

CCD-ARTESIA

ATS-11-342

Form 3160-3
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SECRETARY'S POTENTIAL

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

EA446

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. 068905 <i>SH2NM120897</i>	
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. <i>(260797)</i>		7. If Unit or CA Agreement, Name and No.	
3a. Address P. O. Box 2760 Midland, TX 79702		8. Lease Name and Well No. Poker Lake Unit #315H <i>(306402)</i>	
3b. Phone No. (include area code) 432-683-2277		9. API Well No. 30-015-39166	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SE NW, UL E, 1650' FNL, 660' FWL, Lat N32.220506, Long W103.840325 At proposed prod. zone 1580' FNL, 1150' FWL, Sec 11, T24S, R30E, Lat N32.235133, Lg W103.856072		10. Field and Pool, or Exploratory Poker Lake NW (Delaware)	
11. Sec., T. R. M. or Blk. and Survey or Area Sec 13, T24S, R30E, Mer NMP		12. County or Parish Eddy County	
13. State NM		14. Distance in miles and direction from nearest town or post office* 17 miles east of Malaga, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line, if any) 330'	16. No. of acres in lease 1280	17. Spacing Unit dedicated to this well 280	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NONE	19. Proposed Depth 14,890' MD, 7772 TVD	20. BLM/BIA Bond No. on file COB000050	
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3473' GL	22. Approximate date work will start* 05/01/2011	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>KHaster</i>	Name (Printed/Typed) Katy Holster	Date 1/31/11
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Title
Administrative Assistant

Approved by (Signature) <i>ls/ Linda S. C. Rundell</i>	Name (Printed/Typed) Linda S. C. Rundell	Date MAR 29 2011
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Title
STATE DIRECTOROffice
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.

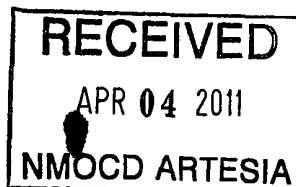
Conditions of approval, if any, are attached.

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) *Well becomes Orthodox at approximately 9,150' MD.*

CARLSBAD CONTROLLED WATER BASIN

*Ka 06/30/11***APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATION
ATTACHED****SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Surface casing is to be set into the Rustler below all fresh water sands at an approximate depth of 784' and cement circulated to surface..

7" casing will be set at approximately 8368' MD, 7877' 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 8218'.

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

This well is located outside the R111 Potash area and ^{inside} ~~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).

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

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	96046	POKER LAKE NW (DELAWARE)
Property Code	Property Name	Well Number
306402	POKER LAKE UNIT	315H
OGRID No.	Operator Name	Elevation
260737	BOPCO, L.P.	3473'

Surface Location

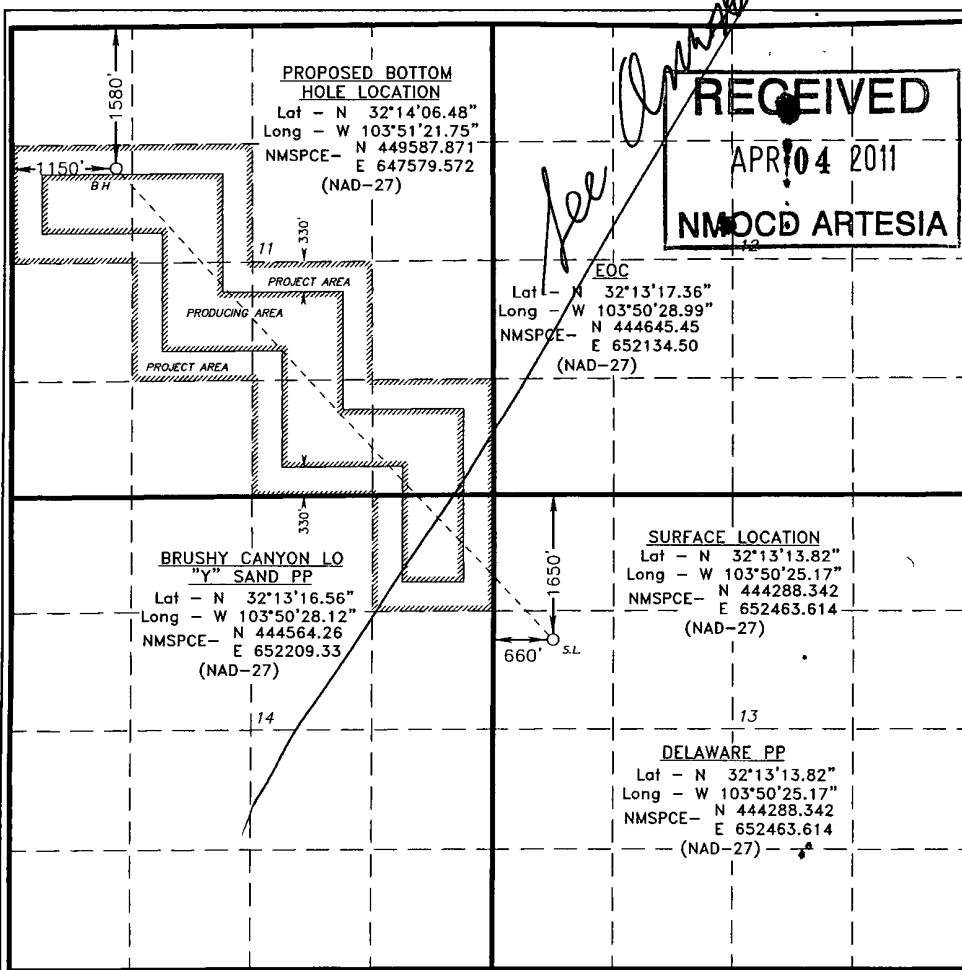
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	13	24 S	30 E		1650	NORTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	24 S	30 E		1580	NORTH	1150	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

