OCD-ARTESIA

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5 Lease Serial No
LC 067145

6. If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ ☐ Gas Well ☐ ☐ Other

UNORTHODOX LOCATION

8. Well Name and No.
North Indian Flats 24 Federal #3H

2. Name of Operator **BOPCO, L. P.**

9. API Well No.
30-015-37901

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

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

10. Field and Pool, or Exploratory Area
Indian Flats (Delaware)

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

SENE, UL H, 1980' FNL, 660' FEL, Lat N32.467439, Long W104.03305, Sec 24, T21S-R28E
BHL: SENE UL H 2625' FNL, 1100' FEL, Lat N32.465669, Long W104.034483, Sec 24, T21S, R28E

11. County or Parish, State
Eddy Co., 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	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 recompletion 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 approval to change the original APD approved 5/20/2010 from a vertical well to a horizontal well. Revised drilling procedure, directional plan, and plats are attached.

Contact the BLM if cement does not circulate to surface.

SUBJECT TO LIKE APPROVAL BY STATE

OCD CONDITION OF APPROVAL for Drilling.
Intent to drill ONLY --- CANNOT produce until the Non-Standard Location has been approved by OCD Santa Fe office

RECEIVED
JUN 13 2011
NMOCD ARTESIA

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* **Katy Holster** Title **Administrative Assistant**

Signature KHolster Date 3/14/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ Date

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

APPROVED
/s/ Chris Walls
JUN 6 2011
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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)

3/14/11

Surface casing to be set into the Rustler below all fresh water sands at approximately 467'.

Production casing will be 5-1/2", 17#, J or K-55, 8rd LT&C with ECP (External Casing Packer) and DV Tool set at approximately 3,071'. The 5-1/2" casing will be cemented from DV Tool to surface using Rising Star Class "C" plus additives. The 5-1/2" casing in the lateral will be perforated with ¼" holes, 6 SPF, 60 degree phasing and will not be cemented.

Drilling procedure, BOP diagram, anticipated tops and surface plans attached.

This well is located outside the Secretary's Potash area and outside the R-111 Potash area. There are potash leases within 5 miles of the location. (4 miles southeast)

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a division office 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: North Indian Flats 24 Federal #3H

LEGAL DESCRIPTION - SURFACE: 1980' FNL & 660' FEL, Section 24, T21S, R28E, Eddy County, New Mexico.
Lateral BHL: 2625' FNL & 1100' FEL, Section 24, T21S, R28E, 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 3267'
GL 3254'

Formation	Estimated Top From KB TVD	MD	Estimated Subsea Top	BEARING
T/Rustler	13'	13'	+3,254'	Barren
T/Fresh Water	145'	145'	+3,122'	Fresh Water
T/Salt	477'	477'	+2,790'	Barren
B/Salt	2,317'	2,317'	+950'	Barren
T/Delaware Mtn Grp	2,708'	2,708'	+559'	Barren
Clean Carb above R. Sand	2,872'	2,872'	+395'	Oil/Gas
T/Ramsey "74" Sand	2,897'	2,897'	+370'	Oil/Gas
T/74" Reservoir Sand	2,903'	2,903'	+364'	Oil/Gas
B/74" Reservoir Sand	2,913'	2,913'	+354'	Oil/Gas
T/Ramsey "66" Sand	2,932'	2,932'	+335'	Oil/Gas
B/Ramsey "66" Sand	2,977'	2,977'	+290'	Oil/Gas
TD Pilot Hole	3,200'	3,200'	+67'	Oil/Gas
KOP	2,620'	2,620'	+647'	Oil/Gas
EOC "74" Sand Target	2,907'	3,071'	+360'	Oil/Gas
TD (Horizontal)	2,907'	3,560'	+360'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	HOLE SIZE	INTERVALS	PURPOSE	CONDITION
14"	20"	0' – 40'	Conductor	Contractor Discretion
8-5/8", 24#, K-55, 8rd STC	12-1/4"	0' – 467'	Surface	New
5-1/2", 17#, J or K-55, 8rd LTC	7-7/8"	0' – 3,071'	Production	New
5-1/2", 17#, J or K-55, 8rd LTC perforated, ¼" holes, 6 SPF, 60 degree phasing	7-7/8"	3,071'-3,560'	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
8-5/8", 24#, K-55, 8rd STC	28.3	6.72	7.16
5-1/2", 17#, J or K-55, 8rd LTC	6.01	3.27	5.31
5-1/2", 17#, J or K-55, 8rd LTC	6.01	3.27	5.31

