OCD-ARTESIA

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No. LC 068905 SHL NM 120897

6. If Indian, Allotee or Tribe Name: Poker Lake Unit, NMNM 71016X

1a. Type of work: ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No: Poker Lake Unit

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

8 Lease Name and Well No.: Poker Lake Unit #335H (306402)

2. Name of Operator: BOPCO, L. P. (260737)

9 API Well No.: 30-015-39257

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

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

10. Field and Pool, or Exploratory: Poker Lake NW (Delaware) (96046)

4. Location of Well (Report location clearly and in accordance with any State requirements *)

At surface: SWSW, UL M, 320' FSL, 395' FWL, Lat N32.21140, Long W103.841197

At proposed prod zone: 300' FNL,1000' FWL, Sec14,T24S,R30E, Lat N32.224169, Lg W103.856500

11. Sec., T. R. M. or Blk and Survey or Area: Sec 13, T24S, R30E, Mer NMP

UNORTHODOX LOCATION

14 Distance in miles and direction from nearest town or post office*: 8.5 miles east of Malaga, NM

12 County or Parish: Eddy County

13 State: NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any)	16 No of acres in lease	17 Spacing Unit dedicated to this well
320'	1920	280

18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth	20 BLM/BIA Bond No. on file
2,919'	14,195' MD, 7,885' TVD	COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc)	22. Approximate date work will start*	23. Estimated duration
3449' GL	07/01/2011	30 days

RECEIVED
JUL 15 2011
NMOCD ARTESIA

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.
2 A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5 Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
Holster	Katy Holster	6/16/11

Title: Administrative Assistant

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Tony J. Herrell	/s/ Tony J. Herrell	JUL 01 2011

Title	Office
FOR STATE DIRECTOR	NM STATE OFFICE

Application approval 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
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

KZ 07/29/11

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Surface casing is to be set into the Rustler below all fresh water sands at an approximate depth of 769' and cement circulated to surface.

7" casing will be set at approximately 8700' MD, 7885' TVD (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. Cement will be circulated to surface.

Production liner will be 4-1/2" with Baker hydraulic packers for zone isolation. Top of 4-1/2" liner will be 150' above 7" casing shoe at an approximate depth of 8550'.

Drilling procedure, BOP diagram, and anticipated tops are attached.

This well is located outside the R111 Potash area but inside Secretary's Potash area.

The surface and bottom hole locations are both unorthodox.

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. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

NAME OF WELL: Poker Lake Unit #335H
LEGAL DESCRIPTION - SURFACE: 320' FSL, 395' FWL, Section 13, T24S, R30E, Eddy County, NM.
BHL: 300' FNL, 1000' FWL, Section 14, T24S, R30E, 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 3468' (estimated)
GL 3449'

FORMATION	ESTIMATED TOP FROM KB TVD	MD	ESTIMATED SUB-SEA TOP	BEARING
T/Fresh Water	360'	360'	+ 3,108'	Fresh Water
T/Rustler	404'	404'	+ 3,064'	Barren
T/Salt	779'	779'	+ 2,689'	Barren
B/Salt	3,854'	3,854'	- 386'	Barren
T/Lamar	4,084'	4,084'	- 616'	Barren
T/Ramsey	4,114'	4,114'	- 646'	Oil/Gas
T/Lower Cherry Canyon	6,159'	6,159'	- 2,691'	Oil/Gas
KOP	7,408'	7,408'	- 3,940'	Oil/Gas
T/Lwr Brushy Canyon	7,514'	7,515'	- 4,050'	Oil/Gas
T/Lwr Brushy Canyon "8A" Sd	7,686'	7,700'	- 4,218'	Oil/Gas
T/Lwr Brushy Canyon "Y" Sd	7,849'	7,960'	- 4,381'	Oil/Gas
EOC	7,885'	8,158'	- 4,417'	Oil/Gas
Target #1	7,889'	9,366'	- 4,421'	Oil/Gas
TD Horizontal Hole	7,804'	14,313'	- 4,336'	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, or 54.5#, J-55 8rd, ST&C*	0' - 769'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C	0' - 4104'	12-1/4"	Intermediate	New
7", 26#, N-80, Buttress or 8rd LTC*	0' - 8700'	8-3/4"	Production	New
4-1/2", 11.6#, HCP-110, 8rd, LT&C	8550' – 14,313'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, ST&C	10.10	1.95	2.28
13-3/8", 54.5#, J-55, 8rd, STC	14.39	2.98	3.60
9-5/8", 40#, J-55, 8rd, LT&C	14.86	1.19	1.04
7", 26#, N-80, Buttress	3.79	1.46	1.08
7", 26#, N-80, 8rd, LTC	2.95	1.46	1.09
4-1/2", 11.6#, HCP-110, 8rd, LT&C	4.65	2.34	2.40

*** Depending on availability.**

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING - (13-3/8")

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 a 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 - (9-5/8")

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 INTERMEDIATE CASING - (7")

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.0 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 (5000 psig) on top of the maximum anticipated packer fluid gradient. (0.433 psi/ft) Backup on production strings will be formation pore pressure. (0.433 psi/ft) The effects of tension on burst will not be utilized.

PRODUCTION CASING - (4-1/2")

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.0 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 (5000 psig) on top of the maximum anticipated packer fluid gradient. (0.433 psi/ft) Backup on production strings will be formation pore pressure. (0.433 psi/ft) The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The BOPE when riged up on 13-3/8" casing head (12-1/4" open hole) will consist of 13-5/8" X 5,000 psi dual ram BOP's with mud cross, choke manifold, chokes, and hydril per Diagram 1 (5,000 psi WP). The pipe and blind rams, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casing head will be hydro-tested to 250-300 psig and 2000 psig by independent tester. The hydril when installed on surface casing head will be tested to 1000 psi.

