Form 3160-5
(August 2007)

OCD Artesia

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMLC065914

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
891000326X

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

8. Well Name and No.
BIG EDDY UNIT DI5 4H

2. Name of Operator
BOPCO LP
Contact: WHITNEY MCKEE
E-Mail: wbmckee@basspet.com

9. API Well No.
30-015-40397-00-X1

3a. Address
MIDLAND, TX 79702

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

10. Field and Pool, or Exploratory
PARALLEL ; Delaware

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 27 T20S R31E SWNE 1980FNL 1848FEL

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 to Original A PD
	☐ 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. respectfully requests to change the bottom hole location of the Big Eddy Unit DI5 #4H to 1080' FNL & 330' FEL Section 26, T20S-R31E. Please see the attached, updated plat and directional plan.

BOPCO, L.P. respectfully requests to alter the Eight Point Drilling Program as attached.

RECEIVED
MAY 19 2014
NMOCD ARTESIA

Accepted for record
NMOCD 5-19-2014

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #244502 verified by the BLM Well Information System
For BOPCO LP, sent to the Carlsbad
Committed to AFMSS for processing by CHRISTOPHER WALLS on 05/12/2014 (14CRW0261SE)

Name *(Printed/Typed)* CHRIS GIESE — Title DRILLING ENGINEER

Signature (Electronic Submission) — Date 05/05/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED
MAY 12 2014
/s/ Chris Walls
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

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

OIL CONSERVATION DIVISION

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

Form C-102
Revised July 16, 2010

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	49600	PARALLEL (DELAWARE)

Property Code	Property Name	Well Number
305860	BIG EDDY UNIT DI 5	4H

OGRID No.	Operator Name	Elevation
260737	BOPCO, L.P.	3523'

Surface Location

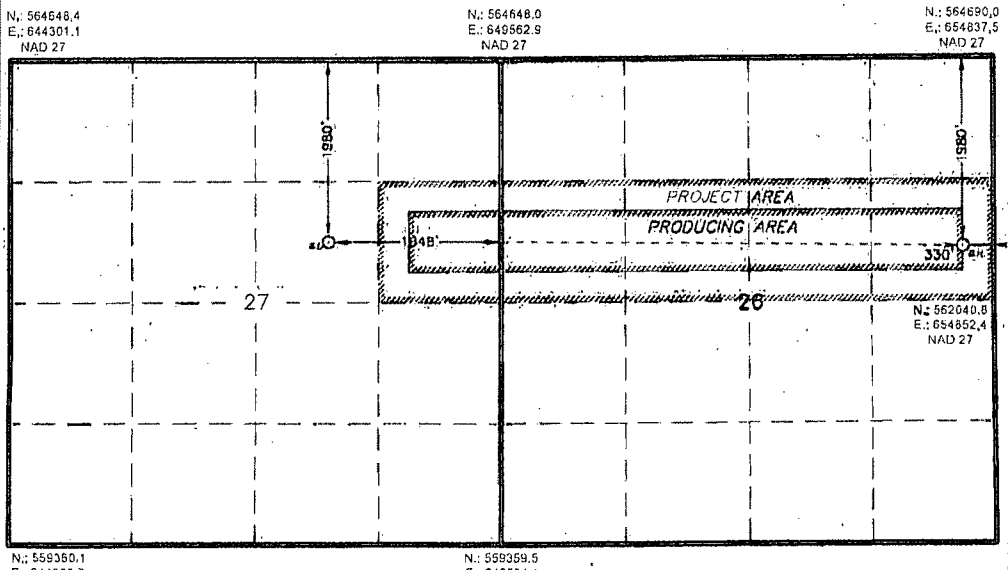
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	27	20 S	31 E		1980	NORTH	1848	EAST	EDDY

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
H	26	20 S	31 E		1980	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
200			

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°32'45.49"
Long – W 103°51'14.19"
NMSPCE– N 562668.476
E 647722.356
(NAD-27)

PROPOSED BOTTOM HOLE LOCATION
Lat – N 32°32'45.57"
Long – W 103°49'54.79"
NMSPCE– N 562707.3
E 654518.6
(NAD-27)

SCALE 1" = 2000'

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 Date

Whitney McKee
Printed Name

5/5/2014
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 supervison, and that the same is true and correct to the best of my belief.

