

H-45

Form 3160-3  
(August 1999)

EC

OCD-ARTESIA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                        |  |                                                                                                                   |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------|-----------------|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                           |  | 5. Lease Serial No.<br>NMLC060853A                                                                                |                 |
| 1b. 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<br>BASS ENTERPRISES PRODUCTION CO                                                                                                                                                                  |  | 7. If Unit or CA Agreement, Name and No.<br>NMNM68294X                                                            |                 |
| Contact: TAMI WILBER<br>E-Mail: twilber@basspet.com                                                                                                                                                                    |  | 8. Lease Name and Well No.<br>BIG EDDY UNIT 148                                                                   |                 |
| 3a. Address<br>P O BOX 2760<br>MIDLAND, TX 79702                                                                                                                                                                       |  | 9. API Well No.<br>30-015-32860                                                                                   |                 |
| 3b. Phone No. (include area code)<br>Ph: 432.683.2277<br>Fx: 432.687.0329                                                                                                                                              |  | 10. Field and Pool, or Exploratory<br>WILDCAT MORROW<br>E CARLSBAD-MORROW                                         |                 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface NESE 1980FSL 660FEL<br>At proposed prod. zone NESE 1980FSL 660FEL                                         |  | 11. Sec., T., R., M., or Blk. and Survey or Area<br>Sec 6 T22S R28E Mer NMP<br>SME: BLM                           |                 |
| 14. Distance in miles and direction from nearest town or post office*<br>9 MILES EAST OF CARLSBAD NM                                                                                                                   |  | 12. County or Parish<br>EDDY                                                                                      | 13. State<br>NM |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>660                                                                                            |  | 17. Spacing Unit dedicated to this well<br>320.00                                                                 |                 |
| 16. No. of Acres in Lease                                                                                                                                                                                              |  | 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.<br>4742 |                 |
| 19. Proposed Depth<br>12600 MD                                                                                                                                                                                         |  | 20. BLM/BIA Bond No. on file                                                                                      |                 |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.)<br>3124 GL                                                                                                                                                          |  | 22. Approximate date work will start<br>07/15/2003                                                                |                 |
| 23. Estimated duration<br>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:

- 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<br>(Electronic Submission)      | Name (Printed/Typed)<br>TAMI WILBER          | Date<br>05/22/2003  |
| Title<br>PRODUCTION CLERK                     |                                              |                     |
| Approved by Signature<br>/s/ LESLIE A. THEISS | Name (Printed/Typed)<br>/s/ LESLIE A. THEISS | Date<br>JUN 30 2003 |
| Title<br>FIELD MANAGER                        | Office<br>CARLSBAD FIELD OFFICE              |                     |

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #22171 verified by the BLM Well Information System  
For BASS ENTERPRISES PRODUCTION CO, sent to the Carlsbad  
Committed to AFMSS for processing by Linda Askwig on 05/27/2003 (03LA0536AE)APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**DISTRICT I**

1825 N. French Dr., Hobbs, NM 88240

**DISTRICT II**

811 South First, Artesia, NM 88210

**DISTRICT III**

1000 Elm 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                                            | Pool Name              |
|                         |                                                      | East Carlsbad (Morrow) |
| Property Code<br>001775 | Property Name<br>BIG EDDY UNIT                       | Well Number<br>148     |
| OGED No.<br>001801      | Operator Name<br>BASS ENTERPRISES PRODUCTION COMPANY | Elevation<br>3124'     |

**Surface Location**

| UL or lot No. | Section | Township | Range | Lot 1/4 | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| 1             | 6       | 22 S     | 28 E  |         | 1980          | SOUTH            | 660           | EAST           | EDDY   |

