

OCD-ARTESIA

Form 3160-3
(April 2004)**CONFIDENTIAL**FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. 030452, 002862
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BOPCO, L. P.		7. If Unit or CA Agreement, Name and No. Poker Lake Unit NMNM71016X
3a. Address P. O. Box 2760 Midland, TX 79702		8. Lease Name and Well No. Poker Lake Unit #344H
3b. Phone No. (include area code) 432-683-2277		9. API Well No. 30015-39487
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 35' FSL, 1975' FWL, Sec 26, T24S, R30E, Lat N32.1816, Long W103.8534 At proposed prod. zone 115' FNL, 2215' FWL, Sec 27, T24S, R30E, Lat N32.19565, Lg W103.87995		10. Field and Pool, or Exploratory Poker Lake NW (Delaware)
14. Distance in miles and direction from nearest town or post office* 17 miles east of Malaga, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 26, T24S, R30E, Mer NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 35'	16. No. of acres in lease 3120	12. County or Parish Eddy County
17. Spacing Unit dedicated to this well 320	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,690'	19. Proposed Depth 14,741' MD, 7,664' TVD	20. BLM/BIA Bond No. on file COB 000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,345' GL	22. Approximate date work will start* 08/20/2011	23. Estimated duration 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Jeremy Braden</i>	Name (Printed/Typed) Jeremy Braden	Date 08/09/2011
Title Drilling Engineer Assistant		
Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) /s/ Don Peterson	Date OCT 06 2011
Title FIELD MANAGER	Office 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 1,200' and cement circulated to surface.

7" casing will be set at approximately 8,197' MD, 7,724' TVD (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. TOC will be approximately 500' inside the 9-5/8" intermediate casing.

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 8,047'.

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

This well is located outside the R111 Potash area and Secretary's Potash areas.

The surface is unorthodox and is located inside the Poker Lake Unit.

The bottom hole location is unorthodox and located inside the Poker Lake Unit.

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 #344H

LEGAL DESCRIPTION - SURFACE: 35' FSL, 1975' FWL, Section 26, T24S, R30E, Eddy County, NM.
BHL: 115' FNL, 2215' FWL, Section 27, 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 3,364' (estimated)
GL 3,345'

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUB-SEA TOP	BEARING
	TVD	MD		
T/Fresh Water	450'	450'	+ 2,914'	Fresh Water
T/Rustler	677'	677'	+ 2,687'	Barren
T/Salt	2,109'	2,109'	+ 2,110'	Barren
B/Salt	3,548'	3,548'	- 184'	Barren
T/Lamar	3,938'	3,938'	- 574'	Barren
T/Ramsey	4,014'	4,014'	- 650'	Oil/Gas
T/Lower Cherry Canyon	6,088'	6,088'	- 2,724'	Oil/Gas
KOP	7,246'	7,246'	- 3,882'	Oil/Gas
T/Lwr Brushy Canyon "8A" Sd	7,527'	7,545'	- 4,163'	Oil/Gas
T/Lwr Brushy Canyon "Y" Sd	7,694'	7,824'	- 4,330'	Oil/Gas
EOC	7,724'	7,997'	- 4,360'	Oil/Gas
Target #1	7,724'	8,150'	- 4,360'	Oil/Gas
TD Horizontal Hole	7,664'	14,741'	- 4,300'	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' - 1,200'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C	0' - 3,958'	12-1/4"	Intermediate	New
7", 26#, N-80, Buttress or 8rd LTC*	0' - 8,197'	8-3/4"	Production	New
4-1/2", 11.6#, HCP-110, 8rd, LT&C	8,047' - 14,741'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, STC	6.5	1.21	1.64
13-3/8", 54.5#, J-55, 8rd, STC	15.17	1.92	2.59
9-5/8", 40#, J-55, 8rd, LT&C	4.68	1.15	1.79
7", 26#, N-80, Buttress	3.85	1.31	1.60
7", 26#, N-80, 8rd, LTC	3.00	1.24	1.68
4-1/2", 11.6#, HCP-110, 8rd, LT&C	3.61	2.08	2.48

* 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 at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING - (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 1)

The BOPE when rigged up on the 13-3/8" surface 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' - 1,200'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
1,200' - 3,958'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
3,958' - 8,197'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0
8,197' - 14,741'	FW/Gel/Starch	8.7 - 9.0	28-36	NC	NC	<100	9.5 - 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

See COA

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 10'.

