

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM05039

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.7. If Unit or CA/Agreement, Name and/or No.
891000303X

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
POKER LAKE UNIT 421H2. Name of Operator
BOPCO LPContact: WHITNEY MCKEE
E-Mail: wbmckee@basspet.com9. API Well No.
30-015-41033-00-X1

3a. Address

MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-683-227710. Field and Pool, or Exploratory
POKER LAKE SW (DELAWARE)

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

Sec 27 T25S R30E SESE 600FSL 950FEL

11. County or Parish, and State
EDDY COUNTY, NM**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

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

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

BOPCO L.P. requests to change the BHL for the PLU 421H. The new BHL will be located at 660? FSL and 660? FWL of Sec 25-T25S-R30E. This move is being requested for wellbore optimization. The updated sections of the eight point drilling program along with a new directional plan and survey plats are attached.

need update C-102

Accepted for record

NMOCDCS

1-29-2014

RECEIVED

JAN 29 2014

NMOC ARTESIA

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #232289 verified by the BLM Well Information System

For BOPCO LP, sent to the Carlsbad

Committed to AFMSS for processing by CHRISTOPHER WALLS on 01/23/2014 (14CRW0171SE)

Name (Printed/Typed) JEREMY BRADEN

Title ENGINEERING ASSISTANT

Signature (Electronic Submission)

Date 01/16/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHRISTOPHER WALLS

Title PETROLEUM ENGINEER

Date 01/24/2014

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

Office Carlsbad

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.

BOPCO L.P. requests to change the BHL for the PLU 421H. The new BHL will be located at 660' FSL and 660' FWL of Sec 25-T25S-R30E. This move is being requested for wellbore optimization. The updated sections of the eight point drilling program along with a new directional plan and survey plats are attached.

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 18, 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 30-015-41033	Pool Code 96047	Pool Name POKER LAKE; (DELAWARE) SOUTHWEST
Property Code 306402	Property Name POKER LAKE UNIT	Well Number 421H
OGRD No. 260737	Operator Name BOPCO, L.P.	Elevation 3273'

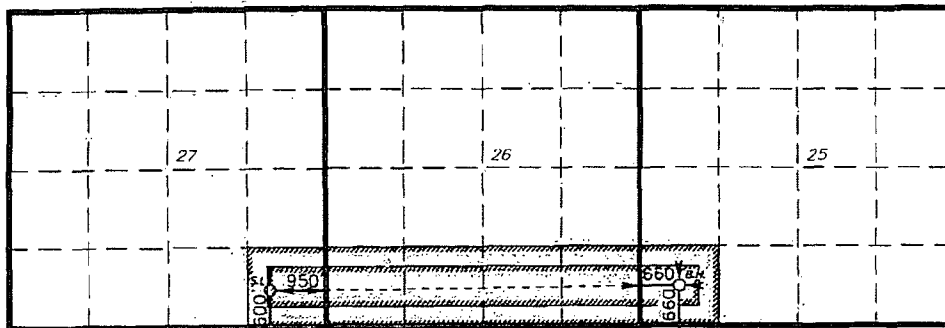
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	27	25 S	30 E		600	SOUTH	950	EAST	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
M	25	25 S	30 E		660	SOUTH	660	WEST	EDDY
Dedicated Acres 240	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



SURFACE LOCATION
Lat - N 32°05'43.35"
Long - W 103°51'46.90"
NMSPC - E 645641.35
(NAD-27)

BOTTOM HOLE LOCATION
Lat - N 32°05'44.07"
Long - W 103°50'26.60"
NMSPC - E 652549.3
(NAD-27)

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.

Jeremy Braden 1-9-14
Signature Date

Jeremy Braden

Printed Name

jdbraden@basspet.com

Email Address

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.

AUG 17 2014
Date Surveyed
Signature
Professional Surveyor

Certificate No. 7977

BASIN SURVEYS 27056

Surface casing is to be set into the Rustler below all fresh water sands at an approximate depth of 1,315' and cement circulated to surface.

7" casing will be set at approximately 7,943' MD, 7,7650' TVD (in curve) and cemented in two stages with DV tool set at approximately 5,000'. Cement will be circulated 500' into the 9-5/8" intermediate casing.

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

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

The surface location is nonstandard and located inside the Poker Lake Unit.

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

Surface Lease Numbers- Federal Lease: NMLC 0068375

Bottom Hole Lease Numbers – Federal Lease: NMNM 0005039

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Main Street, Ft. Worth, TX, 76102. Bond No. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM BOPCO, L.P.

NAME OF WELL: Poker Lake Unit 421H

LEGAL DESCRIPTION - SURFACE: 600' FSL, 950' FEL, Section 27, T25S, R30E, Eddy County, NM.

BHL: 660' FSL, 660' FWL, Section 25, T25S, 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 3295' (estimated)
GL 3273'

Formation Description	Est from KB (TVD)	Est (MD)	SUB-SEA TOP	BEARING
T/Fresh Water	400'	400'	+ 2,895'	Fresh Water
T/Rustler	1,295'	1,295'	+ 2,000'	Barren
T/Salado	1,750'	1,750'	+ 1,580'	Barren
B/Salt	3,665'	3,665'	- 370'	Oil/Gas
T/Lamar	3,865'	3,865'	- 570'	Oil/Gas
T/Ramsey	3,905'	3,905'	- 610'	Oil/Gas
Cherry Canyon	4,805'	4,805'	- 1,510'	Oil/Gas
Brushy Canyon	6,066'	6,066'	- 2,771'	Oil/Gas
KOP	7,403'	7,403'	4,108'	Oil/Gas
LBC-8A Sand	7,462'	7,512'	4,167'	Oil/Gas
EOC	7,684'	8,133'	4,389'	Oil/Gas
Target #1	7,684'	8,133'	4,389'	Oil/Gas
TD Horizontal Hole	7,792'	14,292'	4,497'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVAL MD	HOLE SIZE	PURPOSE	INSTALLATION TYPE
20"	0' - 120'	30"	Conductor	Contractor Discretion
13-3/8", 48 ppf, H-40, or 54.5#, J-55 8rd, ST&C*	0' - 1,315'	17-1/2"	Surface	New
9-5/8", 40 ppf, N-80, 8rd, LT&C or 9-5/8" 40 ppf, J-55, 8rd, LT&C*	0' - 3,885'	12-1/4"	Intermediate	New
7-1/2" 26 ppf HCP-110 BTC or 8rd LT&C	0' - 7,943'	8-3/4"	Production	New
Completion System				
4-1/2" 116 ppf HCP-110 8rd LT&C	7,893' - 14,292'	6-1/8"	Completion System	New
BTC				

* Depending on availability.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM 1 & 2)

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed, used, maintained and tested as per Onshore Order 2. In addition to the high pressure test, a low pressure (250-300 psig) test will be performed.