Signature: Jeremy Braden Date: 1-26-11

Printed Name: Jeremy Braden

Email Address: JDBraden@basspet.com

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

Date Surveyed: JANUARY 18, 2011
Signature & Seal of Professional Surveyor: [Signature]
Certificate No. Gary L. Jones 7977

BASIN SURVEYS 23807

EIGHT POINT DRILLING PROGRAM

BOPCO, L.P.

NAME OF WELL: Poker Lake Unit #315H

LEGAL DESCRIPTION - SURFACE: 1650' FNL, 660' FNL, Section 13, T24S, R30E, Eddy County, NM.
BHL: 1580' FNL, 1150' FWL, Section 11, 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 3492' (estimated)
 GL 3473'

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUB-SEA TOP	BEARING
	TVD	MD		
B/Fresh Water	245'	245'	+ 3,247'	Fresh Water
T/Rustler	426'	426'	+ 3,066'	Barren
T/Salt	794'	794'	+ 2,698'	Barren
B/Salt	3,866'	3,866'	- 374'	Barren
T/Lamar	4,092'	4,092'	- 600'	Barren
T/Ramsey	4,134'	4,134'	- 642'	Oil/Gas
T/Lower Cherry Canyon	6,167'	6,167'	- 2,675'	Oil/Gas
KOP	7,410'	7,410'	- 3,918'	Oil/Gas
T/Lwr Brushy Canyon	7,713'	7,738'	- 4,221'	Oil/Gas
LBC "Y" Sand	7,876'	8,057'	- 4,384'	Oil/Gas
EOC	7,887'	8,168'	- 4,395'	Oil/Gas
TD Horizontal Hole	7,772'	14,890'	- 4,280'	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' - 784'	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C	0' - 4112'	12-1/4"	Intermediate	New
7", 26#, N-80, Buttress or LTC*	0' - 8368'	8-3/4"	Production	New
4-1/2", 11.6#, HCP-110, 8rd, LT&C	8218' - 14,890'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, ST&C	6.31	1.27	1.42
13-3/8", 54.5#, J-55, 8rd, STC	8.86	3.16	3.64
9-5/8", 40#, J-55, 8rd, LT&C	15.29	1.32	1.07
7", 26#, N-80, Buttress	3.82	1.46	1.08
7", 26#, N-80, 8rd, LTC	2.97	1.46	1.09
4-1/2", 11.6#, HCP-110, 8rd, LT&C	3.62	1.91	2.19

* 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)

The blowout preventer for 12-1/4" intermediate hole will consist of 13-5/8" X 5000 psi dual ram BOP's with mud cross, choke manifold, chokes, and hydril per Diagram 1 (5000 psi WP). The BOP stack, 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 BOPE when rigged up on the 9-5/8" intermediate casing spool will consist of annular, pipe & blind rams with choke manifold and chokes as in Diagram 1 and 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 2500 psig.

