

U.S. DEPT. OF THE INTERIOR
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

| | | |
|--|--|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NM 32308 |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name |
| 2. Name of Operator McKay Oil Corporation | | 7. If Unit or CA Agreement, Name and No. |
| 3a. Address PO Box 2014 Roswell, NM 88202-2014 | | 8. Lease Name and Well No. LL & E B Federal #4 |
| 3b. Phone No. (include area code) 505-623-4735 | | 9. API Well No. 30-005-63819 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 860' FNL & 1887' FWL At proposed prod. zone | | 10. Field and Pool, or Exploratory W. Pecos ABO Slope |
| 14. Distance in miles and direction from nearest town or post office* Approximately 25 miles | | 11. Sec., T. R. M. or Blk. and Survey or Area N Lot 7, Sec. 1, T6S, R22E |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660' | 16. No. of acres in lease 741.20 | 12. County or Parish Chaves |
| 17. Spacing Unit dedicated to this well 160' 132.02 | 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 13. State NM |
| 19. Proposed Depth 4300' | 20. BLM/BIA Bond No. on file | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4222' | 22. Approximate date work will start* 09/01/2005 | 23. Estimated duration 7-10 days |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

| | | |
|---------------|--|--------------------|
| 25. Signature | Name (Printed/Typed) James L. Schultz | Date 08/24/2005 |
|---------------|--|--------------------|

Title Agent

| | | |
|-------------------------|----------------------|------|
| Approved by (Signature) | Name (Printed/Typed) | Date |
|-------------------------|----------------------|------|

Title Assistant Field Manager,
Lands And Minerals

Office ROSWELL FIELD OFFICE

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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

NSL - 5372

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APR 14 2006

OCD-ARTECIA

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

State of New Mexico

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| | | |
|---------------|--|--------------------|
| API Number | Pool Code | Pool Name |
| Property Code | Property Name LL & E FEDERAL B | Well Number 4 |
| OGRID No. | Operator Name McKAY OIL CORPORATION | Elevation 4222' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| FN | 1 | 6-S | 22-E | | 860 | NORTH | 1887 | WEST | CHAVES |

Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|-----------------|-----------------|--------------------|-----------|
| 132.180 | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | |
|--|--|
| <p>LOT 4 26.16 AC</p> <p>LOT 3 25.86 AC</p> <p>LOT 2 25.55 AC</p> <p>LOT 1 25.23 AC</p> <p>860.4'</p> <p>1328.6'</p> <p>819.6'</p> <p>1328.4'</p> <p>4217.5'</p> <p>4231.4'</p> <p>4210.1'</p> <p>4224.9'</p> <p>600'</p> <p>600'</p> <p>860'</p> <p>1887'</p> | <h3>OPERATOR CERTIFICATION</h3> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p></p> <p>Signature</p> <p>James L. Schultz</p> <p>Printed Name</p> <p>Agent</p> <p>Title</p> <p>8/22/2005</p> <p>Date</p> |
| <p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=1026490.5 N X=396011.8 E</p> <p>LAT.=33°49'16.52" N LONG.=104°40'32.61" W</p> | <h3>SURVEYOR CERTIFICATION</h3> <p>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 belief.</p> <p>AUGUST 2, 2005</p> <p>Date Surveyed</p> <p>Signature & Seal of Professional Surveyor</p> <p></p> <p>8/17/05</p> <p>05-11-1172</p> <p>Certification No. GARY EIDSON 12641</p> |

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
June 1, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐ Submitted 4/16/04
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

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SEP - 1 2005

DOB-ARTEDIA

Operator: MCKAY OIL CORPORATION Telephone: 505-623-4735 e-mail address: april@mckayoil.com
Address: PO Box 2014 Roswell, NM 88202-2014
Facility or well name: LL&E B Federal #4 API #: 30-005-63817 U/L or Qtr/Qtr F Sec 1 T 6S R 22E
County: CHAVES Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐

Pit Volume _____ bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No

(0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

Ranking Score (Total Points)

0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5)

Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 8/23/05

Printed Name/Title James L. Schultz, Agent

Signature _____

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

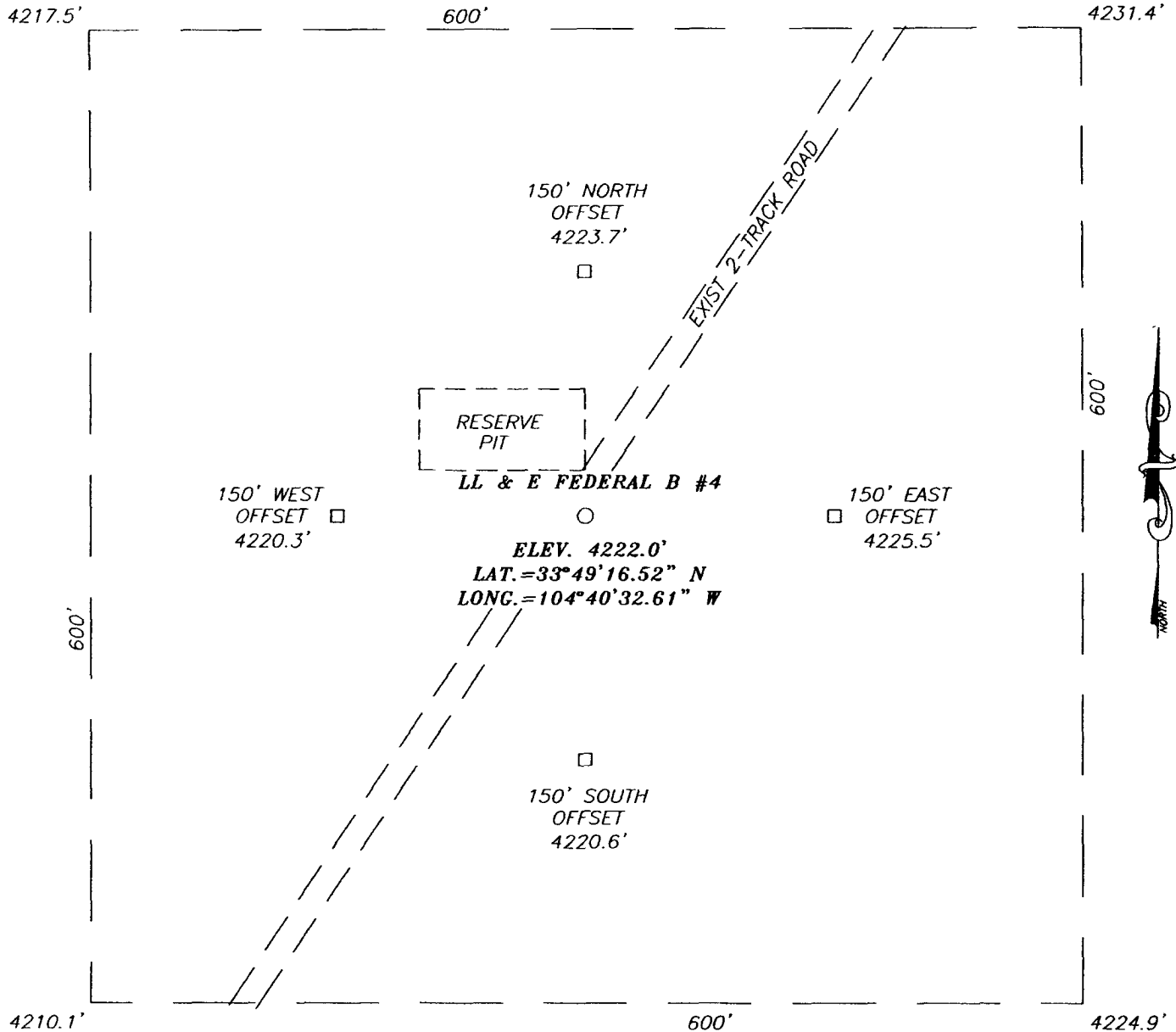
Approval:

Printed Name/Title _____

Signature _____

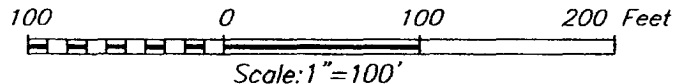
SEP 7 2005

SECTION 1, TOWNSHIP 6 SOUTH, RANGE 22 EAST, N.M.P.M.,
 CHAVES COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERESECTION OF U.S. HWY. # 208 AND CO. RD. #40 (STARGRASS RD.) GO WEST ON CO. RD. #40 FOR APPROX. 2.5 MILES TO A CALICHE ROAD ON THE RIGHT. TURN RIGHT (NORTH) AND GO APPROX. 2.0 MILES, TURN LEFT (WEST) AND GO APPROX. 1.0 MILES, TURN RIGHT (NORTH) AND GO APPROX. 0.15 MILES PAST CATTLEGUARD. TURN WEST AND GO APPROX. 2.6 MILES. TURN LEFT (SOUTH/SW) AND FOLLOW 2-TRACK ROAD APPROX. 0.1 MILES. THIS LOCATION IS APPROX. 10' EAST.



