

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

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

AUG 04 2005

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
Bass Enterprises Production Co.

3a. Address P. O. Box 2760 Midland, TX 79702

3b. Phone No. (include area code)
1801
(432)683-2277

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface NENE, 660 FNL, 660 FEL, 32.26317 N LAT, 104.06084 W LON
At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*
9 MILES EAST OF CARLSBAD NM

15. Distance from proposed* location to nearest property or lease line, ft.
(Also to nearest drig. unit line, if any)
660'

16. No. of Acres in lease
600.00

17. Spacing Unit dedicated to this well
321.70

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
3960'

19. Proposed Depth
12600' MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3183' GL

22. Approximate date work will start*
10/01/2005

23. Estimated duration
45 DAYS

24. Attachments **Carlsbad Controlled Water Basin**

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.
2. A Drilling Plan
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operation certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature *Cindi Goodman* Name (Printed/Typed) Cindi Goodman Date 06/23/2005

Title
Production Clerk

Approved by (Signature) */s/ James Stovall* Name (Printed/Typed) */s/ James Stovall* Date AUG 02 2005

Title FOR FIELD MANAGER Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify the 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 and false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1023 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 7392c	Pool Name East Carlsbad Morrow
Property Code 001776	Property Name BIG EDDY UNIT	Well Number 149
UGRID No. 001801	Operator Name BASS ENTERPRISES PRODUCTION COMPANY	Elevation 3183'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	21 S	28 E		660	NORTH	660	EAST	EDDY

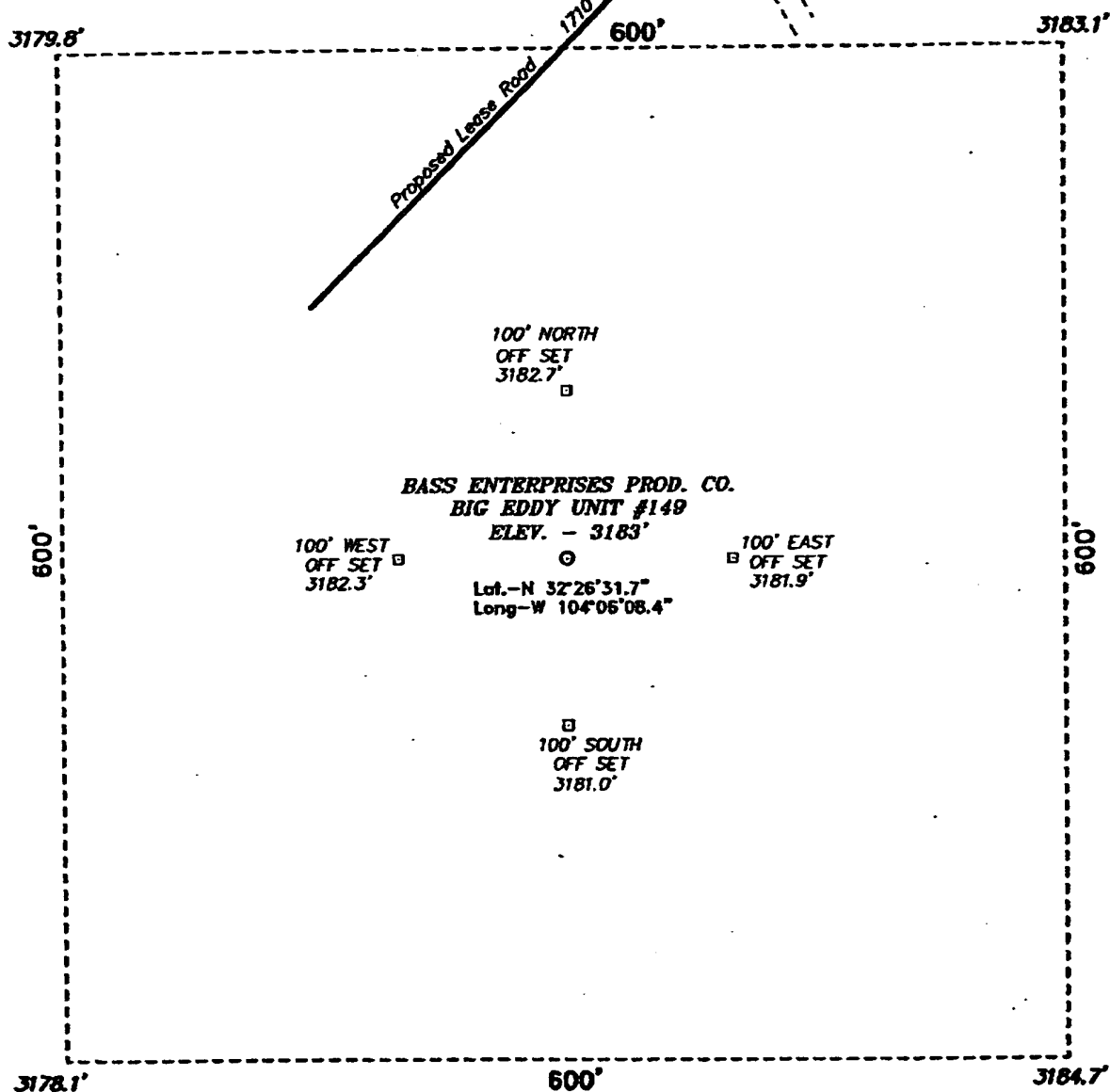
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 321.77	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>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein to true and complete to the best of my knowledge and belief.</p> <p><i>William R. Dannels</i> Signature W.R. DANNELS Printed Name DIVISION DRILLING SUPT. Title 6/19/03 Date</p>
<p>321.02 Acres - USGLO</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>JUNE 05, 2003 Date Surveyed Signature: <i>Robert Jones</i> Professional Surveyor NEW MEXICO No. 7977 Certified No. Gary L. 7977 Professional Land Surveyor</p>

