Form 3160-3 (April 2004)

# OCD-ARTESIA

UNITED STATES DEPARTMENT OF THE INTERIOR

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

MAR 2.9 2006

5. Lease Serial No.

BUREAU OF LAND MANA	AGEMEN	IT AND	7000	NMNM 114969		
APPLICATION FOR PERMIT TO I		- 00 JW	TROM	6. If Indian, Allotee	or Tribe Na	me
la. Type of work:	R	355	55	7. If Unit or CA Agree	ement, Nam	e and No.
lb. Type of Well: Oil Well Gas Well Other		Single Zone Multip	le Zone	8. Lease Name and W Owl, 20504 JV		
2. Name of Operator BTA Oil Producers 3002				9. API Well No.	-34	 7 <i>4</i> 9
3a. Address 104 S. Pecos Midland, TX 79701		No. (include area code) ) 682-3753	012	10. Field and Pool, or F Wildcat (Delay	xploratory	
4. Location of Well (Report location clearly and in accordance with any	y State requi	rements.*)		11. Sec., T. R. M. or B	k.and Surv	ey or Area
At surface 1980' FSL & 2080' FWL NE/SW At proposed prod. zone				Sec. 18, T26S-	R27E	
14. Distance in miles and direction from nearest town or post office*  14 miles southwest from Malaga, NM	<del></del>			12. County or Parish  Eddy		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  1980*	16. No. o	of acres in lease 17. Spacing Unit dedicated to this well 4 40 acres				
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  100'	osed Depth	}	MBIA Bond No. on file 1071S103172178BCV			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3321'	22. Appr	oximate date work will sta	rt*	23. Estimated duration 45 days		
Str. Sec. 1	24. A	tachments &	erio bed	Controlled Walk	or Beach	1
The following, completed in accordance with the requirements of Onshor	re Oil and C	Gas Order No.1, shall be a	ttached to the	nis 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 SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the	Item 20 above).  5. Operator certification	cation specific inf	ons unless covered by an formation and/or plans as	_	·
25. Signature And Michael	Na	me (Printed/Typed) Pam Inskeep			Date 02/1	3/2006
Title Regulatory Administrator						
Approved by (Signature) /C! James Stovall	Na	me (Printed/Typed) /S./ Jame	s Stov	all	Date MAR	2 8 200
THACTING		Fice				

6

FIELD MANAGER

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)

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

.,CT I A. PRENCE DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

ISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 68210 OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

State Lease - 4 Copies Fee Lease - 3 Copies

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

DISTRICT IV

WELL	LOCATION	AND	ACREAGE	DEDICATION	PLAT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA PE, NW 87505	WELL LOCATION AND	ACREAGE DEDICATION PLAT	☐ AMENDED REPORT
API Number	Pool Code	Pool Name	
	97012	Wildcat (Delaware)	
Property Code	Prop	Well Number	
	20504	1	
OGRID No.	Oper	ator Name	Elevation
003003	BTA OIL	3321'	

#### Surface Location

1	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	K	18	26-S	27-E		1980	SOUTH	2080	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	Joint o	r Infill Co	nsolidation	Code Or	der No.			}	
40									

#### 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

r <del></del>	OR A NON-STANDARD UNIT HAS BEEN APPROVED BY	THE DIVISION
LOT 1		OPERATOR CERTIFICATION
		I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
		Jam Onskap
LOT 2	GEODETIC COORDINATES NAD 27 NME	Pam Inskeep Printed Name
	Y=378472.0 N X=531809.4 E	Regulatory Administrator
	LAT.=32'02'25.77" N	02/13/2006 Date
LOT 3	LONG.=104*13'50.43" W	SURVEYOR CERTIFICATION
	3317.1' 3313.1'	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 supervison and that the same is true and
2080'	000	correct to the best of my belief.
	3323.1 3319.2	DECEMBER 10, 2005  Date Surveyed RZB  Signature & Seal Of the Surveyed RZB
LOT 4	.0860	Protessional Surveyor  Day 15 talne 1/16/06
		Certificate No. GARY EDSON 12841

