

OCD-ARTESIA

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR - 7 2009

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1 Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator **BOPCO, L. P.**

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

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

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)

**Surface: SWSW, 660' FSL, 660' FWL, Sec 6, T24S, R30E, Lat N32.241075, Lon W103.926894
BHL: SESE, 660' FSL, 400' FEL, Sec 6, T24S, R30E, Lat N32.241144, Lon W103.912981**

5 Lease Serial No

LC 06845 018545

6 If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No
NMNM 71016X

8 Well Name and No
Poker Lake Unit #265H

9 API Well No

30-015-35617

10 Field and Pool, or Exploratory Area
Undesignated (Bone Spring)

11 County or Parish, State
Eddy County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO L.P. respectfully request the changes listed below to be approved for the captioned well:

BOPCO, L.P. request approval to amend the APD approved 5/11/07 to reflect changing this well to a horizontal Bone Spring test and that the dedicated acres be increased from 40 acres to 160 acres as marked on attached plat. A new 8 point drilling plan and surveyors plat are attached. A directional plan is also included.

NOTE: BOPCO, L.P. has added "H" to the well number to designate this well as a horizontal well.

The well will be drilled utilizing a closed loop mud circulating system without a reserve pit being built or utilized. All water or mud as drilling fluids will be cleaned and recycled or trucked to an approved disposal site. All drill cuttings will be collected and trucked to an approved disposal site.

Further BOPCO, L.P. requests approval of a new drilling rig plat and the associated larger drilling pad.

BOPCO L.P. Bond # on file: COB00050

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Annette Childers

Title **Regulatory Clerk**

Signature

Annette Childers

Date

3-26-09

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

Date

APR 4 2009

**WESLEY W. INGRAM
PETROLEUM ENGINEER**

Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

[Handwritten signature]

Surface casing to be set into the Rustler below all fresh water sands.
4 1/2" Production casing will be run in 6 1/8" OH and isolated by external "swell" casing packers.
Drilling procedure, BOP diagram, anticipated tops attached.

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

(see COA)

The surface and bottom hole location are both orthodox.

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. COB 000050 (Nationwide).

The Pool / Field name is Undesignated Bone Spring.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1501 W. Grand Avenue, Artesia, NM 88210

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

DISTRICT IV
1220 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Undesignated (Bone Spring)
Property Code	Property Name	Well Number
306402	POKER LAKE UNIT	265H
OGRID No.	Operator Name	Elevation
26737	BOPCO, L.P.	3166'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 4	6	24 S	30 E		660	SOUTH	660	WEST	EDDY

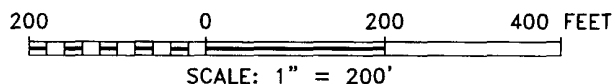
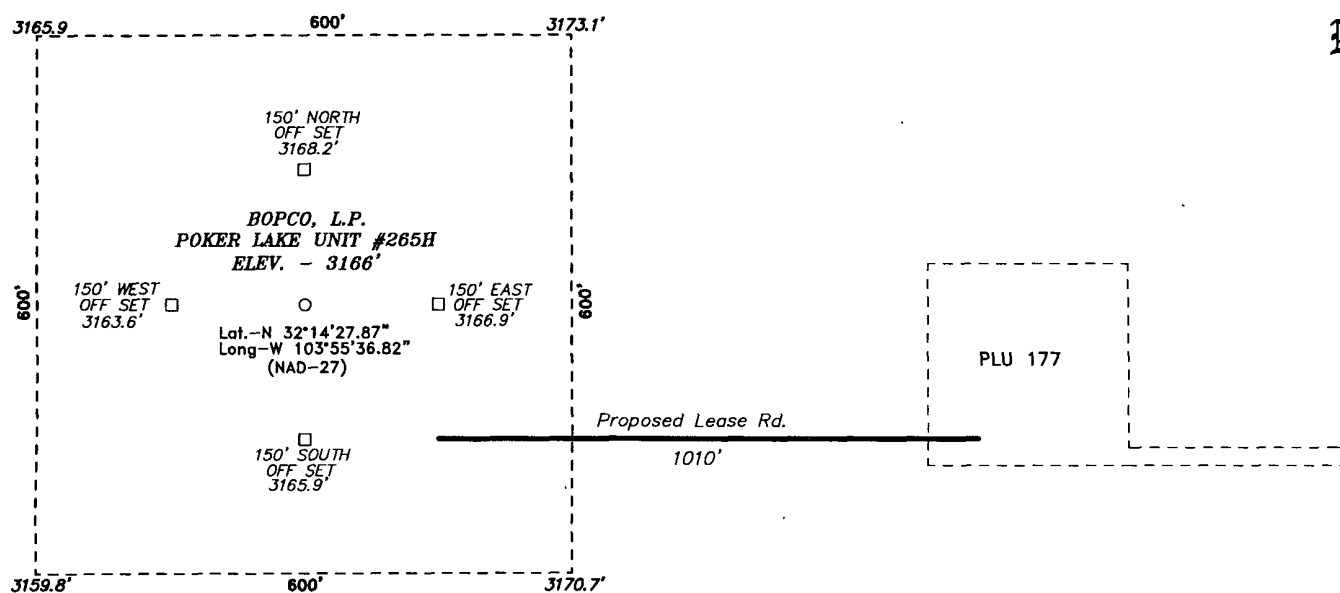
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	24 S	30 E		660	SOUTH	400	EAST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
160	N								

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

LOT 1 - 40.72 AC.		80.00 ACRES		160.00 ACRES	
LOT 2 - 40.58 AC.					
SURFACE LOCATION Lat - N 32°14'27.87" Long - W 103°55'36.82" NMSPCE- N 451659.664 E 625663.524 (NAD-27)		DELAWARE ENTRY POINT Lat - N 32°14'27.87" Long - W 103°55'36.82" NMSPCE- N 451659.664 E 625663.524 (NAD-27)		BOTTOM HOLE LOCATION Lat - N 32°14'28.12" Long - W 103°54'46.73" NMSPCE- N 451701.203 E 629965.637 (NAD-27)	
LOT 3 - 40.42 AC.		80.00 ACRES		160.00 ACRES	
LOT 4 - 40.28 AC.					
OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Gary E. Gerhard</u> Date: <u>3/26/09</u> Printed Name: <u>Gary E. Gerhard</u>					
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. MARCH 24, 2009 Date Surveyed: <u>March 24, 2009</u> Signature: <u>Gary L. Jones</u> Professional Seal: <u>7977</u> Certificate No. <u>Gary L. Jones 7977</u> BASIN SURVEYS					

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF STATE HWY 128 AND CO.
RD. 793 (RAWHIDE ROAD), GO SOUTH 7.3 MILES TO
LEASE ROAD, THEN WEST ON LEASE ROAD FOR 0.2
MILES TO POKER LAKE 177 AND BEGIN PROPOSED
LEASE ROAD.