McKAY OIL CORPORATION

LL & E FEDERAL B #4 WELL
 LOCATED 860 FEET FROM THE NORTH LINE
 AND 1887 FEET FROM THE WEST LINE OF SECTION 1,
 TOWNSHIP 6 SOUTH, RANGE 22 EAST, N.M.P.M.,
 CHAVES COUNTY, NEW MEXICO.

| | |
|-------------------------|---------------------|
| Survey Date: 08/02/05 | Sheet 1 of 1 Sheets |
| W.O. Number: 05.11.1172 | Dr By: J.R. |
| Date: 08/09/05 | Disk: CD#5 |
| 05111172 | Scale: 1"=100' |



PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

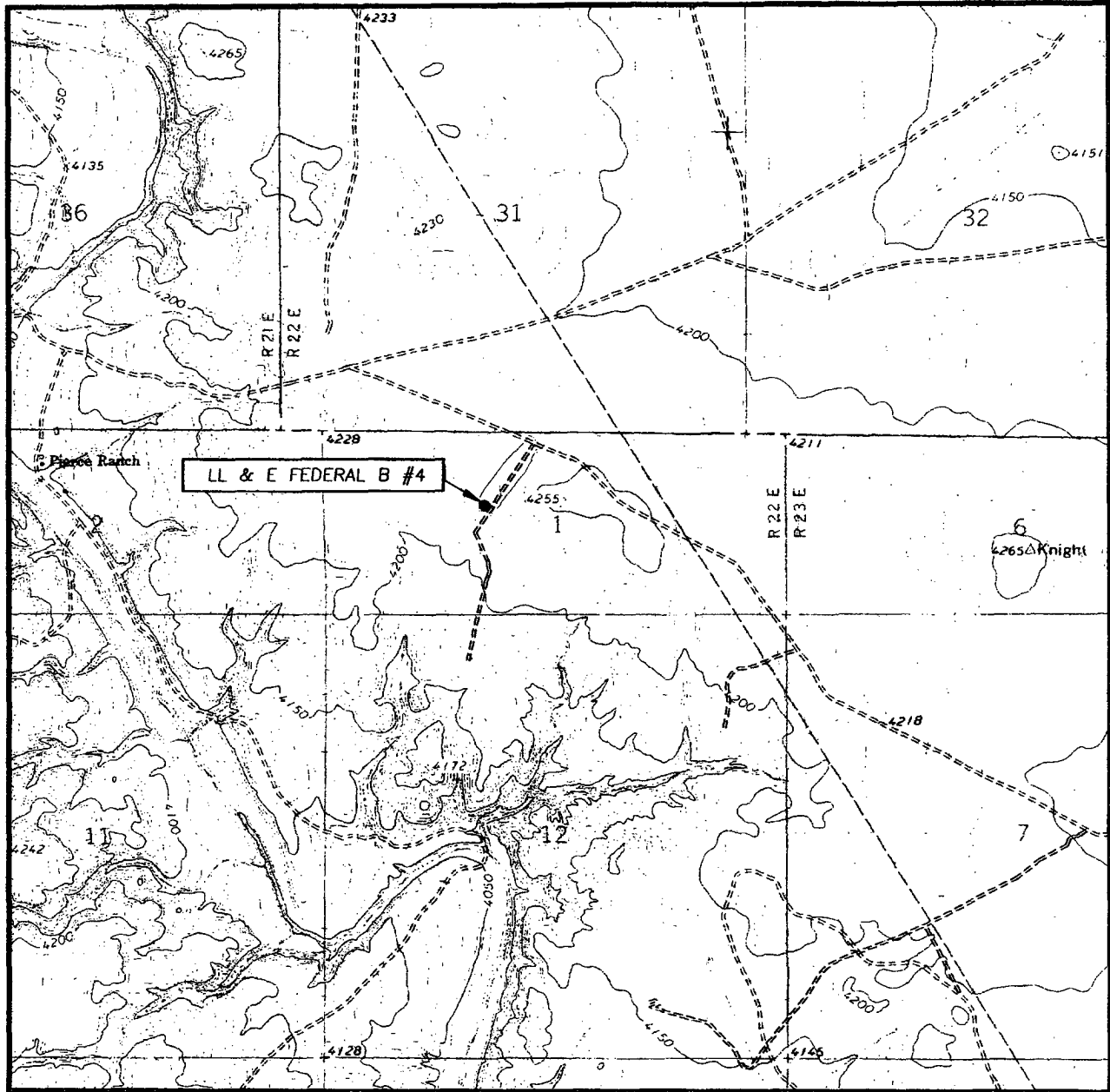
PERTINENT INFORMATION

FOR
MCKAY OIL CORPORATION
LL&E B Federal #4
860' FNL & 1887' FWL Sec. 1, T6S, R22E

Chaves County, New Mexico

| | |
|------------------------------|---|
| <u>LOCATED:</u> | 25 air miles Northwest of Roswell, NM. |
| <u>LEASE NUMBER:</u> | NM 32308 |
| <u>LEASE ISSUED:</u> | 8/8/1978 |
| <u>RECORD LESSEE:</u> | McKay Petroleum Corporation |
| <u>BOND COVERAGE:</u> | Operator's \$25,000 Statewide |
| <u>AUTHORITY TO OPERATE:</u> | Assignment of Operating Rights |
| <u>ACRES IN LEASE:</u> | 741.20 |
| <u>SURFACE OWNERSHIP:</u> | Federal |
| <u>OWNER:</u> | USA-BLM |
| <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 |

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MESA SW, N.M. - 10'

SEC. 1 TWP. 6-S RGE. 22-E

SURVEY N.M.P.M.

COUNTY CHAVES

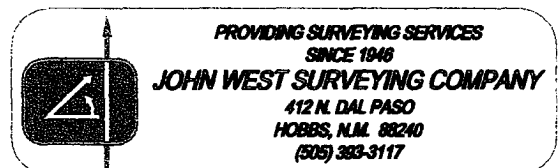
DESCRIPTION 860' FNL & 1887' FWL

ELEVATION 4222'

OPERATOR McKAY OIL CORPORATION

LEASE LL & E FEDERAL B

U.S.G.S. TOPOGRAPHIC MAP
MESA SW, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

