

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

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM NM 98791
5b. 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 Parallel Petroleum Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address 1004 North Big Spring, Suite 400 Midland, Texas		8. Lease Name and Well No. 35151 Box Top Federal 19 21-1#1
3b. Phone No. (include area code) 432/684-3727		9. API Well No. 30-015-34374
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 860 FSL and 760' FSL At proposed prod. zone Same		10. Field and Pool, or Exploratory Undes. Runyon Ranch Morrow 84350
14. Distance in miles and direction from nearest town or post office* 9 miles south of Hope, New Mexico		11. Sec., T. R. M. or Blk. and Survey or Area 1-19S-21E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 1.922.48	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 320	13. State NM	RECEIVED OCT 03 2005 GOD-ARTEZIA
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 7700'	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 4170'	22. Approximate date work will start* 10/07/2005	23. Estimated duration 30 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Don Tiffin</i>	Name (Printed/Typed) Don Tiffin	Date 9-18-05
Title Chief Operating Officer, Parallel Petroleum Corporation		

Approved by (Signature) <i>/s/ Joe G. Lara</i>	Name (Printed/Typed) /s/ Joe G. Lara	Date SEP 30 2005
Title FIELD MANAGER	Office CARLSBAD 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.

APPROVAL FOR 1 YEAR

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)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

Roswell Controlled Water Basin

Witness Surface Casing

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 84350	Pool Name Undes. Runyon Ranch; Marrow
Property Code	Property Name BOXTOP FEDERAL 19 21-1	Well Number 1
OGRID No.	Operator Name PARALLEL PETROLEUM CORPORATION	Elevation 4170'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	1	19 S	21 E		760	SOUTH	860	WEST	EDDY

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 320	Joint or Infill N	Consolidation Code	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>Plane Coordinate X = 370,875.5 Y = 612,881.6</p>	<p>NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Donald E Tiffin</i> Signature</p> <p>Donald E Tiffin Printed Name</p> <p>COO Title</p> <p>8/18/05 Date</p>
		<p>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 upervison and that the same is true and orrect to the best of my belief.</p> <p>August 2, 2005 Date Surveyed</p> <p>LVA Signature & Seal of Professional Surveyor</p> <p><i>M...</i></p>
		<p>W.O. Num. 2005-0681</p>
		<p>Certificate No. MACON McDONALD 12185</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
Type of action: Registration of a pit or below-grade tank X Closure of a pit or below-grade tank

RECEIVED

SEP 24 2005

Operator: **Parallel Petroleum Corporation** Telephone: **432-684-3905** e-mail address: **tiffin@ppll.com**
Address: **1004 N. Big Spring Street, Suite 400, Midland, Texas 79701**
Facility or well name: **Box Top Federal 19 21-1 #1** API #: **30-015-34374** U/L or Qtr/Qtr **SW/4 of the SW/4** Sec **1** T **19S** R **21E**
County: **Eddy** Latitude **32° 41' 03.15" N** Longitude **104° 45' 1086" W** NAD: 1927 X 1983
Surface Owner: Federal State Private Indian

Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Pit Volume 10,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) 750'	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) 0 (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 No	(20 points) (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0
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 X, a general permit , or an (attached) alternative OCD-approved plan .

Date: **9-15-05**

Printed Name/Title **Gary Miller, 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 **Mike Bratcher**

Signature **Mike Bratcher**

Date: **9/27/05**

**SURFACE AND OPERATIONS PLAN FOR
DRILLING, COMPLETION, AND PRODUCING**

**PARALLEL PETROLEUM CORPORATION
BOX TOP FEDERAL 19 21-1 #1
SHL: 760' FWL AND 860' FSL, SEC 1, 19S, 21E
EDDY COUNTY, NEW MEXICO**

LOCATED:

9 miles South of Hope, New Mexico

OIL & GAS LEASE:

NM NM 98791

RECORD LESSEE:

Nearburg Exploration Company, LLC
3300 N. A Street, Bldg. 2 #120
Midland, Texas 79705

BOND COVERAGE:

\$25,000 statewide bond # NMB000265 of Parallel Petroleum Corporation

ACRES IN LEASE:

1922.48

FEE SURFACE OWNER:

Barbra Runyon Ranch
P.O. Box 2468
Roswell, NM 88202
Jim Bob Burnet, Ranch Manager, 505-484-3141

POOL:

Morrow (Gas)

BOX TOP FEDERAL 19 21-1 #1

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EXHIBITS:

- A. Area Road Map
- B. Drilling Rig Layout
- C. Pad Elevation Plat
- D. Vicinity Map
- E. Area Production Map
- F. Topographic & Location Verification Map
- G. Well Location & Acreage Dedication Map (NMOCD Form C-102)
- H. NMOCD Form C-101, Application for Permit to Drill (includes reserve pit data)
- I. Blow Out Preventer (BOP) Schematic
- J. Choke Manifold Schematic

**ATTACHMENT TO FORM 3160-3
 BOX TOP FEDERAL 1921-1 #1
 SHL: 760 FSL AND 860 FWL, SEC 1, 19S, 24E
 EDDY COUNTY, NEW MEXICO**

DRILLING PROGRAM

1. GEOLOGIC NAME OF SURFACE FORMATION

San Andres

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Glorieta 1700'(+ 2475')
 Tubb 2710'(+1465')
 Abo Shale 3350' (+825')
 Abo Carbonate 3470' (+705')
 Wolfcamp Shale 4465'(-290')
 Penn Cisco 5935' (-1760')
 Canyon 6400' (-2225')
 Strawn 6815' (-2640')
 Atoka 7200' (-3025')
 Morrow 7325' (-3150')
 Miss. Chester 7575'(-3400')

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL, OR GAS

Fresh water 790'
 Oil and Gas Morrow 7325' (-3150') to 7575'(-3400')
 No H₂S gas should be encountered

4. CASING AND CEMENTING PROGRAM

<u>Casing Size</u>	<u>From</u> <u>To</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	
20" conductor	0'-40'				
13 3/8"	0' - 300'	40#	H-40	STC	WITNESS
9 5/8"	300' - 1300'	36#	J-55	LTC	
5 1/2"	1,300' - 7,700'	17#	N-80	LTC	

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability.

BOX TOP FEDERAL 1921-1 #1

Page 2

- a. Set 20" conductor pipe at 40' with a rathole unit.
- b. Drill 17 1/2" surface hole with rotary equipment to a minimum depth of 300', using a fresh water gel spud mud. Set 13 3/8", 40# H-40 casing with 440 sx Class C cement (circulate to surface, 1" if necessary).
- c. Drill 12 1/4" intermediate hole to a minimum depth of 1300', using fresh water and viscous sweeps for hole cleaning. Set 9 5/8", 36# J-55 casing with 460 sx, Class C cement (lead will be 50/50 Poz, circulate to surface, 1" if necessary).
- d. Drill 7 7/8" production hole to 7700', using cut brine to an approximate depth of 4150' and a starch mud system to TD. Set 5 1/2" 17# N-80 casing at TD with 1070 sx Class C cement with the estimated top of cement at 1000'(lead be 50/50 Poz).

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

The BOP stack will consist of a 3,000 psi working pressure, dual ram type preventer and annular.

A BOP sketch is attached.

6. TYPES AND CHARACTERS OF THE PROPOSED MUD SYSTEM

- a. Spud and drill to 300' with fresh water gel spud mud for surface string.
- b. The intermediate section from 300' to 1,300' will be 8.3 ppg Fresh Water system and viscous sweeps for hole cleaning.
- c. The production section from 1,300' to 4,150' will utilize a cut brine mud system.
- d. The remaining production section from 4,150' to TD will be a starch mud system with mud weight sufficient to control formation pressures.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

None required.