C) CONVENTIONAL CORING

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM 1)**D) CEMENT**

<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT³/SX</u>
SURFACE:						
Lead: 0 – 900' (100% excess Circ to surface)	660	900	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 900' – 1,200' (100% excess)	350	300	Class "C" + 2% CaCl ₂ +3lb star-seal+0.25% R-38	6.12	14.8	1.36
INTERMEDIATE:						
Lead: 0' – 3,458' (100% excess Circ to surface)	1,225	3,458	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 3,458' – 3,958' (100% excess)	250	500	Class "C" + 2% CaCl ₂ + 0.25% R-38	6.34	14.8	1.35
2ND INTERMEDIATE						
Stage 1:						
Lead: 5,000' – 7,246' (50% excess)	250	2,246	RSS Micro+.5% FMS+ 0.3% FL10+0.8% C-12 +3pps Gilsonite+0.25 R-38	10.09	10.5	2.41
Tail: 7,246' - 8,197' (50% excess)	175	951	RSS Micro+0.2% C-37+ 0.2%+C-12+0.2% FL10+ +0.25% R-38	7.03	13.0	1.38
DV Tool @ 5,000'						
Stage 2:						
Lead: 3458'– 4,900' (50% excess) (TOC 500' into 9-5/8")	175	1,442	RSS Micro+35% FMS+ 0.5% C-12+3pps Gilsonite +0.5% R-38	10.16	10.5	2.42
Tail: 4900'-5000' (50% excess)	50	100	Cass "C" + 0.20% R-38	6.31	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 7,246' at which point a directional hole will be kicked off and drilled at an azimuth of 310.909 degrees, building angle at 12 deg/100' to 90.001 degrees at a TVD of 7,724' (MD 7,997'). This angle and azimuth will be maintained for 200' to a measured depth of 8,197' (7,724' 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 500' into the 9-5/8" intermediate casing. A 6-1/8" open hole lateral will then be drilled out from 7" casing at an azimuth of 315.034 degrees, inclination of 90.53 degrees to a measured depth of 14,741', TVD 7,664'. 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

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

5

Normal pressures are anticipated throughout Delaware section. A BHP of 3,348 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 4,014'-7,664' 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

30 days drilling operations

14 days completion operations

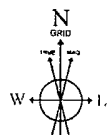
TAM/PJK/keh



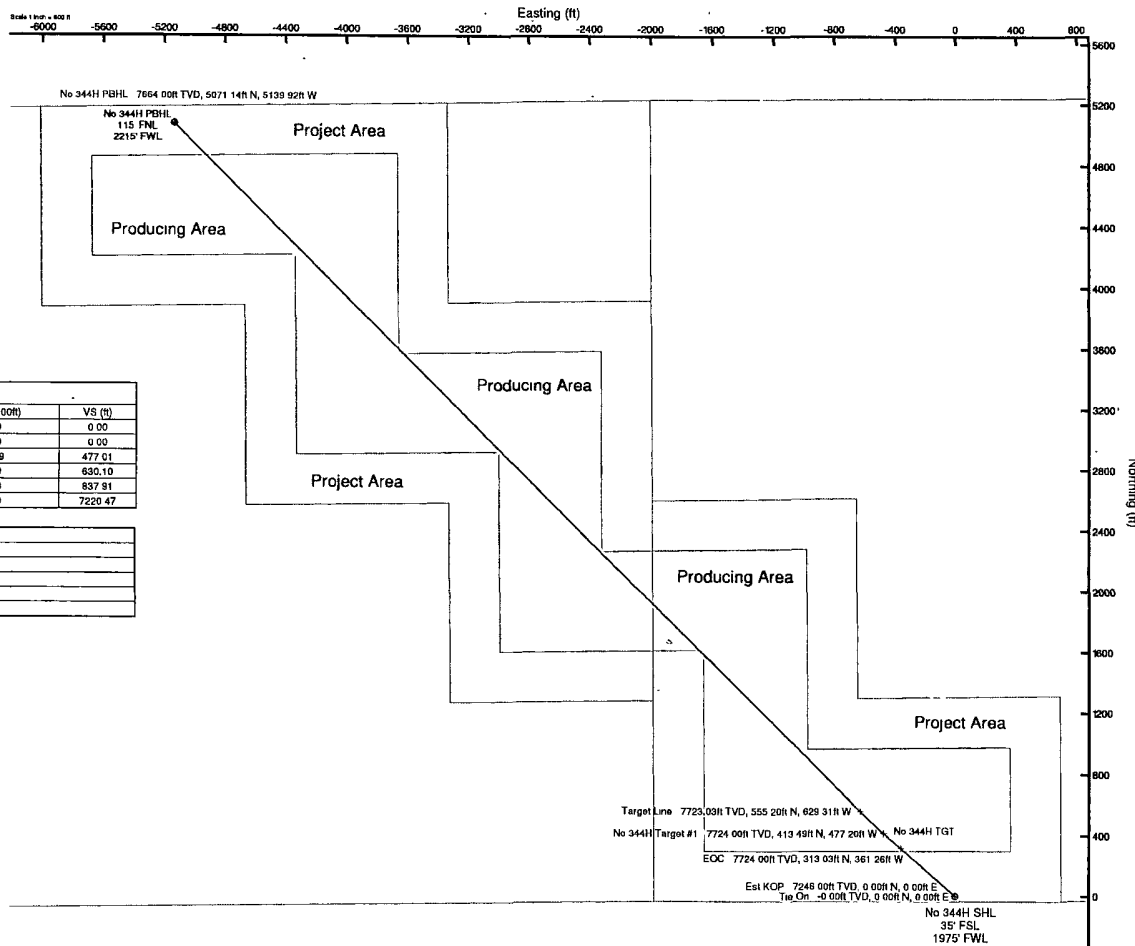
BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 344H