After running the 9-5/8" intermediate casing, a 13-5/8" or 11" BOP/BOPE system with a minimum rating of 3M will be installed on the 9-5/8" intermediate casing spool (8-3/4" open hole), used, maintained and tested as per Onshore Order 2. In addition to the high pressure test, a low pressure (250-300 psig) test will be performed.

After running the 7" intermediate casing, a 13-5/8" or 11" BOP/BOPE system with a minimum rating of 3M will be installed on the 9-5/8" intermediate casing spool (8-3/4" open hole), used, maintained and tested as per Onshore Order 2. In addition to the high pressure test, a low pressure (250-300 psig) test will be performed.

H2S contingency

H2S monitors shall be installed prior to drilling out the surface shoe. If H2S is encountered in quantities greater than 10 PPM, the well will be shut in and H2S equipment will be installed, including a flare line that will be extended pursuant to onshore oil and gas order #6.

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.

BOPCO, L.P. would like to request a variance to use an armored, 3", 5000 psi WP flex hose for the choke line in the drilling of the well if the rig is equip with hose. (See specification for hose that might be used, attached with APD exhibits). This is rig equipment and will help quicken nipple up time thus saving money without a safety problem. The hose itself is rated to 5000 psi, and has 5000 psi flanges on each end. This well is to be drilled to 14,156 MD (7,625' TVD) and max surface pressure should be +/- 1891 psi as prescribed in onshore order #2 shown as max BHP minus 0.22 psi/ft. Thus, 3000 psi BOPE is all that is needed for this well. **Please refer to diagram 2 for choke manifold and closed loop system layout. If an armored flex hose is utilized, the company man will have all of the proper certified paper work for that hose available on location.**

POINT 5: MUD PROGRAM

DEPTH		MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0 - 1,315'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0	9.5 - 10.5
1,315' - 3,885'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5	9.5 - 10.5
3,885' - 7,943'	FW/Gel	8.7 - 9.0	28-36	NC	NC	NC	9.5 - 10.0	9.5 - 10.5
7,943' - 14,292'	FW/Gel/Starch	8.7 - 9.0	28-36	NC	NC	<100	9.5 - 10.0	9.5 - 10.5

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION**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' – 1,015'	508	1015	Class C +2% CACL + 4% Bentonite + 0.25 LB/SK Cello Flake + 3 lb/sk LCM-1	8.69	13.50	1.75
Tail: 1,015' – 1,315'	335	300	Class C + 2% CACL + 0.25 LB/SK CF	6.35	14.80	1.35
INTERMEDIATE:						
Lead: 0' – 3,385'	1070	3,385	0.25LB/SK Cello Flake + 3 lb/sk LCM-1 EconoCEM HLC + 5% CaCl + 5#/sk Gilsonite	9.32	12.90	1.85
Tail: 3,385' – 3,885'	270	500	HalCem C	6.34	14.80	1.33
Production Stage 1:						
Lead: 5,000' – 7,043'	200	2,043	Tuned Light + 0.75% + CFR-3 + 1.5#/sk CaCl	12.41	10.20	2.76
Tail: 7,043' – 7,943'	150	900	VersaCem-PBSH2 + 0.4% Halad-9	8.76	13.0	1.67
DV Tool @ 5,000'						
Stage 2:						
Lead: 3,385' – 4,500'	90	1,115	EconCem HLC + 1% Econolite + 5% CaCl + 5#/sk Gilsonite	10.71	12.60	2.04
Tail: 4,500' – 5,000'	89	500	HalCem C	6.34	14.80	1.33

Cement excesses will be as follows:

Surface – 100% excess with cement circulated to surface.

1st Intermediate – 50% excess above fluid caliper with cement circulated to surface.

Production – 50% above gauge hole or 35% above electric log caliper with cement circulated 500' up into the 9-5/8" 1st intermediate casing in areas outside the SOPA. Cement will be circulated to surface on areas inside the SOPA.

Cement volumes will be adjusted proportionately for depth changes of the multi stage tool.

E) COMPLETIONS SYSTEM

A 4-1/2" completion system with open hole packers will be run in the producing lateral to a depth of 14,156'. The top of the Completion System will be set at approximately 7,567'. Cement will not be required for this system.

F) 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 7,043' at which point a directional hole will be kicked off and drilled at an azimuth of 89.14 degrees, building angle at 10 deg/100' to 60 degrees at a TVD of 7,581' (MD 7,743'). This angle and azimuth will be maintained for 200' to a measured depth of 7,943' (7,650' 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 cement circulated 500' inside 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 89.14 degrees, inclination of 89 degrees to a measured depth of 14,292' TVD 7,792'. At this depth a 4-1/2" Completion System with packers installed for zone isolation will be run into the producing lateral.

G) H₂S SAFETY EQUIPMENT

As stated in the BLM Onshore Order 6, for wells located inside the H₂S area, H₂S equipment will be rigged up after setting surface casing. For the wells located inside the H₂S area the flare pit will be located 150' from the location. For wells located outside the H₂S area flare pit will be located 100' away from the location. **(See page 6 of Survey plat package and diagram 2)** There is not any H₂S anticipated in the area, although in the event that H₂S is encountered, the H₂S contingency plan attached will be implemented. **(Please refer to diagram 2 for choke manifold and closed loop system layout.) Please refer to H₂S location diagram for location of important H₂S safety items.**

H) CLOSED LOOP AND CHOKE MANIFOLD

Please see diagram 2.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3568 psi (max) or MWE of 9.0 ppg is expected. Lost circulation may exist in the Delaware Section from 3,905'-7,792' TVD.

