

OCT 02 2007

OCD-ARTESIA

ATS-07-652

Form 3160-3
(April 2004)

OCD-ARTESIA

RESUBMITTAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMLC 069627A
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BEPCO, L. P.		7. If Unit or CA Agreement, Name and No. NMNM 71016
3a. Address P. O. Box 2760 Midland, TX 79702	3b. Phone No. (include area code) 432-683-2277	8. Lease Name and Well No. Poker Lake Unit #238
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NENW, UL A, 660 FNL, 660' FEL, Lat 32.194000, Lon 103.914250 At proposed prod zone Same		9. API Well No. 30-015-35841
10. Field and Pool, or Exploratory Nash Draw (Delaware, BS, Avalon)		11. Sec., T R M. or Blk and Survey or Area Sec 30, T24S, R30E Mer NMP
14. Distance in miles and direction from nearest town or post office* 14 miles east of Malaga NM		12. County or Parish Eddy
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 660'		13. State NM
16. No. of acres in lease 1922		17. Spacing Unit dedicated to this well 40.00
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 4291'		20. BLM/BIA Bond No. on file NM 2204
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3172' GL		22. Approximate date work will start* 12/01/2007
		23. Estimated duration 12 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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan | 5. Operator certification |
| 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) | 6. Such other site specific information and/or plans as may be required by the authorized officer |

25. Signature <i>Annette Childers</i>	Name (Printed/Typed) Annette Childers	Date 8-22-07
Title Administrative Assistant		

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date SEP 26 2007
Title ACTING FIELD MANAGER		Office CARLSBAD FIELD OFFICE

Application approved to
conduct operations under
Conditions of approval
Title 18 USC Section 922
States any false, fictitious
information**If earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.**

title to those rights in the subject lease which would entitle the applicant to

APPROVAL FOR TWO YEARS

knowingly and willfully to make to any department or agency of the United States

*(Instructions on page 2)

Carlsbad Controlled Water Basin**SEE ATTACHED FOR
CONDITIONS OF APPROVAL****APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
APPLICABLE**

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

LOT 1 40.12 ACRES		LAT - N32°11'38.4" LONG - W103°54'51.3"		OPERATOR CERTIFICATION <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i> Refer to original Signature _____ Printed Name _____ Title _____ Date _____
	81.34 ACRES	162.26 ACRES		SURVEYOR CERTIFICATION <i>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.</i> Date Surveyed _____ Signature & Seal of Professional Surveyor _____ Certificate No. Gary L. Jones 7977 BASIN SURVEYS
LOT 2 40.16 ACRES LOT 3 40.20 ACRES				
LOT 4 40.24 ACRES	81.18 ACRES	162.27 ACRES		

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

LOT 1 40.12 ACRES		LAT - N32°11'38.4" LONG - W103°54'51.3"		OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>W.R. Dannels</i> Signature <u>W.R. DANNELS</u> Printed Name <u>DIVISION DRILLING SUPT.</u> Title <u>6-21-05</u> Date
LOT 2 40.16 ACRES	81.34 ACRES	162.26 ACRES		SURVEYOR CERTIFICATION 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. MAY 27, 2005 Date Surveyed <i>W.O. Jones</i> Signature & Seal of Professional Surveyor W.O. No. 5385 Certificate No. Gary L. Jones 7977 BASIN SURVEYS
LOT 3 40.20 ACRES			162.27 ACRES	
LOT 4 40.24 ACRES	81.18 ACRES			

EIGHT POINT DRILLING PROGRAM BEPCO, L.P.

