#### Form 3160-3 (April 2004)

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

RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LICTIVED

Lease Serial No. NM 0556290

坦1 8 2005 6. If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OF REENTER 7 If Unit or CA Agreement, Name and No. REENTER DRILL la. Type of work: 8. Lease Name and Well No. ✓ Single Zone Multiple Zone Canter Federal 3 Gas Well ✓ Oil Well ib. Type of Well: 9. API Well No. Name of Operator 18867 30 ~ O/S Ray Westall 10. Field and Pool, or Exploratory 3b. Phone No. (include area code) 3a. Address Box 4. Loce Hills, NM 88255 505.677.2370 11. Sec., T. R. M. or Blk and Survey or Area 4. Location of Well Report location clearly and in accordance with any State requirements.\*) 2130' FNL & 660' FEL Sec 10, 20S-29E At proposed prod. zone 13. State 12. County or Parish 14. Distance in miles and direction from nearest town or post office NM 15 miles North East of Carlsbad NM 17. Spacing Unit dedicated to this well 16. No. of acres in lease Distance from proposed 660 location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 20. BLM/BIA Bond No. on file 19. Proposed Depth Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. NM0322 1320 8300 23. Estimated duration 22 Approximate date work will start\* Elevations (Show whether DF, KDB, RT, GL, etc.) 14 days 09/01/2005 3306' Gr Capitan Centrolled Water Basin 24 Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form: 4. Bond to cover the operations unless covered by an existing bond on file (see 1. Well plat certified by a registered surveyor. 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 Such other site specific information and/or plans as may be required by the authorized officer. SUPO shall be filed with the appropriate Forest Service Office). Date Name (Printed/Typed) Signature 06/13/2005 Randall L Harris Geologist Name (Printed/Typed) Approved by (Signature) JUL 1 5 2005 /s/ Joe G. Lara /s/ Joe G. Lara CARLSBAD FIELD OFFICE Office FIELD MANAGER et lease which would entitle the applicant to Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights PROVAL FOR 1 YEAR conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

WITNESS 16", 1134" & 8 8 6" C56.

#### State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

STRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 86210

#### OIL CONSERVATION DIVISION Submit to Appropriate District Office 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Revised JUNE 10, 2003 State Lease - 4 Copies Fee Lease - 3 Copies

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

DISTRICT IV

DISTRICT IV 1220 S. St. FRANCIS I	IR., SANTA FR.	NM 87505	WELL LO	CATION	AND ACREA	AGE DEDICATI	ON PLAT	□ AMENDI	ED REPORT
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,009	150' WEST OFFSET 🖸 3307.1'	CANTER FEDERAL #3  ©  ELEV. 3306.1'  LAT.=32°35'21.41" N  LONG.=104°03'21.26" W	150' EAST ① OFFSET 3305.9'	,009
		□ 150' SOUTH OFFSET 3304.5'	841' OF PROPOSED ROAD	
3306.3'	-	600′		3304.1'
(CARLSBAD-HOE (BURTON FLAT). APPROX. 2.0 M LEFT (WEST). FO 2.25 MILES TO	LOCATION  TRSECTION U.S. HYW. #62— BBS HWY.) AND CO. RD. #. GO NORTH ON CO. RD. #. BILES TO WHERE CO. RD. E BOLLOW CALICHE RD. (NW) PROPOSED ROAD SURVEY IS APPROX. 840' WEST ALL	#238 #238 100 BENDS 100 APPROX. HHHH ON LEFT.	0 100 Scale:1"=100'	200 Feet
PROPOSED ROA	PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COM 412 N. DAL PASO HOBBS, N.M. 88240 (506) 383-3117	LOCATE AND 660 FT TOWNSHIP  Survey Date: 0:	.11.0633 Dr By: DEL	LINE ECTION 10,

#### **DRILLING PROGRAM**

Attached to Form 3160-3 Ray Westall Canter Federal #3 2310' FNL & 660' FEL Section 10-20S-29E Eddy County, New Mexico

### 1. Geologic Name of Surface Formation:

Permian

### 2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Delaware	3400
Rustler	850	Bone Springs	5900
Yates	1420		

Seven Rivers Reef 1670

### 3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Yates	Oil	1420
Delaware	Oil	3400
BoneSprings	Oil	7100

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8 casing and circulating cement back to surface.