**SECTION 32, TOWNSHIP 21 SOUTH, RANGE 28 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**



100 0 100 200 FEET
SCALE: 1" = 100'

DIRECTIONS TO LOCATION:

ON US HWY 62/180, GO PAST MILE MARKER 43
SOUTHWEST FOR 0.3 MILE TO A LEASE ROAD;
THENCE GO SOUTHEAST ON LEASE ROAD FOR 2.3
MILES TO PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 3325

Drawn By: K. GOAD

Date: 06-05-2003 Dick K.G. CM7 - 3325A DMC

BASS ENTERPRISES PRODUCTION CO.

REF: BIG EDDY UNIT No. 149 / Well Pad Topo

THE BIG EDDY UNIT No. 149 LOCATED 660' FROM
THE NORTH LINE AND 660' FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 21 SOUTH, RANGE 28 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 06-05-2003 Sheet 1 of 1 Sheets

**EIGHT POINT DRILLING PROGRAM
BASS ENTERPRISES PRODUCTION CO.**

NAME OF WELL: BIG EDDY UNIT #149

LEGAL DESCRIPTION - SURFACE: 660' FNL & 660' FEL, Section 32, T21S, R28E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3208' (est)
GL 3183'

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>	<u>ESTIMATED SUBSEA TOP</u>	<u>BEARING</u>
T/Delaware Sands	2,758'	+ 450'	Oil/Gas
T/Bone Spring	5,898'	- 2,690'	Oil/Gas
T/Wolfcamp	9,308'	- 6,100'	Oil/Gas
T/Strawn	10,603'	- 7,395'	Oil/Gas
T/Strawn "C"	10,818'	- 7,610'	Oil/Gas
T/Atoka	10,983'	- 7,775'	Oil/Gas
T/Morrow	11,577'	- 8,369'	Oil/Gas
TD	12,600'	- 9,392'	

POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	<u>CONDITION</u>
20"	0' - 40'	Conductor	Contractor Discretion
13-3/8", 54.5#, J-55, STC	0' - 500'	Surface	New
9-5/8", 40#, N80, LTC	0' - 1,000'	Intermediate	New
9-5/8", 40#, K-55, LTC	1,000' - 3,000'	Intermediate	New
7", 26#, P-110, LTC	0' - 11,000'	Intermediate	New
7", 26#, S-95, LTC	11,000' - 11,200'	Intermediate	New
5", 18#, P110, STL	10,800' - 12,600'	Production Liner	New

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A rotating head will be nipped up on the surface casing. The rotating head will not be hydro-tested.

