AFS-11-784

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.
SHL LC 068430, LC 068431 BHL

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
Poker Lake Unit NMNM 71016D

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

8. Lease Name and Well No.
Poker Lake Unit #326H [306402]

2. Name of Operator
BOPCO, L. P. [260737]

9. API Well No.
30-015-39479

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 **SESE, UL P, 200' FSL, 1025' FEL, Lat N32.196533, Long W103.863122**
At proposed prod. zone **1760'FNL,1070'FWL,Sec 22,T24S,R30E, Lat N32.205561, Lg W103.873642**

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 22, T24S, R30E, Mer NMP

14. Distance in miles and direction from nearest town or post office*
17 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 drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
200'	**1120**	**200**

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
625'	**12,146' MD, 7,677 TVD**	**COB000050**

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3398' GL	**07/01/2011**	**30 days**

RECEIVED
OCT 05 2011
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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
Pete Lensing	**Pete Lensing**	6/27/2011

Title
Drilling Engineer

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	**/s/ Don Peterson**	OCT 03 2011

Title	Office
for FIELD MANAGER	CARLSBAD FIELD 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)*

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 1108' and cement circulated to surface.

7" casing will be set at approximately 8500' MD, 7725' TVD (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. Top of cement at 3472': (500' above 9-5/8" casing shoe).

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 8350'.

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

This well is located outside the R111 Potash area and outside 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 #326H
LEGAL DESCRIPTION - SURFACE: 200' FSL, 1025' FEL, Section 22, T24S, R30E, Eddy County, NM.
BHL: 1760' FNL, 1070' FWL, Section 22, 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 3417' (estimated)
GL 3398'

	ESTIMATED TOP FROM KB		ESTIMATED	
FORMATION	TVD	MD	SUB-SEA TOP	BEARING
T/Fresh Water	400	300	3,017	Fresh Water
T/Rustler	520	520	2,897	Barren
T/Salt	2,052	2,052	1,365	Barren
B/Salt	3,712	3,712	-295	Barren
T/Lamar	3,954	3,954	-537	Barren
T/Ramsey	4,049	4,049	-632	Oil/Gas
T/Lower Cherry Canyon	6,122	6,122	-2,705	Oil/Gas
KOP	7,250	7,250	-3,833	Oil/Gas
T/Lwr Brushy Canyon 8A	7,542	7,564	-4,125	Oil/Gas
T/Lwr Brushy Canyon Y Sand	7,690	7,810	-4,273	Oil/Gas
Target #1	7,727	8,356	-4,310	Oil/Gas
TD	7,677	12,146	-4,260	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' - 1108'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C See COA	0' - ~~3972~~ 3850'	12-1/4"	Intermediate	New
7", 26#, N-80, Buttress or 8rd LTC*	0' - 8500'	8-3/4"	Production	New
4-1/2", 11.6#, HCP-110, 8rd, LT&C	8350' – 12,146'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, ST&C	7.04	1.43	1.60
13-3/8", 54.5#, J-55, 8rd, STC	9.99	2.18	2.54
9-5/8", 40#, J-55, 8rd, LT&C	18.00	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 blowout preventer for 12-1/4" intermediate 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' - 1108'	FW Spud Mud	8.5 – 9.2	38-70	NC	NC	NC	10.0
1108' - ~~3972'~~ 3850	Brine Water	9.8 – 10.2	28-30	NC	NC	NC	9.5 – 10.5
~~3972'~~ 3850' - 8500'	FW/Gel	8.7 – 9.0	28-36	NC	NC	NC	9.5 – 10.0
8500' – 12,146'	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 See COA

A) TESTING

None anticipated.

B) LOGGING

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.