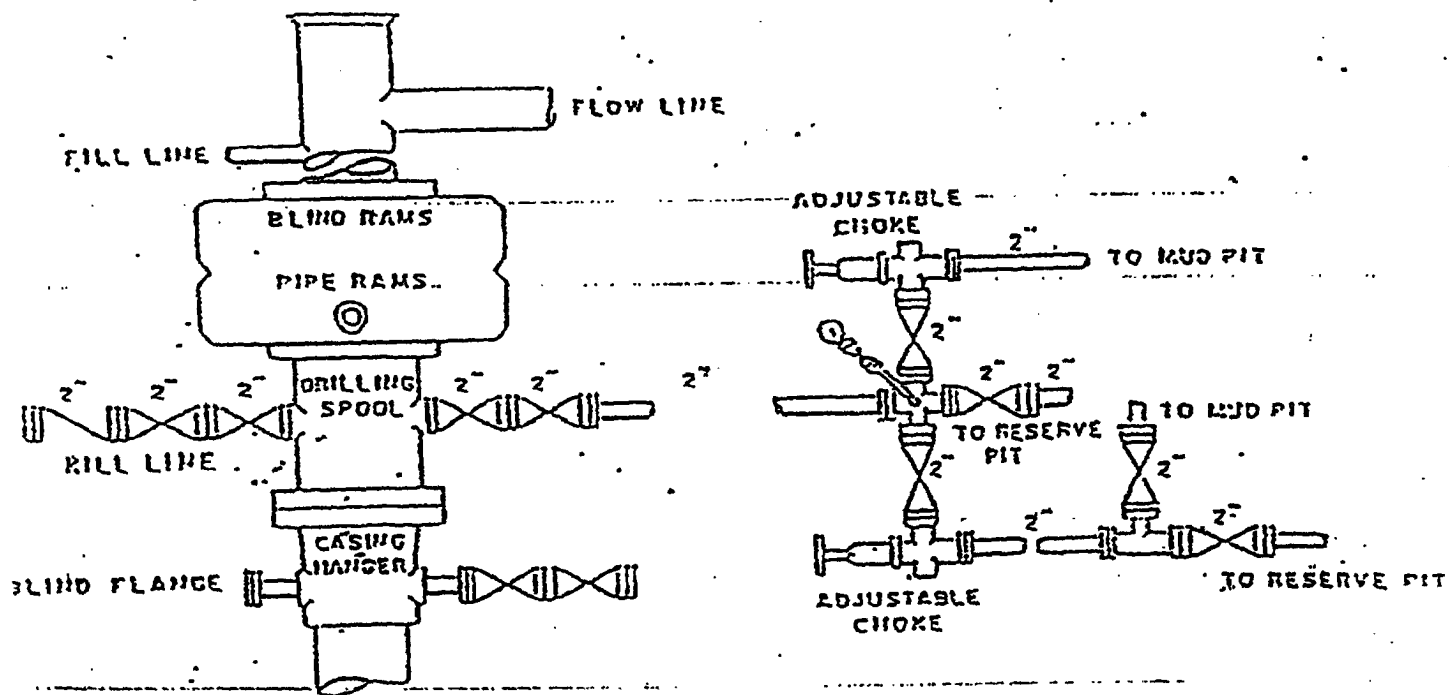
MCKAY OIL COPORATION

LL&E B Federal #4

Lot 3 of Section 1, T6S, R22E

Chaves County, New Mexico

EXHIBIT "D"



SUPPLEMENTAL DRILLING DATA

MCKAY OIL CORPORATION
LL&E B Federal #4
860' FNL & 1887' FWL Sec. 1, T6S, R22E

Chaves County, New Mexico

The following items supplement Form 3160-3 in accordance with instruction contained in Onshore Oil and Gas Order No. 1:

1. SURFACE FORMATION: San Andres

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Yeso - 949'
Tubb - 2445'
Abo - 2658'

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATIONS:

Fresh Water - In surface formation above 600'
Gas - In Abo Formation below 2658'

4. PROPOSED CASING PROGRAM:

| | | | |
|--------------|-------------|-------|--------|
| 12-1/4" hole | 8-5/8" J-55 | 24# | 950' + |
| 7-7/8" hole | 5-1/2" J-55 | 15.5# | TD |

5. PROPOSED CEMENTING PROGRAM:

| | |
|-------------------|---|
| Surface to 950' | class C - 350 sxs cemented and circulated to surface. |
| Production Casing | class C - 300 sxs cemented with adequate cover. |

6. PROPOSED DRILLING PROGRAM:

McKay Oil Corporation proposes to drill and test the ABO formation. Approximately 950' of surface casing will be set and cemented to surface. 5-1/2" production casing will be set and cemented with adequate cover, perforated and stimulated as needed for production.

7. PRESSURE CONTROL EQUIPMENT: Blowout preventer will consist of 2 ram, 2M system. A sketch of the BOP is attached.
