# N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue Artesia, NM 88210

Form 3160 -3 (April 2004)				OMB No	APPROVED 1004-0137 larch 31, 2007	
UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN	INTERIOR			5. Lease Serial No. NM-36192		4
APPLICATION FOR PERMIT TO		REENTER		6. If Indian, Allotee	or Tribe Nam	ne
Ia. Type of work: ✓ DRILL REENTE	ER			7 If Unit or CA Agre	ement, Name	and No.
lb. Type of Well: Oil Well Gas Well Other	Sin	gle Zone Multip	ole Zone	8. Lease Name and V Lookout B Fed		34715
Name of Operator     McKay Oil Coporation	14424		<u>.</u> .	9. API Well No.		3868
3a. Address PO Box 2014 Roswell, NM 88202-2014	3b. Phone No. <b>505-62</b> 3	(include area code) 3-4735		10. Field and Pool, or I W. Pecos ABO		82740
4. Location of Well (Report location clearly and in accordance with an	11. Sec., T. R. M. or B	lk. and Survey	or Area			
At surface 1310' FSL & 400' FEL  At proposed prod. zone				Lot P, Sec 9, T	6S, R22E	
14. Distance in miles and direction from nearest town or post office* 25 miles				12. County or Parish  Chaves	13.	State NM
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig, unit line, if any)	location to nearest property or lease line, ft.				vell	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed <b>4500'</b>	Depth	20. BLM/	BIA Bond No. on file		<del> </del>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4361'	22 Approxim	nate date work will star 10/20/2006	rt*	23. Estimated duration 7 - 10 days	ו	
	24. Attac	hments				
The following, completed in accordance with the requirements of Onshor	re Oil and Gas (	Order No.1, shall be a	ttached to th	is form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System</li> </ol>	Lands the	Bond to cover the ltem 20 above).      Operator certification.	•	ns unless covered by an	existing bond	on file (see
SUPO shall be filed with the appropriate Forest Service Office).	Sands, inc		specific info	ormation and/or plans as	may be requi	red by the
25. Signature A.M.	1	(Printed/Typed) James Schultz			Date 09/15/2	2006
Title Agent						
Approved by (Signuture)	Name /	(Printed/Typed) S/LARRY D	. BRA	Y	Date	16 200
Lands And Minerals		ROSWELL FII			RCVED F	OR 1 YEAR
Application approval does not warrant or certify that the applicant hold conduct operations thereon.  Conditions of approval, if any, are attached.	ls legal or equit	able title to those righ	ts in the sub	oject lease which would e	ntitle the appl	icantto
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent, statements or representations as			villfully to n	nake to any department o	r agency of th	ne United

\*(Instructions on page 2)

NSC - 5257

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



DISTRICT I' 1625 N. PRENCH DR., HOEBS, NM 66240

DISTRICT II

DISTRICT III

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

\$ 17 18 1920 21 22 Form C-102 4 JUNE 10, 2003 RESUMPTION Appropriate District Office

RECEDIA State Jease - 4 Copies

OCD - ARTESIA State Jease - 3 Copies

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

1000 Rio Brazos Rd., Aztec, NM 87410

1301 W. GRAND AVENUE, ARTESIA, NM 88210

WELL LOCATION AND ACREAGE DEDICATION FIRST EZI AMENDED REPORT DISTRICT IV

API Number	Pool Code	le ces	Sle re.	Ahe West	
Property Code	Property Name ,  LOOKOUT B FEDERAL			Well Num	ber
OGRID No.	Operator McKAY OIL CO			Elevation 4361	

#### Surface Location

-	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	Р	9	6-S	22-E		1310	SOUTH	400	EAST	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 Co	onsolidation (	Code Ore	der No.		<u></u>	<u></u>	

#### 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

	OPERATOR CERTIFICATION  I hereby certify the the information contained herein is true and complete to the best of my knowledge and betief.
GEODETIC COORDINATES NAD 27 NME  Y=1021165.0 N X=383133.2 E	Signature  James Schultz Printed Name Agent Title  -03/16/05
LAT.=33'48'23.38".N LONG.=104'43'05.02" W	SURVEYOR CERTIFICATION  I hereby certify that the well location shown on this plat was platted from field notes of actual surveys made by me or under my
	supervison and that the same is true and correct to the best of my belief.  4361.7' 4345.0' DECEMBER 8, 2004  Date 170.0 DEL  Signal of Steel 1000  Brokesstone Message of 1000  Brokesstone Message of 1000
	4382.4' 4352.7

