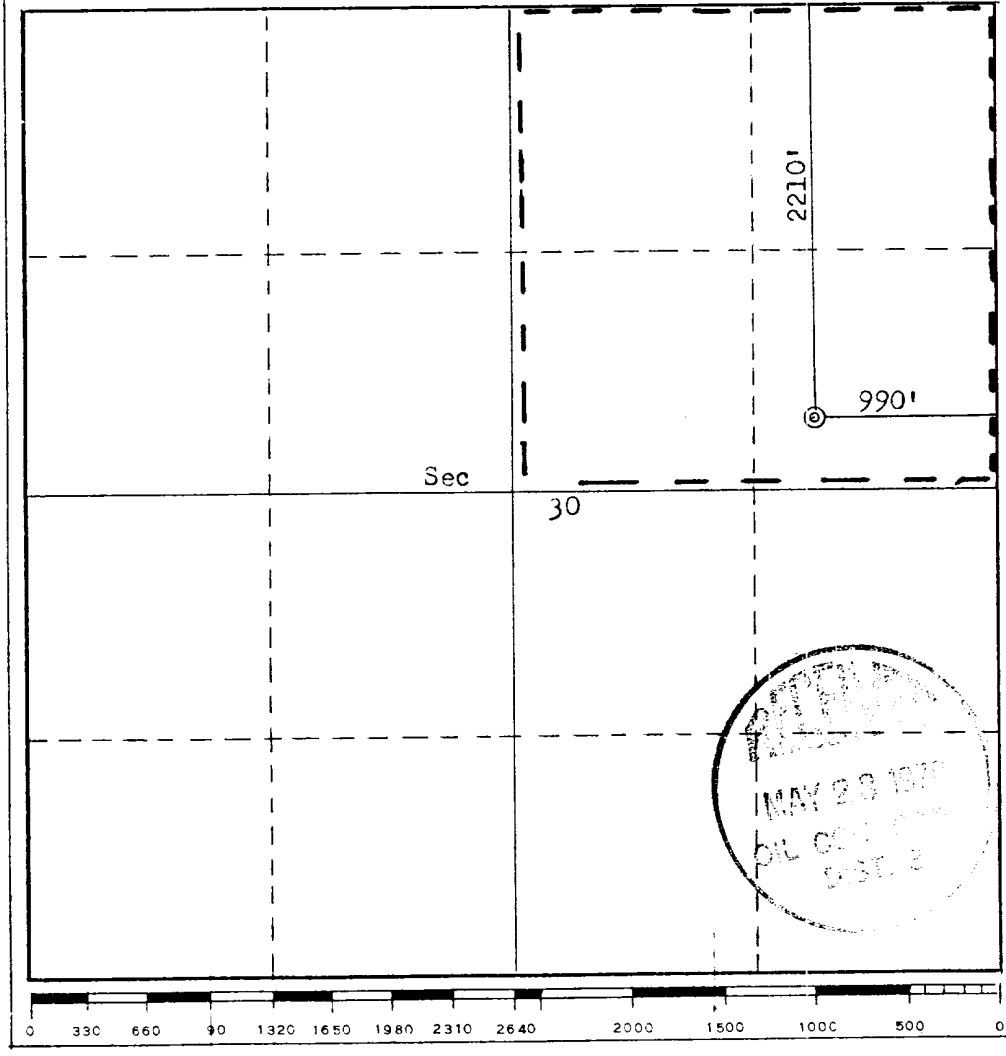
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all 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 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: Wm. A. Butterfield

Position: Admin. Supv.

Company: Continental Oil Co.

Date: May 16, 1978

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: April 15, 1978

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

Certificate No. 3950

REGISTERED LAND SURVEYOR — FRED B. KERR, JR. — NO. 3950

ATTACHMENT TO FORM 9-331 C
APPLICATION FOR PERMIT TO DRILL

Continental Oil Company
Jicarilla 30 Nos. 10, 11, and 12
T-25N, R-4W
Rio Arriba County, New Mexico

1. The geologic name of the surface formation is Quaternary Sand.

2. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan.

3. The estimated depths at which anticipated water, oil, or gas or other mineral-bearing formations to be encountered are shown on attached Proposed Well Plan.

4. The proposed casing program is as follows:

   Surface - new 8 5/8" 24# K-55 set at 1000'
   Production - new 5 1/2" 15.5# and 17# K-55 set at TD

5. A drawing of an API Series 900 Blowout Preventer Specification is attached. Pipe rams and blinds will be checked at 1,000 PSI for 30 minutes when BOP is installed. BOP will be checked when casing string is set and operated daily for checks.