A BOP equivalent to Diagram 1 will be nipped up on the first and second intermediate casings. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. will be hydro-tested to 5,000 psi on the first intermediate and the second intermediate casing. The annular will be tested to 2500 psi. In addition to the rated working pressure test, a low pressure (250 psi) test will be required. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Twenty-one days after a previous test
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip. See the attached Diagram 1 for the minimum criteria for the choke manifold.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' – 500'	FW	8.5 - 9.2	45-35	NC	NC	NC	9.5
500' – 3,000'	BW	10.0 – 10.2	28-30	NC	NC	NC	9.5
3,000' – 9,000'	FW	8.6 – 8.9	28-30	4	2	NC	9.5
9,000' – 11,200'	CBW	8.9 – 11.5	28-30	6	4	<20	9.5
11,200' – TD	CBW/Polymer	9.0 – 9.5	32-55	12-20	12-22	10-15	9.5-10.0

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

Drill stem tests may be performed on significant shows in zones of interest, but none are anticipated.

B) LOGGING

Run #1:

GR-CNL-LDT-LLD run from 11,200' to TD to first ICP, GR-CNL to surface. May run logging suite across Delaware prior to drilling below 6000' if mud log shows warrant.

Run #2:

GR-CNL-LDT-LLD run from TD to second ICP, FMI as required.

C) CORING

No cores are anticipated.

D) CEMENT

<u>INTERVAL</u>	<u>AMOUNT SX</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT³/SX</u>
<u>SURFACE</u>						
Lead						
0' – 200'	170	200	Permian Basin Critical +	10.30	12.80	1.89
(100% excess)			Zone + Pol-e-flake			
Tail						
200'-500'	340	300	Premium Plus + 2% CaCl ₂	6.32	14.80	1.34
(100% Excess)			+ 1/8#/sx Pol-e-flake			
<u>INTERMEDIATE</u>						
<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT³/SX</u>
Lead						
0' – 2565'	670	2565	Interfill C + 1/8#/sx +	14.10	11.90	2.45
(100% Excess)			Pol-e-flake			
Tail						
2265' – 2700'	235	435	Premium Plus + 2%	6.34	14.80	1.34
(100% Excess)			CaCl ₂			
<u>PRODUCTION</u> (Two stage w/DV tool @ 8000' and circulate cement to 2000')						
<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT³/SX</u>
1st Stage						
LEAD						
8000'-10,500'	225	2500	Interfill H + 5pps Gilsonite	13.61	11.90	2.46
(50% excess)			+ 0.5% Halad 9 + 1/8 pps			
			Pol-e-flake			
TAIL						
10,500'-11,200'	100	700	Super H + 0.5% Halad 344	8.20	13.00	1.67
(50% excess)			+ 0.4% CFR3 + 5 pps Gilsonite			
			+ 1 pps Salt + 0.2% HRT			
2nd Stage						
LEAD						
2500'-7,300'	450	4800	Interfill H + 1/8 pps	14.00	11.90	2.45
(50% excess)			Pol-e-flake + 0.5% Halad 9			
TAIL						
7,300'-8,000'	100	700	Super H + 0.5% Halad 344	8.20	13.00	1.67
(50% excess)			+ 0.4% CFR3 + 5 pps Gilsonite			
			+ 1 pps Salt + 0.2% HRT			
<u>PRODUCTION LINER</u>						
10,800'-12,600'	155	1800	Class H + 0.8% Halad 322	5.68	15.40	1.28
(25% excess)			+ 0.6% Halad 344 + 0.2%			
			HR-7 + 5pps Microbond M			

E) DIRECTIONAL DRILLING

No directional services anticipated. A straight hole will be drilled to 12,500' TD.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout the Delaware, Bone Spring & Wolfcamp sections. The Strawn expected BHP is 5625 (max) or an equivalent mud weight of 10.0 ppg. The Morrow will be normally pressured. Due to the tight nature of the reservoir rock (high pressure, low volume), the well will be drilled under balanced utilizing a rotating head. The expected BHT at TD is 200°F. Based upon recent tests of producing wells within 1 mile of this location, no H₂S is anticipated or expected.