JANUARY 13, 2012
Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 26030

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

POINT 3: CASING PROGRAM

*** Depending on availability**

Casing Description	Interval (MD)	Hole Size	Purpose	Material Status
30"	0' – 109'	36"	Conductor	New
16", 84 ppf, J-55, BT&C	0' – 839'	18-1/8"	Surface	New
13-3/8", 68 ppf, HCL-80 Ultra Flush Joint	0' – 2,700'	14-3/4"	1st Intermediate	New
9-5/8", 40 ppf, N-80, LT&C*	0' – 3,917'	12-1/4"	2nd Intermediate	New
7", 26 ppf, HCP-110, BT&C	0' – 7,692'	8-3/4"	Production	New
Completion System				
4-1/2", 11.6 ppf, HCP-110, BT&C	7,642' – 13,896'	6-1/8"	Completion System	New

CASING DESIGN SAFETY FACTORS:

Type	Tension	Collapse	Burst
16", 84 ppf, J-55, BT&C	21.89	3.46	1.94
13-3/8", 68 ppf, HCL-80 Ultra Flush Joint	4.41	1.52	3.15
9-5/8", 40 ppf, N-80, LT&C	5.51	1.53	2.65
7", 26 ppf, HCP-110, BT&C	4.19	1.57	2.41
Completion System			
4-1/2", 11.6 ppf, HCP-110, BT&C	3.96	1.76	2.07

*** Depending on availability.**

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM A, B, C or D)

BOPCO, L.P. will be utilizing a standard wellhead with a 7" casing MB mandrel system. The BOPE when rigged up on the 16"' surface casing head (18-1/8" hole) will consist of 20" hydril and diverter system per diagram B (2,000 psi WP). The hydril when installed on surface casing will be tested to 1,000 psi.

After running the 13-3/8" 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" 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, the BOP stack will not need to be taken off to set slips with the MB wellhead mandrel system. No BOP test will be required after running this string of casing

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
e) Anytime a seal is broken within the system

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 13,896' MD (7,456' TVD) and max surface pressure should be +/- 1927 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 diagrams A, B or 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.**

D) CEMENT

Interval (MD)	Amt. (sx)	Fill Ht. (ft)	Type	Water (gal/sx)	Density (ppg)	Vol. (cu. ft)
SURFACE: Lead: 0' – 535'	250	535	Class C +2% CACL + 4% Bentonite + 0.25% HR-800	9.08	13.5	1.72
Tail: 535' – 835'	200	300	Class C "Neat"	6.34	14.80	1.33
INTERMEDIATE: Lead: 0' – 2,200'	700	2,853	EconoCem HLC +5% Salt + 0.125 pps Poly-E-Flake	9.81	12.90	1.85
Tail: 2,200' – 2,700'	250	500	Premium Plus "C"	6.38	14.80	1.33
INTERMEDIATE 2 Stage:1						
Primary: 2,803' – 3,917'	510	986'	Extenda Cem C + 4% HALAD-9 + 3 pps Kol-Seal	8.91	13.5	1.74
External Casing Packer and DV Tool @ 2,803'						

Stage 2:						
Lead: 0' – 2,503'	550	2,503'	EconoCem HLC + 5% NaCL	9.81	12.90	1.85
Tail: 2,503' – 2,803'	200	300	Cemex Premium "C"	6.38	14.80	1.33
PRODUCTION						
Stage:1						
Lead: 5,000' – 6,156'	120	1,156'	Tuned Light + 0.25 pps HR-601	14.92	11.0	2.65
Tail: 6,156' – 7,692'	225	1,536'	PBSH2 + 0.5% Halad-344 + 0.4% CFR-3 + 1 pps Salt	8.84	13.0	1.67
Top DV tool @ 5,000'						
Stage: 2						
Lead: 2,753' – 5,000'	250	2,247'	Tuned Light + 0.125 pps Poly-E-Flake	11.70	11.0	2.35