The BOPE when rigged up on the 7" intermediate casing spool will consist of annular, pipe & blind rams with choke manifold and chokes as in Diagram 1 and 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 2500 psig. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) 30 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' - 784'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
784' - 4112'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
4112' - 8368'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0
8368' - 14,890'	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 500'.

C) CONVENTIONAL CORING

None anticipated.

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 – 484' (100% excess Circ to surface)	375	484	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 484' – 784' (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' – 3612' (100% excess Circ to surface)	1200	3612	Class "C" 35/65+6% gel +3pps star-seal+.04% FL10+0.25% R-38+5% salt	9.95	12.8	1.91
Tail: 3612' – 4112' (100% excess)	300	500	Class "C" + 2% CaCl ₂ + 0.25% R-38	6.34	14.8	1.35
2ND INTERMEDIATE						
Stage 1:						
Lead: 5000' - 7410' (50% excess)	250	2410	RSS Micro+.5% FMS+ 0.3% FL10+0.8% C-12 +3pps Gilsonite+0.25 R-38	10.09	10.5	2.41
Tail: 7410'-8366' (50% excess)	175	958	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: 0' – 4900' (50% excess) (TOC 500' into 9-5/8")	500	4900	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 7410' at which point a directional hole will be kicked off and drilled at an azimuth of 317.34 degrees, building angle at 12 deg/ 100' to 90.98 degrees at a TVD of 7887' (MD 8168'). This angle and azimuth will be maintained for 200' to a measured depth of 8368' (7887' TVD). At this depth 7", 26#, N80, Buttress, or LTC casing will be installed and cemented in two stages (DV Tool @ approximately 5000') with cement being circulated to surface. A 6-1/8" open hole lateral will then be drilled out from 7" casing at an azimuth of 317.34 degrees, inclination of 90.98 degrees to a measured depth of 14,890', TVD 7772'. 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.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

5

Normal pressures are anticipated throughout Delaware section. A BHP of 3581 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 4094'-7660' 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

SMM/keh



Weatherford[®]

Drilling Services

Proposal

BOPCO, L.P.

POKER LAKE UNIT #315H

EDDY CO, NM

WELL FILE: **PLAN 1**

JANUARY 25, 2011

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com

BOPCO, L.P.

Poker Lake Unit 315H
Eddy Co, NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	317.34	0.00	0.00	0.00	0.00	0.00	0.00	
2	7409.61	0.00	317.34	7409.61	0.00	0.00	0.00	0.00	0.00	
3	8167.78	90.98	317.34	7887.00	357.11	-329.11	12.00	317.34	485.63	
4	14889.99	90.98	317.34	7772.00	5299.53	-4884.04	0.00	0.00	7206.86	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
315H	0.00	0.00	444288.34	652463.61	32°13'13.816N	103°50'25.173W	N/A