#### APPLICATION FOR DRILLING

BTA OIL PRODUCERS Owl, 20504 JV-P, NO. 1 1980' FSL & 2080' FWL Sec. 18, T26S, R27E Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, BTA Oil Producers submits the following 10 items for pertinent information in accordance with BLM requirements:

- 1. The geologic surface formation is Quaternary.
- 2. The estimated top of geologic markers are as follows:

Base Salt	1,800'
Delaware	2,015'
Ramsey	2,085'
*Brushy Canyon	3,970'
*Bone Spring Lm	5,655'

3. The estimated depth at which anticipated water, oil or gas formations are expected to be encountered are noted with the \* above.

All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and furnished to the BLM, Division of Minerals. All oil and gas shows will be adequately tested for commercial possibilities, reported and protected.

4. Proposed Casing and Cementing Program:

	Setting	Depth			
Casing Size	<u>From</u>	to	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
13-3/8 "	0	400'	48#	J55	STC
8-5/8"	0	1,900'	24#	J55	STC
5-1/2"	0	5,900'	17#	J55	STC

Depending upon availability at the time that the casing is run, equivalent weights and grades may be substituted.

13-3/8" casing will be cemented with 450 sx Class "C cement. Circulated to the surface.

8-5/8" casing will be cemented with 400 sx light cement tailed-in with 300 sx Class "C". Circulated to the surface.

5-1/2" casing will be cemented with 1,000 sx light, tailed in w/300 sx Class "H" to cement back above 8-5/8" shoe.

Note: All casing strings will be pressure tested to 0.22 psi/ft. of setting depth or 1500 psi (whichever is greater) after cementing and prior to drillout.

- 5. Pressure Control Equipment: See Attached Diagrams.
- 6. Mud Program:

Surface to 400': Fresh water spud with 35 to 45 sec/1000 cc viscosity.

<u>400' to 1,900':</u> Brine water. Circulate to reserve pit. Will use lime for pH control in range 10 to 11. Will sweep hole with gel slugs as required for hole cleaning. Mud wt = 10 ppg

1,900' to TD: 8.6 to 9.2 ppg controlled brine water. Will use lime for pH control in range 10 to 11. Will sweep hole with salt gel slugs as required for hole cleaning. Will use paper for seepage losses. Will adjust fluid weight as required using brine water.

## 7. Auxiliary Equipment:

- a) Upper kelly cock valve with handle available.
- b) Lower kelly cock valve with handle available.
- c) Safety valves and subs to fit all drill string connections in use.
- d) Monitoring of mud system will be mechanical.

Drilling Plan Owl, 20504 JV-P, #1 Page 3

8. Testing Logging and Coring Program:

Drill Stem Tests will only be run when samples, drilling time and other data indicate a test is warranted.

It is planned that electric logs will include Gamma Ray-CNL, SDL logs and dual laterologs.

Note: A gamma ray log will be run over the surface casing from its base to the ground surface.

No coring is planned.

- 9. No abnormal pressure is anticipated.
- 10. Anticipated Starting Date:

It is planned to commence drilling operations, upon approval of our BLM permit.

Contact <u>L. G. JOHNSON</u> at <u>432-682-3753</u> With any questions concerning the Drilling Plan.

L/G. JOHNSON Drilling Manager

# **SURFACE USE PLAN SUMMARY**

# **FOR**

# BTA OIL PRODUCERS #1, OWL, 20504 JV-P Sec. 18, T26S, R27E Eddy County, New Mexico

LOCATED:

14 Miles Southwest from Malaga, NM

FEDERAL LEASE NUMBER:

NMNM 114969

**SURFACE OWNERSHIP:** 

Federal – BLM

**GRAZING LEASEE:** 

Forehand Ranches, Inc.

