

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources



Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE SUBMITTAL

Form C-101
May 27, 2004

Month - Year Submit to appropriate District Office

MAY 23 2007

OCD - ARTESIA, NM

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|---|---|---|
| ¹ Operator Name and Address BEPCO, L.P. P. O. Box 2760 Midland, Texas 79702 | | ² OGRID Number 001801 |
| ³ Property Code 001796 | ⁴ Property Name Poker Lake Unit | ⁵ API Number 30 - 015 - 35635 |
| ⁹ Proposed Pool 1 Nash Draw, (Delaware) / Bene Spring (Artesia Sand) | | ¹⁰ Proposed Pool 2 |

| ⁷ Surface Location | | | | | | | | | |
|-------------------------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| M | 32 | 24S | 30E | | 560 | FSL | 660 | FWL | Eddy |

| ⁸ Proposed 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 |
| | | | | | | | | | |

| Additional Well Information | | | | |
|---|---------------------------------------|--|---------------------------------------|---|
| ¹¹ Work Type Code N | ¹² Well Type Code O | ¹³ Cable/Rotary R | ¹⁴ Lease Type Code S | ¹⁵ Ground Level Elevation 3192' |
| ¹⁶ Multiple No | ¹⁷ Proposed Depth 7700' | ¹⁸ Formation Delaware | ¹⁹ Contractor Grey Wolf | ²⁰ Spud Date 03/30/08 |
| Depth to Groundwater | | Distance from nearest fresh water well | | Distance from nearest surface water |
| Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume 1,500 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> | | | | |
| Closed-Loop System <input type="checkbox"/> | | | | |

| ²¹ Proposed Casing and Cement Program | | | | | |
|--|-------------|--------------------|---------------|-----------------|---------------|
| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
| 14-3/4" | 11-3/4" | 42# | 240' | 350 | Surface * |
| 11" | 8-5/8" | 32# | 3550' | 950 | 1000' ** |
| 7-7/8" | 5-1/2" | 15.5# & 17# | 7750' | 900 | 3100' |
| | | | | | |
| | | | | | |

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SURFACE IS OWED BY THE STATE OF NEW MEXICO. ATTACHED IS A DRILLING PROGNOSIS AND A BOP DIAGRAM.

*BEPCO, L.P. proposed to drill 10' into the salt section to insure all zones above the salt are penetrated. The casing will be set 10-20' above the total depth and cemented to surface.

**This intermediate casing is a contingency string to be installed only if we encounter "free flowing sand" as was found in our Poker Lake Unit #217 located in section 19, T24S, R30E.

In Poker Lake Unit #217 this sand occurred at several depths (+1500', +1800', +1900', +2300') and we were only able to control it by "Mudding Up" with a high vis drilling fluid which with the resultant mud weight exceeded the low frac gradient in the Delaware Lower Brushy Canyon Sands. Therefore, the 11" casing is proposed in order to put this problem behind pipe and thereby allow for the drilling of the Delaware Sands with a fresh water low weight drilling fluid. If the flowing sand problem is not encountered the intermediate casing will no be run. Hole size will be reduced to 7-7/8" at 3550' and the production hole drilled with a brine water/diesel emulsion mud. This drilling fluid has been used successfully on 37 wells drilled by BEPCO in the (Nash Draw) Delaware Field.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

Printed name: Annette Childers *Annette Childers*

Title: Administrative Assistant

E-mail Address: machilders@basspet.com

Date: 5-21-07

Phone: 432-683-2277

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT

DISTRICT II GEOLOGIST

Title:

Approval Date: MAY 24 2007

Expiration Date: MAY 24 2008

Conditions of Approval Attached ☐

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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 47545 | Pool Name Marsh Branch (DeAnure) Area |
| Property Code 001796 | Property Name POKER LAKE UNIT | Well Number 245 |
| OGRID No. 001801 | Operator Name BASS ENTERPRISES PRODUCTION COMPANY | Elevation 3192' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M | 32 | 24 S | 30 E | | 560 | SOUTH | 660 | WEST | EDDY |

