

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.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM06748
2. Name of Operator BOPCO LP		6. If Indian, Allottee or Tribe Name
3a. Address P O BOX 2760 MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No. 891000326X
3b. Phone No. (include area code) Ph: 432-221-7341		8. Well Name and No. BIG EDDY UNIT DI28 277H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 15 T21S R29E NWNW 0939FNL 0889FWL 32.290238 N Lat, 103.583941 W Lon		9. API Well No. 30-015-42568-00-X1
		10. Field and Pool, or Exploratory WILLIAMS SINK
		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 APD
	☐ 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, LP respectfully requests to change the following:

Move surface location to the following: 845? FNL, 893? FWL, Sec. 15, T21S-R29E. The new surface location is still located within the confines of the Big Eddy Unit Drilling Island 28. The updated survey plat is attached for reference.

Change the target formation to the 2nd Bone Spring ?B? Sand. The EOC TVD is 8,914? and the bottom hole TVD is 9,150?. The updated directional plan is attached for reference.

Change the 13-3/8", 54.50#, J-55, STC shoe depth to 8,441? Based on the offset well, BEU-DI28

#254H, the top of the Salado is at 8662. New safety factors are as follows: Collapse ? 2-78,

Burst ? 1.77, Tension ? 2.13. Cement volumes will be adjusted proportionately for depth change.

Change the 9-5/8", 40#, N-80, LTC shoe depth to 3,321? MD which is approximately 50? inside of the

top of the Delaware Mountain Group. New safety factors are as follows: Collapse ? 1.35, Burst ?

2.13, Tension ? 5.62. Cement volumes will be adjusted proportionately for depth change.

*Original COAs still stand. JAM
liner now cemented 8/15/14**per Chris Giese. 8/14/11**3283' e-mail.**based on volume of the Castle formation.**Josh approved SSRY 2014-08-15
Surface OK - Still on approval pad. See Existing COAs. JR 8/15/14*

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

Electronic Submission #257035 verified by the BLM Well Information System

For BOPCO LP, sent to the Carlsbad

Committed to AFMSS for processing by JENNIFER MASON on 08/14/2014 (14JAM0388SE)

NM OIL CONSERVATION

ARTESIA DISTRICT

AUG 25 2014

Name (Printed/Typed) GIESE CHRIS

Title ENGINEER

Signature (Electronic Submission)

Date 08/14/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE**RECEIVED**

Approved By <i>Suph J. Long</i>	Title	Date <i>8/15/14</i>
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 *****Accepted for record
NMOCD
TC 8-25-14*

Additional data for EC transaction #257035 that would not fit on the form

32. Additional remarks, continued

Change the 7", 26#, HCP-110, BTC shoe depth to 9,041' MD (8,564' TVD) inside of the 2nd Bone Spring Sand. New safety factors are as follows: Collapse ? 1.37, Burst ? 2.08, Tension ? 3.62. Cement volumes will be adjusted proportionately for depth change.

Change the 4-1/2" open hole completion system to a 4-1/2", 11.6#, HCP-110, BTC cemented liner set at 23,922' MD (9,150' TVD). The top of the liner will be set 50' inside of the 7" casing shoe.

The liner will be cemented in one stage with a primary slurry consisting of 1,485 sks of VersaCem ?H? + 0.5% LAP-1 + 0.3% CFR-3 + 0.5 pps D-Air + 0.125 pps Pol-E-Flake + 0.25% HR-601 (14.5 ppg, 1.23 cu ft/sk yield, 5.49 gal/sk H₂O) at 20% excess over gauge hole. We will perform a 23 stage plug and perf completion inside of the 4-1/2" casing. The first frac will be outside of the 7" casing shoe. There will be no plug and perf frac inside of the 7" casing as originally stated in the APD.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97650	Pool Name WC WILLIAM SINK (BONE SPRING)
Property Code 305860	Property Name BIG EDDY UNIT D128	Well Number 277H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3439'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21 S	29 E		845	NORTH	893	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	13	21 S	29 E		1980	SOUTH	330	EAST	EDDY

Dedicated Acres 440	Joint or Infill	Consolidation Code	Order No.
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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

N: 540912.3 E: 608797.0 NAD 27 N: 540915.8 E: 614079.7 NAD 27 N: 540931.6 E: 619360.0 NAD 27 N: 540946.2 E: 624636.0 NAD 27 N: 535627.0 E: 608810.9 NAD 27 N: 535633.9 E: 614094.0 NAD 27 N: 535649.7 E: 619368.8 NAD 27 N: 535663.6 E: 624650.8 NAD 27 SURFACE LOCATION Lat - N 32°29'03.32" Long - W 103°58'39.36" NMSPC- N 540068.1 E 609692.2 (NAD-27) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°28'38.80" Long - W 103°55'48.76" NMSPC- N 537642.7 E 624314.5 (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. Signature _____ Date _____ Printed Name _____ 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. Date Surveyed _____ Signature of Professional Surveyor _____ Certification Number 7977 Scale: 1" = 3000' WO Num.: 30746
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BOPCO, LP respectfully requests to change the following:

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Change the target formation to the 2nd Bone Spring "B" Sand. The EOC TVD is 8,914' and the bottom hole TVD is 9,150'. The updated directional plan is attached for reference.

*Out
Per
Operator*
~~Change the 13-3/8", 54.50#, J-55, STC shoe depth to 841'. Based on the offset well, BEU DI28 #254H, the top of the Salado is at 866'. New safety factors are as follows: Collapse – 2.78, Burst – 1.77, Tension – 13.0. Cement volumes will be adjusted proportionately for depth change.~~

3243' basal anhydrite of the Castle formation
Change the 9-5/8", 40#, N-80, LTC shoe depth to 3,324' MD which is approximately 50' inside of the top of the Delaware Mountain Group. New safety factors are as follows: Collapse – 1.35, Burst – 2.13, Tension – 5.62. Cement volumes will be adjusted proportionately for depth change.

Change the 7", 26#, HCP-110, BTC shoe depth to 9,041' MD (8,564' TVD) inside of the 2nd Bone Spring Sand. New safety factors are as follows: Collapse – 1.37, Burst – 2.08, Tension – 3.62. Cement volumes will be adjusted proportionately for depth change.