P. O. Box 5373

Carlsbad, NM 88221

505-885-1108

POOL:

Wildcat (Delaware)

**DEDICATED ACRES:** 

40

**EXHIBITS**:

A. Topographic Vicinity Map

B. Topographic Road Map

C. Well Pad Layout

D. Well Location and Acreage Plat

E. County Map

# MULTI-POINT SURFACE USE & OPERATIONS PLAN BTA OIL PRODUCERS

#1, OWL, 20504 JV-P 1980' FSL & 2080' FWL Sec. 18, T26S, R27E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the referenced well. The plan describes the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance, and the procedures to be followed in rehabilitating the surface after completion of the operation so that complete appraisal can be made concerning the environmental effects associated with the operations.

# 1. Existing Roads

- A. Exhibit –A– is a topographic map showing the location of the proposed well as staked with existing roads and conditions within the one mile area. The proposed location is approximately 14 miles southwest from Malaga, New Mexico as shown on Exhibit –B–.
- B. From the intersection of US Hwy 285 (Pecos Hwy) and Co. Rd. 724 (White City Road), go west on Co. Rd. 724 approximately 10.9 miles to the intersection of Co. Rd. 724 and Co. Rd. 742 (John B. Forehand Road). Turn left (south/southeast) and travel approximately 2.3 miles to a newly flagged access road. Follow newly flagged access road approximately 3905' to the drillsite as shown on Exhibits –B– and –C–.

#### 2. Access Road

- A. Our proposed new access road will be 3,905 feet southwest from the well pad to the existing county road as shown on Exhibit –B–.
- B. Caliche will be used for the access road and drill pad, compacted and watered,

#1, Owl, 20504 JV-P Page 2

- C. The access road will be crowned for drainage and maintained during drilling operations and, if productive, as long as producing.
- D. We are, with this application, applying for access right-of-way from Eddy County Road 742 to the north of this location for the BLM surface.

## 3. Location of Existing Wells

- A. All existing wells within one mile radius of our proposed well are shown on Exhibit –E–.
- 4. Location of Existing and/ or Proposed Facilities if Well is Productive.
  - A. If well is productive, we will use the existing well pad for the tank battery and all necessary production facilities.
  - B. New facilities will be applied for via Sundry notice with a schematic diagram prior to installation.
  - C. Should the well be successfully completed for production, the BLM will be notified within five days when the well is placed in producing status.
  - D. All facilities will be painted a flat, nonreflective, earthtone color to match the standard environmental colors within six months of installation.

# 5. Location and Type of Water Supply

A. Water for drilling and completion operations will either be purchased and trucked to the well site, or transported by plastic temporary "fas-line" laid on the surface alongside existing roads.

#### 6. Source of Construction Materials

A. Caliche used for construction of the drilling pad and access road will be obtained from the closest existing caliche pit as designated by the BLM.

#1, Owl, 20504 JV-P Page 3

- B. If there is not sufficient material available, it will be purchased from the area designated by the BLM.
- C. The reserve pit will be constructed entirely of cut material and lined with 12 mil plastic.

## 7. Methods of Handling Waste Disposal

- A. Drill cuttings will be disposed of in the reserve pits located on the north side of the rig.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough for backfilling.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- D. Oil produced during testing will be stored in test tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. Trash, waste paper and garbage will be disposed of by hauling to an available disposal. All waste material will be contained in a totally enclosed trash basket with a fine wire mesh, to prevent wind scattering during collection. The road and pad will be kept litter free.

# 8. Ancillary Facilities

A. It is possible that a mobile home will be used at the well site during drilling operations.

# 9. Wellsite Layout

- A. Exhibit –C– shows the pad layout.
- B. No cut and fill will be required at the well site, however, it will require clearing and leveling.
- C. The reserve pits will be fenced.