8. CIRCULATION MEDIUM: Mud Drilling
9. AUXILIARY EQUIPMENT: Full-opening drill string safety valve fit for the drill string in use, will be kept on the rig floor at all times.
10. TESTING, LOGGING AND CORING PROGRAM:
 - Samples: Catch samples from surface to TD.
 - DST's: None.
 - Logging: GR-CNL, Dual Lateral MSFL from surface to TD.
 - Coring: None.
11. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:
None anticipated.
12. ANTICIPATED STARTING DATE: As soon as possible.
Drilling should be completed within 10 days. Completion operations (perforations and stimulation) will follow drilling operations.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MCKAY OIL CORPORATION
LL&E B Federal #4
860' FNL & 1887' FWL Sec. 1, T6S, R22E

Chaves County, New Mexico

NM 32308

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 is staked. The well is approximately 21 miles north of Roswell, NM.

B. Directions: From the Intersection of US Highway #208 and County Road #40 (Stargrass Road) go west on County Road #40 for approximately 2.5 miles to a caliche road on the rights. Turn right (North) and go approximately 2.0 miles, turn left (West) and go approximately 1.0 miles, turn right (North) and go approximately 0.15 miles past cattle guard. Turn west and go approximately 2.6 miles. Turn left (South/southwest) and follows 2-track road approximately 0.1 miles. This location is approximately 10' east.