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

W.O. Number: 6078 Drawn By: K. GOAD

Date: 03-18-2009 Disk: KJG - 6078A.DWG

BOPCO, L.P.

REF: POKER LAKE UNIT #265H / WELL PAD AND TOPO

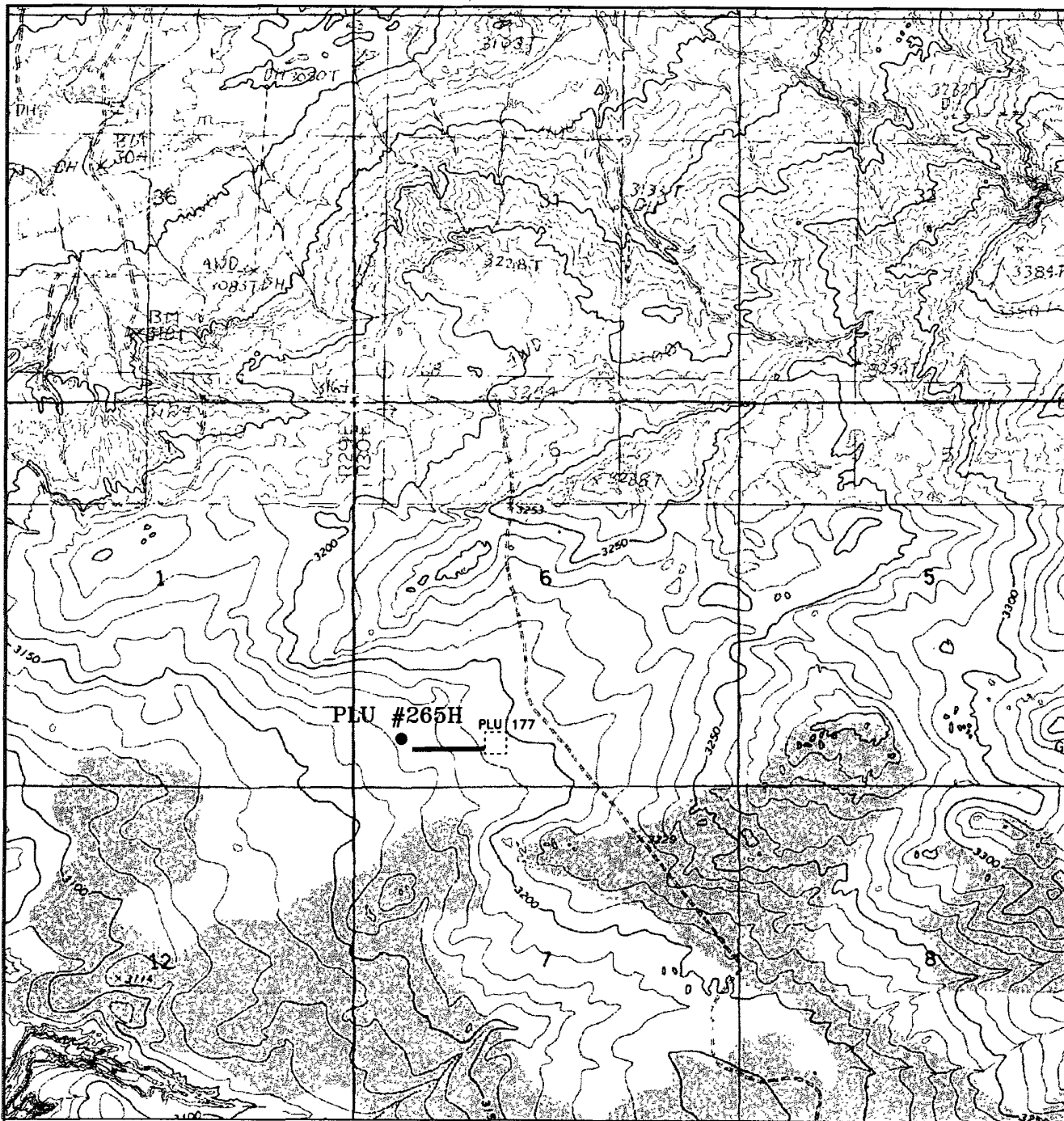
THE POKER LAKE UNIT No. 265H LOCATED 660'

FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 30 EAST,

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

Survey Date: 03-17-2009 Sheet 1 of 1 Sheets



POKER LAKE UNIT #265H

660' FSL and 660' FWL

Section 6, Township 24 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

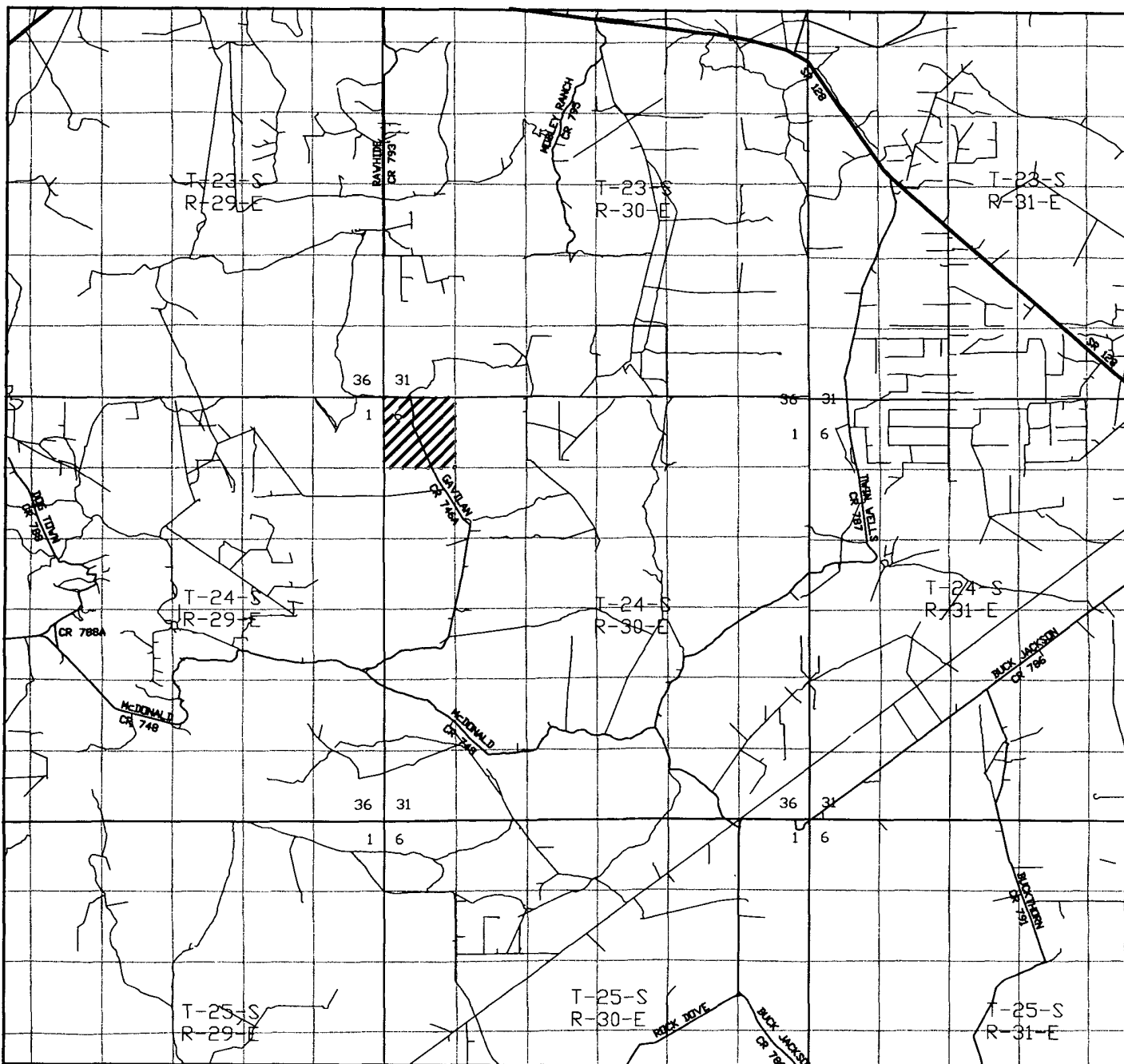
W.O. Number: KJG - 6078AA

Survey Date: 03-17-2009

Scale: 1" = 2000'

Date: 03-18-2009

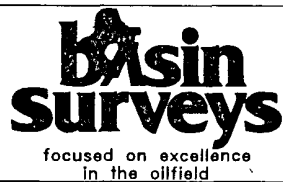
BOPCO, L.P.



POKER LAKE UNIT #265H

660' FSL and 660' FWL

Section 6, Township 24 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: KJG -- 6078AA

Survey Date: 03-17-2009

Scale: 1" = 2 MILES

Date: 03-18-2009

BOPCO, L.P.

**EIGHT POINT DRILLING PROGRAM
BOPCO, L. P.**

NAME OF WELL: Poker Lake Unit #265H

LEGAL DESCRIPTION - SURFACE: 660' FSL & 660' FWL, Section 6, T-24-S, R-30-E, Eddy County, NM.
BHL: 660' FSL, 400' FEL, Section 6, T24S, R30E, Eddy County, NM.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

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

Anticipated Formation Tops: KB 3191' (est) GL 3166'

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUBSEA TOP	BEARING
	TVD	MD		
B/Rustler	711'	711'	+2480'	Barren
T/Salt	741'	741'	+2450'	Barren
B/Salt	3233'	3233'	-42'	Barren
T/Lamar Lime	3441'	3441'	-250'	Barren
T/Ramsey	3481'	3481'	-290'	Oil/Gas
T/Lwr Cherry Canyon	5561'	5561'	-2370'	Oil/Gas
T/Lwr Brushy Canyon	6906'	6906'	-3715'	NA
Bone Spring Lime	7171'	7171'	-3980'	Oil/Gas
T/Avalon Sand	7251'	7251'	-4060'	Oil/Gas
T/1 st Bone Spring Sand	8211'	8211'	-5020'	Oil/Gas
T/2 nd Bone Spring Sand	9151'	9151'	-5960'	Oil/Gas
TD Pilot Hole	9484'	9484'	-6293'	Oil/Gas
KOP	7784'	7784'	-4593'	Oil/Gas
EOC	8271'	8536'	-5080'	Oil/Gas
TD	8331'	12369'	-5140'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS (MD)	Hole Size	PURPOSE	CONDITION
20"	0' - 60'	24"	Conductor	Contractor Discretion
13-3/8", 48#, H-40, ST&C	0' - 731'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8RD, LT&C	0' - 3461'	12-1/4"	Intermediate	New
7", 26#, N-80, LT&C	0' - 8542' <i>8536</i>	8-3/4"	Production	New
4-1/2", 11.6#, Ultra FJT <i>N-80</i>	<i>8542'</i> - 12,369' <i>8436</i>	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, ST&C	8.59	1.94	2.32
9-5/8", 40#, J-55, LT&C	4.44	1.27	1.21
7", 26#, N-80, LT&C	1.69	1.40	1.03
4-1/2", 11.6#, Ultra FJT <i>N-80</i>	3.24	1.41	1.07

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.

1st 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. Back 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.

2nd PROTECTIVE CASING

Tension	A 1.6 design factor utilizing the effects of buoyancy (9 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 (0.468 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. Back 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 (3575 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)

The blowout preventer equipment will be as shown in Diagram #2 and will consist of a double ram type preventer (3000 psi WP) and a bag type (Hydril) annular preventer (3000 psi WP). The same BOPE will be installed on the surface casinghead and on all subsequent casing strings. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 200 psig & 2000 psig with independent tester. The BOPE when rigged up on the intermediate casing spool will be tested to 3000 psig by independent tester. 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

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 731'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
731' - 3461'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
3461' - 12,369'	FW/Gel	8.7 - 9.2	28-36	NC	NC	10	9.5 - 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

Run #1: PEX (GR-CNL/LDT-AIT) from TD of pilot hole 9484' to 3461' with GR-CNL to surface.

Run #2: GR with MWD during drilling of build and horizontal portions of 8-3/4" & 6-1/8" hole.