#1, Owl, 20504 JV-P Page 4

#### 10. Plans for Restoration of Surface

- A. Following drilling and/or completion operations, all equipment and material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site as clean as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled. Oil in the mud pit will necessitate either removal or installation of overhead flagging. The pit will be allowed to dry prior to the commencement of backfilling operations to support track equipment. Fill material will be pushed back into the cuts and up over the backslope, recontouring the area so that there are no large depressions that will trap water or form ponds. The pit area will be contoured to the natural terrain with all contaminated drilling mud buried with at least three feet of clean soil. Topsoil will be evenly distributed over the entire location. The seedbed will be prepared by disking to a depth of four to six inches following the contour.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the BLM will be complied with and will be accomplished as expeditiously as possible.
- D. All disturbed areas will be seeded on the contour at a depth of one-half inch using the following mixture:

1 pound per acre Alkali Sacaton (Sporobolus airoides)
5 pound per acre Four-wing Saltbush (Atriplex canescens)

- E. Seeding will be completed after September 15 and prior to November 15<sup>th</sup> before freeze up or as early as possible the following spring to take advantage of available ground moisture.
- F. Newly constructed access road will be recontoured, disked, and seeded as specified above. All rehabilitation work, including seeding, will be completed as specified by the BLM, or sooner if conditions permit.

# 11. Surface Topography

- A. The surface ownership is Federal.
- B. The wellsite and access route are located to the south of Hay Hollow as shown on Exhibit –A-, Topographic map of the area. The area is fairly flat with sandy loam soil underlain with caliche.

#1, Owl, 20504 JV-P Page 5

- C. The grazing lessee is Forehand Ranches, Inc. They have been contacted and notified of the staking of our well and our plans for drilling.
- D. There are no houses or buildings within one mile of the drillsite.
- E. Signs identifying and locating our well will be maintained at the drillsite and principle entrance, commencing with the spudding of the well.
- F. An Archaeological Survey was conducted of our original wellsite and an archaeological "site" was found. The complete description of this site will be provided in a report from Southern New Mexico Archaeological Services. They will furnish the report on the new location directly to the Carlsbad BLM office.

## 12. Operator's Representative:

A. The field representative that is responsible for assuring compliance with the approved surface use plan is:

Drilling Manager: Mr. L. G. Johnson

Phone: 432/682-3753 (Office) 432/682-5149 (Home) 432/553-2756 (Mobile)

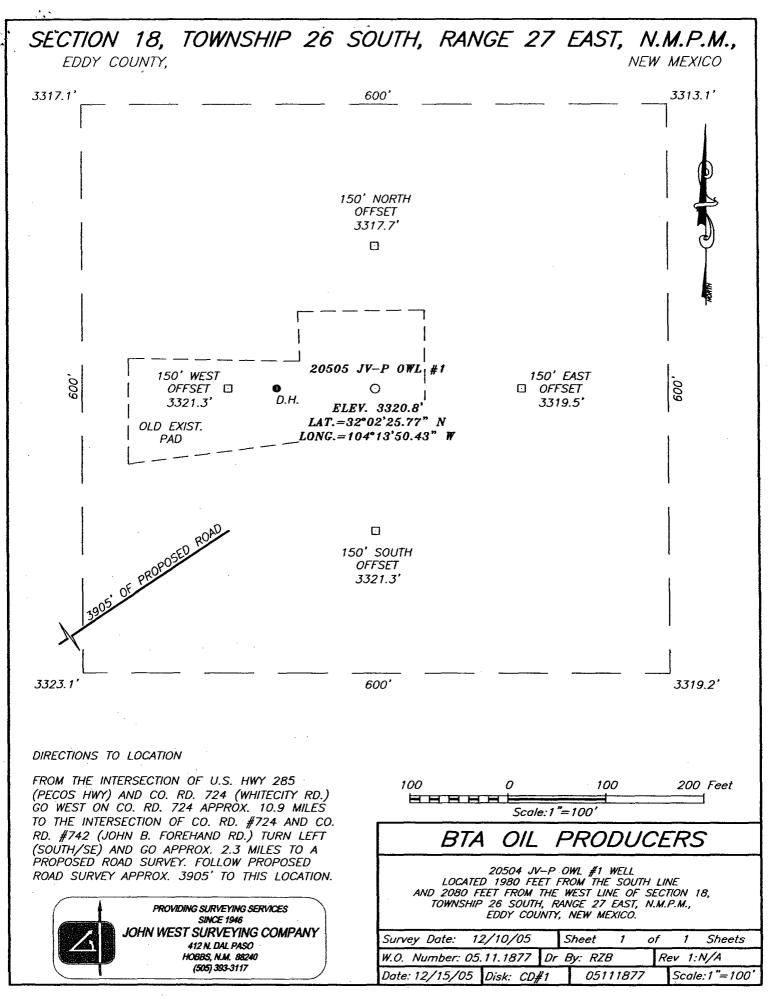
## 13. Certification:

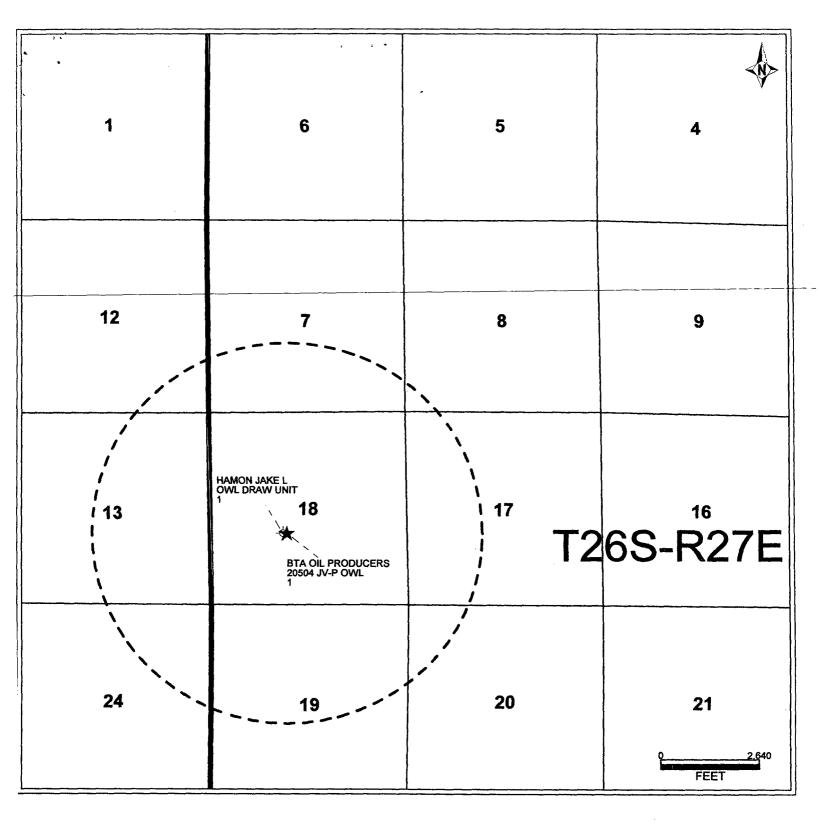
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by BTA Oil Producers and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Dated this 13<sup>th</sup> day of February, 2006.

