

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. TYPE OF WORK  
 DRILL  DEEPEN

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 McKay Oil Corporation

3. ADDRESS AND TELEPHONE NO.  
 P.O. Box 2014, Roswell, NM 88202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 600' FNL & 1985' FEL  
 At proposed prod. zone 195'

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 25 miles north of Roswell, NM

13. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	600'	16. NO. OF ACRES IN LEASE	2,520.00	17. NO. OF ACRES ASSIGNED TO THIS WELL	160.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	2956'	19. PROPOSED DEPTH	3000'	20. ROTARY OR CABLE TOOLS	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 4103' GL

22. APPROX. DATE WORK WILL START\*  
 Sept. 1, 1998

5. LEASE DESIGNATION AND SERIAL NO.  
 NM-36194

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARMOR LEASE NAME, WELL NO. #12

9. AP WELL NO.  
 S. Four Mile Draw Fed. "B" Cor

10. FIELD AND POOL, OR WILDCAT  
 W. Pecos Slope Abo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 24, T6S, R22E

12. COUNTY OR PARISH  
 Chaves

13. STATE  
 NM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8" X-42	23#	900+	800+ cf cemented and circulated
7 7/8"	4 1/2" J-55	10.5#	TD	200 cf cemented

McKay Oil Corporation proposes 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 set 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

RECEIVED SEP 08 1998

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

24. SIGNED Bill M. M... Vice President DATE 8/25/98

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY J. A. P... ACTING TITLE Acting Assistant Field Office Manager, Lands and Minerals DATE 9/04/98

\*See Instructions On Reverse Side

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 811 South First, Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

Form C-102  
 Revised October 18, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name			6 Well Number
		S 4 MILE DRAW FED "B"			12
7 OGRID No.		8 Operator Name			9 Elevation
		MCKAY OIL CORP.			4103

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	24	6S	22E		600	NORTH	1958	EAST	CHAVES

11 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
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Bill J. Milstead</i></p> <p>Signature</p> <p>Bill J. Milstead</p> <p>Printed Name</p> <p>Vice President</p> <p>Title</p> <p>Date</p>	
	<p>18 SURVEYOR CERTIFICATION</p> <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>JULY 97</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><i>Jackie D. Atkins</i></p> <p>JACKIE D. ATKINS          NEW MEXICO          LAND SURVEYOR          8504</p> <p>LS 8504</p> <p>Certificate Number</p>	

PERTINENT INFORMATION

FOR

MCKAY OIL CORPORATION  
SOUTH 4 MILE DRAW FEDERAL "B" #12  
NW/4NE/4 of Sec. 24, T-6S, R-22E  
Chaves County, New Mexico

<u>LOCATED:</u>	25 air miles Northwest of Roswell, NM.
<u>LEASE NUMBER:</u>	NM-36194
<u>LEASE ISSUED:</u>	May 1, 1981
<u>RECORD LESSEE:</u>	McKay Oil Corporation McKay Children's Trust
<u>BOND COVERAGE:</u>	Operator's \$25,000 Statewide
<u>AUTHORITY TO OPERATE:</u>	Assignment of Operating Rights
<u>ACRES IN LEASE:</u>	2,520.00 acres, more or less
<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 F. Location Topography

## SUPPLEMENTAL DRILLING DATA

MCKAY OIL CORPORATION  
SOUTH 4 MILE DRAW "B" FEDERAL #12  
NW/4NE/4 of Sec. 24, T-6S, R-22E  
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 - 876'
  - Tubb - 2372'
  - Abo - 2625'
3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATIONS:
  - Fresh Water - In surface formation above 600'
  - Gas - In Abo Formation below 2625'
4. PROPOSED CASING PROGRAM: See Form 3160-3
5. PRESSURE CONTROL EQUIPMENT: Blowout preventer will consist of 2 ram, 2 M system w/Rotary Head with a rotating rubber with 1,000#WP and 1,000# test pressure and a steel Blooey Line with 1,000#WP valve. A sketch of the BOP is attached.
6. CIRCULATION MEDIUM: Air Drilling
7. 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.

8. 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.

9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:

None anticipated.

10. ANTICIPATED STARTING DATE: On or before September 1, 1998

Drilling should be completed within 60 days. Completion operations (perforations and stimulation) will follow drilling operations.

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MCKAY OIL CORPORATION  
SOUTH 4 MILE DRAW FEDERAL "B" #12  
NW/4NE/4 of Sec. 24, T-6S, R-22E  
Chaves County, New Mexico

NM 36194

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 23 miles north of Roswell, NM.

B. Directions: Heading North out of Roswell, New Mexico on U.S. 285 for approximately 23 miles and turn left on county road just before mile marker 137 (Cottonwood Road). Go approximately 6.0 miles , the new access road is to the left off Cottonwood road.

### 2. PLANNED ACCESS ROAD:

A. Length and Width: 1/4 miles 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, Cattleguards: NONE.

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 10' of cut and fill will be required for the pad size of 235' x 270'. (See Exhibit "F")

C. Top Soil: Any top soil 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. Private Pit. To be determined at a later date.

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 buried in a separate trash pit and covered with a minimum of 24 inches of dirt or deposited in an approved sanitary landfill. All waste material 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 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 southwest.

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 southwest in the vicinity of the access road and southwest in the vicinity of the drill pad. Regional slope is south toward the China Draw which is adjacent to the location.

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: China Draw is adjacent to the proposed location.

E. Residences and other Structures: The McKnight ranch house is approximately 1 1/2 miles east of this location.

F. Archaeological, Historical and Other Cultural Sites: Mr. Richard Coleman of Trigon Engineering Inc., Farmington, New Mexico has conducted archeological examinations of the proposed drillsites and has submitted his findings to the BLM.

G. Land Use: Grazing.

H. Surface Ownership: Federal.

12. OPERATOR'S REPRESENTATIVE:

Gary Richburg  
Roswell, New Mexico  
(505) 623-4735

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 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.