The BOPE when rigged up on the 9-5/8" intermediate casing spool (8-3/4" open hole) will consist of 13-5/8" x 5,000 psi annular, 13-5/8" x 5,000 psi pipe & blind rams with mud cross, choke manifold and chokes as in Diagram 1. The pipe and blind rams, choke, kill lines, kelly cocks inside BOP, etc. will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (250-300 psig) test will be required. Hydril will be tested to 1500 psig.

The BOPE when rigged up on the 7" intermediate casing spool (6-1/8" open hole) will consist of 13-5/8" x 5,000 psi annular, 13-5/8" x 5,000 psi pipe & blind rams with mud cross choke manifold and chokes as in Diagram 1. The pipe and blind rams, choke, kelly lines, kelly cocks inside BOP, etc. will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (250-300 psig) test will be required. Hydril will be tested to 1500 psig.

These tests will be performed:

a) Upon installation
b) After any component changes
c) Thirty 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' - 769'	FW Spud Mud	8.5 – 9.2	38-70	NC	NC	NC	10.0
769' - 4104'	Brine Water	9.8 – 10.2	28-30	NC	NC	NC	9.5 – 10.5
4104' - 8700'	FW/Gel	8.7 – 9.0	28-36	NC	NC	NC	9.5 – 10.0
8550' – 14,313'	FW/Gel/Starch	8.7 – 9.0	28-36	NC	NC	<20	9.5 – 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING Su COM

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

Run #2: Shuttle log w/GR, PE, Density, Neutron, Resistivity in lateral leg open hole.

Mud Logger: Rigged up at 100'.

C) CONVENTIONAL CORING

None anticipated.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE:						
Lead: 0 – 469' (100% excess Circ to surface)	375	469	ExtendaCem-C	9.2	13.5	1.75
Tail: 469' – 769' (100% excess)	350	300	HalCem-C+2%CaCl2	6.39	14.8	1.35
INTERMEDIATE:						
Lead: 0' – 3604' (100% excess Circ to surface)	1250	3604	EconoCem-HLC+5% Salt+5 lb/sk Gilsonite	9.32	12.9	1.85
Tail: 3604' – 4104' (100% excess)	275	500	HalCem-C	6.34	14.8	1.33
2ND INTERMEDIATE						
Stage 1: Lead: 5000' - 7408' (50% excess)	250	2408	EconoCem-H+1 lb/sk Silicate+5 lb/sk Gilsonite	12.18	12.2	2.28
Tail: 7408'-8700' (50% excess)	180	960	VersaCem-H+0.6% Halad-9+0.2%HR-800	5.46	14.4	1.22
DV Tool @ 5,000'						
Stage 2: Lead: 0'–4900' (50% excess) (Cement to surface)	500	4900	EconoCem-H+ 1lb/sk Silicate+5 lb/sk Gilsonite	12.18	12.20	2.28
Tail: 4900'-5000' (50% excess)	50	100	HalCem-C	6.34	14.8	1.33

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 7408' at which point a directional hole will be kicked off and drilled at an azimuth of 314.24 degrees, building angle at 12 deg/100' to 90.02 degrees at a TVD of 7885' (MD 8158'). This angle and azimuth will be maintained for 542' to a measured depth of 8700' (7919' TVD). At this depth 7", 26#, N80, Buttress, or 8rd LTC casing will be installed and cemented in two stages (DV Tool @ approximately 5000') with TOC at 3604' (500' above 9-5/8" casing shoe). A 6-1/8" open hole lateral will then be drilled out from 7" casing at an azimuth of 314.24 degrees, inclination of 90.02 degrees to a measured depth of 9360', TVD 7865'. At this depth 4-1/2", 11.6#, HCP110, 8rd, LTC casing will be installed with Baker hydraulic packers installed for zone isolation in the lateral. Top of 4-1/2" liner at approximately 8550' (150' above 7" casing shoe).

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3415 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 4084'-7885' TVD. No H_2S 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

30 days drilling operations

14 days completion operations

SMM/keh

BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 335H

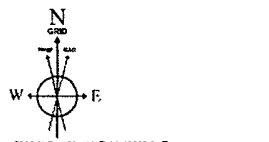
Slot: No 335H SHL
Well: No. 335H
Wellbore: No.335H PWB