TARGET DETAILS

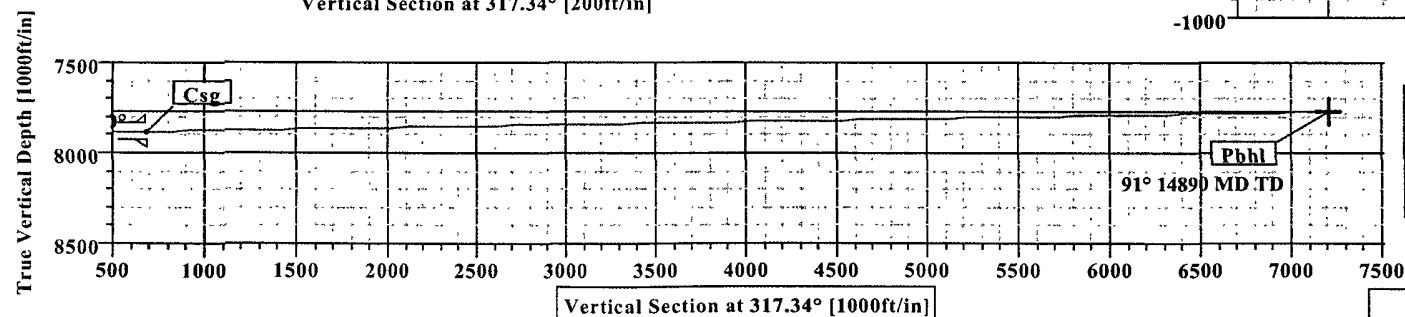
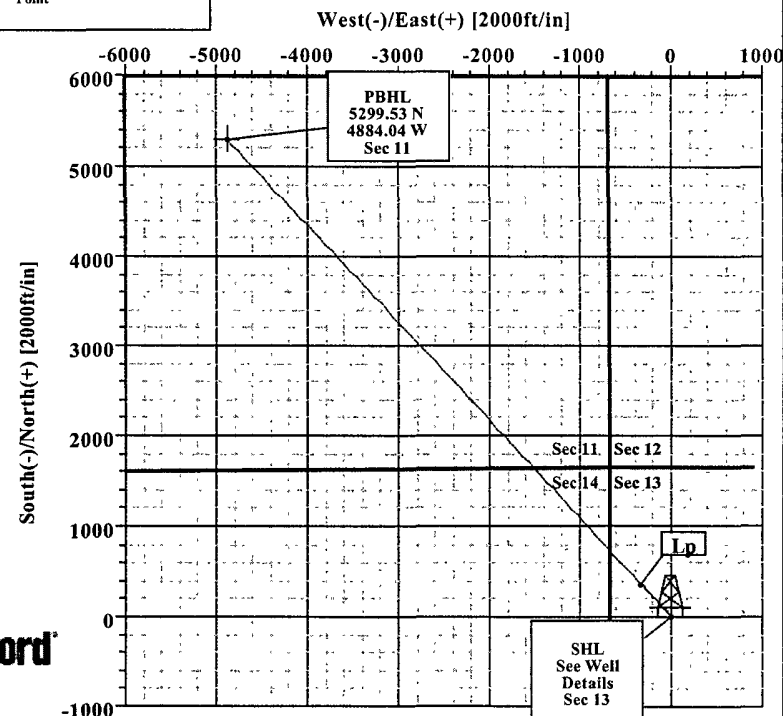
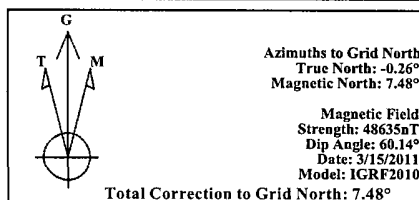
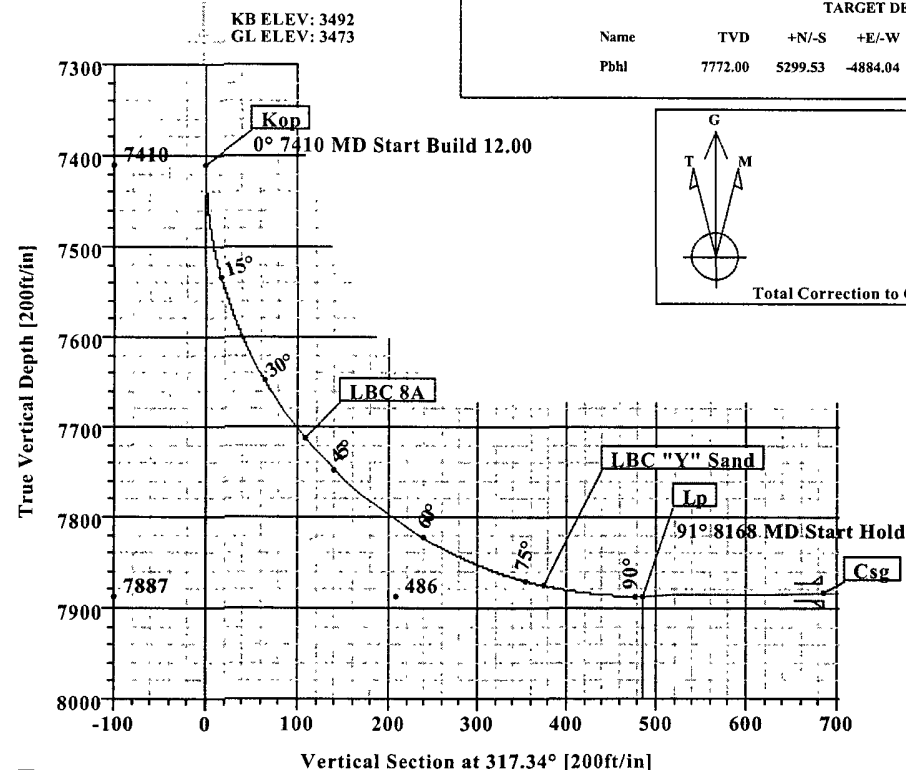
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7772.00	5299.53	-4884.04	449587.87	647579.57	Point