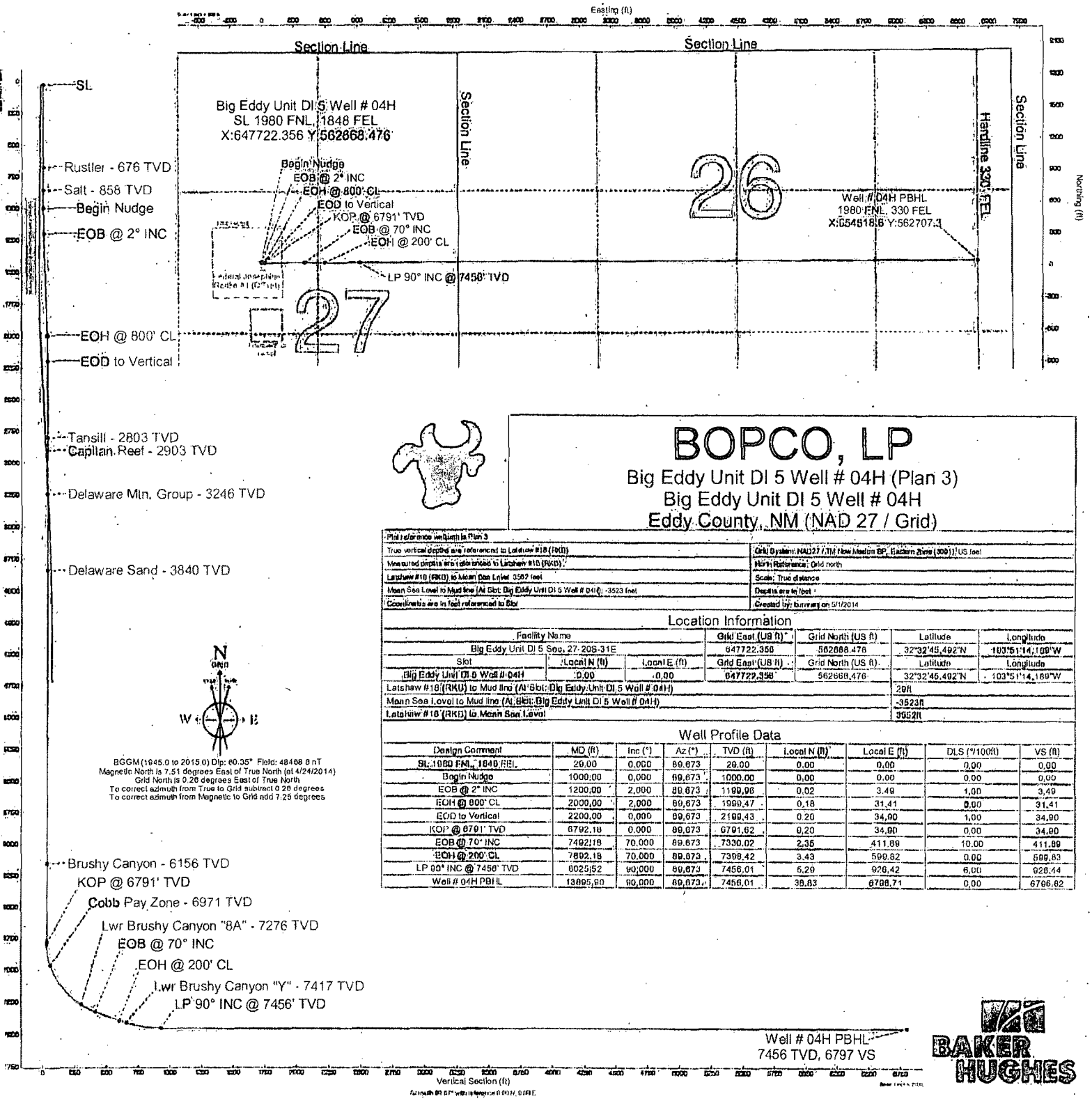
Cement excesses will be as follows:

Surface – 100% excess with cement circulated to surface.

1st Intermediate – 30% excess above fluid caliper with cement circulated to surface

2nd Intermediate – 50% excess above fluid caliper in stage 1. 50% excess above fluid caliper for stage 2 with cement circulated to surface.

3rd Intermediate/Production – 50% excess above fluid caliper with cement circulated 50' above the Tansil. Cement volumes will be adjusted proportionately for depth changes of the multi stage tool.



N GRID

W E

BGGM (1945.0 to 2015.0) Dip: 60.35° Field: 48468.8 nT
Magnetic North is 7.51 degrees East of True North (at 4/24/2014)
Grid North is 0.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.25 degrees

BOPCO, LP

Big Eddy Unit DI 5 Well # 04H (Plan 3)
Big Eddy Unit DI 5 Well # 04H
Eddy County, NM (NAD 27 / Grid)

Plot reference wellpath is Plan 3	
True vertical depths are referenced to Latshaw #18 (RKB)	Grid System: NAD27 / TM New Mexico EP, Eastern Zone (3001) US feet
Measured depths are referenced to Latshaw #18 (RKB)	North Reference: Grid north
Latshaw #18 (RKB) to Mean Sea Level: 3552 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H): -3523 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: bunveyj on 5/1/2014

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI 5 Sec. 27-20S-31E			647722.356	562668.476	32°32'46.492"N	103°51'14.109"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI 5 Well # 04H	0.00	0.00	647722.356	562668.476	32°32'46.492"N	103°51'14.109"W
Latshaw #18 (RKB) to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H)						29ft
Mean Sea Level to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H)						-3523ft
Latshaw #18 (RKB) to Mean Sea Level						3552ft

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SL 1980 FNL, 1848 FEL	29.00	0.000	89.673	29.00	0.00	0.00	0.00	0.00
Begin Nudge	1000.00	0.000	89.673	1000.00	0.00	0.00	0.00	0.00
EOB @ 2° INC	1200.00	2.000	89.673	1199.96	0.02	3.49	1.00	3.49
EOH @ 800' CL	2000.00	2.000	89.673	1999.47	0.18	31.41	0.00	31.41
EOD to Vertical	2200.00	0.000	89.673	2199.43	0.20	34.90	1.00	34.90
KOP @ 6791' TVD	6792.18	0.000	89.673	6791.62	0.20	34.90	0.00	34.90
EOB @ 70° INC	7492.18	70.000	89.673	7330.02	2.35	411.89	10.00	411.89
EOH @ 200' CL	7692.18	70.000	89.673	7398.42	3.43	599.82	0.00	599.83
LP 90° INC @ 7456' TVD	8025.52	90.000	89.673	7456.01	5.29	926.42	6.00	926.44
Well # 04H PBHL	13895.80	90.000	89.673	7456.01	38.83	6796.71	0.00	6796.82