#### 4. Casing Program:

Hole Size	Interval	OD Casing	Wt.	Grade	Туре
20"	0-260'	16"	65#	H-40	STC
14"	260-1400'	11 3/4"	42#	H-40	STC
11"	1400-3300'	8 5/8"	32&24	J-55	STC
7 7/8"	3300-8300"	5 1/2"	17#	J-55	LTC

#### PAGE 2

#### Cement Program:

16" Surface Casing: Cemented to surface with 250 sx of Class C w/2% cc. WITNESS

11 3/4" Intermediate Casing: Cemented to surface with 750 sx of Class C w/2% cc. WITNESS

8 5/8" Intermediate Casing: Cemented to 1350' with 1500 sx

5 ½ Production Casing: Cemented sufficient to cover 200' above all oil and

horizons.

#### 5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) will consist of a double ram-type preventer. The unit will be hydraulically operated and will be equipped with blind rams and 5 ½" drill pipe rams. A 3000 psi WP BOP will be installed on the 11 3/4" casing and tested per order #2 to 70% of casing burst. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP will be tested.

Pipe rams will be operationally checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and choke line will be incorporated in the drilling spool below the ram type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

Depth	Type	Weight	Viscosity	Waterloss
0-260	Fresh Water	8.5	28	N.C.
	(Spud)			
260-1400	Brine	9.8-10.2	28-36	N.C.
1400-3300	Fresh Water	8.6	28-36	N.C.
3000-TD	Cut Brine	8.6-9.4	28-36	N.C.

## 7. Auxiliary Well control and Monitoring Equipment:

A. A kelly cock will be kept in the drill string at all times.

- 8. Logging, Testing, and Coring Program:
  - A. There will be no DST's
  - B. The electric logging program will consist of Dual Laterolog Micro S.L., and Neutron Density Log.
  - C. No conventional coring is anticipated.
  - D. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD based on drill shows, and log evaluation, and drill stem test results.
- 9. Abnormal Conditions, Pressures, Temperatures, and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 135 and estimated bottom hole pressure (BHP) is 3700 psig.

10. Anticipated Starting Date and Duration of Operations:

Location and road work will bot begin until approval has been received from the BLM. Once commenced, the drilling operation should be finished in approximately 15 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

#### SURFACE USE AND OPERATING PLAN

Attached to form 3160-3 Ray Westall Canter Federal #3

#### Existing Roads:

- A. All roads to the location are shown in Exhibit #2. The existing roads are illustrated in read and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
- B. Directions to location: From Carlsbad proceed east on US 62/180 11 miles to county road 238. Proceed north on 238 for 4.5 miles. Proposed new road will start here and go west 841 feet.
- C. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as log as any operations continue on this lease.
- Proposed Access Road: 841'. See Exhibit #2
- 3. Location of Existing and/or Purposed Facilities:
  - A. Ray Westall will construct facilities on well pad if well is productive.
  - B. If the well is productive, rehabilitation plans are as follows:
    - The reserve pit will be back-filled after the contents of the pit are dry (within 10 months after the well is completed)
    - 2. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level, as nearly as possible, and reseeded as per BLM specifications.
- 4. Methods of Handling Water Disposal:
  - A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.

# STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conduced on the leased land or portion thereof, as described below:

Date:

June 8, 2005

Lease #

NM0556290

Meridian Federal

Legal Description:

Sec. 10-T20S-R29E

Eddy County, New Mexico

Formations(s):

Parkway Bonesprings

Bond Coverage:

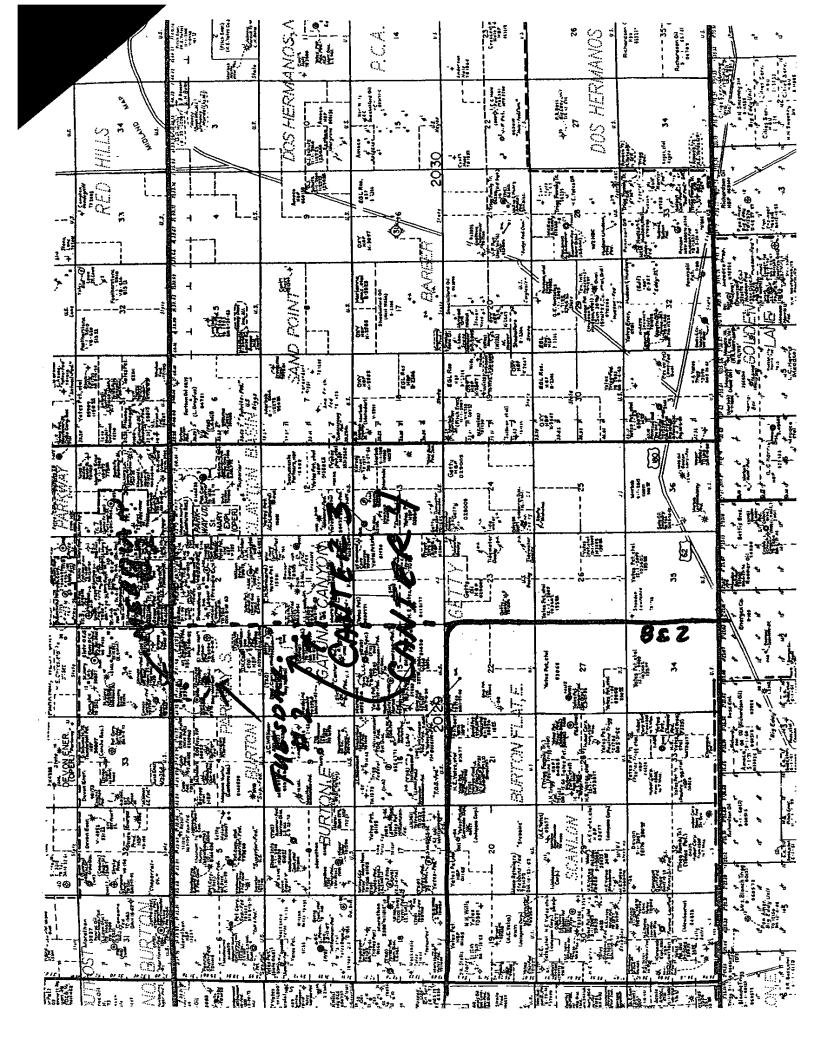
Statewide

BLM Bond File #:

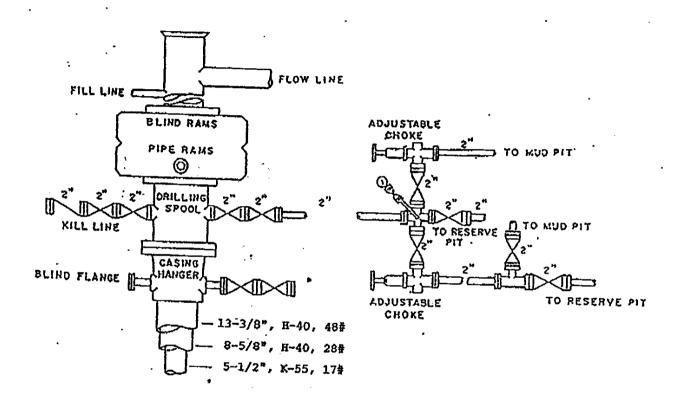
NM0322

Randall L. Harris

Geologist

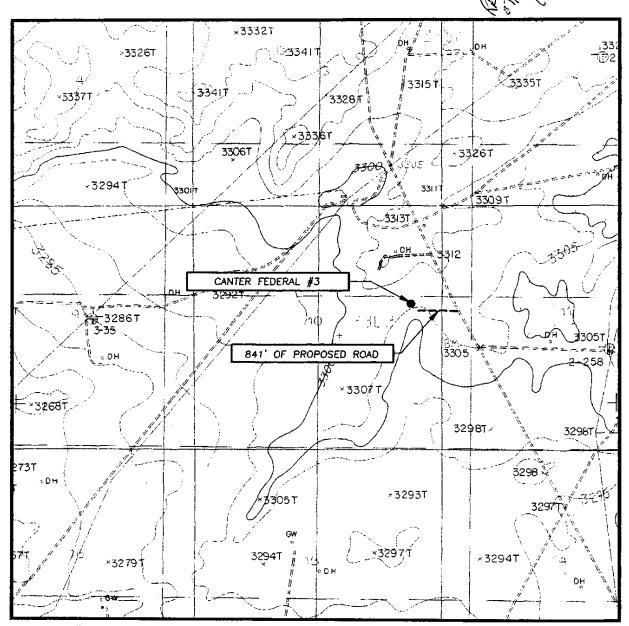






# BOP DIAGRAM

3000# Working Pressure Rams Operated Daily LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 10 TWP. 20-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2130' FNL & 660' FEL

ELEVATION 3306'

OPERATOR RAY WESTALL OPERATING

LEASE CANTER FEDERAL
U.S.G.S. TOPOGRAPHIC MAP
ILLINOIS CAMP SE, N.M.

CONTOUR INTERVAL:
ILLINOIS CAMP SE, N.M. – 10'
SUPPLEMENTAL, – 5'



PROVIDING SURVEYING SERVICES SINCE 1945 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 383-3117

#### **CONDITIONS OF APPROVAL - DRILLING**

Operator's Name:

Ray Westall

Well Name & No.

Canter Federal #3

Location:

2130' FNL, 660' FEL, Section 10, T. 20 S., R. 29 E., Eddy County, New Mexico

Lease:

NM-0556290

# 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: <u>16</u> inch <u>11-3/4</u> inch <u>8-58</u> inch <u>5-1/2</u> 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 16 inch surface casing shall be set at approximately 260 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 <u>11-3/4</u> inch first intermediate casing is <u>to be circulated to the surface.</u>
- 2. The minimum required fill of cement behind the <u>8-5/8</u> inch second intermediate casing is <u>to be circulated</u> to the <u>surface</u>.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>to reach at least 200 feet</u> above the top of the uppermost hydrocarbon productive interval.
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests:
- 5. Other

#### **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 <a href="https://doi.org/10.108/j.com/10.2087/j.com/10.20

a 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 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.

7/7/2005 acs July 25, 2005 Ray Westall P.O. Box 4 Loco Hills, NM 88255 Attn: Mr. Randall L. Harris

RE: APPLICATION FOR PERMIT TO DRILL RAY WESTALL CANTER FEDERAL # 3 SECTION 10, R-20-S, T-29-E, 2130' FNL & 660' FEL Eddy County, New Mexico

Dear Mr. Randall Harris,

The above permit to drill identified above has been received from the BLM at this office will need to have the following stipulations (in part) for approval:

Ray Westall is to catch drilling mud samples for the flow line in order to determine the chloride levels of the drilling mud. Samples are to be taken from the '1<sup>st</sup> intermediate' casing setting depth of @ 1400' down to setting of the 2<sup>nd</sup> intermediate casing setting depth of @ 3300'.

Results are theses test are to be submitted to our office and the Bureau of Land Management.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant

PES, District II Artesia NMOCD