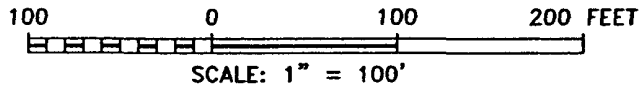
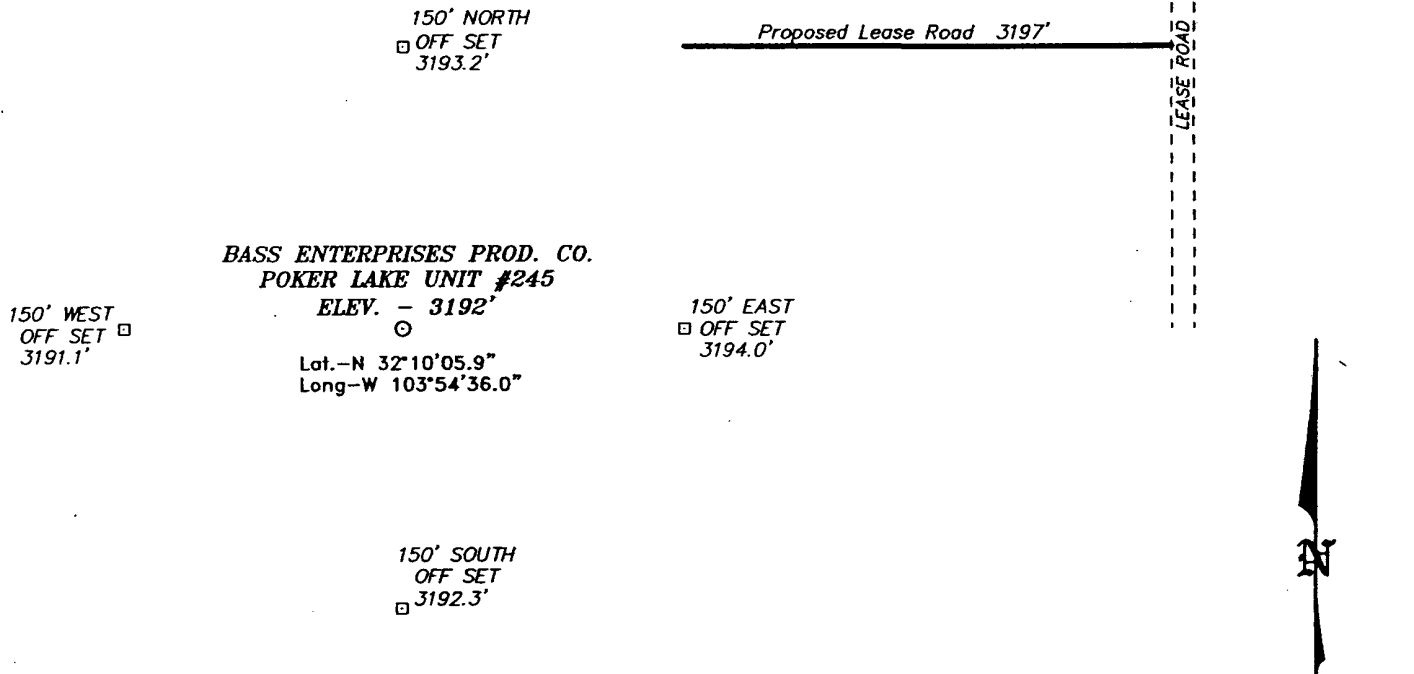
Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|-----------------------|----------------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| | | | | | | | | | |
| Dedicated Acres 40 | 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 is true and complete to the best of my knowledge and belief.</p> <p><i>W.R. Dannels</i> Signature W.R. DANNELS Printed Name DIVISION DRILLING SUPT. Title 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>JUNE 2, 2005 Date Surveyed Signature & Seal of Professional Surveyor NEW MEXICO W.O. No. 5392 Certificate No. 7977 PROFESSIONAL LAND SURVEYOR</p> | |
|--|--|--|--|---|--|

SECTION 32, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 128 AND
 RAWHIDE ROAD, GO SOUTH FOR 10.2 MILES TO OLD
 WINDMILL; THENCE WEST FOR 1.2 MILE; THENCE
 SOUTHEAST FOR 1.8 MILE PAST A CATTLE GUARD;
 THENCE SOUTH FOR 0.9 MILE TO PROPOSED LEASE
 ROAD.