6. The proposed mud program is as follows:

0-1000' spud mud	8.5-9.0 pounds per gallon
1000-TD fresh water gel	8.5-9.0 pounds per gallon

7. The auxiliary equipment to be used is:

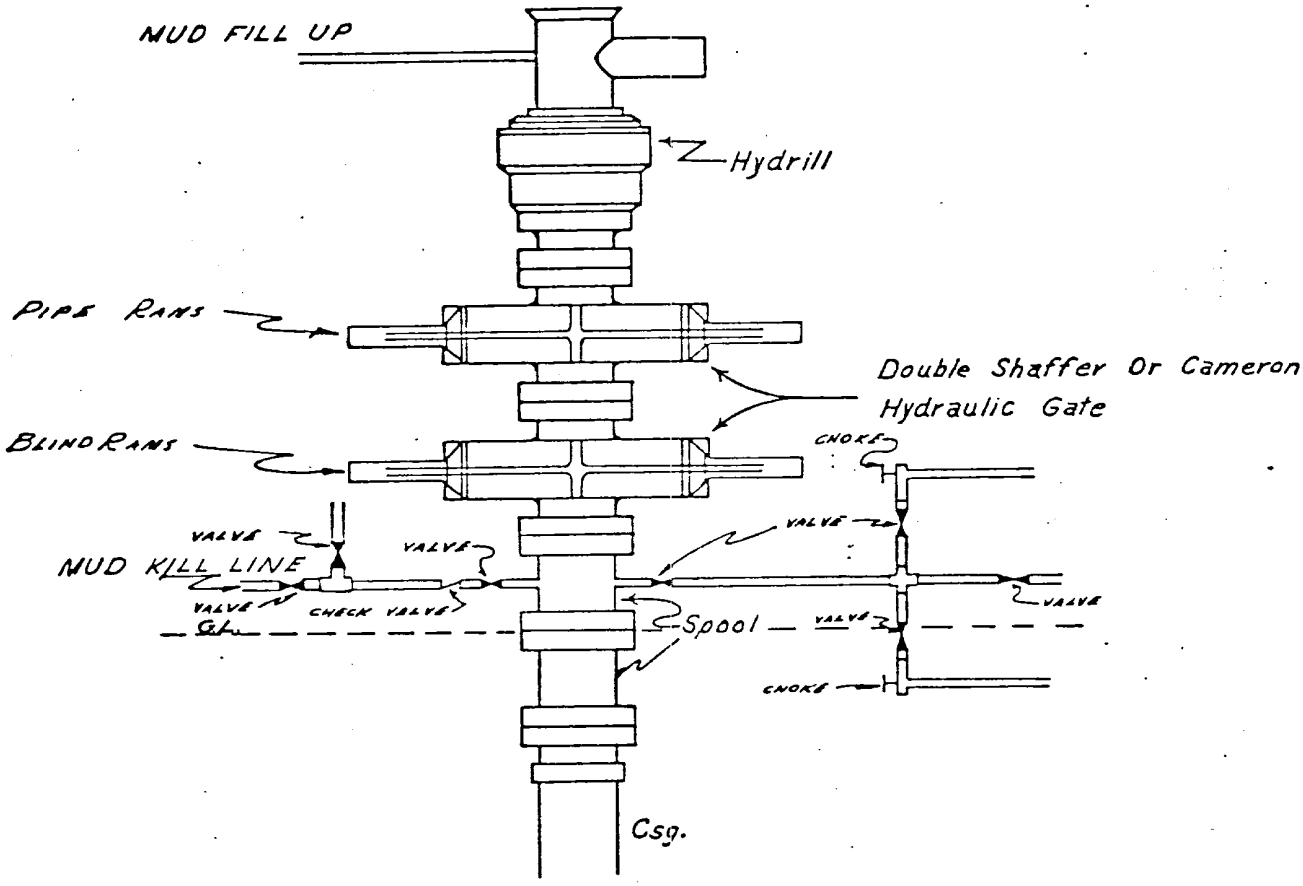
   (1) Kelly cocks
   (2) floats at the bit

8. It is proposed to run SP-IES GR CAL CNL FDC logs from TD to approximately 3000'.

9. No abnormal pressures or temperatures are expected to be encountered in this well.

10. The anticipated starting date for the first well is as soon as possible, with a duration date of approximately 21 days for each well.

CONTINENTAL OIL COMPANY
Blow-out Preventer Specifications



API Series 900

NOTE:

Manual and Hydraulic controls with closing unit no less than 75' from well head. Remote controls on rig floor.

DUE TO SUBSTRUCTURE CLEARANCE, HYDRILL MAY OR MAY NOT BE USED.

Continental Oil Company
Jicarilla "30" No. 12

PROPOSED WELL PLAN OUTLINE

WELL NAME: Jicarilla 30 No. 12 COUNTY: Rio Arriba

LOCATION: 2210' FNL & 990' FEL, Sec 30, T25N, R4W STATE: New Mexico

7036' KB
7021' GL

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE	CASING DEPTH	PRESSURE GRADIENT	FORMATION PRESSURE	MUD WEIGHT	MUD TYPE
1000	Quaternary		Geolograph 0-TD Deflection 0-TD	12 1/4	8 5/8	1000	-	-	8.5 to 9.0	Spud
2000	Ojo Alamo ss 2500 Kirtland sh 2830									
3140	Pictured Cliffs ss 3180		CBL-VDL-GR TD-2900'							
4140	Chacra ss 4020		SP-IES TD-2900' 2" & 5"							
5000	Mesa Verde ss 4820		GR-CAL-CNL-FDC TD-2900' 2" & 5"							
6000	Gallup ss 6570		PDC TD-6300' 5300'-2900'							
7000	Dakota ss 7440 TD 7840			7 7/8	5 1/2	7840	13.0 to 14.0	Less than 8.5	8.5 to 9.0	Fresh Gel Mud (Low Solid
8000										

SURFACE USE PLAN
Continental Oil Company
Jicarilla 30 Nos. 10, 11, & 12
T-25N, R-4W
Rio Arriba County, N. M.