A. Length and Width: 1/8 mile long and 20' wide.

B. Surface Materials: Sand, gravel and caliche where needed.

C. Turnouts: None

D. Maximum Grade: No more than 3%.

E. Drain Design: Road will have drainage ditches on both sides and a crowned top, with culverts and/or low water crossings as necessary.

F. Culverts: None.

G. Cuts and Fill: None.

H. Gates, Cattle guards: None needed. Already in place.

I. Top Soil: Very little.

3. LOCATION OF EXISTING WELLS:

A. A map indicating the location of adjacent wells is attached.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A: See Exhibit "A" for location of existing lease wells. If the well is commercial, production facilities and tank battery will be constructed.

B. Cuts and Fills: Less than 20' of cut and fill will be required for the pad size of 300' x 250'. (See Exhibit "D")

C. Top Soil: Any topsoil, which can sustain plant vegetation, will be bladed and piled for future rehabilitation.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. Water will be purchased from a commercial source and trucked to the location over existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Closest Pit to the location.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during test will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be placed in portable receptacles and hauled from the location upon completion of drilling and completion operations.

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

8. ANCILLARY FACILITIES:

A. None necessary.

9. WELL SITE LAYOUT:

A. Exhibit "C" indicates the relation location and dimensions of the well pad, mud pits, reserve pit and major rig equipment.

B. The location slopes very slightly to the east and southeast.

C. The reserve pit 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 the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing conditions as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

C. If the well is non-productive or abandoned, the disturbed area will be rehabilitated using the preserved soil mentioned in 2.I. and 4.C.

11. OTHER INFORMATION:

A. Topography: The topography is a gradual slope to the south in the vicinity of the access road and south-southwest in the vicinity of the drill pad. Regional slope is south-southwest toward the Arroyo del Macho.

B. Soil: Sandy loam with limestone outcropping.

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

D. Ponds and Streams: Arroyo del Macho south-southwest of the proposed location.

E. Residences and other Structures: The David Corn ranch house (old W.R. McKnight Ranch) is approximately 1 mile to the south-southwest.

F. Archaeological, Historical and Other Cultural Sites: An Archaeologist from Bent, NM will be contracted to check and approve this site and access road.

G. Land Use: Grazing.

H. Surface Ownership: USA-BLM.


12. OPERATOR'S REPRESENTATIVE:

Humberto Perez
Roswell, New Mexico
(505) 623-4735 (O)
(505) 626-8580 (C)

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 exists; 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 sub-contractors 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.


SIGNATURE


DATE

MCKAY OIL CORPORATION
LL&E B Federal #4
860' FNL & 1887' FWL Sec. 1, T6S, R22E

Chaves County, New Mexico

Other Specific Information and Plans

Proposed Pipeline
50' pipeline route as set forth on attached survey plat
Buried 2" steel low pressure (30-50 psi) pipeline

**Southwest Petroleum
Land Services, LLC**

100 N. Pennsylvania
Roswell, NM 88203
(505) 622-6713
(505) 622-9282 fax

August 23, 2005

Oil Conservation Division
Bryan Arrant
1301 W. Grand Avenue
Artesia, NM

Re: H2S Contingency Plan-LL&E B Federal #4

Bryan,

Please see attached Contingency Plan-H2S for the LL&E B Federal #4 located in Sec 1, T6S, R22E 860' FNL & 1887' FWL in Chaves County. Should you need any further information, please contact me at 505-626-6879.

Sincerely,

Jim Schultz
Agent for McKay Oil Corporation

MCKAY OIL CORPORATION
PO BOX 2014
ROSWELL, NM 88202-2014
505-623-4735

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN FOR THE
LL&E B FEDERAL #4
LOCATED IN SEC 1, T6S, R22E IN
CHAVES COUNTY, NEW MEXICO

NO HYDROGEN SULFIDE OR OTHER HAZARDOUS GASES OR FLUIDS HAVE
BEEN ENCOUNTERED, REPORTED OR KNOWN TO EXIST AT THIS DEPTH IN
THIS AREA.

LL&E B FEDERAL #4

This is an open drilling Site. H2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H2S, including warning signs, wind indicators and H2S monitor. Pumpers carry (MICROPACKS) H2S pocket testers at all times. Pulling units have an H2S indicator that puts off light and alarm on any indication of H2S being present.

