

A 75-07-440

EA-755

JUN 29 2007 **OCD-ARTESIA**Form 3160-3
(April 2004)**OCD-ARTESIA**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**APPLICATION FOR PERMIT TO DRILL OR REENTER**FORM APPROVED
OMB No 1004-0137
Expires March 31, 20075 Lease Serial No.
NM-1108296 If Indian, Allottee or Tribe Name
N/A7 If Unit or CA Agreement, Name and No.
N/A8. Lease Name and Well No. **37006**
Jitterbug Federal #19 API Well No.
30-015-3612110 Field and Pool, or Exploratory
Malaga Delaware Field 4294011 Sec., T. R. M. or Blk. and Survey or Area
Sec.24-T24S-R28E12 County or Parish
Eddy 13 State
NM1a. Type of work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone2 Name of Operator
BC Operating, Inc. 1608253a. Address **P.O. Box 50820**
Midland, TX 797103b Phone No. (include area code)
432.553.7244


4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface **1980' FNL and 1980' FEL**At proposed prod. zone **Same**14 Distance in miles and direction from nearest town or post office*
~3 miles SE of Malaga, NM15 Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drig. unit line, if any) **1980'**16 No. of acres in lease
56017 Spacing Unit dedicated to this well
4018 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft **~2500'**19 Proposed Depth
4300' 2850'20 BLM/BIA Bond No. on file
ON FILE NM 2522 SA21 Elevations (Show whether DF, KDB, RT, GL, etc.)
2972' GL22 Approximate date work will start*
06/04/200723. Estimated duration
20-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

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25 Signature Name (Printed/Typed)
Jeffrey G. BaneDate
04/25/2007Title
Agent-In-FactApproved by (Signature) **/s/ James Stovall**Name (Printed/Typed) **/s/ James Stovall**Date **JUN 27 2007**Title
FIELD MANAGEROffice
BLM-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 TWO YEARS

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****SEE ATTACHED FOR
CONDITIONS OF APPROVAL****CARLSBAD CONTROLLED WATER BASIN****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. 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

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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name JITTERBUG FEDERAL	Well Number 1
OGRID No.	Operator Name BC OPERATING	Elevation 2972'