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: BIG EDDY UNIT #149

LEGAL DESCRIPTION – SURFACE: 660' FNL & 660' FEL, Section 32, T21S-R28E, Eddy County, NM

POINT 1: EXISTING ROADS

A) Proposed Well Site Location

See Exhibit "B".

B) Existing Roads:

Turn off Hwy 62-180 onto lease road between mile markers 43 and 44 southeast and go 2.3 miles. Turn right and go 0.3 miles to new location.

C) Existing Road Maintenance or Improve Plan:

See Exhibit "B" and well pad topo.

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

See Exhibit "B". The new road will be 12' wide and approximately 1710' long from existing lease road. The road will be constructed of watered and compacted caliche.

B) Width

12' Wide.

C) Maximum Grade

Not Applicable.

D) Turnouts

As required by BLM stipulations

E) Culverts, Cattle Guards, and Surfacing Equipment

None

POINT 3: LOCATION OF EXISTING WELLS

Exhibit "A" indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXSITING OR PROPOSED FACILITIES

A) Existing facilities within one mile owned or controlled by lessee/operator:

None

B) New Facilities in the Event of Production:

New production facilities will be installed at the new location.

L) Open Pits

All pits containing liquid or mud will be fenced and bird-netted.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use).

DRILLING

William R. Dannels
Box 2760
Midland, Texas 79702
(432) 683-2277

PRODUCTION

Mike Waygood
3104 East Green Street
Carlsbad, New Mexico 88220
(505) 887-7329

Kent A. Adams
Box 2760
Midland, Texas 79702
(432) 683-2277

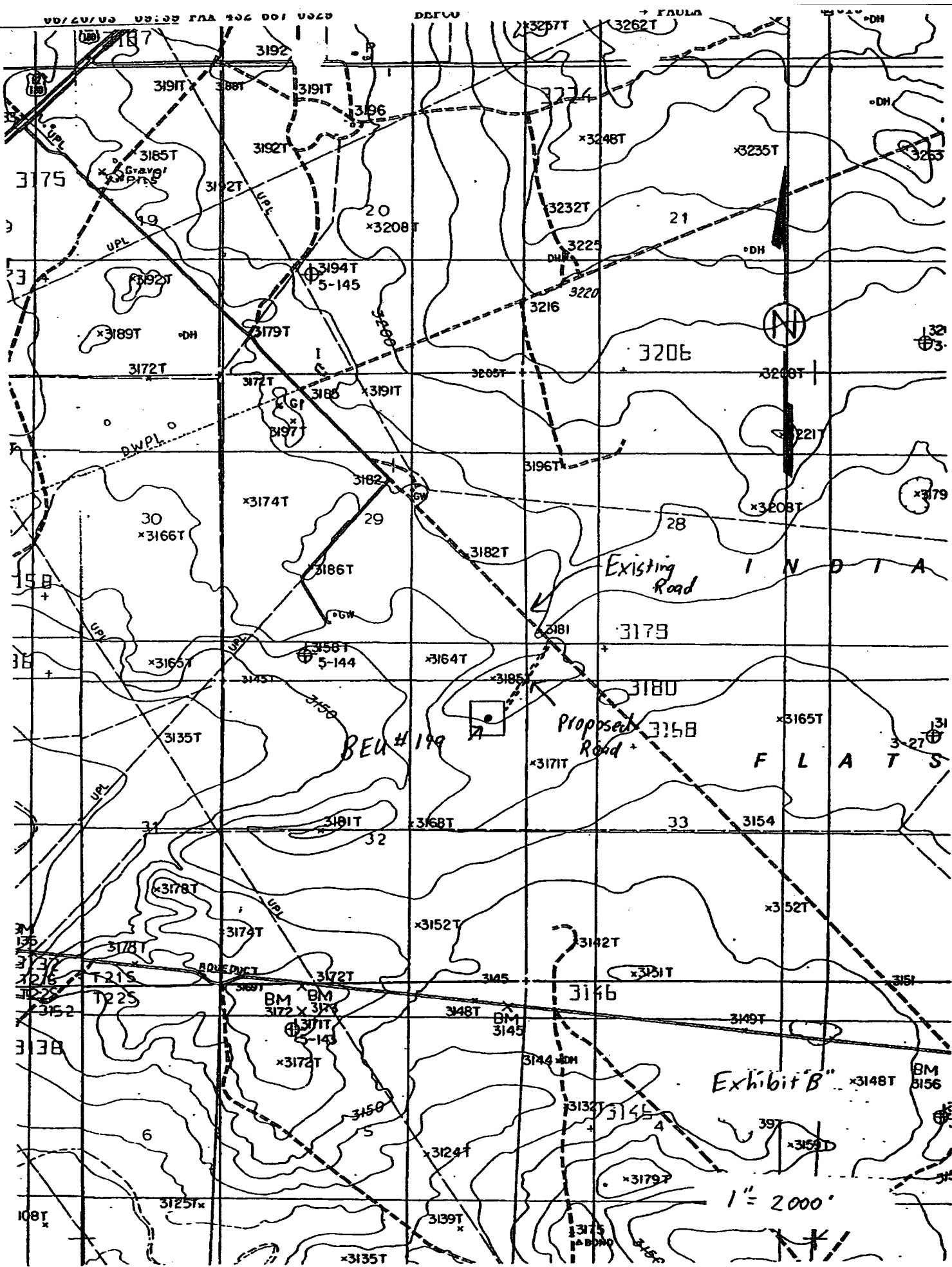
POINT 13: CERTIFICATION

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 currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bass Enterprises Production Co. and it's contractors and subcontractors 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.

6-24-05
Date

William R. Dannels f/WRD
William R. Dannels

LHS:cdg



BASS ENTERPRISES PRODUCTION COMPANY

PIT DIAGRAM

OVER 8500'