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BOPCO, LP

Big Eddy Unit DI 5 Well # 04H (Plan 3)
Big Eddy Unit DI 5 Well # 04H
Eddy County, NM (NAD 27 / Grid)

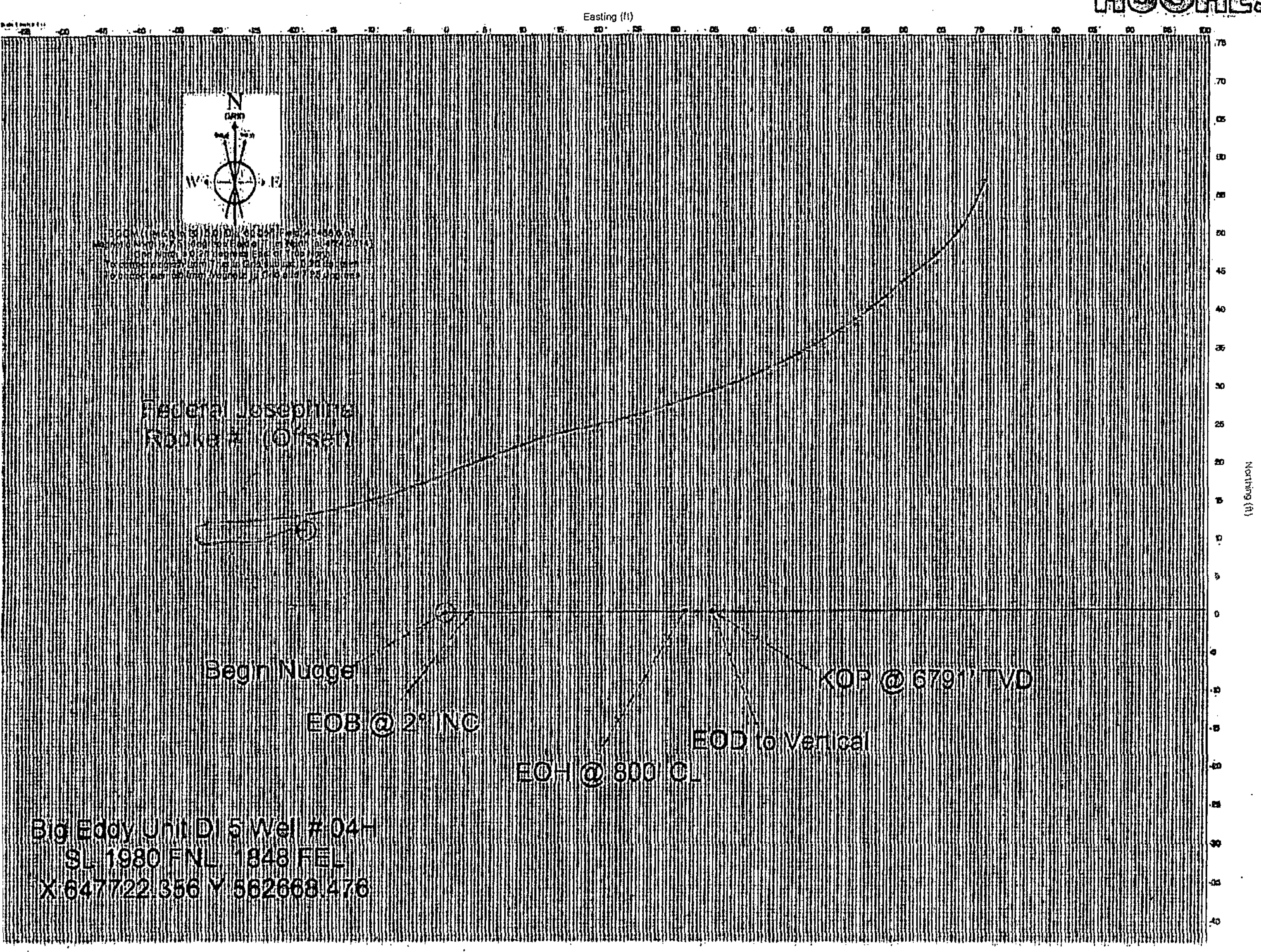
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI 5 Sec. 27-20S-31E			647722.350	562668.4	32°32'45.492"N	103°51'14.180"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI 5 Well # 04H	0.00	0.00	647722.356	562668.476	32°32'45.492"N	103°51'14.180"W
Datum #1 (DKB) to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H)					[illegible]	
Mean Sea Level to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H)					-3273.8	
Datum #1 (DKB) to Mean Sea Level					[illegible]	

Plot reference wellpath is Plan 3	
True vertical depths are referenced to Datum #1 (DKB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Datum #1 (DKB)	North Reference: Grid north
Datum #1 (DKB) to Mean Sea Level: 3352 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Big Eddy Unit DI 5 Well # 04H): -3273.8 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: [illegible] on 8/1/2014