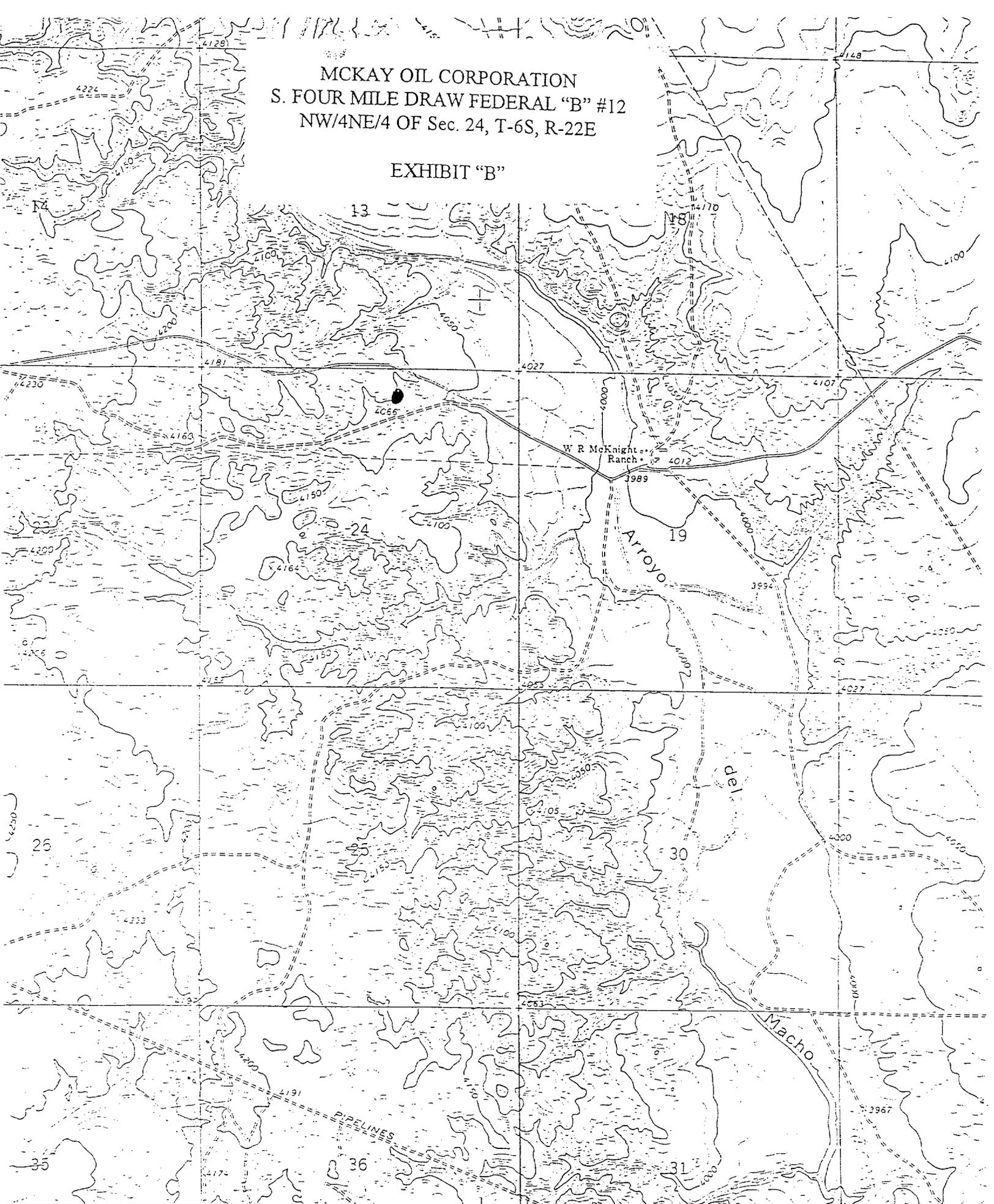
7/23/97  
DATE

Bill M. Staal



MCKAY OIL CORPORATION  
S. FOUR MILE DRAW FEDERAL "B" #12  
NW/4NE/4 OF Sec. 24, T-6S, R-22E

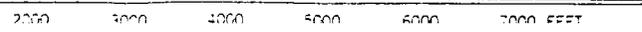
EXHIBIT "B"