D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE:						
Lead: 0 – 808' (100% excess Circ to surface)	650	808	ExtendaCem-C	9.20	13.5	1.75
Tail: 808' –1108' (100% excess)	350	300	HalCem-C+2%CaCl2	6.39	14.8	1.35
INTERMEDIATE:						
Lead: 0' – 3472' (100% excess Circ to surface)	1200	3472	EconoCem-HLC+5% Salt+5% Gilsonite	9.32	12.9	1.85
Tail: 3472' – 3972' (100% excess)	300	500	HalCem-C	6.34	14.8	1.33
2ND INTERMEDIATE						
Stage 1:						
Lead: 5000' - 7250' (50% excess)	250	2250	EconoCem-H+1 lb/sk Silicate+5 lb/sk Gilsonite	12.18	12.2	2.28
Tail: 7250'-8500' (50% excess)	250	1250	VersaCem-H+1 lb/sk Halad+5 lb/sk Gilsonite	5.46	14.4	1.22
DV Tool @ 5,000'						
Stage 2:						
Lead: 3472'–4900' (50% excess) (TOC 500' into 9-5/8")	150	1428	EconoCem-H+1 lb/sk Silicate+5 lb/sk Gilsonite	12.18	12.2	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 7250' at which point a directional hole will be kicked off and drilled at an azimuth of 315.22 degrees, building angle at 12 deg/100' to 90.075 degrees at a TVD of 7727' (MD 8001'). This angle and azimuth will be maintained for 154' to a measured depth of 8355' (7727' TVD). At this point the hole will be turned at a rate of 2 deg/100' to an azimuth of 314.982. This azimuth will be maintained to a measured depth of 8500' (7725' 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 3472' (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 314.98 degrees, inclination of 90.075 degrees to a measured depth of 12146', TVD ~~7677'~~ 7727'. 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 ~~8051'~~ 8350' (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 4165'-7887' 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 326H

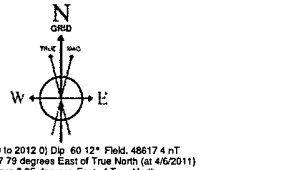
Slot No 326H SHL
Well No 326H
Wellbore No 326H PWB