Slot: No. 344H SHL
Well: No. 344H
Wellbore: No. 344H PWB

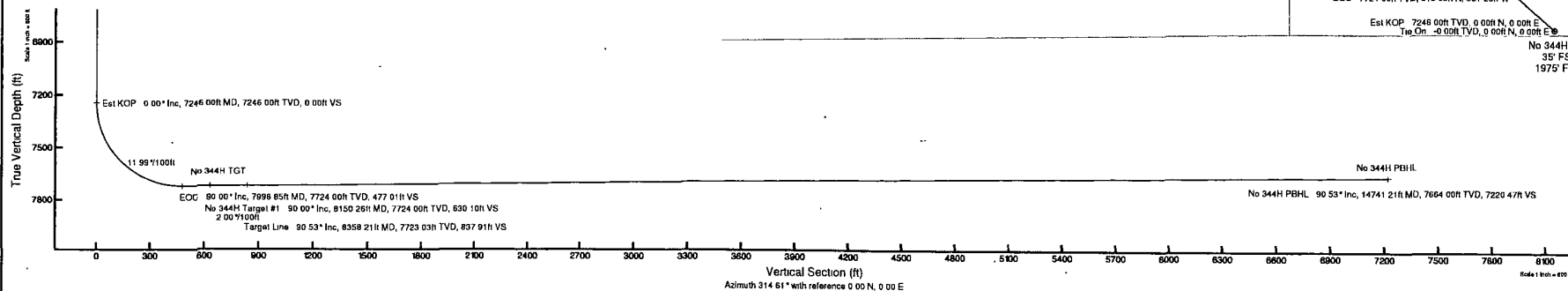


BGGM (1945.0 to 2012.0) Dip: 60.11° Field: 48609.6 nT
Magnetic North is 7.79 degrees East of True North (at 4/7/2011)
Grid North is 0.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.53 degrees
For example: If the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.53 = 97.53



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	310.909	0.00	0.00	0.00	0.00	0.00
Est KOP	7246.00	0.000	310.909	7246.00	0.00	0.00	0.00	0.00
EOC	7996.85	90.001	310.909	7724.00	313.03	-361.26	11.99	477.01
No. 344H Target #1	8150.26	90.001	310.909	7724.00	413.49	-477.20	0.00	630.10
Target Line	8358.21	90.530	315.034	7723.03	555.20	-629.31	2.00	837.91
No. 344H PBHL	14741.21	90.530	315.034	7664.00	5071.14	-5139.92	0.00	7220.47

Plot reference wellpath is Prelim 2	
True vertical depths are referenced to Rig on No. 344H (RT)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 344H (RT)	North Reference: Grid north
Rig on No. 344H (RT) to Mean Sea Level: 3384 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot No. 344H SHL): -3345 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: genibry on 5/26/2011





Planned Wellpath Report

Prelim_2

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H PWB
Facility	Poker Lake Unit No. 344H		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@ 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999934	Report Generated	5/26/2011 at 10:49:49 AM
Convergence at slot	0.26° East	Database/Source file	WA Midland/No.344H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W
Facility Reference Pt			648480.77	430121.24	32°10'53.795"N	103°51'12.272"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.344H (RT) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	Rig on No.344H (RT) to Mean Sea Level	3364.00ft
Vertical Reference Pt	Rig on No.344H (RT)	Rig on No.344H (RT) to Mud Line at Slot (No.344H SHL)	19.00ft
MD Reference Pt	Rig on No.344H (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	314.61°