Run #3: Drill pipe conveyed GR/NL/Caliper log run from TD to KOP at 7784'.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

← see COA

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT ³ /SX
SURFACE:						
Lead: 0 - 431' (100% excess Circ to surface)	360	431	Halliburton Light + 2.7 #/sk Salt	10.14	12.8	1.87
Tail: 431' - 731' (100% excess)	336	300	Premium Plus + 2% CaCl ₂	6.37	14.8	1.35

1st INTERMEDIATE:

Lead: 0' – 2961'	935	2961	Interfill C + 0.125 lb/sk Poly-e-flake	16.43	11.5	2.76
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(100% excess
Circ to surface)

Tail: 2961' – 3461'	260	500	Premium Plus + 0.4% Halad-9	6.29	14.8	1.33
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(100% excess)

2nd INTERMEDIATE:

Lead 3261' - 5000'	175	1739	EconoCem-H + 0.5% Econolite	14.45	11.9	2.49
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(50% excess)

Tail 5000' – 8542'	620	3542	VersaCem-H + 0.6% Halad-9 + 0.2% HR-800	6.092	14.2	1.29
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(50% excess)

E) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 9-5/8" intermediate casing with a 8-3/4" bit to a TVD of approximately 9484' at which point open hole logs will be run. The 8-3/4" hole will be plugged back to approximately 7794'. At this depth an 8-3/4" directional hole will be initiated at an azimuth of 89.45°, building angle at 12.00°/100' to a max angle of 89.04° at a TVD of 8271' (MD 8536'). At this depth a full string of 7", 26#/ft, N-80 casing will be run and cemented. A 6-1/8" lateral hole will be drilled from the base of the 7" casing (end of curve) to a final TD of 12,369' (8331' TVD). A 4-1/2" liner will be run in this portion of hole with external "swell" casing packers.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware and Bone Spring section. A BHP of 3900 psi (max) or MWE of 9.0 ppg is expected. Lost circulation may exist in the Delaware Section from 3481'-7171' TVD. 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

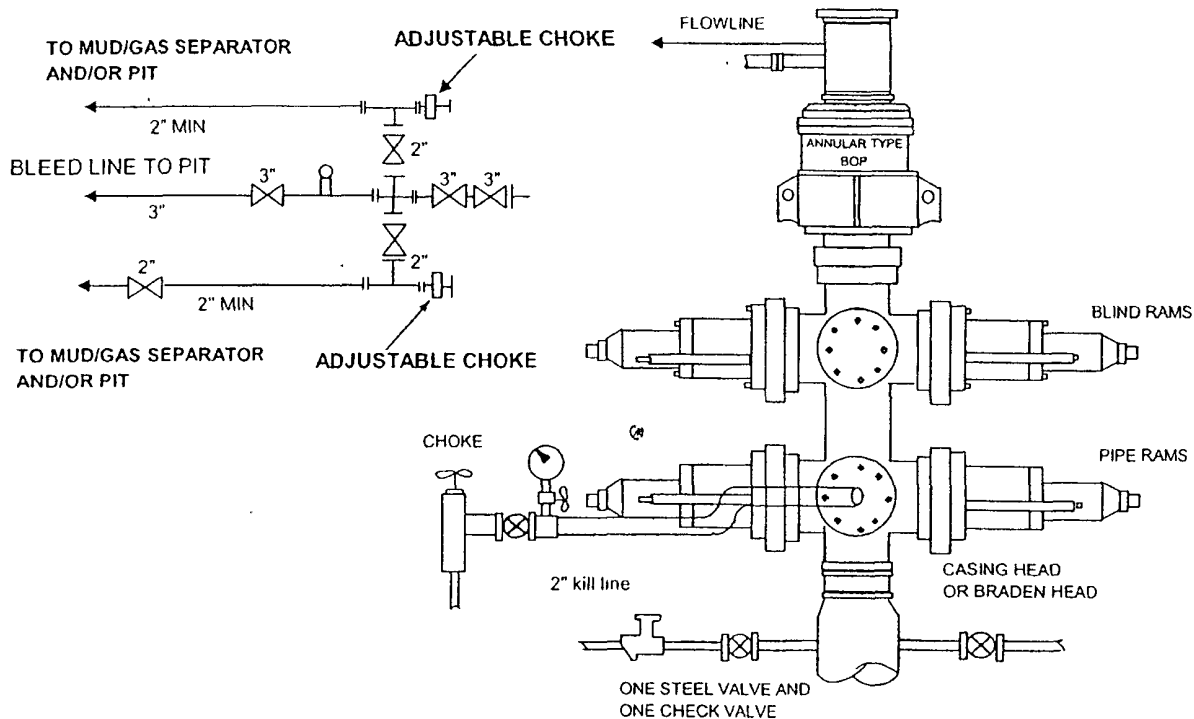
36 days drilling operations

14 days completion operations

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

Make Up Torque

**ULTRA
FJ**

ULTRA

premium oilfield services

**ULTRA Premium Oilfield Services
3333 Brazos Avenue
Odessa, TX 79764**

(432) 337-2109

(432) 580-6607

Fax (432) 332-5019

For Help Please Call Our ULTRA Field Service Manager: (432)557-1916

ULTRA-FJ Connection Torque Sheet. (Flush-Joint)

Print Date:

Thursday, March 26, 2009

Pipe Size (in)	Pipe Weight (#)	Pipe Grade
4 1/2	11.60	N-80

Make Up Torque in (Ft-Lbs)

Minimum	Optimum	Maximum
2,700	3,000	3,300

Please ask for and use the latest recommended running procedures!
If the date on this sheet is over 30 days old please call and verify, any updates or changes.
Thank You.

**ULTRA Odessa
3333 Brazos Avenue
Odessa, Texas 79764
Tel: 432-337-2109**

**ULTRA Houston
8216 Miller Road #3
Houston, Texas 77049
Tel: 281-456-8400**

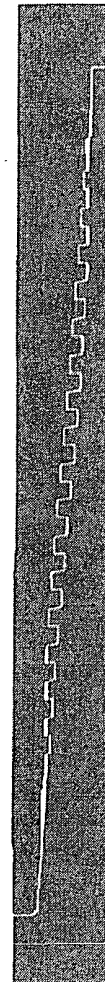
The Strongest Flush-Joint Connection

**ULTRA
FJ**

- ULTRA-FJ has the highest tensile efficiency of any true flush-joint connection.
- ULTRA-FJ has compression efficiency equal to or greater than its tensile efficiency.
- ULTRA-FJ pressure ratings exceed API minimum internal yield and collapse pressure.

DATA SHEET

PARAMETERS			
	Nominal OD	4 1/2	
	Nominal Weight	11.60	
	Grade	N-80	
MATERIAL			
	Minimum Yield	80,000	psi
	Minimum Ultimate	100,000	psi
PIPE BODY			
	PE Weight	11.35	lbs
	Wall Thickness	0.250	in
	Nominal ID	4.000	in
	Drift Diameter	3.875	in
	Average Pipe Body Area	3.356	in ²
	Yield Strength	268,400	lbs
	Tensile Strength	335,600	lbs
	Minimum Internal Yield Pressure	7,780	psi
	Collapse Pressure	6,360	psi
CONNECTION			
	Average Pipe Body OD	4.523	in
	ID (bored)	3.993	in
	Critical Cross Section Area	2.183	in ²
	Yield Strength in Tension	174,600	lbs
	Tension Efficiency	65.0%	
	Fracture Strength	209,400	lbs
	Percent Pipe Body Fracture	62.4%	
	Yield Strength in Compression	179,800	lbs
	Compression Efficiency	67.0%	
	Make-Up Loss	3.727	in
	Min. Internal Yield Pressure	7,780	psi
	Collapse Pressure	6,360	psi



ultra

ULTRA Odessa
3333 Brazos Avenue
Odessa, Texas 79764
Tel: 432-337-2109

ULTRA Houston
8216 Miller Road #3
Houston, Texas 77049
Tel: 281-456-8400

3/26/2009

VF

BOPCO, L.P.