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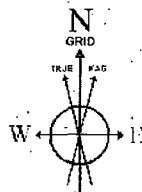
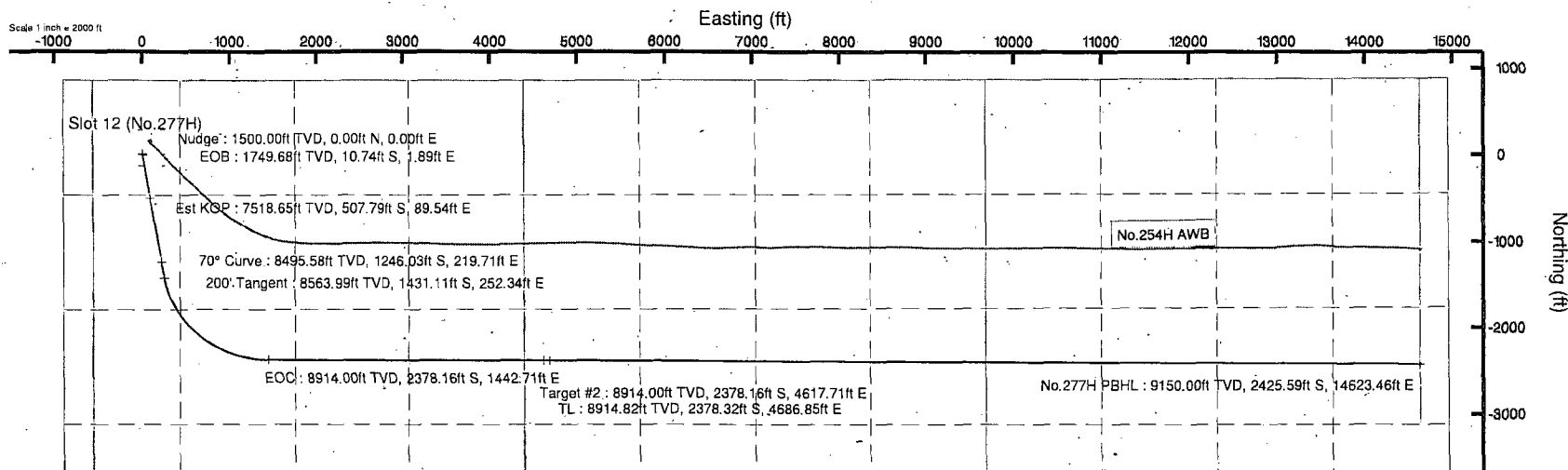


WTD - West Texas Division

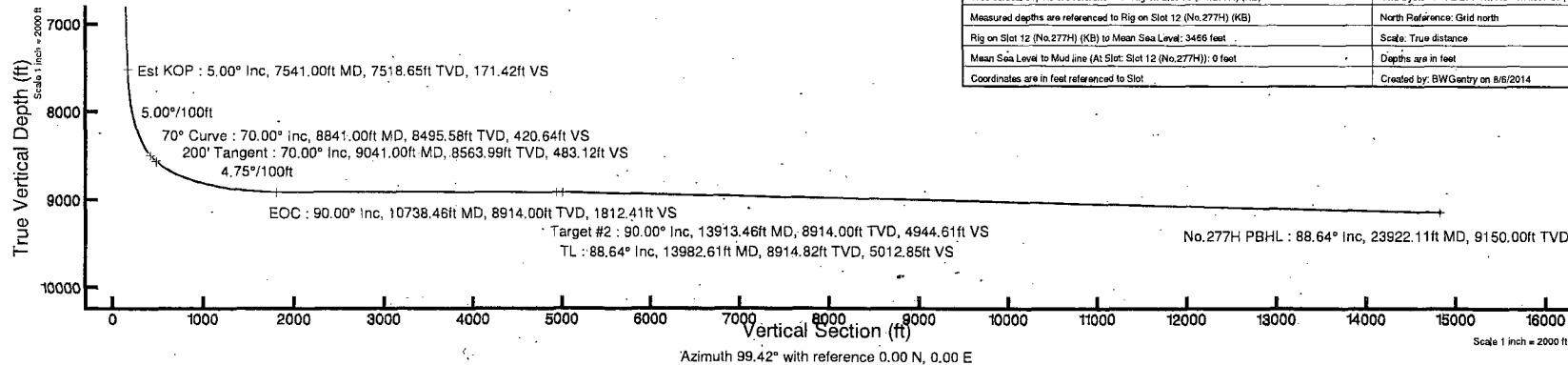
Location: Eddy County, NM
Field: Big Eddy Unit
Facility: Drilling Island 28

Slot: Slot 12 (No.277H)
Well: Slot 12
Wellbore: Slot 12

BOPCO, L.P.



IGRF-11 (1900.0 thru 2014.0) Dip: 60.28° Field: 48414.9 nT
Magnetic North is 7.41 degrees East of True North (at 8/6/2014)
Grid North is 0.19 degrees East of True North
To correct azimuth from True to Grid subtract 0.19 degrees
To correct azimuth from Magnetic to Grid add 7.22 degrees



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	27.00	0.000	170.000	27.00	0.00	0.00	0.00	0.00
Nudge	1500.00	0.000	170.000	1500.00	0.00	0.00	0.00	0.00
EOB	1750.00	5.000	170.000	1749.68	-10.74	1.89	2.00	3.62
Est KOP	7541.00	5.000	170.000	7518.65	-507.79	89.54	0.00	171.42
70° Curve	8841.00	70.000	170.000	8495.58	-1246.03	219.71	5.00	420.64
200' Tangent	9041.00	70.000	170.000	8563.99	-1431.11	252.34	0.00	483.12
EOC	10738.46	90.000	90.000	8914.00	-2378.16	1442.71	4.75	1812.41
Target #2	13913.46	90.000	90.000	8914.00	-2378.16	4617.71	0.00	4944.61
TL	13982.61	88.644	90.273	8914.82	-2378.32	4686.85	2.00	5012.85
No.277H PBHL	23922.11	88.644	90.273	9150.00	-2425.59	14623.46	0.00	14823.26

Plot reference wellpath is B-7	
True vertical depths are referenced to Rig on Slot 12 (No.277H) (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on Slot 12 (No.277H) (KB)	North Reference: Grid north
Rig on Slot 12 (No.277H) (KB) to Mean Sea Level: 3466 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot 12 (No.277H)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: BWGentry on 8/6/2014



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	BWGentry
Scale	0.999923	Report Generated	8/6/2014 at 11:03:09 AM
Convergence at slot	0.19° East	Database/Source file	WellArchitectDB/Slot_12.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-144.81	-75.61	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W
Facility Reference Pt			609767.80	540212.90	32°29'04.751"N	103°58'38.472"W
Field Reference Pt			640125.10	530502.80	32°27'27.522"N	103°52'44.545"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Slot 12 (No.277H) (KB) to Facility Vertical Datum	3466.00ft
Horizontal Reference Pt	Slot	Rig on Slot 12 (No.277H) (KB) to Mean Sea Level	3466.00ft
Vertical Reference Pt	Rig on Slot 12 (No.277H) (KB)	Rig on Slot 12 (No.277H) (KB) to Mud Line at Slot (Slot 12 (No.277H))	3466.00ft
MD Reference Pt	Rig on Slot 12 (No.277H) (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	99.42°