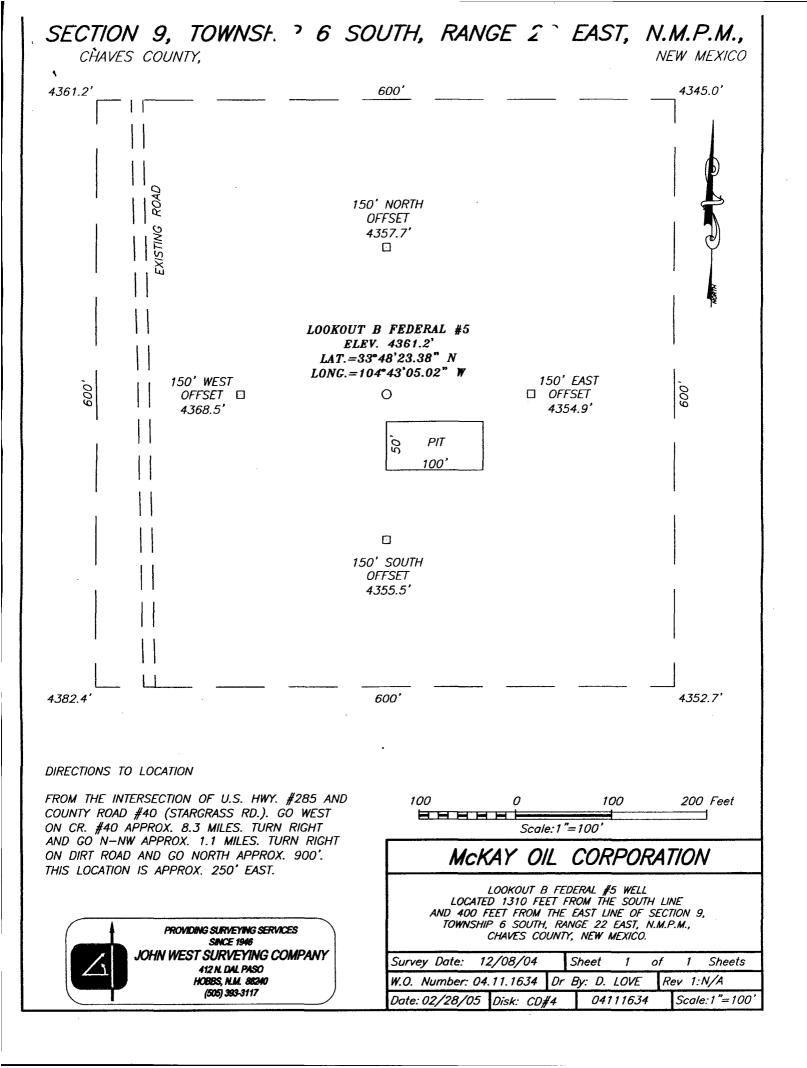
#### PERTINENT INFORMATION

## FOR MCKAY OIL CORPORATION LOOKOUT B FEDERAL 5 1310' FSL & 400' FEL SEC 09, T6S, R22E

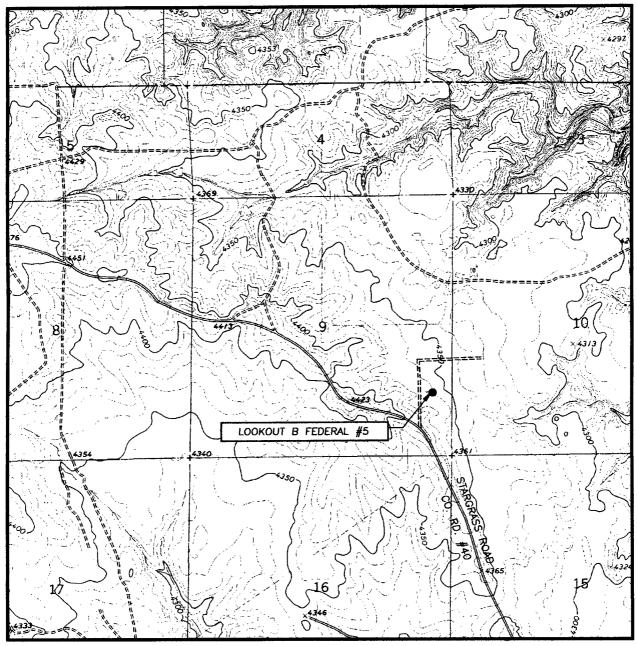
## Chaves County, New Mexico

LOCATED: 25 air miles Northwest of Roswell, NM. LEASE NUMBER: NM 36192 05/01/1981 LEASE ISSUED: McKay Petroleum Corporation RECORD LESSEE: **BOND COVERAGE:** Operator's \$25,000 Statewide **AUTHORITY TO OPERATE:** Assignment of Operating Rights 320.00 ACRES IN LEASE: **SURFACE OWNERSHIP:** Federal OWNER: **USA-BLM** POOL RULES: General Statewide Rules A. Road and Well Map **EXHIBITS:** B. Contour Map C. Rig Layout D. BOP Diagram