**Bottom Hole Location If Different From Surface**

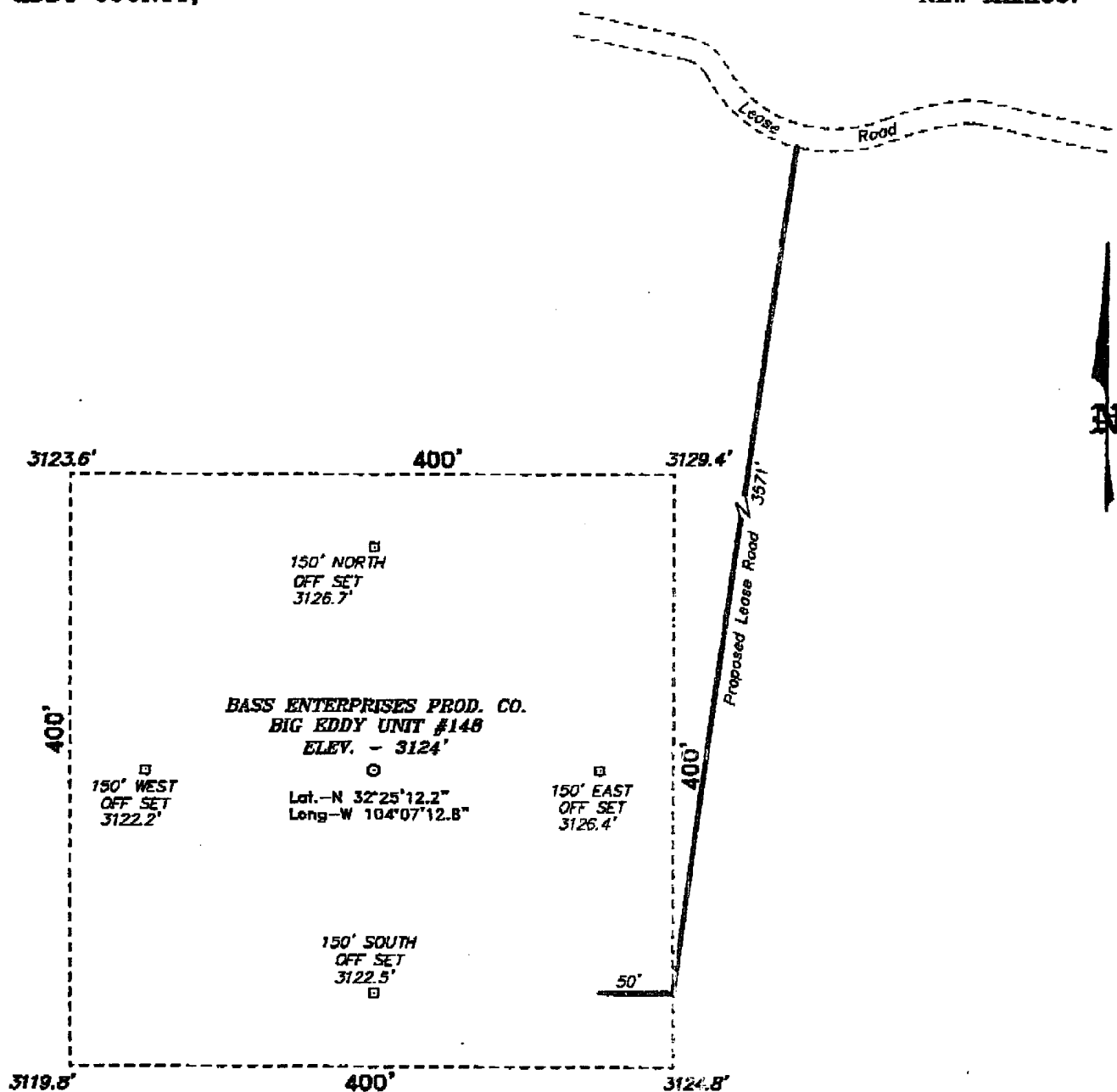
| UL or lot No. | Section | Township | Range | Lot 1/4 | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                        |                 |                    |           |
|------------------------|-----------------|--------------------|-----------|
| Dedicated Acres<br>320 | 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

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <b>OPERATOR CERTIFICATION</b><br>I hereby certify the the information<br>contained herein to be true and complete to the<br>best of my knowledge and belief.<br><br><i>William R. Dannels</i><br>Signature<br>W.R. DANNELS<br>Printed Name<br>DIVISION DRILLING SUPT.<br>Title<br>5/21/03<br>Date                                                                                                                               |  |
|  | <b>SURVEYOR CERTIFICATION</b><br>I hereby certify that the well location shown<br>on this plat was plotted from field notes of<br>actual surveys made by me or under my<br>supervision, and that the same is true and<br>correct to the best of my knowledge.<br><br>GARY L. JONES<br>Date Surveyed<br>Signature & Seal of 7977<br>Professional Surveyor<br>W.O. No. 3152<br>Certificate No. Gary L Jones 7977<br>BASIN SURVEYS |  |
|  | LAT - N32°25'12.2"<br>LONG - W104°07'12.8"                                                                                                                                                                                                                                                                                                                                                                                      |  |
|  | 3123.6' 3129.4'<br>3119.8' 3124.8'                                                                                                                                                                                                                                                                                                                                                                                              |  |

**SECTION 6, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.**



**DIRECTIONS TO LOCATION:**

FROM THE JUNCTION OF CO. RD. 603A AND US HWY 62/180, GO SOUTHWEST ON HWY 62/180 FOR APPROX. 4.75 MILES TO A LEASE ROAD; THENCE EASTERLY FOR APPROX. 4.0 MILES TO PROPOSED LEASE ROAD.