FIELD DETAILS

Eddy County, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Poker Lake Unit 315H
Site Centre Northing: 444288.34
Easting: 652463.61
Ground Level: 3473.00
Positional Uncertainty: 0.00
Convergence: 0.26



FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	7713.00	7738.37	LBC 8A
2	7876.00	8056.57	LBC "Y" Sand

Plan: Plan #1 (315H/1)

Created By: Russell W. Joyner

Date: 1/25/2011

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P.	Date: 1/25/2011	Time: 10:31:54	Page: 1
Field: Eddy County, NM (Nad 27)	Co-ordinate(NE) Reference: Well: 315H, Grid North		
Site: Poker Lake Unit 315H	Vertical (TVD) Reference: SITE 3492.0		
Well: 315H	Section (VS) Reference: Well (0.00N,0.00E,317.34Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Plan: Plan #1	Date Composed: 1/25/2011
Principal: Yes	Version: 1
	Tied-to: From Surface

Field: Eddy County, NM (Nad 27)

Map System: US State Plane Coordinate System 1927	Map Zone: New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Poker Lake Unit 315H

Site Position:	Northing: 444288.34 ft	Latitude: 32 13 13.816 N
From: Map	Easting: 652463.61 ft	Longitude: 103 50 25.173 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3473.00 ft		Grid Convergence: 0.26 deg

Well: 315H	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 32 13 13.816 N
+E/-W 0.00 ft	Longitude: 103 50 25.173 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 3/15/2011	Above System Datum: Mean Sea Level
Field Strength: 48635 nT	Declination: 7.74 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.14 deg
ft	+E/-W
	Direction
	deg
7772.00	0.00 0.00 317.34

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	317.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7409.61	0.00	317.34	7409.61	0.00	0.00	0.00	0.00	0.00	0.00	
8167.78	90.98	317.34	7887.00	357.11	-329.11	12.00	12.00	0.00	317.34	
14889.99	90.98	317.34	7772.00	5299.53	-4884.04	0.00	0.00	0.00	0.00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
7400.00	0.00	317.34	7400.00	0.00	0.00	0.00	0.00	444288.34	652463.61	
7409.61	0.00	317.34	7409.61	0.00	0.00	0.00	0.00	444288.34	652463.61	Kop
7500.00	10.85	317.34	7499.46	6.27	-5.78	8.53	12.00	444294.61	652457.83	
7600.00	22.85	317.34	7594.99	27.55	-25.39	37.46	12.00	444315.89	652438.23	
7700.00	34.85	317.34	7682.43	62.96	-58.02	85.62	12.00	444351.30	652405.59	
7738.37	39.45	317.34	7713.00	79.99	-73.72	108.78	12.00	444368.33	652389.89	LBC 8A
7800.00	46.85	317.34	7757.93	110.97	-102.27	150.90	12.00	444399.31	652361.35	
7900.00	58.85	317.34	7818.22	169.47	-156.18	230.46	12.00	444457.81	652307.43	
8000.00	70.85	317.34	7860.64	235.91	-217.41	320.81	12.00	444524.25	652246.20	
8056.57	77.64	317.34	7876.00	275.92	-254.29	375.22	12.00	444564.26	652209.33	LBC "Y" Sand
8100.00	82.85	317.34	7883.36	307.38	-283.28	418.01	12.00	444595.72	652180.33	
8167.78	90.98	317.34	7887.00	357.11	-329.11	485.63	12.00	444645.45	652134.50	Lp
8200.00	90.98	317.34	7886.45	380.80	-350.94	517.85	0.00	444669.14	652112.67	
8300.00	90.98	317.34	7884.74	454.32	-418.70	617.84	0.00	444742.66	652044.91	
8367.78	90.98	317.34	7883.58	504.16	-464.63	685.61	0.00	444792.50	651998.98	Csg
8400.00	90.98	317.34	7883.03	527.85	-486.46	717.82	0.00	444816.19	651977.15	
8500.00	90.98	317.34	7881.32	601.37	-554.22	817.81	0.00	444889.71	651909.39	

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P.