Planned Wellpath Report

Prelim_2

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H PWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	310.909	0.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	Tie On
100.00†	0.000	310.909	100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
200.00†	0.000	310.909	200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
300.00†	0.000	310.909	300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
400.00†	0.000	310.909	400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
500.00†	0.000	310.909	500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
600.00†	0.000	310.909	600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
700.00†	0.000	310.909	700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
800.00†	0.000	310.909	800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
900.00†	0.000	310.909	900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1000.00†	0.000	310.909	1000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1100.00†	0.000	310.909	1100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1200.00†	0.000	310.909	1200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1300.00†	0.000	310.909	1300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1400.00†	0.000	310.909	1400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1500.00†	0.000	310.909	1500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1600.00†	0.000	310.909	1600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1700.00†	0.000	310.909	1700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1800.00†	0.000	310.909	1800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
1900.00†	0.000	310.909	1900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2000.00†	0.000	310.909	2000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2100.00†	0.000	310.909	2100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2200.00†	0.000	310.909	2200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2300.00†	0.000	310.909	2300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2400.00†	0.000	310.909	2400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2500.00†	0.000	310.909	2500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2600.00†	0.000	310.909	2600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2700.00†	0.000	310.909	2700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2800.00†	0.000	310.909	2800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
2900.00†	0.000	310.909	2900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3000.00†	0.000	310.909	3000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3100.00†	0.000	310.909	3100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3200.00†	0.000	310.909	3200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3300.00†	0.000	310.909	3300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3400.00†	0.000	310.909	3400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3500.00†	0.000	310.909	3500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3600.00†	0.000	310.909	3600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3700.00†	0.000	310.909	3700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3800.00†	0.000	310.909	3800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
3900.00†	0.000	310.909	3900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4000.00†	0.000	310.909	4000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4100.00†	0.000	310.909	4100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4200.00†	0.000	310.909	4200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4300.00†	0.000	310.909	4300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4400.00†	0.000	310.909	4400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H PWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (156 stations) + = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4500.00+	0.000	310.909	4500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4600.00+	0.000	310.909	4600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4700.00+	0.000	310.909	4700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4800.00+	0.000	310.909	4800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
4900.00+	0.000	310.909	4900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5000.00+	0.000	310.909	5000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5100.00+	0.000	310.909	5100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5200.00+	0.000	310.909	5200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5300.00+	0.000	310.909	5300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5400.00+	0.000	310.909	5400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5500.00+	0.000	310.909	5500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5600.00+	0.000	310.909	5600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5700.00+	0.000	310.909	5700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5800.00+	0.000	310.909	5800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
5900.00+	0.000	310.909	5900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6000.00+	0.000	310.909	6000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6100.00+	0.000	310.909	6100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6200.00+	0.000	310.909	6200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6300.00+	0.000	310.909	6300.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6400.00+	0.000	310.909	6400.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6500.00+	0.000	310.909	6500.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6600.00+	0.000	310.909	6600.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6700.00+	0.000	310.909	6700.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6800.00+	0.000	310.909	6800.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
6900.00+	0.000	310.909	6900.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
7000.00+	0.000	310.909	7000.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
7100.00+	0.000	310.909	7100.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
7200.00+	0.000	310.909	7200.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
7246.00	0.000	310.909	7246.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	Est KOP
7300.00+	6.473	310.909	7299.89	3.04	2.00	2.30	648478.47	430123.23	32°10'53.815"N	103°51'12.299"W	11.99	
7400.00+	18.459	310.909	7397.35	24.54	16.11	-18.59	648462.18	430137.34	32°10'53.955"N	103°51'12.488"W	11.99	
7500.00+	30.446	310.909	7488.21	65.77	43.16	-49.81	648430.96	430164.40	32°10'54.225"N	103°51'12.850"W	11.99	
7545.15+	35.858	310.909	7526.00	90.40	59.33	-68.47	648412.31	430180.56	32°10'54.385"N	103°51'13.066"W	11.99	LBC 8A
7600.00+	42.432	310.909	7568.52	124.94	81.99	-94.62	648386.15	430203.22	32°10'54.611"N	103°51'13.369"W	11.99	
7700.00+	54.419	310.909	7634.75	199.46	130.89	-151.05	648329.72	430252.12	32°10'55.097"N	103°51'14.023"W	11.99	
7800.00+	66.405	310.909	7684.04	286.08	187.73	-216.66	648264.13	430308.96	32°10'55.663"N	103°51'14.783"W	11.99	
7823.74+	69.252	310.909	7693.00	308.02	202.13	-233.27	648247.51	430323.35	32°10'55.806"N	103°51'14.976"W	11.99	LBC "Y" Sand
7900.00+	78.392	310.909	7714.22	381.02	250.04	-288.56	648192.23	430371.26	32°10'56.282"N	103°51'15.617"W	11.99	
7996.85	90.001	310.909	7724.00	477.01	313.03	-361.26	648119.54	430434.24	32°10'56.909"N	103°51'16.459"W	11.99	EOC
8000.00+	90.001	310.909	7724.00	480.15	315.09	-363.64	648117.16	430436.31	32°10'56.929"N	103°51'16.487"W	0.00	
8100.00+	90.001	310.909	7724.00	579.94	380.58	-439.21	648041.59	430501.79	32°10'57.581"N	103°51'17.363"W	0.00	
8150.26	90.001	310.909	7724.00	630.10	413.49	-477.20	648003.60	430534.70	32°10'57.908"N	103°51'17.803"W	0.00	No.344H Target #1
8200.00+	90.128	311.895	7723.94	679.76	446.38	-514.50	647966.30	430567.59	32°10'58.235"N	103°51'18.236"W	2.00	
8300.00+	90.382	313.879	7723.50	779.71	514.44	-587.77	647893.04	430635.64	32°10'58.912"N	103°51'19.084"W	2.00	
8358.21+	90.530	315.034	7723.03	837.91	555.20	-629.31	647851.50	430676.40	32°10'59.317"N	103°51'19.566"W	2.00	Target Line