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

**BASS ENTERPRISES PRODUCTION CO.**

REF: BIG EDDY UNIT No. 148 / Well Pad Topo

THE BIG EDDY UNIT No. 148 LOCATED 1980' FROM  
THE SOUTH LINE AND 660' FROM THE EAST LINE OF  
SECTION 6, TOWNSHIP 22 SOUTH, RANGE 28 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 3162

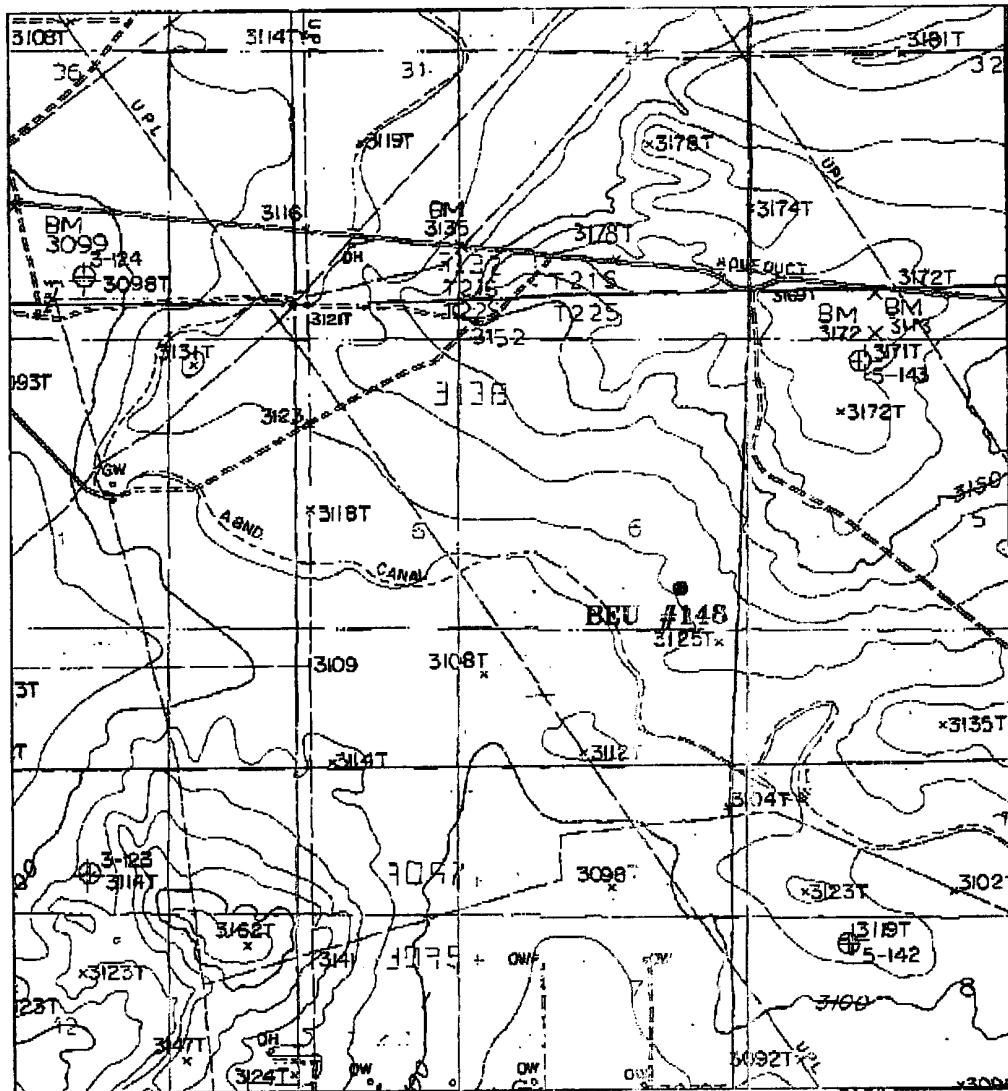
Drawn By: K. GOAD

Date: 04-01-2003

Disk: KJG CD#7 - 3162A.DWG

Survey Date: 03-28-2003

Sheet 1 of 1 Sheets



### BIG EDDY UNIT #148

Located at 1980' FSL and 660' FEL  
 Section 6, Township 22 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**

focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

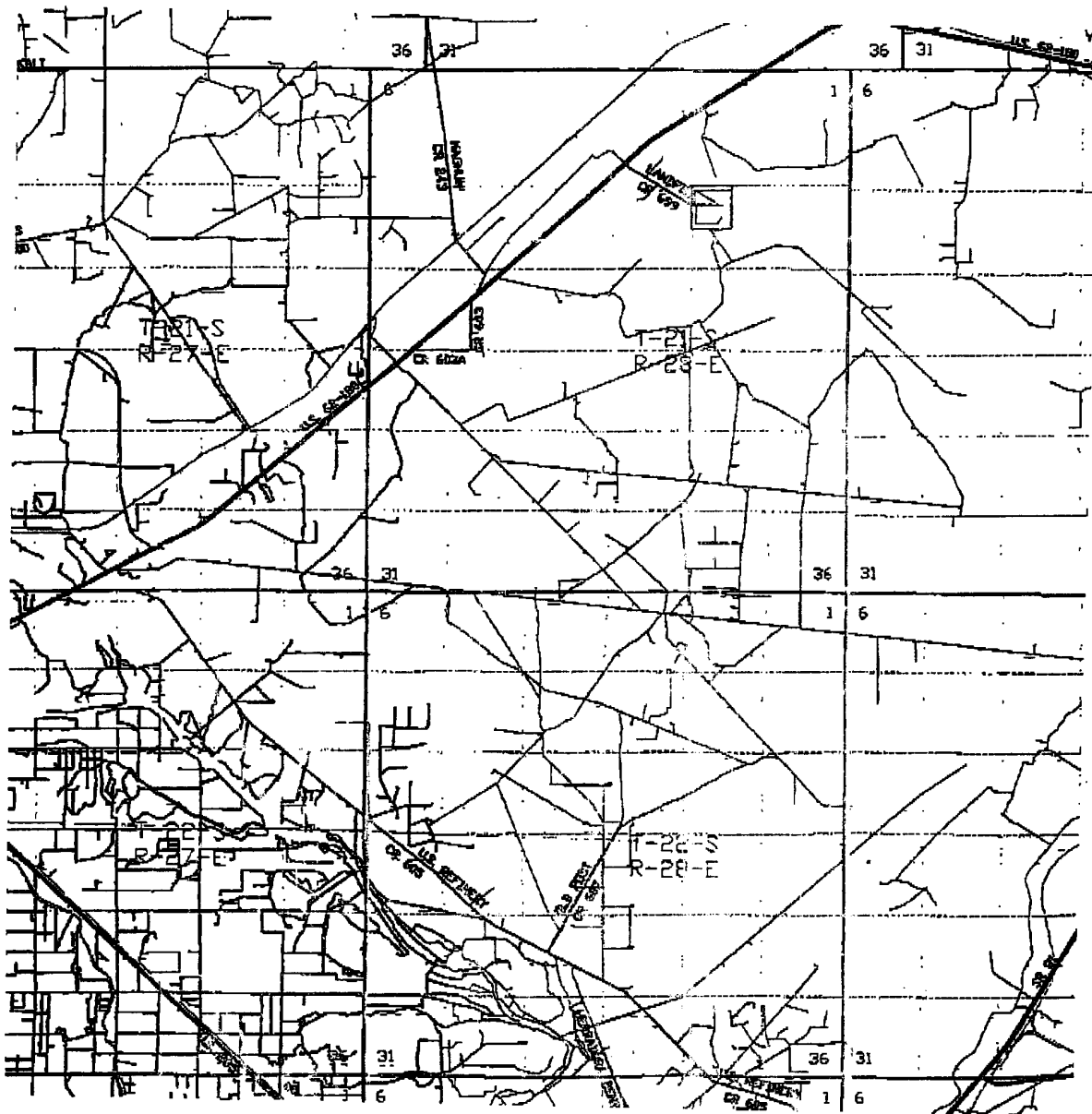
W.O. Number: 3162AA - KJC #7

Survey Date: 03-28-2003

Scale: 1" = 2000'

Date: 04-01-2003

**BASS ENTERPRISES  
 PRODUCTION CO.**



### BIG EDDY UNIT #148

Located at 1980' FSL and 660' FEL  
Section 6, Township 22 South, Range 28 East,  
N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1785  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(505) 393-7316 - Office  
(505) 392-3074 - Fax  
basinsurveys.com

W.O. Number: 3162AA - KJG f7

Survey Date: 03-28-2003

Scale: 1" = 2 MILES

Date: 04-01-2003

**BASS ENTERPRISES  
PRODUCTION CO.**

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

**NAME OF WELL: BIG EDDY UNIT #148**

**LEGAL DESCRIPTION - SURFACE: 1980' FSL & 660' FEL, Section 8, T22S, 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 3146' (est)  
GL 3124'

| <u>FORMATION</u> | <u>ESTIMATED<br/>TOP FROM KB</u> | <u>ESTIMATED<br/>SUBSEA TOP</u> | <u>BEARING</u> |
|------------------|----------------------------------|---------------------------------|----------------|
| T/Rustler        | 271'                             | + 2,875'                        | Barren         |
| T/Delaware Sands | 2,356'                           | + 790'                          | Oil/Gas        |
| T/Bone Spring    | 5,806'                           | - 2,660'                        | Oil/Gas        |
| T/Wolfcamp       | 9,236'                           | - 6,090'                        | Oil/Gas        |
| T/Strawn         | 10,558'                          | - 7,410'                        | Oil/Gas        |
| T/Strawn "C"     | 10,796'                          | - 7,650'                        | Oil/Gas        |
| T/Atoka          | 10,931'                          | - 7,785'                        | Oil/Gas        |
| T/Morrow         | 11,576'                          | - 8,430'                        | Oil/Gas        |
| TD               | 12,600'                          | - 9,454'                        |                |