NAME OF WELL: Poker Lake Unit #238

LEGAL DESCRIPTION - SURFACE: 660' FNL & 660' FEL, Section 30, 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 3192' (est) GL 3172'

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>	<u>ESTIMATED SUBSEA TOP</u>	<u>BEARING</u>
T/Rustler	139'	+3050'	Barren
T/Salt	569'	+2620'	Barren
T/Ramsey Sand	3509'	-320'	Oil/Gas
T/Lwr Brushy Canyon "8" A	7019'	-3830'	Oil/Gas
T/Bone Spring	7289'	-4100'	Oil/Gas
TD	7650'	-4458'	

POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>HOLE SIZE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	<u>CONDITION</u>
16"	20"	0' - 40'	Conductor	Contractor Discretion
11-3/4", 42#, H-40, ST&C	14-3/4"	0' - 559'	Surface	New
8-5/8", 32#, J-55, LT&C	11"	0' - 3485'	Intermediate	New *
5-1/2", 15.5#, J-55, LT&C	7-7/8"	0' - 6300'	Production	New
5-1/2", 17#, J-55, LT&C	7-7/8"	6300' - 7650'	Production	New

*If there is no flowing sand or Loss Circulation this string will not be run.

CASING DESIGN SAFETY FACTORS:

<u>TYPE</u>	<u>TENSION</u>	<u>COLLAPSE</u>	<u>BURST</u>
11-3/4", 42#, H-40, ST&C	13.08	4.00	3.54
8-5/8", 32#, J-55, LT&C	3.32	1.39	1.12
5-1/2", 15.5#, J-55, LT&C	1.80	1.32	1.40
5-1/2", 17#, J-55, LT&C	11.62	1.34	1.55

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (10 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.

In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.

Burst A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient.

PRODUCTION CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst A 1.25 design factor with anticipated maximum tubing pressure (3440 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure. The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A BOP equivalent to requirements of Onshore Oil & Gas Order No. 2 – 2000 psi system (Diagram 2) will be nipped up on the surface casinghead. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when rigged up on the surface casing will be hydro-tested to 2000 psig by independent tester. The BOP rigged up on the intermediate casing spool will be the same equipment as described in Diagram 2 and will be tested to 3000 psig by independent tester. (As per Onshore Oil & Gas Order No. 2 – 3000 psi system). In addition to the high pressure test, a low pressure (200 psi) test will be required on both surface and intermediate casing strings.

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

↑ see COA

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 559'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
559' - 3485'	Brine Water	9.8 -10.2	28-30	NC	NC	NC	9.5 - 10.5**
3485' - 6000'	FW	8.8 - 9.2	30-34	NC	NC	NC	9.5 - 10.5**
6000' - 6300'	FW/Starch	8.8 -9.2	30-34	8	2	<100 cc	9.5 - 10.5**
6300' - TD	FW/Starch	8.8 - 9.2	30-34	8	2	<25 cc	9.5 - 10.5**

**** If there is no intermediate casing set @ 3465', the drilling fluid will be 10 ppg BW to 5600' where it will be converted to BW/Diesel with properties as follows: 8.8 – 9 ppg, 32 – 40 funnel secs vis, YP2, PV 8, FL 25 cc or less, Ph 9.5 – 10.**

NOTE: May increase vis for logging purposes only.

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

None anticipated.

B) LOGGING

GR-CNL-LDT-AIT from TD to base of Salt (+/- 3300').
GR-CNL-CAL from base of Salt to surface.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT *

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SK	PPG	FT ³ /SK
SURFACE:						
Lead 0 – 259' (100% excess circ to surface)	155	259	35/65 Poz C + 6% D20 + 3% S1 + 5 pps D130	10.27	12.6	1.98
Tail 259' – 559' (100% excess circ to surface)	219	300	Class C + 2% S1	6.34	14.8	1.34
PRODUCTION:						
Stage 2						
Lead 0 - 4900' (50% excess circ to surface)	966	4900	50/50 Poz C + 10% D20 + 0.02% D46 + 0.125 pps D130 + 5% D44	14.71	11.9	2.50
Tail 4900' - 5000' (50% excess)	55	100	Class C + 1% D13	6.32	14.8	1.34
DV Tool @ ± 5000'						
Stage 1						
Lead 5000' - 6000' (50% excess)	301	1000	CemCrete 39/31 + 2% D53 + 0.05 gps D604AM + 0.03 gps M45 + 2 pps D24 + 0.04 gps D801	9.88	10.2	2.47

