

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

McKay Oil Corporation

3. ADDRESS OF OPERATOR

P.O. Box 2014, Roswell, NM 88202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

430 FWL - 806 FSL

At proposed prod. zone

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

33 Miles Northeast of Roswell

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

430'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

1,579'

16. NO. OF ACRES IN LEASE

1,800.0

17. NO. OF ACRES ASSIGNED TO THIS WELL

160.0

19. PROPOSED DEPTH

3,400'

20. ROTARY OR CABLE TOOLS

Rotary

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

4,258'

22. APPROX. DATE WORK WILL START*

December 31, 1990

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24.0 J-55	900±	850 cf cement circulated
7 7/8	4 1/2"	9.5 J-55	TD	1200 cf cement including 480 cf to tie in 4 1/2" to 8 5/8" from 1500' to 800'

We propose to drill and test the Abo formation. Approximately 900' of surface casing will be set and cemented to surface. If commercial, 4 1/2" production casing will be run and cemented with adequate cover, perforated and stimulated as needed for production.

MUD PROGRAM: See supplemental Drilling Data which is attached.

BOP PROGRAM: BOP will be installed on 8 5/8" casing and tested daily.

Gas is not dedicated.

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

TITLE Agent

DATE 12-17-90

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY [s] Sandra L. Porenta

TITLE

Area Manager

DATE

1-14-91

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-79

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

Operator McKay Oil Corp.			Lease McKay Federal			Well No. #4		
Unit Letter M	Section 27	Township 5 South	Range 21 East	County Chaves				
Actual Postage Location of Well: 430 feet from the West line and 806 feet from the South line								
Ground Level Elev. 4258	Producing Formation Abo		Pool W. Pecos Slope Abo		Dedicated Acreage: 160.0 Acres			

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.) _____

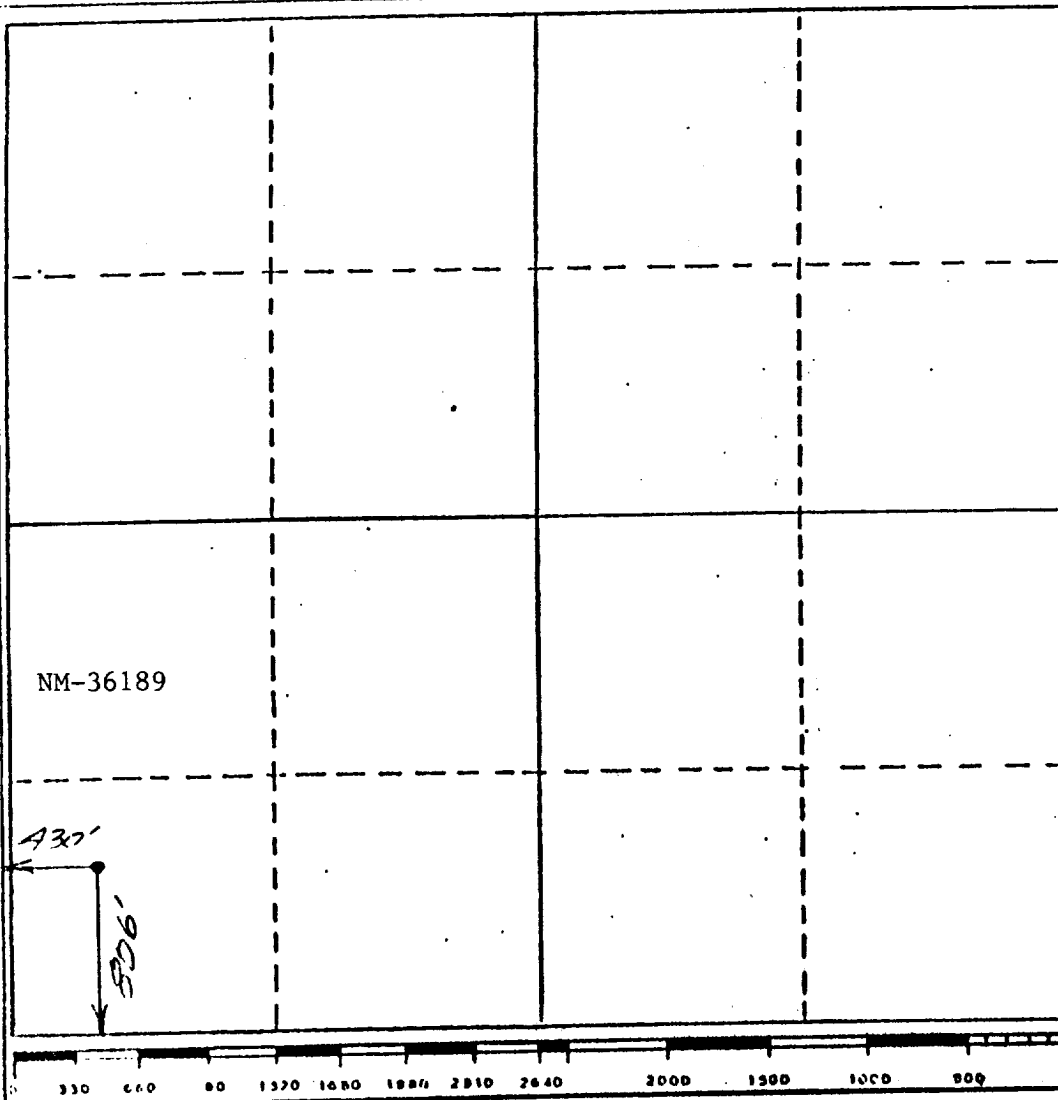
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.