BAKER HUGHES
INTEQ

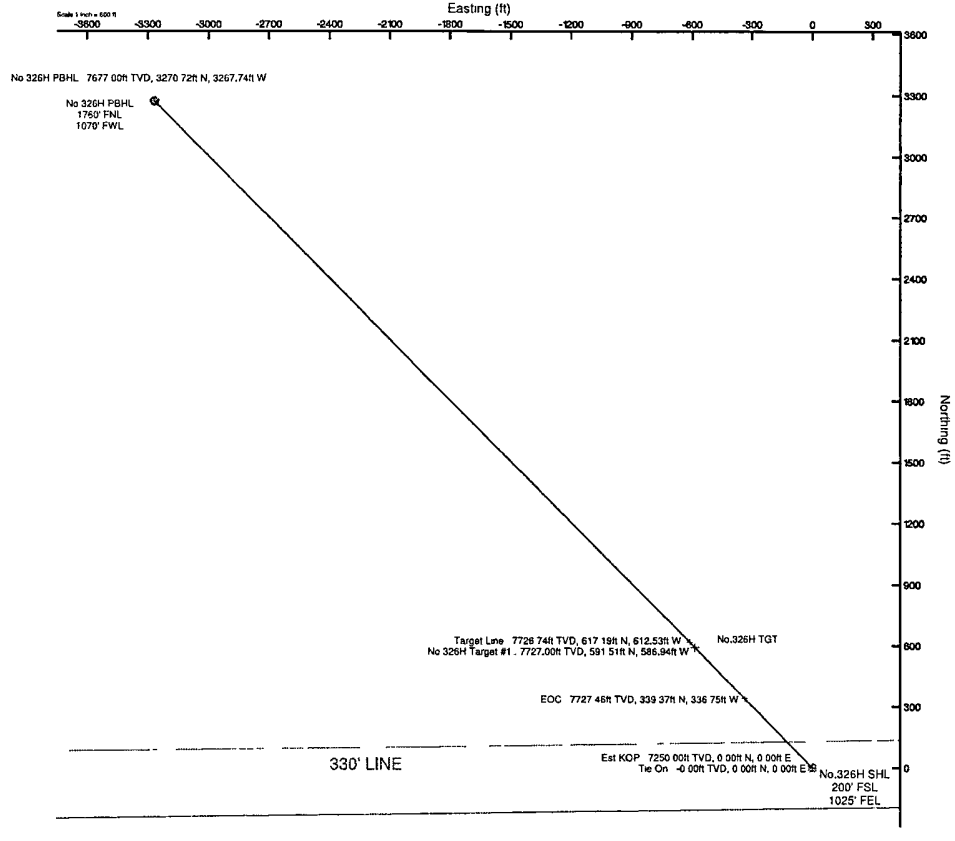
Well Profile Data

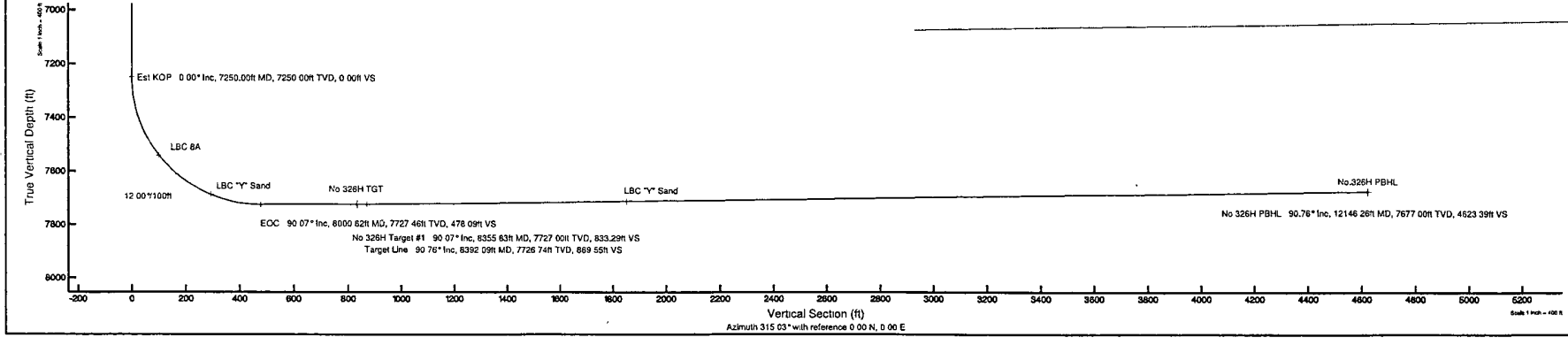
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0 00	0 000	315 222	0 00	0 00	0 00	0 00	0 00
Est KOP	7250 00	0 000	315 222	7250 00	0 00	0 00	0 00	0 00
EOC	8000 62	90 075	315 222	7727 46	339 37	-336 75	12 00	478 09
No.326H Target #1	8355 83	90.075	315 222	7727.00	591.51	-586 94	0 00	833 29
Target Line	8392 09	90 759	314 982	7726 74	617 19	-612 53	2 00	869 55
No 326H PBHL	12146 26	90 759	314 982	7677 00	3270 72	-3267 74	0 00	4623 39

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No 326H SHL (KB)	Grid System NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 326H SHL (KB)	North Reference Grid north
Rig on No 326H SHL (KB) to Mean Sea Level 3417 feet	Scale True distance
Mean Sea Level to Mud line (Facility Poker Lake Unit No 326H) -3398 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by gantbry on 4/7/2011



BGGM (1945 0 to 2012 0) Dip 60 12° Field 48617 4 nT
Magnetic North is 7 79 degrees East of True North (at 4/6/2011)
Grid North is 0 25 degrees East of True North
To correct azimuth from True to Grid subtract 0 25 degrees
To correct azimuth from Magnetic to Grid add 7 54 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7 54 = 97.54





Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No.326H SHL**
Area	**Eddy County, NM**	Well	**No.326H**
Field	**Poker Lake Unit**	Wellbore	**No.326H PWB**
Facility	**Poker Lake Unit No. 326H**		

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	**0.999933**	Report Generated	**4/7/2011** at **9:43:26 AM**
Convergence at slot	**0.25° East**	Database/Source file	**WA Midland/No.326H_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**	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W
Facility Reference Pt			**645451.30**	**435536.93**	32°11'47.522"N	103°51'47.247"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.326H SHL (KB) to Facility Vertical Datum	**19.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No.326H SHL (KB) to Mean Sea Level	**3417.00ft**
Vertical Reference Pt	**Rig on No.326H SHL (KB)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No.326H SHL (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**315.03°**