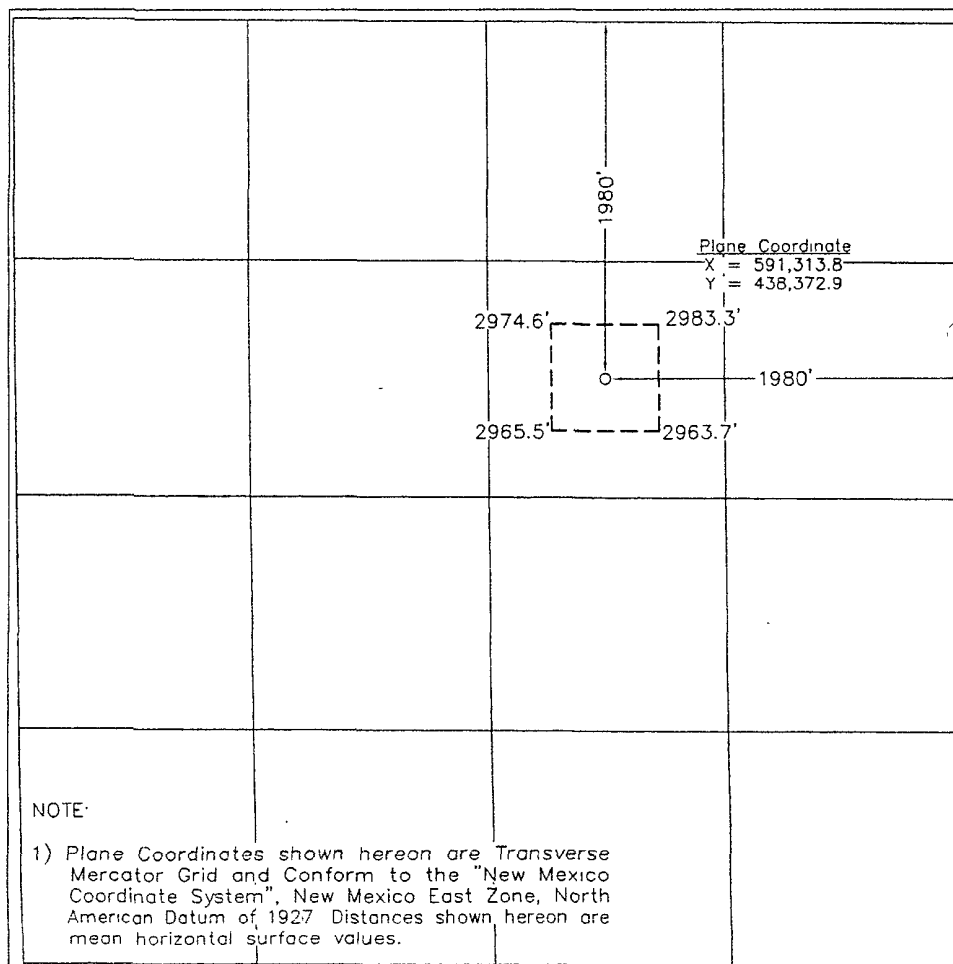
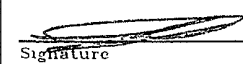
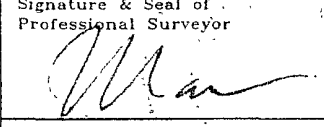
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	24	24 S	28 E		1980	NORTH	1980	EAST	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 or Infill	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>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> Signature</p> <p>Jeffrey G. Bane Printed Name</p> <p>Agent-In-Fact Title</p> <p>4/16/07 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 supervision and that the same is true and correct to the best of my belief</p> <p>January 26, 2007 Date Surveyed</p> <p>Signature & Seal of Professional Surveyor  W.O. Num. 2007-0127</p> <p>Certificate No MACON McDONALD 12185</p>
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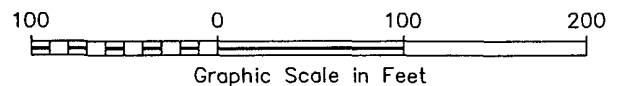
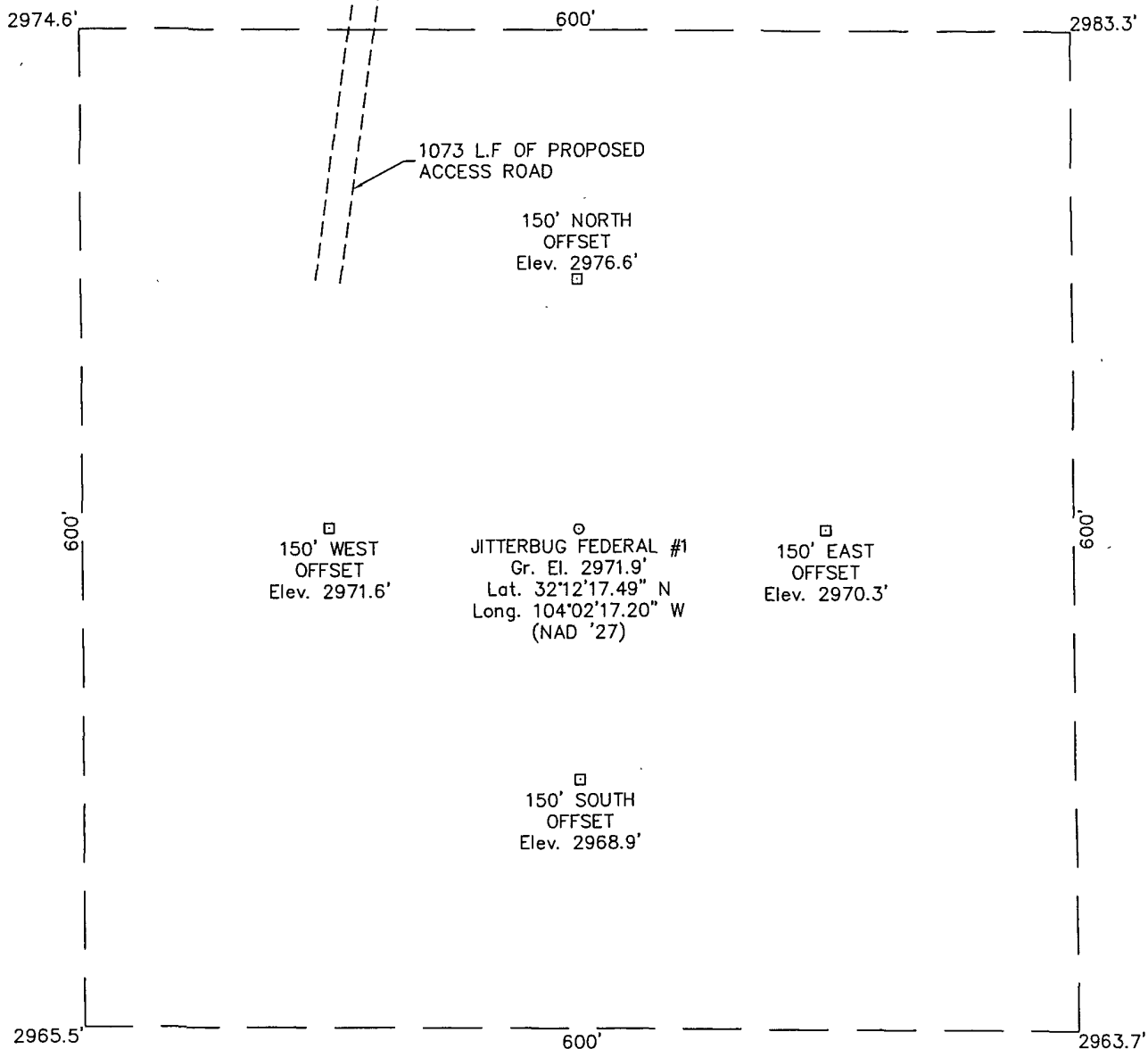
NOTE:

- 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.

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

DRIVING DIRECTIONS

FROM MALAGA, N.M. (HWY 285 & NM 396) GO EAST ON COUNTY ROAD 720 1.0 MILES. THEN TURN SOUTH ON COUNTY ROAD 746 AND GO SOUTH AND EAST FOR APPROXIMATELY 1.3 MILES TO A LEASE ROAD ON SOUTH SIDE OF ROAD. THEN GO SOUTH ON LEASE ROAD FOR APPROXIMATELY 0.3 MILES TO THE BEGINNING POINT OF PROPOSED ROAD. SAID BEGINNING POINT BEING APPROXIMATELY 1073 FEET NORTH OF THE PROPOSED LOCATION.

BC OPERATING, INC.**JITTERBUG FEDERAL #1**

Located 1980' FNL & 1980' FEL, Section 24
Township 24 South, Range 28 East, N.M.P.M.
Eddy County, New Mexico

**WEST
COMPANY**
of Midland, Inc.

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

Drawn By: LVA	Date: February 1, 2007
Scale: 1"=100'	Field Book: 354 / 36-37, 76
Revision Date: 5-21-2007	Quadrangle: Malaga
W.O. No: 2007-0127-1	Dwg. No.: L-2007-0127-A

L-2007-0127-A

[illegible]

CONTOUR INTERVAL:
MALAGA - 10'

U.S.G.S. TOPOGRAPHIC MAP
MALAGA



**WEST
COMPANY**
of Midland, Inc.

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

Drilling Plan

for

BC Operating, Inc.'s

Jitterbug Federal #1

1980' FNL & 1980' FEL (Unit Letter "G")

Section 24, T-24-S, R-28-E, N.M.P.M.