Poker Lake Unit

PLU #265H

#265H

OH

Plan: Plan #1

Pathfinder X & Y Survey Report

25 March, 2009

PATHFINDER

MS

Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company: BOPCO, L.P.
Project: Poker Lake Unit
Site: PLU #265H
Well: #265H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #265H
TVD Reference: WELL @ 3191.00ft (RKB = 25')
MD Reference: WELL @ 3191.00ft (RKB = 25')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project	Poker Lake Unit
Map System:	US State Plane 1983
Geo Datum:	North American Datum 1983
Map Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

Site		PLU #265H									
Site Position:		Northing:		451,659.664 ft		Latitude:		32° 14' 29.018 N			
From:		Map		Easting:		625,663.524 ft		Longitude:		104° 3' 38.113 W	
Position Uncertainty:		0.00 ft		Slot Radius:		"		Grid Convergence:		0.15 °	

Well	#265H					
Well Position	+N/-S	0.00 ft	Northing:	451,659.664 ft	Latitude:	32° 14' 29.018 N
	+E/-W	0.00 ft	Easting:	625,663.524 ft	Longitude:	104° 3' 38.113 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	3,166.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	3/25/2009	(°)	(°)	(nT)
			8.06	60.19	48,824

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	89.45

Survey Tool Program		Date 3/25/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0 00	12,368 87	Plan #1 (OH)	MWD	MWD - Standard

Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company: BOPCO, L.P.
Project: Poker Lake Unit
Site: PLU #265H
Well: #265H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #265H
TVD Reference: WELL @ 3191.00ft (RKB = 25')
MD Reference: WELL @ 3191.00ft (RKB = 25')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0 00	0 00	0.00	0.00	-3,191.00	0.00	0.00	0.00	0 00	451,659.66	625,663.52
100 00	0 00	0.00	100.00	-3,091.00	0.00	0.00	0.00	0 00	451,659.66	625,663.52
200.00	0.00	0 00	200.00	-2,991.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
300.00	0.00	0 00	300.00	-2,891.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
400.00	0 00	0 00	400.00	-2,791.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
500 00	0.00	0.00	500.00	-2,691.00	0.00	0 00	0.00	0.00	451,659.66	625,663.52
600.00	0 00	0.00	600.00	-2,591.00	0.00	0.00	0 00	0 00	451,659.66	625,663.52
700.00	0.00	0.00	700.00	-2,491.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
800.00	0.00	0.00	800.00	-2,391.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
900 00	0.00	0.00	900.00	-2,291.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,000 00	0.00	0.00	1,000.00	-2,191.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,100.00	0.00	0.00	1,100.00	-2,091.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,200.00	0.00	0.00	1,200.00	-1,991.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,300.00	0.00	0.00	1,300.00	-1,891.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,400.00	0.00	0.00	1,400.00	-1,791.00	0.00	0.00	0 00	0.00	451,659.66	625,663.52
1,500.00	0.00	0.00	1,500.00	-1,691.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,600 00	0.00	0.00	1,600.00	-1,591.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,700 00	0.00	0.00	1,700.00	-1,491.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,800.00	0.00	0.00	1,800.00	-1,391.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
1,900.00	0.00	0.00	1,900.00	-1,291.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
2,000.00	0.00	0.00	2,000.00	-1,191.00	0 00	0.00	0.00	0 00	451,659.66	625,663.52
2,100.00	0.00	0.00	2,100.00	-1,091.00	0.00	0 00	0.00	0.00	451,659.66	625,663.52
2,200.00	0.00	0.00	2,200.00	-991.00	0.00	0.00	0 00	0.00	451,659.66	625,663.52
2,300 00	0 00	0.00	2,300.00	-891.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
2,400.00	0 00	0.00	2,400.00	-791.00	0.00	0.00	0 00	0.00	451,659.66	625,663.52
2,500.00	0.00	0.00	2,500.00	-691.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
2,600 00	0 00	0 00	2,600.00	-591.00	0.00	0.00	0 00	0.00	451,659.66	625,663.52

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Wellbore: OH
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2,700.00	0 00	0.00	2,700.00	-491.00	0 00	0.00	0.00	0.00	451,659.66	625,663.52
2,800.00	0.00	0.00	2,800.00	-391.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
2,900.00	0.00	0.00	2,900.00	-291.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,000.00	0 00	0.00	3,000.00	-191.00	0.00	0.00	0 00	0 00	451,659.66	625,663.52
3,100.00	0.00	0 00	3,100.00	-91.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,200.00	0 00	0.00	3,200.00	9.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,300.00	0.00	0.00	3,300.00	109.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,400.00	0 00	0.00	3,400.00	209.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,500.00	0.00	0.00	3,500.00	309.00	0.00	0.00	0 00	0 00	451,659.66	625,663.52
3,600.00	0.00	0.00	3,600.00	409.00	0.00	0.00	0 00	0.00	451,659.66	625,663.52
3,700.00	0 00	0.00	3,700.00	509.00	0.00	0.00	0 00	0 00	451,659.66	625,663.52
3,800.00	0 00	0.00	3,800.00	609.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
3,900.00	0 00	0 00	3,900.00	709.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,000.00	0.00	0.00	4,000.00	809.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,100.00	0.00	0 00	4,100.00	909.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,200.00	0.00	0 00	4,200.00	1,009.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,300.00	0.00	0.00	4,300.00	1,109.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,400.00	0.00	0.00	4,400.00	1,209.00	0 00	0.00	0.00	0.00	451,659.66	625,663.52
4,500.00	0.00	0.00	4,500.00	1,309.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
4,600.00	0.00	0.00	4,600.00	1,409.00	0.00	0.00	0.00	0 00	451,659.66	625,663.52
4,700.00	0.00	0.00	4,700.00	1,509.00	0 00	0.00	0.00	0.00	451,659.66	625,663.52
4,800.00	0.00	0.00	4,800.00	1,609.00	0.00	0.00	0.00	0 00	451,659.66	625,663.52
4,900.00	0 00	0 00	4,900.00	1,709.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,000.00	0.00	0.00	5,000.00	1,809.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,100.00	0 00	0.00	5,100.00	1,909.00	0 00	0.00	0.00	0.00	451,659.66	625,663.52
5,200.00	0.00	0 00	5,200.00	2,009.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,300.00	0 00	0 00	5,300.00	2,109.00	0.00	0.00	0.00	0 00	451,659.66	625,663.52