The plan is to accompany "Application for Permit to Drill" the subject well. The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items of this plan.

1. Existing Roads

   A. The proposed well sites are as follows:

      Jicarilla 30 No. 10, 330' FSL and 660' FWL of Section 30
      Jicarilla 30 No. 11, 1650' FNL and 1650' FWL of Section 30
      Jicarilla 30 No. 12, 2210' FNL and 990' FEL of Section 30

   B. Exhibit "A" is a portion of a Jicarilla 30 Lease map showing existing roads and proposed new road and location.

   C. The access roads are shown on Exhibits "A" and "B".

2. Planned Access Roads

   Refer to the attached archaeological report.

3. Location of Existing Wells

   See Exhibit "A".

4. Location of Existing and/or Proposed Facilities

   A. Tank Batteries: Two 400 Bbl. tanks and a production unit will be located on each well site.

   B. Rehabilitation: Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location and rehabilitation of the surface is planned to be completed within 45 days from commencement.

5. Water Supply

   The supply of water will be hauled from Largo Wash (See Exhibit "C").

6. Source of Construction Materials

   Not applicable. Drilling pad to be compacted.

7. Methods for Handling Waste Disposal

Waste Disposal: Well cuttings will be disposed in reserve pit. Trash pit is shown on "Rig Layout", Exhibit "D". All detrimental waste will be buried with a minimum cover of 24" of dirt. See Exhibit "D" for location of pits.

8. Ancillary Facilities

None

9. Well Site Layout

Exhibit "D" shows the relative location of dimensions of the well pad, mud pit, reserve pit, trash barrel, etc.

10. Plans for Restoration of Surface

Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitiation operations will immediately follow removal of drilling and completion equipment from location. Surface will be leveled and properly conditioned as required by USGS after consulting with proper surface managing agency.

11. Other Information

A. Terrain: "A" through "C" refer to the attached archaeological report.

B. Soil:

C. Vegetation:

D. Surface Use: Suitable for grazing.

E. Ponds and Streams: None within one mile.

F. Water Wells: None within one mile.

G. Residences and Buildings: None within one mile.

H. Arroyos, Canyons, Etc: See attached topographic map, Exhibit "B".

I. Well Sign: Sign indentifying and locating well will be maintained at drill site with the spudding of the well.

J. Open Pits: All pits containing mud or other liquids will be fenced.

K. Archaeological Resources: None observed.

12. Operator's Representative

Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

PRODUCTION AND DRILLING

B. E. Anderson
Petroleum Center Building
Room 215
501 Airport Drive
Farmington, New Mexico
Phone: (505) 327-9557

L. P. Thompson
1001 North Turner
Hobbs, New Mexico 88240
Phone: (505) 393-4141

E. L. Oshlo
1001 North Turner
Hobbs, New Mexico 88240
Phone: (505) 393-4141

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 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 Continental Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

May 17, 1975
DATE

E. L. Oshlo
Asst. Div. Mgr.

bnp

Archaeological Clearance Survey Report

for

Continental Oil Company

Locations

Jicarilla 30-12
Jicarilla 30-11
Jicarilla 30-10

Prepared by
Nancy S. Hewett

Submitted by
Meade F. Kemrer, PhD
Principal Investigator
DIVISION OF CONSERVATION ARCHAEOLOGY

Contribution to Anthropology Series, No. 9
San Juan County Archaeological Research Center and Library

May 2, 1978

Introduction

The Division of Conservation Archaeology of the San Juan County Archaeological Research Center and Library has completed an archaeological survey on lands to be impacted by the construction of three oil well pads and associated access roads by Continental Oil Company, Farmington, New Mexico.

The survey project was initiated at the request of Mr. Joe McKinney of Atchison Construction Company on April 15, 1973. It was administered by Mr. B.E. Anderson of Continental Oil Company and by Dr. Meade Kemrer of the Division of Conservation Archaeology.

Legislation enacted by the Congress of the United States requires compliance with laws designed to protect archaeological resources. Laws such as the National Environmental Policy Act of 1969 (91 stat 852) and Executive Order No. 11593 entitled "Protection and Enhancement of the Cultural Environment" prevent enterprises which might result in the destruction or alteration of cultural resources. Federal and State governments and the professional scientific community have come to realize that the material remains of a prior culture are a limited, non-renewable part of the environment. As such, the State of New Mexico has enacted legislation regulating archaeological resources. The Cultural Properties Act is analogous in content to the National Historic Preservation Act of 1966.

The field work was completed by Nancy S. Hewett of the DCA on April 17, 1973 under provisions of a Jicarilla Tribal Resolution passed on February 2, 1973. Present in the field were Mr. Joe McKinney of Atchison Construction Company; Mr. B.E. Anderson of Continental Oil Company; and Mr. Fred Kerr, land surveyor.

Field Procedures

The requested archaeological clearance survey of three oil well pads and their access roads was performed at the location described below. The survey procedure involved walking the proposed impact area in a criss-cross fashion. In addition to the search for prehistoric/historic features and artifacts, data pertaining to the general floral and faunal characteristics of the environmental setting were collected.