Eddy County, New Mexico

Lease Serial # NM-110829

Surface Formation: Quaternary Alluvium

Estimated Tops of Geologic Markers:

Rustler	@	1200'
Delaware	@	2700'
TD	@	2850'

Estimated Depths to Water, Oil or Gas Formation:

Water	@	250'
Oil	@	2700' to TD
Gas	@	None Expected

Proposed Casing Program:

Drilling will begin with a 12.25" bit to a depth of 450', into which 32# - J-55 - 8.625" casing will be set with 500 sacks of cement to surface.

Drilling will continue with a 7.875" bit from 550' to 2,850' into which 17# - J-55 - 5.50" casing will be set with 1350 sacks of cement to surface.

The surface and production casing strings will be tested to 1000 psi.

Pressure Control Equipment:

Pressure control equipment will include a 3000# WP blowout preventer stack, with Series 900 blind and pipe rams. The BOP stack will include a kill line and choke manifold tested to 3000 psi. BOP hydraulic controls will be operated at least daily. A BOP schematic is attached showing the assembly for a 3000# BOP that will be used during drilling.

Circulating Medium:

BC anticipates the following mud program:

*per operator
6/20/2007
MLP*

1200'
0' - 2500'
1200'
2500' - TD

Freshwater w/gel spud mud - 8.4-9.0 ppg. With 32 - 38 Viscosity

Freshwater & Cut Brine w/gel & lime - 9-12 ppg. Viscosity of 32-38

Auxiliary Equipment:

A full-opening safety valve, to fit the drill string in use, will be kept on the rig floor at all times.

Testing, Logging and Coring Program:

Samples: Samples will be caught at 30' intervals from surface to 2850', and 10' intervals to TD.

DST and Cores: At discretion of well site geologist.

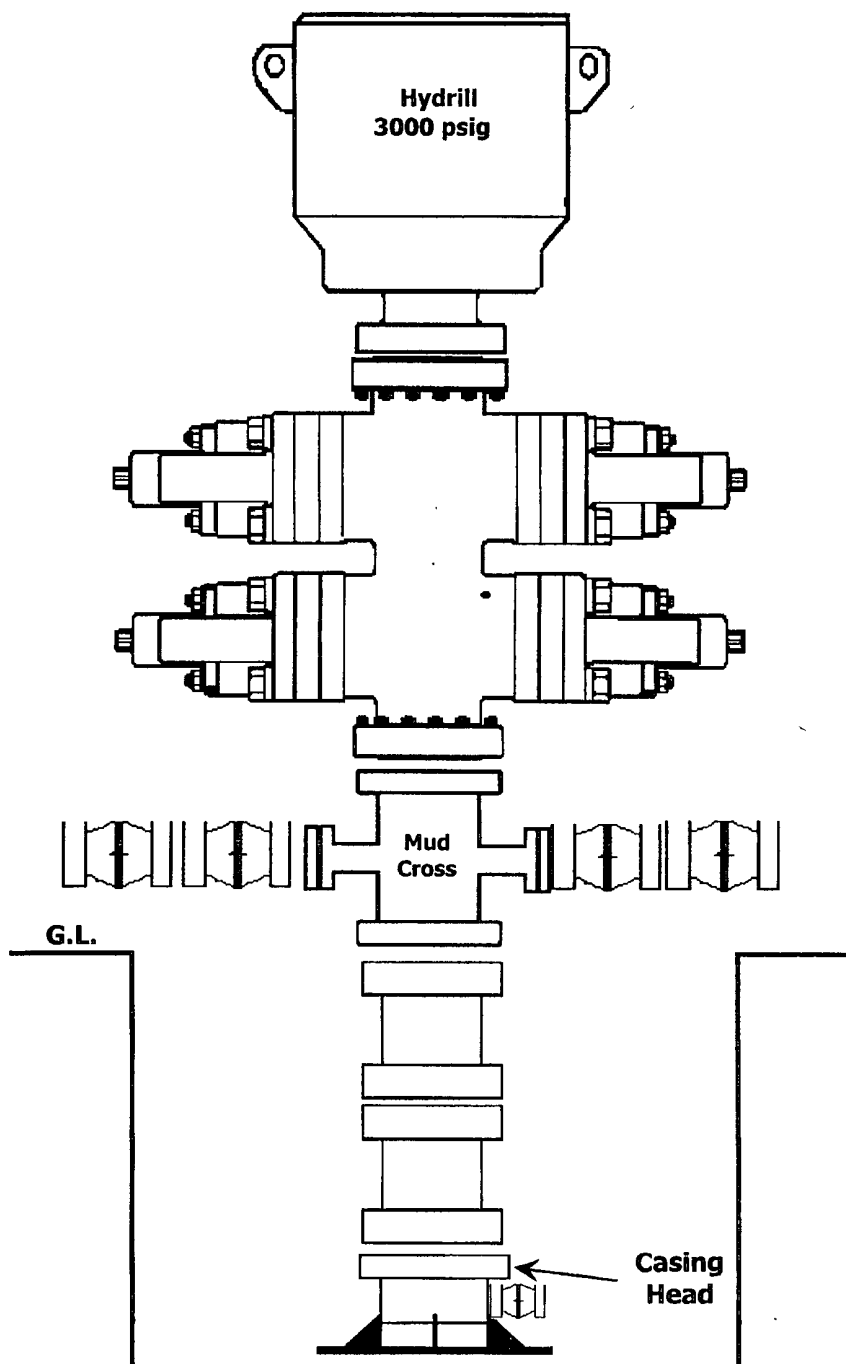
Logging: Neutron-Density Log (1100' to TD).