8. LOGGING, TESTING, AND CORING PROGRAM

Mud logs as well as DLL/CNL/LDT/CAL/GR logging is planned. Drill stem tests, cores and sidewall cores are possible.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES & POTENTIAL HAZARDS

None anticipated.

BHP expected to be 1,100 psi.

BOX TOP FEDERAL 1921-1 #1

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10. ANTICIPATED STARTING DATE:

Is planned that operations will commence around October 7th, 2005 with drilling and completion operation lasting about 30 days.

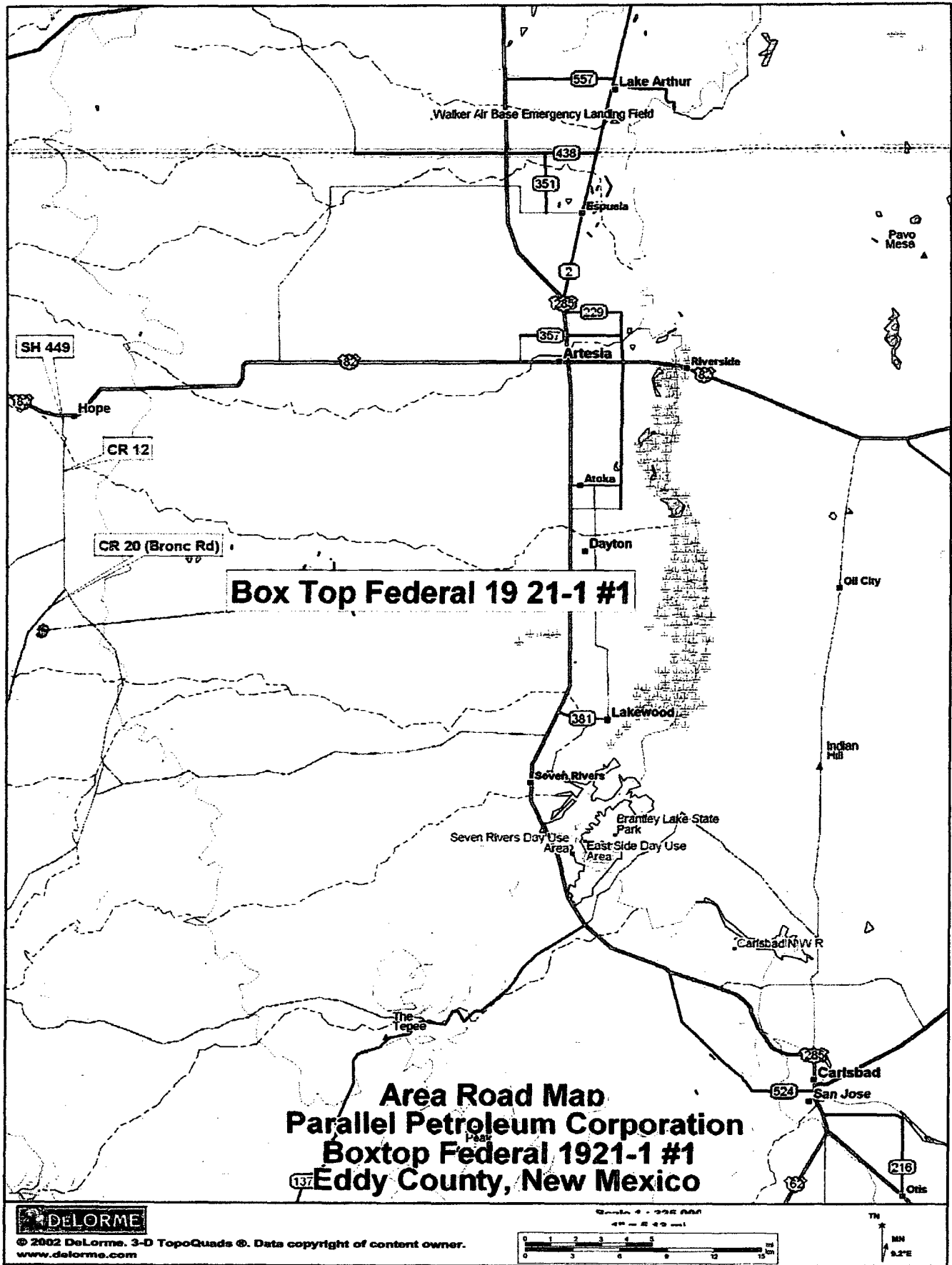


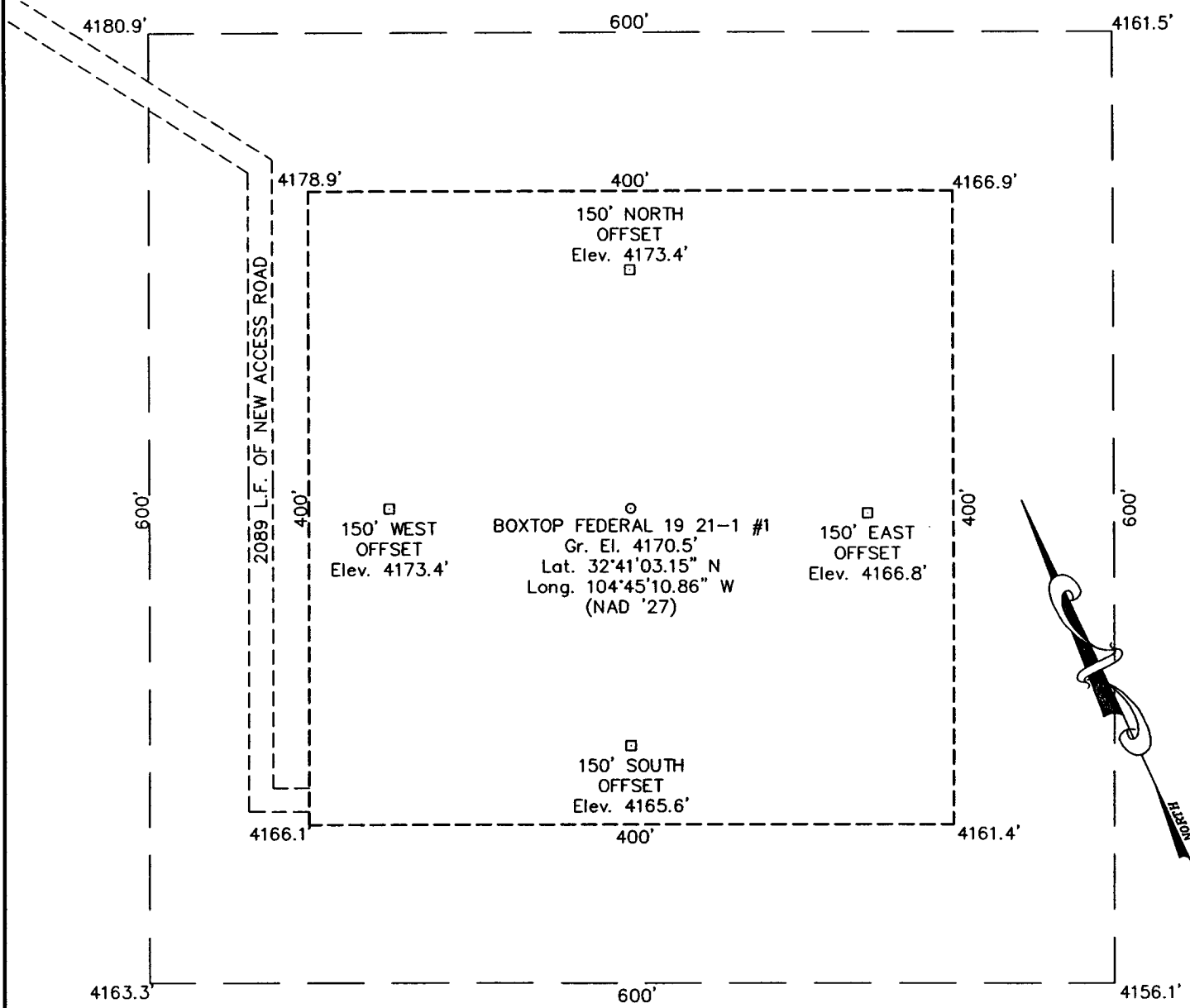
Exhibit "A"