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS: 2

SURFACE CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure a that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PRODUCTION CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (11.0 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 (0.57 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.25 design factor with anticipated maximum tubing pressure (5,045 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure (0.43 psi/ft). The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A 11" x 3000 psi BOP equivalent to Diagram 1 will be nippled up on the surface casing head. The BOP stack, blind and pipe rams, chokes, kill line, Upper and lower Kelly valves, inside BOP, choke manifold when rigged up on the surface casing will be tested to 3000 psig (working pressure of BOPE) and 250 psi by independent tester. Hydril will be tested to 1500 psi.

These tests will be preformed:

a) When initially installed
b) Whenever any seal subject to test pressure is broken
c) Following related repairs
d) At 30 day intervals

A function test to insure that the preventers are operating correctly will be performed on each trip. See the attached Diagram 1 for the minimum criteria for the choke manifold.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' – 467'	FW	8.5 - 9.2	45-35	NC	NC	NC	9.5
467' – 3,200'	BW	10.0 - 10.3	28-30	NC	NC	NC	9.5
2,500'–3,560'	BW	10.0 - 10.3	28-34	2-4	2-4	20 or less	9.5

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

No drill stem tests are planned

B) LOGGING.

Run #1:
PEX (GR-CNL/LDT-AIT) @ TD. GR/CNL to surface.
FMI possible at TD of pilot hole.
Mud Logger: Rig up at surface to assist in picking top of salt.
GR while drilling lateral.

C) CORING

No cores are anticipated.

C) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT3/SX
SURFACE: Lead: 0'-167' (100% excess) (circulate to surface)	100	167	Rising Star Class "C" 35:65+6% gel+5% NaCl	9.95	12.80	1.90
Tail: 167'-467' (100% excess)	225	300	Rising Star Class "C"+2% CaCL2+additives	6.39	14.8	1.36
PRODUCTION: 1st Stage Lead: 0'-2,971' (50% excess circ to surface)	350	2,971	Rising Star Class "C" 35:65+5% NaCl	9.95	12.8	1.90
Tail: 2,971'-3,071' (50% excess)	100	100	Rising Star Class "C	6.39	14.8	1.36

E) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 8-5/8" surface casing with an 7-7/8" bit to a TVD of approximately 3,200'. Open hole logs will be run and the 7-7/8" hole then plugged back to 2,521' with 310 sks cement. See Point 8 part "C" for details. This cement plug will be drilled out to 2,621', tested and then a directional hole will be kicked off building angle at 20 deg/100' and azimuth of 213.80 degrees. Azimuth will be maintained to a measured depth of 3,560 (2,907' TVD). At this depth 5-1/2", 17#, J or K-55, 8rd, LTC casing will be installed and cemented with DV Tool and ECP @ approximately 3,071' with cement being circulated to surface. The casing in the lateral will be 5-1/2", 17#, J or K-55, 8rd, LTC pre-perforated, ¼" holes, 6 SPF, 60 degree phasing and not cemented.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout the Delaware section. A BHP of 1472 psi (max) or MWE of 8.33 ppg is expected. H_2S contingency plan is attached.

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

Spud date is 5/01/2011.