Abnormal Pressures, Temperatures or Hydrogen Sulfide:

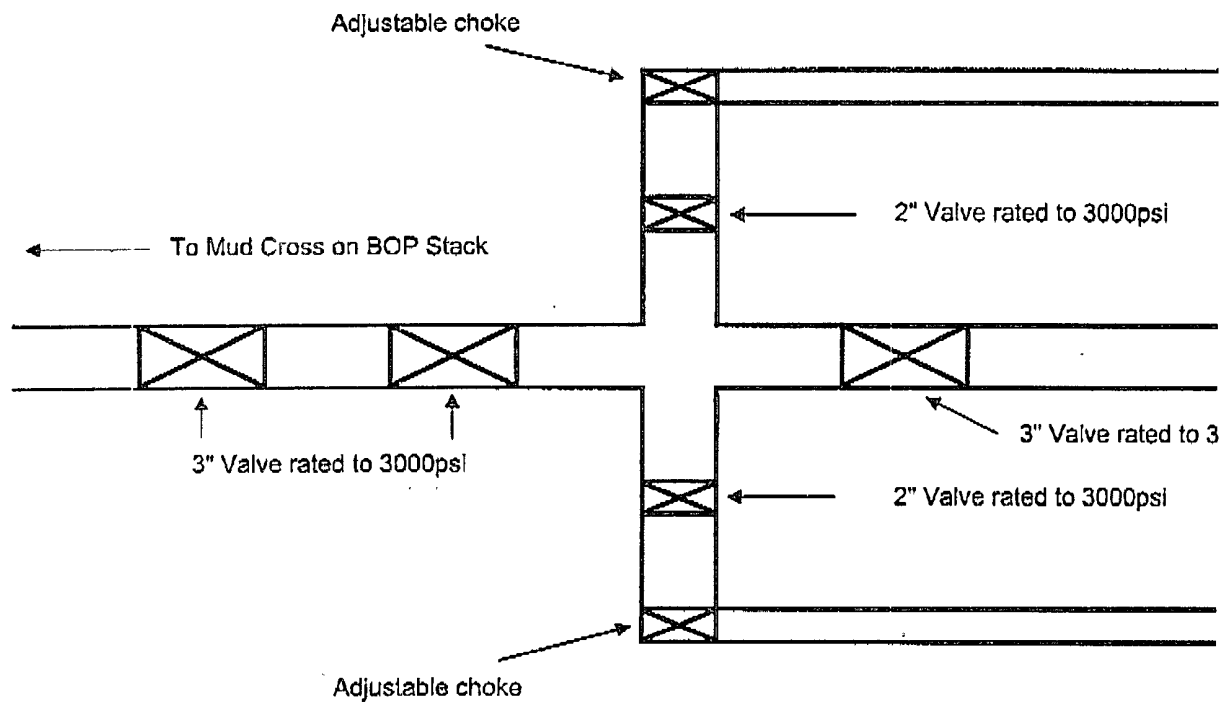
None of these items are anticipated. Bottom-hole pressure is not expected to exceed 3900#.