BAKER HUGHES
INTEQ

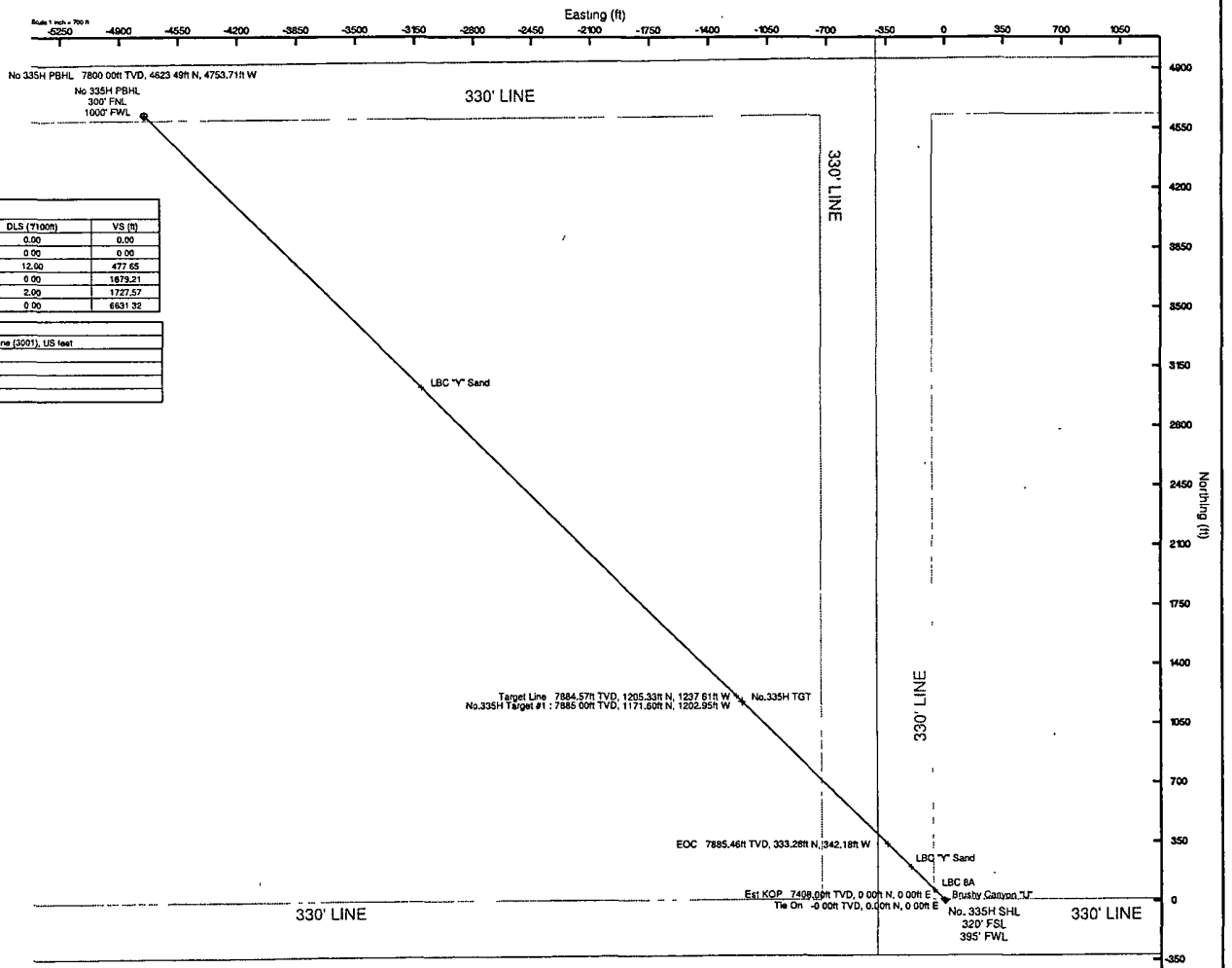
Well Profile Data

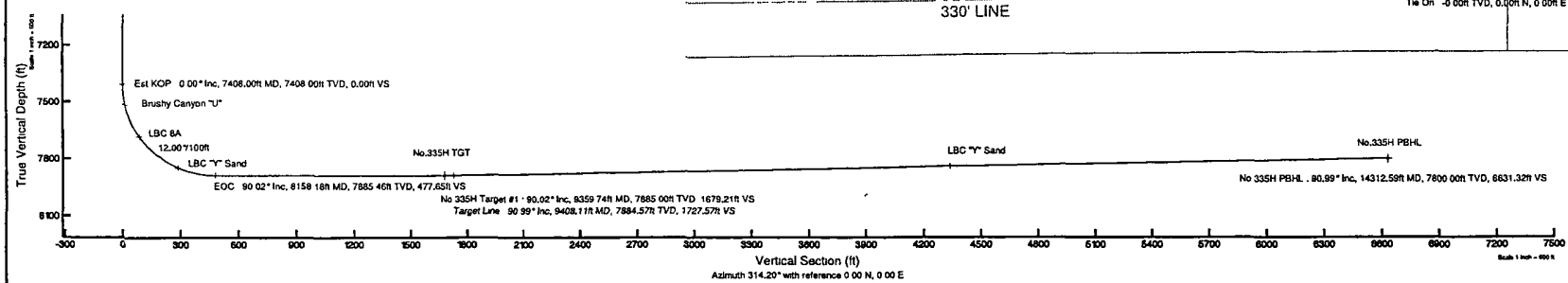
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	314.244	0.00	0.00	0.00	0.00	0.00
Est KOP	7408.00	0.000	314.244	7408.00	0.00	0.00	0.00	0.00
EOC	8158.18	90.022	314.244	7885.46	333.26	-342.18	12.00	477.65
No.335H Target #1	9359.74	90.022	314.244	7885.00	1171.60	-1202.95	0.00	1679.21
Target Line	9408.11	90.988	314.191	7884.57	1205.33	-1237.61	2.00	1727.57
No 335H PBHL	14312.59	90.988	314.191	7800.00	4623.49	-4753.71	0.00	6631.32

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No 335H SHL (KB)	Grid System: NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 335H SHL (KB)	North Reference: Grid north
Rig on No 335H SHL (KB) to Mean Sea Level: 3468 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Poker Lake Unit No 335H): -3448 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: gentry on 4/12/2011