Jicarilla 30-12

Legal Description: 2210' F/NL 990' F/EL Section 30 T25N R4W N.M.P.M. Rio Arriba County, New Mexico.

Map Source: U.S.G.S. 7.5' Otero Store Quadrangle

Area Surveyed: 300' x 300' (pad) 700' x 20' (road)

Description: The access road will leave an existing road, cross the head of an arroyo along a pipeline, and turn south across the south flanks of an unnamed canyon draining into Canon de los Ojitos. The

vegetation consists of sagebrush (Artemisia tridentata), scattered juniper (Juniperus sp.) and pinon (Pinus edulis), and grama grass (Boutelova gracilis). The sagebrush is quite dense, and the ground surface was approximately 50% visible. Bordering the south sides of the canyon were steep sandstone cliffs, and on the steeper slopes the vegetation was more dense and included Gambel oak (Quercus gambelii). Sparse fourwing saltbush (atriplex canescens) occur near the arroyo to the north of the well pad. There are existing pipelines to the east and north of the proposed pad area. The soil is a tan sandy clay loam, and there is evidence of cattle grazing in the area.

Cultural Resources: No cultural material was seen.

Recommendation: Archaeological clearance is recommended.

Jicarilla 30-11

Legal Description: 1650' F/NL 1650' F/WL Section 30 T25N R4W N.M.P.M. Rio Arriba County, New Mexico.

Map Source: U.S.G.S. 7.5' Otero Store Quadrangle

Area Surveyed: 300' x 300' (pad) approx. 750' x 20 (road)

Description: The access road leaves an existing graded road on top of Wild Horse Mesa and proceeds west across shale/clay hills to the proposed well pad. The pad is situated on sloping terrain where the vegetation consists of juniper, pinon, mountain mahogany (Cercocarpus montanus), antelope bitterbrush (Purshia tridentata), broad and narrow leaf yucca (Yucca baccata and Y. angustissima), sagebrush and various herbs. The soil is a brown sandy clay loam. There is evidence of deer and grazing by domestic stock in the area.

Cultural Resources: One small Jemez obsidian waste flake was found on the well pad area. No other features/artifacts were noted during a more intensive search of the area. The paucity of artifacts in this environmental setting suggests a cultural exploitation pattern of limited resource usage, possibly food collecting activities, and this artifact is most likely associated with this class of activity since no other features were noted. The flake did not possess sufficient diagnostic attributes for temporal or cultural identification.

Recommendation: By virture of the fact that prehistoric usage of the proposed well site area is represented by a single flake, and that no further cultural evidence was found, it would appear that the archaeologically relevent research potential of the zone to be impacted is low. Therefore archaeological clearance is recommended.

Jicarilla 30-10

Legal Description: 330' F/SL 660' F/WL Section 30 T25N R4W N.M.P.M. Rio Arriba County, New Mexico.

Map Source: U.S.G.S. 7.5' Otero Store Quadrangle

Area Surveyed: 300' x 300' (pad) approx. 3200' x 20' (road)

Description: The access road begins at an existing well pad in the SE¼ of NW¼ of Section 31 to the south of the proposed well, and runs generally northwest and then west to the new pad. The terrain is rolling and broken by several drainages. Closer to the well sandstone and shale outcrops occur. The vegetation is mixed, and consists of large areas of open sagebrush, juniper, pinon and narrow leaf yucca. The well pad is staked on the lower talus slopes of southwest-facing sandstone cliffs. The terrain drains to the west by several drainages. The soil is a tan sandy clay loam, and there is evidence of deer and grazing.

Cultural Resources: No cultural material was located.

Recommendation: Archaeological clearance is recommended.

Brief Culture History of the Area

The proposed construction will take place in an archaeologically rich area, although no major prehistoric or historic sites were located during this survey. Wild Horse Mesa is a major topographic feature on the southern portion of the Jicarilla Apache Indian Reservation. Its rugged slopes and mesa tops support a woodlands vegetation which hosts both faunal and floral resources important to prehistoric inhabitants. The wide broad valleys surrounding the erosional remnant of sandstone bedrock which comprises Wild Horse Mesa are suitable for floodwater farming, and also support large populations of small game and different flora than the higher terrain.

A brief search of previously recorded sites reveal two principal foci of prehistoric and early historic occupation: The Rosa and Gallina phases of the Anasazi period, and the Dinetah and Gobernador phases of the Navajo period.

Paleo Indian Period

While the known archaeological sites in this area do not include any evidence dating to this early period of man's habitation, it is known that man was present in the Southwest as early as 10,000 years ago. Surface finds of Folsom points and hearth material in the red sands of the Altithermal Period indicate the presence of man near Navajo Dam, in the area of Shiprock, and near the major drainage of Gallegos Wash south of Farmington (Hewett 1977:69). A basic item of subsistence was now-extinct bison and other large game animals. During his early occupation of the Southwest, man was principally a big game hunter and appeared to be largely nomadic.