<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SK</u>	<u>PPG</u>	<u>FT³/SK</u>
Tail 6000' - 7650' (50% excess)	606	1650	CemCrete 39/31 + 2% D53 + 0.05 gps D604AM + 0.03 gps M45 + 2 pps D24 + 0.04 gps D801	7.34	10.5	2.10
* INTERMEDIATE (if required):						
Lead 0' - 3235' (100% excess Circ to surface)	700	3235	50/50 Poz C + 10% D20 + 0.02% D46 + 0.125 pps D130 + 5% D44	14.71	11.9	2.50
Tail 3235' - 3485' (100% excess)	115	250	Class "C" + 1% CaCl ₂	6.34	14.8	1.34

E) DIRECTIONAL DRILLING

No directional services anticipated.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3440 psi (max) or MWE of 8.7 ppg is expected. Lost circulation may exist in the Delaware Section from 3509-7289'. No H₂S is anticipated.

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/cnt
August 20, 2007

Surface casing to be set into the Rustler below all fresh water sands.
Production casing will be cemented using Zone Seal cement.
Drilling Procedure, BOP Diagram, Anticipated tops and surface plans attached.

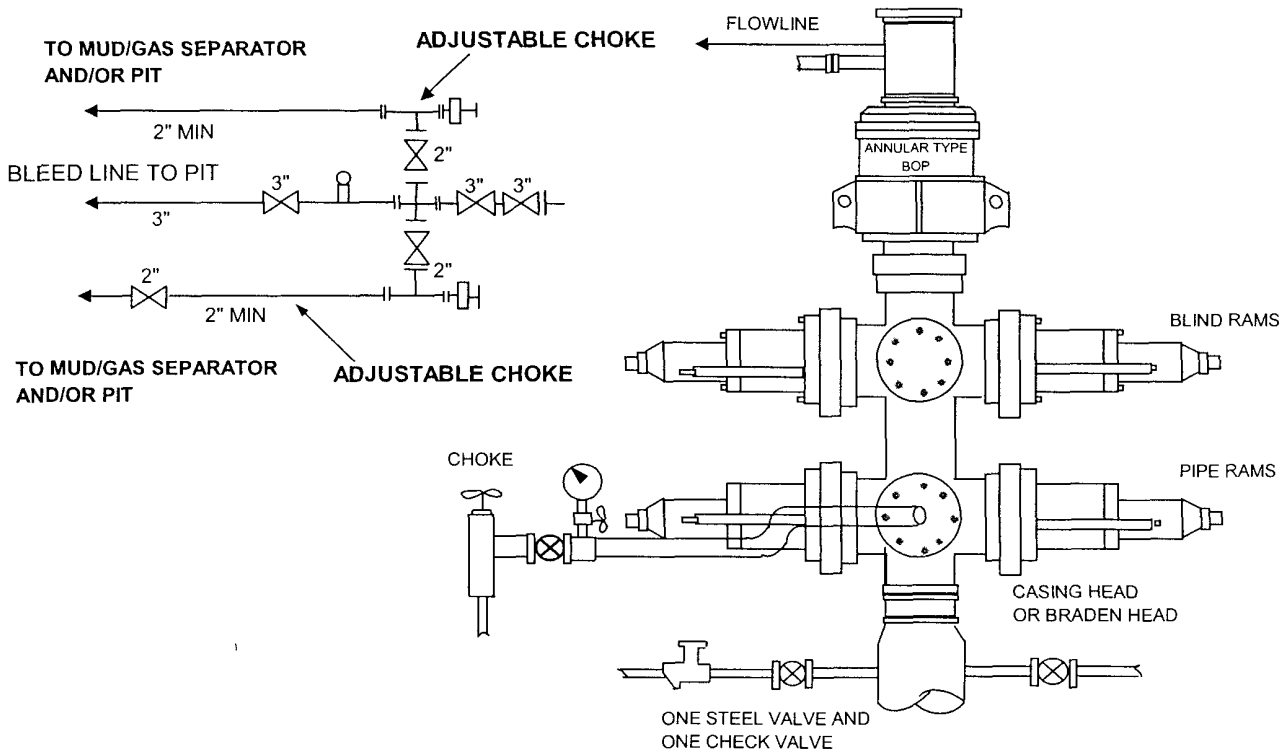
This well is located outside the Secretary's Potash area and outside the R-111 Potash area. There are no potash leases within 1 mile of the location.

BEPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BEPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. NM 2204 (Nationwide).

BEPCO, L. P.

3-M WP BOPE WITH 3-M WP ANNULAR

3 M CHOKE MANIFOLD EQUIPMENT-CONFIGURATION MAY VARY



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. One double gate Blowout preventer with lower pipe rams and upper blind rams, 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 BOPs.
- 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. Chokes must be adjustable. Choke spool may be used between rams.

DIAGRAM 2

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: Poker Lake Unit #238

LEGAL DESCRIPTION - SURFACE: 660 FNL & 660' FEL, Section 30, T-24-S, R-30-E, Eddy County, New Mexico.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Exhibit A and Survey Plats

B) Existing Roads:

From Carlsbad, New Mexico, go 8 miles south on Highway 285 to Highway 31. Turn north and go 7 miles on Highway 31. Turn east on Highway 128 and go 4 miles to Rawhide Road (located between mile markers 4 and 5). Go south for 7 miles to lease road, then east for 0.25 mile, then south 0.9 miles, then east 0.3 mile, then southeasterly for 5 miles, then southerly to Poker Lake Unit #217. Continue south from Poker Lake Unit #217 to Poker Lake Unit #221 and then to Poker Lake Unit #238.

C) Existing Road Maintenance or Improvement Plan:

See Exhibit B and Survey Plats.

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

Approximately 973' of new road is required.

B) Width

12'

C) Maximum Grade

Grade to match existing topography or as per BLM requirements.

D) Turnout Ditches

Spaced per BLM requirements.

E) Culverts, Cattle Guards, and Surfacing Equipment

If required, culverts and cattle guards will be set per BLM Specs.

POINT 3: LOCATION OF EXISTING WELLS

Exhibit A indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

Page 2

- A) No existing facilities are located within one mile which are owned or controlled by lessee/operator:

Closest existing Oil/Gas production facilities are located at Poker Lake Unit #213 wellsite. Poker Lake Unit #213 is located 1-1/4 miles north of proposed well.

- B) New Facilities in the Event of Production:

The Production facilities that will service the Poker Lake Unit #238 will be located at the Poker Lake Unit #213 Battery. Additional separators/treaters will be added as necessary. A new flowline consisting of 2-7/8" steel pipe will be laid within 50' of the center line of the access road that has been previously been Arch cleared. A power line consisting of 12,470 volts 3 phase will be run beside the access road and tie into the existing power line that services the Poker Lake Unit #221.

- C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Following flowline construction, those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in with the surrounding topography (see Point 10)

POINT 5: LOCATION AND TYPE OF WATER SUPPLY

- A) Location and Type of Water Supply

Fresh water will be hauled from Johnson Station 50 miles east of Carlsbad, New Mexico or other commercial facilities. Brine water will be hauled from commercial facilities.

- B) Water Transportation System

Water hauling to the location will be over the existing and proposed roads.

POINT 6: SOURCE OF CONSTRUCTION MATERIALS

- A) Materials

Exhibit B shows location of caliche source.

- B) Land Ownership

Federally Owned.

- C) Materials Foreign to the Site

No construction materials foreign to this area are anticipated for this drill site.

- D) Access Roads

See Exhibit B.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

Page 3

A) Cuttings

Cuttings will be contained in the reserve pit.

B) Drilling Fluids

Drilling fluids will be contained in the reserve pit.

C) Produced Fluids

Water production will be contained in the reserve pit.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation would dictate.

D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with.

E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well.

F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if electric log analysis indicate potential productive zones. The reserve pit will be fenced and bird netted. The fence will be maintained until the pit is backfilled. Reasonable cleanup will be performed prior to the final restoration of the site.

POINT 8: ANCILLARY FACILITIES

None required.