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SHL 1980 FNL, 1848 FEL	29.00	0.000	89.073	29.00	0.00	0.00	0.00	0.00
Begin Nudge	1000.00	0.000	89.073	1000.00	0.00	0.00	0.00	0.00
EOB @ 2° INC	1200.00	2.000	89.073	1199.96	0.02	3.49	1.00	3.49
EOH @ 800' CL	2000.00	2.000	89.073	1999.47	0.18	31.41	0.00	31.41
EOD to Vertical	2200.00	0.000	89.073	2199.43	0.20	34.90	1.00	34.90
KOP @ 6791' TVD	6792.18	0.000	89.073	6791.02	0.20	34.90	0.00	34.90
EOB @ 70° INC	7497.18	70.000	89.073	7330.02	2.36	411.80	10.00	411.80
EOH @ 200' CL	7692.18	70.000	89.073	7398.42	[illegible]	599.82	0.00	599.83
LP 90° INC @ 7460' TVD	8073.12	90.000	89.073	7458.01	8.29	926.42	0.00	926.44
Well # 04H BHL	13095.00	90.000	89.073	7458.01	38.82	6795.71	0.00	6795.82



Planned Wellpath Report

Plan 3

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	Big Eddy Unit DI 5 Well # 04H
Area	Eddy County, NM	Well	Well # 04H (SL 1980 FNL, 1848 FEL)
Field	Eddy County, NM (NAD 27 / Grid)	Wellbore	Well # 04H Planned
Facility	Big Eddy Unit DI 5 Sec. 27-20S-31E		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Burnranj
Scale	0.999934	Report Generated	5/1/2014 at 8:21:45 AM
Convergence at slot	0.26° East	Database/Source file	WA_MIDLAND/C:\Users\burnranj\AppData\Roaming\Well Explorer\temp\BOPCO, LP Big Eddy Unit DI 5 Well # 04H (Plan 3).xml

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	647722.36	562668.48	32°32'45.492"N	103°51'14.189"W
Facility Reference Pt			647722.36	562668.48	32°32'45.492"N	103°51'14.189"W
Field Reference Pt			510280.10	534700.83	32°28'12.000"N	104°18'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Latshaw #18 (RKB) to Facility Vertical Datum	29.00ft
Horizontal Reference Pt	Slot	Latshaw #18 (RKB) to Mean Sea Level	3552.00ft
Vertical Reference Pt	Latshaw #18 (RKB)	Latshaw #18 (RKB) to Mud Line at Slot (Big Eddy Unit DI 5 Well # 04H)	29.00ft
MD Reference Pt	Latshaw #18 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.67°