Archaic

This period showed remarkable stability in man's life style, and can be characterized by a full exploitation of the environment rather than a single focus subsistence base. The Archaic can be understood as a richer, more technologically sophisticated and much more versitile culture than the Paleo Indian. Archaic sites are found in areas of diverse flora, particular caves and rock shelters, lake shores and level ground near streams and springs (Hewett 1977:69). In the Navajo Reservoir District, these sites are rather sparse and are situated on high terrain away from the permanent streams and there is the suggestion that mesa tops and canyon slope resources in the juniper-pinon woodlands were more important than those of the floodplain (Dittert 1961:205-207). No sites of this time period are known to occur in the project area.

Anasazi

Three of the archaeological sites in the vicinity of the proposed wells are affiliated with this period which begins about A.D. 1. Early evidence of a change in resource pattern begins in the late Archaic with the introduction of corn and squash. Shortly after A.D. 1, beans were added as an agricultural item. Somewhat later in time ceramics were introduced. Sites were larger and the pithouse became a common form of dwelling. Also added to the cultural inventory was the domesticated turkey, the bow and arrow and polished grooved axes (Willey 1966:203). At about A.D. 700 surface dwellings became more popular as dwellings, apparently in response to an increase in population and the desire to place living quarters close together. Surface units containing a dozen or more rooms were usually constructed in the form of a wide crescent which opened to the southeast and fronted by a subsurface kiva. Pottery increased in sophistication, and cotton which was woven into fabrics was added during the early Anasazi period. During the remainder of the cultural period, the basic cultural inventory remained similar to the early innovations and introductions. The Pueblo III period was marked by the rise of large towns and a dependence upon agricultural items. The major ruins in the San Juan River Valley drainages date from this period which was followed by abandonment to the south at about A.D. 1300.

In the wider area of the proposed oil well activity, nearly half of the recorded archaeological sites date to the Rosa phase of the Anasazi periods, dated by Eddy (1966:484) from A.D. 700-850 in the Navajo District to the north of the Jicarilla Reservation. In this northern area, the Rosa phase is marked by a population increase, a typical settlement pattern of a pithouse and associated surface structures, a hard, fired grey pottery, and painted decorations. Multiple unit villages have been identified with the time period of the Rosa phase, and the use of rock shelters is also documented in the Navajo District (Dittert 1961:223). Rosa phase settlements are typically found on river terraces and benches (Eddy 1966:487)

where there was easy access to farmlands on the floodplain. One known Gallina site, SJC-162, is situated near the middle of Section 30 and is now dissected by a road built at least 30 years ago. It consists of one pithouse exposed by the road cut, two possible pithouses, a rubble mound and an artifact scatter/hearth area. The rubble mound may be a tower which is often identified with Gallina sites. The cultural identification is based on ceramic wares. In the more northern Gobernador District, the Largo-Gallina phase is dated ca. A.D. 1100-1300.

Navajo Period

While the entry dates into the Southwest for the Athabaskan speaking people is somewhat obscure, the earliest sites identified by tree ring chronology are located in the Gobernador area shortly after A.D. 1500. Following the Spanish reconquest of the Southwest, many Puebloan refugees from the Rio Grande area fled northward to live with the Athabaskans. This phase evidences a cultural florescence and combines many traits from both Navajo and Pueblo cultures. Pressure from raiding Utes from the north, drought conditions, and Spanish influence led to the withdrawal of the Navajo people to their present reservation area (Brugge 1972:1).

The Navajo period sites located in the vicinity of the project area are principally hearths, lithic and ceramic concentrations which probably represent seasonal hunting/gathering camps. On Wild Horse Mesa these sites are most often situated on high ridge tops. Stone masonry structures found in other sites are located on boulder tops and are associated with froked stick hogans on more level terrain near the top of the mesa. Ceramic wares include Dinetah Utility and various painted polychromes and Puebloan trade wares.