CERTIFICATION

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

Name
Sam L. ShackelfordPosition
AgentCompany
McKay Oil Corp.Date
12-17-90

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.

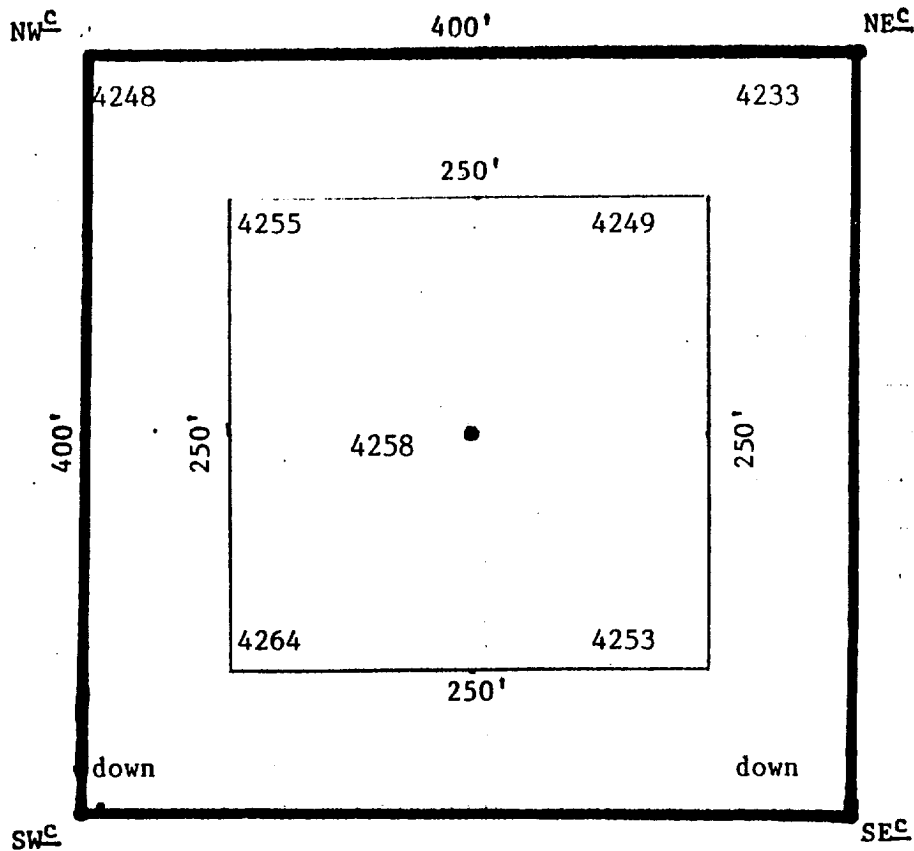
Date Surveyed
12-17-90
Registered Professional Engineer
on or before 12-17-90
John D. Shackelford, P.E. & L.S.
Certification No. 68080

BK 12 1314

JOHN D. JAC SS
CONSULTING ENGINEER
Suite 327 J.P. White Building
ROSWELL, NEW MEXICO 88201
(505) 622-8866

JOB _____
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

McKAY FED. #4
430 FWL, 806 FSL
SEC. 27-5-21



PERTINENT INFORMATION

For

McKAY OIL CORPORATION
McKay Federal No. 4
SW/4SW/4 Sec. 27-5S-21E
Chaves County, N. M.