MAPS – SEE ATTACHED

MCKAY OIL CORPORATION
PO BOX 2014
ROSWELL, NM 88202-2014
505-623-4735

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN FOR THE
LL&E B FEDERAL #4
LOCATED IN SEC 1, T6S, R22E IN
CHAVES COUNTY, NEW MEXICO

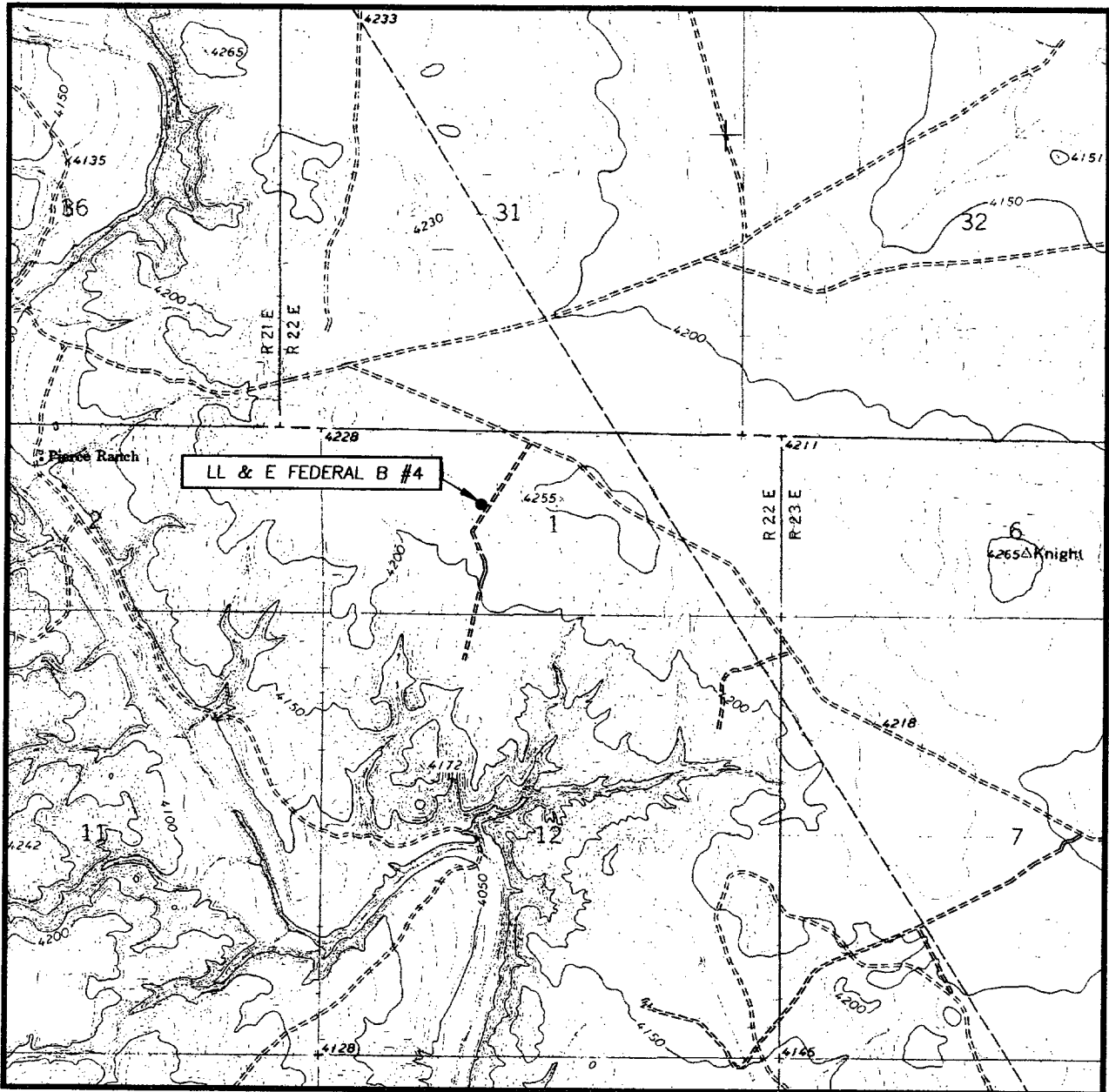
NO HYDROGEN SULFIDE OR OTHER HAZARDOUS GASES OR FLUIDS HAVE
BEEN ENCOUNTERED, REPORTED OR KNOWN TO EXIST AT THIS DEPTH IN
THIS AREA.