BASS ENTERPRISES PRODUCTION CO.

REF: POKER LAKE UNIT No. 245 / Well Pad Topo

THE POKER LAKE UNIT No. 245 LOCATED 560' FROM
 THE SOUTH LINE AND 660' FROM THE WEST LINE OF
 SECTION 32, TOWNSHIP 24 SOUTH, RANGE 30 EAST,

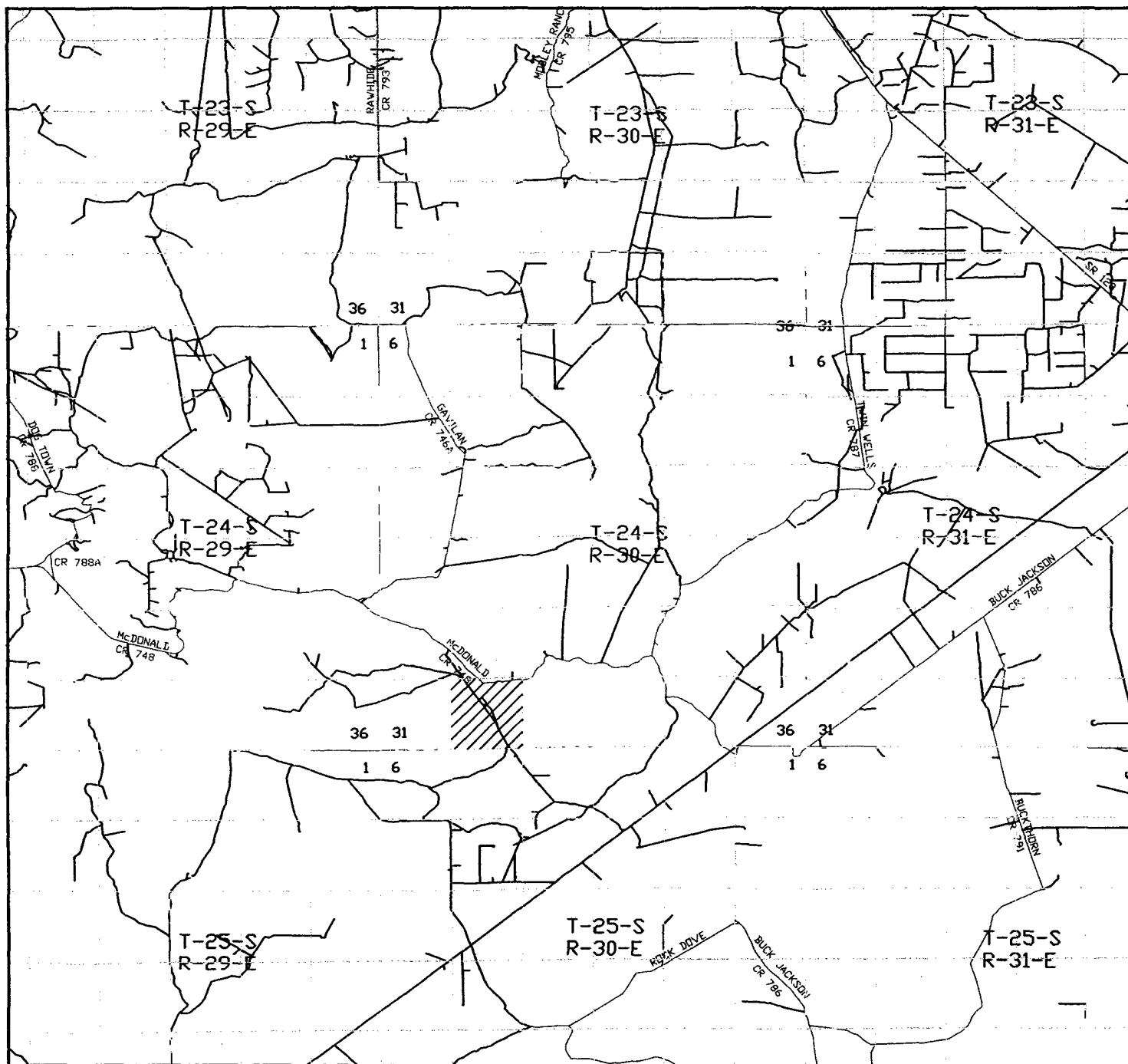
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 5392 Drawn By: K. GOAD