<u>LOCATED:</u>	32 air miles north of Roswell, New Mexico
<u>LEASE NUMBER:</u>	NM 36189
<u>LEASE ISSUED:</u>	May 1, 1981
<u>RECORD LESSEE:</u>	McKay Oil Corporation McKay Children's Trust
<u>BOND COVERAGE:</u>	Lessee's \$25,000.00 Statewide
<u>ACRES IN LEASE:</u>	1,800.00
<u>SURFACE OWNERSHIP:</u>	Private
<u>OWNER:</u>	Bud Epper
<u>POOL RULES:</u>	General Statewide Rules
<u>EXHIBITS:</u>	A. Road and Well Map B. Contour Map C. Rig Layout D. BOP Diagram E. Lease Map F. Location Topography

SUPPLEMENTAL DRILLING DATA

McKAY OIL CORPORATION
McKay Federal #4
SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 27-5S-21E
Chaves County, N.M.

NM-36189

The following items supplement Form 9-331C in accordance with instructions contained in 'Onshore Oil & Gas Order' No. 1:

1. SURFACE FORMATION: Alluvium
2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Yeso	- 786'
Tubb	- 2346'
Abo	- 3046'
3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATION:

Fresh water	- In surface formations above 600'
Gas	- In Abo formation below 3050'
4. PROPOSED CASING PROGRAM: See Form 9-331C
5. PRESSURE CONTROL EQUIPMENT: Blowout preventer stack will consist of at least a double-ram blowout preventer rated to 3000# WP. A sketch of the BOP is attached.
6. CIRCULATING MEDIUM:

0' - 700'	Lime and gel, spud mud, viscosity 32 to 34 seconds.
650 - 2950'	Fresh water
2950' - TD	Start mudding up at 3730'; viscosity 36 to 38 seconds; water loss 10 cc or less; 3-5% Diesel; 2 KCL

Mud additives will be used to control water loss.
7. AUXILIARY EQUIPMENT: full-opening kelly cock, to fit the drill string in use, will be kept on the rig floor at all times.
8. PROPOSED TESTING, LOGGING AND CORING PROGRAMS:

Samples:	Catch samples from surface to TD
Logging:	GR-CNL, Dual-Lateral MSFL from surface to TD.
Coring :	None
9. ABNORMAL PRESSURES OR TEMPERATURE ZONES: None anticipated
10. ANTICIPATED STARTING DATE: December 31, 1990. Drilling should be completed within 60 days. Completion will follow drilling operation.

SURFACE USE AND OPERATION PLAN

MCKAY OIL CORPORATION
McKay Federal #4
SW/4 SW/4, Sec. 27, T5S, R21E
Chaves County, New Mexico
NM-36189

This plan is submitted with the application for permit to drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit 'A' is a portion of a road map showing the location of the proposed well as staked. The well is approximately 33 miles Northeast of Roswell, New Mexico.
- B. Directions: Heading north out of Roswell, New Mexico on U.S. 285 for approximately 24 Miles. Turn left on dirt road. Go approximately 8 miles west, then turn 90 degrees north for 3 miles. Then turn north again at three road junction and go 1/2 mile to entrance of Eppers ranch, then turn east (after cattleguard, go 3/4 miles to McKay Fed. #1, then north to McKay Fed. #2, then north to Eppers Fed. #2, then north to McKay Fed. #4(Off Macho Draw).

2. PLANNED ACCESS ROADS:

- A. Length and Width: The new access road will be 14' wide by approximately 1/2 mile in length.
- B. Surfacing Materials: Sand and gravel or caliche will be placed where necessary. After determined that well is producer.
- C. Turnouts: One every 1/4 mile.
- D. Maximum Grade: Less than 13%
- E. Drainage Design: Culverts will be placed where requested by BLM.