E. Lease Map



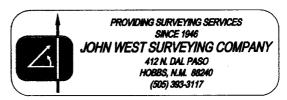
# LOCATION VERIFICATION MAP



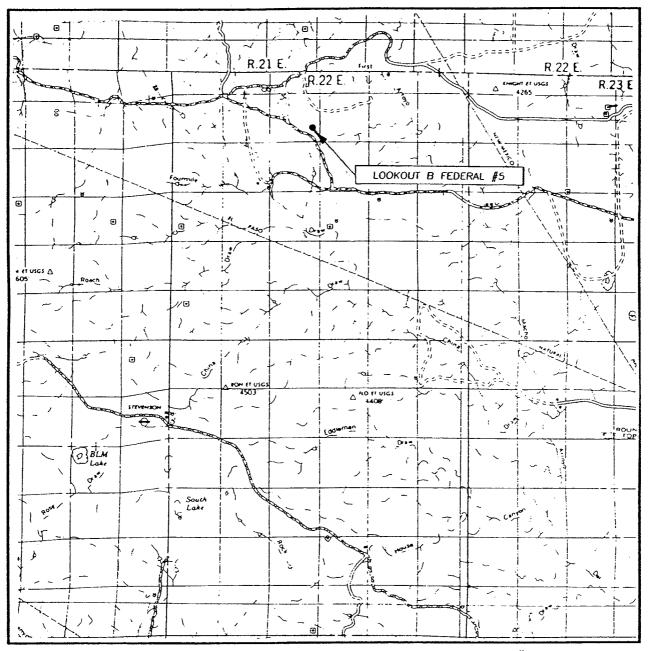
SCALE: 1" = 2000'

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

SEC. 9	TWP. 6-S	_RGE.	<u> 22-l</u>	<u> </u>
SURVEY	N.M.	P.M.		
COUNTY	CHA	VES		
DESCRIPTIO	N 1310' F	SL &	400'	FEL
ELEVATION		4361'		
OPERATOR .	Mci CORI	KAY C PORAT	IL ION	
	LOOKOUT I			
U.S.G.S. TO MEAS SW,	DPOGRAPHIO N.M.	C MAF	•	



# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 9 TWP. 6-S RGE. 22-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 1310' FSL & 400' FEL

ELEVATION 4361'