G. JOHNSON DRILLING MANAGER

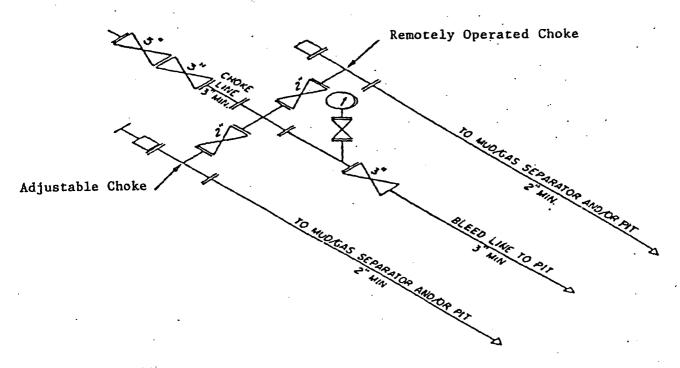
FOR BTA OIL PRODUCERS



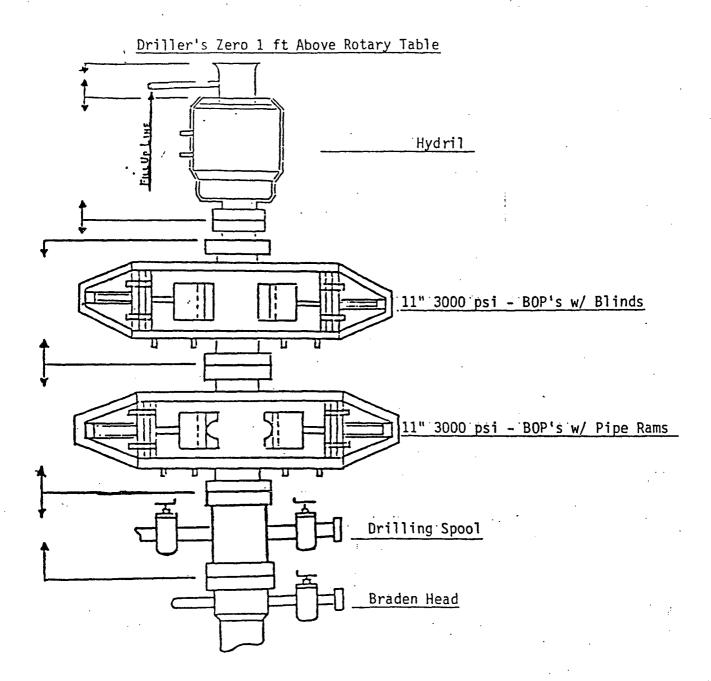


BTA OIL PRODUCERS
Owl, 20504 JV-P, NO. 1
1980' FSL & 2080' FWL
Sec. 18, T26S, R27E
Eddy County, New Mexico

BTA OIL PRODUCERS
Owl, 20504 JV-P, NO. 1
1980' FSL & 2080' FWL
Sec. 18, T26S, R27E
Eddy County, New Mexico



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION MAY VARY



BTA OIL PRODUCERS Owl, 20504 JV-P, NO. 1 1980' FSL & 2080' FWL Sec. 18, T26S, R27E Eddy County, New Mexico

# Conditions of Approval Cave and Karst

# Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

## Closed Mud System with Cuttings Removed:

A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal.

## Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

## **Rotary Drilling with Fresh Water:**

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

#### Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

#### Cementing:

All casing strings will be cemented to the surface.

#### **Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cavebearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

## **Delayed Blasting:**

Any blasting will be a phased and time delayed.

## **Abandonment Cementing:**

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

#### **Pressure Tests:**

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

### **Differential Shut-off Systems:**

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A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

#### Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

ACL OF GIPL

#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: BTA Oil Producers Well Name & No: Owl 20504 JV-P No.01

Location: Surface 1980' FSL & 2080' FWL, Sec.18-K, T. 26 S. R. 27 E.

Lease: NMNM 114969 Eddy County, New Mexico

#### I. DRILLING OPERATIONS 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 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 13 % inch; 8 % inch;  $5 \frac{1}{2}$  inch.
- C. BOP Tests
- 2. A Hydrogen Sulfide (H2S) Drilling Plan is not required for this well bore.
- 3. 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.
- 4. 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.
- 5. 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 ½ inch shall be set at 400 Feet with 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 8 1/2 inch Intermediate casing is to circulate to surface.
- 3. The minimum required fill of cement behind the 5 ½ inch Production casing is to tie back by at least 200 ft into the 8 % inch casing shoe.

#### **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 ½ 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.

#### (III Cont):

- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2 M psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.
- -The test 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 safe workman-like manner. Hard line connections shall be required.
- -Both low pressure and high pressure testing of BOPE is required.

G Gourley 03/02/2006

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