## **POINT 3: CASING PROGRAM**

| <u>WITNESS</u> | <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' - 2,700'   | 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**

| <u>DEPTH</u>     | <u>MUD TYPE</u> | <u>WEIGHT</u> | <u>EV</u> | <u>PV</u> | <u>YP</u> | <u>FL</u> | <u>Ph</u> |
|------------------|-----------------|---------------|-----------|-----------|-----------|-----------|-----------|
| 0' - 500'        | FW              | 8.5 - 9.2     | 45-35     | NC        | NC        | NC        | 9.5       |
| 500' - 2,700'    | BW              | 10.0 - 10.2   | 28-30     | NC        | NC        | NC        | 9.5       |
| 2,700' - 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-CNLI-LDT-LLD run from 11,200' to TD to first ICP, GR-CNLI to surface. May run logging suite across Delaware prior to drilling below 6000' if mud log shows warrant.

**Run #2:**

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

**C) CORING**

No cores are anticipated.

**D) CEMENT**

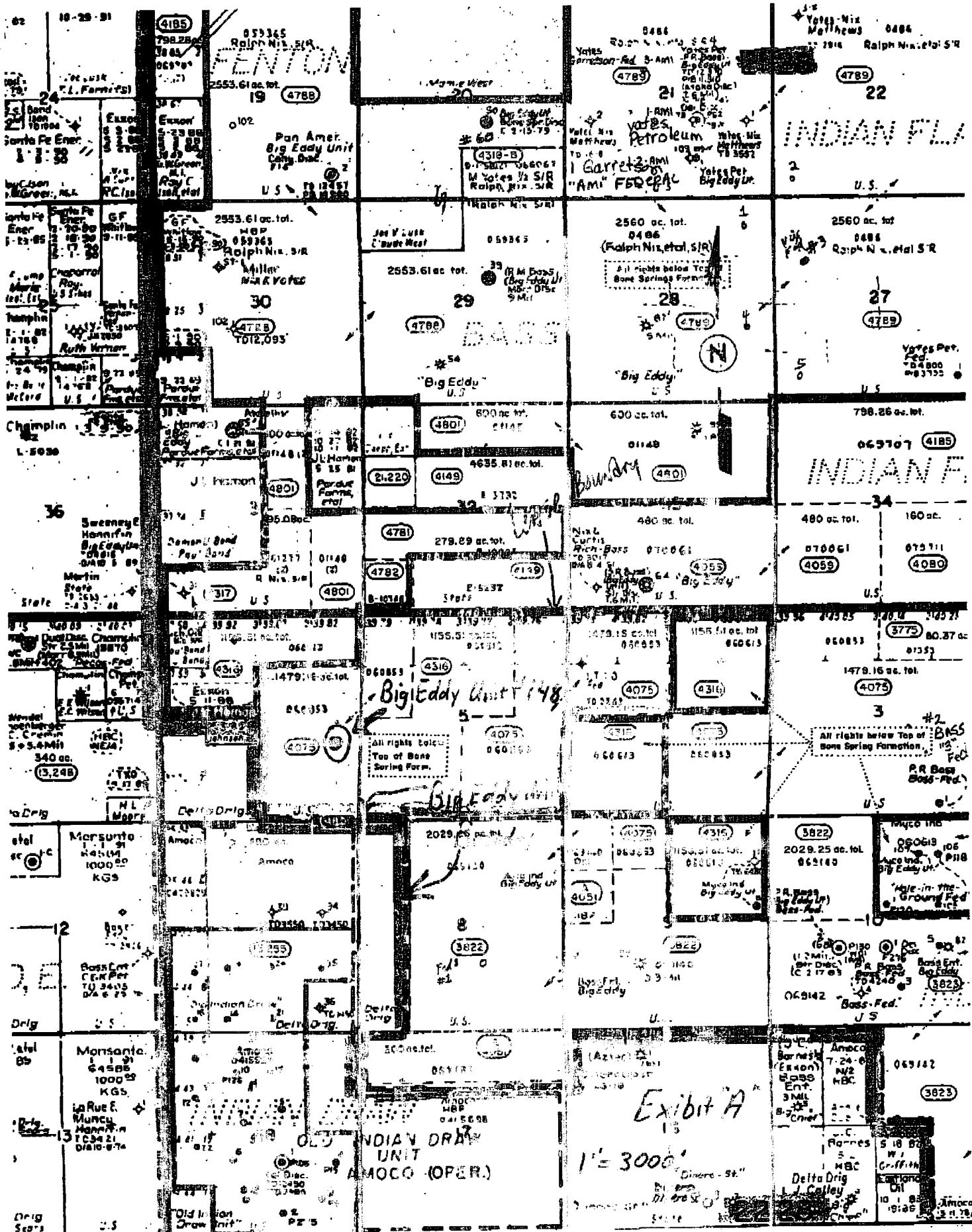
| <u>INTERVAL</u>                                                                      | <u>AMOUNT SX</u> | <u>FT OF FILL</u> | <u>TYPE</u>                         | <u>GALS/SX</u> | <u>PPG</u> | <u>FT<sup>3</sup>/SX</u> |
|--------------------------------------------------------------------------------------|------------------|-------------------|-------------------------------------|----------------|------------|--------------------------|
| <b><u>SURFACE</u></b>                                                                |                  |                   |                                     |                |            |                          |
| 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 <sub>2</sub> | 6.32           | 14.80      | 1.34                     |
| (100% Excess)                                                                        |                  |                   | + 1/8#/sx Pol-e-flake               |                |            |                          |
| <b><u>INTERMEDIATE</u></b>                                                           |                  |                   |                                     |                |            |                          |
|                                                                                      |                  |                   |                                     |                |            |                          |
| <u>INTERVAL</u>                                                                      | <u>AMOUNT SX</u> | <u>FT OF FILL</u> | <u>TYPE</u>                         | <u>GALS/SX</u> | <u>PPG</u> | <u>FT<sup>3</sup>/SX</u> |
| Lead                                                                                 |                  |                   |                                     |                |            |                          |
| 0' - 2265'                                                                           | 590              | 2265              | 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 <sub>2</sub>                   |                |            |                          |
| <b><u>PRODUCTION</u> (Two stage w/DV tool @ 8000' and circulate cement to 2000')</b> |                  |                   |                                     |                |            |                          |
| <u>INTERVAL</u>                                                                      | <u>AMOUNT SX</u> | <u>FILL</u>       | <u>TYPE</u>                         | <u>GALS/SX</u> | <u>PPG</u> | <u>FT<sup>3</sup>/SX</u> |
| <b>1<sup>st</sup> Stage</b>                                                          |                  |                   |                                     |                |            |                          |
| LEAD                                                                                 |                  |                   |                                     |                |            |                          |
| 8000'-10,500'                                                                        | 225              | 2500              | Interfill H + 5pps Gilsomite        | 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 Gilsomite       |                |            |                          |
|                                                                                      |                  |                   | + 1 pps Salt + 0.2% HRT             |                |            |                          |
| <b>2<sup>nd</sup> Stage</b>                                                          |                  |                   |                                     |                |            |                          |
| LEAD                                                                                 |                  |                   |                                     |                |            |                          |
| 2000'-7,300'                                                                         | 495              | 5300              | 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 Gilsomite       |                |            |                          |
|                                                                                      |                  |                   | + 1 pps Salt + 0.2% HRT             |                |            |                          |
| <b><u>PRODUCTION LINER</u></b>                                                       |                  |                   |                                     |                |            |                          |
| 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**