Date: 06-03-2005 Disk: KJG CD#7 - 5392A.DWG

Survey Date: 06-02-2005 Sheet 1 of 1 Sheets



POKER LAKE UNIT #245

Located at 560' FSL and 660' FWL
 Section 32, Township 24 South, Range 30 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
basinsurveys.com

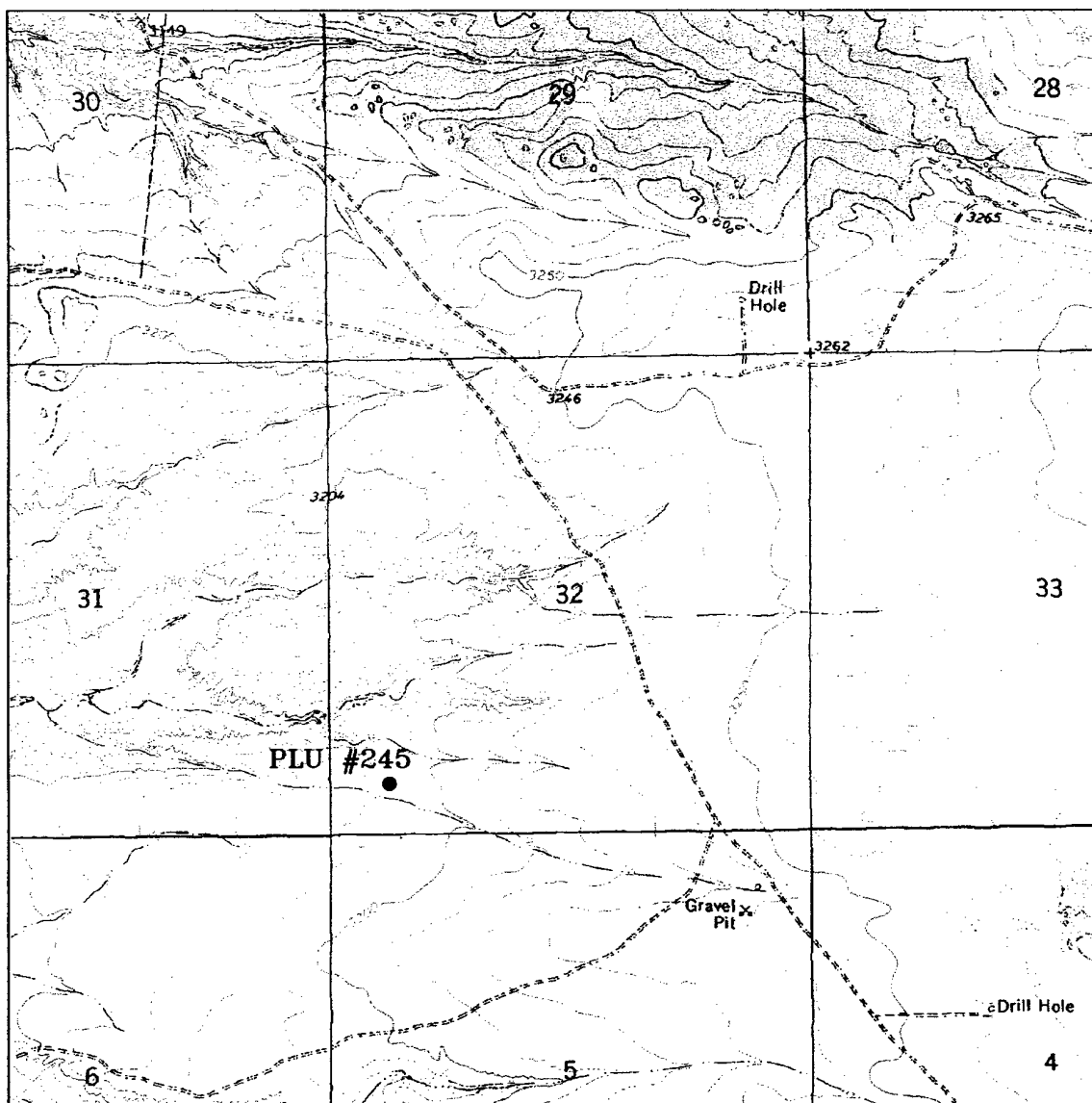
W.O. Number: 5392AA - KJG #7

Survey Date: 05-27-2005

Scale: 1" = 2 MILES

Date: 06-03-2005

**BASS ENTERPRISES
 PRODUCTION CO.**



POKER LAKE UNIT #245

Located at 560' FSL and 660' FWL
 Section 32, Township 24 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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

W.O. Number: 5392AA - KJG #7

Survey Date: 05-27-2005

Scale: 1" = 2000'

Date: 06-03-2005

**BASS ENTERPRISES
 PRODUCTION CO.**

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

NAME OF WELL: POKER LAKE UNIT #245

LEGAL DESCRIPTION - SURFACE: 560' FSL & 660' FWL, Section 32, T-24-S, R-30-E, 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 3212' (est)
GL 3192'

| <u>FORMATION</u> | <u>ESTIMATED TOP FROM KB</u> | <u>ESTIMATED SUBSEA TOP</u> | <u>BEARING</u> |
|---------------------|----------------------------------|---------------------------------|----------------|
| T/Salt | 242' | + 2,970' | Barren |
| B/Salt | 3,327' | - 115' | Barren |
| T/Lamar | 3,543' | - 331' | Barren |
| T/Ramsey | 3,567' | - 355' | Oil/Gas |
| T/Lwr Brushy Canyon | 7,117' | - 3,905' | Oil/Gas |
| T/Y" Sand | 7,227' | - 4,015' | Oil/Gas |
| T/Bone Springs Lime | 7,397' | - 4,185' | Oil/Gas |
| TD | 7,750' | - 4,538' | |

POINT 3: CASING PROGRAM

| <u>TYPE</u> | <u>INTERVALS</u> | <u>PURPOSE</u> | <u>CONDITION</u> |
|----------------------------|------------------|----------------|-----------------------|
| 16" | 0' - 60' | Conductor | Contractor Discretion |