(ROCK HOUSE CANYON)  
5051 11 NW

SCALE 1:24,000

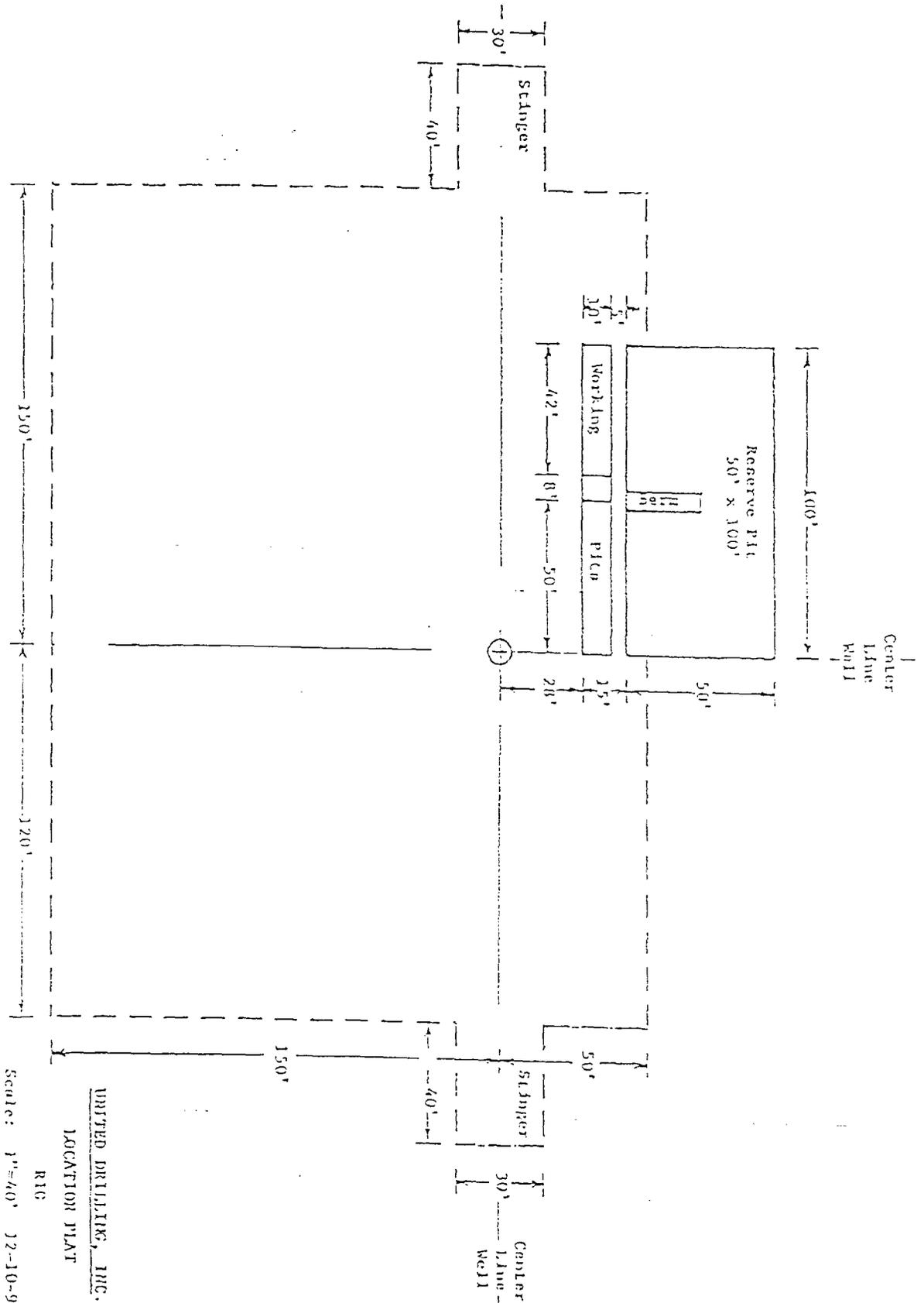
1 MILE



• • • INTERIOR—GEOLOGICAL

MCKAY OIL CORPORATION  
 S. FOUR MILE DRAW FEDERAL "B" #12  
 NW/4NE/4 OF Sec. 24, T-6S, R-22E

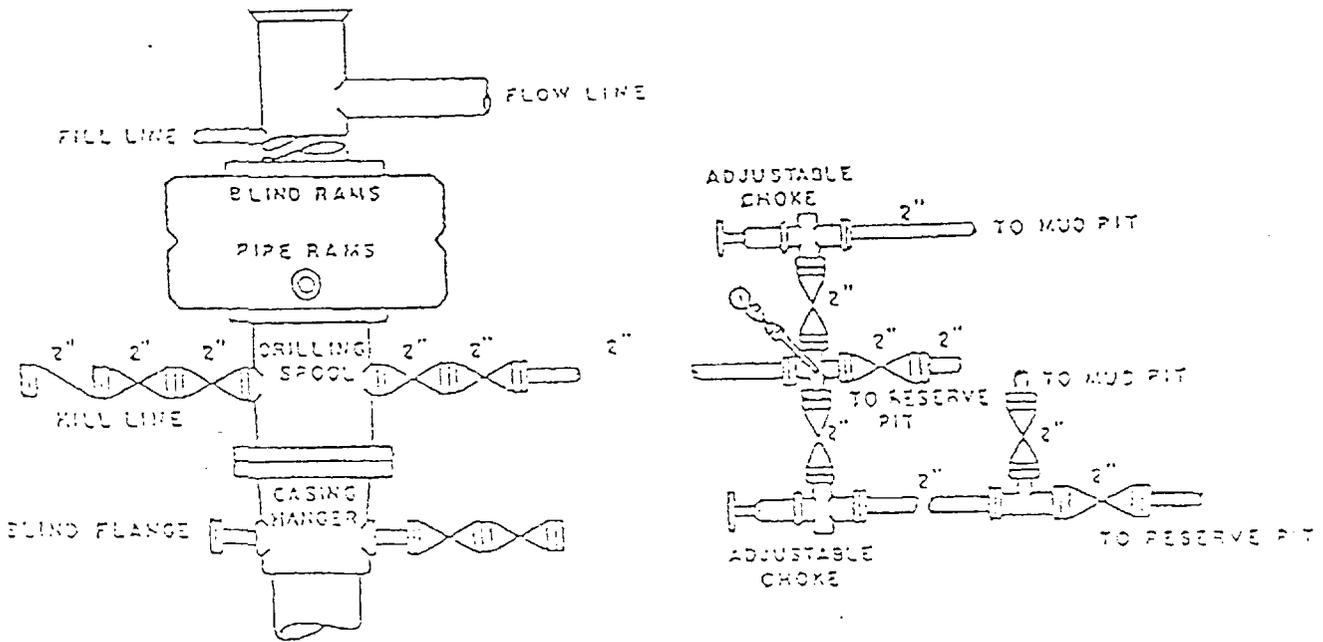
EXHIBIT "C"



UNIFIED DRILLING, INC.  
 LOCATION PLAT  
 R10  
 Scale: 1"=40' 12-10-9

MCKAY OIL CORPORATION  
S. FOUR MILE DRAW FEDERAL "B" #12  
NW/4NE/4 OF Sec. 24, T-6S, R-22E

EXHIBIT "D"

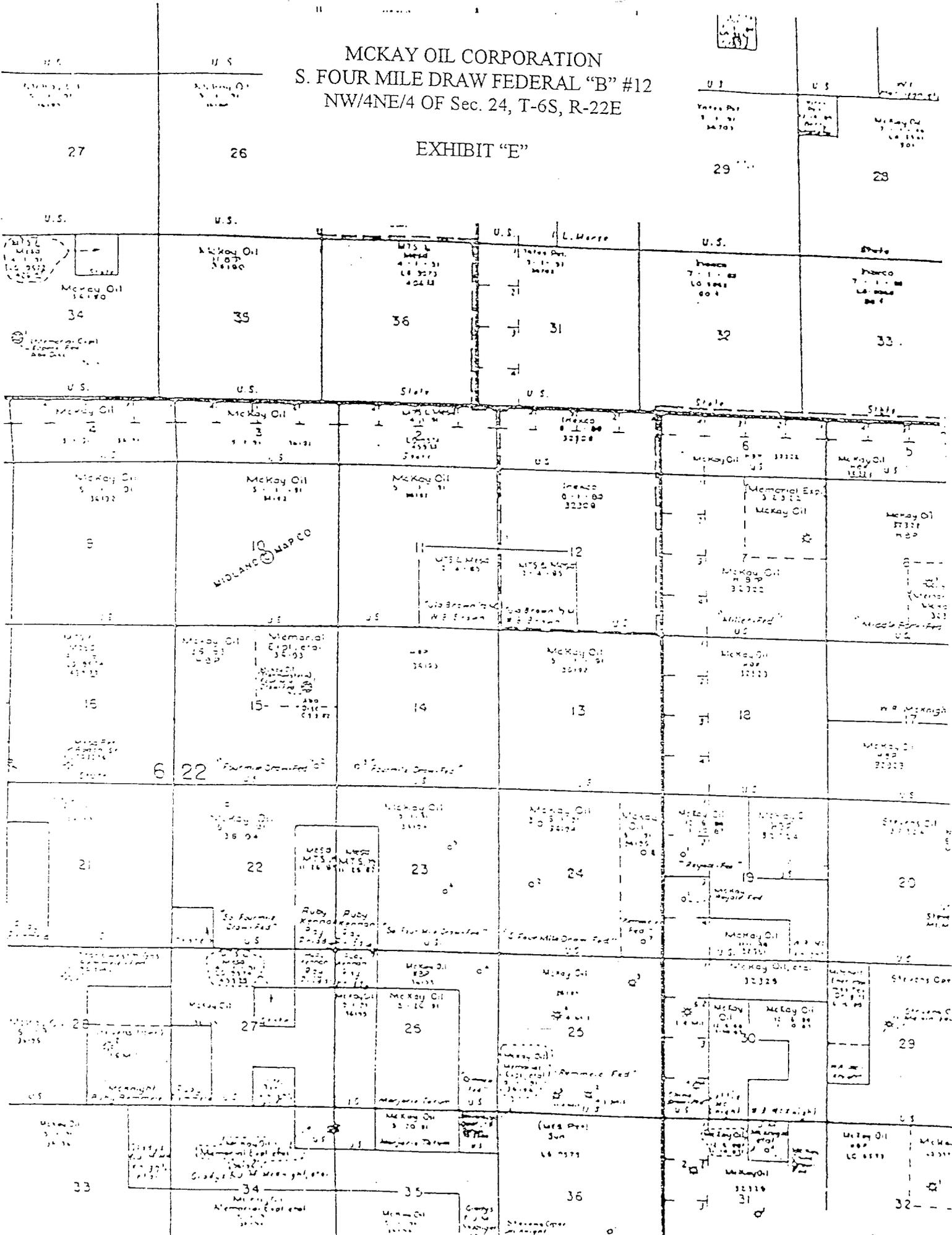


EOP DIAGRAM

3000# Working Pressure  
Rams Operated Daily

MCKAY OIL CORPORATION  
 S. FOUR MILE DRAW FEDERAL "B" #12  
 NW/4NE/4 OF Sec. 24, T-6S, R-22E

EXHIBIT "E"