Anticipated Starting Date:

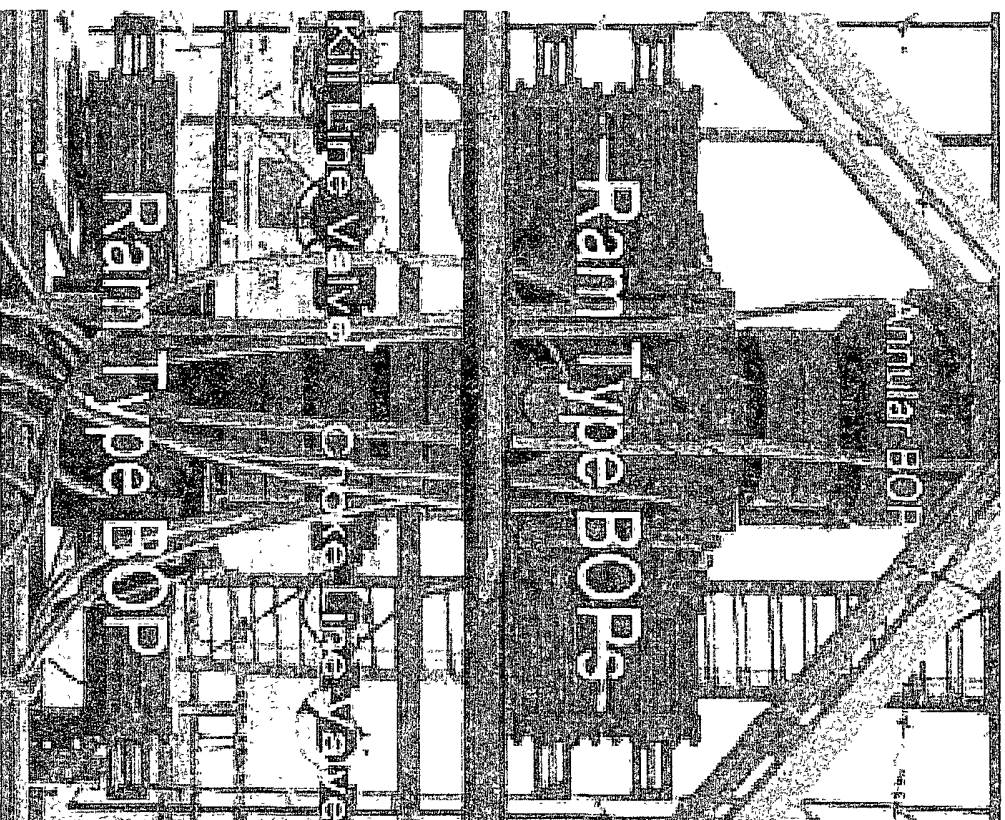
Drilling will commence upon approval. Drilling and completion operations will last approximately 10-days.