| 11-3/4", 42#, WC-50, ST&C | 0' - 240' | Surface | New |
| 8-5/8", 32#, WC-50, LT&C | 0' - 3,550' | Intermediate | New |
| 5-1/2", 15.50#, K-55, LT&C | 0' - 6,500' | Production | New |
| 5-1/2", 17#, K-55, LT&C | 6,500' - 7,750' | Production | New |

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A BOPE equivalent to requirements of Onshore Oil & Gas Order No. 2 - 2000 psi system (Diagram 1) will be nipped up on the surface casing head. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casing head will be hydro-tested to 70% of internal yield pressure of casing or 1000 psig whichever is less with the rig pump. The BOPE when rigged up on the intermediate casing spool will be as described in Diagram 2 and will be tested to 3000 psig by independent tester. (As per Onshore Oil & Gas Order No 2 - 3000 psig system) In addition to the high pressure test, a low pressure (200 psig) test will be required. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Fifteen 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.

POINT 5: MUD PROGRAM

| <u>DEPTH</u> | <u>MUD TYPE</u> | <u>WEIGHT</u> | <u>FV</u> | <u>PV</u> | <u>YP</u> | <u>FL</u> | <u>Ph</u> |
|---------------|-----------------|---------------|-----------|-----------|-----------|-----------|-----------|
| 0' - 240' | FW Spud Mud | 8.5 - 9.2 | 45-35 | NC | NC | NC | 10.0 |
| 240' - 3550' | BW | 10.0 | 28-30 | NC | NC | NC | 9.5-10.5 |
| 3550' - 6000' | Fresh Water | 8.4 - 8.9 | 28-30 | NC | NC | NC | 9.5-10.5 |
| 6000' - 6900' | FW/Starch | 8.7 - 8.9 | 30-35 | 4 | 8 | <100 | 9.5-10.5 |
| 6900' - 7750' | FW/Starch | 8.7 - 8.9 | 40-45 | 4 | 8 | <25 | 9.5-10.5 |

**Will increase vis for logging purposes only.*

POINT 6: TECHNICAL STAGES OF OPERATION**A) TESTING**

None anticipated.