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

JDB/BTC

5D Plan Report**BOPCO, L.P.****Field Name:** *Eddy Co, NM Nad27 NMEZ***Site Name:** *Poker Lake Unit 421H***Well Name:** *PLU 421H***Plan:** *P1:V1*

09 January 2014



BOPCO, L.P.
Poker Lake Unit 421H
Eddy Co, NM



Plan Data for PLU 421H

Plan Point Information:

Dogleg Severity Unit: 1/100.00ft		Position:		Position offsets from Slot centre		Position offsets from Slot centre		Position offsets from Slot centre		Position offsets from Slot centre	
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	Vsec	DLS	(USft)	(DLSU)
0.00	0.00	0.00	0.00	0.00	0.00	398738.60	645641.35	0.00	0.00		
7043.24	0.00	0.00	7043.24	0.00	0.00	398738.60	645641.35	0.00	0.00		
7743.24	70.00	89.14	7581.64	5.65	376.95	398744.25	646018.30	376.99	10.00		
7943.24	70.00	89.14	7650.05	8.46	564.87	398747.06	646206.22	564.93	0.00		
8133.24	89.00	89.14	7684.51	11.25	750.81	398749.85	646292.16	750.90	10.00		
16292.01	89.00	89.14	7792.00	103.50	6907.95	398842.10	652549.30	6908.73	0.00		

Plan Data for PLU 421H

Target Set Information:

Name: PLU 421H

Position offsets from Slot centre

Name	TVD Elevation	+N/-S	+E/-W	Northing	Easting	Shape	Comment
FBHL	7792.00	-4500.00	103.50	6907.95	398842.10	652549.30	Cuboid

Plan Data for PLU 421H

Slot: PLU 421H

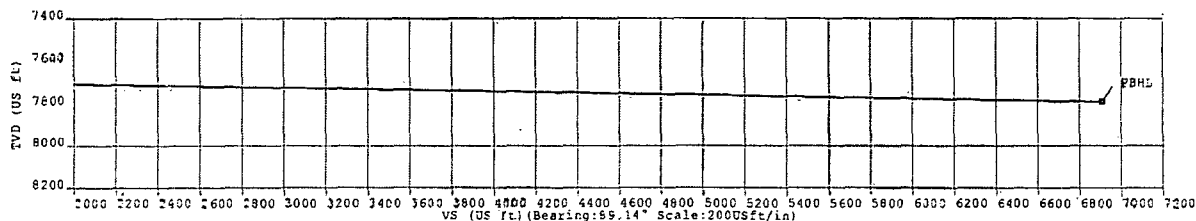
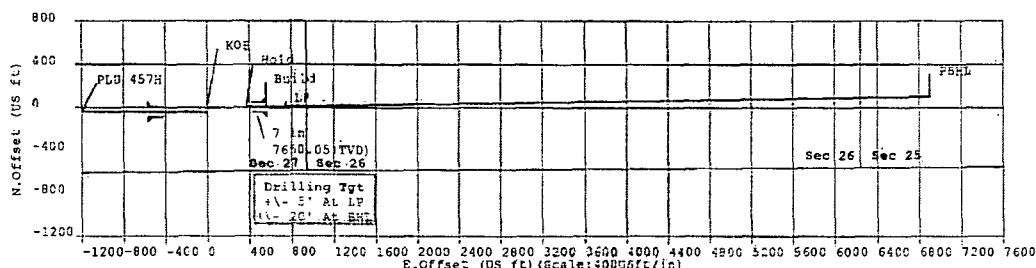
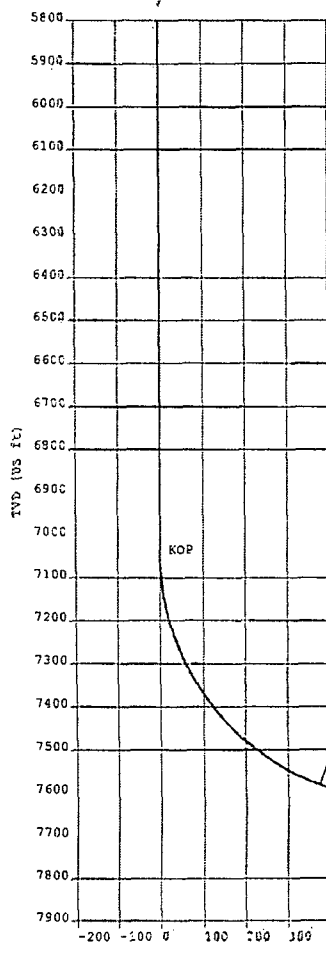
Position:

Offset is from Site centre

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00USft	0.00USft	398738.60USft	645641.35USft	32°5'43.4"	-103°51'46.9"

Elevation Above VAD: 3273.00USft

PLU 421H ———
 PLU 457H ———



Sign Off: Russell Jovner



Weatherford™

PLU 421H

Field Name Eddy Co, NM Nad27 NMEZ	Map Units : US ft		Company Name : BOPCO, L.P.	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD27 / New Mexico East			
	Comment :			
Site Name Poker Lake Unit 421H	Units : US ft	North Reference : Grid	Convergence Angle : 0.25	
	Position	Northing : 398738.60 US ft	Latitude : 32° 5' 43.35"	
		Easting : 645641.35 US ft	Longitude : -103° 51' 46.91"	
	Elevation above Mean Sea Level: 3273.00 US ft			
Comment :				
Slot Name PLU 421H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 398738.60 US ft	Latitude : 32° 5' 43.35"	
	+E / -W : 0.00 US ft	Easting : 645641.35 US ft	Longitude : -103° 51' 46.91"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3273.00 US ft				
Comment :				
Well Name PLU 421H	Type : Main well		UWI :	Plan : P1:V1
	Rig Height Drill Floor : 19.00 US ft		Comment :	
	Relative to Mean Sea Level: 3292.00 US ft			
	Closure Distance : 6908.73 US ft		Closure Azimuth : 89.1416°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 89.14°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48233.7nT	Dec : 7.49°	Dip : 59.93° Date : 15/Mar/2014

Target Set

Name : PLU 421H **Number of Targets :** 1

Comment :

Target Name: PBHL Shape: Guboid	Position (Relative to Slot centre)			
	+N / -S : 103.50 US ft	Northing : 398842.10 US ft	Latitude : 32° 5' 44.07"	
	+E / -W : 6907.95 US ft	Easting : 652549.30 US ft	Longitude : -103° 50' 26.60"	
	TVD (Drill Floor) : 7792.00 US ft			
Orientation Azimuth : 0.00°		Inclination : 0.00°		
Dimensions Length : 20.00 US ft		Breadth : 20.00 US ft		Height : 20.00 US ft

3D Plan Report

Casing Points (Relative to Slot centre, TVD relative to Drill Floor)								
MD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	TVD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	MD (US ft)
646206.22	398747.06	564.87	8.46	7650.05	70.00	89.14	7943.24	7 in

Well path created using minimum curvature.