Planned Wellpath Report

Plan 3

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	Big Eddy Unit DI 5 Well # 04H
Area	Eddy County, NM	Well	Well # 04H (SL 1980 FNL, 1848 FEL)
Field	Eddy County, NM (NAD 27 / Grid)	Wellbore	Well # 04H Planned
Facility	Big Eddy Unit DI 5 Sec. 27-20S-31E		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	89.673	0.00	0.00	0.00	0.00	0.00	
29.00	0.000	89.673	29.00	0.00	0.00	0.00	0.00	SL 1980 FNL, 1848 FEL
676.00†	0.000	89.673	676.00	0.00	0.00	0.00	0.00	Rustler - 676 TVD
858.00†	0.000	89.673	858.00	0.00	0.00	0.00	0.00	Salt - 858 TVD
1000.00†	0.000	89.673	1000.00	0.00	0.00	0.00	0.00	Begin Nudge
1100.00†	1.000	89.673	1099.99	0.87	0.00	0.87	1.00	
1200.00	2.000	89.673	1199.96	3.49	0.02	3.49	1.00	EOB @ 2° INC
1300.00†	2.000	89.673	1299.90	6.98	0.04	6.98	0.00	
1400.00†	2.000	89.673	1399.84	10.47	0.06	10.47	0.00	
1500.00†	2.000	89.673	1499.78	13.96	0.08	13.96	0.00	
1600.00†	2.000	89.673	1599.72	17.45	0.10	17.45	0.00	
1700.00†	2.000	89.673	1699.65	20.94	0.12	20.94	0.00	
1800.00†	2.000	89.673	1799.59	24.43	0.14	24.43	0.00	
1900.00†	2.000	89.673	1899.53	27.92	0.16	27.92	0.00	
2000.00†	2.000	89.673	1999.47	31.41	0.18	31.41	0.00	EOH @ 800' GL
2100.00†	1.000	89.673	2099.44	34.03	0.19	34.03	1.00	
2200.00	0.000	89.673	2199.43	34.90	0.20	34.90	1.00	EOD to Vertical
2300.00†	0.000	89.673	2299.43	34.90	0.20	34.90	0.00	
2400.00†	0.000	89.673	2399.43	34.90	0.20	34.90	0.00	
2500.00†	0.000	89.673	2499.43	34.90	0.20	34.90	0.00	
2600.00†	0.000	89.673	2599.43	34.90	0.20	34.90	0.00	
2700.00†	0.000	89.673	2699.43	34.90	0.20	34.90	0.00	
2800.00†	0.000	89.673	2799.43	34.90	0.20	34.90	0.00	
2803.57†	0.000	89.673	2803.00	34.90	0.20	34.90	0.00	Tansill - 2803 TVD
2900.00†	0.000	89.673	2899.43	34.90	0.20	34.90	0.00	
2903.57†	0.000	89.673	2903.00	34.90	0.20	34.90	0.00	Capitan Reef - 2903 TVD
3000.00†	0.000	89.673	2999.43	34.90	0.20	34.90	0.00	
3100.00†	0.000	89.673	3099.43	34.90	0.20	34.90	0.00	
3200.00†	0.000	89.673	3199.43	34.90	0.20	34.90	0.00	
3246.57†	0.000	89.673	3246.00	34.90	0.20	34.90	0.00	Delaware Mtn. Group - 3246 TVD
3300.00†	0.000	89.673	3299.43	34.90	0.20	34.90	0.00	
3400.00†	0.000	89.673	3399.43	34.90	0.20	34.90	0.00	
3500.00†	0.000	89.673	3499.43	34.90	0.20	34.90	0.00	
3600.00†	0.000	89.673	3599.43	34.90	0.20	34.90	0.00	
3700.00†	0.000	89.673	3699.43	34.90	0.20	34.90	0.00	
3800.00†	0.000	89.673	3799.43	34.90	0.20	34.90	0.00	
3840.57†	0.000	89.673	3840.00	34.90	0.20	34.90	0.00	Delaware Sand - 3840 TVD
3900.00†	0.000	89.673	3899.43	34.90	0.20	34.90	0.00	
4000.00†	0.000	89.673	3999.43	34.90	0.20	34.90	0.00	
4100.00†	0.000	89.673	4099.43	34.90	0.20	34.90	0.00	
4200.00†	0.000	89.673	4199.43	34.90	0.20	34.90	0.00	
4300.00†	0.000	89.673	4299.43	34.90	0.20	34.90	0.00	
4400.00†	0.000	89.673	4399.43	34.90	0.20	34.90	0.00	
4500.00†	0.000	89.673	4499.43	34.90	0.20	34.90	0.00	
4600.00†	0.000	89.673	4599.43	34.90	0.20	34.90	0.00	

Planned Wellpath Report

Plan 3

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	Big Eddy Unit DI 5 Well # 04H
Area	Eddy County, NM	Well	Well # 04H (SL 1980 FNL, 1848 FEL)
Field	Eddy County, NM (NAD 27 / Grid)	Wellbore	Well # 04H Planned
Facility	Big Eddy Unit DI 5 Sec. 27-20S-31E		