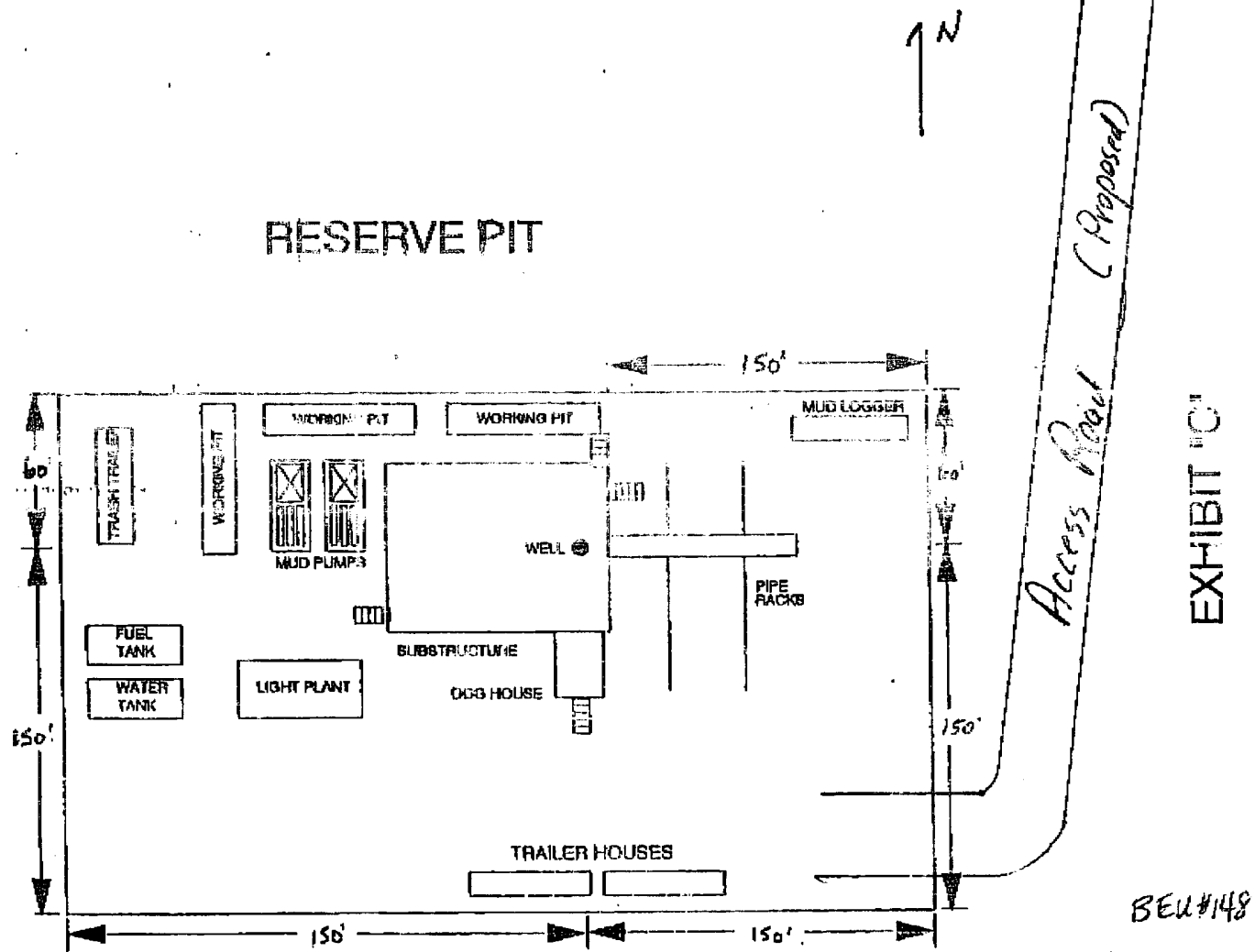
No directional services anticipated. A straight hole will be drilled to 12,500' TD.