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) Interpolated/extrapolated station												
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS (°/100ft)	Comments
0.00+	0.000	170.000	0.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
27.00	0.000	170.000	27.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	Tie On
127.00+	0.000	170.000	127.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
227.00+	0.000	170.000	227.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
327.00+	0.000	170.000	327.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
427.00+	0.000	170.000	427.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
527.00+	0.000	170.000	527.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
547.00+	0.000	170.000	547.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	Top Rustler Anhydrite
627.00+	0.000	170.000	627.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
727.00+	0.000	170.000	727.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
827.00+	0.000	170.000	827.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
866.00+	0.000	170.000	866.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	Top Salt
927.00+	0.000	170.000	927.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1027.00+	0.000	170.000	1027.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1127.00+	0.000	170.000	1127.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1227.00+	0.000	170.000	1227.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1327.00+	0.000	170.000	1327.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1427.00+	0.000	170.000	1427.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	
1500.00	0.000	170.000	1500.00	0.00	0.00	0.00	609692.20	540068.10	32°29'03.320"N	103°58'39.361"W	0.00	Nudge
1527.00+	0.540	170.000	1527.00	0.04	-0.13	0.02	609692.22	540067.97	32°29'03.319"N	103°58'39.360"W	2.00	
1616.03+	2.321	170.000	1616.00	0.78	-2.31	0.41	609692.61	540065.79	32°29'03.298"N	103°58'39.356"W	2.00	Base Salt
1627.00+	2.540	170.000	1626.96	0.94	-2.77	0.49	609692.69	540065.33	32°29'03.293"N	103°58'39.355"W	2.00	
1727.00+	4.540	170.000	1726.76	2.99	-8.85	1.56	609693.76	540059.25	32°29'03.233"N	103°58'39.343"W	2.00	
1750.00	5.000	170.000	1749.68	3.62	-10.74	1.89	609694.09	540057.37	32°29'03.214"N	103°58'39.339"W	2.00	EOB
1827.00+	5.000	170.000	1826.39	5.86	-17.34	3.06	609695.26	540050.76	32°29'03.149"N	103°58'39.326"W	0.00	
1902.90+	5.000	170.000	1902.00	8.05	-23.86	4.21	609696.41	540044.24	32°29'03.084"N	103°58'39.312"W	0.00	Top Reef
1927.00+	5.000	170.000	1926.01	8.75	-25.93	4.57	609696.77	540042.17	32°29'03.064"N	103°58'39.308"W	0.00	
2027.00+	5.000	170.000	2025.63	11.65	-34.51	6.09	609698.28	540033.59	32°29'02.979"N	103°58'39.291"W	0.00	
2127.00+	5.000	170.000	2125.25	14.55	-43.09	7.60	609699.80	540025.01	32°29'02.894"N	103°58'39.274"W	0.00	
2227.00+	5.000	170.000	2224.87	17.45	-51.68	9.11	609701.31	540016.43	32°29'02.809"N	103°58'39.256"W	0.00	
2327.00+	5.000	170.000	2324.49	20.34	-60.26	10.63	609702.82	540007.84	32°29'02.724"N	103°58'39.239"W	0.00	
2427.00+	5.000	170.000	2424.11	23.24	-68.84	12.14	609704.34	539999.26	32°29'02.639"N	103°58'39.222"W	0.00	
2527.00+	5.000	170.000	2523.73	26.14	-77.43	13.65	609705.85	539990.68	32°29'02.554"N	103°58'39.204"W	0.00	
2627.00+	5.000	170.000	2623.35	29.04	-86.01	15.17	609707.36	539982.10	32°29'02.469"N	103°58'39.187"W	0.00	
2727.00+	5.000	170.000	2722.97	31.93	-94.59	16.68	609708.88	539973.51	32°29'02.384"N	103°58'39.170"W	0.00	
2827.00+	5.000	170.000	2822.58	34.83	-103.18	18.19	609710.39	539964.93	32°29'02.299"N	103°58'39.152"W	0.00	
2927.00+	5.000	170.000	2922.20	37.73	-111.76	19.71	609711.90	539956.35	32°29'02.214"N	103°58'39.135"W	0.00	
3027.00+	5.000	170.000	3021.82	40.63	-120.34	21.22	609713.42	539947.77	32°29'02.129"N	103°58'39.118"W	0.00	
3127.00+	5.000	170.000	3121.44	43.52	-128.93	22.73	609714.93	539939.18	32°29'02.044"N	103°58'39.100"W	0.00	
3227.00+	5.000	170.000	3221.06	46.42	-137.51	24.25	609716.44	539930.60	32°29'01.959"N	103°58'39.083"W	0.00	
3270.10+	5.000	170.000	3264.00	47.67	-141.21	24.90	609717.10	539926.90	32°29'01.922"N	103°58'39.075"W	0.00	Top Delaware Mtn. Grp.
3327.00+	5.000	170.000	3320.68	49.32	-146.09	25.76	609717.96	539922.02	32°29'01.874"N	103°58'39.066"W	0.00	
3427.00+	5.000	170.000	3420.30	52.22	-154.68	27.27	609719.47	539913.44	32°29'01.789"N	103°58'39.048"W	0.00	
3527.00+	5.000	170.000	3519.92	55.11	-163.26	28.79	609720.98	539904.85	32°29'01.704"N	103°58'39.031"W	0.00	
3627.00+	5.000	170.000	3619.54	58.01	-171.84	30.30	609722.50	539896.27	32°29'01.619"N	103°58'39.014"W	0.00	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3727.00†	5.000	170.000	3719.16	60.91	-180.42	31.81	609724.01	539887.69	32°29'01.534"N	103°58'38.996"W	0.00	
3827.00†	5.000	170.000	3818.78	63.81	-189.01	33.33	609725.52	539879.11	32°29'01.449"N	103°58'38.979"W	0.00	
3927.00†	5.000	170.000	3918.40	66.70	-197.59	34.84	609727.04	539870.52	32°29'01.364"N	103°58'38.962"W	0.00	
4027.00†	5.000	170.000	4018.02	69.60	-206.17	36.35	609728.55	539861.94	32°29'01.279"N	103°58'38.944"W	0.00	