Salient Points (Relative to Slot centre, TVD relative to Drill Floor)									
MD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	TVD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	MD (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	398738.60	645641.35
7043.24	0.00	0.00	0.00	7043.24	0.00	0.00	0.00	398738.60	645641.35 KOP
7512.84	46.96	89.14	7462.00	2.73	181.89	181.91	10.00	398741.33	645823.24 LBC 8A :
7743.24	70.00	89.14	7581.64	5.65	376.95	376.99	10.00	398744.25	646018.30 Hold
7943.24	70.00	89.14	7650.05	8.46	564.87	564.93	0.00	398747.06	646206.22 Build; 7 in
8133.24	89.00	89.14	7684.51	11.25	750.81	750.90	10.00	398749.85	646392.16 LP
14292.01	89.00	89.14	7752.00	103.50	6907.95	6908.73	0.00	398842.10	652549.30 PBHL

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)									
MD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	TVD (US ft)	Inc. (°)	N. Offset (US ft)	E. Offset (US ft)	MD (US ft)	Comment
7000.00	0.00	0.00	0.00	7000.00	0.00	0.00	0.00	398738.60	645641.35
7043.24	0.00	0.00	0.00	7043.24	0.00	0.00	0.00	398738.60	645641.35 KOP
7100.00	5.68	89.14	7099.91	0.04	2.81	2.81	10.00	398738.64	645644.16
7200.00	15.68	89.14	7198.05	0.32	21.31	21.31	10.00	398738.92	645662.66
7300.00	25.68	89.14	7291.49	0.85	56.57	56.57	10.00	398739.45	645697.92
7400.00	35.68	89.14	7377.39	1.61	107.52	107.53	10.00	398740.21	645748.87
7500.00	45.68	89.14	7453.13	2.59	172.60	172.62	10.00	398741.19	645813.95
7512.84	46.96	89.14	7462.00	2.73	181.89	181.91	10.00	398741.33	645823.24 LBC 8A :
7600.00	55.68	89.14	7516.42	3.74	249.85	249.88	10.00	398742.34	645891.20
7700.00	65.68	89.14	7565.34	5.05	336.92	336.96	10.00	398743.65	645978.27
7743.24	70.00	89.14	7581.64	5.65	376.95	376.99	10.00	398744.25	646018.30 Hold
7800.00	70.00	89.14	7601.06	6.45	430.28	430.33	0.00	398745.05	646071.63
7900.00	70.00	89.14	7635.26	7.85	524.24	524.30	0.00	398746.45	646165.59
7943.24	70.00	89.14	7650.05	8.46	564.87	564.93	0.00	398747.06	646206.22 Build; 7 in
8000.00	75.68	89.14	7666.79	9.28	619.07	619.14	10.00	398747.88	646260.42
8100.00	85.68	89.14	7682.97	10.75	717.61	717.70	10.00	398749.35	646358.96
8133.24	89.00	89.14	7684.51	11.25	750.81	750.90	10.00	398749.85	646392.16 LP
8200.00	89.00	89.14	7685.68	12.25	817.55	817.64	0.00	398750.85	646458.90
8300.00	89.00	89.14	7687.43	13.75	917.53	917.63	0.00	398752.35	646558.88
8400.00	89.00	89.14	7689.17	15.24	1017.50	1017.61	0.00	398753.84	646658.85
8500.00	89.00	89.14	7690.92	16.74	1117.47	1117.60	0.00	398755.34	646758.82
8600.00	89.00	89.14	7692.66	18.24	1217.45	1217.58	0.00	398756.84	646858.80
8700.00	89.00	89.14	7694.41	19.74	1317.42	1317.57	0.00	398758.34	646958.77
8800.00	89.00	89.14	7696.15	21.24	1417.39	1417.55	0.00	398759.84	647058.74
8900.00	89.00	89.14	7697.90	22.73	1517.37	1517.54	0.00	398761.33	647158.72
9000.00	89.00	89.14	7699.64	24.23	1617.34	1617.52	0.00	398762.83	647258.69
9100.00	89.00	89.14	7701.39	25.73	1717.31	1717.51	0.00	398764.33	647358.66
9200.00	89.00	89.14	7703.13	27.23	1817.29	1817.49	0.00	398765.83	647458.64
9300.00	89.00	89.14	7704.88	28.73	1917.26	1917.47	0.00	398767.33	647558.61
9400.00	89.00	89.14	7706.62	30.22	2017.23	2017.46	0.00	398768.82	647658.58
9500.00	89.00	89.14	7708.37	31.72	2117.21	2117.44	0.00	398770.32	647758.56
9599.99	89.00	89.14	7710.11	33.22	2217.18	2217.43	0.00	398771.82	647858.53
9699.99	89.00	89.14	7711.86	34.72	2317.15	2317.41	0.00	398773.32	647958.50
9799.99	89.00	89.14	7713.60	36.22	2417.13	2417.40	0.00	398774.82	648058.48
9899.99	89.00	89.14	7715.35	37.71	2517.10	2517.38	0.00	398776.31	648158.45
9999.99	89.00	89.14	7717.09	39.21	2617.07	2617.37	0.00	398777.81	648258.42
10099.99	89.00	89.14	7718.84	40.71	2717.05	2717.35	0.00	398779.31	648358.40
10199.99	89.00	89.14	7720.58	42.21	2817.02	2817.34	0.00	398780.81	648458.37
10299.99	89.00	89.14	7722.33	43.70	2916.99	2917.32	0.00	398782.30	648558.34
10399.99	89.00	89.14	7724.07	45.20	3016.97	3017.30	0.00	398783.80	648658.32
10499.99	89.00	89.14	7725.82	46.70	3116.94	3117.29	0.00	398785.30	648758.29
10599.99	89.00	89.14	7727.57	48.20	3216.91	3217.27	0.00	398786.80	648858.26