BC Operating, Inc. Jitterbug #1



Example of Blowout Preventer
Tested to 5,000#



Hydrogen Sulfide Drilling Operations Plan

for
BC Operating, Inc.'s

Jitterbug Federal #1

1980' FNL & 1980' FEL (Unit Letter "G")
Section 24, T-24-S, R-28-E, N.M.P.M.
Eddy County, New Mexico

Lease Serial # NM-110829

ONE - Hydrogen Sulfide Training:

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- The hazards and characteristics of hydrogen sulfide (H₂S);
- The proper use and maintenance of personal protective equipment and life support systems;
- The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds; and,
- The proper techniques of first aid and rescue procedures.

In addition, the supervisory personnel will be trained in the following areas;

- The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements;
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- The contents and requirements of the H₂S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500') and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

TWO - H₂S Safety Equipment and Systems:

NOTE: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or, three days prior to penetration of the first zone containing, or reasonably expected to contain, H₂S.

1. Well Control Equipment:

- Flare line with flare igniter;
- Choke manifold with one remote hydraulic choke installed;
- Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit;
- Auxiliary equipment to include an Annular Preventer.

2. Protective equipment for essential personnel:

- The designated safety expert will provide 5-minute escape units located in the doghouse, and 30-minute air units at briefing areas.

3. H2S detection and monitoring equipment:

- Three portable H2S monitors will be positioned on location for the best coverage and response. These units have warning lights and audible sirens when triggered by H2S levels > 20 PPM.
- One portable SO2 monitor will be positioned near flare line during H2S flaring operations.

4. Visual warning systems:

- Wind direction indicators will be placed in accordance with the directives issued by the designated H2S expert.
- Caution/Danger signs shall be posted on roads providing direct access to the location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be legible from the immediate location.

5. Mud Program:

- The mud program will minimize the volume of H2S circulated to the surface. Proper mud weight safe drilling practices, and, if necessary, the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spools kill lines, choke manifold and line valves shall be suitable for H2S service.
- All elastomers used for packing and seals shall be H2S trimmed.

7. Communications:

- Radio and telephone communications will be available in company vehicles and rig doghouse.

8. Well Testing:

- Drill stem testing will be performed with a minimum number of personnel necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H2S will be conducted during daylight hours.

Surface Use Plan

for
BC Operating, Inc.'s

Jitterbug Federal #1

1980' FNL & 1980' FEL (Unit Letter "G")
Section 24, T-24-S, R-28-E, N.M.P.M.
Eddy County, New Mexico

Lease Serial # NM-110829

For the Bureau's use in evaluating the above-captioned well, this plan is submitted with the Form 3160-3 APD. The purposes of this report are to:

1. describe the location of the proposed well,
2. highlight the construction and operation activities, and,
3. to provide a complete appraisal of the environmental effects and the magnitude of the necessary surface disturbances.

Location:

The subject of this report is located approximately 3 miles southeast of Malaga. The attached plats show the Jitterbug Federal #1 as it has been staked in Section 24. The "Proposed Lease Road" is shown on the attached Survey Plat. **With submission of this Application, we are requesting approval for use of any Existing Lease Roads, PLUS the ~1500 of new road needed to go south into our location.** All new access roads will be completed for use as described below.

Existing Roads:

Directions:

See "Driving Instructions" on attached 1" = 100' Survey.

Planned Access Road:

- | | |
|------------------------|---|
| A. Length and Width: | All new lease roads will be graded in compliance with BLM standards and made a uniform width of 20', including shoulders. There are no new lease roads. |
| B. Surfacing Material: | The new access road will be constructed of material-in-place. |
| C. Maximum Grade: | Less than 1% |
| D. Turnouts: | Because all roads are essentially flat, no traffic turnouts are necessary. |

- E. Drainage Design: The road will be constructed, or resurfaced with a 4" crown at the centerline. There are no water turnouts necessary.
- F. Culverts: None necessary.
- G. Cuts and Fills: The well pad will require about 4' of cut and fill from the southwest to the northeast. About 5" of topsoil from the pad will be stockpiled on the west side of the location for use in rehabilitation.
- H. Gates/Cattle guards: Because of the well's location, no new cattle guards are needed.
- I. Right-of-Way: There are no right-of-way applications necessary.