BGGM (1945.0 to 2012.0) Dip: 60.14° Field: 48828.9 nT
Magnetic North is 7.78 degrees East of True North (at 4/6/2011)
Grid North is 8.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.52 degrees
For example: If the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.52 = 97.52





Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 335H SHL**
Area	**Eddy County, NM**	Well	**No. 335H**
Field	**Poker Lake Unit**	Wellbore	**No.335H PWB**
Facility	**Poker Lake Unit No. 335H**		

REPORT SETUP INFORMATION			
Projection System	**NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Gentbry**
Scale	***0.999936***	Report Generated	**4/12/2011** at **2:44:38 PM**
Convergence at slot	**0.26° East**	Database/Source file	**WA Midland/No.335H_PWB.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W
Facility Reference Pt			**652209.37**	**440975.68**	32°12'41.045"N	103°50'28.310"W
Field Reference Pt			**630272.49**	**405347.85**	32°06'49.387"N	103°54'45.266"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 335H SHL (KB) to Facility Vertical Datum	**19.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No. 335H SHL (KB) to Mean Sea Level	**3468.00ft**
Vertical Reference Pt	**Rig on No. 335H SHL (KB)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 335H SHL (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**314.20°**

Planned Wellpath Report

Prelim_1

BAKER HUGHES

INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 335H SHL
Area	Eddy County, NM	Well	No. 335H
Field	Poker Lake Unit	Wellbore	No.335H PWB
Facility	Poker Lake Unit No. 335H		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	314.244	0.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Tie On
100.00†	0.000	314.244	100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
200.00†	0.000	314.244	200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
300.00†	0.000	314.244	300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
400.00†	0.000	314.244	400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Rustler
500.00†	0.000	314.244	500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
600.00†	0.000	314.244	600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
700.00†	0.000	314.244	700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
775.00†	0.000	314.244	775.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Salt
800.00†	0.000	314.244	800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
900.00†	0.000	314.244	900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1000.00†	0.000	314.244	1000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1100.00†	0.000	314.244	1100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1200.00†	0.000	314.244	1200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1300.00†	0.000	314.244	1300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1400.00†	0.000	314.244	1400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1500.00†	0.000	314.244	1500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1600.00†	0.000	314.244	1600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1700.00†	0.000	314.244	1700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1800.00†	0.000	314.244	1800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
1900.00†	0.000	314.244	1900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2000.00†	0.000	314.244	2000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2100.00†	0.000	314.244	2100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2200.00†	0.000	314.244	2200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2300.00†	0.000	314.244	2300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2400.00†	0.000	314.244	2400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2500.00†	0.000	314.244	2500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2600.00†	0.000	314.244	2600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2700.00†	0.000	314.244	2700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2800.00†	0.000	314.244	2800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
2900.00†	0.000	314.244	2900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3000.00†	0.000	314.244	3000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3100.00†	0.000	314.244	3100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3200.00†	0.000	314.244	3200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3300.00†	0.000	314.244	3300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3400.00†	0.000	314.244	3400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3500.00†	0.000	314.244	3500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3600.00†	0.000	314.244	3600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3700.00†	0.000	314.244	3700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3800.00†	0.000	314.244	3800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
3850.00†	0.000	314.244	3850.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Base Salt
3900.00†	0.000	314.244	3900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4000.00†	0.000	314.244	4000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4080.00†	0.000	314.244	4080.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Lamar Lime
4100.00†	0.000	314.244	4100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 335H SHL
Area	Eddy County, NM	Well	No. 335H
Field	Poker Lake Unit	Wellbore	No.335H PWB
Facility	Poker Lake Unit No. 335H		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4110.00†	0.000	314.244	4110.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Ramsey
4200.00†	0.000	314.244	4200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4300.00†	0.000	314.244	4300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4400.00†	0.000	314.244	4400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4500.00†	0.000	314.244	4500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4600.00†	0.000	314.244	4600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4700.00†	0.000	314.244	4700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4800.00†	0.000	314.244	4800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