References Cited

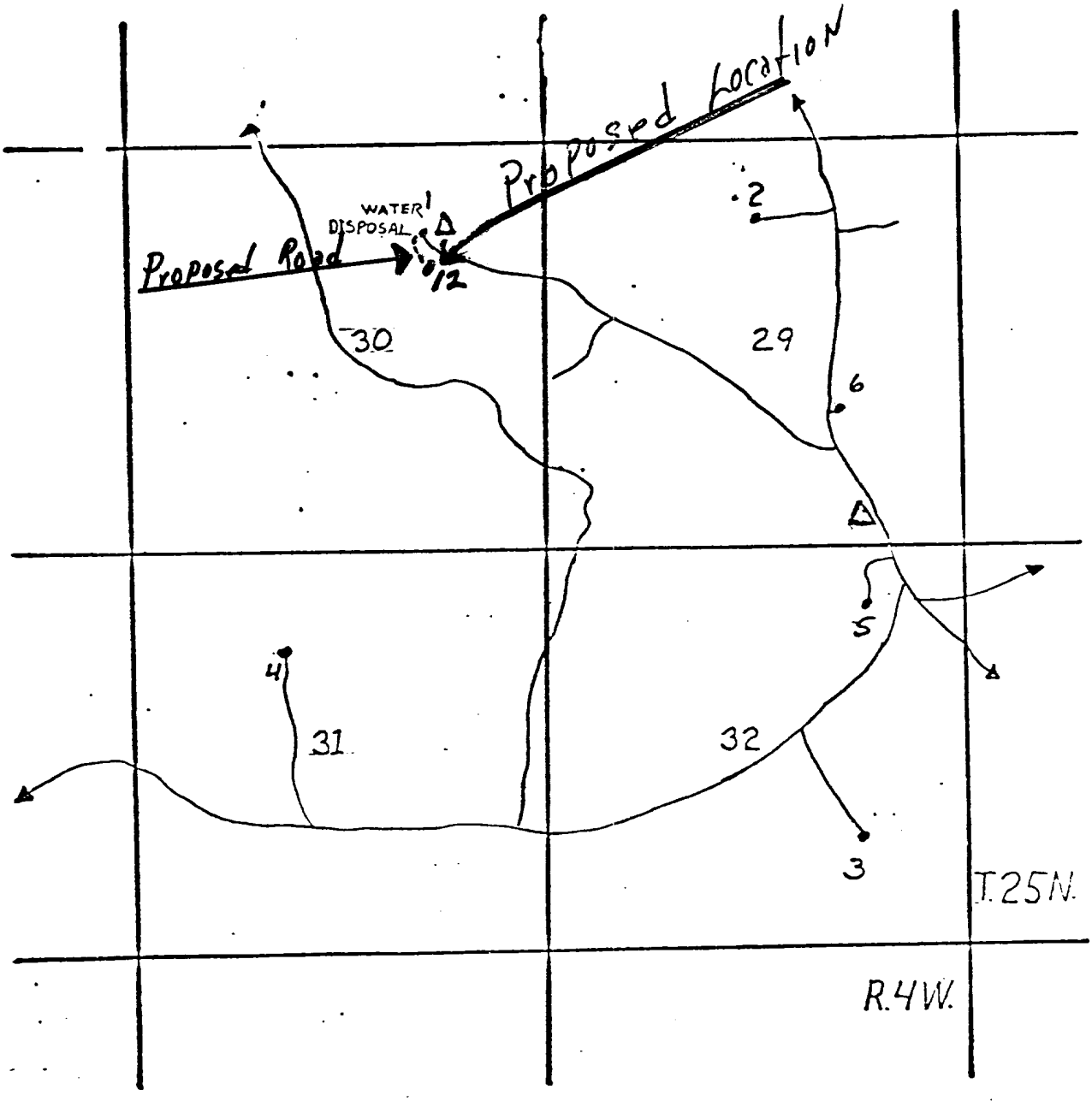
Brugge, David
1972 The Navajo exodus. Archaeological Society of New Mexico, Supplement No. 5.

Ditterty, Alfred E., Jr., Jim J. Hester, Frank W. Eddy
1961 An Archaeological survey of the Navajo Reservoir District, northwestern New Mexico. Monograph No. 23, School of American Research and the Museum of New Mexico, Santa Fe.

Eddy, Frank W.
1966 Prehistory in the Navajo Reservoir District, Northwestern New Mexico. Papers in Anthropology No. 15, Museum of New Mexico.

Hewett, Nancy S.
1977 The prehistory of the San Juan Basin. New Mexico Geological Society Guidebook, 28th Field Conference, San Juan Basin III

Willey, Gordon W.
1966 Introduction to American Archaeology, Vol. 1, North and Middle America, Prentic Hall.



CONOCO

PRODUCTION DEPT. HOBBS DIV.