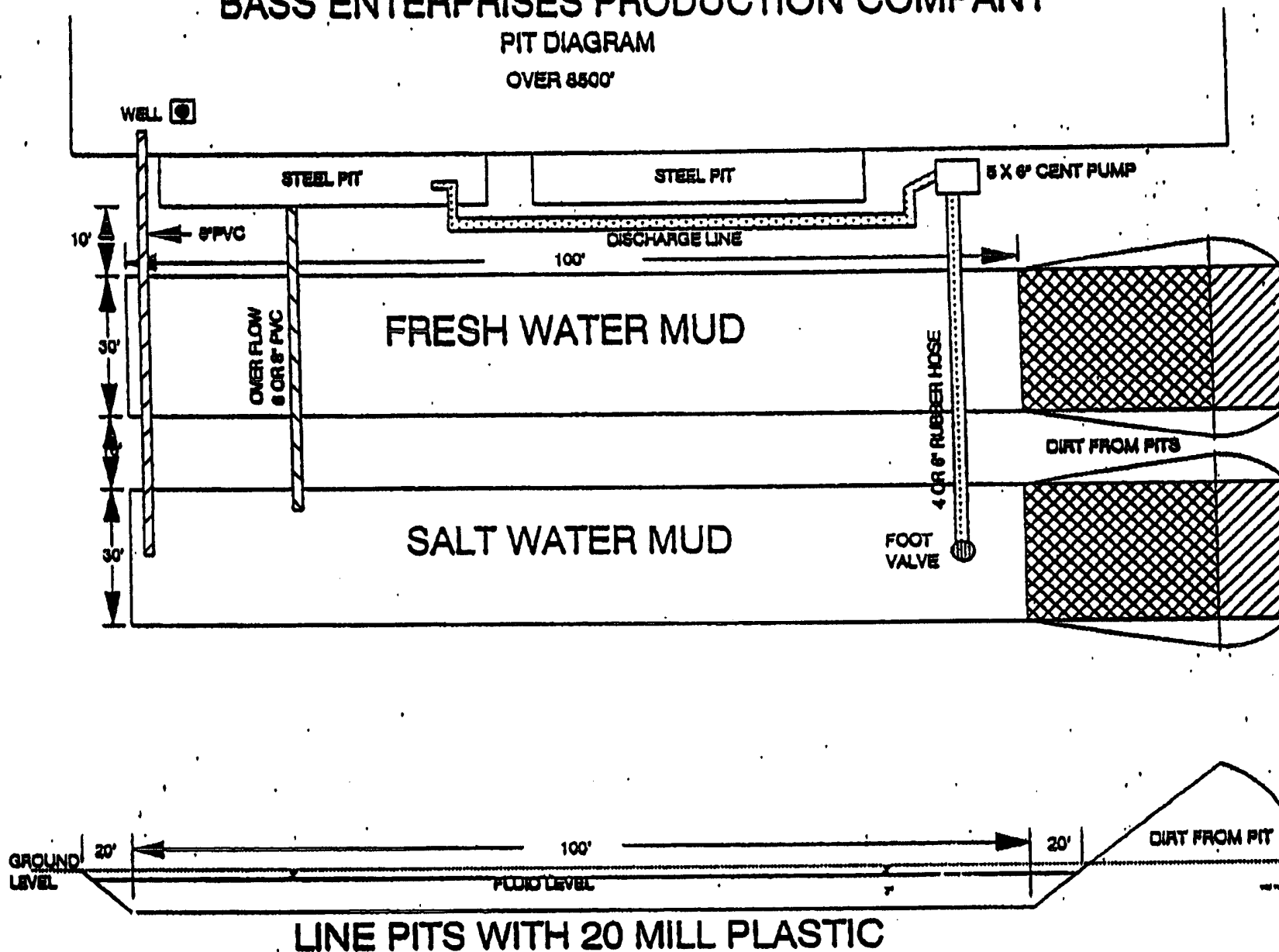