4900.00†	0.000	314.244	4900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5000.00†	0.000	314.244	5000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5100.00†	0.000	314.244	5100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5200.00†	0.000	314.244	5200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5300.00†	0.000	314.244	5300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5400.00†	0.000	314.244	5400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5500.00†	0.000	314.244	5500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5600.00†	0.000	314.244	5600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5700.00†	0.000	314.244	5700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5800.00†	0.000	314.244	5800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
5900.00†	0.000	314.244	5900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6000.00†	0.000	314.244	6000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6100.00†	0.000	314.244	6100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6155.00†	0.000	314.244	6155.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Lower Cherry Canyon
6200.00†	0.000	314.244	6200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6300.00†	0.000	314.244	6300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6400.00†	0.000	314.244	6400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6500.00†	0.000	314.244	6500.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6600.00†	0.000	314.244	6600.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6700.00†	0.000	314.244	6700.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6800.00†	0.000	314.244	6800.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
6900.00†	0.000	314.244	6900.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7000.00†	0.000	314.244	7000.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7100.00†	0.000	314.244	7100.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7200.00†	0.000	314.244	7200.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7300.00†	0.000	314.244	7300.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7400.00†	0.000	314.244	7400.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	
7408.00	0.000	314.244	7408.00	0.00	0.00	0.00	652209.37	440975.68	32°12'41.045"N	103°50'28.310"W	0.00	Est KOP
7500.00†	11.040	314.244	7499.43	8.84	6.17	-6.33	652203.04	440981.84	32°12'41.106"N	103°50'28.383"W	12.00	
7514.89†	12.827	314.244	7514.00	11.91	8.31	-8.54	652200.83	440983.99	32°12'41.127"N	103°50'28.408"W	12.00	Brushy Canyon "U"
7600.00†	23.040	314.244	7594.87	38.09	26.57	-27.28	652182.09	441002.25	32°12'41.309"N	103°50'28.626"W	12.00	
7699.83†	35.020	314.244	7682.00	86.44	60.31	-61.93	652147.45	441035.99	32°12'41.644"N	103°50'29.027"W	12.00	LBC 8A
7700.00†	35.040	314.244	7682.14	86.54	60.38	-62.00	652147.38	441036.05	32°12'41.645"N	103°50'29.028"W	12.00	
7800.00†	47.040	314.244	7757.42	152.08	106.11	-108.95	652100.43	441081.78	32°12'42.100"N	103°50'29.572"W	12.00	
7900.00†	59.040	314.244	7817.44	231.84	161.76	-166.08	652043.30	441137.42	32°12'42.653"N	103°50'30.234"W	12.00	
7960.01†	66.241	314.244	7845.00	285.10	198.92	-204.24	652005.14	441174.58	32°12'43.022"N	103°50'30.676"W	12.00	LBC "Y" Sand
8000.00†	71.040	314.244	7859.56	322.33	224.90	-230.91	651978.47	441200.56	32°12'43.281"N	103°50'30.985"W	12.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 335H SHL
Area	Eddy County, NM	Well	No. 335H
Field	Poker Lake Unit	Wellbore	No.335H PWB
Facility	Poker Lake Unit No. 335H		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8100.00†	83.040	314.244	7881.95	419.61	292.76	-300.60	651908.79	441268.42	32°12'43.955"N	103°50'31.793"W	12.00	
8158.18	90.022	314.244	7885.46	477.65	333.26	-342.18	651867.21	441308.92	32°12'44.358"N	103°50'32.274"W	12.00	EOC
8200.00†	90.022	314.244	7885.45	519.46	362.44	-372.13	651837.26	441338.09	32°12'44.648"N	103°50'32.621"W	0.00	
8300.00†	90.022	314.244	7885.41	619.46	432.21	-443.77	651765.63	441407.85	32°12'45.342"N	103°50'33.452"W	0.00	
8400.00†	90.022	314.244	7885.37	719.46	501.98	-515.41	651693.99	441477.62	32°12'46.035"N	103°50'34.282"W	0.00	
8500.00†	90.022	314.244	7885.33	819.46	571.75	-587.05	651622.36	441547.39	32°12'46.729"N	103°50'35.112"W	0.00	
8600.00†	90.022	314.244	7885.29	919.46	641.52	-658.69	651550.73	441617.15	32°12'47.423"N	103°50'35.942"W	0.00	
8700.00†	90.022	314.244	7885.26	1019.46	711.29	-730.32	651479.09	441686.92	32°12'48.116"N	103°50'36.772"W	0.00	7"Csg
8800.00†	90.022	314.244	7885.22	1119.46	781.06	-801.96	651407.46	441756.69	32°12'48.810"N	103°50'37.602"W	0.00	
8900.00†	90.022	314.244	7885.18	1219.46	850.83	-873.60	651335.83	441826.45	32°12'49.504"N	103°50'38.432"W	0.00	
9000.00†	90.022	314.244	7885.14	1319.46	920.61	-945.24	651264.19	441896.22	32°12'50.197"N	103°50'39.262"W	0.00	
9100.00†	90.022	314.244	7885.10	1419.46	990.38	-1016.87	651192.56	441965.99	32°12'50.891"N	103°50'40.092"W	0.00	
9200.00†	90.022	314.244	7885.06	1519.46	1060.15	-1088.51	651120.93	442035.75	32°12'51.585"N	103°50'40.922"W	0.00	
9300.00†	90.022	314.244	7885.02	1619.46	1129.92	-1160.15	651049.30	442105.52	32°12'52.278"N	103°50'41.752"W	0.00	
9359.74	90.022	314.244	7885.00	1679.21	1171.60	-1202.95	651006.50	442147.20	32°12'52.693"N	103°50'42.248"W	0.00	No.335H Target #1
9400.00†	90.826	314.200	7884.70	1719.46	1199.68	-1231.80	650977.65	442175.27	32°12'52.972"N	103°50'42.583"W	2.00	
9408.11	90.988	314.191	7884.57	1727.57	1205.33	-1237.61	650971.84	442180.93	32°12'53.028"N	103°50'42.650"W	2.00	Target Line
9500.00†	90.988	314.191	7882.99	1819.45	1269.37	-1303.49	650905.97	442244.96	32°12'53.665"N	103°50'43.413"W	0.00	
9600.00†	90.988	314.191	7881.26	1919.43	1339.07	-1375.18	650834.28	442314.65	32°12'54.357"N	103°50'44.244"W	0.00	