Planned Wellpath Report

Prelim_1

BAKER HUGHES

INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.326H SHL
Area	Eddy County, NM	Well	No.326H
Field	Poker Lake Unit	Wellbore	No.326H PWB
Facility	Poker Lake Unit No. 326H		

WELLPATH DATA (130 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	315.222	0.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	Tie On
100.00†	0.000	315.222	100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
200.00†	0.000	315.222	200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
300.00†	0.000	315.222	300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
400.00†	0.000	315.222	400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
500.00†	0.000	315.222	500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
600.00†	0.000	315.222	600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
700.00†	0.000	315.222	700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
800.00†	0.000	315.222	800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
900.00†	0.000	315.222	900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1000.00†	0.000	315.222	1000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1100.00†	0.000	315.222	1100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1200.00†	0.000	315.222	1200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1300.00†	0.000	315.222	1300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1400.00†	0.000	315.222	1400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1500.00†	0.000	315.222	1500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1600.00†	0.000	315.222	1600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1700.00†	0.000	315.222	1700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1800.00†	0.000	315.222	1800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
1900.00†	0.000	315.222	1900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2000.00†	0.000	315.222	2000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2100.00†	0.000	315.222	2100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2200.00†	0.000	315.222	2200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2300.00†	0.000	315.222	2300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2400.00†	0.000	315.222	2400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2500.00†	0.000	315.222	2500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2600.00†	0.000	315.222	2600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2700.00†	0.000	315.222	2700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2800.00†	0.000	315.222	2800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
2900.00†	0.000	315.222	2900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3000.00†	0.000	315.222	3000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3100.00†	0.000	315.222	3100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3200.00†	0.000	315.222	3200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3300.00†	0.000	315.222	3300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3400.00†	0.000	315.222	3400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3500.00†	0.000	315.222	3500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3600.00†	0.000	315.222	3600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3700.00†	0.000	315.222	3700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3800.00†	0.000	315.222	3800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
3900.00†	0.000	315.222	3900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4000.00†	0.000	315.222	4000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4100.00†	0.000	315.222	4100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4200.00†	0.000	315.222	4200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4300.00†	0.000	315.222	4300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4400.00†	0.000	315.222	4400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.326H SHL
Area	Eddy County, NM	Well	No.326H
Field	Poker Lake Unit	Wellbore	No.326H PWB
Facility	Poker Lake Unit No. 326H		