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Planned Survey

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5,400.00	0.00	0.00	5,400.00	2,209.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,500.00	0.00	0.00	5,500.00	2,309.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,600.00	0.00	0.00	5,600.00	2,409.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,700.00	0.00	0.00	5,700.00	2,509.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,800.00	0.00	0.00	5,800.00	2,609.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
5,900.00	0.00	0.00	5,900.00	2,709.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,000.00	0.00	0.00	6,000.00	2,809.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,100.00	0.00	0.00	6,100.00	2,909.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,200.00	0.00	0.00	6,200.00	3,009.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,300.00	0.00	0.00	6,300.00	3,109.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,400.00	0.00	0.00	6,400.00	3,209.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,500.00	0.00	0.00	6,500.00	3,309.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,600.00	0.00	0.00	6,600.00	3,409.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,700.00	0.00	0.00	6,700.00	3,509.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,800.00	0.00	0.00	6,800.00	3,609.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
6,900.00	0.00	0.00	6,900.00	3,709.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,000.00	0.00	0.00	7,000.00	3,809.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,100.00	0.00	0.00	7,100.00	3,909.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,200.00	0.00	0.00	7,200.00	4,009.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,300.00	0.00	0.00	7,300.00	4,109.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,400.00	0.00	0.00	7,400.00	4,209.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,500.00	0.00	0.00	7,500.00	4,309.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,600.00	0.00	0.00	7,600.00	4,409.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,700.00	0.00	0.00	7,700.00	4,509.00	0.00	0.00	0.00	0.00	451,659.66	625,663.52
7,793.50	0.00	0.00	7,793.50	4,602.50	0.00	0.00	0.00	0.00	451,659.66	625,663.52
KOP - 7793.50'MD, 0.00°INC, 0.00°AZI, 7793.50'TVD										
7,800.00	0.78	89.45	7,800.00	4,609.00	0.00	0.04	0.04	12.00	451,659.66	625,663.57

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7,825.00	3.78	89.45	7,824.98	4,633.98	0.01	1.04	1.04	12.00	451,659.67	625,664.56
7,850.00	6.78	89.45	7,849.87	4,658.87	0.03	3.34	3.34	12.00	451,659.70	625,666.86
7,875.00	9.78	89.45	7,874.60	4,683.60	0.07	6.94	6.94	12.00	451,659.73	625,670.46
7,900.00	12.78	89.45	7,899.12	4,708.12	0.11	11.83	11.83	12.00	451,659.78	625,675.35
7,925.00	15.78	89.45	7,923.34	4,732.34	0.17	17.99	17.99	12.00	451,659.84	625,681.51
7,950.00	18.78	89.45	7,947.21	4,756.21	0.24	25.41	25.41	12.00	451,659.91	625,688.94
7,975.00	21.78	89.45	7,970.66	4,779.66	0.33	34.08	34.08	12.00	451,659.99	625,697.60
8,000.00	24.78	89.45	7,993.62	4,802.62	0.42	43.95	43.95	12.00	451,660.09	625,707.48
8,025.00	27.77	89.45	8,016.04	4,825.04	0.53	55.02	55.02	12.00	451,660.19	625,718.54
8,050.00	30.77	89.45	8,037.84	4,846.84	0.65	67.24	67.24	12.00	451,660.31	625,730.76
8,075.00	33.77	89.45	8,058.98	4,867.98	0.77	80.59	80.59	12.00	451,660.44	625,744.11
8,100.00	36.77	89.45	8,079.39	4,888.39	0.91	95.02	95.03	12.00	451,660.58	625,758.55
8,125.00	39.77	89.45	8,099.01	4,908.01	1.06	110.50	110.51	12.00	451,660.72	625,774.03
8,150.00	42.77	89.45	8,117.80	4,926.80	1.22	126.99	127.00	12.00	451,660.88	625,790.52
8,175.00	45.77	89.45	8,135.70	4,944.70	1.39	144.44	144.45	12.00	451,661.05	625,807.97
8,200.00	48.77	89.45	8,152.66	4,961.66	1.56	162.80	162.81	12.00	451,661.23	625,826.33
8,225.00	51.77	89.45	8,168.64	4,977.64	1.75	182.03	182.03	12.00	451,661.41	625,845.55
8,250.00	54.77	89.45	8,183.59	4,992.59	1.94	202.06	202.07	12.00	451,661.60	625,865.58
8,275.00	57.77	89.45	8,197.47	5,006.47	2.14	222.85	222.86	12.00	451,661.80	625,886.37
8,300.00	60.77	89.45	8,210.24	5,019.24	2.35	244.33	244.34	12.00	451,662.01	625,907.86
8,325.00	63.77	89.45	8,221.87	5,030.87	2.56	266.46	266.47	12.00	451,662.22	625,929.98
8,350.00	66.77	89.45	8,232.33	5,041.33	2.78	289.16	289.17	12.00	451,662.44	625,952.69
8,375.00	69.77	89.45	8,241.59	5,050.59	3.00	312.38	312.39	12.00	451,662.66	625,975.90
8,400.00	72.77	89.45	8,249.62	5,058.62	3.23	336.05	336.07	12.00	451,662.89	625,999.58
8,425.00	75.77	89.45	8,256.40	5,065.40	3.46	360.11	360.13	12.00	451,663.12	626,023.64
8,450.00	78.76	89.45	8,261.91	5,070.91	3.69	384.49	384.51	12.00	451,663.35	626,048.02
8,475.00	81.76	89.45	8,266.13	5,075.13	3.93	409.13	409.15	12.00	451,663.59	626,072.65