MCKAY OIL

CORPORATION

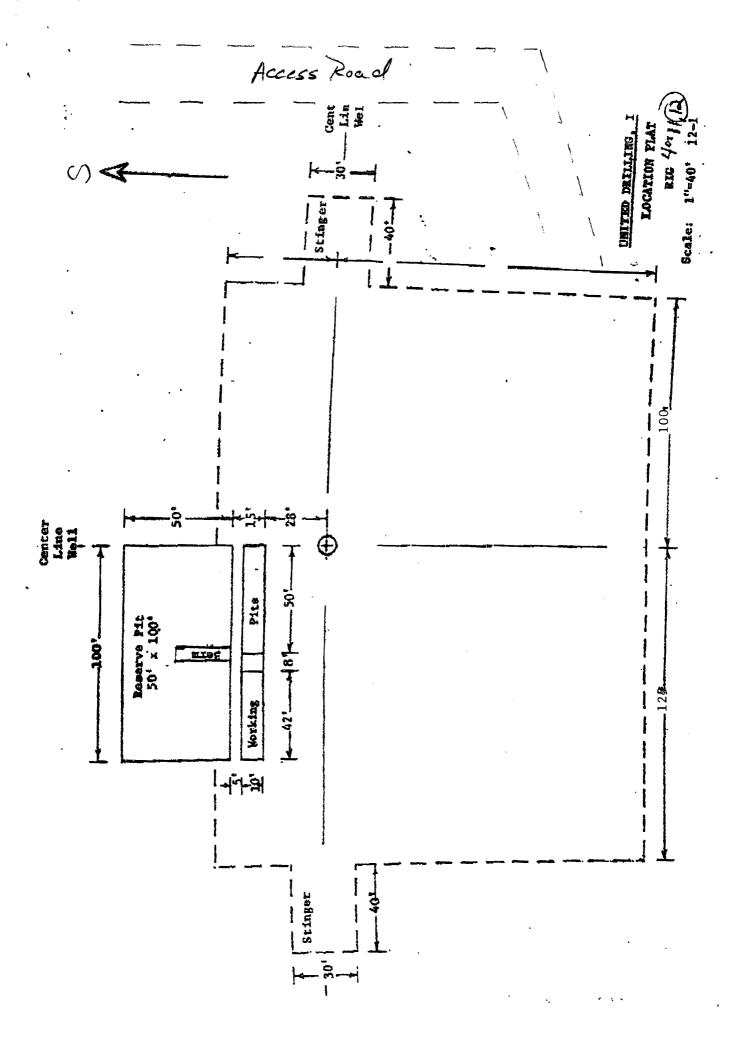
LEASE LOOKOUT B FEDERAL



PROVIDING SURVEYING SERVICES
SINCE 1946

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



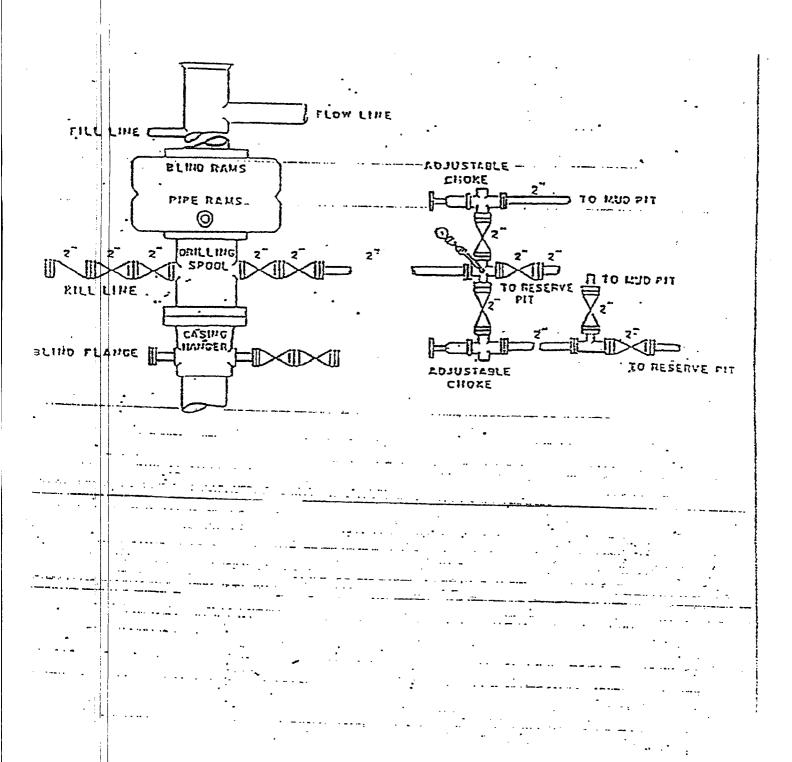


# **McKay Oil Corporation**

Look Out B Federal 5

Section 09, T6S, R22E Chaves County, New Mexico

Exhibit "D"