SD Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)										
Name	SPD	SPD Inc	SPD Dec	TVD	W. Offset	E. Offset	US	US Inc	Forming	Eastline
(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)
										Comment
10699.99	89.00	89.14	7729.31	49.70	3316.89	3317.26	0.00	398788.30	648958.24	
10799.99	89.00	89.14	7731.06	51.19	3416.86	3417.24	0.00	398789.79	649058.21	
10899.99	89.00	89.14	7732.80	52.69	3516.83	3517.23	0.00	398791.29	649158.18	
10999.99	89.00	89.14	7734.55	54.19	3616.81	3617.21	0.00	398792.79	649258.16	
11099.99	89.00	89.14	7736.29	55.69	3716.78	3717.20	0.00	398794.29	649358.13	
11199.99	89.00	89.14	7738.04	57.19	3816.75	3817.18	0.00	398795.79	649458.10	
11299.99	89.00	89.14	7739.78	58.68	3916.73	3917.17	0.00	398797.28	649558.08	
11399.99	89.00	89.14	7741.53	60.18	4016.70	4017.15	0.00	398798.78	649658.05	
11499.99	89.00	89.14	7743.27	61.68	4116.67	4117.13	0.00	398800.28	649758.02	
11599.99	89.00	89.14	7745.02	63.18	4216.65	4217.12	0.00	398801.78	649858.00	
11699.99	89.00	89.14	7746.76	64.67	4316.62	4317.10	0.00	398803.27	649957.97	
11799.99	89.00	89.14	7748.51	66.17	4416.59	4417.09	0.00	398804.77	650057.94	
11899.99	89.00	89.14	7750.25	67.67	4516.57	4517.07	0.00	398806.27	650157.92	
11999.99	89.00	89.14	7752.00	69.17	4616.54	4617.06	0.00	398807.77	650257.89	
12099.99	89.00	89.14	7753.74	70.67	4716.51	4717.04	0.00	398809.27	650357.86	
12199.99	89.00	89.14	7755.49	72.16	4816.49	4817.03	0.00	398810.76	650457.84	
12299.99	89.00	89.14	7757.23	73.66	4916.46	4917.01	0.00	398812.26	650557.81	
12399.99	89.00	89.14	7758.98	75.16	5016.43	5017.00	0.00	398813.76	650657.78	
12499.99	89.00	89.14	7760.72	76.66	5116.41	5116.98	0.00	398815.26	650757.76	
12599.99	89.00	89.14	7762.47	78.16	5216.38	5216.97	0.00	398816.76	650857.73	
12699.99	89.00	89.14	7764.22	79.65	5316.35	5316.95	0.00	398818.25	650957.70	
12799.99	89.00	89.14	7765.96	81.15	5416.33	5416.93	0.00	398819.75	651057.68	
12899.99	89.00	89.14	7767.71	82.65	5516.30	5516.92	0.00	398821.25	651157.65	
12999.99	89.00	89.14	7769.45	84.15	5616.27	5616.90	0.00	398822.75	651257.62	
13099.99	89.00	89.14	7771.20	85.65	5716.25	5716.89	0.00	398824.25	651357.60	
13199.99	89.00	89.14	7772.94	87.14	5816.22	5816.87	0.00	398825.74	651457.57	
13299.99	89.00	89.14	7774.69	88.64	5916.19	5916.86	0.00	398827.24	651557.54	
13399.99	89.00	89.14	7776.43	90.14	6016.17	6016.84	0.00	398828.74	651657.52	
13499.99	89.00	89.14	7778.18	91.64	6116.14	6116.83	0.00	398830.24	651757.49	
13599.99	89.00	89.14	7779.92	93.13	6216.11	6216.81	0.00	398831.73	651857.46	
13699.99	89.00	89.14	7781.67	94.63	6316.09	6316.80	0.00	398833.23	651957.44	
13799.99	89.00	89.14	7783.41	96.13	6416.06	6416.78	0.00	398834.73	652057.41	
13899.99	89.00	89.14	7785.16	97.63	6516.03	6516.76	0.00	398836.23	652157.38	
13999.99	89.00	89.14	7786.90	99.13	6616.01	6616.75	0.00	398837.73	652257.36	
14099.99	89.00	89.14	7788.65	100.62	6715.98	6716.73	0.00	398839.22	652357.33	
14199.99	89.00	89.14	7790.39	102.12	6815.95	6816.72	0.00	398840.72	652457.30	
14292.01	89.00	89.14	7792.00	103.50	6907.95	6908.73	0.00	398842.10	652549.30	P8HL

Formation Points (Relative to Slot centre, TVD relative to Drill Floor)										
Name	SPD	SPD Inc	SPD Dec	TVD	W. Offset	E. Offset	US	US Inc	Forming	Eastline
(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)	(US ft)
										Comment
LBC 8A	0	89.14	645623.24	398741.33	181.89	2.73	7462.00	46.96	89.14	7512.84

5D Anti-Collision Report

BOPCO, L.P.

Field Name: *Eddy Co, NM Nad27 NMEZ*

Site Name: *Poker Lake Unit 421H*

Well Name: *PLU 421H*

09 January 2014



Weatherford®



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PLU 421H

Field Name Eddy Co, NM Nad27 NMEZ	Map Units : US ft		Company Name : BOPCO, L.P.	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD27 / New Mexico East			
	Comment :			
Site Name Poker Lake Unit 421H	Units : US ft	North Reference : Grid	Convergence Angle : 0.25	
	Position	Northing : 398738.60 US ft	Latitude : 32° 5' 43.35"	
		Easting : 645641.35 US ft	Longitude : -103° 51' 46.91"	
		Elevation above Mean Sea Level: 3273.00 US ft		
Comment :				
Slot Name PLU 421H	Position (Offsets relative to Site Centre)			
	+N/-S : 0.00 US ft	Northing : 398738.60 US ft	Latitude : 32° 5' 43.35"	
	+E/-W : 0.00 US ft	Easting : 645641.35 US ft	Longitude : -103° 51' 46.91"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3273.00 US ft				
Comment :				
Well Name PLU 421H	Type : Main well	UWI :	Plan : Working Plan	
	Rig Height Drill Floor : 19.00 US ft	Comment :		
	Relative to Mean Sea Level: 3292.00 US ft			
	Closure Distance : 6908.73 US ft	Closure Azimuth : 89.1416°		
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 89.14°	
Magnetic Parameters				
Model : BGGM	Field Strength : 48233.7nT	Dec : 7.49°	Dip : 59.93°	Date : 15/Mar/2014

Collision / Uncertainty Analysis				
Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
PLU 421H (p)	0.00	14292.01	100.00	2

Secondary Well Names
PLU 457H (p)

Anti Collision Report Terminology	
S.Minor, S.Major	: Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.
PHI	: Angle between high-side vector and semi-minor axis
TVD Spread	: Total TVD range of the ellipsoid of uncertainty at the current location
ES	: Distance between the primary and secondary uncertainty ellipsoids in the direction Cr-Cr
T.Face to Sec	: Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Vector Separation (Independent Uncertainty); Well path created using minimum curvature.