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H PWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8400.00†	90.530	315.034	7722.65	879.70	584.77	-658.85	647821.96	430705.97	32°10'59.611"N	103°51'19.908"W	0.00	
8500.00†	90.530	315.034	7721.72	979.70	655.52	-729.51	647751.30	430776.71	32°11'00.314"N	103°51'20.726"W	0.00	
8600.00†	90.530	315.034	7720.80	1079.69	726.27	-800.18	647680.64	430847.46	32°11'01.017"N	103°51'21.545"W	0.00	
8700.00†	90.530	315.034	7719.87	1179.68	797.02	-870.85	647609.98	430918.20	32°11'01.720"N	103°51'22.363"W	0.00	
8800.00†	90.530	315.034	7718.95	1279.68	867.77	-941.51	647539.32	430988.95	32°11'02.424"N	103°51'23.182"W	0.00	
8900.00†	90.530	315.034	7718.02	1379.67	938.52	-1012.18	647468.66	431059.69	32°11'03.127"N	103°51'24.001"W	0.00	
9000.00†	90.530	315.034	7717.10	1479.66	1009.27	-1082.84	647398.00	431130.43	32°11'03.830"N	103°51'24.819"W	0.00	
9100.00†	90.530	315.034	7716.17	1579.65	1080.01	-1153.51	647327.34	431201.18	32°11'04.533"N	103°51'25.638"W	0.00	
9200.00†	90.530	315.034	7715.25	1679.65	1150.76	-1224.18	647256.68	431271.92	32°11'05.236"N	103°51'26.456"W	0.00	
9300.00†	90.530	315.034	7714.32	1779.64	1221.51	-1294.84	647186.01	431342.67	32°11'05.940"N	103°51'27.275"W	0.00	
9400.00†	90.530	315.034	7713.40	1879.63	1292.26	-1365.51	647115.35	431413.41	32°11'06.643"N	103°51'28.093"W	0.00	
9500.00†	90.530	315.034	7712.47	1979.63	1363.01	-1436.17	647044.69	431484.16	32°11'07.346"N	103°51'28.912"W	0.00	
9600.00†	90.530	315.034	7711.55	2079.62	1433.76	-1506.84	646974.03	431554.90	32°11'08.049"N	103°51'29.731"W	0.00	
9700.00†	90.530	315.034	7710.62	2179.61	1504.51	-1577.50	646903.37	431625.65	32°11'08.752"N	103°51'30.549"W	0.00	
9800.00†	90.530	315.034	7709.70	2279.61	1575.26	-1648.17	646832.71	431696.39	32°11'09.456"N	103°51'31.368"W	0.00	
9900.00†	90.530	315.034	7708.77	2379.60	1646.01	-1718.84	646762.05	431767.14	32°11'10.159"N	103°51'32.186"W	0.00	
10000.00†	90.530	315.034	7707.85	2479.59	1716.76	-1789.50	646691.39	431837.88	32°11'10.862"N	103°51'33.005"W	0.00	
10100.00†	90.530	315.034	7706.92	2579.58	1787.51	-1860.17	646620.73	431908.62	32°11'11.565"N	103°51'33.824"W	0.00	
10200.00†	90.530	315.034	7706.00	2679.58	1858.26	-1930.83	646550.06	431979.37	32°11'12.268"N	103°51'34.642"W	0.00	
10300.00†	90.530	315.034	7705.08	2779.57	1929.01	-2001.50	646479.40	432050.11	32°11'12.971"N	103°51'35.461"W	0.00	
10400.00†	90.530	315.034	7704.15	2879.56	1999.76	-2072.17	646408.74	432120.86	32°11'13.675"N	103°51'36.279"W	0.00	
10500.00†	90.530	315.034	7703.23	2979.56	2070.51	-2142.83	646338.08	432191.60	32°11'14.378"N	103°51'37.098"W	0.00	
10600.00†	90.530	315.034	7702.30	3079.55	2141.26	-2213.50	646267.42	432262.35	32°11'15.081"N	103°51'37.917"W	0.00	
10700.00†	90.530	315.034	7701.38	3179.54	2212.01	-2284.16	646196.76	432333.09	32°11'15.784"N	103°51'38.735"W	0.00	
10800.00†	90.530	315.034	7700.45	3279.54	2282.75	-2354.83	646126.10	432403.84	32°11'16.487"N	103°51'39.554"W	0.00	
10900.00†	90.530	315.034	7699.53	3379.53	2353.50	-2425.50	646055.44	432474.58	32°11'17.190"N	103°51'40.373"W	0.00	
11000.00†	90.530	315.034	7698.60	3479.52	2424.25	-2496.16	645984.78	432545.33	32°11'17.894"N	103°51'41.191"W	0.00	
11100.00†	90.530	315.034	7697.68	3579.52	2495.00	-2566.83	645914.11	432616.07	32°11'18.597"N	103°51'42.010"W	0.00	
11200.00†	90.530	315.034	7696.75	3679.51	2565.75	-2637.49	645843.45	432686.82	32°11'19.300"N	103°51'42.829"W	0.00	
11300.00†	90.530	315.034	7695.83	3779.50	2636.50	-2708.16	645772.79	432757.56	32°11'20.003"N	103°51'43.647"W	0.00	
11400.00†	90.530	315.034	7694.90	3879.49	2707.25	-2778.82	645702.13	432828.30	32°11'20.706"N	103°51'44.466"W	0.00	
11500.00†	90.530	315.034	7693.98	3979.49	2778.00	-2849.49	645631.47	432899.05	32°11'21.409"N	103°51'45.285"W	0.00	
11600.00†	90.530	315.034	7693.05	4079.48	2848.75	-2920.16	645560.81	432969.79	32°11'22.113"N	103°51'46.103"W	0.00	
11605.62†	90.530	315.034	7693.00	4085.10	2852.72	-2924.12	645556.84	432973.77	32°11'22.152"N	103°51'46.149"W	0.00	LBC "Y" Sand
11700.00†	90.530	315.034	7692.13	4179.47	2919.50	-2990.82	645490.15	433040.54	32°11'22.816"N	103°51'46.922"W	0.00	
11800.00†	90.530	315.034	7691.20	4279.47	2990.25	-3061.49	645419.49	433111.28	32°11'23.519"N	103°51'47.740"W	0.00	
11900.00†	90.530	315.034	7690.28	4379.46	3061.00	-3132.15	645348.83	433182.03	32°11'24.222"N	103°51'48.559"W	0.00	
12000.00†	90.530	315.034	7689.35	4479.45	3131.75	-3202.82	645278.16	433252.77	32°11'24.925"N	103°51'49.378"W	0.00	
12100.00†	90.530	315.034	7688.43	4579.45	3202.50	-3273.49	645207.50	433323.52	32°11'25.628"N	103°51'50.197"W	0.00	
12200.00†	90.530	315.034	7687.50	4679.44	3273.25	-3344.15	645136.84	433394.26	32°11'26.331"N	103°51'51.015"W	0.00	
12300.00†	90.530	315.034	7686.58	4779.43	3344.00	-3414.82	645066.18	433465.01	32°11'27.035"N	103°51'51.834"W	0.00	
12400.00†	90.530	315.034	7685.65	4879.42	3414.74	-3485.48	644995.52	433535.75	32°11'27.738"N	103°51'52.653"W	0.00	
12500.00†	90.530	315.034	7684.73	4979.42	3485.49	-3556.15	644924.86	433606.50	32°11'28.441"N	103°51'53.471"W	0.00	
12600.00†	90.530	315.034	7683.80	5079.41	3556.24	-3626.82	644854.20	433677.24	32°11'29.144"N	103°51'54.290"W	0.00	
12700.00†	90.530	315.034	7682.88	5179.40	3626.99	-3697.48	644783.54	433747.98	32°11'29.847"N	103°51'55.109"W	0.00	