#### SUPPLEMENTAL DRILLING DATA

## MCKAY OIL CORPORATION LOOKOUT B FEDERAL 5 1310' FSL & 400' FEL Sec 9, 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 - 1077'
Tubb - 2573'
Abo - 2801'

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

Fresh Water - In surface formation above 600'
Gas - In Abo Formation below 2801'

4. PROPOSED CASING PROGRAM:

12-1/4" hole	8-5/8" J-55	24#	950'+
7-7/8" hole	5-1/2" J-55	<b>15.5#</b>	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: Fresh water and mud
- 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: C

Catch samples from surface to TD.

DST's:

None.

Logging:

GR-CNL, Dual Lateral MSFL from

surface to TD.

Coring:

None.

# 11. <u>ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:</u> None anticipated.

12. <u>ANTICIPATED STARTING DATE</u>: 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 LOOKOUT B FEDERAL 3 660' FSL & 660FWL Sec 10, T6S, R22E

#### Chaves County, New Mexico

#### NM 36192

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. <u>Directions</u>: From the intersection of US Highway #285 and County Rd. #40 (Stargrass Rd.). Go West on CR #40 approximately 8.3 miles. Turn right and go N-NW approximately 1.1 miles. Turn right on dirt road and go north approximately 900'. This location is approximately 250' East,

#### 2. PLANNED ACCESS ROAD:

- A. Length and Width: not applicable
- B. <u>Surface Materials</u>: Sand, gravel and caliche where needed.
- C. Turnouts: None
- D. Maximum Grade: No more than 3%.
- E. <u>Drain Design</u>: no applicable
- F. Culverts: None.
- G. Cuts and Fill: None.

- H. Gates, Cattle guards: None needed. Already in place.
- I. <u>Top Soil</u>: 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: <u>See Exhibit "A"</u> for location of existing lease wells. If the well is commercial, production facilities and tank battery will be constructed.
- B. <u>Cuts and Fills</u>: Less than 30' of cut and fill will be required for the pad size of 250' x 250'. (See Exhibit "D")
- C. <u>Top Soil</u>: Any top soil which can sustain plant vegetation will be bladed and piled in the northeast corner 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. <u>Exhibit "C"</u> 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. <u>Topography</u>: The topography is a gradual slope to the east. Regional slope is northeast in the direction of the Arroyo del Macho
- B. Soil: Sandy loam with limestone outcropping.
- C. <u>Flora and Fauna</u>: The flora consists of typical desert vegetation, such as yucca, cactus and various grasses. Fauna consists of desert wildlife such as coyotes, rodents, snakes, dear and antelope.
- D. Ponds and Streams: The Arroyo del Macho is to the east of this location.
- E. <u>Residences and other Structures</u>: The Corn residence is approximately 4 miles west of this location.

- F. Archaeological, Historical and Other Cultural Sites: The archeological report has been supplied as to this location in a prior submission.
- 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 he 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.

SIGNATURE

9-15'-06

DATE

# MCKAY OIL CORPORATION Lookout B Federal #5 1310' FSL & 4000' FEL Sec. 09, T6S, R22E

Chaves County, New Mexico

Other Specific Information and Plans
Existing pipeline is already on location.

# **Southwest Petroleum Land Services, LLC**

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

September 14, 2006

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

Re: H2S Contingency Plan-Lookout B Federal #5

Bryan,

Please see attached Contingency Plan-H2S for the Lookout Federal B #5 located in Sec 09, T6S, R22E 1310' FSL & 400' FEL 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 LOOKOUT B FEDERAL 5
LOCATED IN SEC 09, T6S, R22E IN CHAVES COUNTY, NEW MEXICO