- F. Culverts: Where required.
 - G. Cut and Fills: Less than 10' on location.
 - H. Gates, Cattleguards: None necessary.
 - I. Top Soil: Will be stockpiled for reclamation purposes.
3. LOCATION OF EXISTING WELLS:
- A. A map displaying the location of adjacent wells is attached.
4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:
- A. See Exhibit 'A' for location of existing lease wells. If the well is commercial, production facilities will be constructed on the well pad of Eppers Federal #2.
 - B. Cuts and Fills: Less than 10' of cut and fill will be required on the well pad.
 - C. Top Soil: Any top soil which can sustain plant life will be bladed and stockpiled for future rehabilitation.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water will be trucked to the wellsite from a nearby commercial source and transported over existing and proposed access roads.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Caliche will be obtained from a pit located in the SW/4SW/4 of Section 33, T-5S, R-21E.
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 tests will be disposed in the reserve pits.
 - D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
 - E. All trash and junk will be buried in a separate pit and covered with a minimum of 24 inches of dirt. All waste will be contained by a netted container to prevent scattering by the wind.

F. All trash and debris will be buried or removed from the wellsite within 30 days after drilling and/or completion operations.

8. ANCILLARY FACILITIES:

A. None necessary.

9. WELL SITE LAYOUT:

A. Exhibit 'C' displays the dimensions of the well pad, mud pits, and major rig equipment.

B. The reserve pits will be lined with plastic to prevent loss of water.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the well site in an aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until dry.

C. If well is non-productive or abandoned, the disturbed area will be rehabilitated to BLM requirements.

11. OTHER INFORMATION:

A. Topography: The topography is rolling hills with numerous drainag into Arroyo del Macho. Regional dip is to the southeast toward th pecos river.

B. Soil: Sandy loam with limestone outcroppings.

C. Vegetation: The flora consist of typical desert vegetation, such as yucca, cactus and various grasses. Fauna consist of desert wildlife such as coyotes, rodents, snakes, deer and antelope.

D. Ponds or Streams: The macho draw is 300 yards from location.

E. Residences and Other Structures: Bud Eppers ranch house is locat approximately 1 mile to the northwest.

F. Archaeology: No cultural sites were observed on the access roads or well pad. Survey conducted by ASC-Roswell, 12/15/90.