SECTION 1, TOWNSHIP 19 SOUTH, RANGE 21 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-0681-A



DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 82 AND STATE HIGHWAY 449 IN HOPE, NM GO SOUTH ON SAID STATE HIGHWAY 449 2.2 MILES TO THE END OF SAID STATE HIGHWAY 449 AND THE BEGINNING OF COUNTY ROAD 12, THEN CONTINUE SOUTH ANOTHER 4.8 MILES (7.0 TOTAL) TO A FORK ON THE ROAD THE INTERSECTION OF SAID COUNTY ROAD 12 AND COUNTY ROAD 20 (BRONC ROAD), THEN GO SOUTHWEST ALONG SAID COUNTY ROAD 20 (BRONC ROAD) 2.0 MILES TO A POINT WHERE A NEW ACCESS ROAD BEGINS ON SOUTH (LEFT SIDE OF SAID COUNTY ROAD 12, THEN GO SOUTHEAST ALONG SAID ACCESS ROAD 0.4 MILE TO PROPOSED LOCATION.

PARALLEL PETROLEUM CORPORATION

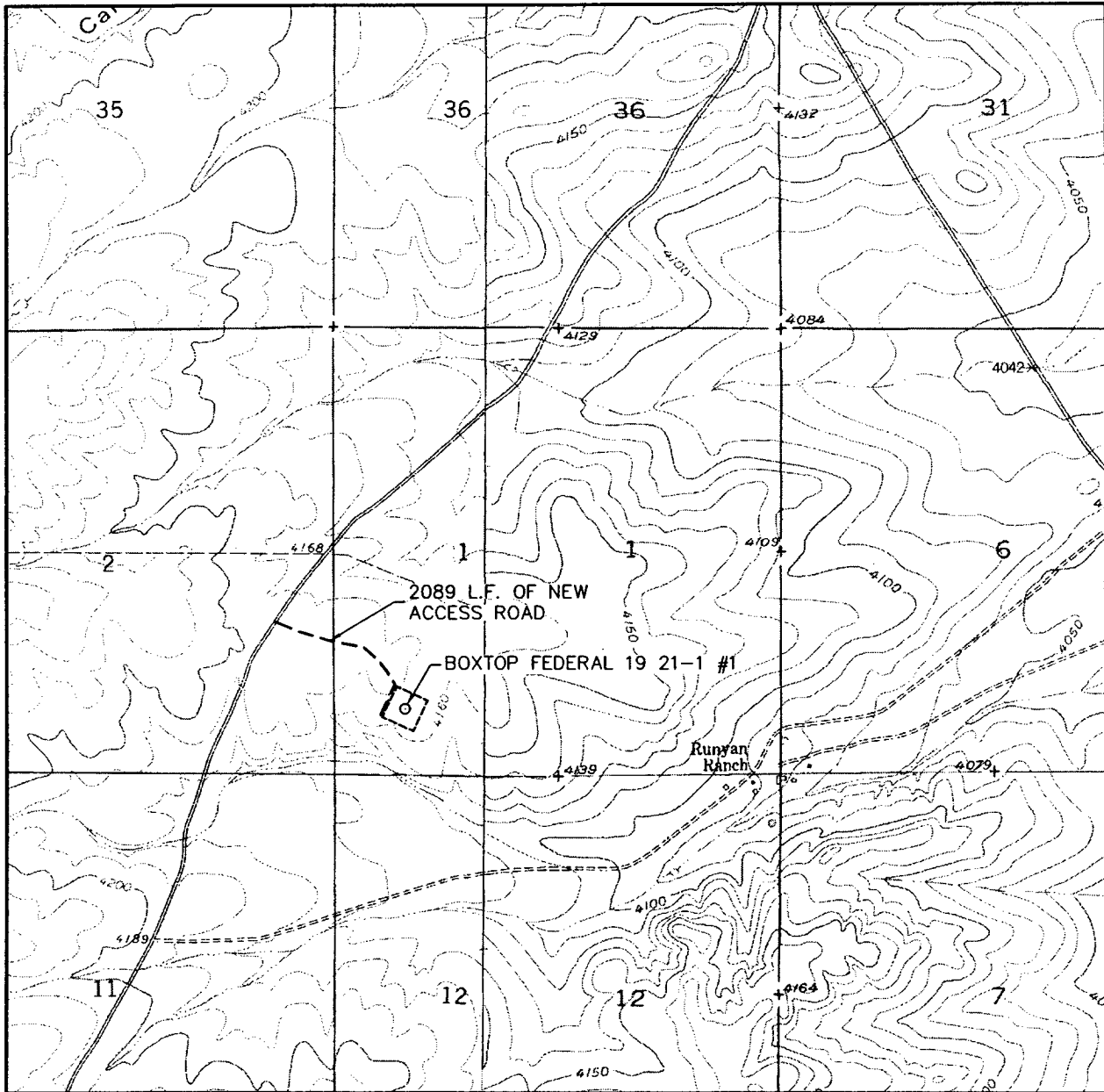
Exhibit "C"
BOXTOP FEDERAL 19 21-1 #1
 Located 760' FSL & 860' FWL, Section 1
 Township 19 South, Range 21 East, N.M.P.M.
 Eddy County, New Mexico