Planned Wellpath Report

Prelim_2

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H PWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12800.00†	90.530	315.034	7681.95	5279.40	3697.74	-3768.15	644712.88	433818.73	32°11'30.550"N	103°51'55.927"W	0.00	
12900.00†	90.530	315.034	7681.03	5379.39	3768.49	-3838.81	644642.21	433889.47	32°11'31.253"N	103°51'56.746"W	0.00	
13000.00†	90.530	315.034	7680.10	5479.38	3839.24	-3909.48	644571.55	433960.22	32°11'31.957"N	103°51'57.565"W	0.00	
13100.00†	90.530	315.034	7679.18	5579.38	3909.99	-3980.14	644500.89	434030.96	32°11'32.660"N	103°51'58.383"W	0.00	
13200.00†	90.530	315.034	7678.25	5679.37	3980.74	-4050.81	644430.23	434101.71	32°11'33.363"N	103°51'59.202"W	0.00	
13300.00†	90.530	315.034	7677.33	5779.36	4051.49	-4121.48	644359.57	434172.45	32°11'34.066"N	103°52'00.021"W	0.00	
13400.00†	90.530	315.034	7676.40	5879.35	4122.24	-4192.14	644288.91	434243.20	32°11'34.769"N	103°52'00.840"W	0.00	
13500.00†	90.530	315.034	7675.48	5979.35	4192.99	-4262.81	644218.25	434313.94	32°11'35.472"N	103°52'01.658"W	0.00	
13600.00†	90.530	315.034	7674.55	6079.34	4263.74	-4333.47	644147.59	434384.69	32°11'36.175"N	103°52'02.477"W	0.00	
13700.00†	90.530	315.034	7673.63	6179.33	4334.49	-4404.14	644076.93	434455.43	32°11'36.879"N	103°52'03.296"W	0.00	
13800.00†	90.530	315.034	7672.70	6279.33	4405.24	-4474.81	644006.26	434526.18	32°11'37.582"N	103°52'04.115"W	0.00	
13900.00†	90.530	315.034	7671.78	6379.32	4475.99	-4545.47	643935.60	434596.92	32°11'38.285"N	103°52'04.933"W	0.00	
14000.00†	90.530	315.034	7670.86	6479.31	4546.74	-4616.14	643864.94	434667.66	32°11'38.988"N	103°52'05.752"W	0.00	
14100.00†	90.530	315.034	7669.93	6579.31	4617.48	-4686.80	643794.28	434738.41	32°11'39.691"N	103°52'06.571"W	0.00	
14200.00†	90.530	315.034	7669.01	6679.30	4688.23	-4757.47	643723.62	434809.15	32°11'40.394"N	103°52'07.390"W	0.00	
14300.00†	90.530	315.034	7668.08	6779.29	4758.98	-4828.14	643652.96	434879.90	32°11'41.097"N	103°52'08.208"W	0.00	
14400.00†	90.530	315.034	7667.16	6879.29	4829.73	-4898.80	643582.30	434950.64	32°11'41.800"N	103°52'09.027"W	0.00	
14500.00†	90.530	315.034	7666.23	6979.28	4900.48	-4969.47	643511.64	435021.39	32°11'42.503"N	103°52'09.846"W	0.00	
14600.00†	90.530	315.034	7665.31	7079.27	4971.23	-5040.13	643440.98	435092.13	32°11'43.207"N	103°52'10.665"W	0.00	
14700.00†	90.530	315.034	7664.38	7179.26	5041.98	-5110.80	643370.31	435162.88	32°11'43.910"N	103°52'11.483"W	0.00	
14741.21	90.530	315.034	7664.00	7220.47	5071.14	-5139.92	643341.19	435192.03	32°11'44.199"N	103°52'11.821"W	0.00	No.344H PBHL