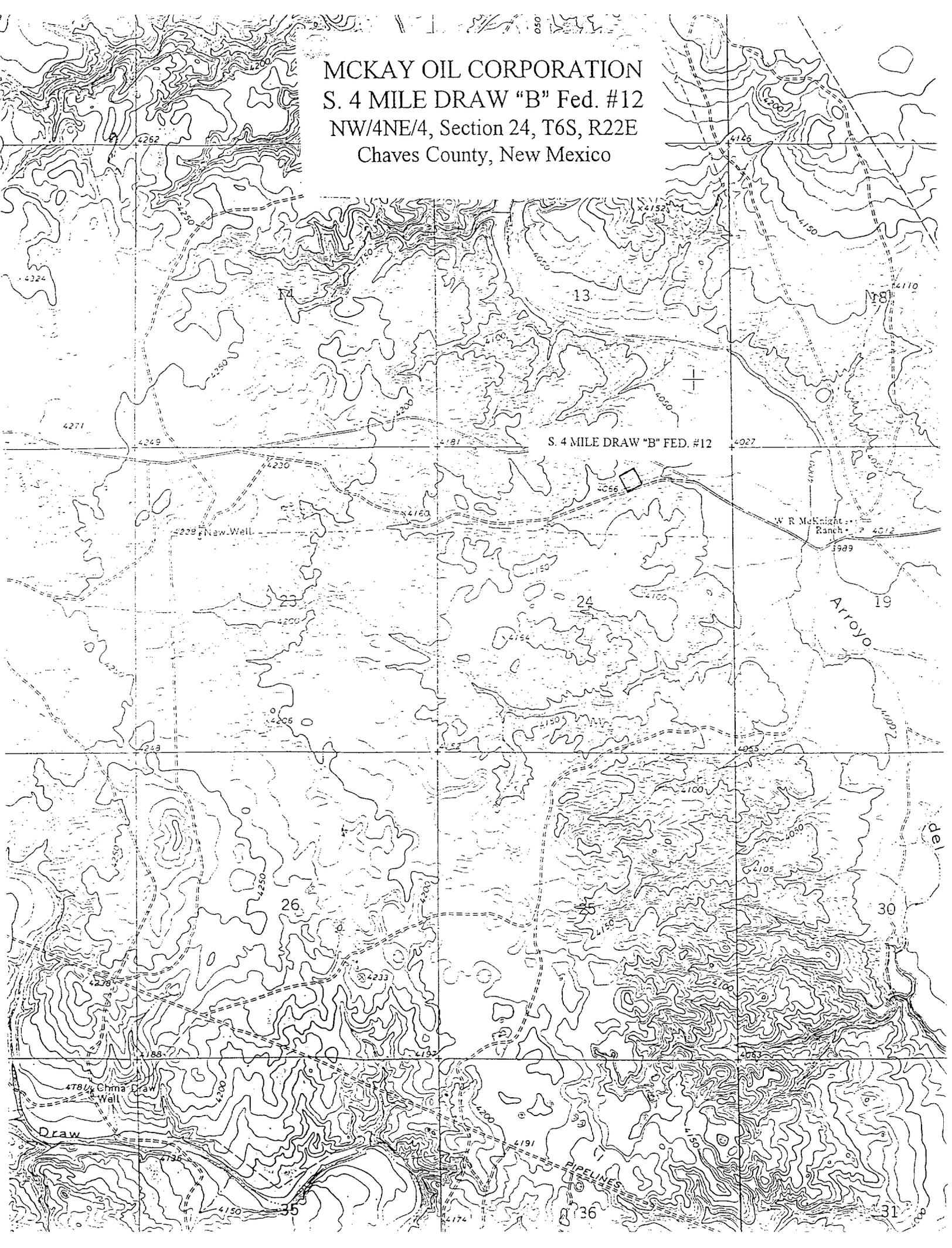


MCKAY OIL CORPORATION  
S. FOUR MILE DRAW FEDERAL "B" #12  
NW/4NE/4 OF Sec. 24, T-6S, R-22E

EXHIBIT "F"

THERE IS NO EXHIBIT "F"

MCKAY OIL CORPORATION  
S. 4 MILE DRAW "B" Fed. #12  
NW/4NE/4, Section 24, T6S, R22E  
Chaves County, New Mexico





United States Department of the Interior  
BUREAU OF LAND MANAGEMENT - ROSWELL FIELD OFFICE



**EXHIBIT B** 1 of 6 pages

**WELL DRILLING REQUIREMENTS**

OPERATORS NAME: McKay Oil Corporation LEASE NO.: NM-36194  
WELL NAME & NO: S. Four Mile Draw Federal "B" Com. #12  
QUARTER/QUARTER & FOOTAGE: NW¼NE¼ & 600' FNL & 1958' FEL  
LOCATION: Section 24, T. 6 S., R. 22 E., N.M.P.M.  
COUNTY: Chaves County, New Mexico

**I. GENERAL PROVISION(S):**

1. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
2. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who approves the Well Drilling Requirements.

**II. WELL PAD CONSTRUCTION REQUIREMENTS:**

1. The BLM shall administer compliance and monitor construction of the well pad and access road. Notify **Richard G. Hill** at least 3 working days (72 Hours) prior to commencing construction of the well pad and/or access road. Roswell Field Office number (505) 627-0247.
2. Prior to commencing construction of the well pad, access road, or other associated developments, the holder shall provide the dirt contractor with a copy of the approved APD signature page, a copy of the location map (EXHIBIT A), a copy of pages 1 & 2 from the Well Drilling Requirements (EXHIBIT B), and a copy of the Permanent Resource Road Requirements (EXHIBIT D).
3. The holder shall stockpile the topsoil from the surface of the well pad for reclamation purposes. The topsoil on the S. Four Mile Draw Federal "B" Com. #12 well is approximate 3 inches in depth. Approximately 500 cubic yards of topsoil shall be stockpiled on the Southwest corner of the well pad. Upon reclamation of the well pad, the topsoil stockpile shall be redistributed over the disturbed areas.

**4. Reserve Pit Requirements:**

A. The reserve pit shall be constructed so as not to leak, break, or allow discharge of drilling muds.

B. The reserve pit shall be constructed four (4) feet below ground level. The reserve pit shall have at least one half the total drilling mud volume below natural ground level, unless metal mud tanks are used for drilling (aka; enclosed mud drilling system).