4127.00†	5.000	170.000	4117.64	72.50	-214.76	37.87	609730.06	539853.36	32°29'01.194"N	103°58'38.927"W	0.00	
4227.00†	5.000	170.000	4217.26	75.40	-223.34	39.38	609731.58	539844.78	32°29'01.109"N	103°58'38.910"W	0.00	
4327.00†	5.000	170.000	4316.88	78.29	-231.92	40.89	609733.09	539836.19	32°29'01.024"N	103°58'38.892"W	0.00	
4427.00†	5.000	170.000	4416.50	81.19	-240.51	42.41	609734.60	539827.61	32°29'00.939"N	103°58'38.875"W	0.00	
4527.00†	5.000	170.000	4516.12	84.09	-249.09	43.92	609736.12	539819.03	32°29'00.854"N	103°58'38.858"W	0.00	
4627.00†	5.000	170.000	4615.73	86.99	-257.67	45.43	609737.63	539810.45	32°29'00.769"N	103°58'38.840"W	0.00	
4727.00†	5.000	170.000	4715.35	89.88	-266.26	46.95	609739.14	539801.86	32°29'00.684"N	103°58'38.823"W	0.00	
4827.00†	5.000	170.000	4814.97	92.78	-274.84	48.46	609740.66	539793.28	32°29'00.599"N	103°58'38.806"W	0.00	
4927.00†	5.000	170.000	4914.59	95.68	-283.42	49.98	609742.17	539784.70	32°29'00.514"N	103°58'38.788"W	0.00	
5027.00†	5.000	170.000	5014.21	98.58	-292.01	51.49	609743.68	539776.12	32°29'00.429"N	103°58'38.771"W	0.00	
5127.00†	5.000	170.000	5113.83	101.47	-300.59	53.00	609745.20	539767.53	32°29'00.344"N	103°58'38.754"W	0.00	
5227.00†	5.000	170.000	5213.45	104.37	-309.17	54.52	609746.71	539758.95	32°29'00.259"N	103°58'38.736"W	0.00	
5327.00†	5.000	170.000	5313.07	107.27	-317.76	56.03	609748.22	539750.37	32°29'00.174"N	103°58'38.719"W	0.00	
5427.00†	5.000	170.000	5412.69	110.17	-326.34	57.54	609749.74	539741.79	32°29'00.089"N	103°58'38.702"W	0.00	
5527.00†	5.000	170.000	5512.31	113.06	-334.92	59.06	609751.25	539733.20	32°29'00.004"N	103°58'38.684"W	0.00	
5627.00†	5.000	170.000	5611.93	115.96	-343.51	60.57	609752.76	539724.62	32°28'59.919"N	103°58'38.667"W	0.00	
5727.00†	5.000	170.000	5711.55	118.86	-352.09	62.08	609754.28	539716.04	32°28'59.834"N	103°58'38.650"W	0.00	
5827.00†	5.000	170.000	5811.17	121.76	-360.67	63.60	609755.79	539707.46	32°28'59.749"N	103°58'38.632"W	0.00	
5927.00†	5.000	170.000	5910.79	124.65	-369.25	65.11	609757.30	539698.87	32°28'59.665"N	103°58'38.615"W	0.00	
6027.00†	5.000	170.000	6010.41	127.55	-377.84	66.62	609758.82	539690.29	32°28'59.580"N	103°58'38.598"W	0.00	
6127.00†	5.000	170.000	6110.03	130.45	-386.42	68.14	609760.33	539681.71	32°28'59.495"N	103°58'38.580"W	0.00	
6227.00†	5.000	170.000	6209.65	133.35	-395.00	69.65	609761.84	539673.13	32°28'59.410"N	103°58'38.563"W	0.00	
6327.00†	5.000	170.000	6309.27	136.24	-403.59	71.16	609763.36	539664.54	32°28'59.325"N	103°58'38.546"W	0.00	
6427.00†	5.000	170.000	6408.89	139.14	-412.17	72.68	609764.87	539655.96	32°28'59.240"N	103°58'38.528"W	0.00	
6527.00†	5.000	170.000	6508.50	142.04	-420.75	74.19	609766.38	539647.38	32°28'59.155"N	103°58'38.511"W	0.00	
6627.00†	5.000	170.000	6608.12	144.94	-429.34	75.70	609767.90	539638.80	32°28'59.070"N	103°58'38.494"W	0.00	
6727.00†	5.000	170.000	6707.74	147.83	-437.92	77.22	609769.41	539630.21	32°28'58.985"N	103°58'38.476"W	0.00	
6827.00†	5.000	170.000	6807.36	150.73	-446.50	78.73	609770.92	539621.63	32°28'58.900"N	103°58'38.459"W	0.00	
6860.77†	5.000	170.000	6841.00	151.71	-449.40	79.24	609771.44	539618.73	32°28'58.871"N	103°58'38.453"W	0.00	Top of Bone Spring Lime
6927.00†	5.000	170.000	6906.98	153.63	-455.09	80.24	609772.44	539613.05	32°28'58.815"N	103°58'38.442"W	0.00	
7027.00†	5.000	170.000	7006.60	156.53	-463.67	81.76	609773.95	539604.47	32°28'58.730"N	103°58'38.424"W	0.00	
7127.00†	5.000	170.000	7106.22	159.43	-472.25	83.27	609775.46	539595.88	32°28'58.645"N	103°58'38.407"W	0.00	
7227.00†	5.000	170.000	7205.84	162.32	-480.84	84.78	609776.98	539587.30	32°28'58.560"N	103°58'38.390"W	0.00	
7327.00†	5.000	170.000	7305.46	165.22	-489.42	86.30	609778.49	539578.72	32°28'58.475"N	103°58'38.372"W	0.00	
7427.00†	5.000	170.000	7405.08	168.12	-498.00	87.81	609780.00	539570.14	32°28'58.390"N	103°58'38.355"W	0.00	
7527.00†	5.000	170.000	7504.70	171.02	-506.59	89.32	609781.52	539561.55	32°28'58.305"N	103°58'38.338"W	0.00	
7541.00	5.000	170.000	7518.65	171.42	-507.79	89.54	609781.73	539560.35	32°28'58.293"N	103°58'38.335"W	0.00	Est KOP
7627.00†	9.300	170.000	7603.96	174.98	-518.33	91.39	609783.59	539549.82	32°28'58.189"N	103°58'38.314"W	5.00	
7727.00†	14.300	170.000	7701.81	181.78	-538.46	94.94	609787.14	539529.68	32°28'57.989"N	103°58'38.273"W	5.00	
7827.00†	19.300	170.000	7797.51	191.38	-566.91	99.96	609792.15	539501.23	32°28'57.708"N	103°58'38.216"W	5.00	
7927.00†	24.300	170.000	7890.33	203.72	-603.47	106.41	609798.60	539464.67	32°28'57.346"N	103°58'38.142"W	5.00	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8027.00+	29.300	170.000	7979.56	218.71	-647.86	114.24	609806.43	539420.29	32°28'56.906"N	103°58'38.052"W	5.00	
8127.00+	34.300	170.000	8064.53	236.22	-699.74	123.38	609815.57	539368.41	32°28'56.392"N	103°58'37.947"W	5.00	
8184.26+	37.163	170.000	8111.00	247.34	-732.67	129.19	609821.38	539335.49	32°28'56.066"N	103°58'37.881"W	5.00	Top of Bone Spring 1 S
8227.00+	39.300	170.000	8144.57	256.13	-758.72	133.78	609825.97	539309.44	32°28'55.809"N	103°58'37.828"W	5.00	
8327.00+	44.300	170.000	8219.10	278.28	-824.34	145.35	609837.54	539243.83	32°28'55.159"N	103°58'37.696"W	5.00	