Field: Eddy County, NM (Nad 27)

Site: Poker Lake Unit 315H

Well: 315H

Wellpath: 1

Date: 1/25/2011

Time: 10:31:54

Page: 2

Co-ordinate(NE) Reference:

Well: 315H, Grid North

Vertical (TVD) Reference:

SITE 3492.0

Section (VS) Reference:

Well (0.00N,0.00E,317.34Azi)

Survey Calculation Method:

Minimum Curvature

Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8600.00	90.98	317.34	7879.61	674.89	-621.98	917.79	0.00	444963.23	651841.63	
8700.00	90.98	317.34	7877.90	748.42	-689.74	1017.78	0.00	445036.76	651773.87	
8800.00	90.98	317.34	7876.19	821.94	-757.50	1117.76	0.00	445110.28	651706.11	
8900.00	90.98	317.34	7874.48	895.46	-825.26	1217.75	0.00	445183.81	651638.35	
9000.00	90.98	317.34	7872.77	968.99	-893.02	1317.73	0.00	445257.33	651570.60	
9100.00	90.98	317.34	7871.06	1042.51	-960.78	1417.72	0.00	445330.85	651502.84	
9200.00	90.98	317.34	7869.35	1116.04	-1028.54	1517.70	0.00	445404.38	651435.08	
9300.00	90.98	317.34	7867.63	1189.56	-1096.30	1617.69	0.00	445477.90	651367.32	
9400.00	90.98	317.34	7865.92	1263.08	-1164.06	1717.67	0.00	445551.42	651299.56	
9500.00	90.98	317.34	7864.21	1336.61	-1231.82	1817.66	0.00	445624.95	651231.80	
9600.00	90.98	317.34	7862.50	1410.13	-1299.57	1917.64	0.00	445698.47	651164.04	
9700.00	90.98	317.34	7860.79	1483.65	-1367.33	2017.63	0.00	445772.00	651096.28	
9800.00	90.98	317.34	7859.08	1557.18	-1435.09	2117.62	0.00	445845.52	651028.52	
9900.00	90.98	317.34	7857.37	1630.70	-1502.85	2217.60	0.00	445919.04	650960.76	
10000.00	90.98	317.34	7855.66	1704.22	-1570.61	2317.59	0.00	445992.57	650893.00	
10100.00	90.98	317.34	7853.95	1777.75	-1638.37	2417.57	0.00	446066.09	650825.24	
10200.00	90.98	317.34	7852.24	1851.27	-1706.13	2517.56	0.00	446139.61	650757.48	
10300.00	90.98	317.34	7850.53	1924.80	-1773.89	2617.54	0.00	446213.14	650689.72	
10400.00	90.98	317.34	7848.82	1998.32	-1841.65	2717.53	0.00	446286.66	650621.96	
10500.00	90.98	317.34	7847.10	2071.84	-1909.41	2817.51	0.00	446360.19	650554.20	
10600.00	90.98	317.34	7845.39	2145.37	-1977.17	2917.50	0.00	446433.71	650486.45	
10700.00	90.98	317.34	7843.68	2218.89	-2044.93	3017.48	0.00	446507.23	650418.69	
10800.00	90.98	317.34	7841.97	2292.41	-2112.69	3117.47	0.00	446580.76	650350.93	
10900.00	90.98	317.34	7840.26	2365.94	-2180.45	3217.45	0.00	446654.28	650283.17	
11000.00	90.98	317.34	7838.55	2439.46	-2248.21	3317.44	0.00	446727.80	650215.41	
11100.00	90.98	317.34	7836.84	2512.99	-2315.97	3417.43	0.00	446801.33	650147.65	
11200.00	90.98	317.34	7835.13	2586.51	-2383.73	3517.41	0.00	446874.85	650079.89	
11300.00	90.98	317.34	7833.42	2660.03	-2451.48	3617.40	0.00	446948.38	650012.13	
11400.00	90.98	317.34	7831.71	2733.56	-2519.24	3717.38	0.00	447021.90	649944.37	
11500.00	90.98	317.34	7830.00	2807.08	-2587.00	3817.37	0.00	447095.42	649876.61	
11600.00	90.98	317.34	7828.29	2880.60	-2654.76	3917.35	0.00	447168.95	649808.85	
11700.00	90.98	317.34	7826.58	2954.13	-2722.52	4017.34	0.00	447242.47	649741.09	
11800.00	90.98	317.34	7824.86	3027.65	-2790.28	4117.32	0.00	447315.99	649673.33	
11900.00	90.98	317.34	7823.15	3101.18	-2858.04	4217.31	0.00	447389.52	649605.57	
12000.00	90.98	317.34	7821.44	3174.70	-2925.80	4317.29	0.00	447463.04	649537.81	
12100.00	90.98	317.34	7819.73	3248.22	-2993.56	4417.28	0.00	447536.56	649470.05	
12200.00	90.98	317.34	7818.02	3321.75	-3061.32	4517.26	0.00	447610.09	649402.29	
12300.00	90.98	317.34	7816.31	3395.27	-3129.08	4617.25	0.00	447683.61	649334.54	
12400.00	90.98	317.34	7814.60	3468.79	-3196.84	4717.24	0.00	447757.14	649266.78	
12500.00	90.98	317.34	7812.89	3542.32	-3264.60	4817.22	0.00	447830.66	649199.02	
12600.00	90.98	317.34	7811.18	3615.84	-3332.36	4917.21	0.00	447904.18	649131.26	
12700.00	90.98	317.34	7809.47	3689.37	-3400.12	5017.19	0.00	447977.71	649063.50	
12800.00	90.98	317.34	7807.76	3762.89	-3467.88	5117.18	0.00	448051.23	648995.74	
12900.00	90.98	317.34	7806.05	3836.41	-3535.64	5217.16	0.00	448124.75	648927.98	
13000.00	90.98	317.34	7804.33	3909.94	-3603.39	5317.15	0.00	448198.28	648860.22	
13100.00	90.98	317.34	7802.62	3983.46	-3671.15	5417.13	0.00	448271.80	648792.46	
13200.00	90.98	317.34	7800.91	4056.98	-3738.91	5517.12	0.00	448345.33	648724.70	
13300.00	90.98	317.34	7799.20	4130.51	-3806.67	5617.10	0.00	448418.85	648656.94	
13400.00	90.98	317.34	7797.49	4204.03	-3874.43	5717.09	0.00	448492.37	648589.18	
13500.00	90.98	317.34	7795.78	4277.55	-3942.19	5817.07	0.00	448565.90	648521.42	
13600.00	90.98	317.34	7794.07	4351.08	-4009.95	5917.06	0.00	448639.42	648453.66	
13700.00	90.98	317.34	7792.36	4424.60	-4077.71	6017.04	0.00	448712.94	648385.90	
13800.00	90.98	317.34	7790.65	4498.13	-4145.47	6117.03	0.00	448786.47	648318.14	

Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: BOPCO, L.P.	Date: 1/25/2011	Time: 10:31:54	Page: 3
Field: Eddy County, NM (Nad 27)	Co-ordinate(NE) Reference: Well: 315H, Grid North		
Site: Poker Lake Unit 315H	Vertical (TVD) Reference: SITE 3492.0		
Well: 315H	Section (VS) Reference: Well: (0.00N,0.00E,317.34Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
13900.00	90.98	317.34	7788.94	4571.65	-4213.23	6217.02	0.00	448859.99	648250.38	
14000.00	90.98	317.34	7787.23	4645.17	-4280.99	6317.00	0.00	448933.52	648182.63	
14100.00	90.98	317.34	7785.52	4718.70	-4348.75	6416.99	0.00	449007.04	648114.87	
14200.00	90.98	317.34	7783.80	4792.22	-4416.51	6516.97	0.00	449080.56	648047.11	
14300.00	90.98	317.34	7782.09	4865.74	-4484.27	6616.96	0.00	449154.09	647979.35	
14400.00	90.98	317.34	7780.38	4939.27	-4552.03	6716.94	0.00	449227.61	647911.59	
14500.00	90.98	317.34	7778.67	5012.79	-4619.79	6816.93	0.00	449301.13	647843.83	
14600.00	90.98	317.34	7776.96	5086.32	-4687.54	6916.91	0.00	449374.66	647776.07	
14700.00	90.98	317.34	7775.25	5159.84	-4755.30	7016.90	0.00	449448.18	647708.31	
14800.00	90.98	317.34	7773.54	5233.36	-4823.06	7116.88	0.00	449521.71	647640.55	
14889.99	90.98	317.34	7772.00	5299.53	-4884.04	7206.86	0.00	449587.87	647579.57	Pbhl