WELLPATH DATA (130 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
4500.00†	0.000	315.222	4500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4600.00†	0.000	315.222	4600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4700.00†	0.000	315.222	4700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4800.00†	0.000	315.222	4800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
4900.00†	0.000	315.222	4900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5000.00†	0.000	315.222	5000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5100.00†	0.000	315.222	5100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5200.00†	0.000	315.222	5200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5300.00†	0.000	315.222	5300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5400.00†	0.000	315.222	5400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5500.00†	0.000	315.222	5500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5600.00†	0.000	315.222	5600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5700.00†	0.000	315.222	5700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5800.00†	0.000	315.222	5800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
5900.00†	0.000	315.222	5900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6000.00†	0.000	315.222	6000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6100.00†	0.000	315.222	6100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6200.00†	0.000	315.222	6200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6300.00†	0.000	315.222	6300.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6400.00†	0.000	315.222	6400.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6500.00†	0.000	315.222	6500.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6600.00†	0.000	315.222	6600.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6700.00†	0.000	315.222	6700.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6800.00†	0.000	315.222	6800.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
6900.00†	0.000	315.222	6900.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
7000.00†	0.000	315.222	7000.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
7100.00†	0.000	315.222	7100.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
7200.00†	0.000	315.222	7200.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	
7250.00	0.000	315.222	7250.00	0.00	0.00	0.00	645451.30	435536.93	32°11'47.522"N	103°51'47.247"W	0.00	Est KOP
7300.00†	6.000	315.222	7299.91	2.62	-1.86	-1.84	645449.45	435538.79	32°11'47.540"N	103°51'47.268"W	12.00	
7400.00†	18.000	315.222	7397.54	23.37	16.59	-16.46	645434.84	435553.52	32°11'47.687"N	103°51'47.438"W	12.00	
7500.00†	30.000	315.222	7488.73	63.97	45.41	-45.06	645406.24	435582.34	32°11'47.973"N	103°51'47.769"W	12.00	
7564.19†	37.703	315.222	7542.00	99.70	70.77	-70.22	645381.08	435607.70	32°11'48.225"N	103°51'48.060"W	12.00	LBC 8A
7600.00†	42.000	315.222	7569.49	122.64	87.05	-86.38	645364.92	435623.98	32°11'48.387"N	103°51'48.248"W	12.00	
7700.00†	54.000	315.222	7636.28	196.82	139.71	-138.63	645312.67	435676.63	32°11'48.910"N	103°51'48.853"W	12.00	
7800.00†	66.000	315.222	7686.19	283.26	201.07	-199.52	645251.79	435737.99	32°11'49.520"N	103°51'49.558"W	12.00	
7809.59†	67.151	315.222	7690.00	292.06	207.32	-205.72	645245.59	435744.24	32°11'49.582"N	103°51'49.630"W	12.00	LBC "Y" Sand
7900.00†	78.000	315.222	7717.03	378.19	268.46	-266.38	645184.93	435805.37	32°11'50.190"N	103°51'50.333"W	12.00	
8000.00†	90.000	315.222	7727.46	477.46	338.93	-336.31	645115.01	435875.84	32°11'50.890"N	103°51'51.143"W	12.00	
8000.62	90.075	315.222	7727.46	478.09	339.37	-336.75	645114.57	435876.28	32°11'50.895"N	103°51'51.148"W	12.00	EOC
8100.00†	90.075	315.222	7727.33	577.46	409.91	-406.74	645044.58	435946.81	32°11'51.596"N	103°51'51.959"W	0.00	
8200.00†	90.075	315.222	7727.20	677.46	480.90	-477.18	644974.15	436017.79	32°11'52.301"N	103°51'52.775"W	0.00	
8300.00†	90.075	315.222	7727.07	777.46	551.88	-547.61	644903.72	436088.77	32°11'53.007"N	103°51'53.591"W	0.00	
8355.83	90.075	315.222	7727.00[1]	833.29	591.51	-586.94	644864.40	436128.40	32°11'53.401"N	103°51'54.047"W	0.00	No.326H Target #1
8392.09	90.759	314.982	7726.74	869.55	617.19	-612.53	644838.81	436154.08	32°11'53.656"N	103°51'54.344"W	2.00	Target Line

Planned Wellpath Report

Prelim_1

BAKER HUGHES

INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.326H SHL
Area	Eddy County, NM	Well	No.326H
Field	Poker Lake Unit	Wellbore	No.326H PWB
Facility	Poker Lake Unit No. 326H		