C. The reserve pit shall not be located in any natural drainage.

D. The plastic lining that is used to line the reserve pit shall be at least 9 mil in thickness and have a bursting strength of 170 PSI. Upon reclamation of the reserve pit, any exposed plastic lining shall be removed and properly disposed of before the reserve pit is backfilled.

E. The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

F. The reserve pit shall be equipped to deter entry by birds, bats, other wildlife, and livestock, if the reserve pit contains any oil and/or toxic fluids.

G. Drilling muds shall be properly disposed of before the reserve pit is reclaimed. Under no circumstances will the reserve pit be cut to drain drilling muds on the well pad. Drilling muds are allowed to evaporate in the reserve pit. Drilling muds can be removed and transported to an authorized disposal site. The reserve pit shall be backfilled when dry.

**5. Federal Mineral Materials Pit Requirements:**

A. Caliche, gravel, or other related materials from new or existing pits on Federal mineral estate shall not be taken without prior approval from the authorized officer.

B. Payment for any Federal mineral materials that will be used on the project is required prior to the construction of the well pad and access road.

**6. Well Pad Surfacing Requirement:**

The well pad shall be surfaced with 6 inches of compacted caliche, gravel, or other approved surfacing material. See EXHIBIT D - #6, for road surfacing requirement.

**7. Well Completion Requirement:**

If the well is completed, cut-and-fill slopes shall be reduced to a slope of 3:1 or less. All areas of the well pad not necessary for operations shall be re-contoured to resemble the original contours of the surrounding terrain.

**III. DRILLING OPERATION REQUIREMENTS:**

The Bureau of Land Management shall be notified at (505) 627-0272, in sufficient time for a BLM representative to witness:

1. Spudding.
2. Cementing of the 8 5/8 and 4 1/2 inch casing.
3. BOP tests.

Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

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.

NMOCD approval is needed for an unorthodox location.

**IV. CASING:**

The 8 5/8 inch surface casing should be set to 900 feet and cement behind the casing must be circulated to the surface. If cement does not circulate to the surface this 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.

The required fill of cement behind the 4 1/2 inch production casing shall be sufficient to isolate all water, oil and gas, but at a minimum shall extend to at least 500 feet above the perforated zone.

**V. PRESSURE CONTROL:**

The blowout preventer assembly shall consist of a minimum of one annular or two ram preventers.

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

The BOPE shall be installed before drilling below the 8 5/8 inch casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

1. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not allowed since it can mask small leaks.
2. Testing must be done in a safe workman like manner. Hard line connections shall be required.
3. This BLM office shall be notified at (505) 627-0272, in sufficient time for a BLM representative to witness the tests.

**VI. WELL COMPLETION REQUIREMENTS:**

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

**VII. SEEDING REQUIREMENTS:**

The stockpiled topsoil shall be re-distributed and seed shall be dispersed over the reclaimed area. Seeding shall be done according to the seeding requirements, using the seed mixture determined by Desired Plant Community.

**1. BLM SEEDING REQUIREMENTS IN THE ROSWELL FIELD OFFICE**

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)/acre. There shall be no primary or secondary noxious weeds in the seed mixture. In accordance with State law(s) the seed should be tested for purity and viability within nine (9) months prior to sell. Commercial seed shall be either certified or registered seed. The seed mixture container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop to the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre noted below are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of the first growing season after seeding.

Species to be planted in pounds of pure live seed per acre:	<u>DPC SEED MIXTURE</u>
Black grama, var. Nogal (Bouteloua eriopoda)	2.0 Lbs.
Black grama, var. Lovington (Bouteloua gracilis)	1.0 Lbs.
Sideoats grama, (Bouteloua curtipendula)	2.0 Lbs.
var. Vaughn or El Reno	
New Mexico Feathergrass (Stipa neomexicana)	1.0 Lbs.
Desert or Scarlet (Sphaeralcea ambigua)	1.0 Lbs.
Globemallow or S. coccina)	
Buckwheat (Eriogonum spp.)	<u>1.0 Lbs.</u>
Pure live seed per acre =	8.0 Lbs.

Pounds of pure live seed: Pounds of seed X percent purity X percent germination = pounds pure live seed

The recommended time to seed is from June 15th through September 15th. The optimum seeding time is in mid-July. Successive seeding should be done either late in the fall (September 15 - November 15, before freeze up) or early as possible the following spring to take advantage of available ground moisture.

**Contact Richard G. Hill at (505) 627-0247 to witness the seeding operations, two (2) days prior to seeding the disturbed areas.**

**VIII. ON LEASE - WELL REQUIREMENTS:**

1. The holder shall post signs identifying the location permitted herein with the requirements contained in Onshore Oil and Gas Order #1 and 43 CFR 3162.6.

The following data is required on the well sign that shall be posted in a conspicuous place:

Operator Name: McKay Oil Corporation

Well Name & No.: S. Four Mile Draw Federal "B" Com. #12

Lease No.: NM-36194

Footage: 600' FNL & 1958' FEL

Location: Section 24, T. 6 S., R. 22 E.

**(UPON ABANDONMENT OF THE WELL, THE SAME INFORMATION SHALL BE INSCRIBED ON THE DRY HOLE MARKER WITH A BEADED WELD).**

2. The approval of this action does not in any way grant or imply approval of any off-lease or off-unit action. It is the responsibility of the holder to obtain any such approvals from the appropriate surface managing agency, including the BLM, and/or any private surface landowner(s).
3. All vehicles and equipment associated with the construction of the well pad and road, the drilling of well, the well completion, and the production phases of this well shall be confined to the approved well pad, road, and other areas herein approved

**4. Containment Structure Requirement:**

A. Firewalls/containment dikes shall be constructed and maintained around all storage facilities/batteries.

B. A two (2) foot high earthen dike shall be constructed around the facilities/batteries (the earthen dike can be constructed higher than the two (2) feet high minimum).

C. The perimeter of the containment structure can be constructed substantial larger for greater holding capacity of the contents of the largest tank.

D. Firewalls/containment dikes shall be able to contain the entire contents of the largest tank, plus 24 hour production, within the containment dike structure, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

**5. Cave Requirements:**

A. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease, and the Roswell Field Office shall be notified at (505) 627-0272.

B. The BLM Authorized Officer will, within 24 hours of notification in "A" above, conduct an on-the-ground field inspection for karst. At the field inspection the authorized field inspector will authorize or suggest mitigating measures to lessen the damage to the karst environment. A verbal order to proceed or stop the operation will be issued at that time.

**6. Painting Requirement:**

All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is Carlsbad Canyon, Munsell Soil Color Number A 6/2.

**7. Fence Requirement:**

The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair impacted improvements to at least their former state. On private surface the holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officer.

**8. Open-vent Requirements:**

A. All open-vent exhaust stacks associated with heater-treater, separators and dehydrator units shall be modified to prevent birds and bats from entering them and to the extent practical to discourage perching and nesting.

B. New production equipment installed on federal leases after November 1, 1993, shall have the open-vent exhaust stacks constructed to prevent the entry of birds and bats and to the extent practical, to discourage perching, and nesting.