Targets

Name	Description Dip.	TVD Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
Pbhl			7772.00	5299.53	-4884.04	449587.87	647579.57	32 14 6.478 N	103 51 21.753 W

Casing Points

MD ft	TVD ft	Diameter in.	Hole Size in.	Name
8367.78	7883.58	0.000	0.000	Csg

Annotation

MD ft	TVD ft	
7409.61	7409.61	Kop
8167.78	7887.00	Lp
14889.99	7772.00	Pbhl

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
7738.37	7713.00	LBC 8A		0.00	0.00
8056.57	7876.00	LBC "Y" Sand		0.00	0.00

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: January 25, 2011
Job Number: _____
Customer: BOPCO
Well Name: Poker Lake Unit #315H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM
Block: _____
Engineer: RM

US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 444288.340 USFT	Latitude 32.2205043 DEG
East/West 652463.610 USFT	Longitude -103.8403260 DEG
Grid Convergence: .26°	
Total Correction: +7.48°	

Geodetic Location WGS84	Elevation =	0.0 Met er s
Latitude =	32. 22050° N	32° 13 mi n 13. 816 sec
Longitude =	103. 84033° W	103° 50 mi n 25. 173 sec

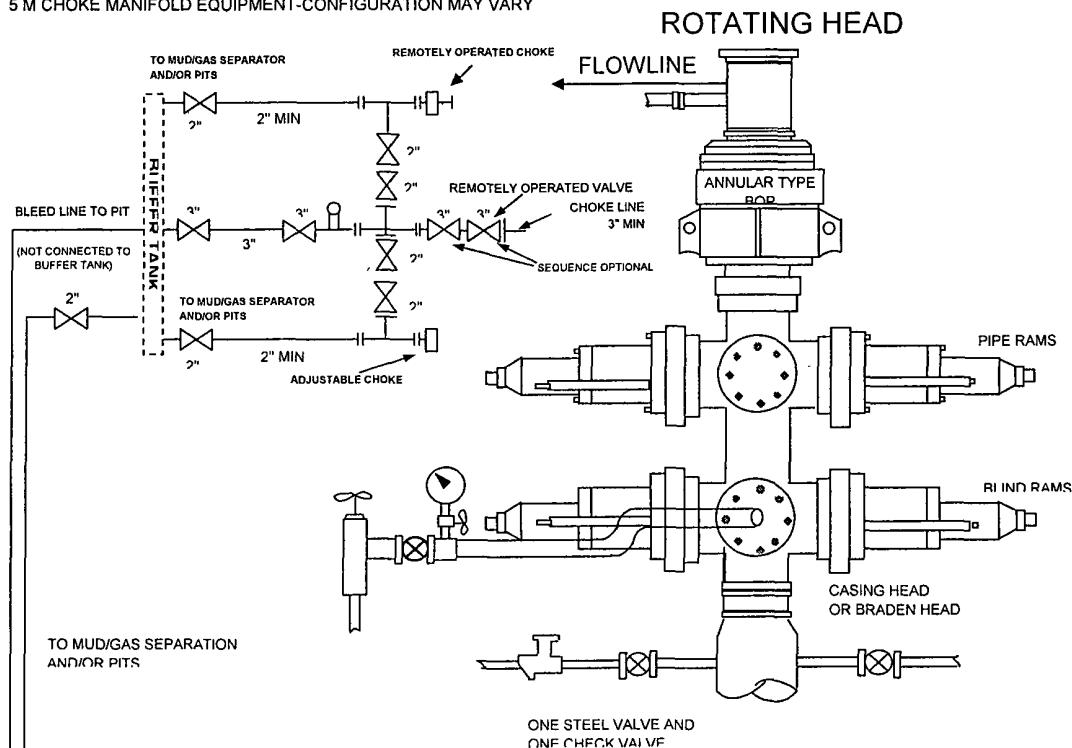
Magnetic Declination =	7. 74°	[True North Offset]
Local Gravity =	. 9988 g	Checksum = 6583
Local Field Strength =	48631 nT	Magnetic Vector X = 23990 nT
Magnetic Dip =	60. 14°	Magnetic Vector Y = 3261 nT
Magnetic Model =	I GRF- 2010g11	Magnetic Vector Z = 42176 nT
Spud Date =	Mar 15, 2011	Magnetic Vector H = 24210 nT

Signed: _____ Date: _____

BOPCO, L. P.

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