Anti-Collision Proximity Summary (TVD relative to)

Secondary Well Name	P. ID (US-ft)	Sec. ID (US-ft)	TVD (US-ft)	CG (US-ft)	ES (US-ft)	SF (in)	Pack (in)
PLU 457H (p)	7049.41	7048.26	7049.41	41.70	9.66	1.30	SF (Med)

Secondary Well - PLU 457H (p) (TVD Relative to Drill Floor (Primary) - All Azimuth Relative to GRID NORTH)										Frac. Inj. Sec.	Risk
Prim MD (US ft)	Sec MD (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	T/D Spread (US ft)	IC (US ft)	SF (%)	ES (US ft)			
0.00	0.00	1.00	0.00	0.00	0.00	41.64	71.39	41.06	182.27		
100.00	99.00	100.00	0.11	0.11	4.60	41.63	51.15	40.82	182.27		
200.00	199.00	200.00	0.34	0.34	4.62	41.63	32.97	40.37	182.27		
300.00	299.00	300.00	0.56	0.56	4.65	41.63	24.32	39.92	182.27		
400.00	399.00	400.00	0.79	0.79	4.69	41.63	19.26	39.47	182.27		
500.00	499.00	500.00	1.01	1.01	4.75	41.63	15.94	39.02	182.27		
600.00	599.00	600.00	1.24	1.24	4.81	41.63	13.60	38.57	182.27		
700.00	699.00	700.00	1.46	1.46	4.88	41.63	11.86	38.12	182.27		
800.00	799.00	800.00	1.69	1.69	4.97	41.63	10.51	37.67	182.27		
900.00	899.00	900.00	1.91	1.91	5.06	41.63	9.44	37.22	182.27		
1000.00	999.00	1000.00	2.14	2.14	5.16	41.63	8.57	36.77	182.27		
1100.00	1099.00	1100.00	2.36	2.36	5.26	41.63	7.84	36.32	182.27		
1200.00	1199.00	1200.00	2.59	2.59	5.38	41.63	7.23	35.88	182.27		
1300.00	1299.00	1300.00	2.81	2.81	5.49	41.63	6.71	35.43	182.27		
1400.00	1399.00	1400.00	3.04	3.04	5.62	41.63	6.25	34.98	182.27		
1500.00	1499.00	1500.00	3.26	3.26	5.75	41.63	5.86	34.53	182.27		
1600.00	1599.00	1600.00	3.49	3.49	5.88	41.63	5.51	34.08	182.27		
1700.00	1699.00	1700.00	3.71	3.71	6.02	41.63	5.20	33.63	182.27		
1800.00	1799.00	1800.00	3.93	3.93	6.17	41.63	4.92	33.18	182.27		
1900.00	1899.00	1900.00	4.16	4.16	6.31	41.63	4.68	32.73	182.27		
2000.00	1999.00	2000.00	4.38	4.38	6.46	41.63	4.45	32.28	182.27		
2100.00	2099.00	2100.00	4.61	4.61	6.62	41.63	4.25	31.83	182.27		
2200.00	2199.00	2200.00	4.83	4.83	6.78	41.63	4.06	31.38	182.27		
2300.00	2299.00	2300.00	5.06	5.06	6.94	41.63	3.89	30.93	182.27		
2400.00	2399.00	2400.00	5.28	5.28	7.10	41.63	3.73	30.48	182.27		
2500.00	2499.00	2500.00	5.51	5.51	7.27	41.63	3.59	30.03	182.27		
2600.00	2599.00	2600.00	5.73	5.73	7.44	41.63	3.45	29.58	182.27		
2700.00	2699.00	2700.00	5.96	5.96	7.61	41.63	3.33	29.13	182.27		
2800.00	2799.00	2800.00	6.18	6.18	7.78	41.63	3.21	28.68	182.27		
2900.00	2899.00	2900.00	6.41	6.41	7.96	41.63	3.11	28.23	182.27		
3000.00	2999.00	3000.00	6.63	6.63	8.14	41.63	3.01	27.78	182.27		
3100.00	3099.00	3100.00	6.86	6.86	8.33	41.63	2.91	27.33	182.27		
3200.00	3199.00	3200.00	7.08	7.08	8.51	41.63	2.82	26.88	182.27		
3300.00	3299.00	3300.00	7.31	7.31	8.70	41.63	2.74	26.44	182.27		
3400.00	3399.00	3400.00	7.53	7.53	8.89	41.63	2.66	25.99	182.27		
3500.00	3499.00	3500.00	7.76	7.76	9.09	41.63	2.59	25.54	182.27		
3600.00	3599.00	3600.00	7.98	7.98	9.29	41.63	2.52	25.09	182.27		
3700.00	3699.00	3700.00	8.20	8.20	9.49	41.63	2.45	24.64	182.27		
3800.00	3799.00	3800.00	8.43	8.43	9.69	41.63	2.39	24.19	182.27		
3900.00	3899.00	3900.00	8.65	8.65	9.90	41.63	2.33	23.74	182.27		
4000.00	3999.00	4000.00	8.88	8.88	10.10	41.63	2.27	23.29	182.27		
4100.00	4099.00	4100.00	9.10	9.10	10.32	41.63	2.22	22.84	182.27		
4200.00	4199.00	4200.00	9.33	9.33	10.53	41.63	2.16	22.39	182.27		
4300.00	4299.00	4300.00	9.55	9.55	10.75	41.63	2.11	21.94	182.27		
4400.00	4399.00	4400.00	9.78	9.78	10.97	41.63	2.07	21.49	182.27		
4500.00	4499.00	4500.00	10.00	10.00	11.20	41.63	2.02	21.04	182.27		
4600.00	4599.00	4600.00	10.23	10.23	11.43	41.63	1.98	20.59	182.27	SF (Lo)	
4700.00	4699.00	4700.00	10.45	10.45	11.66	41.63	1.94	20.14	182.27	SF (Lo)	
4800.00	4799.00	4800.00	10.68	10.68	11.90	41.63	1.90	19.69	182.27	SF (Lo)	
4900.00	4899.00	4900.00	10.90	10.90	12.14	41.63	1.86	19.24	182.27	SF (Lo)	
5000.00	4999.00	5000.00	11.13	11.13	12.38	41.63	1.82	18.79	182.27	SF (Lo)	
5100.00	5099.00	5100.00	11.35	11.35	12.63	41.63	1.79	18.34	182.27	SF (Lo)	
5200.00	5199.00	5200.00	11.58	11.58	12.88	41.63	1.75	17.89	182.27	SF (Lo)	