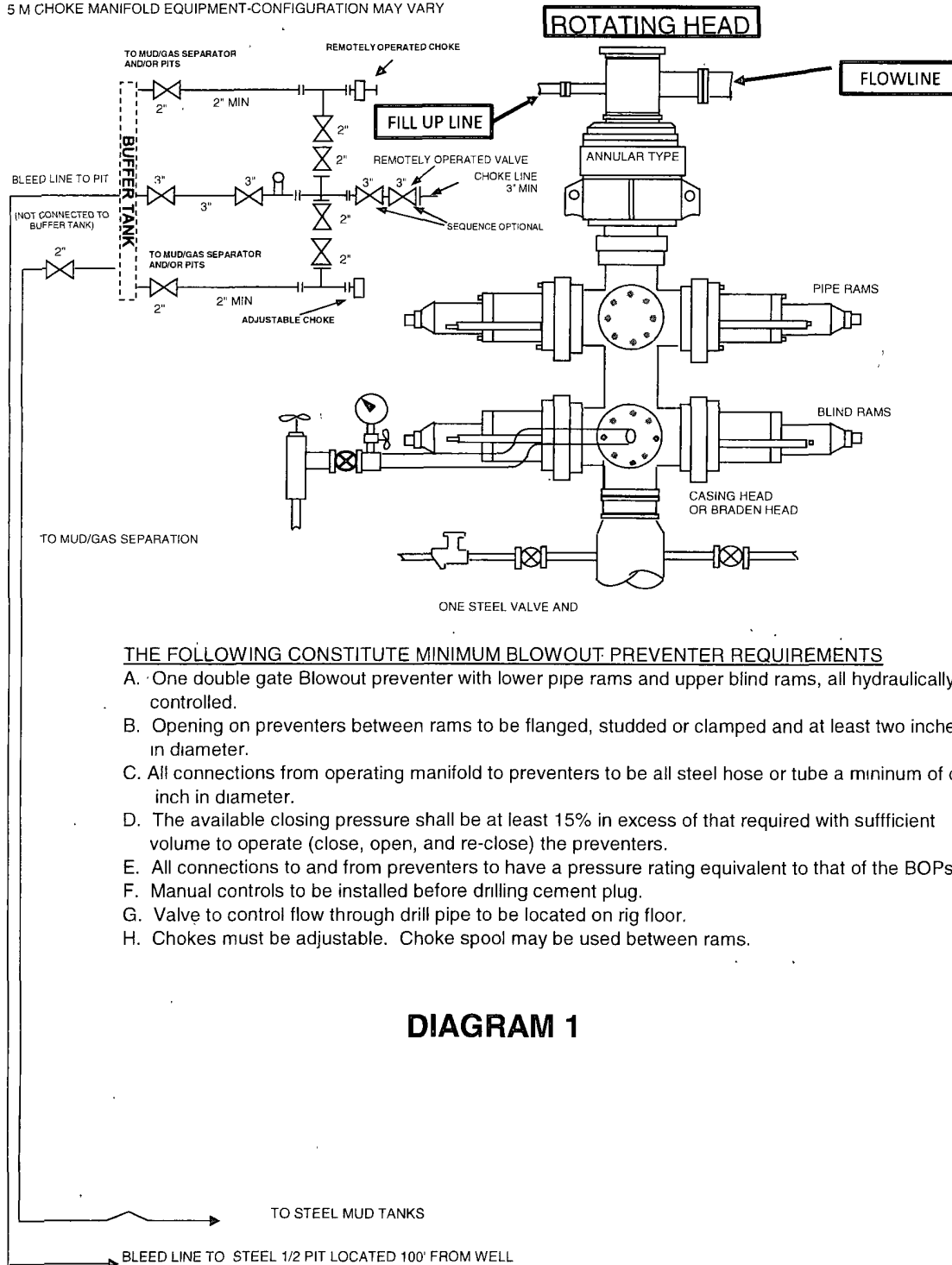
TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
2) No.344H PBHL	14741.21	7664.00	5071.14	-5139.92	643341.19	435192.03	32°11'44.199"N	103°52'11.821"W	point
1) No.344H TGT	8150.26	7724.00	413.49	-477.20	648003.60	430534.70	32°10'57.908"N	103°51'47.803"W	point

SURVEY PROGRAM - Ref Wellbore: No.344H PWB - Ref Wellpath: Prelim_2				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	14741.21	NaviTrak (Standard)		No.344H PWB

BOPCO, L. P.