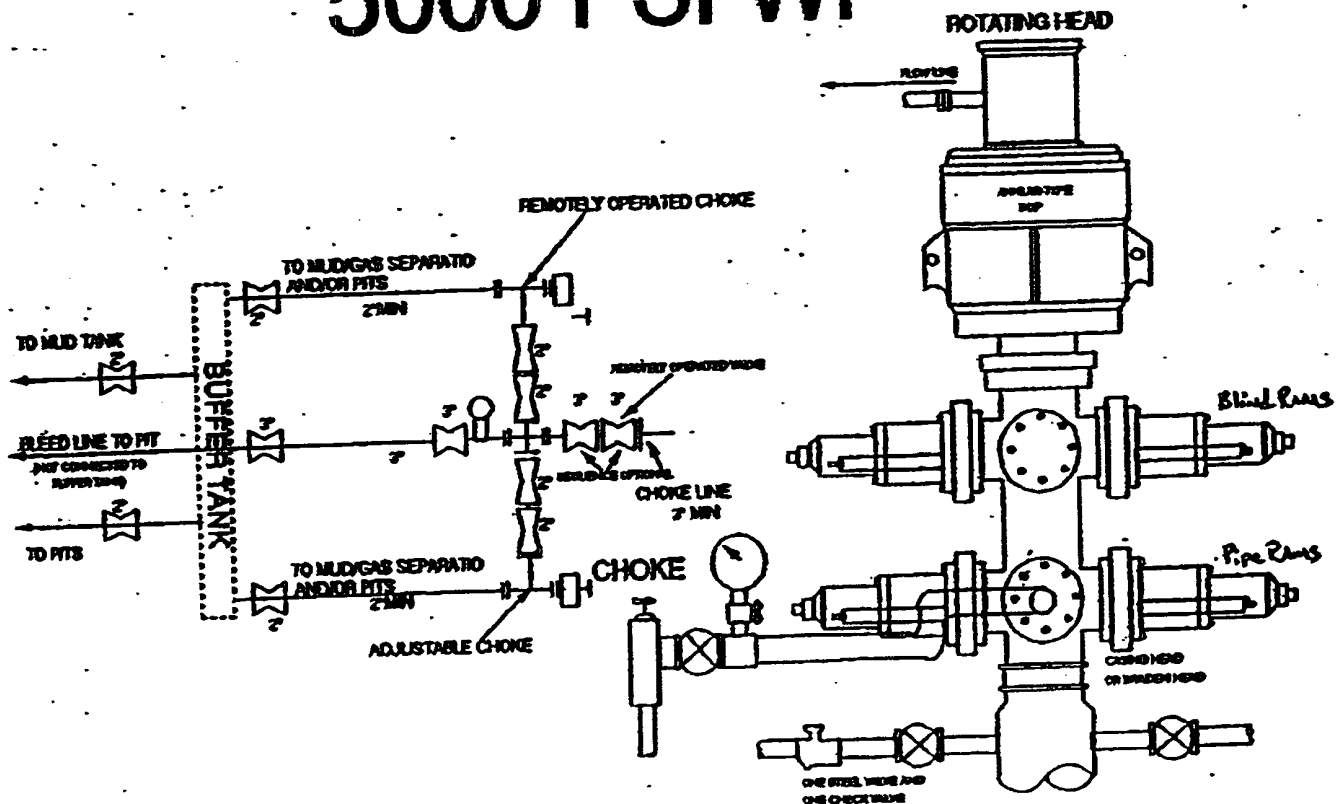