B) LOGGING

GR-CNL-LDT-LLD from TD to Base of Salt (+/-3,322'). Run GR-CNL from Base of Salt to surface.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

| <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> | | |
|--|-------------------|-------------------|--|----------------|------------|--------------------------|--|------------------|
| <u>SURFACE:</u> Circulate cement to surface. | | | | | | | | |
| Lead 0'-240' (100% excess) | 350 | 240 | Premium Plus+2% CaClz 1/ 4# Flocele | 6.33 | 14.8 | 1.35 | | |
| <u>INTERMEDIATE:</u> | | | | | | | | |
| Lead 1000'-3050' (200% excess) | 650 | 2050 | Interfill C+0.3% Halad R-322 | 14.11 | 11.9 | 2.45 | | |
| Tail 3050' – 3550 (200% excess} | 300 | 500 | Premium Plus+2% CaClz | 6.33 | 14.8 | 1.35 | | |
| <u>PRODUCTION:</u> | | | | | | | | |
| Lead 3100'-7750' (50% excess) | 900 | 4650 | Premium Plus + 1% Zone Sealant 2000 | 6.32 | 11.9 | 1.65 | <u>COMPRESSIVE</u> Nitrogen 300/600 scf/bbl | Strength 1200 |

E) DIRECTIONAL DRILLING

No directional services anticipated.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3322 psi (max) or MWE of 8.7 ppg is expected. Lost circulation may exist in the Delaware section from 3,567'-7,750'. No H₂S is anticipated.

Estimated BHT is 140° F.