13 5/8" X 5-M WP BOPE WITH 5-M WP ANNULAR

5 M CHOKE MANIFOLD EQUIPMENT-CONFIGURATION MAY VARY



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

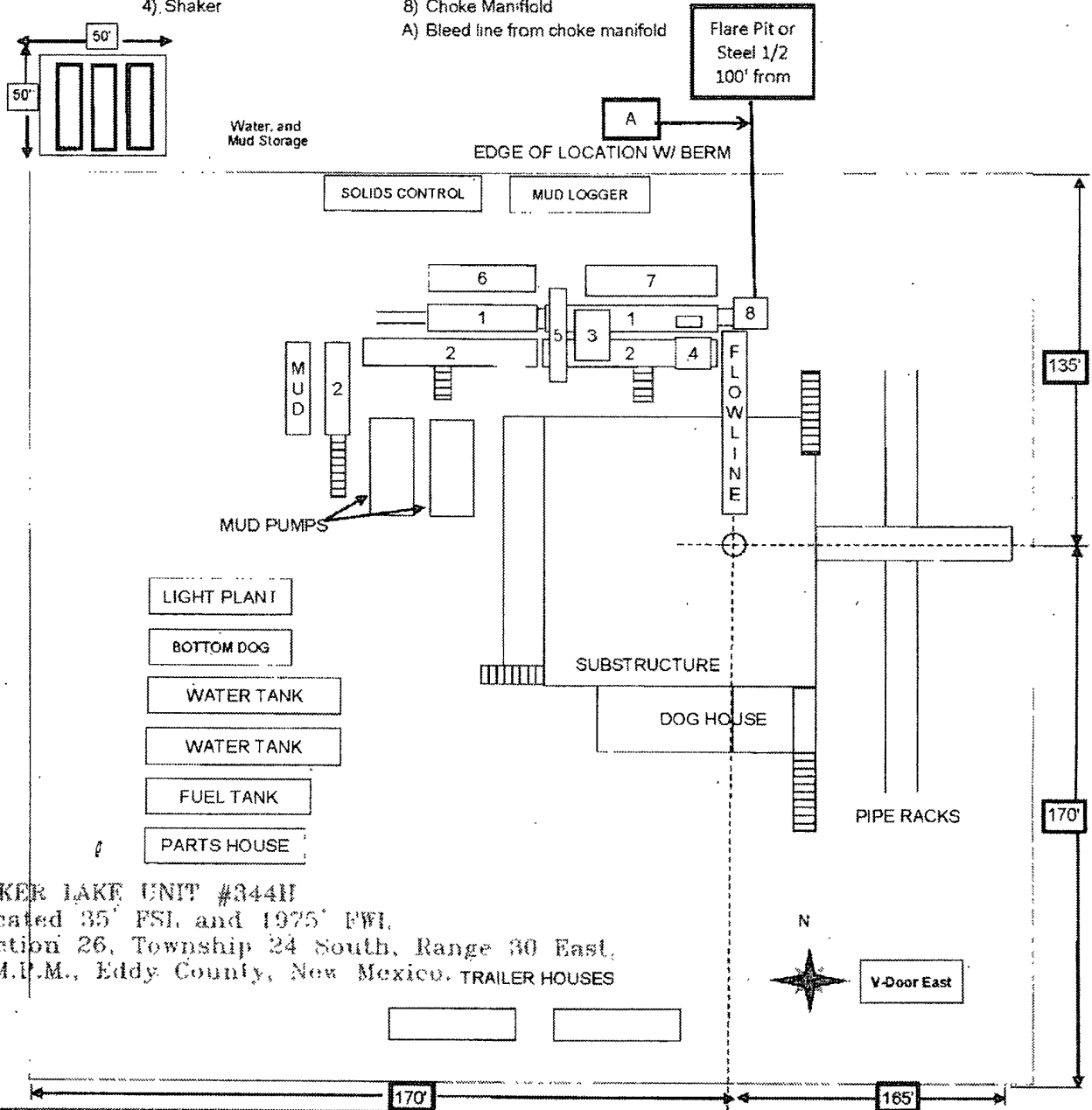
- A. One double gate Blowout preventer with lower pipe rams and upper blind rams, all hydraulically controlled.
- B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.
- C. All connections from operating manifold to preventers to be all steel hose 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 1

RIG LAYOUT

RIG LAYOUT SCHEMATIC INCLUSIVE OF CLOSED-LOOP DESIGN PLAN Solids Control Equipment Legend

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



POKER LAKE UNIT #344H
Located 35' FSL and 1975' FWL
Section 26, Township 24 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico. TRAILER HOUSES

business surveys
focused on excellence
in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7315 - Office
(575) 392-2200 - Fax
businessurveys.com

Well Number: 21262
Survey Date: 02-14-2011
Scale: 1" = 200'
Drawn: 02-04-2011

BOPCO, L.P.

Sheet 6 of 6 Sheets

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator BOPCO, L.P. OGRID # 260737
 Well Name & # POKER LAKE UNIT 344H Surface Type (F) (S) (P)
 Location: UL N, Sect 26 Township 24 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 10/11/2011 C101 reviewed 10/12/2011

B. 1. Check mark, Information is OK on Forms:

OGRID ☒ BONDING ☒ PROP CODE ☒ WELL # , SIGNATURE

2. Inactive Well list as of: 10/12/2011 # wells 424, # 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: 10/12/2011

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(DPL), Code 306402

a. Dedicated acreage 280, 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 10/12/2011

API #30-015-39487

8. Reviewers TCS