WELLPATH DATA (130 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
8400.00†	90.759	314.982	7726.63	877.46	622.79	-618.12	644833.21	436159.68	32°11'53.711"N	103°51'54.408"W	0.00	
8500.00†	90.759	314.982	7725.31	977.45	693.47	-688.85	644762.49	436230.35	32°11'54.414"N	103°51'55.228"W	0.00	7" Csg
8600.00†	90.759	314.982	7723.98	1077.44	764.15	-759.58	644691.77	436301.03	32°11'55.116"N	103°51'56.047"W	0.00	
8700.00†	90.759	314.982	7722.66	1177.43	834.83	-830.31	644621.05	436371.71	32°11'55.819"N	103°51'56.867"W	0.00	
8800.00†	90.759	314.982	7721.33	1277.42	905.51	-901.03	644550.32	436442.38	32°11'56.521"N	103°51'57.686"W	0.00	
8900.00†	90.759	314.982	7720.01	1377.41	976.20	-971.76	644479.60	436513.06	32°11'57.224"N	103°51'58.506"W	0.00	
9000.00†	90.759	314.982	7718.68	1477.40	1046.88	-1042.49	644408.88	436583.74	32°11'57.926"N	103°51'59.325"W	0.00	
9100.00†	90.759	314.982	7717.36	1577.40	1117.56	-1113.21	644338.16	436654.42	32°11'58.629"N	103°52'00.145"W	0.00	
9200.00†	90.759	314.982	7716.03	1677.39	1188.24	-1183.94	644267.44	436725.09	32°11'59.331"N	103°52'00.964"W	0.00	
9300.00†	90.759	314.982	7714.71	1777.38	1258.92	-1254.67	644196.71	436795.77	32°12'00.034"N	103°52'01.784"W	0.00	
9373.35†	90.759	314.982	7713.74	1850.73	1310.77	-1306.55	644144.84	436847.61	32°12'00.549"N	103°52'02.385"W	0.00	LBC "Y" Sand
9400.00†	90.759	314.982	7713.38	1877.37	1329.61	-1325.39	644125.99	436866.45	32°12'00.736"N	103°52'02.603"W	0.00	
9500.00†	90.759	314.982	7712.06	1977.36	1400.29	-1396.12	644055.27	436937.12	32°12'01.439"N	103°52'03.423"W	0.00	
9600.00†	90.759	314.982	7710.73	2077.35	1470.97	-1466.85	643984.55	437007.80	32°12'02.141"N	103°52'04.242"W	0.00	
9700.00†	90.759	314.982	7709.41	2177.34	1541.65	-1537.57	643913.83	437078.48	32°12'02.843"N	103°52'05.062"W	0.00	
9800.00†	90.759	314.982	7708.08	2277.33	1612.33	-1608.30	643843.10	437149.16	32°12'03.546"N	103°52'05.881"W	0.00	
9900.00†	90.759	314.982	7706.76	2377.33	1683.02	-1679.03	643772.38	437219.83	32°12'04.248"N	103°52'06.701"W	0.00	
10000.00†	90.759	314.982	7705.43	2477.32	1753.70	-1749.75	643701.66	437290.51	32°12'04.951"N	103°52'07.520"W	0.00	
10100.00†	90.759	314.982	7704.11	2577.31	1824.38	-1820.48	643630.94	437361.19	32°12'05.653"N	103°52'08.340"W	0.00	
10200.00†	90.759	314.982	7702.78	2677.30	1895.06	-1891.21	643560.22	437431.86	32°12'06.356"N	103°52'09.159"W	0.00	
10300.00†	90.759	314.982	7701.46	2777.29	1965.75	-1961.94	643489.49	437502.54	32°12'07.058"N	103°52'09.979"W	0.00	
10400.00†	90.759	314.982	7700.13	2877.28	2036.43	-2032.66	643418.77	437573.22	32°12'07.761"N	103°52'10.798"W	0.00	
10500.00†	90.759	314.982	7698.81	2977.27	2107.11	-2103.39	643348.05	437643.90	32°12'08.463"N	103°52'11.618"W	0.00	
10600.00†	90.759	314.982	7697.49	3077.26	2177.79	-2174.12	643277.33	437714.57	32°12'09.165"N	103°52'12.438"W	0.00	
10700.00†	90.759	314.982	7696.16	3177.26	2248.47	-2244.84	643206.61	437785.25	32°12'09.868"N	103°52'13.257"W	0.00	
10800.00†	90.759	314.982	7694.84	3277.25	2319.16	-2315.57	643135.88	437855.93	32°12'10.570"N	103°52'14.077"W	0.00	
10900.00†	90.759	314.982	7693.51	3377.24	2389.84	-2386.30	643065.16	437926.61	32°12'11.273"N	103°52'14.896"W	0.00	
11000.00†	90.759	314.982	7692.19	3477.23	2460.52	-2457.02	642994.44	437997.28	32°12'11.975"N	103°52'15.716"W	0.00	
11100.00†	90.759	314.982	7690.86	3577.22	2531.20	-2527.75	642923.72	438067.96	32°12'12.678"N	103°52'16.535"W	0.00	
11200.00†	90.759	314.982	7689.54	3677.21	2601.88	-2598.48	642853.00	438138.64	32°12'13.380"N	103°52'17.355"W	0.00	
11300.00†	90.759	314.982	7688.21	3777.20	2672.57	-2669.20	642782.27	438209.31	32°12'14.083"N	103°52'18.174"W	0.00	
11400.00†	90.759	314.982	7686.89	3877.19	2743.25	-2739.93	642711.55	438279.99	32°12'14.785"N	103°52'18.994"W	0.00	
11500.00†	90.759	314.982	7685.56	3977.18	2813.93	-2810.66	642640.83	438350.67	32°12'15.487"N	103°52'19.814"W	0.00	
11600.00†	90.759	314.982	7684.24	4077.18	2884.61	-2881.38	642570.11	438421.35	32°12'16.190"N	103°52'20.633"W	0.00	
11700.00†	90.759	314.982	7682.91	4177.17	2955.29	-2952.11	642499.39	438492.02	32°12'16.892"N	103°52'21.453"W	0.00	
11800.00†	90.759	314.982	7681.59	4277.16	3025.98	-3022.84	642428.66	438562.70	32°12'17.595"N	103°52'22.272"W	0.00	
11900.00†	90.759	314.982	7680.26	4377.15	3096.66	-3093.57	642357.94	438633.38	32°12'18.297"N	103°52'23.092"W	0.00	
12000.00†	90.759	314.982	7678.94	4477.14	3167.34	-3164.29	642287.22	438704.05	32°12'19.000"N	103°52'23.912"W	0.00	
12100.00†	90.759	314.982	7677.61	4577.13	3238.02	-3235.02	642216.50	438774.73	32°12'19.702"N	103°52'24.731"W	0.00	
12146.26	90.759	314.982	7677.00	4623.39	3270.72	-3267.74	642183.78	438807.43	32°12'20.027"N	103°52'25.110"W	0.00	No.326H PBHL