POINT 8: OTHER PERTINENT INFORMATION**A) Auxiliary Equipment**

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

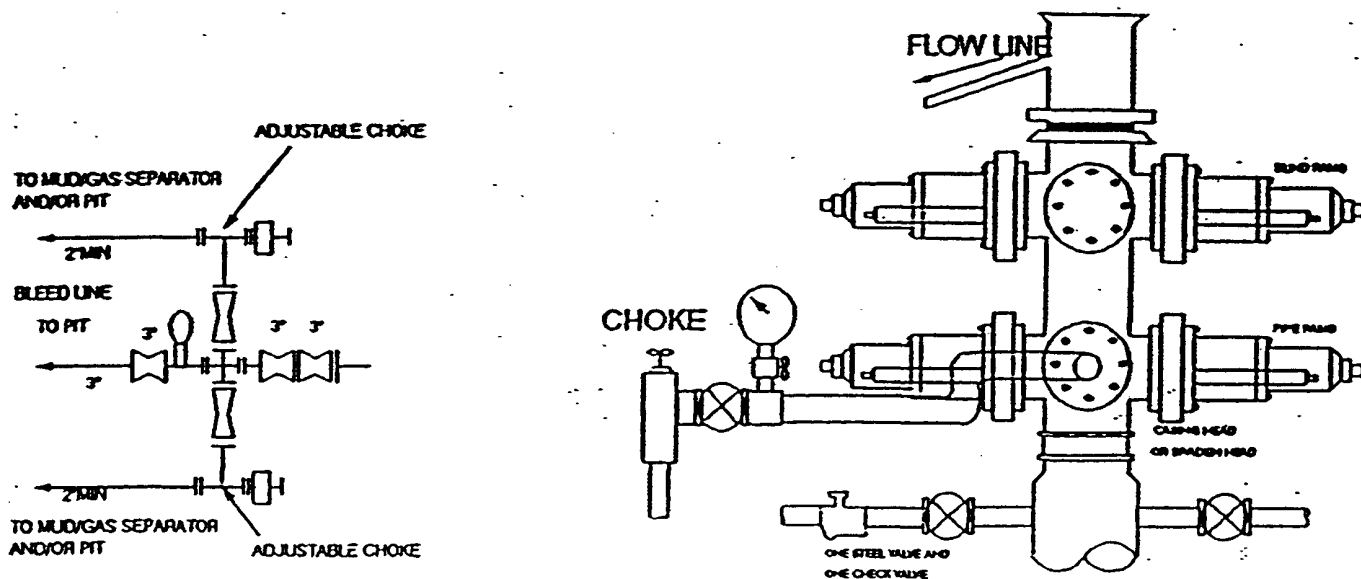
12 days drilling operations

14 days completion operations

GEG/cdg

June 16, 2005

2000 PSI WP

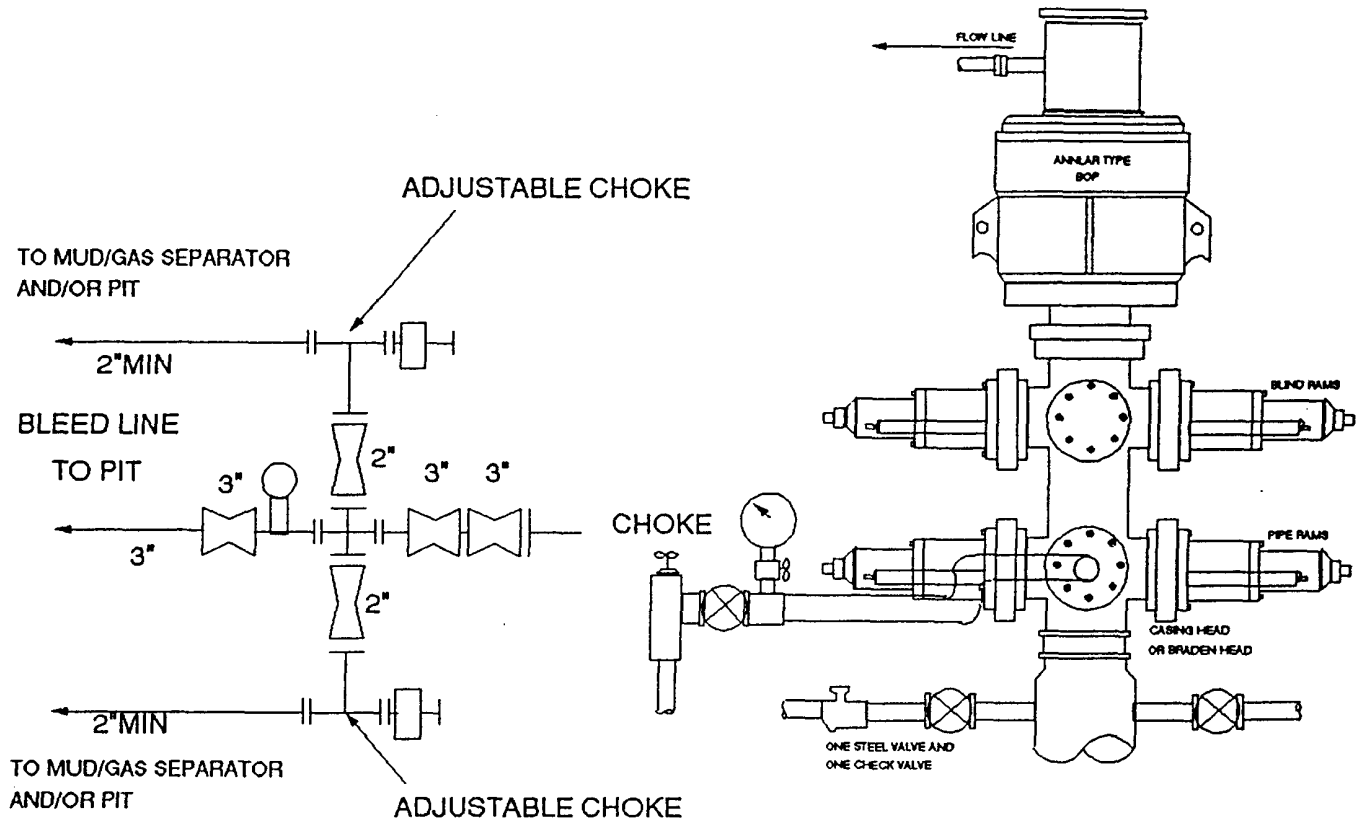


THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- 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

3000 PSI WP



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

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- 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.
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- 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 2