8427.00+	49.300	170.000	8287.53	302.51	-896.10	158.01	609850.19	539172.07	32°28'54.448"N	103°58'37.551"W	5.00	
8527.00+	54.300	170.000	8349.35	328.63	-973.47	171.65	609863.84	539094.71	32°28'53.682"N	103°58'37.395"W	5.00	
8627.00+	59.300	170.000	8404.09	356.44	-1055.85	186.17	609878.36	539012.34	32°28'52.867"N	103°58'37.228"W	5.00	
8727.00+	64.300	170.000	8451.33	385.73	-1142.61	201.47	609893.66	538925.58	32°28'52.008"N	103°58'37.053"W	5.00	
8827.00+	69.300	170.000	8490.71	416.28	-1233.10	217.43	609909.61	538835.10	32°28'51.112"N	103°58'36.870"W	5.00	
8841.00	70.000	170.000	8495.58	420.64	-1246.03	219.71	609911.89	538822.17	32°28'50.984"N	103°58'36.844"W	5.00	70° Curve
8927.00+	70.000	170.000	8525.00	447.51	-1325.61	233.74	609925.92	538742.59	32°28'50.196"N	103°58'36.684"W	0.00	
9027.00+	70.000	170.000	8559.20	478.75	-1418.15	250.06	609942.24	538650.06	32°28'49.280"N	103°58'36.497"W	0.00	
9041.00	70.000	170.000	8563.99	483.12	-1431.11	252.34	609944.52	538637.10	32°28'49.151"N	103°58'36.471"W	0.00	200' Tangent
9123.44+	70.284	165.849	8592.00	511.52	-1506.91	268.56	609960.74	538561.31	32°28'48.401"N	103°58'36.284"W	4.75	Top of Bone Spring 2 S
9127.00+	70.298	165.670	8593.20	512.87	-1510.16	269.39	609961.57	538558.06	32°28'48.368"N	103°58'36.275"W	4.75	
9227.00+	70.775	160.658	8626.54	554.57	-1600.37	296.69	609988.87	538467.86	32°28'47.475"N	103°58'35.960"W	4.75	
9327.00+	71.387	155.680	8658.98	603.63	-1688.14	331.86	610024.04	538380.09	32°28'46.605"N	103°58'35.552"W	4.75	
9427.00+	72.129	150.741	8690.30	659.72	-1772.89	374.66	610066.83	538295.35	32°28'45.765"N	103°58'35.056"W	4.75	
9448.93+	72.308	149.664	8697.00	672.92	-1791.01	385.04	610077.21	538277.23	32°28'45.586"N	103°58'34.936"W	4.75	Top of Bone Spring 2 S
9527.00+	72.994	145.846	8720.29	722.45	-1854.02	424.79	610116.96	538214.23	32°28'44.961"N	103°58'34.474"W	4.75	
9627.00+	73.975	141.000	8748.73	791.39	-1930.98	481.91	610174.07	538137.27	32°28'44.197"N	103°58'33.810"W	4.75	
9727.00+	75.063	136.203	8775.44	866.07	-2003.24	545.63	610237.78	538065.02	32°28'43.480"N	103°58'33.069"W	4.75	
9826.07+	76.239	131.501	8800.00	945.21	-2069.70	614.82	610306.98	537998.56	32°28'42.820"N	103°58'32.264"W	4.75	Top of Bone Spring 2 F
9827.00+	76.251	131.457	8800.22	945.98	-2070.30	615.50	610307.65	537997.96	32°28'42.814"N	103°58'32.256"W	4.75	
9927.00+	77.528	126.761	8822.92	1030.56	-2131.71	691.05	610383.20	537936.56	32°28'42.204"N	103°58'31.377"W	4.75	
10027.00+	78.885	122.112	8843.36	1119.24	-2187.04	771.77	610463.91	537881.24	32°28'41.654"N	103°58'30.437"W	4.75	
10127.00+	80.313	117.507	8861.43	1211.41	-2235.91	857.09	610549.22	537832.37	32°28'41.168"N	103°58'29.443"W	4.75	
10227.00+	81.802	112.942	8876.98	1306.43	-2277.99	946.43	610638.55	537790.29	32°28'40.748"N	103°58'28.402"W	4.75	
10327.00+	83.342	108.412	8889.91	1403.65	-2312.98	1039.18	610731.30	537755.30	32°28'40.399"N	103°58'27.320"W	4.75	
10427.00+	84.923	103.910	8900.14	1502.41	-2340.66	1134.70	610826.81	537727.63	32°28'40.122"N	103°58'26.206"W	4.75	
10527.00+	86.535	99.431	8907.59	1602.03	-2360.82	1232.33	610924.43	537707.47	32°28'39.919"N	103°58'25.068"W	4.75	
10627.00+	88.167	94.966	8912.22	1701.82	-2373.33	1331.41	611023.50	537694.96	32°28'39.792"N	103°58'23.912"W	4.75	
10727.00+	89.811	90.510	8913.98	1801.10	-2378.11	1431.25	611123.34	537690.18	32°28'39.742"N	103°58'22.746"W	4.75	
10738.46+	90.000	90.000	8914.00	1812.41	-2378.16	1442.71	611134.79	537690.13	32°28'39.741"N	103°58'22.613"W	4.75	EOC
10827.00+	90.000	90.000	8914.00	1899.76	-2378.16	1531.25	611223.33	537690.13	32°28'39.738"N	103°58'21.579"W	0.00	
10927.00+	90.000	90.000	8914.00	1998.41	-2378.16	1631.25	611323.32	537690.13	32°28'39.734"N	103°58'20.412"W	0.00	
11027.00+	90.000	90.000	8914.00	2097.06	-2378.16	1731.25	611423.31	537690.13	32°28'39.731"N	103°58'19.244"W	0.00	
11127.00+	90.000	90.000	8914.00	2195.71	-2378.16	1831.25	611523.30	537690.13	32°28'39.728"N	103°58'18.077"W	0.00	
11227.00+	90.000	90.000	8914.00	2294.37	-2378.16	1931.25	611623.30	537690.13	32°28'39.724"N	103°58'16.910"W	0.00	
11327.00+	90.000	90.000	8914.00	2393.02	-2378.16	2031.25	611723.29	537690.13	32°28'39.721"N	103°58'15.743"W	0.00	
11427.00+	90.000	90.000	8914.00	2491.67	-2378.16	2131.25	611823.28	537690.13	32°28'39.718"N	103°58'14.575"W	0.00	
11527.00+	90.000	90.000	8914.00	2590.32	-2378.16	2231.25	611923.27	537690.13	32°28'39.714"N	103°58'13.408"W	0.00	
11627.00+	90.000	90.000	8914.00	2688.97	-2378.16	2331.25	612023.26	537690.13	32°28'39.711"N	103°58'12.241"W	0.00	
11727.00+	90.000	90.000	8914.00	2787.63	-2378.16	2431.25	612123.26	537690.13	32°28'39.707"N	103°58'11.073"W	0.00	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) = interpolated/extrapolated station												
MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS [°/100ft]	Comments
11827.00†	90.000	90.000	8914.00	2886.28	-2378.16	2531.25	612223.25	537690.13	32°28'39.704"N	103°58'09.906"W	0.00	
11927.00†	90.000	90.000	8914.00	2984.93	-2378.16	2631.25	612323.24	537690.13	32°28'39.701"N	103°58'08.739"W	0.00	
12027.00†	90.000	90.000	8914.00	3083.58	-2378.16	2731.25	612423.23	537690.13	32°28'39.697"N	103°58'07.572"W	0.00	