Secondary Well: PLU 457H (P) (TVD Relative to Drill Floor (Primary) : All Azimuth Relative to GRID NORTH)										
Depth (US ft)	Secondary (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	TVD Spread (US ft)	Angle (US ft)	S. Azimuth (US ft)	DS (US ft)	Angle to S (US ft)	Pls
5300.00	5299.00	5300.00	11.80	11.80	13.13	41.63	1.72	17.44	182.27	SF (Lo)
5400.00	5399.00	5400.00	12.03	12.03	13.39	41.63	1.69	17.00	182.27	SF (Lo)
5500.00	5499.00	5500.00	12.25	12.25	13.66	41.63	1.66	16.55	182.27	SF (Lo)
5600.00	5599.00	5600.00	12.48	12.48	13.93	41.63	1.63	16.10	182.27	SF (Lo)
5700.00	5699.00	5700.00	12.70	12.70	14.20	41.63	1.60	15.65	182.27	SF (Lo)
5800.00	5799.00	5800.00	12.92	12.92	14.47	41.63	1.57	15.20	182.27	SF (Lo)
5900.00	5899.00	5900.00	13.15	13.15	14.75	41.63	1.55	14.75	182.27	SF (Lo)
6000.00	5999.00	6000.00	13.37	13.37	15.04	41.63	1.52	14.30	182.27	SF (Lo)
6100.00	6099.00	6100.00	13.60	13.60	15.33	41.63	1.50	13.85	182.27	SF (Med)
6200.00	6199.00	6200.00	13.82	13.82	15.62	41.63	1.47	13.40	182.27	SF (Med)
6300.00	6299.00	6300.00	14.05	14.05	15.92	41.63	1.45	12.95	182.27	SF (Med)
6400.00	6399.00	6400.00	14.27	14.27	16.23	41.63	1.43	12.50	182.27	SF (Med)
6500.00	6499.00	6500.00	14.50	14.50	16.54	41.63	1.41	12.05	182.27	SF (Med)
6600.00	6599.00	6600.00	14.72	14.72	16.85	41.63	1.39	11.60	182.27	SF (Med)
6700.00	6699.00	6700.00	14.95	14.95	17.17	41.63	1.37	11.15	182.27	SF (Med)
6800.00	6799.00	6800.00	15.17	15.17	17.49	41.63	1.35	10.70	182.27	SF (Med)
6900.00	6899.00	6900.00	15.40	15.40	17.82	41.63	1.33	10.25	182.27	SF (Med)
7000.00	6999.00	7000.00	15.62	15.62	18.15	41.63	1.31	9.80	182.27	SF (Med)
7100.00	7097.57	7098.24	15.83	15.65	18.47	43.09	1.34	10.89	105.37	SF (Med)
7200.00	7184.40	7182.76	16.00	15.52	18.74	66.26	2.13	35.16	136.71	
7300.00	7249.84	7243.98	16.13	15.17	18.91	124.78	4.27	95.55	152.01	
7400.00	7292.76	7282.53	16.23	14.95	19.02	205.48	7.31	177.38	155.57	
7500.00	7316.55	7303.26	16.29	14.79	19.08	298.07	10.82	270.54	150.31	
7600.00	7325.57	7310.99	16.32	14.73	19.10	396.21	14.48	368.85	116.49	
7700.00	7323.57	7309.28	16.31	14.74	19.09	495.61	18.06	468.17	34.12	
7800.00	7314.75	7301.71	16.29	14.80	19.07	593.84	21.43	566.13	20.73	
7900.00	7306.58	7294.63	16.27	14.86	19.05	692.15	24.72	664.14	19.41	
8000.00	7298.43	7287.51	16.24	14.91	19.04	790.20	27.85	761.82	11.63	
8100.00	7285.36	7275.98	16.21	14.99	19.01	884.67	30.74	855.89	6.66	
8200.00	7269.18	7261.52	16.17	15.07	18.96	975.16	33.31	945.89	5.68	
8300.00	7254.49	7248.22	16.14	15.14	18.93	1066.40	35.84	1036.64	5.51	
8400.00	7241.36	7236.20	16.12	15.22	18.89	1158.61	38.38	1128.42	5.37	
8500.00	7229.57	7225.30	16.09	15.30	18.86	1251.64	40.94	1221.06	5.25	
8600.00	7218.92	7215.38	16.07	15.36	18.83	1345.37	43.51	1314.45	5.14	
8700.00	7209.27	7206.34	16.05	15.41	18.81	1439.71	46.11	1408.49	5.05	
8800.00	7200.49	7198.05	16.03	15.45	18.78	1534.57	48.73	1503.08	4.96	
8900.00	7192.47	7190.45	16.02	15.48	18.76	1629.89	51.37	1598.16	4.89	
9000.00	7185.11	7183.44	16.00	15.51	18.74	1725.60	54.02	1693.66	4.82	
9100.00	7178.35	7176.97	15.99	15.54	18.72	1821.67	56.70	1789.54	4.76	
9200.00	7172.10	7170.98	15.97	15.56	18.70	1918.05	59.39	1885.75	4.71	
9300.00	7166.32	7165.43	15.96	15.57	18.68	2014.70	62.09	1982.25	4.66	
9400.00	7160.96	7160.25	15.95	15.59	18.67	2111.60	64.81	2079.02	4.62	
9500.00	7155.98	7155.43	15.94	15.60	18.65	2208.72	67.54	2176.01	4.58	
9600.00	7151.33	7150.93	15.93	15.61	18.64	2306.03	70.28	2273.22	4.54	
9700.00	7146.98	7146.71	15.93	15.62	18.63	2403.52	73.02	2370.61	4.50	
9800.00	7142.91	7142.75	15.92	15.63	18.61	2501.18	75.77	2468.17	4.47	
9900.00	7139.09	7139.03	15.91	15.63	18.60	2598.98	78.53	2565.68	4.44	
10000.00	7135.50	7135.53	15.90	15.64	18.59	2696.91	81.29	2663.74	4.41	
10100.00	7132.12	7132.22	15.90	15.64	18.58	2794.97	84.05	2761.71	4.39	
10200.00	7128.93	7129.10	15.89	15.65	18.57	2893.14	86.81	2859.81	4.37	
10300.00	7125.92	7126.15	15.89	15.65	18.56	2991.41	89.57	2958.01	4.34	
10400.00	7123.07	7123.35	15.88	15.65	18.55	3089.77	92.33	3056.30	4.32	
10500.00	7120.37	7120.70	15.87	15.65	18.54	3188.22	95.09	3154.69	4.30	
10600.00	7117.80	7118.18	15.87	15.65	18.54	3286.75	97.85	3253.16	4.28	
10700.00	7115.37	7115.79	15.86	15.65	18.53	3385.35	100.61	3351.70	4.26	
10800.00	7113.05	7113.51	15.86	15.65	18.52	3484.02	103.36	3450.31	4.25	
10900.00	7110.84	7111.33	15.86	15.65	18.52	3582.75	106.10	3548.99	4.23	
11000.00	7108.73	7109.26	15.85	15.66	18.51	3681.55	108.85	3647.73	4.22	