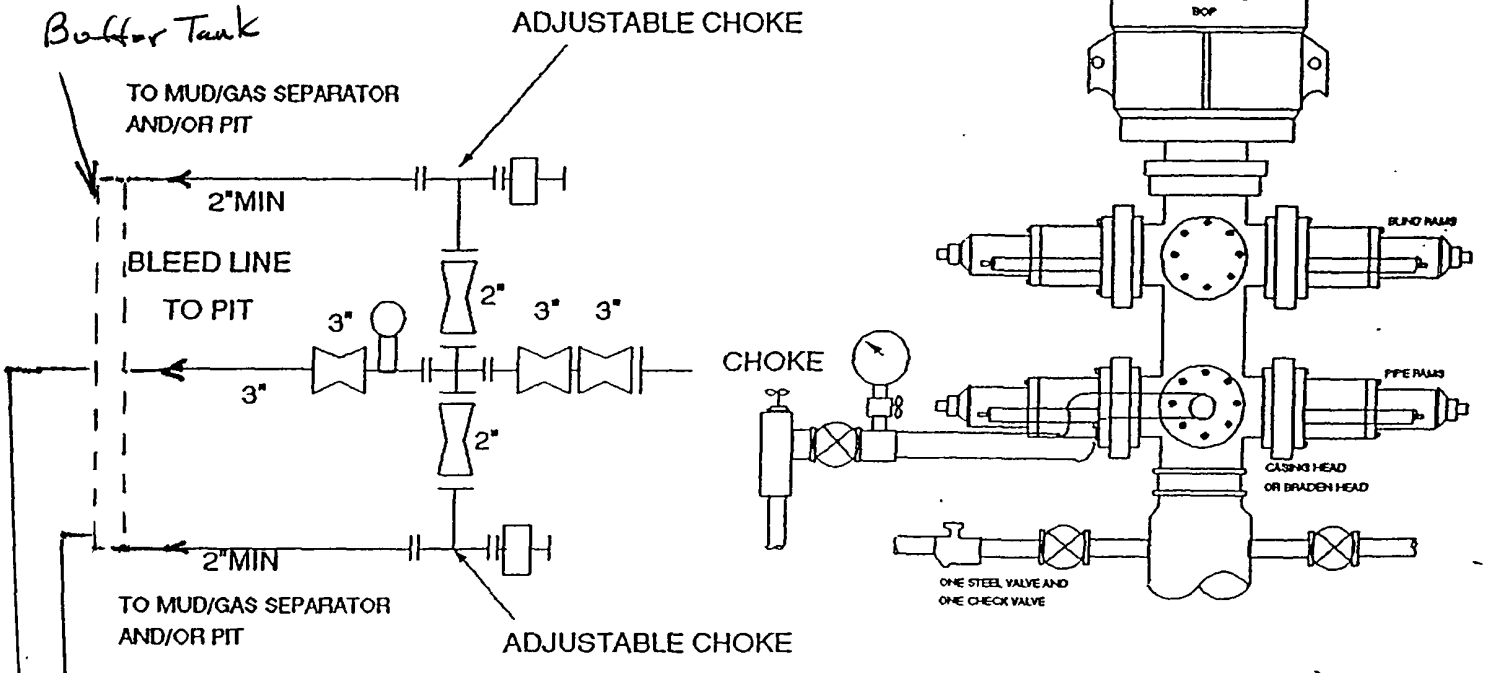
15 days drilling operations

7 days completion operations

C) Plug back cement will be 310 sks (approximately) Rising Star (or similar) Class "C" + 1.5% C-35 (friction reducer) + 0.25% R-38 (defoamer) mixed at 17ppg, 1.0 cu ft/sk.

GEG/keh

11" x 3000 PSI WP



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. One double gate blowout preventer with lower rams for pipe and upper rams blind, 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 BOP's.

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. All chokes will be adjustable. Choke spool may be used between rams.

DIAGRAM 1

→ To steel mud tanks

→ Bleed Line to steel ½ Pit (Approx 100' from well) Not connected to Buffer Tank

Weatherford®

Drilling Services

Proposal

BOPCO, L.P.