12127.00†	90.000	90.000	8914.00	3182.23	-2378.16	2831.25	612523.22	537690.13	32°28'39.694"N	103°58'06.404"W	0.00	
12227.00†	90.000	90.000	8914.00	3280.89	-2378.16	2931.25	612623.22	537690.13	32°28'39.691"N	103°58'05.237"W	0.00	
12327.00†	90.000	90.000	8914.00	3379.54	-2378.16	3031.25	612723.21	537690.13	32°28'39.687"N	103°58'04.070"W	0.00	
12427.00†	90.000	90.000	8914.00	3478.19	-2378.16	3131.25	612823.20	537690.13	32°28'39.684"N	103°58'02.902"W	0.00	
12527.00†	90.000	90.000	8914.00	3576.84	-2378.16	3231.25	612923.19	537690.13	32°28'39.680"N	103°58'01.735"W	0.00	
12627.00†	90.000	90.000	8914.00	3675.49	-2378.16	3331.25	613023.18	537690.13	32°28'39.677"N	103°58'00.568"W	0.00	
12727.00†	90.000	90.000	8914.00	3774.15	-2378.16	3431.25	613123.18	537690.13	32°28'39.674"N	103°57'59.401"W	0.00	
12827.00†	90.000	90.000	8914.00	3872.80	-2378.16	3531.25	613223.17	537690.13	32°28'39.670"N	103°57'58.233"W	0.00	
12927.00†	90.000	90.000	8914.00	3971.45	-2378.16	3631.25	613323.16	537690.13	32°28'39.667"N	103°57'57.066"W	0.00	
13027.00†	90.000	90.000	8914.00	4070.10	-2378.16	3731.25	613423.15	537690.13	32°28'39.663"N	103°57'55.899"W	0.00	
13127.00†	90.000	90.000	8914.00	4168.76	-2378.16	3831.25	613523.15	537690.13	32°28'39.660"N	103°57'54.731"W	0.00	
13227.00†	90.000	90.000	8914.00	4267.41	-2378.16	3931.25	613623.14	537690.13	32°28'39.657"N	103°57'53.564"W	0.00	
13327.00†	90.000	90.000	8914.00	4366.06	-2378.16	4031.25	613723.13	537690.13	32°28'39.653"N	103°57'52.397"W	0.00	
13427.00†	90.000	90.000	8914.00	4464.71	-2378.16	4131.25	613823.12	537690.13	32°28'39.650"N	103°57'51.230"W	0.00	
13527.00†	90.000	90.000	8914.00	4563.36	-2378.16	4231.25	613923.11	537690.13	32°28'39.646"N	103°57'50.062"W	0.00	
13627.00†	90.000	90.000	8914.00	4662.02	-2378.16	4331.25	614023.11	537690.13	32°28'39.643"N	103°57'48.895"W	0.00	
13727.00†	90.000	90.000	8914.00	4760.67	-2378.16	4431.25	614123.10	537690.13	32°28'39.639"N	103°57'47.728"W	0.00	
13827.00†	90.000	90.000	8914.00	4859.32	-2378.16	4531.25	614223.09	537690.13	32°28'39.636"N	103°57'46.560"W	0.00	
13913.46	90.000	90.000	8914.00	4944.61	-2378.16	4617.71	614309.54	537690.13	32°28'39.633"N	103°57'45.551"W	0.00	Target #2
13927.00†	89.734	90.053	8914.03	4957.97	-2378.16	4631.25	614323.08	537690.12	32°28'39.632"N	103°57'45.393"W	2.00	
13982.61	88.644	90.273	8914.82	5012.85	-2378.32	4686.85	614378.68	537689.97	32°28'39.629"N	103°57'44.744"W	2.00	TL
14027.00†	88.644	90.273	8915.87	5056.67	-2378.53	4731.23	614423.05	537689.76	32°28'39.625"N	103°57'44.226"W	0.00	
14127.00†	88.644	90.273	8918.23	5155.37	-2379.01	4831.20	614523.02	537689.28	32°28'39.617"N	103°57'43.059"W	0.00	
14227.00†	88.644	90.273	8920.60	5254.07	-2379.48	4931.17	614622.98	537688.80	32°28'39.609"N	103°57'41.892"W	0.00	
14327.00†	88.644	90.273	8922.97	5352.77	-2379.96	5031.14	614722.94	537688.33	32°28'39.601"N	103°57'40.725"W	0.00	
14427.00†	88.644	90.273	8925.33	5451.47	-2380.44	5131.11	614822.91	537687.85	32°28'39.593"N	103°57'39.558"W	0.00	
14527.00†	88.644	90.273	8927.70	5550.17	-2380.91	5231.08	614922.87	537687.38	32°28'39.585"N	103°57'38.391"W	0.00	
14627.00†	88.644	90.273	8930.07	5648.87	-2381.39	5331.05	615022.83	537686.90	32°28'39.576"N	103°57'37.225"W	0.00	
14727.00†	88.644	90.273	8932.43	5747.57	-2381.86	5431.02	615122.80	537686.43	32°28'39.568"N	103°57'36.058"W	0.00	
14827.00†	88.644	90.273	8934.80	5846.28	-2382.34	5531.00	615222.76	537685.95	32°28'39.560"N	103°57'34.891"W	0.00	
14927.00†	88.644	90.273	8937.16	5944.98	-2382.81	5630.97	615322.72	537685.48	32°28'39.552"N	103°57'33.724"W	0.00	
15027.00†	88.644	90.273	8939.53	6043.68	-2383.29	5730.94	615422.68	537685.00	32°28'39.544"N	103°57'32.557"W	0.00	
15127.00†	88.644	90.273	8941.90	6142.38	-2383.76	5830.91	615522.65	537684.52	32°28'39.536"N	103°57'31.390"W	0.00	
15227.00†	88.644	90.273	8944.26	6241.08	-2384.24	5930.88	615622.61	537684.05	32°28'39.527"N	103°57'30.223"W	0.00	
15327.00†	88.644	90.273	8946.63	6339.78	-2384.72	6030.85	615722.57	537683.57	32°28'39.519"N	103°57'29.056"W	0.00	
15427.00†	88.644	90.273	8948.99	6438.48	-2385.19	6130.82	615822.54	537683.10	32°28'39.511"N	103°57'27.889"W	0.00	
15527.00†	88.644	90.273	8951.36	6537.18	-2385.67	6230.79	615922.50	537682.62	32°28'39.503"N	103°57'26.722"W	0.00	
15627.00†	88.644	90.273	8953.73	6635.89	-2386.14	6330.76	616022.46	537682.15	32°28'39.495"N	103°57'25.555"W	0.00	
15727.00†	88.644	90.273	8956.09	6734.59	-2386.62	6430.73	616122.42	537681.67	32°28'39.486"N	103°57'24.388"W	0.00	
15827.00†	88.644	90.273	8958.46	6833.29	-2387.09	6530.70	616222.39	537681.20	32°28'39.478"N	103°57'23.221"W	0.00	
15927.00†	88.644	90.273	8960.83	6931.99	-2387.57	6630.68	616322.35	537680.72	32°28'39.470"N	103°57'22.055"W	0.00	
16027.00†	88.644	90.273	8963.19	7030.69	-2388.04	6730.65	616422.31	537680.24	32°28'39.462"N	103°57'20.888"W	0.00	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) Interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16127.00+	88.644	90.273	8965.56	7129.39	-2388.52	6830.62	616522.28	537679.77	32°28'39.454"N	103°57'19.721"W	0.00	