9700.00†	90.988	314.191	7879.54	2019.42	1408.76	-1446.87	650762.59	442384.34	32°12'55.050"N	103°50'45.075"W	0.00	
9800.00†	90.988	314.191	7877.82	2119.40	1478.46	-1518.56	650690.91	442454.03	32°12'55.743"N	103°50'45.906"W	0.00	
9900.00†	90.988	314.191	7876.09	2219.39	1548.15	-1590.26	650619.22	442523.72	32°12'56.436"N	103°50'46.736"W	0.00	
10000.00†	90.988	314.191	7874.37	2319.37	1617.85	-1661.95	650547.53	442593.41	32°12'57.129"N	103°50'47.567"W	0.00	
10100.00†	90.988	314.191	7872.64	2419.36	1687.54	-1733.64	650475.84	442663.10	32°12'57.822"N	103°50'48.398"W	0.00	
10200.00†	90.988	314.191	7870.92	2519.34	1757.24	-1805.33	650404.16	442732.79	32°12'58.515"N	103°50'49.229"W	0.00	
10300.00†	90.988	314.191	7869.19	2619.33	1826.93	-1877.02	650332.47	442802.48	32°12'59.207"N	103°50'50.060"W	0.00	
10400.00†	90.988	314.191	7867.47	2719.31	1896.62	-1948.71	650260.78	442872.17	32°12'59.900"N	103°50'50.890"W	0.00	
10500.00†	90.988	314.191	7865.74	2819.30	1966.32	-2020.41	650189.10	442941.86	32°13'00.593"N	103°50'51.721"W	0.00	
10600.00†	90.988	314.191	7864.02	2919.28	2036.01	-2092.10	650117.41	443011.55	32°13'01.286"N	103°50'52.552"W	0.00	
10700.00†	90.988	314.191	7862.30	3019.27	2105.71	-2163.79	650045.72	443081.24	32°13'01.979"N	103°50'53.383"W	0.00	
10800.00†	90.988	314.191	7860.57	3119.25	2175.40	-2235.48	649974.04	443150.93	32°13'02.672"N	103°50'54.213"W	0.00	
10900.00†	90.988	314.191	7858.85	3219.24	2245.10	-2307.17	649902.35	443220.62	32°13'03.365"N	103°50'55.044"W	0.00	
11000.00†	90.988	314.191	7857.12	3319.23	2314.79	-2378.86	649830.66	443290.31	32°13'04.057"N	103°50'55.875"W	0.00	
11100.00†	90.988	314.191	7855.40	3419.21	2384.49	-2450.56	649758.98	443360.00	32°13'04.750"N	103°50'56.706"W	0.00	
11200.00†	90.988	314.191	7853.67	3519.20	2454.18	-2522.25	649687.29	443429.69	32°13'05.443"N	103°50'57.537"W	0.00	
11300.00†	90.988	314.191	7851.95	3619.18	2523.88	-2593.94	649615.60	443499.38	32°13'06.136"N	103°50'58.367"W	0.00	
11400.00†	90.988	314.191	7850.23	3719.17	2593.57	-2665.63	649543.92	443569.07	32°13'06.829"N	103°50'59.198"W	0.00	
11500.00†	90.988	314.191	7848.50	3819.15	2663.26	-2737.32	649472.23	443638.76	32°13'07.522"N	103°51'00.029"W	0.00	
11600.00†	90.988	314.191	7846.78	3919.14	2732.96	-2809.01	649400.54	443708.45	32°13'08.215"N	103°51'00.860"W	0.00	
11700.00†	90.988	314.191	7845.05	4019.12	2802.65	-2880.71	649328.85	443778.14	32°13'08.907"N	103°51'01.691"W	0.00	
11800.00†	90.988	314.191	7843.33	4119.11	2872.35	-2952.40	649257.17	443847.83	32°13'09.600"N	103°51'02.522"W	0.00	
11900.00†	90.988	314.191	7841.60	4219.09	2942.04	-3024.09	649185.48	443917.52	32°13'10.293"N	103°51'03.352"W	0.00	
12000.00†	90.988	314.191	7839.88	4319.08	3011.74	-3095.78	649113.79	443987.21	32°13'10.986"N	103°51'04.183"W	0.00	
12017.69†	90.988	314.191	7839.57	4336.76	3024.07	-3108.46	649101.11	443999.54	32°13'11.109"N	103°51'04.330"W	0.00	LBC "Y" Sand
12100.00†	90.988	314.191	7838.15	4419.06	3081.43	-3167.47	649042.11	444056.90	32°13'11.679"N	103°51'05.014"W	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 335H SHL
Area	Eddy County, NM	Well	No. 335H
Field	Poker Lake Unit	Wellbore	No.335H PWB
Facility	Poker Lake Unit No. 335H		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12200.00†	90.988	314.191	7836.43	4519.05	3151.13	-3239.16	648970.42	444126.59	32°13'12.372"N	103°51'05.845"W	0.00	
12300.00†	90.988	314.191	7834.71	4619.03	3220.82	-3310.86	648898.73	444196.28	32°13'13.064"N	103°51'06.676"W	0.00	
12400.00†	90.988	314.191	7832.98	4719.02	3290.52	-3382.55	648827.05	444265.97	32°13'13.757"N	103°51'07.507"W	0.00	
12500.00†	90.988	314.191	7831.26	4819.00	3360.21	-3454.24	648755.36	444335.66	32°13'14.450"N	103°51'08.337"W	0.00	
12600.00†	90.988	314.191	7829.53	4918.99	3429.91	-3525.93	648683.67	444405.35	32°13'15.143"N	103°51'09.168"W	0.00	
12700.00†	90.988	314.191	7827.81	5018.97	3499.60	-3597.62	648611.99	444475.04	32°13'15.836"N	103°51'09.999"W	0.00	
12800.00†	90.988	314.191	7826.08	5118.96	3569.29	-3669.31	648540.30	444544.73	32°13'16.529"N	103°51'10.830"W	0.00	
12900.00†	90.988	314.191	7824.36	5218.94	3638.99	-3741.01	648468.61	444614.42	32°13'17.221"N	103°51'11.661"W	0.00	
13000.00†	90.988	314.191	7822.63	5318.93	3708.68	-3812.70	648396.93	444684.11	32°13'17.914"N	103°51'12.492"W	0.00	
13100.00†	90.988	314.191	7820.91	5418.91	3778.38	-3884.39	648325.24	444753.80	32°13'18.607"N	103°51'13.323"W	0.00	
13200.00†	90.988	314.191	7819.19	5518.90	3848.07	-3956.08	648253.55	444823.49	32°13'19.300"N	103°51'14.153"W	0.00	
13300.00†	90.988	314.191	7817.46	5618.88	3917.77	-4027.77	648181.86	444893.18	32°13'19.993"N	103°51'14.984"W	0.00	
13400.00†	90.988	314.191	7815.74	5718.87	3987.46	-4099.46	648110.18	444962.87	32°13'20.686"N	103°51'15.815"W	0.00	
13500.00†	90.988	314.191	7814.01	5818.85	4057.16	-4171.15	648038.49	445032.56	32°13'21.378"N	103°51'16.646"W	0.00	
13600.00†	90.988	314.191	7812.29	5918.84	4126.85	-4242.85	647966.80	445102.25	32°13'22.071"N	103°51'17.477"W	0.00	
13700.00†	90.988	314.191	7810.56	6018.82	4196.55	-4314.54	647895.12	445171.94	32°13'22.764"N	103°51'18.308"W	0.00	
13800.00†	90.988	314.191	7808.84	6118.81	4266.24	-4386.23	647823.43	445241.63	32°13'23.457"N	103°51'19.139"W	0.00	
13900.00†	90.988	314.191	7807.11	6218.79	4335.94	-4457.92	647751.74	445311.32	32°13'24.150"N	103°51'19.970"W	0.00	
14000.00†	90.988	314.191	7805.39	6318.78	4405.63	-4529.61	647680.06	445381.01	32°13'24.842"N	103°51'20.801"W	0.00	
14100.00†	90.988	314.191	7803.67	6418.76	4475.32	-4601.30	647608.37	445450.70	32°13'25.535"N	103°51'21.631"W	0.00	
14200.00†	90.988	314.191	7801.94	6518.75	4545.02	-4673.00	647536.68	445520.39	32°13'26.228"N	103°51'22.462"W	0.00	
14300.00†	90.988	314.191	7800.22	6618.73	4614.71	-4744.69	647465.00	445590.08	32°13'26.921"N	103°51'23.293"W	0.00	
14312.59	90.988	314.191	7800.00[2]	6631.32	4623.49	-4753.71	647455.97	445598.85	32°13'27.008"N	103°51'23.398"W	0.00	No.335H PBHL