G. Land Use: Grazing.

H. Surface Ownership: private

12. OPERATOR'S REPRESENTATIVE:

Gary Richburg
(505)625-1149

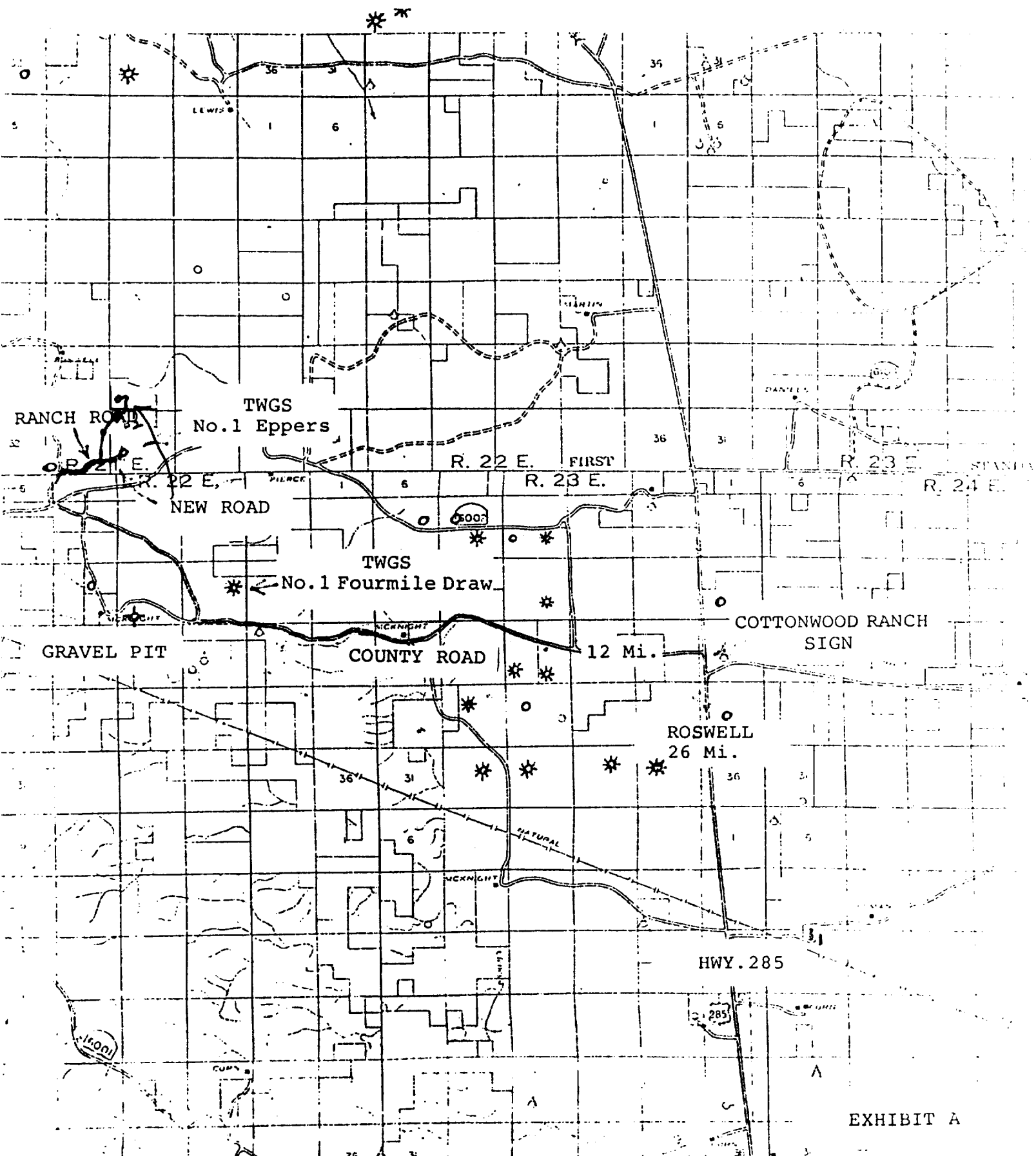
13. CERTIFICATION:

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; that the work associated with the operations proposed herein will be performed by MCKAY OIL CORPORATION and its subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to provisions of 18 USC 1001 for the filing of a false statement.