**IX. ABANDONMENT REQUIREMENTS:**

1. If the well is dry and is to be plugged, approval of the proposed plugging program may be obtained orally. However, oral approval must be confirmed in writing by immediately filing an original and five (5) copies of the "Notice of Intention to Abandon" (Form 3160-5) with the appropriate BLM Field Office. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where plugs are to be placed, type of plug, type of plugging mud, etc.
2. Following the receipt of an original and five (5) copies of the "Subsequent Report Of Abandonment" (Form 3160-5), final BLM requirements for surface reclamation shall be specified for the well pad and access road at the time of abandonment.
3. If the well is not drilled, please notify the BLM so that an official release can be approved.

**X. SURFACE RESTORATION REQUIREMENT:**

1. The holder shall comply with all the requirements specified by the Authorized Officer pertaining to the surface reclamation of the well pad and access road. Liability under bond shall be retained until surface restoration is completed.

**XI. SPECIAL REQUIREMENT(S): NONE**



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT -ROSWELL FIELD OFFICE



**EXHIBIT C** 1 of 3 pages

**CONDITIONS OF APPROVAL**

OPERATOR: McKay Oil Corporation

LEASE NO: NM-36194

WELL NAME & NO.: S. Four Mile Draw Federal "B" Com. #12

LOCATION: Section 24, T. 6 S., R. 22 E., N.M.P.M.

QUARTER/QUARTER & FOOTAGE: NW¼NE¼ - 600' FNL & 1958' FEL

COUNTY: Chaves County, New Mexico

**I. GENERAL CONDITIONS OF APPROVAL:**

1. The **operator** shall hereafter be identified as the **holder** in these stipulations. The Authorized Officer is the person who approves the Conditions Of Approval.
2. The holder shall indemnify the United Sates against any liability for damage to life or property arising from occupancy or use of public lands under this authorization.
3. **Weed Control:**

The holder shall be responsible for weed control on disturbed areas within the limits of the site. The holder is responsible for consultation with the Authorized Officer and/or local authorities for acceptable weed control methods, which include following EPA and BLM requirements and policy.

4. **Hazardous Substance:**

A. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act Of 1976, as amended (15 U.S.C. 2601, et. seg.) with regard to any toxic Substances that are used, generated by or stored on the project/pipeline route or on facilities authorized. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, ect.) in access of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

B. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seg. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seg.) on this project/pipeline (unless the release or threatened release is wholly unrelated to the operator's activity on the pipeline). This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.

**5. Undesirable Event:**

If, during any phase of the construction, operation, maintenance, or termination of the authorization, any oil or other pollutants should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutants, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

**6. Archeological, Paleontology, and Historical Sites:**

A. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

B. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of the project work, the holder shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The holder or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes. Any unauthorized collection or disturbance of cultural resources may result in a shutdown order by the Authorized Officer.

**7. Sanitation:**

The holder shall be responsible for maintaining the site in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

**8. Open-top tanks:**

Any open-top tank containing oil and/or toxic fluids shall be equipped to deter entry by birds, bats, other wildlife, and livestock.

**9. Other:** none



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## EXHIBIT D

### PERMANENT RESOURCE ROAD REQUIREMENTS

Operator: McKay Oil Corporation  
BLM Serial Number: NM-36194  
Well Name & No.: S. Four Mile Draw Federal "B" Com. #12  
Location: Section 24, T. 6 S., R. 22 E., NW1/4NE1/4,  
600' FNL & 1958' FEL, Chaves County, N.M.

I. The holder agrees to comply with the following requirements:

1. GENERAL REQUIREMENTS:

A. The **operator** shall hereafter be identified as the **holder** in these requirements. The Authorized Officer is the person who approves the Permanent Resource Road Requirements.

B. The holder shall minimize any disturbance to structures on public domain surface. Damages caused to any structure during road construction operations shall be promptly repaired by the holder. Functional use of any structure shall be maintained at all times. The holder shall make a documented good-faith effort to contact the owner prior to disturbing any structure.

C. When necessary to pass through an existing fence line, the fence shall be braced on both sides of the passageway prior to cutting and the fence shall be promptly repaired to at least it's former state or to a higher standard than it was previously constructed.

2. ROAD WIDTH AND GRADE:

The road travel surface shall be constructed 14 feet wide. The maximum allowed road construction width shall not exceed 30 feet. The specified width for all road travel surfaces is 14 feet unless the Authorized Officer approves a different width. If the road grade exceeds 10 percent slope a professional engineer shall design the road.

3. CROWNING AND DITCHING:

Crowning with materials on site and ditching on one side of the road, on the uphill side, shall be required. The road cross section shall conform to the cross section diagrams in Figure 1 (attached page 3). Where conditions dictate, ditching is required on both sides of the road. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road).

4. **DRAINAGE: No lead-off ditches are required for this road.**

Drainage control shall be ensured over the entire road through the construction of ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

PERCENT SLOPE AND SPACING INTERVALS FOR LEAD-OFF DITCHES:

Percent slope	Spacing interval
0 - 4%	150' - 350'
4 - 6%	125' - 250'
6 - 8%	100' - 200'
8 - 10%	75' - 150'

CROSS SECTION OF TYPICAL LEAD-OFF DITCH

1' MINIMUM DEPTH

BERM

NATURAL GROUND SURFACE

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

B. **No culvert pipes are required on this road.** Culvert pipes shall be used in drainage ravines and/or at water flow crossings that require a culvert to cross over the water drainages. The culvert shall be XXX inches in diameter (minimum 18 inch culvert). Culvert location is designated on the attached map EXHIBIT A. (The culvert pipe installation diagram shall be attached to this stipulation when a culvert is required to be installed in EXHIBIT - X )

C. On road slopes exceeding 2%, water flow shall drain water into an adjacent lead-off ditch. Water flow drainage location and spacing shall be determined by the formula:

FORMULA FOR SPACING INTERVAL OF LEAD-OFF DITCHES:

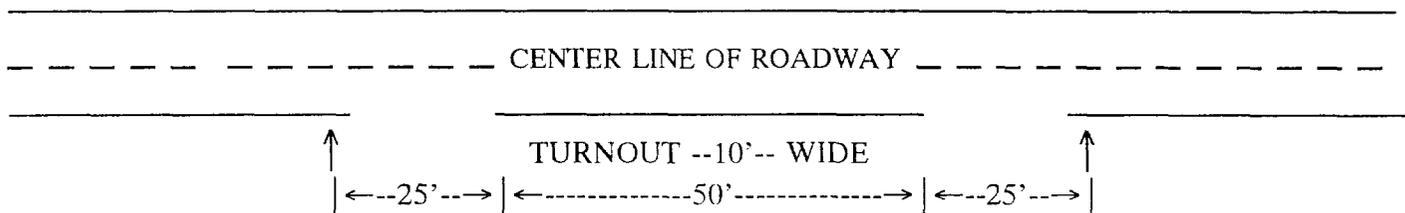
$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Ex. 4% slope:      spacing interval =  $\frac{400}{4} + 100 = 200$  feet

5. **TURNOUTS:** No turnouts are required for this road.