16227.00+	88.644	90.273	8967.92	7228.09	-2389.00	6930.59	616622.24	537679.29	32°28'39.445"N	103°57'18.554"W	0.00	
16327.00+	88.644	90.273	8970.29	7326.79	-2389.47	7030.56	616722.20	537678.82	32°28'39.437"N	103°57'17.387"W	0.00	
16427.00+	88.644	90.273	8972.66	7425.49	-2389.95	7130.53	616822.17	537678.34	32°28'39.429"N	103°57'16.220"W	0.00	
16527.00+	88.644	90.273	8975.02	7524.20	-2390.42	7230.50	616922.13	537677.87	32°28'39.421"N	103°57'15.053"W	0.00	
16627.00+	88.644	90.273	8977.39	7622.90	-2390.90	7330.47	617022.09	537677.39	32°28'39.413"N	103°57'13.886"W	0.00	
16727.00+	88.644	90.273	8979.75	7721.60	-2391.37	7430.44	617122.05	537676.92	32°28'39.404"N	103°57'12.719"W	0.00	
16827.00+	88.644	90.273	8982.12	7820.30	-2391.85	7530.41	617222.02	537676.44	32°28'39.396"N	103°57'11.552"W	0.00	
16927.00+	88.644	90.273	8984.49	7919.00	-2392.32	7630.38	617321.98	537675.96	32°28'39.388"N	103°57'10.385"W	0.00	
17027.00+	88.644	90.273	8986.85	8017.70	-2392.80	7730.35	617421.94	537675.49	32°28'39.380"N	103°57'09.218"W	0.00	
17127.00+	88.644	90.273	8989.22	8116.40	-2393.28	7830.33	617521.91	537675.01	32°28'39.371"N	103°57'08.051"W	0.00	
17227.00+	88.644	90.273	8991.58	8215.10	-2393.75	7930.30	617621.87	537674.54	32°28'39.363"N	103°57'06.885"W	0.00	
17327.00+	88.644	90.273	8993.95	8313.81	-2394.23	8030.27	617721.83	537674.06	32°28'39.355"N	103°57'05.718"W	0.00	
17427.00+	88.644	90.273	8996.32	8412.51	-2394.70	8130.24	617821.80	537673.59	32°28'39.347"N	103°57'04.551"W	0.00	
17527.00+	88.644	90.273	8998.68	8511.21	-2395.18	8230.21	617921.76	537673.11	32°28'39.338"N	103°57'03.384"W	0.00	
17627.00+	88.644	90.273	9001.05	8609.91	-2395.65	8330.18	618021.72	537672.64	32°28'39.330"N	103°57'02.217"W	0.00	
17727.00+	88.644	90.273	9003.42	8708.61	-2396.13	8430.15	618121.68	537672.16	32°28'39.322"N	103°57'01.050"W	0.00	
17827.00+	88.644	90.273	9005.78	8807.31	-2396.60	8530.12	618221.65	537671.68	32°28'39.314"N	103°56'59.883"W	0.00	
17927.00+	88.644	90.273	9008.15	8906.01	-2397.08	8630.09	618321.61	537671.21	32°28'39.305"N	103°56'58.716"W	0.00	
18027.00+	88.644	90.273	9010.51	9004.71	-2397.56	8730.06	618421.57	537670.73	32°28'39.297"N	103°56'57.549"W	0.00	
18127.00+	88.644	90.273	9012.88	9103.42	-2398.03	8830.03	618521.54	537670.26	32°28'39.289"N	103°56'56.382"W	0.00	
18227.00+	88.644	90.273	9015.25	9202.12	-2398.51	8930.01	618621.50	537669.78	32°28'39.281"N	103°56'55.215"W	0.00	
18327.00+	88.644	90.273	9017.61	9300.82	-2398.98	9029.98	618721.46	537669.31	32°28'39.272"N	103°56'54.048"W	0.00	
18427.00+	88.644	90.273	9019.98	9399.52	-2399.46	9129.95	618821.42	537668.83	32°28'39.264"N	103°56'52.881"W	0.00	
18527.00+	88.644	90.273	9022.34	9498.22	-2399.93	9229.92	618921.39	537668.36	32°28'39.256"N	103°56'51.715"W	0.00	
18627.00+	88.644	90.273	9024.71	9596.92	-2400.41	9329.89	619021.35	537667.88	32°28'39.248"N	103°56'50.548"W	0.00	
18727.00+	88.644	90.273	9027.08	9695.62	-2400.89	9429.86	619121.31	537667.40	32°28'39.239"N	103°56'49.381"W	0.00	
18827.00+	88.644	90.273	9029.44	9794.32	-2401.36	9529.83	619221.28	537666.93	32°28'39.231"N	103°56'48.214"W	0.00	
18927.00+	88.644	90.273	9031.81	9893.02	-2401.84	9629.80	619321.24	537666.45	32°28'39.223"N	103°56'47.047"W	0.00	
19027.00+	88.644	90.273	9034.18	9991.73	-2402.31	9729.77	619421.20	537665.98	32°28'39.214"N	103°56'45.880"W	0.00	
19127.00+	88.644	90.273	9036.54	10090.43	-2402.79	9829.74	619521.17	537665.50	32°28'39.206"N	103°56'44.713"W	0.00	
19227.00+	88.644	90.273	9038.91	10189.13	-2403.26	9929.71	619621.13	537665.03	32°28'39.198"N	103°56'43.546"W	0.00	
19327.00+	88.644	90.273	9041.27	10287.83	-2403.74	10029.68	619721.09	537664.55	32°28'39.189"N	103°56'42.379"W	0.00	
19427.00+	88.644	90.273	9043.64	10386.53	-2404.21	10129.66	619821.05	537664.08	32°28'39.181"N	103°56'41.212"W	0.00	
19527.00+	88.644	90.273	9046.01	10485.23	-2404.69	10229.63	619921.02	537663.60	32°28'39.173"N	103°56'40.045"W	0.00	
19627.00+	88.644	90.273	9048.37	10583.93	-2405.17	10329.60	620020.98	537663.13	32°28'39.165"N	103°56'38.878"W	0.00	
19727.00+	88.644	90.273	9050.74	10682.63	-2405.64	10429.57	620120.94	537662.65	32°28'39.156"N	103°56'37.711"W	0.00	
19827.00+	88.644	90.273	9053.10	10781.34	-2406.12	10529.54	620220.91	537662.17	32°28'39.148"N	103°56'36.545"W	0.00	
19927.00+	88.644	90.273	9055.47	10880.04	-2406.59	10629.51	620320.87	537661.70	32°28'39.140"N	103°56'35.378"W	0.00	
20027.00+	88.644	90.273	9057.84	10978.74	-2407.07	10729.48	620420.83	537661.22	32°28'39.131"N	103°56'34.211"W	0.00	
20127.00+	88.644	90.273	9060.20	11077.44	-2407.54	10829.45	620520.80	537660.75	32°28'39.123"N	103°56'33.044"W	0.00	
20227.00+	88.644	90.273	9062.57	11176.14	-2408.02	10929.42	620620.76	537660.27	32°28'39.115"N	103°56'31.877"W	0.00	
20327.00+	88.644	90.273	9064.93	11274.84	-2408.49	11029.39	620720.72	537659.80	32°28'39.106"N	103°56'30.710"W	0.00	
20427.00+	88.644	90.273	9067.30	11373.54	-2408.97	11129.36	620820.68	537659.32	32°28'39.098"N	103°56'29.543"W	0.00	
20527.00+	88.644	90.273	9069.67	11472.24	-2409.45	11229.34	620920.65	537658.85	32°28'39.090"N	103°56'28.376"W	0.00	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