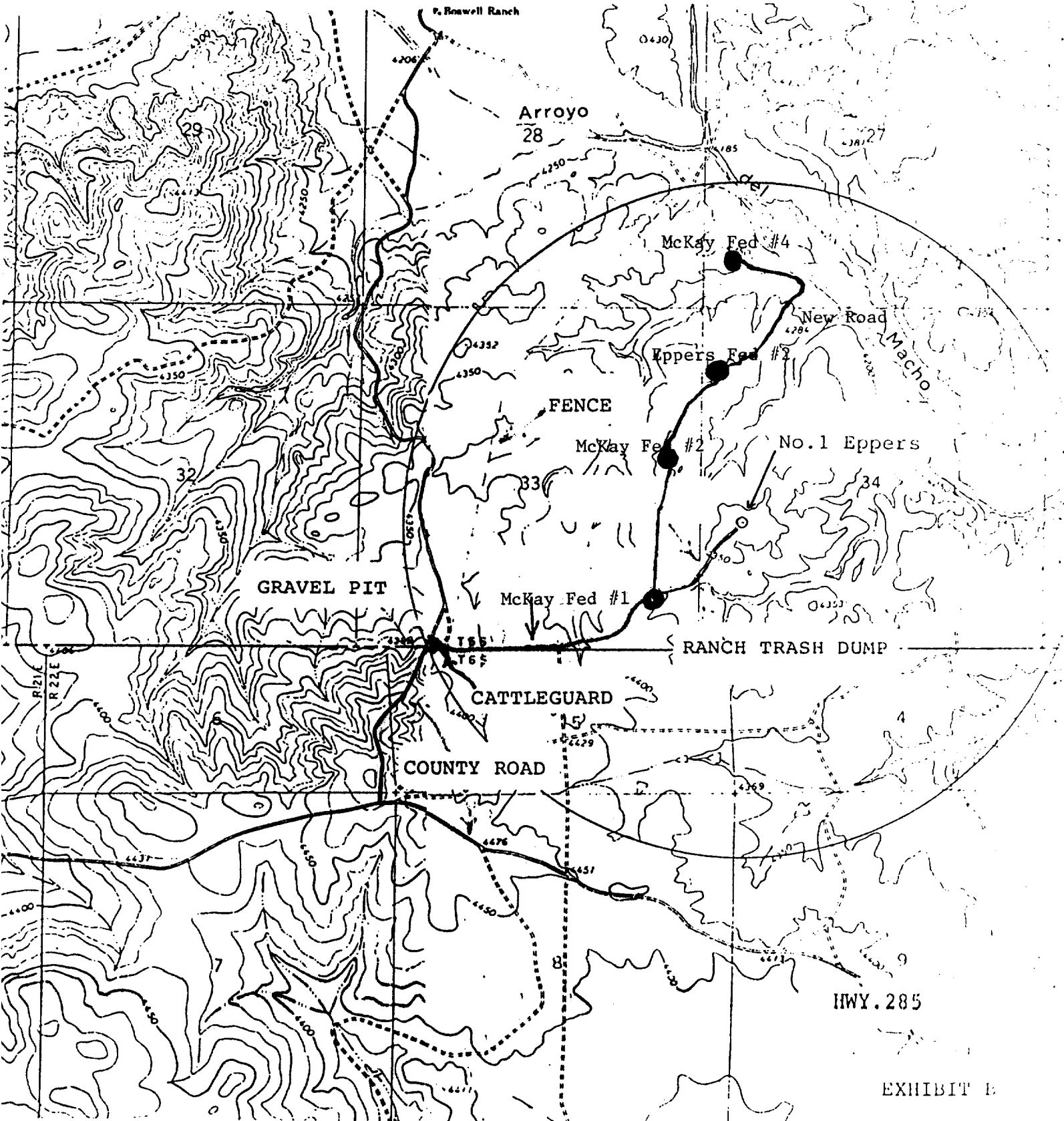
12-17-90
DATE

Sam L. Shackelford Agent

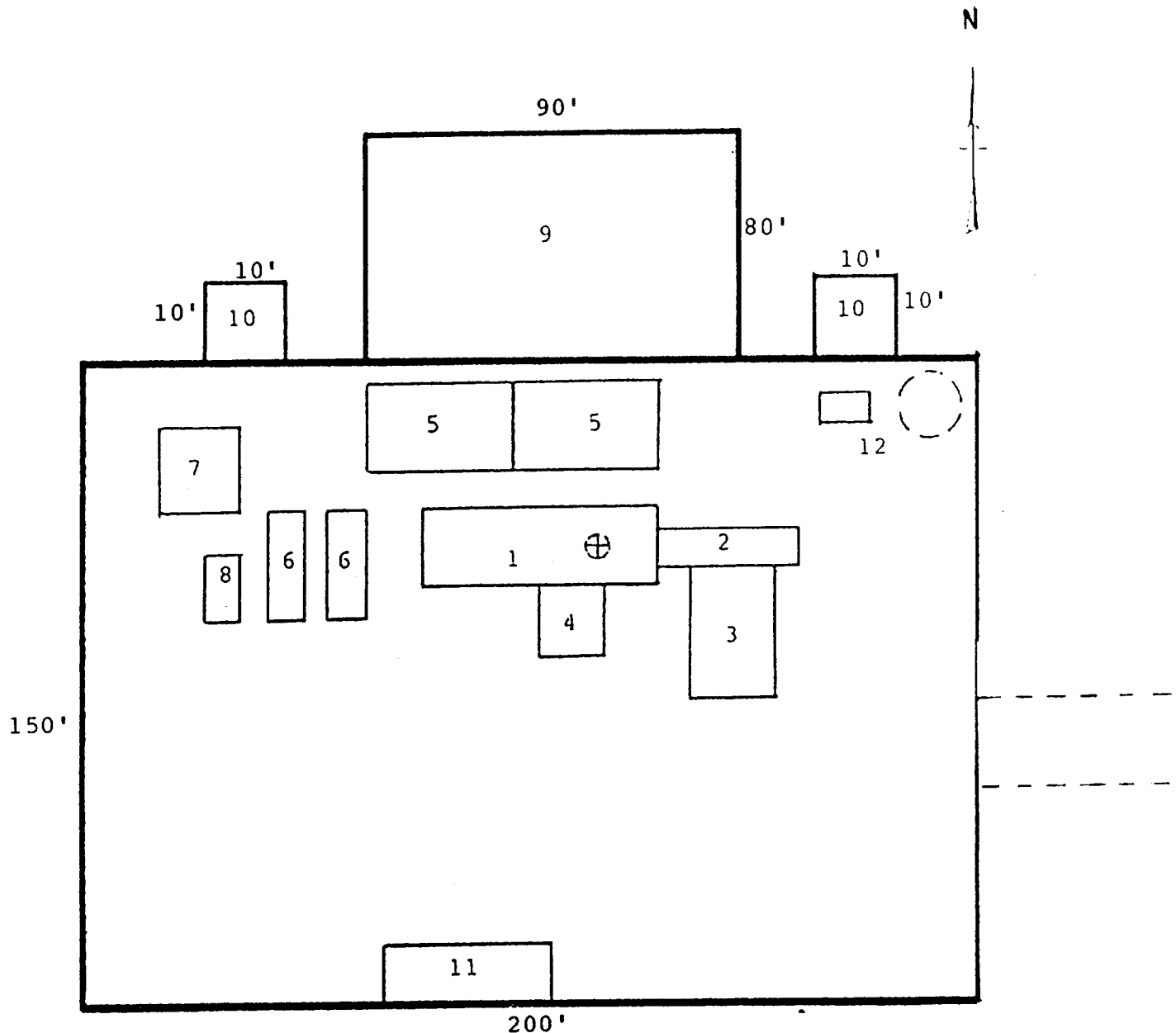
MCKAY OIL CORPORATION
McKay Federal #4
SW/4 SW/4, Sec. 27, T5S, R21E
Chaves County, New Mexico
NM-36189