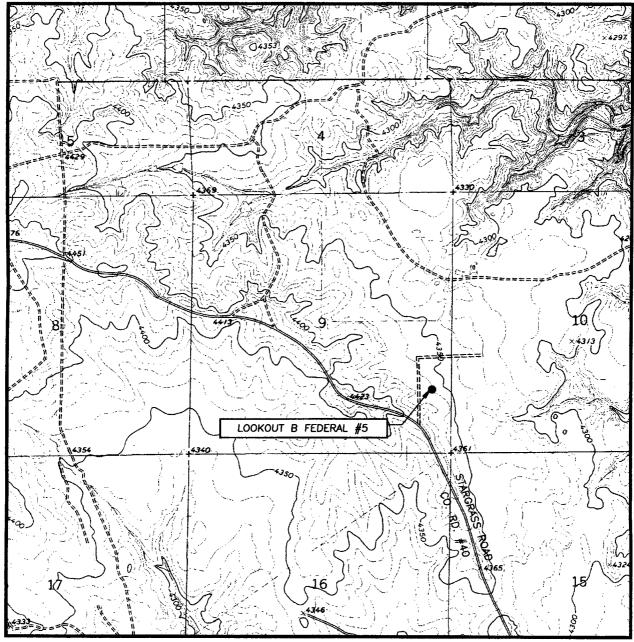
NO HYDROGEN SULFIDE OR OTHER HAZARDOUS GASES OR FLUIDS HAVE BEEN ENCOUNTERED, REPORTED OR KNOWN TO EXIST AT THIS DEPTH IN THIS AREA.

#### **LOOKOUT FEDERAL B #5**

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

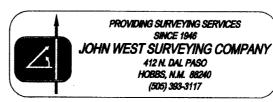
# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. <u>9</u> T	WP. <u>6-S</u> RGE. <u>22-E</u>
SURVEY	N.M.P.M.
COUNTY	CHAVES
DESCRIPTION	1310' FSL & 400' FEL
ELEVATION	4361'
OPERATOR	McKAY OIL CORPORATION
LEASEL	OOKOUT B FEDERAL
U.S.G.S. TOP MEAS SW, N	OGRAPHIC MAP .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 NMOCD 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	H2S	1.189 AIR=1	10 PPM4	100 PPM/HR	600 PPM
SULFUR DIOXIDE	SO2	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
IIM 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

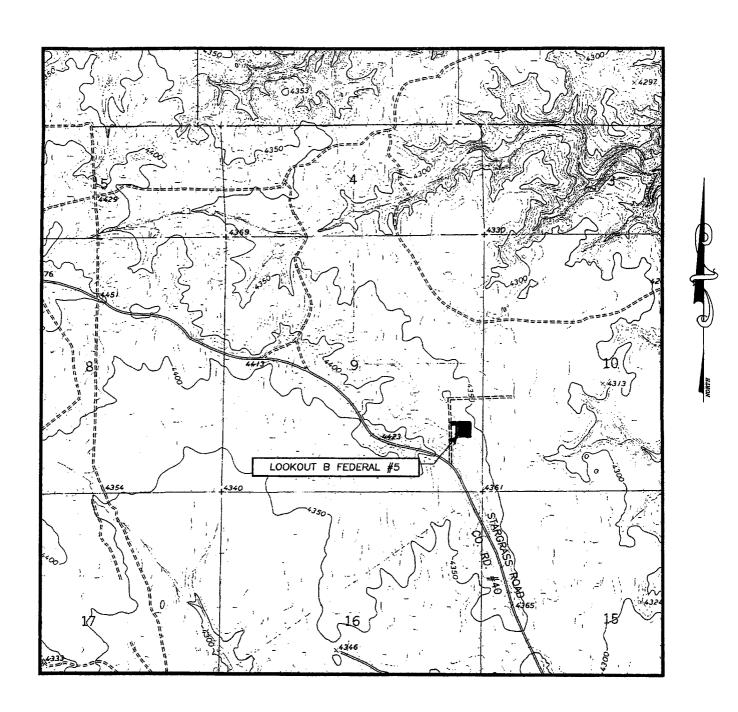
NMOCD 748-1283 ENMMC (Hospital) 622-8170

# **EXHIBIT A**

Operator: McKay Oil Corporation BLM Serial Number: NM-36192

Well Name & NO.: Lookout "B" Federal #5

Location: Section 9, T. 6 S., R. 22 E. 1310' FSL & 400' FEL, Chaves County, N.M.