WELLPATH DATA (259 stations) = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
20627.00+	88.644	90.273	9072.03	11570.94	-2409.92	11329.31	621020.61	537658.37	32°28'39.081"N	103°56'27.209"W	0.00	
20727.00+	88.644	90.273	9074.40	11669.65	-2410.40	11429.28	621120.57	537657.89	32°28'39.073"N	103°56'26.042"W	0.00	
20827.00+	88.644	90.273	9076.77	11768.35	-2410.87	11529.25	621220.54	537657.42	32°28'39.065"N	103°56'24.875"W	0.00	
20927.00+	88.644	90.273	9079.13	11867.05	-2411.35	11629.22	621320.50	537656.94	32°28'39.056"N	103°56'23.708"W	0.00	
21027.00+	88.644	90.273	9081.50	11965.75	-2411.82	11729.19	621420.46	537656.47	32°28'39.048"N	103°56'22.541"W	0.00	
21127.00+	88.644	90.273	9083.86	12064.45	-2412.30	11829.16	621520.42	537655.99	32°28'39.039"N	103°56'21.375"W	0.00	
21227.00+	88.644	90.273	9086.23	12163.15	-2412.77	11929.13	621620.39	537655.52	32°28'39.031"N	103°56'20.208"W	0.00	
21327.00+	88.644	90.273	9088.60	12261.85	-2413.25	12029.10	621720.35	537655.04	32°28'39.023"N	103°56'19.041"W	0.00	
21427.00+	88.644	90.273	9090.96	12360.55	-2413.73	12129.07	621820.31	537654.57	32°28'39.014"N	103°56'17.874"W	0.00	
21527.00+	88.644	90.273	9093.33	12459.26	-2414.20	12229.04	621920.28	537654.09	32°28'39.006"N	103°56'16.707"W	0.00	
21627.00+	88.644	90.273	9095.69	12557.96	-2414.68	12329.01	622020.24	537653.61	32°28'38.998"N	103°56'15.540"W	0.00	
21727.00+	88.644	90.273	9098.06	12656.66	-2415.15	12428.99	622120.20	537653.14	32°28'38.989"N	103°56'14.373"W	0.00	
21827.00+	88.644	90.273	9100.43	12755.36	-2415.63	12528.96	622220.17	537652.66	32°28'38.981"N	103°56'13.206"W	0.00	
21927.00+	88.644	90.273	9102.79	12854.06	-2416.10	12628.93	622320.13	537652.19	32°28'38.973"N	103°56'12.039"W	0.00	
22027.00+	88.644	90.273	9105.16	12952.76	-2416.58	12728.90	622420.09	537651.71	32°28'38.964"N	103°56'10.872"W	0.00	
22127.00+	88.644	90.273	9107.53	13051.46	-2417.05	12828.87	622520.05	537651.24	32°28'38.956"N	103°56'09.705"W	0.00	
22227.00+	88.644	90.273	9109.89	13150.16	-2417.53	12928.84	622620.02	537650.76	32°28'38.947"N	103°56'08.538"W	0.00	
22327.00+	88.644	90.273	9112.26	13248.87	-2418.01	13028.81	622719.98	537650.29	32°28'38.939"N	103°56'07.372"W	0.00	
22427.00+	88.644	90.273	9114.62	13347.57	-2418.48	13128.78	622819.94	537649.81	32°28'38.931"N	103°56'06.205"W	0.00	
22527.00+	88.644	90.273	9116.99	13446.27	-2418.96	13228.75	622919.91	537649.33	32°28'38.922"N	103°56'05.038"W	0.00	
22627.00+	88.644	90.273	9119.36	13544.97	-2419.43	13328.72	623019.87	537648.86	32°28'38.914"N	103°56'03.871"W	0.00	
22727.00+	88.644	90.273	9121.72	13643.67	-2419.91	13428.69	623119.83	537648.38	32°28'38.905"N	103°56'02.704"W	0.00	
22827.00+	88.644	90.273	9124.09	13742.37	-2420.38	13528.67	623219.80	537647.91	32°28'38.897"N	103°56'01.537"W	0.00	
22927.00+	88.644	90.273	9126.45	13841.07	-2420.86	13628.64	623319.76	537647.43	32°28'38.889"N	103°56'00.370"W	0.00	
23027.00+	88.644	90.273	9128.82	13939.77	-2421.33	13728.61	623419.72	537646.96	32°28'38.880"N	103°55'59.203"W	0.00	
23127.00+	88.644	90.273	9131.19	14038.47	-2421.81	13828.58	623519.68	537646.48	32°28'38.872"N	103°55'58.036"W	0.00	
23227.00+	88.644	90.273	9133.55	14137.18	-2422.29	13928.55	623619.65	537646.01	32°28'38.863"N	103°55'56.869"W	0.00	
23327.00+	88.644	90.273	9135.92	14235.88	-2422.76	14028.52	623719.61	537645.53	32°28'38.855"N	103°55'55.702"W	0.00	
23427.00+	88.644	90.273	9138.29	14334.58	-2423.24	14128.49	623819.57	537645.05	32°28'38.846"N	103°55'54.535"W	0.00	
23527.00+	88.644	90.273	9140.65	14433.28	-2423.71	14228.46	623919.54	537644.58	32°28'38.838"N	103°55'53.368"W	0.00	
23627.00+	88.644	90.273	9143.02	14531.98	-2424.19	14328.43	624019.50	537644.10	32°28'38.830"N	103°55'52.202"W	0.00	
23727.00+	88.644	90.273	9145.38	14630.68	-2424.66	14428.40	624119.46	537643.63	32°28'38.821"N	103°55'51.035"W	0.00	
23827.00+	88.644	90.273	9147.75	14729.38	-2425.14	14528.37	624219.42	537643.15	32°28'38.813"N	103°55'49.868"W	0.00	
23922.11	88.644	90.273	9150.00	14828.26	-2425.59	14628.34	624319.50	537642.70	32°28'38.805"N	103°55'48.758"W	0.00	No.277H PBHL



Planned Wellpath Report

B-7

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	Slot 12 (No.277H)
Area	Eddy County, NM	Well	Slot 12
Field	Big Eddy Unit	Wellbore	Slot 12
Facility	Drilling Island 28		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) DI28 Slot 12	23922.11	9150.00	-2425.59	14623.46	624314.50	537642.70	32°28'38.805"N	103°55'48.758"W	point

SURVEY PROGRAM - Ref Wellbore: Slot 12 Ref Wellpath: B-7

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
27.00	501.00	Generic gyro - northseeking (Standard)		Slot 12
501.00	23922.11	NaviTrak (Standard)		Slot 12