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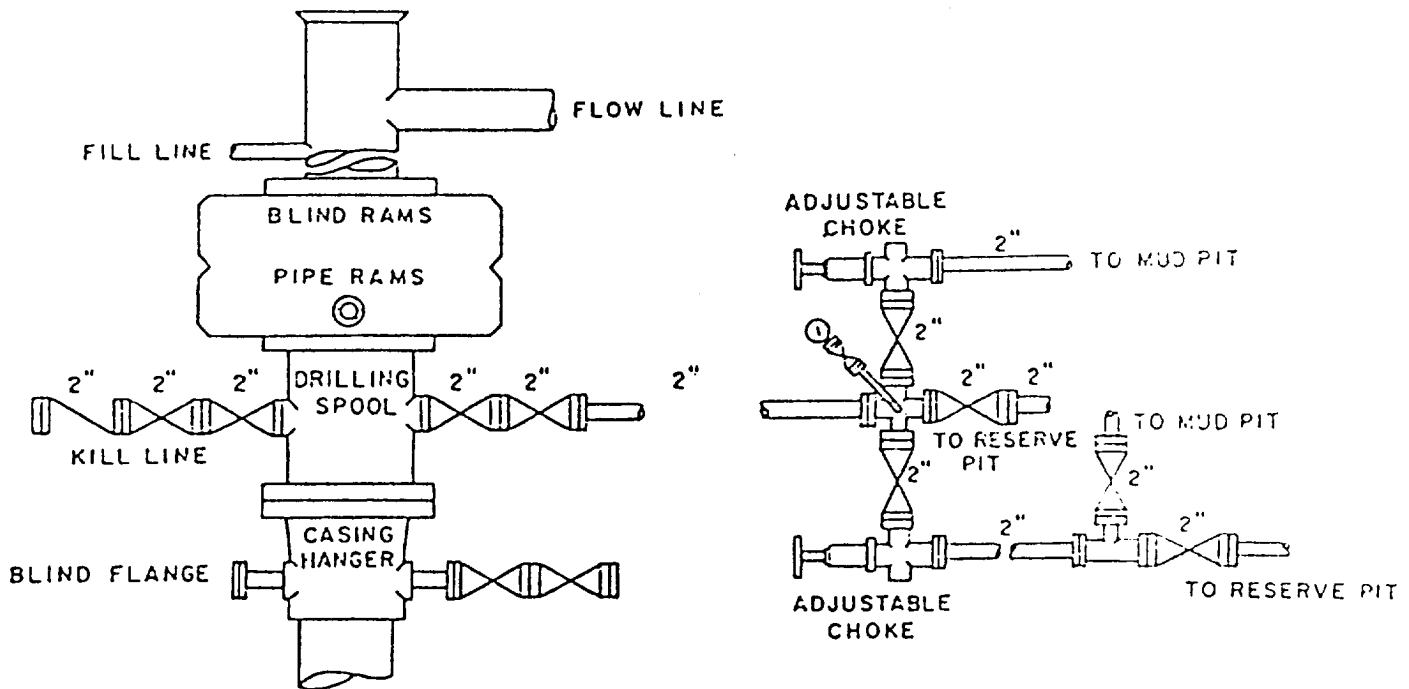
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 McKay Federal #4
 SW/4 SW/4, Sec. 27, T5S, R21E
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RIG LAYOUT