Planned Wellpath Report

Prelim_1

BAKER HUGHES

INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.326H SHL
Area	Eddy County, NM	Well	No.326H
Field	Poker Lake Unit	Wellbore	No.326H PWB
Facility	Poker Lake Unit No. 326H		

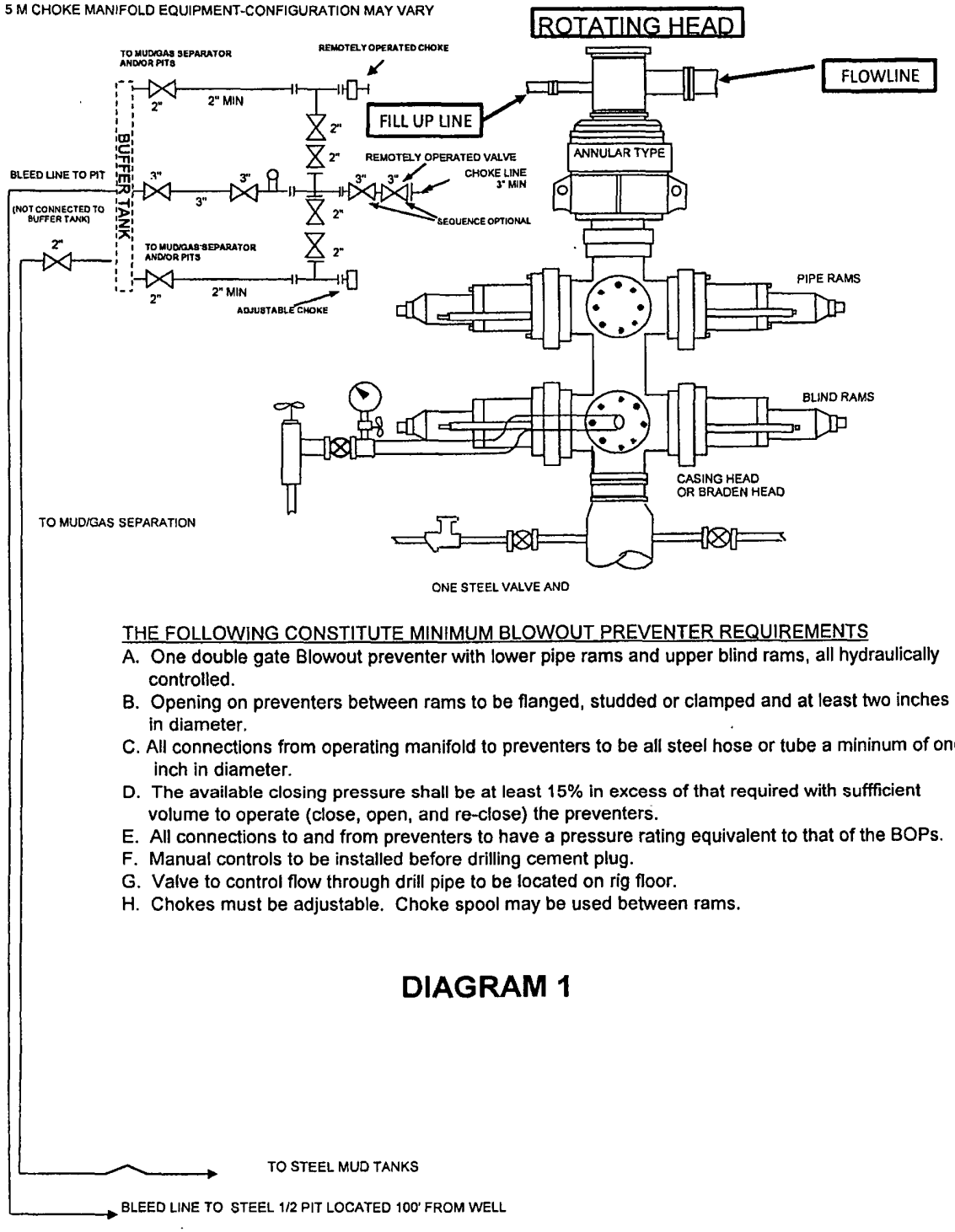
TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
2) No.326H PBHL	12146.26	7677.00	3270.72	-3267.74	642183.78	438807.43	32°12'20.027"N	103°52'25.110"W	point
1) No.326H TGT	8355.83	7727.00	591.51	-586.94	644864.40	436128.40	32°11'53.401"N	103°51'54.047"W	point