JICARILLA "30" LEASE

Well No. 12

LEGEND

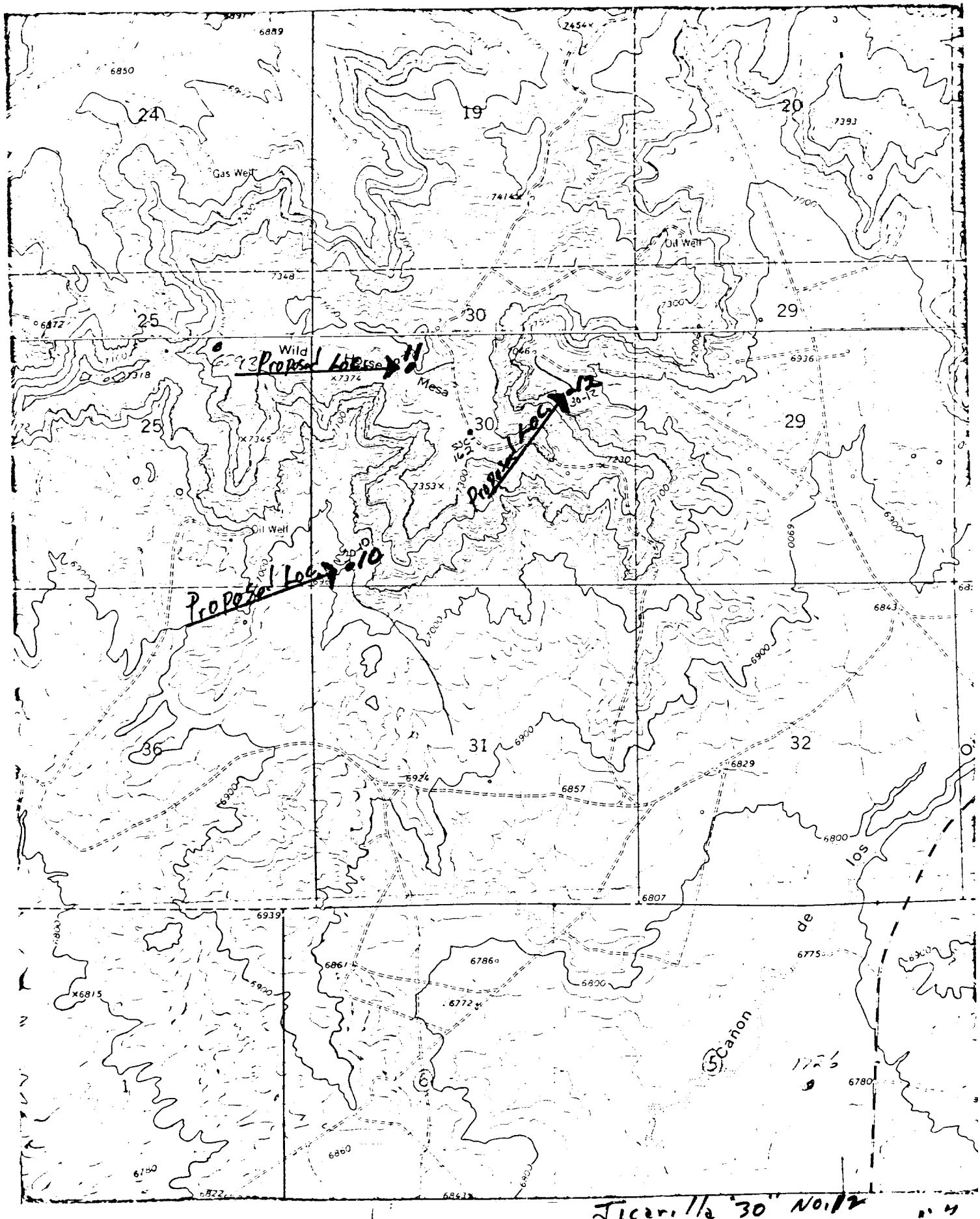
- CONOCO WELL
- TANK BATTERY
- LEASE ROAD
- HWY.

EXHIBIT "A"