Drawn By: LVA	Date: August 4, 2005
Scale: 1"=100'	Field Book: 303 / 52-55
Revision Date:	Quadrangle: Holt Tank
W.O. No: 2005-0681	Dwg. No.: L-2005-0681-A

**WEST
 COMPANY
 of Midland, Inc.**

110 W. LOUISIANA, STE. 110
 MIDLAND TEXAS, 79701
 (432) 687-0865 - (432) 687-0868 FAX

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOLT TANK - 20'

SEC. 1 TWP. 19-S RGE. 21-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 760' FSL & 860' FWL

ELEVATION 4170'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE BOXTOP FEDERAL 19 21-1

U.S.G.S. TOPOGRAPHIC MAP
HOLT TANK, N.M.



Exhibit "F"

WEST
COMPANY
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

MINIMUM BOP SCHEMATIC

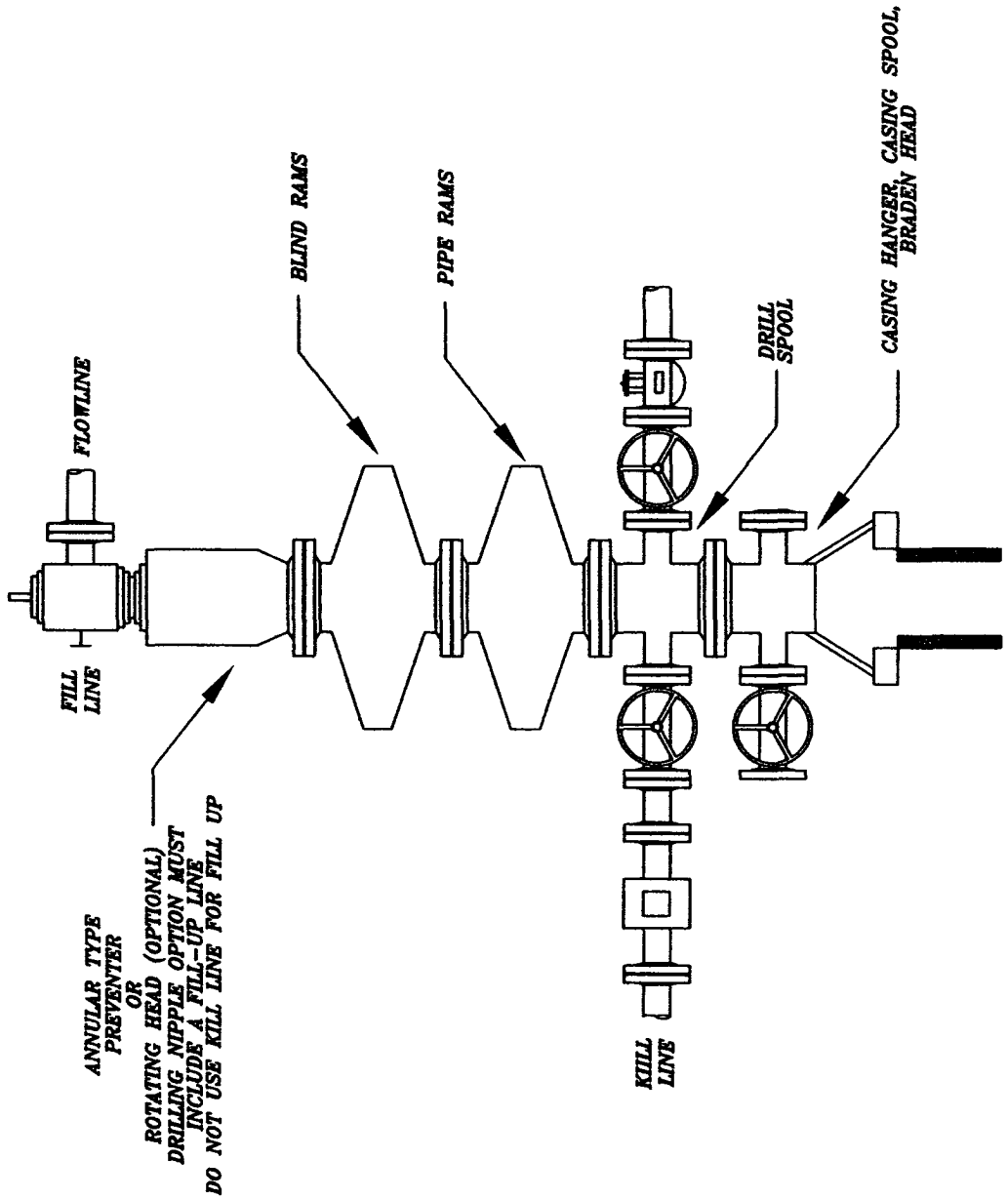


EXHIBIT I

DATE: 7/26/05
 DRAWN BY: JJ