- | | |
|-----------------|---------------------------|
| 1. Substructure | 7. Water Tank |
| 2. Catwalk | 8. Light Plant |
| 3. Pipe Rack | 9. Reserve Pit |
| 4. Doghouse | 10. Trash Pit |
| 5. Mud Pits | 11. Trailer House |
| 6. Mud Pumps | 12. Production Facilities |

MCKAY OIL CORPORATION
McKay Federal #4
SW/4 SW/4, Sec. 27, T5S, R21E
Chaves County, New Mexico
NM-36189



BOP DIAGRAM

3000# Working Pressure
Rams Operated Daily

<p>30</p> <p>U.S.</p> <p>Inexco 32914</p> <p>31</p> <p>U.S.</p> <p>McKay Oil 36185</p> <p>6</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>18</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>19</p> <p>State</p> <p>Mesa E. Mesa 4-1-91 LG-9569 31932</p> <p>30</p> <p>State</p> <p>Mesa Pet (M.T.S.) LG-9571</p> <p>31</p> <p>State</p> <p>M.T.S. E. Mesa 4-1-91 LG-9571 37938</p>	<p>29</p> <p>U.S.</p> <p>McKay Oil 36185</p> <p>32</p> <p>State</p> <p>McKay Oil 36185</p> <p>5</p> <p>U.S.</p> <p>Inexco 32913</p> <p>3</p> <p>U.S.</p> <p>Inexco 32913</p> <p>17</p> <p>U.S.</p> <p>Inexco 32913</p> <p>20</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>Mesa E. Mesa 4-1-91 LG-9565 31932</p> <p>29</p> <p>State</p> <p>M.T.S. E. Mesa 4-1-91 LG-9570 38332</p> <p>32</p> <p>State</p> <p>M.T.S. E. Mesa 4-1-91 LG-9572 42631</p>	<p> <p>J. Thompson</p> <p>McKay Oil Corporation McKay Federal #4 SW/4 SW/4, Sec. 27, T5S, R21E Chaves County, New Mexico NM-36189</p> </p> <p>33</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>4</p> <p>U.S.</p> <p>Inexco 32913</p> <p>16</p> <p>State</p> <p>M.T.S. E. Mesa 4-1-91 LG-9570 38332</p> <p>21</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>33</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>33</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>McKay Federal #</p>	<p> <p>Memorial Exp. 5-1-91 32334</p> <p>Transwest Gas Supply Lewis Rock Fed. TD 3140</p> </p> <p>34</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>3</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>15</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>27</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>34</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>34</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>McKay Federal #</p>	<p>25</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>36</p> <p>State</p> <p>McKay Oil 36185</p> <p>1</p> <p>U.S.</p> <p>Inexco 32912</p> <p>12</p> <p>U.S.</p> <p>Inexco 32912</p> <p>14</p> <p>U.S.</p> <p>McKay Oil 36187</p> <p>23</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>26</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>35</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>35</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>McKay Federal #</p>	<p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>3</p> <p>U.S.</p> <p>Inexco 32912</p> <p>13</p> <p>U.S.</p> <p>U.S. Lee & Co. 4-1-91 36187</p> <p>24</p> <p>U.S.</p> <p>Inexco 32912</p> <p>25</p> <p>U.S.</p> <p>Inexco 32912</p> <p> <p>Exhibit E</p> <p>U.S.</p> <p>McKay Oil 36186</p> <p>36</p> <p>State</p> <p>M.T.S. E. Mesa 4-1-91 LG-9571 40631</p> </p></p>
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