**POINT 7: ANTICIPATED RESERVOIR CONDITIONS**

Normal pressures are anticipated throughout the Delaware, Bone Spring & Wolfcamp sections. The Strawn expected BHP is 5515 (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. No H<sub>2</sub>S is anticipated.







# BASS ENTERPRISES PRODUCTION COMPANY

## PIT DIAGRAM

OVER 8500'

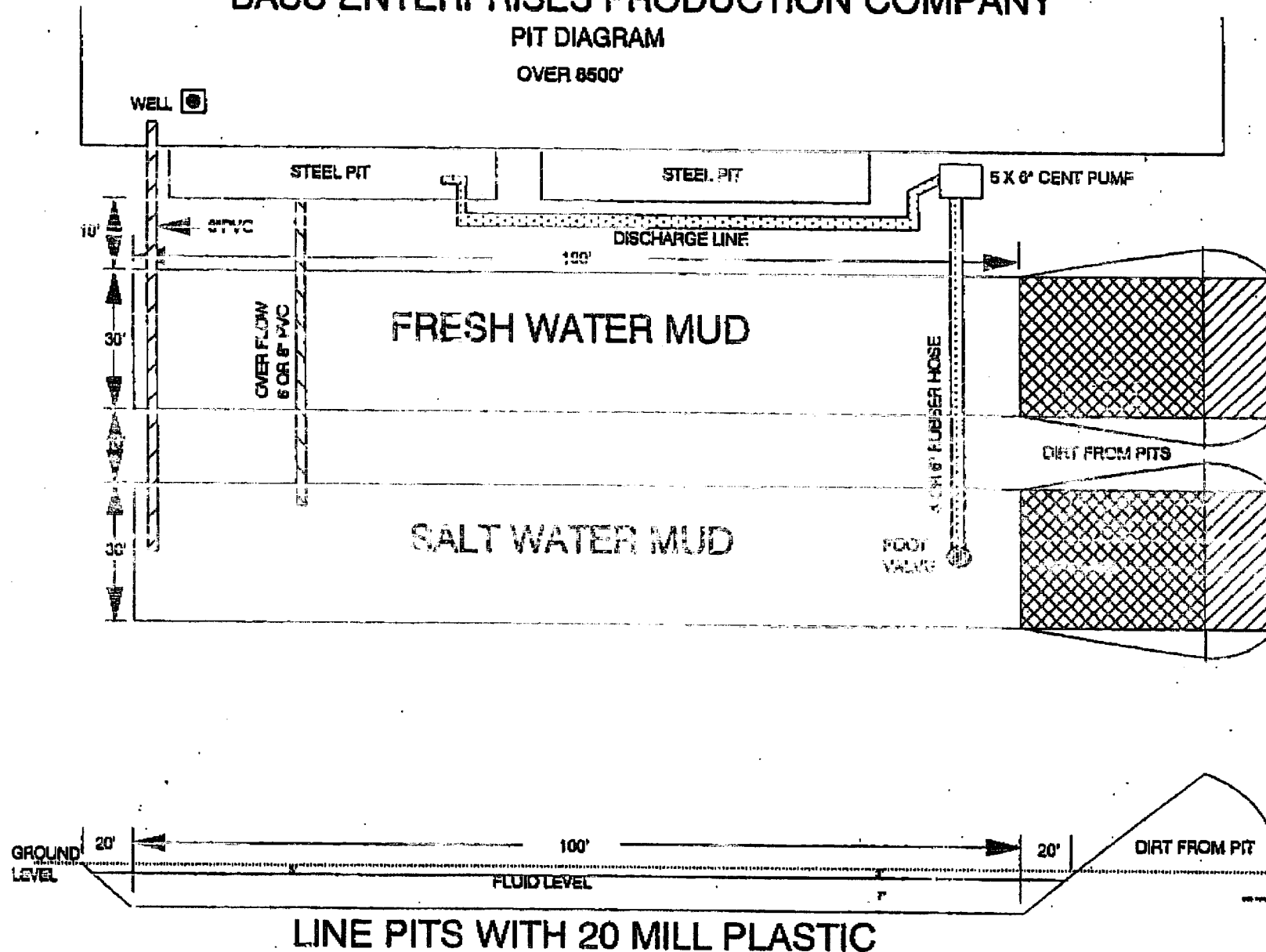
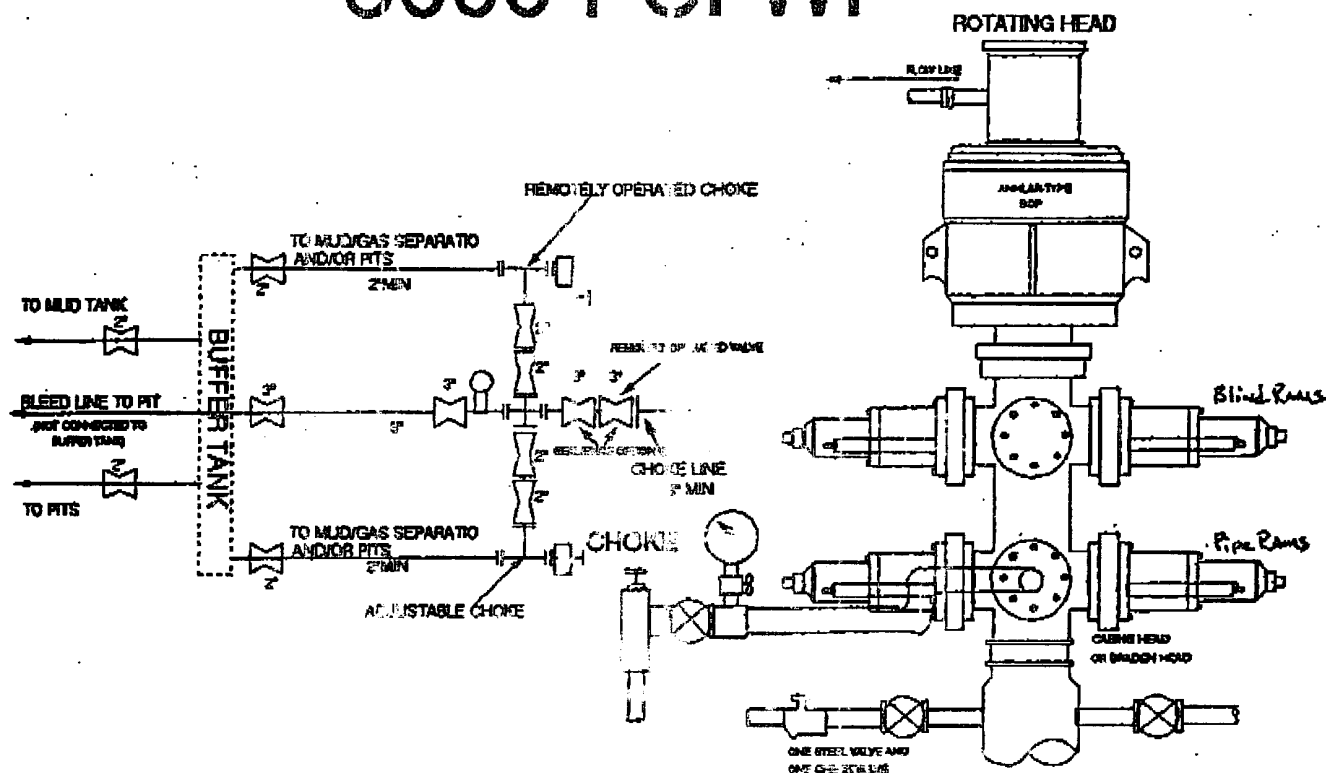


Exhibit D

# 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