WELLPATH DATA (146 stations) (†= Interpolated/extrapolated station)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4700.00†	0.000	89.673	4699.43	34.90	0.20	34.90	0.00	
4800.00†	0.000	89.673	4799.43	34.90	0.20	34.90	0.00	
4900.00†	0.000	89.673	4899.43	34.90	0.20	34.90	0.00	
5000.00†	0.000	89.673	4999.43	34.90	0.20	34.90	0.00	
[illegible]	0.000	[illegible]	[illegible]	34.90	0.20	[illegible]	0.00	
5200.00†	0.000	89.673	5199.43	34.90	0.20	34.90	0.00	
5300.00†	0.000	89.673	5299.43	34.90	0.20	34.90	0.00	
5400.00†	0.000	89.673	5399.43	34.90	0.20	34.90	0.00	
5500.00†	0.000	89.673	5499.43	34.90	0.20	34.90	0.00	
5600.00†	0.000	89.673	[illegible]	34.90	0.20	[illegible]	0.00	
5700.00†	0.000	89.673	5699.43	34.90	0.20	34.90	0.00	
5800.00†	0.000	89.673	5799.43	34.90	0.20	34.90	0.00	
5900.00†	0.000	89.673	5899.43	34.90	0.20	34.90	0.00	
6000.00†	0.000	89.673	5999.43	34.90	0.20	34.90	0.00	
6100.00†	0.000	89.673	[illegible]	34.90	0.20	[illegible]	0.00	
6156.57†	0.000	89.673	6156.00	34.90	0.20	34.90	0.00	Brushy Canyon - 6156 TVD
6200.00†	0.000	89.673	6199.43	34.90	0.20	34.90	0.00	
6300.00†	0.000	89.673	6299.43	34.90	0.20	34.90	0.00	
6400.00†	0.000	89.673	6399.43	34.90	0.20	34.90	0.00	
[illegible]	0.000	[illegible]	6499.43	34.90	[illegible]	[illegible]	0.00	
6600.00†	0.000	89.673	6599.43	34.90	0.20	34.90	0.00	
6700.00†	0.000	89.673	6699.43	34.90	0.20	34.90	0.00	
6792.18	0.000	89.673	6791.62	34.90	0.20	34.90	0.00	KOP @ 6791' TVD
6800.00†	0.782	89.673	6799.43	34.95	0.20	34.95	10.00	
[illegible]	10.782	[illegible]	[illegible]	[illegible]	[illegible]	45.01	10.00	
6974.64†	18.245	89.673	6971.00	63.71	0.36	63.70	10.00	Cobb Pny Zone - 6971 TVD
7000.00†	20.782	89.673	6994.90	72.18	0.41	72.18	10.00	
7100.00†	30.782	89.673	7084.84	115.62	0.66	115.61	10.00	
7200.00†	40.782	89.673	7165.86	174.01	0.99	174.01	10.00	
7300.00†	50.782	89.673	7235.51	245.59	1.40	245.59	10.00	
7369.34†	57.716	89.673	7276.00	301.83	1.72	301.83	10.00	Lwr Brushy Canyon "8A" - 7276 TVD
7400.00†	60.782	89.673	7291.67	328.17	1.87	328.17	10.00	
7492.18	70.000	89.673	7330.02	411.89	2.35	411.89	10.00	EOB @ 70° INC
7500.00†	70.000	89.673	7332.69	419.24	2.39	419.23	0.00	
7600.00†	70.000	89.673	7366.90	513.20	[illegible]	513.20	[illegible]	
7692.18	70.000	89.673	7398.42	599.83	3.43	599.82	0.00	EOH @ 200' CL
7700.00†	70.469	89.673	7401.07	607.19	3.47	607.18	6.00	
7751.61†	73.566	89.673	7417.00	656.28	3.75	656.27	6.00	Lwr Brushy Canyon "Y" - 7417 TVD
7800.00†	76.469	89.673	7429.51	703.01	4.02	703.00	6.00	
[illegible]	82.469	89.673	[illegible]	[illegible]	4.58	[illegible]	6.00	
8000.00†	88.469	89.673	7455.67	900.92	5.15	900.91	6.00	
8025.52	90.000	89.673	7456.01	926.44	5.29	926.42	6.00	LP 90° INC @ 7456' TVD
8100.00†	90.000	89.673	7456.01	1000.92	5.72	1000.90	0.00	
8200.00†	90.000	89.673	7456.01	1100.92	6.29	1100.90	0.00	
8300.00†	90.000	89.673	7456.01	1200.92	6.86	1200.90	0.00	

Planned Wellpath Report

Plan 3

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	Big Eddy Unit DI 5 Well # 04H
Area	Eddy County, NM	Well	Well # 04H (SL 1980 FNL, 1848 FEL)
Field	Eddy County, NM (NAD 27 / Grid)	Wellbore	Well # 04H Planned
Facility	Big Eddy Unit DI 5 Sec. 27-20S-31E		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8400.00†	90.000	89.673	7456.01	1300.92	7.43	1300.90	0.00	
8500.00†	90.000	89.673	7456.01	1400.92	8.00	1400.90	0.00	
8600.00†	90.000	89.673	7456.01	1500.92	8.57	1500.90	0.00	
8700.00†	90.000	89.673	7456.01	1600.92	9.15	1600.89	0.00	
8800.00†	90.000	89.673	7456.01	1700.92	9.72	1700.89	0.00	
8900.00†	90.000	89.673	7456.01	1800.92	10.29	1800.89	0.00	
9000.00†	90.000	89.673	7456.01	1900.92	10.86	1900.89	0.00	
9100.00†	90.000	89.673	7456.01	2000.92	11.43	2000.89	0.00	
9200.00†	90.000	89.673	7456.01	2100.92	12.00	2100.89	0.00	
9300.00†	90.000	89.673	7456.01	2200.92	12.57	2200.89	0.00	
9400.00†	90.000	89.673	7456.01	2300.92	13.14	2300.88	0.00	
9500.00†	90.000	89.673	7456.01	2400.92	13.72	2400.88	0.00	
9600.00†	90.000	89.673	7456.01	2500.92	14.29	2500.88	0.00	
9700.00†	90.000	89.673	7456.01	2600.92	14.86	2600.88	0.00	
9800.00†	90.000	89.673	7456.01	2700.92	15.43	2700.88	0.00	
9900.00†	90.000	89.673	7456.01	2800.92	16.00	2800.88	0.00	
10000.00†	90.000	89.673	7456.01	2900.92	16.57	2900.87	0.00	
10100.00†	90.000	89.673	7456.01	3000.92	17.14	3000.87	0.00	
10200.00†	90.000	89.673	7456.01	3100.92	17.71	3100.87	0.00	
10300.00†	90.000	89.673	7456.01	3200.92	18.29	3200.87	0.00	
10400.00†	90.000	89.673	7456.01	3300.92	18.86	3300.87	0.00	
10500.00†	90.000	89.673	7456.01	3400.92	19.43	3400.87	0.00	
10600.00†	90.000	89.673	7456.01	3500.92	20.00	3500.86	0.00	
10700.00†	90.000	89.673	7456.01	3600.92	20.57	3600.86	0.00	
10800.00†	90.000	89.673	7456.01	3700.92	21.14	3700.86	0.00	
10900.00†	90.000	89.673	7456.01	3800.92	21.71	3800.86	0.00	
11000.00†	90.000	89.673	7456.01	3900.92	22.28	3900.86	0.00	
11100.00†	90.000	89.673	7456.01	4000.92	22.86	4000.86	0.00	
11200.00†	90.000	89.673	7456.01	4100.92	23.43	4100.85	0.00	
11300.00†	90.000	89.673	7456.01	4200.92	24.00	4200.85	0.00	
11400.00†	90.000	89.673	7456.01	4300.92	24.57	4300.85	0.00	
11500.00†	90.000	89.673	7456.01	4400.92	25.14	4400.85	0.00	
11600.00†	90.000	89.673	7456.01	4500.92	25.71	4500.85	0.00	
11700.00†	90.000	89.673	7456.01	4600.92	26.28	4600.85	0.00	
11800.00†	90.000	89.673	7456.01	4700.92	26.85	4700.84	0.00	
11900.00†	90.000	89.673	7456.01	4800.92	27.43	4800.84	0.00	
12000.00†	90.000	89.673	7456.01	4900.92	28.00	4900.84	0.00	
12100.00†	90.000	89.673	7456.01	5000.92	28.57	5000.84	0.00	
12200.00†	90.000	89.673	7456.01	5100.92	29.14	5100.84	0.00	
12300.00†	90.000	89.673	7456.01	5200.92	29.71	5200.84	0.00	
12400.00†	90.000	89.673	7456.01	5300.92	30.28	5300.83	0.00	
12500.00†	90.000	89.673	7456.01	5400.92	30.85	5400.83	0.00	
12600.00†	90.000	89.673	7456.01	5500.92	31.42	5500.83	0.00	
12700.00†	90.000	89.673	7456.01	5600.92	32.00	5600.83	0.00	
12800.00†	90.000	89.673	7456.01	5700.92	32.57	5700.83	0.00	