 FILE: C:\WORK\BOP SCHEMATIC

PARALLEL PETROLEUM
 BOP SCHEMATIC
 HIGHLANDER ENVIRONMENTAL CORP.
 MIDLAND, TEXAS

NOT TO SCALE

CHOKE MANIFOLD 5M SERVICE

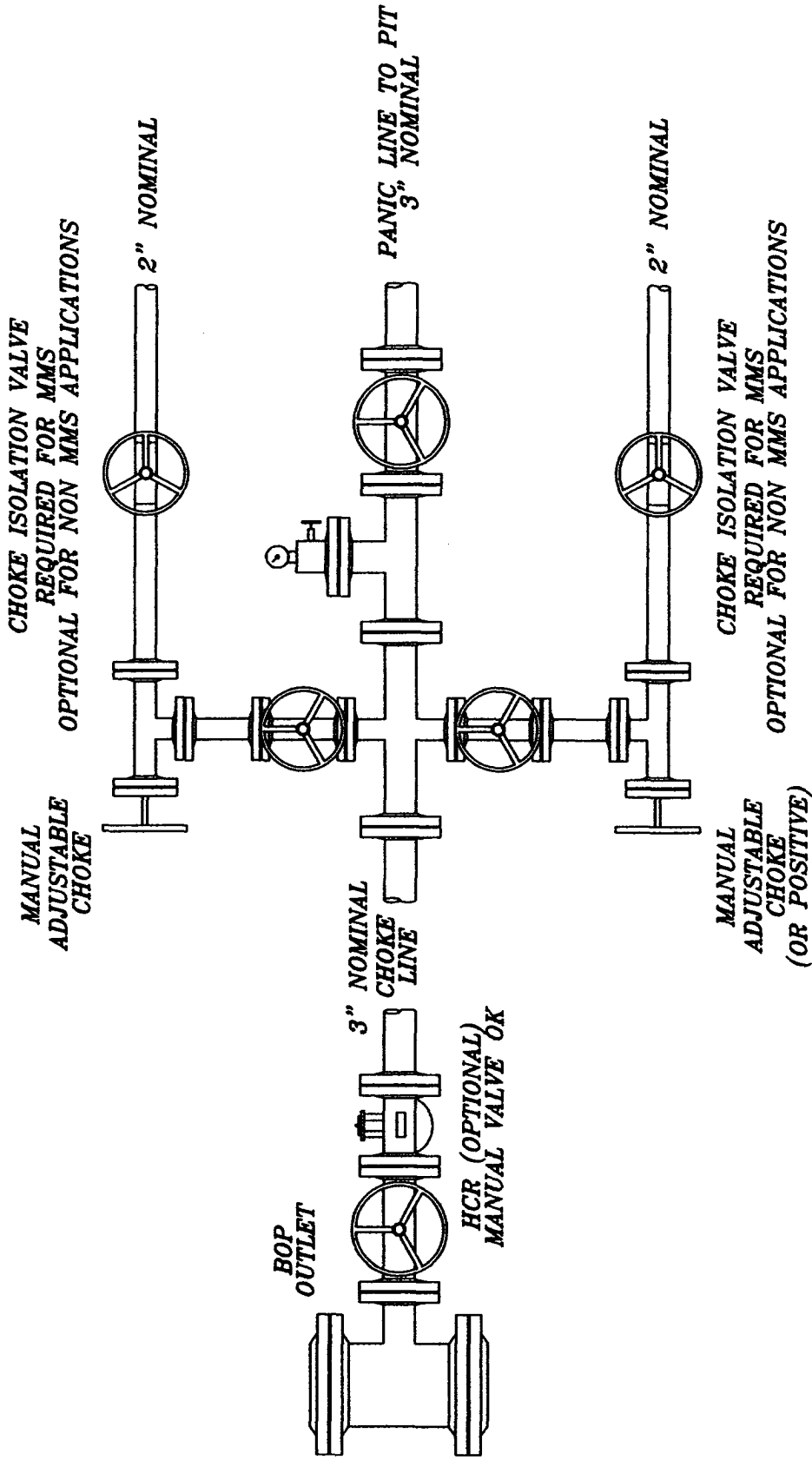


EXHIBIT J

PARALLEL PETROLEUM
 CHOKE MANIFOLD
 HIGHLANDER ENVIRONMENTAL CORP.
 MIDLAND, TEXAS

DATE:	8/17/05	DWG. NO.:	JJ
FILE:	05 PARALLEL PETRO	DATE:	8/17/05
	CHOKE MANIFOLD		

NOT TO SCALE

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Parallel Petroleum Corporation
Well Name & No. Box Top Federal 19-21-1 #1
Location: 760' FSL, 860' FWL, Section 1, T. 19 S., R. 21 E., Eddy County, New Mexico
Lease: NM-98791

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Well spud

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 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 NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 300 feet 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 9-5/8 inch intermediate casing is to be circulated to the surface.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 500 feet above the top of the uppermost productive hydrocarbon interval.

III. 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 13-3/8 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 3000 psi.

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

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of

8/26/2005

acs

drilling mud for testing is not permitted since it can mask small leaks.

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

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