NORTH INDIAN FLATS 24 FED 3

EDDY CO NM

WELL FILE: **PLAN 1**

FEBRUARY 18, 2011

Weatherford International, Ltd.
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BOPCO, L.P.

North Indian Flats 24 Fed #3
Eddy Co., New Mexico

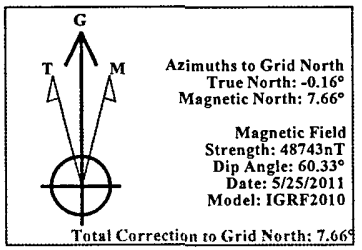
Weatherford

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	213.80	0.00	0.00	0.00	0.00	0.00	0.00	
2	2620.52	0.00	213.80	2620.52	0.00	0.00	0.00	0.00	0.00	
3	3070.52	90.00	213.80	2907.00	-238.05	-159.39	20.00	213.80	286.48	
4	3560.22	90.00	213.80	2907.00	-644.96	-431.84	0.00	0.00	776.18	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
3	0.00	0.00	533958.25	633792.41	32°28'03.197N	104°02'00.793W	N/A



Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.66°

Magnetic Field
Strength: 48743nT
Dip Angle: 60.33°
Date: 5/25/2011
Model: IGRF2010

Total Correction to Grid North: 7.66°

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	2907.00	-644.96	-431.84	533313.29	633360.57	Point