Planned Wellpath Report

Plan 3

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	Big Eddy Unit DI 5 Well # 04H
Area	Eddy County, NM	Well	Well # 04H (SL 1980 FNL, 1848 FEL)
Field	Eddy County, NM (NAD 27 / Grid)	Wellbore	Well # 04H Planned
Facility	Big Eddy Unit DI 5 Sec. 27-20S-31E		

WELLPATH DATA (146 stations) † = Interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
12900.00†	90.000	89.673	7456.01	5800.92	33.14	5800.83	0.00	
13000.00†	90.000	89.673	7456.01	5900.92	33.71	5900.82	0.00	
13100.00†	90.000	89.673	7456.01	6000.92	34.28	6000.82	0.00	
13200.00†	90.000	89.673	7456.01	6100.92	34.85	6100.82	0.00	
13300.00†	90.000	89.673	7456.01	6200.92	35.42	6200.82	0.00	
13400.00†	90.000	89.673	7456.01	6300.92	35.99	6300.82	0.00	
13500.00†	90.000	89.673	7456.01	6400.92	36.57	6400.82	0.00	
13600.00†	90.000	89.673	7456.01	6500.92	37.14	6500.81	0.00	
13700.00†	90.000	89.673	7456.01	6600.92	37.71	6600.81	0.00	
13800.00†	90.000	89.673	7456.01	6700.92	38.28	6700.81	0.00	
13895.90	90.000	89.673	7456.01	6796.82	38.83	6796.71	0.00	Well # 04H PBHL

SURVEY PROGRAM Ref Wellbore: Well # 04H Planned, Ref Wellpath: Plan 3

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.00	14000.00	NaviTrak (Standard)		Well # 04H Planned

Big Eddy Unit DI5 #4H
BOPCO L.P.
3001540397
Conditions of Approval

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented,or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to

40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P Potash
Possibility of water flows in the Salado, Castile, and Delaware.
Possibility of lost circulation in the Rustler, Capitan Reef, Delaware, and Bone Spring.

1. The **16** inch surface casing shall be set at approximately **839** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
   Additional cement may be required – excess calculates to 27%.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

   b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

   c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

   d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.**

3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing; is:

Operator has proposed DV tool at depth of 2803', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve approved top of cement on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef and potash.**

4. The minimum required fill of cement behind the **7** inch production casing is:

Operator has proposed DV tool at depth of 5000', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve approved top of cement on the next stage.

b. Second stage above DV tool:

☒ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2852'). Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

5. Cement not required on the **4-1/2"** casing. **Packer system being used.**

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

7. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **A variance is granted for the use of a diverter on the 16" surface casing.**

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch 1st intermediate casing shoe shall be **3000 (3M)** psi.

5. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 9-5/8 inch 2nd intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.**

    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the 7" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

   d. The results of the test shall be reported to the appropriate BLM office.

   e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

   f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

CRW 051214