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8,500.00	84.76	89.45	8,269.07	5,078.07	4.17	433.95	433.97	12.00	451,663.83	626,097.48
8,525.00	87.76	89.45	8,270.69	5,079.69	4.41	458.89	458.92	12.00	451,664.07	626,122.42
8,536.15	89.10	89.45	8,271.00	5,080.00	4.51	470.04	470.06	12.00	451,664.18	626,133.56
EOC @ 8536.15'MD, 8271.00'TVD, 89.10°INC, 89.45°AZI, 470.06'VS										
8,600.00	89.10	89.45	8,272.00	5,081.00	5.13	533.88	533.90	0.00	451,664.79	626,197.40
8,700.00	89.10	89.45	8,273.57	5,082.57	6.08	633.86	633.89	0.00	451,665.75	626,297.39
8,800.00	89.10	89.45	8,275.14	5,084.14	7.04	733.85	733.88	0.00	451,666.71	626,397.37
8,900.00	89.10	89.45	8,276.72	5,085.72	8.00	833.83	833.87	0.00	451,667.67	626,497.35
9,000.00	89.10	89.45	8,278.29	5,087.29	8.96	933.81	933.85	0.00	451,668.63	626,597.34
9,100.00	89.10	89.45	8,279.86	5,088.86	9.92	1,033.79	1,033.84	0.00	451,669.59	626,697.32
9,200.00	89.10	89.45	8,281.43	5,090.43	10.88	1,133.78	1,133.83	0.00	451,670.55	626,797.30
9,300.00	89.10	89.45	8,283.00	5,092.00	11.84	1,233.76	1,233.82	0.00	451,671.51	626,897.28
9,400.00	89.10	89.45	8,284.57	5,093.57	12.80	1,333.74	1,333.80	0.00	451,672.47	626,997.27
9,500.00	89.10	89.45	8,286.14	5,095.14	13.76	1,433.73	1,433.79	0.00	451,673.43	627,097.25
9,600.00	89.10	89.45	8,287.71	5,096.71	14.72	1,533.71	1,533.78	0.00	451,674.39	627,197.23
9,700.00	89.10	89.45	8,289.28	5,098.28	15.68	1,633.69	1,633.77	0.00	451,675.35	627,297.22
9,800.00	89.10	89.45	8,290.85	5,099.85	16.64	1,733.68	1,733.76	0.00	451,676.31	627,397.20
9,900.00	89.10	89.45	8,292.42	5,101.42	17.60	1,833.66	1,833.74	0.00	451,677.27	627,497.18
10,000.00	89.10	89.45	8,293.99	5,102.99	18.56	1,933.64	1,933.73	0.00	451,678.23	627,597.17
10,100.00	89.10	89.45	8,295.56	5,104.56	19.52	2,033.62	2,033.72	0.00	451,679.19	627,697.15
10,200.00	89.10	89.45	8,297.13	5,106.13	20.48	2,133.61	2,133.71	0.00	451,680.15	627,797.13
10,300.00	89.10	89.45	8,298.71	5,107.71	21.44	2,233.59	2,233.69	0.00	451,681.11	627,897.11
10,400.00	89.10	89.45	8,300.28	5,109.28	22.40	2,333.57	2,333.68	0.00	451,682.07	627,997.10
10,500.00	89.10	89.45	8,301.85	5,110.85	23.36	2,433.56	2,433.67	0.00	451,683.03	628,097.08
10,600.00	89.10	89.45	8,303.42	5,112.42	24.32	2,533.54	2,533.66	0.00	451,683.98	628,197.06
10,700.00	89.10	89.45	8,304.99	5,113.99	25.28	2,633.52	2,633.64	0.00	451,684.94	628,297.05
10,800.00	89.10	89.45	8,306.56	5,115.56	26.24	2,733.51	2,733.63	0.00	451,685.90	628,397.03

Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company: BOPCO, L P
Project: Poker Lake Unit
Site: PLU #265H
Well: #265H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #265H
TVD Reference: WELL @ 3191.00ft (RKB = 25")
MD Reference: WELL @ 3191.00ft (RKB = 25")
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,900.00	89.10	89.45	8,308.13	5,117.13	27.20	2,833.49	2,833.62	0.00	451,686.86	628,497.01
11,000.00	89.10	89.45	8,309.70	5,118.70	28.16	2,933.47	2,933.61	0.00	451,687.82	628,597.00
11,100.00	89.10	89.45	8,311.27	5,120.27	29.12	3,033.46	3,033.60	0.00	451,688.78	628,696.98
11,200.00	89.10	89.45	8,312.84	5,121.84	30.08	3,133.44	3,133.58	0.00	451,689.74	628,796.96
11,300.00	89.10	89.45	8,314.41	5,123.41	31.04	3,233.42	3,233.57	0.00	451,690.70	628,896.95
11,400.00	89.10	89.45	8,315.98	5,124.98	32.00	3,333.40	3,333.56	0.00	451,691.66	628,996.93
11,500.00	89.10	89.45	8,317.55	5,126.55	32.96	3,433.39	3,433.55	0.00	451,692.62	629,096.91
11,600.00	89.10	89.45	8,319.12	5,128.12	33.92	3,533.37	3,533.53	0.00	451,693.58	629,196.89
11,700.00	89.10	89.45	8,320.70	5,129.70	34.88	3,633.35	3,633.52	0.00	451,694.54	629,296.88
11,800.00	89.10	89.45	8,322.27	5,131.27	35.84	3,733.34	3,733.51	0.00	451,695.50	629,396.86
11,900.00	89.10	89.45	8,323.84	5,132.84	36.80	3,833.32	3,833.50	0.00	451,696.46	629,496.84
12,000.00	89.10	89.45	8,325.41	5,134.41	37.76	3,933.30	3,933.48	0.00	451,697.42	629,596.83
12,100.00	89.10	89.45	8,326.98	5,135.98	38.72	4,033.29	4,033.47	0.00	451,698.38	629,696.81
12,200.00	89.10	89.45	8,328.55	5,137.55	39.68	4,133.27	4,133.46	0.00	451,699.34	629,796.79
12,300.00	89.10	89.45	8,330.12	5,139.12	40.64	4,233.25	4,233.45	0.00	451,700.30	629,896.78
12,368.87	89.10	89.45	8,331.20	5,140.20	41.30	4,302.11	4,302.31	0.00	451,700.96	629,965.64

TD @12368.87'MD, 8331.20'TVD, 89.10°INC, 89.45°AZI, 4302.31'VS - PBHL (#265H)

Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company: BOPCO, L.P.
Project: Poker Lake Unit
Site: PLU #265H
Well: #265H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #265H
TVD Reference: WELL @ 3191.00ft (RKB = 25')
MD Reference: WELL @ 3191.00ft (RKB = 25')
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL (#265H) - plan hits target - Point	0.00	0.00	8,331.00	41.54	4,302.11	451,701.203	629,965.637	32° 14' 29.318 N	104° 2' 48.018 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,793.50	7,793.50	0.00	0.00	KOP - 7793.50'MD, 0.00°INC, 0.00°AZI, 7793.50'TVD
8,536.15	8,271.00	4.51	470.04	EOC @ 8536 15'MD, 8271.00'TVD, 89.10°INC, 89.45°AZI, 470.06'VS
12,368.87	8,331.20	41.30	4,302.12	TD @ 12368 87'MD, 8331.20'TVD, 89.10°INC, 89.45°AZI, 4302.31'VS

Checked By: _____ Approved By: _____ Date: _____

BOPCO, L.P.