Vehicle turnouts shall be constructed on all single lane roads (unless the Authorized Officer determines that the turnouts are not required). Turnouts shall be intervisible and shall be constructed on all blind curves with additional turnouts as needed to keep spacing below 1000 feet. Turnouts shall conform to the following diagram:

STANDARD TURNOUT - PLAN VIEW



6. **SURFACING:**

Surfacing shall be required on the road with caliche or gravel material. If other surfacing material is used, the new type of material shall be approved by the Authorized Officer. The road shall be surfaced with caliche material and the caliche material shall be compacted to a minimum thickness of 6 inches on the travel surface of the road. The width of surfacing shall be no less than 14 feet of travel surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

**6. CATTLEGUARDS: No cattleguard is required.**

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads, (exceeding H-20 loading,) are anticipated. (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

**7. MAINTENANCE:**

A. The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, cattleguard maintenance, and surfacing.

B. The holder shall cooperate with other authorized users in maintenance of the road(s). Failure of the holder to share maintenance costs in dollars, equipment, materials, and manpower proportionate to the holders use with other authorized users may be adequate grounds to terminate the road use. The determination as to whether maintenance expenditures have been withheld by the holder and the decision to terminate the road use shall be at the discretion of the Authorized Officer. Upon request, the Authorized Officer shall be provided with copies of any maintenance agreements entered into by the holder.

**8. PUBLIC ACCESS:**

Public access on this road shall not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands shall not be locked or closed to public use unless closure is absolutely necessary and is authorized in writing by the Authorized Officer.

**9. ROAD REHABILITATION REQUIREMENTS:**

A. The road shall be ripped a minimum of 16 inches deep. The surface material on the road may be removed and re-used in approved area(s). Surfacing material left in place shall be plowed under with soil turning equipment and the plowed surface shall be disked before seeding. All culverts and other road structures shall be removed. All over burden material shall be replaced in the cut areas, ditches, lead-off ditches, and other excavated earthwork shall be back filled. The road shall be recontoured to as near it's original topography, as possible. An earthen berm shall be constructed at the entrance of the road to prevent vehicular traffic on the road.