SD Anti-Collision Report

Secondary Well: FLU 457H (p) (TVD Relative to Drill Floor (Primary)) (All Azimuth Relative to GRID NORTH)									
Primary US-ft	Sec-ID	TVD US-ft	S-Incl US-ft	S-Misc US-ft	TVD Sp. d. US-ft	S-Az US-ft	TES US-ft	Fac to Sec	P
11100.00	7106.72	7107.28	15.85	15.65	18.50	3780.40	111.58	3746.52	4.20
11200.00	7104.80	7105.38	15.84	15.65	18.50	3879.30	114.32	3845.36	4.19
11300.00	7102.97	7103.57	15.84	15.65	18.49	3978.25	117.04	3944.26	4.18
11400.00	7101.21	7101.83	15.84	15.65	18.49	4077.24	119.76	4043.19	4.16
11500.00	7099.52	7100.17	15.83	15.65	18.46	4176.28	122.47	4142.18	4.15
11600.00	7097.91	7098.57	15.83	15.65	18.46	4275.35	125.18	4241.20	4.14
11700.00	7096.35	7097.04	15.83	15.65	18.47	4374.46	127.87	4340.25	4.13
11800.00	7094.86	7095.56	15.82	15.65	18.47	4473.61	130.56	4439.35	4.12
11900.00	7093.43	7094.15	15.82	15.65	18.46	4572.79	133.24	4538.47	4.11
12000.00	7092.05	7092.78	15.82	15.66	18.46	4672.00	135.92	4637.63	4.10
12100.00	7090.72	7091.47	15.81	15.66	18.45	4771.24	138.58	4736.81	4.09
12200.00	7089.44	7090.20	15.81	15.66	18.45	4870.51	141.23	4836.03	4.08
12300.00	7088.21	7088.98	15.81	15.66	18.45	4969.81	143.88	4935.27	4.08
12400.00	7087.02	7087.80	15.81	15.67	18.44	5069.13	146.51	5034.53	4.07
12500.00	7085.87	7086.66	15.81	15.67	18.44	5168.47	149.14	5133.82	4.06
12600.00	7084.76	7085.56	15.80	15.67	18.43	5267.84	151.76	5233.13	4.05
12700.00	7083.69	7084.49	15.80	15.67	18.43	5367.23	154.36	5332.46	4.05
12800.00	7082.65	7083.46	15.80	15.67	18.43	5466.63	156.96	5431.81	4.04
12900.00	7081.65	7082.47	15.80	15.68	18.42	5566.06	159.54	5531.17	4.03
13000.00	7080.67	7081.50	15.79	15.68	18.42	5665.51	162.12	5630.56	4.03
13100.00	7079.73	7080.57	15.79	15.68	18.42	5764.97	164.68	5729.96	4.02
13200.00	7078.82	7079.66	15.79	15.68	18.42	5864.45	167.23	5829.38	4.01
13300.00	7077.94	7078.78	15.79	15.68	18.41	5963.94	169.78	5928.82	4.01
13400.00	7077.08	7077.93	15.79	15.68	18.41	6063.45	172.31	6028.26	4.00
13500.00	7076.25	7077.10	15.79	15.68	18.41	6162.98	174.83	6127.73	4.00
13600.00	7075.44	7076.30	15.78	15.68	18.40	6262.52	177.33	6227.20	3.99
13700.00	7074.65	7075.52	15.78	15.68	18.40	6362.07	179.83	6326.69	3.99
13800.00	7073.89	7074.76	15.78	15.68	18.40	6461.63	182.32	6426.19	3.98
13900.00	7073.15	7074.03	15.78	15.69	18.40	6561.21	184.79	6525.71	3.98
14000.00	7072.43	7073.31	15.78	15.69	18.39	6660.80	187.25	6625.23	3.97
14100.00	7071.73	7072.61	15.78	15.69	18.39	6760.40	189.70	6724.76	3.97
14200.00	7071.04	7071.93	15.77	15.69	18.39	6860.01	192.14	6824.31	3.96
14292.01	7070.43	7071.32	15.77	15.69	18.39	6951.67	194.37	6915.90	3.96

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

GeoDec v5.03

Report Date: January 09, 2014

Job Number: _____

Customer: BOPCO

Well Name: Poker Lake Unit 421H

API Number: _____

Rig Name: JM Wright Unit #92H

Location: Eddy Co, NM

Block: _____

Engineer: RWJ

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 398738.600 USFT

Latitude 32.0953753 DEG

East/West 645641.350 USFT

Longitude -103.8630293 DEG

Grid Convergence: .25°

Total Correction: +7.24°

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 32.09538° N 32° 5 min 43.351 sec

Longitude = 103.86303° W 103° 51 min 46.906 sec

Magnetic Declination = 7.49° [True North Offset]

Local Gravity = .9988 g CheckSum = 6737

Local Field Strength = 48234 nT Magnetic Vector X = 23960 nT

Magnetic Dip = 59.93° Magnetic Vector Y = 3150 nT

Magnetic Model = bggm2013 Magnetic Vector Z = 41743 nT

Spud Date = Mar 15, 2014 Magnetic Vector H = 24166 nT

Signed: _____

Date: _____