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 335H SHL
Area	Eddy County, NM	Well	No. 335H
Field	Poker Lake Unit	Wellbore	No.335H PWB
Facility	Poker Lake Unit No. 335H		

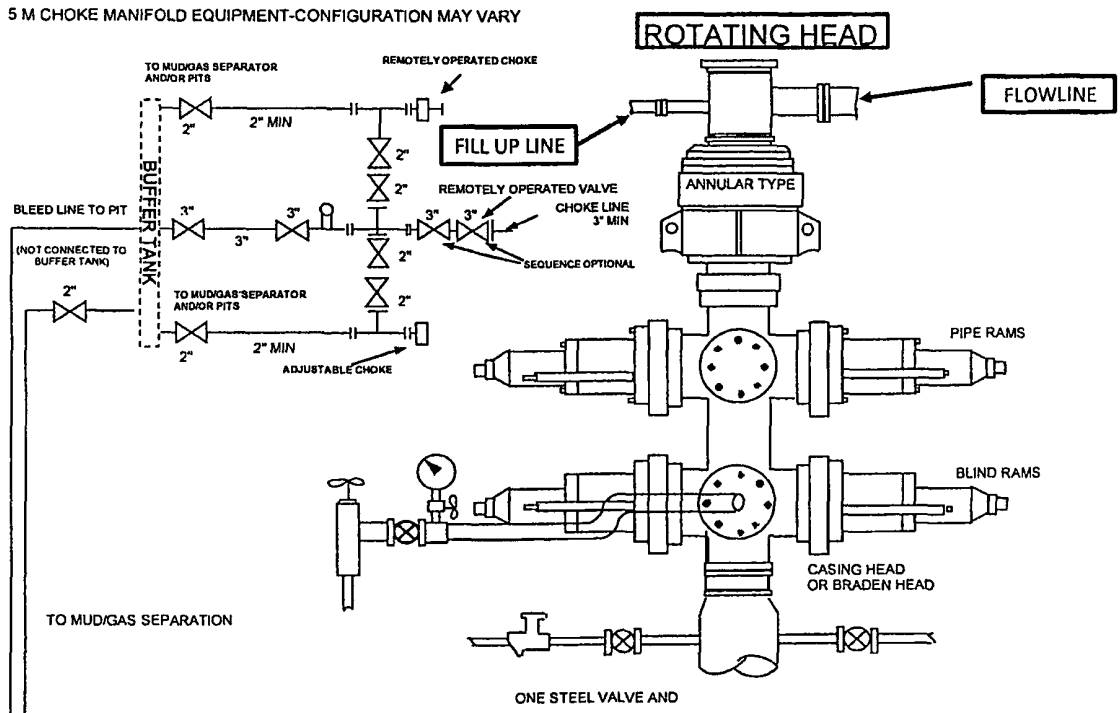
TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
2) No.335H PBHL	14312.59	7800.00	4623.49	-4753.71	647455.97	445598.85	32°13'27.008"N	103°51'23.398"W	point
1) No.335H TGT	9359.74	7885.00	1171.60	-1202.95	651006.50	442147.20	32°12'52.693"N	103°50'42.248"W	point