POINT 9: WELL SITE LAYOUT

A) Rig Orientation and Layout

Exhibit "D" shows the dimensions of the well pad and reserve pits, and the location of major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B) Locations of Pits and Access Road

See Exhibits "B", "C" & "D".

C) Lining of the Pits

The reserve pit will be lined with plastic.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup

The pits will be fenced immediately after construction and shall be maintained until they are backfilled. Previous to backfill operations, any hydrocarbon material on the pits' surfaces shall be removed. The fluids and solids contained in the pits shall be backfilled with soil excavated from the site and soil adjacent to the reserve pits. The restored surface of the pits shall be contoured to prevent impoundment of surface water flow. Water-bars will be constructed as needed to prevent excessive erosion. Topsoil, as available, shall be placed over the restored surface in a uniform layer. The area will be seeded according to the Bureau of Land Management stipulations during the appropriate season following restoration.

B) Restoration Plans - Production Developed

The reserve pits will be backfilled and restored as described above under Item A. In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C) Restoration Plans - No Production Developed

The reserve pits will be restored as described above. With no production developed, the entire surface disturbed by construction of the well site will be restored. The site will be contoured to blend with the surrounding topography and provide drainage of surface water. The topsoil, as available, shall be replaced in a uniform layer and seeded according to the Bureau of Land Management's stipulations.

D) Rehabilitation's Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

POINT 11: OTHER INFORMATION

Page 5

A) Terrain

Relatively flat.

B) Soil

Caliche and sand.

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

D) Surface Use

Primarily grazing.

E) Surface Water

There are no ponds, lakes, streams or rivers within several miles of the wellsite.

F) Water Wells

There is one water well located 3/4 mile of the proposed well. This well is approximately 4000' North of the proposed well.

G) Residences and Buildings

None in the immediate vicinity.

H) Historical Sites

None observed.

I) Archeological Resources

An archeological survey will be obtained for this area. Before any construction begins, a full and complete archeological survey will be submitted to the Bureau of Land Management. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site is on federally owned land.

K) Well signs will be posted at the drilling site.

L) Open Pits

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

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

Page 6

(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

Michael L. Lyon
Box 2760
Midland, Texas 79702
(432) 683-2277

8/22/07

Date

GEG/cnt



Gary E. Gerhard

OPERATOR 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 BEPCO, L.P. and its 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.