Location of Existing Wells:

There are 2 other known wells in Section 24, both operated by Dinero

Location of Existing And/Or Proposed Facilities:

If the well is productive, production, storage and measurement facilities will be constructed on a well pad in a manner consistent with the design of that shown in the attached "Tank Battery Schematic."

Location and Type of Water Supply:

Water for drilling operations will be purchased from a commercial water hauler.

Source of Construction Materials:

Whenever possible, Arrington plans to use material-in-place for construction. If necessary, caliche for surfacing the road and pad will be obtained from a privately owned pit and hauled to the location. Without prior approval, there are no plans to use caliche from Public Lands.

Methods of Handling Waste Disposal:

Drill cuttings will be disposed of in the drilling pits.

Drilling fluids will be allowed to evaporate in the drilling pits until dry.

Produced Water from any tests will be disposed of in the drilling pits.

Produced Oil from any tests will be stored in test tanks until sold.

Human waste will be handled, treated and disposed of by licensed professionals.

Well Site Layout:

The 400' x 400' area in which the drill site will be located, has been surveyed and flagged. Tentative plans have the 300' x 200' drilling pad situated as shown in the attached "Drilling Rig Pad Schematic."

As stated above, for rehabilitation purposes, approximately 5" of topsoil will be stockpiled on the east side of the location.

Plans for Restoration of the Surface:

After the conclusion of drilling and completion operations, all unnecessary equipment and material will be removed. Prior to filling, any unguarded pits containing fluids will be fenced. Afterwards, when the pits are filled, the location will be cleared of all trash and scrap materials, and the well site will be left in as aesthetically pleasing a condition as possible.

In the event the well is non-productive, the disturbed area will be rehabilitated to Agency requirements as expeditiously as possible.

Other Information:

Topography: The regional terrain is a rolling plain, yet the drill site and access road are essentially level.

Soil: The soil at the well site is sandy clay loam with associated gravel.

Flora and Fauna: Flora consists of range grasses with some yucca and mesquite, while fauna includes reptiles, rodents and birds.

Ponds and Streams: There are no ponds or streams near the well site.

Residences and Other Structures: There are no occupied dwellings within the subject section.

Archaeological, Historical and Other Cultural Sites: Mr. Gary Navarro has made a survey (submitted separately).

Land Use: The area surrounding the well site is semi-arid rangeland used for grazing.

Surface Ownership: The wellsite is on surface owned by the U.S. Department of Interior and managed by the Interior's Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

Operator's Representative:

Representative responsible for assuring compliance with the approved Surface Use Plan:

Jeffrey G. Bane
I-43 Associates, Inc.
Agent-In-Fact for
BC Operating, Inc.
Post Office Box 50767
Midland, Texas 79710
432.553.7244

Certification:

I hereby certify that I, or person 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; that the work associated with the operations proposed herein will be performed by BC Operating, Inc. and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date

4/25/07


Jeffrey G. Bane

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: BC Operating, Inc
Well Name & No. 1-Jitterbug Federal
Location: 1980' FNL, 1980' FEL, Sec. 24, T-24-S, R-28-E, Eddy County, NM
Lease: NM-110829

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I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard.
- C. 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.
- D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The 8-5/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 450 feet and cemented to the surface. **Drilling mud will switch to a cut brine fluid below the Rustler Anhydrite.**

1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of **18 hours for a water basin** or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
4. If cement falls back, remedial action will be done prior to drilling out that string.

**Possible lost circulation in the Triassic redbeds and the Castile Group.
Potential for cave/karst features is medium in this area.**

- B. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall circulate to surface.**
- C. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.**

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.**
- B. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.**
 - 1. The tests shall be done by an independent service company.**
 - 2. The results of the test shall be reported to the appropriate BLM office.**
 - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53 Sec. 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.**

Engineer on call phone (after hours): 505-706-2779

WWI 061407