SURVEY PROGRAM Ref Wellbore: No.335H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	14312.59	NaviTrak (Standard)		No.335H PWB

BOPCO, L. P.
13 5/8" X 5-M WP BOPE WITH 5-M WP ANNULAR



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 mininum of one inch in diameter.
D. The available closing pressure shall be at least 15% in excess of that required with suffficient 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 1

TO STEEL MUD TANKS

BLEED LINE TO STEEL 1/2 PIT LOCATED 100' FROM WELL

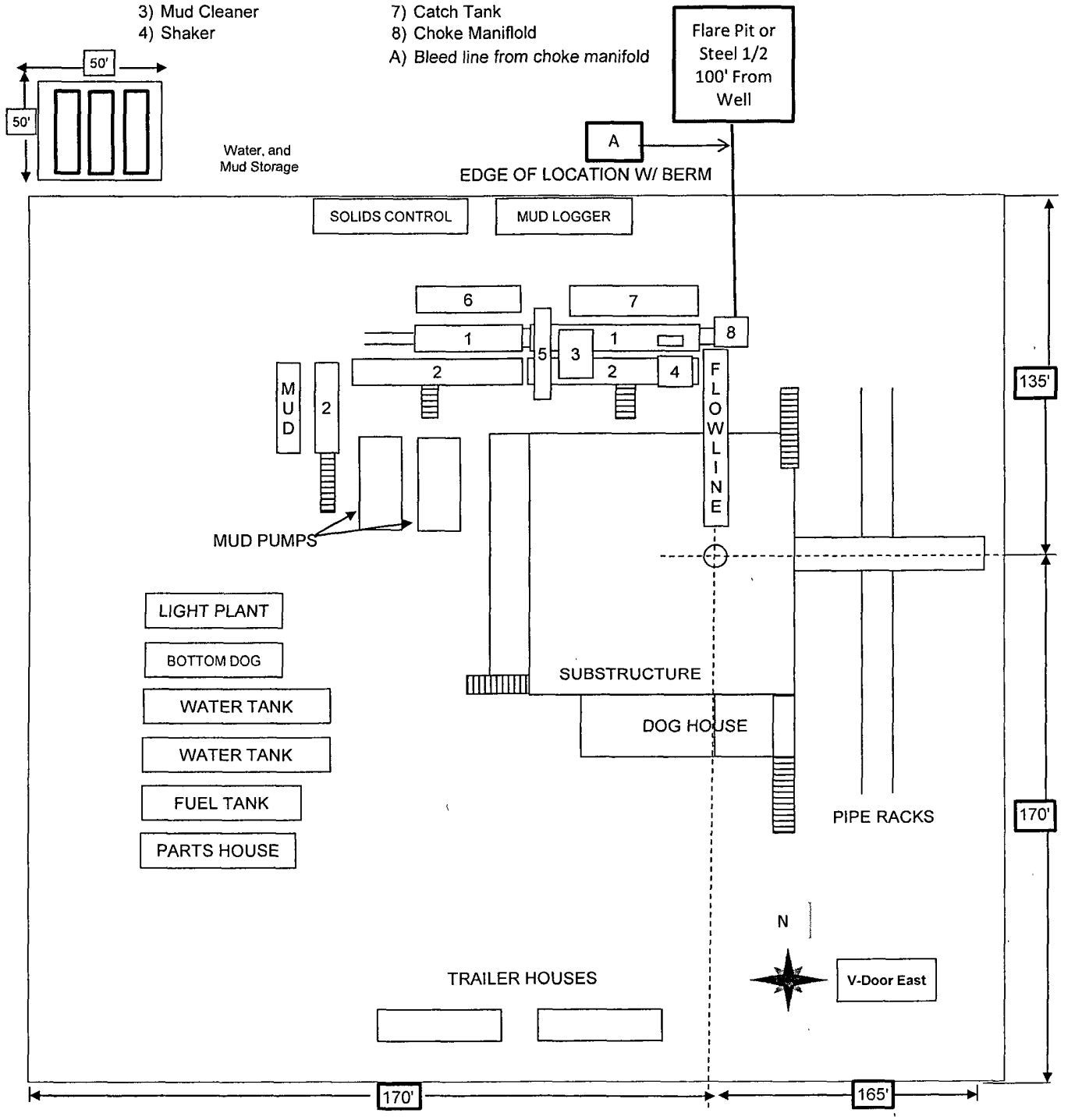
BOPCO, L.P.
Poker Lake Unit #335H
Sec 13, T24S-R30E
Eddy County, NM

Exhibit "D"

RIG LAYOUT SCHEMATIC
INCLUSIVE OF CLOSED-LOOP DESIGN PLAN

Solids Control Equipment Legend

1) Roll Off Bin
2) Steel Tank
3) Mud Cleaner
4) Shaker
5) Centrifuge
6) Dewatering Unit
7) Catch Tank
8) Choke Manifold
A) Bleed line from choke manifold



Wtd-ser/Drilling/DrillingDiagrams/McVay#5 Rig Pad deminsions - Closed Loop Location size Exhibit DRes Pit Exibit D w-rig