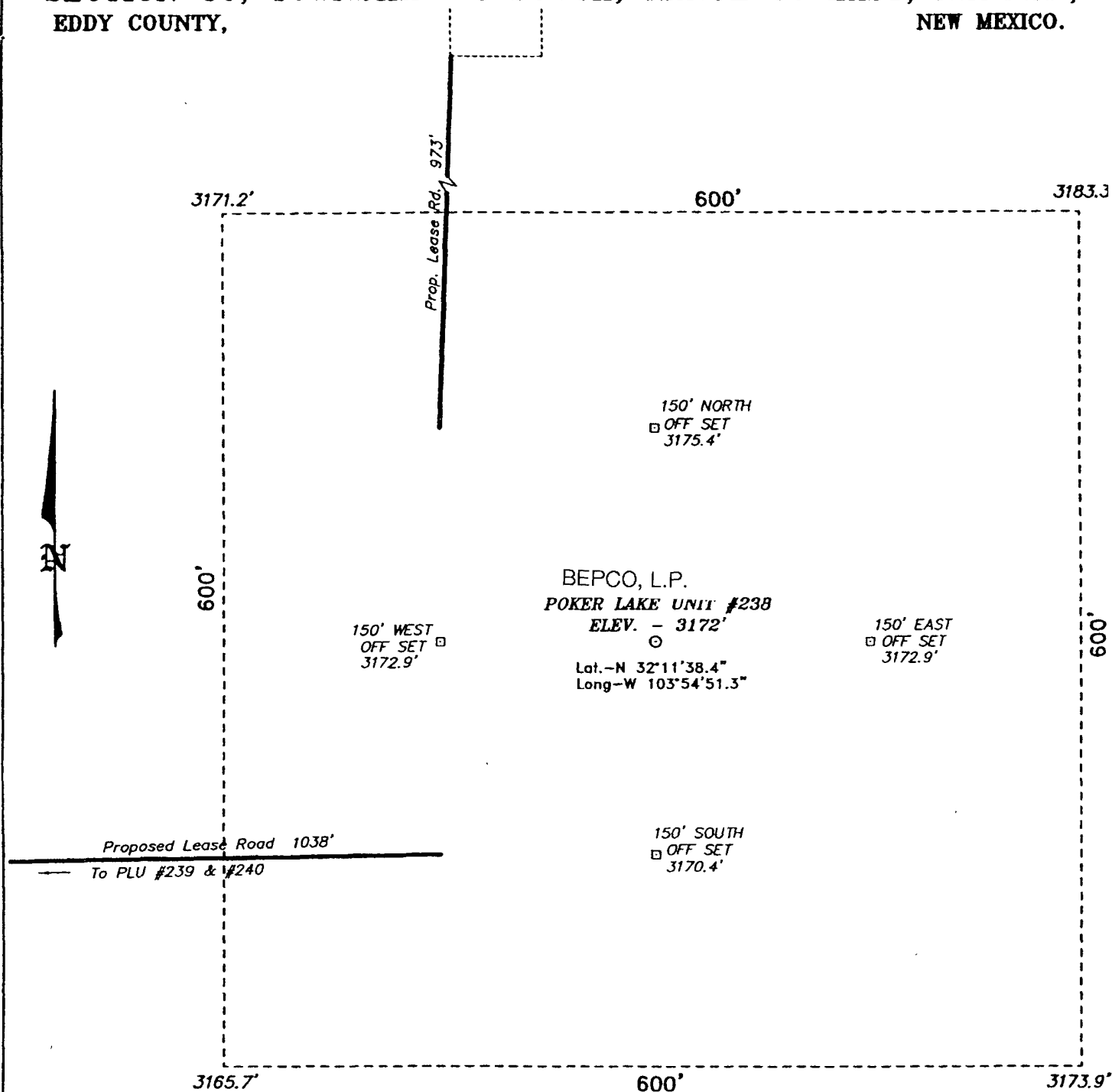
Date

8/22/07

Gary E. Gerhard

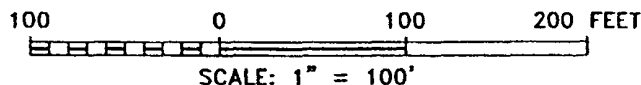


SECTION 30, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 128 AND
RAWHIDE ROAD, GO SOUTH FOR 10.2 MILES; STAY ON
MAIN ROAD AND GO TO SECOND WIND MILL AND TURN
SOUTH AND CONTINUE 0.3 MILE TO PAD AND
PROPOSED LEASE ROAD.



BEP CO, L.P.

REF: POKER LAKE UNIT No. 238 / Well Pad Topo

THE POKER LAKE UNIT No. 238 LOCATED 660' FROM
THE NORTH LINE AND 660' FROM THE EAST LINE OF
SECTION 30, 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: 5385

Drawn By: K. GOAD

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(505) 361-2822

1. **Although no Hydrogen Sulfide has been reported in the area, it is always a potential hazard.**
2. 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.
3. When 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.

B. CASING

1. The 11-3/4 inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 559 feet** and cemented to the surface.
 - a. 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.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial action will be done prior to drilling out that string.

Medium cave/karst area.

Possible lost circulation in the Delaware and Bone Spring formations.

- 2. **This casing string will be run if there is flowing sand or lost circulation while drilling the 14-3/4" hole.** The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

☒ Cement to surface. If cement does not circulate see B.1.a-d above.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Both stages to circulate.

- 4. 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 joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. **No variance allowed for BOP testing since three strings of casing may not be used.**
- 3. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.

- b. The results of the test shall be reported to the appropriate BLM office.
- c. 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.
- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. 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): Carlsbad: (505) 706-2779

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