LL&E B FEDERAL #4

This is an open drilling Site. H2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H2S, including warning signs, wind indicators and H2S monitor. Pumpers carry (MICROPACKS) H2S pocket testers at all times. Pulling units have an H2S indicator that puts off light and alarm on any indication of H2S being present.

MAPS – SEE ATTACHED

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MESA SW, N.M. - 10'

SEC. 1 TWP. 6-S RGE. 22-E

SURVEY N.M.P.M.

COUNTY CHAVES

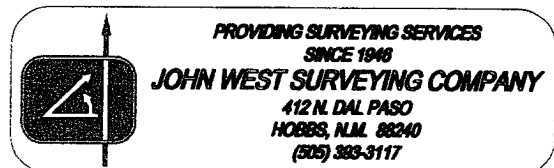
DESCRIPTION 860' FNL & 1887' FWL

ELEVATION 4222'

OPERATOR McKAY OIL CORPORATION

LEASE LL & E FEDERAL B

U.S.G.S. TOPOGRAPHIC MAP
MESA SW, N.M.



EMERGENCY PROCEDURES

In the case of a release of gas containing H₂S, the first responder must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder must evacuate any public spaces encompassed by the 100 ppm ROE. First responder must take care not to injure themselves during this operation. Company and or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the “buddy system” to ensure no injuries occur during the response.

IGNITION OF GAS SOURCE

Should control of the well be considered lost and ignition considered, take care to protect against exposure of sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOC and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

CHARACTERISTICS OF H₂S & SO₂

| COMMON NAME | CHEMICAL FORMULA | SPECIFIC GRAVITY | THRESHOLD LIMIT | HAZARDOUS LIMIT | LETHAL CONCENTRATION |
|------------------|------------------|------------------|---------------------|-----------------|----------------------|
| HYDROGEN SULFIDE | H ₂ S | 1.189 AIR=1 | 10 PPM ⁴ | 100 PPM/HR | 600 PPM |
| SULFUR DIOXIDE | SO ₂ | 2.21 AIR=1 | 2 PPM | N/A | 1000 PPM |

CONTACTING AUTHORITIES

McKay Oil Corporation personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. be prepared with all information available. The following call list of essential and potential responders must be in coordination with the State of New Mexico’s Hazardous Materials Emergency Response Plan (HMER).

MCKAY OIL CORPORATION CALL LIST

| CHAVES COUNTY (505) | OFFICE | CELL PHONE | HOME PHONE |
|---------------------|----------|------------|------------|
| HUMBERTO PEREZ | 625-1154 | 626-8580 | 627-1985 |
| JIM ROBINSON | 625-1154 | 626-8579 | 624-1093 |
| APRIL MCKAY | 623-4735 | 626-8575 | 625-2848 |

CHAVES COUNTY (505)

ROSWELL

| | |
|---|---------------------------------------|
| STATE POLICE | 622-7200 |
| CITY POLICE | 911 or 624-6770 |
| SHERIFF'S OFFICE | 624-6500 |
| AMBULANCE | 911 |
| FIRE DEPARTMENT | 624-6800 |
| LEPC (Local Emergency Planning Committee) | Teresa Barncastle 624-6770 ext 129 |
| NMOCD | 748-1283 |
| ENMMC (Hospital) | 622-8170 |

III. DRILLING OPERATION REQUIREMENTS:

A. GENERAL DRILLING REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 in sufficient time for a representative to witness:

A. Spudding B. Cementing casing: 8 $\frac{5}{8}$ inch 5 $\frac{1}{2}$ inch C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCDC shall be included on the subsequent report of setting the first casing string.

B. CASING:

1. The 8 $\frac{5}{8}$ inch surface casing shall be set at 950' and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 5 $\frac{1}{2}$ inch intermediate casing is cement shall extend upward a minimum of 500 feet above the uppermost perforation.

C. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 8 $\frac{5}{8}$ inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- A. The results of the test shall be reported to the appropriate BLM office.
- B. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- C. Testing must be done in a safe workman-like manner. Hard line connections shall be required.