FIELD DETAILS

Eddy County, NM (Nad 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

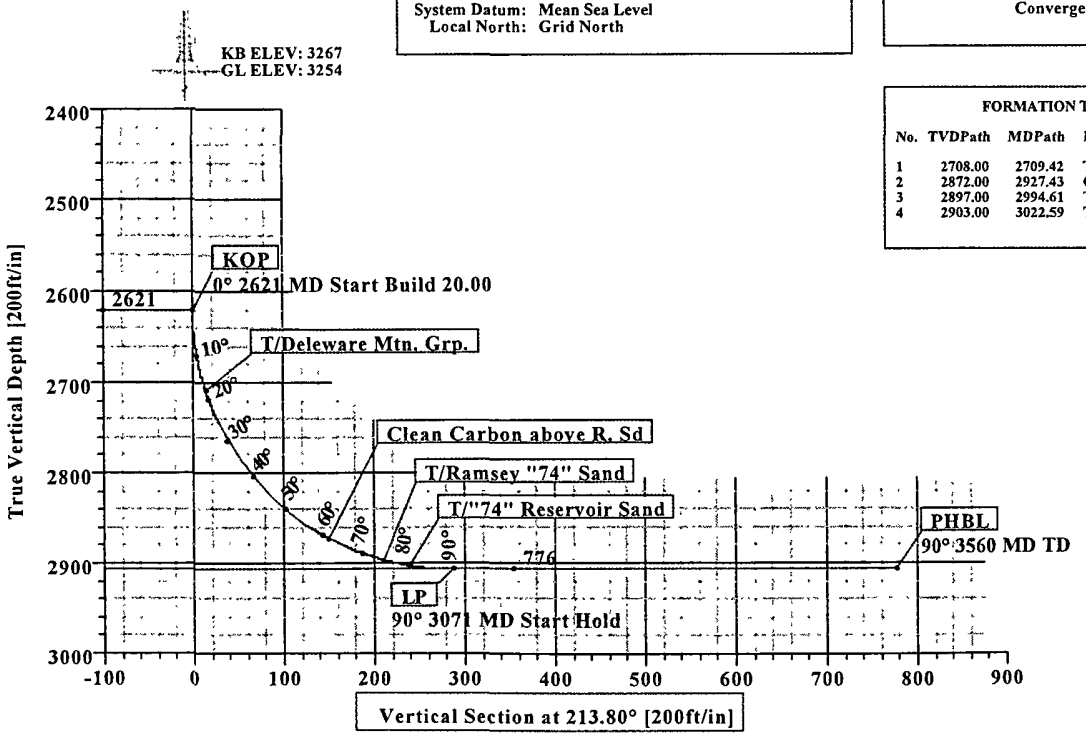
North Indian Flats 24 Fed 3

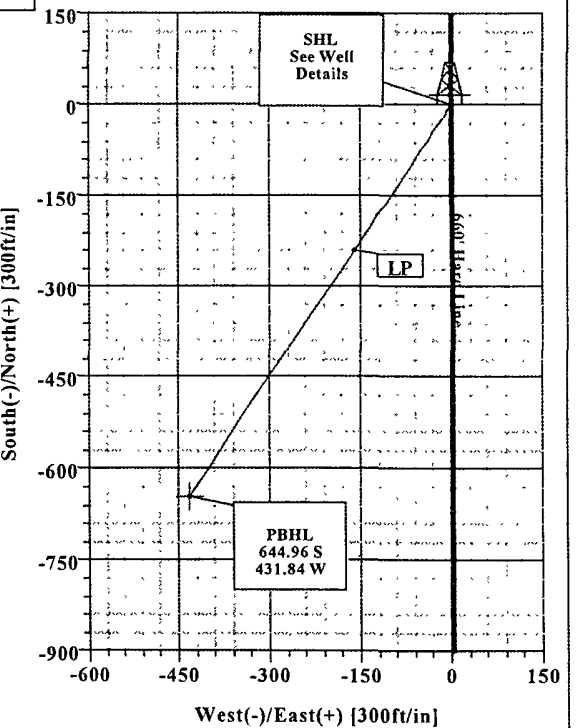
Site Centre Northing: 533958.25
Easting: 633792.41

Ground Level: 3254.00
Positional Uncertainty: 0.00
Convergence: 0.16

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	2708.00	2709.42	T/Deleware Mtn. Grp.
2	2872.00	2927.43	Clean Carbon above R. Sd
3	2897.00	2994.61	T/Ramsey "74" Sand
4	2903.00	3022.59	T/"74" Reservoir Sand





Plan: Plan #1 (3/1)

Created By: Keith Noack Date: 2/18/2011

Weatherford International Ltd.

WFT Survey Report X & Y's

Weatherford

Company:	BOPCO, LP	**Date:** 2/18/2011 **Time:** 12:05:47	**Page:** 1
Field:	Eddy County, NM (Nad 83)	**Co-ordinate(NE) Reference:**	Well: 3, Grid North
Site:	North Indian Flats 24 Fed 3	**Vertical (TVD) Reference:**	SITE 3267.0
Well:	3	**Section (VS) Reference:**	Well (0.00N,0.00E,213.80Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey: **Start Date:**

Company: **Engineer:**

Tool: **Tied-to:**

Field: Eddy County, NM (Nad 83)

Map System: US State Plane Coordinate System 1983 **Map Zone:** New Mexico, Eastern Zone

Geo Datum: GRS 1980 **Coordinate System:** Well Centre

Sys Datum: Mean Sea Level **Geomagnetic Model:** IGRF2010

Site: North Indian Flats 24 Fed 3

Site Position:			**Northing:**	533958.25 ft	**Latitude:**	32 28	3.197	N
From:	Map		**Easting:**	633792.41 ft	**Longitude:**	104 2	0.793	W
Position Uncertainty:		0.00 ft			**North Reference:**		Grid	
Ground Level:		3254.00 ft			**Grid Convergence:**		0.16	deg

Well: 3 **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	533958.25 ft	**Latitude:**	32 28	3.197	N
	+E/-W	0.00 ft	**Easting:**	633792.41 ft	**Longitude:**	104 2	0.793	W
Position Uncertainty:		0.00 ft						

Wellpath: 1 **Drilled From:** Surface

Tie-on Depth: 0.00 ft

Current Datum: SITE **Height** 3267.00 ft **Above System Datum:** Mean Sea Level

Magnetic Data: 5/25/2011 **Declination:** 7.82 deg

Field Strength: 48743 nT **Mag Dip Angle:** 60.33 deg

Vertical Section: Depth From (TVD) ft	+N/-S ft	+E/-W ft	Direction deg
2907.00	0.00	0.00	213.80