Azimuths to Grid North
True North: -0.15°
Magnetic North: 7.92°

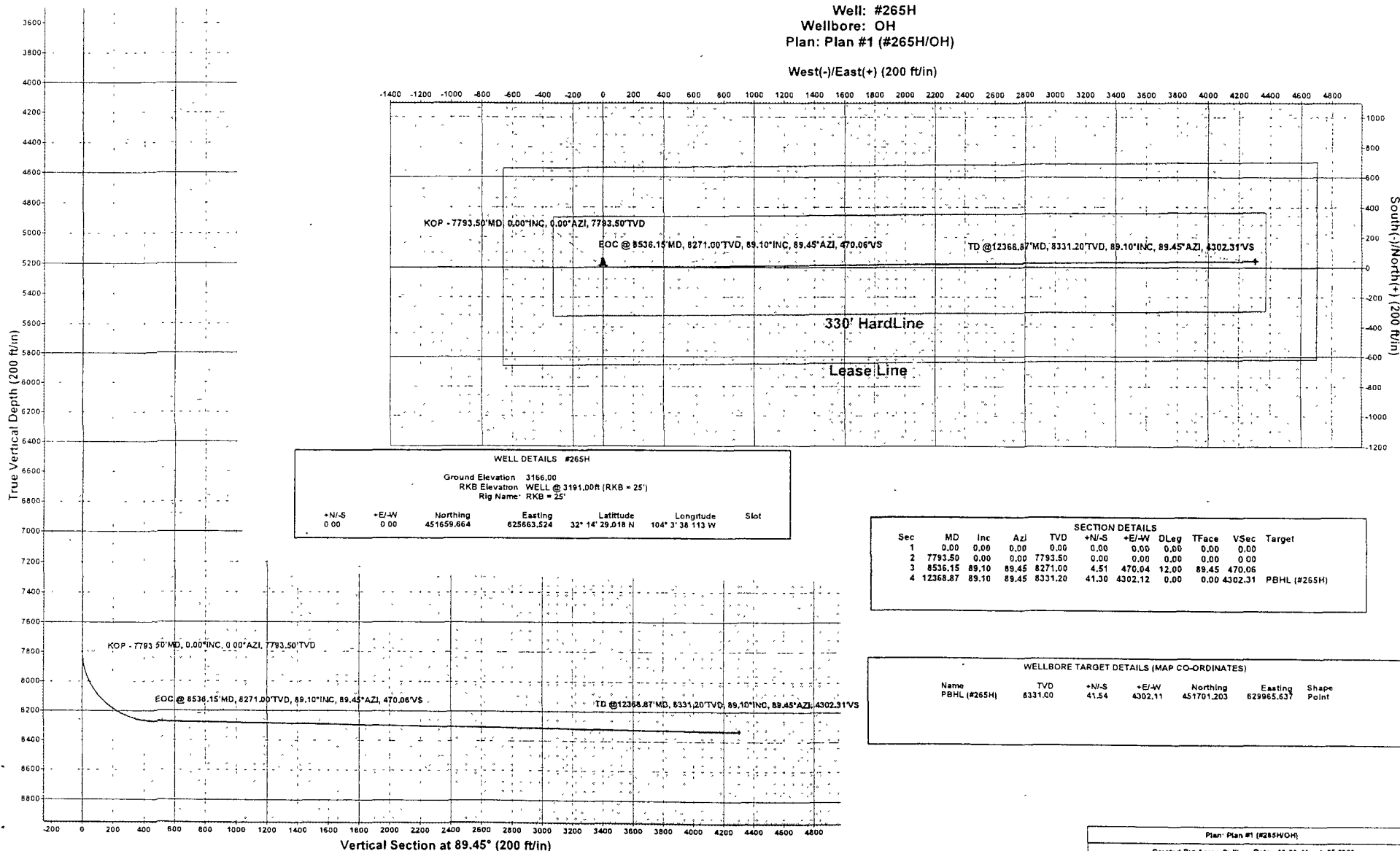
Magnetic Field
Strength: 48823.6snT
Dip Angle: 60.19°
Date: 3/25/2009
Model: IGRF200510

PROJECT DETAILS: Poker Lake Unit
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Gnd

Project: Poker Lake Unit
Site: PLU #265H
Well: #265H
Wellbore: OH
Plan: Plan #1 (#265H/OH)

PATHFINDER

West(-)/East(+) (200 ft/in)



WELL DETAILS #265H						
Ground Elevation: 3156.00						
RKB Elevation: WELL @ 3191.00ft (RKB = 25')						
Rig Name: RKB = 25'						
+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude	Slot
0.00	0.00	451659.664	625663.524	32° 14' 29.018 N	104° 3' 38.113 W	

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	OLeg	TFace	VSec Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7793.50	0.00	0.00	7793.50	0.00	0.00	0.00	0.00	0.00
3	8536.15	89.10	89.45	8271.00	4.51	470.04	12.00	89.45	470.06
4	12368.87	89.10	89.45	8331.20	41.30	4302.12	0.00	0.00	4302.31 PBHL (#265H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Eastings	Shape
PBHL (#265H)	8331.00	41.54	4302.11	451701.203	629965.637	Point

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	NMLC 068545
WELL NAME & NO.:	Poker Lake Unit 265H
SURFACE HOLE FOOTAGE:	0660' FSL & 0660' FWL
BOTTOM HOLE FOOTAGE	0660' FSL & 0400' FEL
LOCATION:	Section 06, T. 24 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

**WELL IS LOCATED WITHIN SECRETARY'S POTASH.
NOTE REQUIREMENTS FOR PILOT HOLE PLUG(S).**

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 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,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
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. Floor controls are required for 3M or Greater systems. These 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

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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 for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash.

Medium cave/karst.

Possible lost circulation in the Delaware and Bone Spring formations.

1. The 13-3/8 inch surface casing shall be set **at approximately 731 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If the salt is penetrated, the casing is to be set 25' above the top of the salt.**
 - 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 is to include the lead cement slurry.**
 - 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 cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Secretary's Potash and cave/karst.

Pilot hole will require a solid plug from 9484' to 7794' or two plugs; one at bottom of pilot hole, which must be a minimum of 195' in length and must be tagged a 195' from TD. Then the kickoff plug should be a minimum of 500' in length.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

3. The minimum required fill of cement behind the 7 inch production casing/second intermediate casing is:

- ☒ Cement should tie-back at least **500** feet into previous casing string. Operator shall provide method of verification. **500 foot tie-back due to Secretary's Potash.**

4. The minimum required fill of cement behind the 4-1/2 inch production liner is:

- ☒ Cement not required, operator is using packer system. **The production liner must have a tie-back to the 7" production casing of at least 100 feet.**

5. 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. **Piping from choke manifold to closed loop system is to be kept as straight as possible with minimum bends. Flare line is also to be kept as straight as possible.**
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 040409