B. The road shall be seeded with the following seed mixture (determined by Desired Plant Community):

**SEE EXHIBIT B - WELL DRILLING REQUIREMENTS - VII. SEEDING REQUIREMENTS.**

# EXHIBIT A

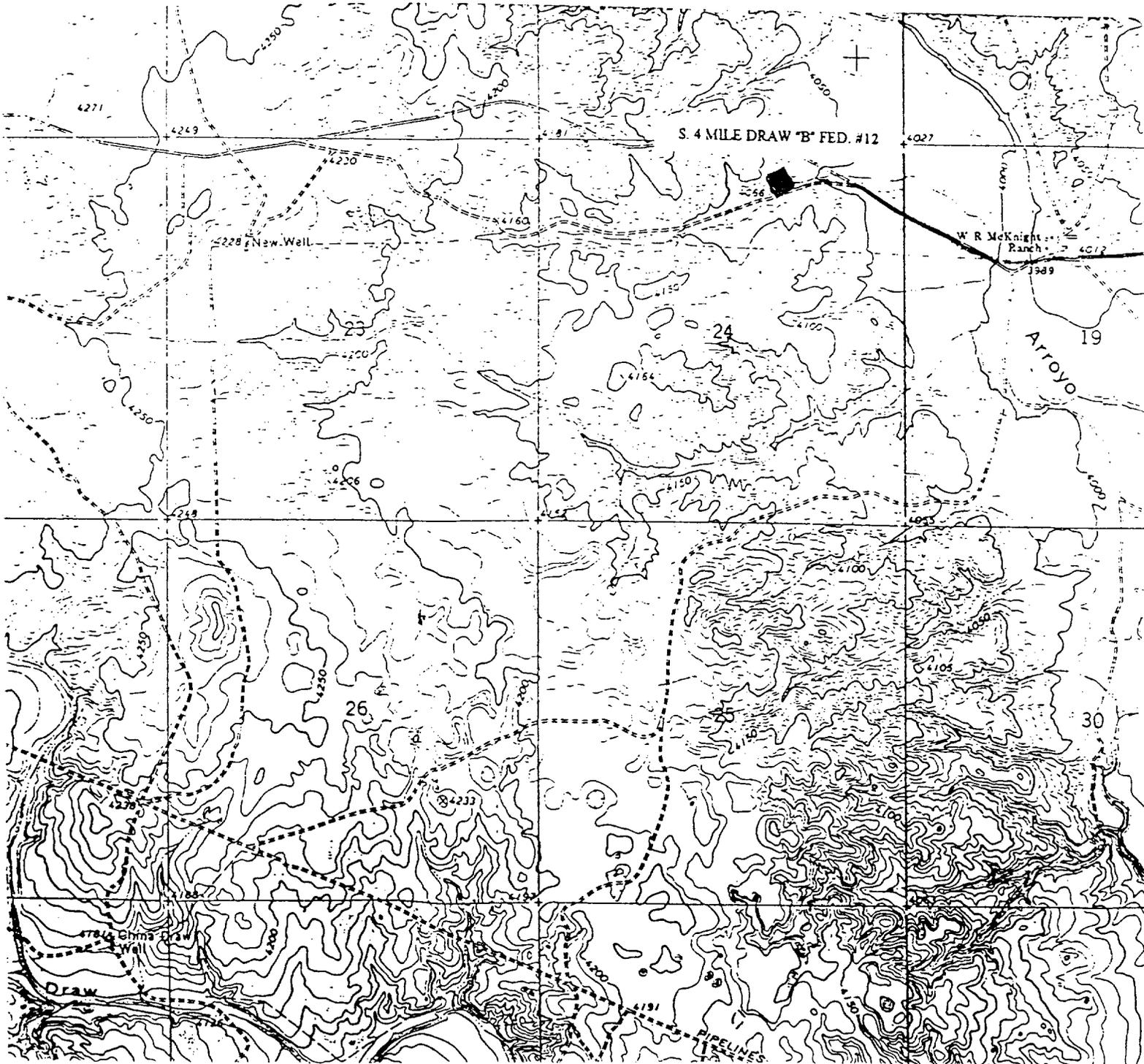
McKay Oil Corporation

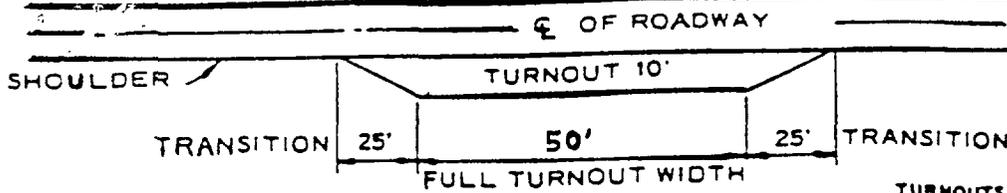
NM-36194

S. Four Mile Draw Federal "B" Com. #12

Section 24, T. 6 S., R. 22 E., NW1/4NE1/4,

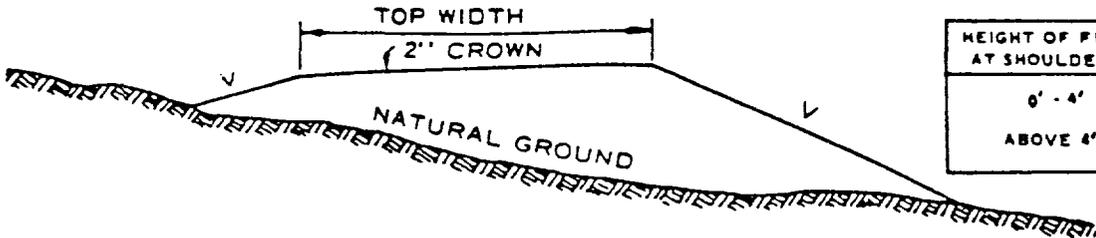
600' FNL & 1958' FEL, Chaves County, N.M.





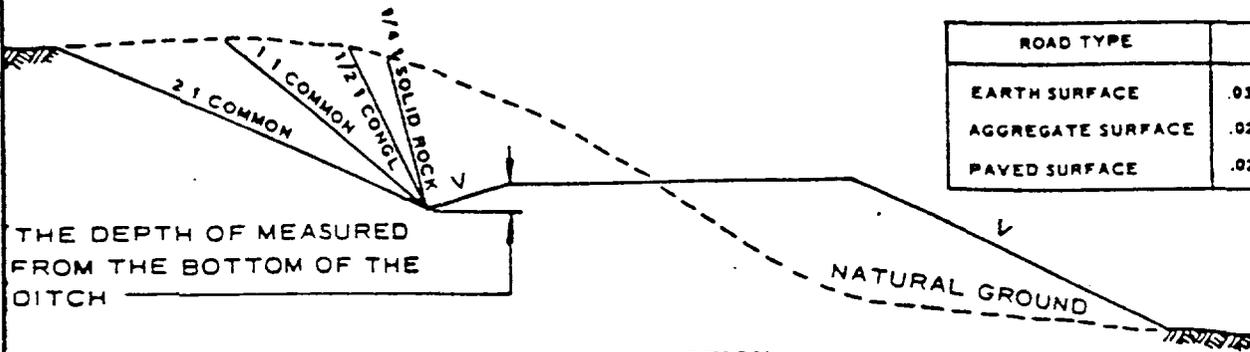
TYPICAL TURNOUT PLAN

TURNOUTS SHALL BE CONSTRUCTED ON ALL SINGLE LANE ROADS ON ALL BLIND CURVES WITH ADDITIONAL TURNOUTS AS NEEDED TO KEEP SPACING BELOW 1000 FEET.



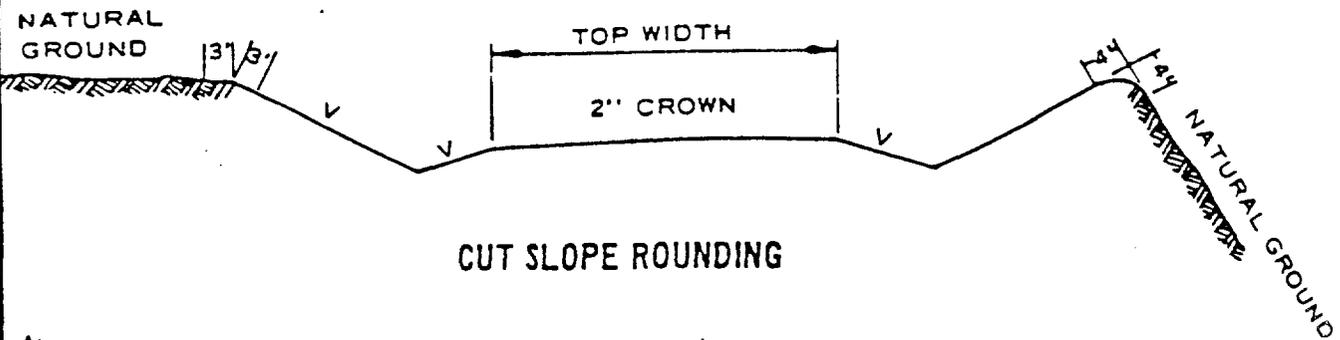
HEIGHT OF FILL AT SHOULDER	EMBANKMENT SLOPE
0' - 4'	3:1
ABOVE 4'	2:1

EMBANKMENT SECTION

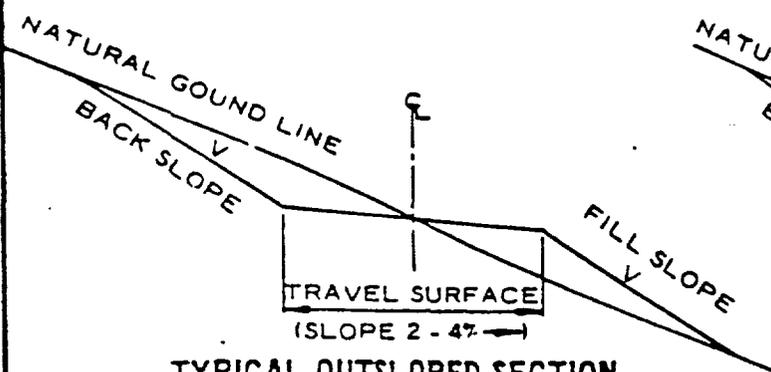


ROAD TYPE	CROWN
EARTH SURFACE	.03 - .05 FT / FT
AGGREGATE SURFACE	.02 - .04 FT / FT.
PAVED SURFACE	.02 - .03 FT / FT

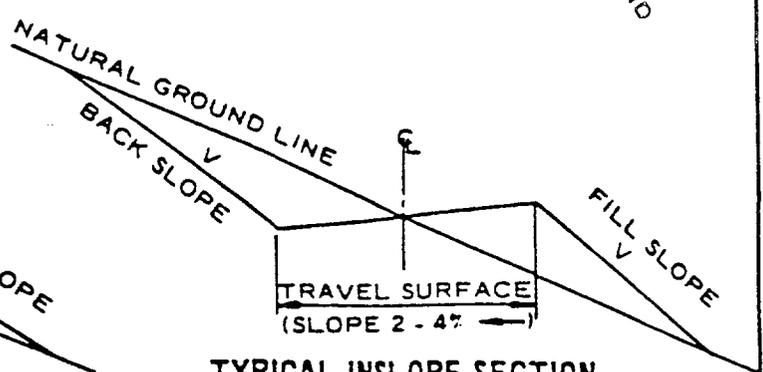
SIDE HILL SECTION



CUT SLOPE ROUNDING



TYPICAL OUTSLOPED SECTION



TYPICAL INSLOPE SECTION

FIGURE 1 - CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD SECTIONS.