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
2600.00	0.00	213.80	2600.00	0.00	0.00	0.00	0.00	533958.25	633792.41	
2620.52	0.00	213.80	2620.52	0.00	0.00	0.00	0.00	533958.25	633792.41	KOP
2700.00	15.90	213.80	2698.98	-9.10	-6.09	20.00	10.95	533949.15	633786.32	
2709.42	17.78	213.80	2708.00	-11.37	-7.61	20.00	13.68	533946.88	633784.80	T/Deleware Mtn. G
2800.00	35.90	213.80	2788.49	-45.21	-30.27	20.00	54.41	533913.04	633762.14	
2900.00	55.90	213.80	2857.73	-104.57	-70.02	20.00	125.85	533853.68	633722.39	
2927.43	61.38	213.80	2872.00	-124.03	-83.04	20.00	149.26	533834.22	633709.37	Clean Carbon abov
2994.61	74 82	213.80	2897.00	-175.70	-117.64	20.00	211.45	533782.55	633674.77	T/Ramsey "74" San
3000.00	75.90	213.80	2898.36	-180.04	-120.55	20.00	216.67	533778.21	633671.86	
3022.59	80.41	213.80	2903.00	-198.41	-132.84	20.00	238.77	533759.84	633659.57	T/"74" Reservoir
3070.52	90.00	213.80	2907.00	-238.05	-159.39	20.00	286.48	533720.20	633633.02	LP
3100.00	90.00	213 80	2907.00	-262.54	-175.79	0.00	315.96	533695.71	633616.62	
3200.00	90.00	213.80	2907 00	-345.64	-231.42	0.00	415.96	533612.61	633560.99	
3300.00	90.00	213.80	2907.00	-428.73	-287.06	0.00	515.96	533529.52	633505.35	
3400.00	90.00	213.80	2907.00	-511.82	-342.70	0.00	615.96	533446.43	633449.71	
3500.00	90 00	213.80	2907.00	-594.92	-398.33	0 00	715.96	533363.33	633394 08	
3560.22	90 00	213.80	2907.00	-644.96	-431.84	0 00	776.18	533313.29	633360.57	PBHL

Weatherford International Ltd.

WFT Survey Report X & Y's

Weatherford

Company:	BOPCO, L.P.	**Date:**	2/18/2011	**Time:** 12:05:47	**Page:** 2
Field:	Eddy County, NM (Nad 83)	**Co-ordinate(NE) Reference:**	Well: 3, Grid North		
Site:	North Indian Flats 24 Fed 3	**Vertical (TVD) Reference:**	SITE 3267.0		
Well:	3	**Section (VS) Reference:**	Well (0.00N,0.00E,213.80Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Annotation

MD ft	TVD ft	
2620 52	2620.52	KOP
3070.52	2907.00	LP
3560.22	2907.00	PHBL

Weatherford

Weatherford Drilling Services

GeoDec v5.03

Report Date:	February 18, 2011
Job Number:	
Customer:	BOPCO
Well Name:	North Indian Flats 24 Fed #3H
API Number:	
Rig Name:	
Location:	Eddy Co, NM
Block:	
Engineer:	RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 533958.251 USFT	Latitude 32.4675578 DEG
East/West 633792.410 USFT	Longitude -104.0335495 DEG
Grid Convergence: .16°	
Total Correction: +7.66°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.46756° N	32° 28 min 3.208 sec
Longitude =	104.03355° W	104° 2 min .778 sec

Magnetic Declination =	7.82°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6638
Local Field Strength =	48739 nT	Magnetic Vector X =	23898 nT
Magnetic Dip =	60.33°	Magnetic Vector Y =	3284 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	42350 nT
Spud Date =	May 25, 2011	Magnetic Vector H =	24123 nT

Signed:_____ Date:_____