## **United States Department of the Interior**

**BUREAU OF LAND MANAGEMENT** 

Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201

## **EXHIBIT B**

1 of 5 pages

# WELL DRILLING REQUIREMENTS

OPERATORS NAME: McKay Oil Corporation LEASE NO.: NM-36192

WELL NAME & NO: Lookout "B" Federal #5

QUARTER/QUARTER & FOOTAGE: SE'/SE'/4 - 1310' FSL & 400' FEL

LOCATION: Section 9, T. 6 S., R. 22 E., NMPM

COUNTY: Chaves County, New Mexico

#### I. GENERAL PROVISIONS:

A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).

B. 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:

- A. The BLM shall administer compliance and monitor construction of the access road and well pad. Notify **Richard G. Hill** at least 3 working days (72 Hours) prior to commencing construction of the access road and/or well pad. Roswell Field Office number (505) 627-0247.
- B. Prior to commencing construction of the access road, well pad, 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).
- C. The holder shall stockpile the topsoil from the surface of the well pad for reclamation purposes. The topsoil on the **Lookout "B" Federal #5** well pad is approximate <u>6</u> inches in depth. Approximately <u>800</u> cubic yards of topsoil shall be stockpiled on the **Northeast** corner of the well pad, opposite the reserve pit. Upon reclamation of the well pad, the topsoil stockpile shall be redistributed over the disturbed areas. See Well Drilling Requirements VI. Seeding Requirements for reclamation of the well pad.

#### D. Reserve Pit Requirements:

- 2. The reserve pit shall be constructed 50' X 100' on the **South** side of the well pad.
- 2. The reserve pit shall be constructed to a minimum depth of four (4) feet below ground level. The reserve pit shall be constructed, so that the cuttings in the reserve pit can be buried a minimum depth of three (3) feet below ground level. See Exhibit E Surface Reclamation/Restoration Requirements.
- 3. A synthetic or fabricated liner 12 mil in thickness shall be used to line the reserve pit. The liner shall meet ASTM standards that are designed to be resistant to the reserve pit contents.

- 4. The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.
- 5. The reserve pit shall be constructed so as not to leak, break, or allow discharge of drilling muds. Under no circumstances will the reserve pit be cut to drain drilling muds on the well location.
- 6. The reserve pit shall not be located in any natural drainage.
- 7. 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.
- 8. Drilling muds shall be properly disposed of before the reserve pit is reclaimed. Drilling muds can be allowed to evaporate in the reserve pit or be removed and transported to an authorized disposal site. The reserve pit shall be backfilled when dry.
- 9. Dumping of junk or trash into the reserve pit is not allowed. Junk or trash shall be removed from within the reserve pit before the reserve pit is reclaimed. Junk or trash shall not be buried in the reserve pit.

#### E. Federal Mineral Materials Pit Requirements:

- 3. 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. Contact Jerry Dutchover at (505) 627 -0236.
- 4. Payment for any Federal mineral materials that will be used to surface the access road and the well pad is required prior to removal of the mineral materials.
- 3. Mineral Materials extracted during construction of the reserve pit may be used for development of the pad and access road as needed, for the <u>Lookout "B" Federal #5</u> gas well only. Removal of any additional material on location must be purchased from BLM prior to removal of any material.
  - a. An optional mineral material pit may be constructed within the archaeologically cleared area. The mineral material removed in the process can be used for pad and access road construction. However, a mineral material sales contract must be purchased from the BLM prior to removal of any material.

#### F. Well Pad Surfacing Requirement:

The well pad shall be surfaced with <u>6</u> inches of compacted caliche, gravel, or other approved surfacing material. The well pad shall be surfaced prior to drilling operations. See <u>Permanent Resource Road Requirements</u> - EXHIBIT D - requirement #4, for road surfacing.

#### G. Cave Requirements:

- 1. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease. Contact <u>Larry Bray</u> at (505) 627-0250.
- 2. 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.

#### WELL DRILLING REQUIREMENTS

#### 3 of 5 pages

#### 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\% inch 5\% 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 NMOCD shall be included on the subsequent report of setting the first casing string.

#### B. CASING:

- 1. The <u>85%</u> inch surface casing shall be set at <u>950'</u> 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 <u>cement shall extend</u> 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 \_85/2 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.
- D. The results of the test shall be reported to the appropriate BLM office.
- E. 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.
- F. Testing must be done in a safe workman-like manner. Hard line connections shall be required.