Exhibit D

5000 PSI WP



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. One double gate blowout preventer with lower rams for pipe and upper rams blind, all hydraulically controlled.
- B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.
- C. All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter.
- D. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers.
- E. All connections to and from preventers to have a pressure rating equivalent to that of the BOP's.
- F. Manual controls to be installed before drilling cement plug.
- G. Valve to control flow through drill pipe to be located on rig floor.
- H. All chokes will be adjustable. Choke spool may be used between rams.

DIAGRAM 1

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Bass Enterprises Production Co. Well Name & No. Big Eddy Unit #149
 Location 660 F N L & 660 F E L Sec. 32, T. 21 S, R. 28 E.
 Lease No. NM-01148 County Eddy State New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- () Lesser Prairie Chicken (stips attached) () Flood plain (stips attached)
 () San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(X) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

() Other

III. WELL COMPLETION REQUIREMENTS

() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- | | |
|---|---|
| () A. Seed Mixture 1 (Loamy Sites) | (x) B. Seed Mixture 2 (Sandy Sites) |
| Side Oats Grama (<i>Bouteloua curtipendula</i>) 5.0 | Sand Dropseed (<i>Sporobolus cryptandrus</i>) 1.0 |
| Sand Dropseed (<i>Sporobolus cryptandrus</i>) 1.0 | Sand Lovegrass (<i>Eragrostis trichodes</i>) 1.0 |
| | Plains Bristlegrass (<i>Setaria magrostachya</i>) 2.0 |
| () C. Seed Mixture 3 (Shallow Sites) | () D. Seed Mixture 4 (Gypsum Sites) |
| Side oats Grama (<i>Boute curtipendula</i>) 1.0 | Alkali Sacaton (<i>Sporobollud airoides</i>) 1.0 |
| | Four-Wing Saltbush (<i>Atriplex canescens</i>) 5.0 |

() OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

() Other.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Bass Enterprises

Well Name & No: Big Eddy No. 149

Location: Surface 660' FNL & 660' FEL, Sec.32-A, T. 21 S. R. 28 E.

Lease: NMOC 060613 01148 (EH)

Eddy County, New Mexico

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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 3/4 inch; 9 5/8 inch; 7 inch; 5 inch

C. BOP Tests

2. A Hydrogen Sulfide (H₂S) Drilling Plan is not required for this wellbore.

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 3/4 inch shall be set at 500 Feet and at least a minimum of 25 Ft. into the Top of the Rustler Anhydrite 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 9 5/8 inch Intermediate casing is to circulate to surface.

3. The minimum required fill of cement behind the 7 inch Production casing is to place TOC at least 200 feet above any potential H-C bearing formations.

4. The minimum amount of cement volume behind the 5 inch Liner is to circulate to top of liner.

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 3/4 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. Pressure Control (continued):

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **5M psi**. The annular may be tested to a limit of 2500 psig.

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.

IV. DRILLING MUD

Mud System monitoring equipment, with derrick floor indicators and visual 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:

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