NTS

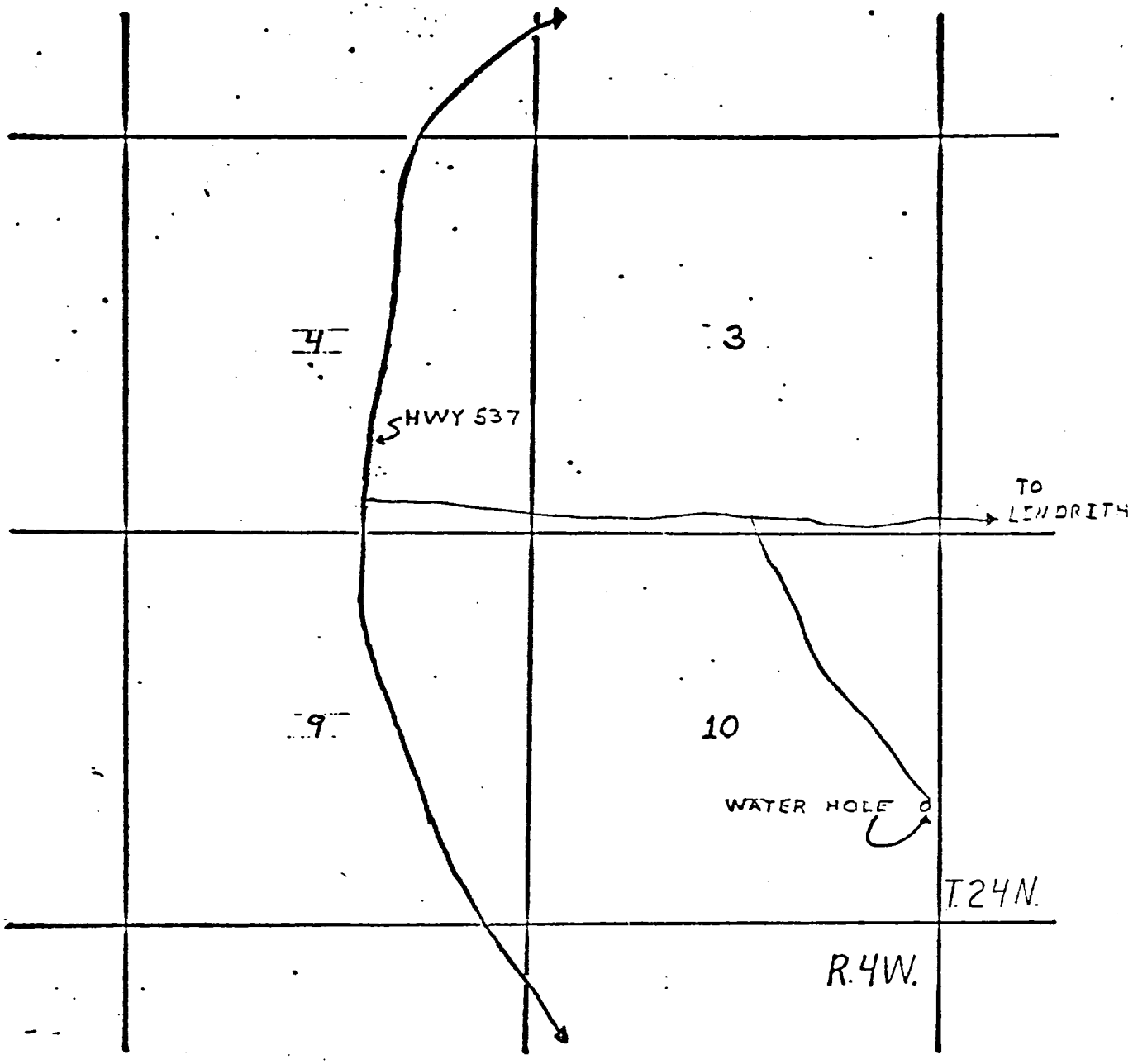
CHAVEZ

Lapis Point



Jicarilla "30" No. 12
EXHIBIT "A"

Otero Stone



CONOCO

PRODUCTION DEPT. HOBBS DIV.

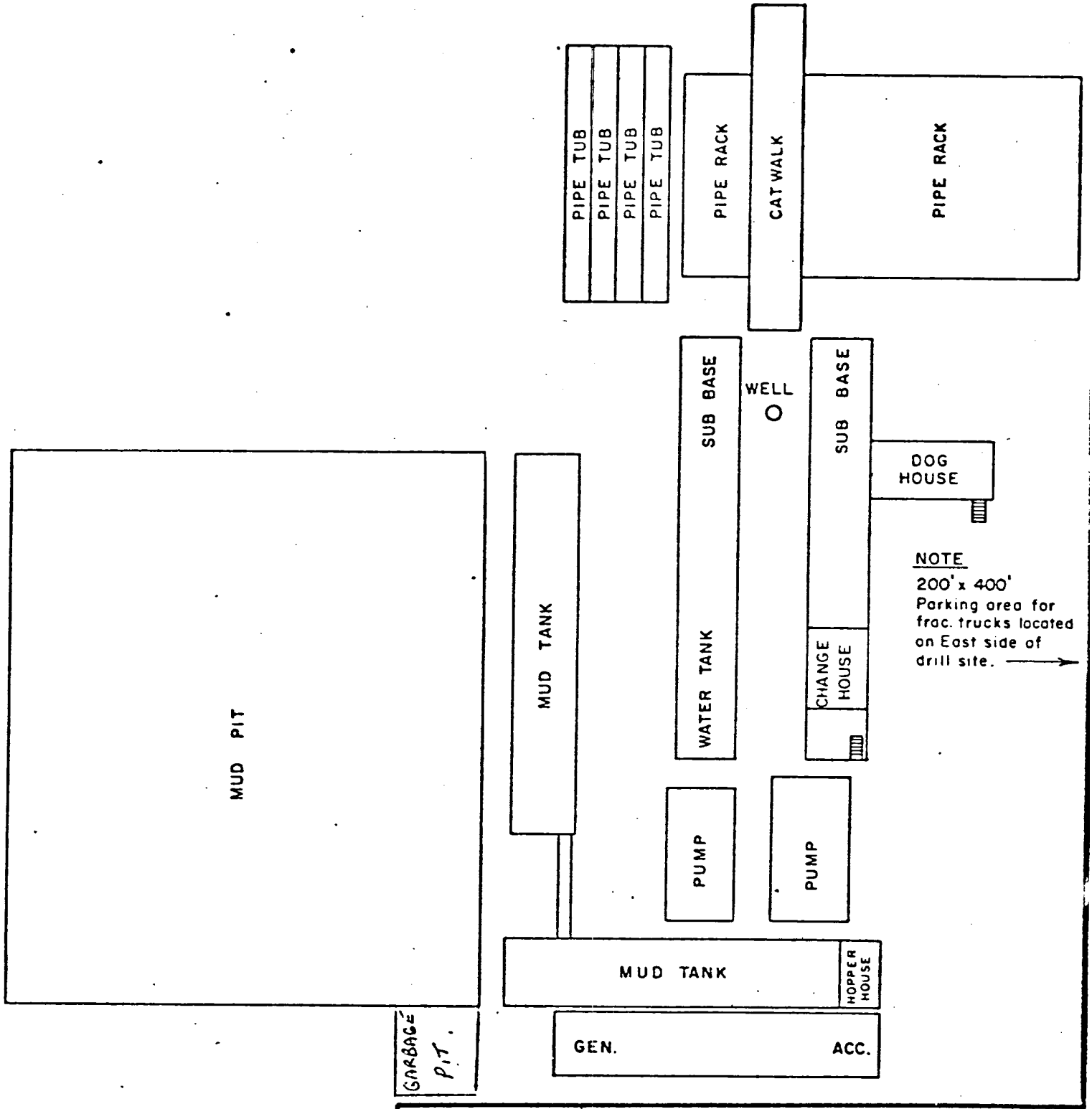
LARGO WATER HOLE

LEGEND

- CONOCO WELL
- TANK BATTERY
- LEASE ROAD
- HWY.

EXHIBIT "C"

NTS



APPROX. RIG SITE DIMENSIONS
160' x 200'

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT

RIG LAYOUT

Jicarilla "30" No. 12 EXHIBIT "D"

Engineer: [redacted] Draftsman: [redacted]