SURVEY PROGRAM Ref Wellbore: No.326H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	12146.26	NaviTrak (Standard)		No.326H 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

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator BOPCO L.P OGRID # 260737
Well Name & # POKER LAKE UNIT E 326 H Surface Type (F) (S) (P)
Location: UL P, Sect 22, Twnship 24 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 10/5/2011 C101 reviewed 10/5/2011
B. 1. Check mark, Information is OK on Forms:
OGRID ✓, BONDING ✓, PROP CODE ✓, WELL # ✓, SIGNATURE ✓
2. Inactive Well list as of: 10/5/2011 # wells 420, # Inactive wells 4
a. District Grant APD but see number of inactive wells:
No letter required ✓; Sent Letter to Operator ____, to Santa Fe ____
3. Additional Bonding as of: 10/5/2011
a. District Denial because operator needs addition bonding:
No Letter required ✓; Sent Letter to Operator ____, To Santa Fe____
b. District Denial because of Inactive well list and Financial Assurance:
No Letter required ✓; Sent Letter to Operator ____, To Santa Fe ___

C. C102 YES ✓, NO ___, Signature ✓
1. Pool POKER LAKE, NW (DEL) Code 96046
a. Dedicated acreage _____, What Units_____
b. SUR. Location Standard ✓: Non-Standard Location_____
c. Well shares acres: Yes ___, No ✓, # of wells ____ plus this well #____
2. 2nd. Operator in same acreage, Yes_____, No ✓
Agreement Letter _____, Disagreement letter_____
3. Intent to Directional Drill Yes ✓, No ____
a. Dedicated acreage _____, What Units _____
b. Bottomhole Location Standard _____, Non-Standard Bottomhole _____
4. Downhole Commingle: Yes_____, No_____
a. Pool #2_____,Code_____, Acres_____
Pool #3_____, Code _____, Acres _____
Pool #4_____, Code_____, Acres_____
5. POTASH Area Yes _____, No _____,
D. Blowout Preventer Yes ✓, No_____,
E. H2S Yes ✓, No _____,
F. C144 Pit Registration Yes _____, No _____,
G. Does APD require Santa Fe Approval:
1. Non-Standard Location: Yes _____, No ✓, NSL #_____
2. Non-Standard Proration: Yes_____, No ✓, NSP # _____
3. Simultaneous Dedication: Yes _____, No ____, SD # _____
Number of wells _____ Plus #_____
4. Injection order Yes _____, No ✓; PMX #_____ or WFX #_____
5. SWD order Yes _____, NO ✓; SWD # _____
6. DHC from SF_____; DHC-HOB_____; Holding_____

7. OCD Approval Date 10/5/2011 API #30-0 15 - 39479
8. Reviewers JCS