

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNM OIL CONSERVATION
ARTESIA DISTRICT

OCD DEC 3 2014

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.

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM04557
2. Name of Operator BOPCO LP		6. If Indian, Allottee or Tribe Name
Contact: LESLIE BARNES E-Mail: lbarnes@basspet.com		7. If Unit or CA/Agreement, Name and/or No. 891000326X
3a. Address P O BOX 2760 MIDLAND, TX 79702	3b. Phone No. (include area code) Ph: 432-221-7341	8. Well Name and No. BIG EDDY UNIT D14 269H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 5 T20S R31E Lot 2 358FNL 2058FEL 32.362762 N Lat, 103.532109 W Lon		9. API Well No. 30-015-42638-00-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

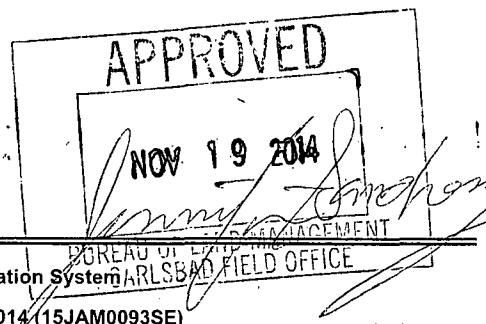
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ 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 recomple 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 alter the directional plan and the production casing string to 5-1/2", 17.00 ppf, HCP-110, BTC casing. The new directional plan will change the target formation from a 2nd Bone Spring sand to a 1st Bone Spring Sand. A DV tool will be placed at +/- 5,000' and the 5-1/2" casing string will be cemented in two stages. Top of cement of stage 2 will be placed at least 50' above the top of the Capitan Reef at +/- 2,898'. The updated directional plan is attached. Casing safety factors are as follows:

5-1/2", 17.00 ppf, HCP-110, BTC - Collapse ? 2.00, Burst ? 2.29, Tension ? 4.46

Updated cement volumes and slurries are in the attached table.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Electronic Submission #279116 verified by the BLM Well Information System For BOPCO LP, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER MASON on 11/19/2014 (15JAM0093SE)	
Name (Printed/Typed) JEREMY BRADEN	Title DRILLING ENGINEER
Signature (Electronic Submission)	Date 11/13/2014
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 _____	

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 ****

BOPCO, LP respectfully requests to alter the directional plan and the production casing string to a 5-1/2", 17.00 ppf, HCP-110, BTC casing. The new directional plan will change the target formation from a 2nd Bone Spring sand to a 1st Bone Spring Sand. A DV tool will be placed at +/- 5,000' and the 5-1/2" casing string will be cemented in two stages. Top of cement of stage 2 will be placed at least 50' above the top of the Capitan Reef at +/- 2,898'. The updated directional plan is attached. Casing safety factors are as follows:

2804

5-1/2", 17.00 ppf, HCP-110, BTC - Collapse – 2.00, Burst – 2.29, Tension – 4.46

Updated cement volumes and slurries are in the below table.

INTERVAL	AMOUNT SXS	FT of FILL	TYPE	GAL/SX	PPG	FT3/SX
PRODUCTION						
Stage 1						
Lead: 5,000'-7,432'	560	2,432	VersaCem + 10% Bentonite + 0.125 pps Poly-E-Flake + 0.5 pps D-Air + 0.1% HR-601	12.8	11.9	2.24
Tail: 7,432'- 14,094'	2,781	6,662	VersaCem + 0.5% LAP-1 + 0.3% CFR-3 + 0.1% FWCA + 0.125 pps Poly-E-Flake + 0.5 pps D-Air + 0.2% HR-601	5.32	14.5	1.21
DV TOOL AT 5,000'						
Stage 2						
Lead: 2,898'-4,500'	350	1,746	VersaCem + 10% Bentonite + 0.125 pps Poly-E-Flake + 0.5 pps D-Air	12.67	11.9	2.23
Tail: 4,500'-5,000'	200	500	Halccem "C" Neat	6.34	14.8	1.33



BOPCO, LP

Location: Eddy County, NM Slot: No.269H SHL
Field: Big Eddy Well: SL 358 FNL, 2058 FEL
Facility: Big Eddy Unit DI-4 Wellbore: No.269H PWB

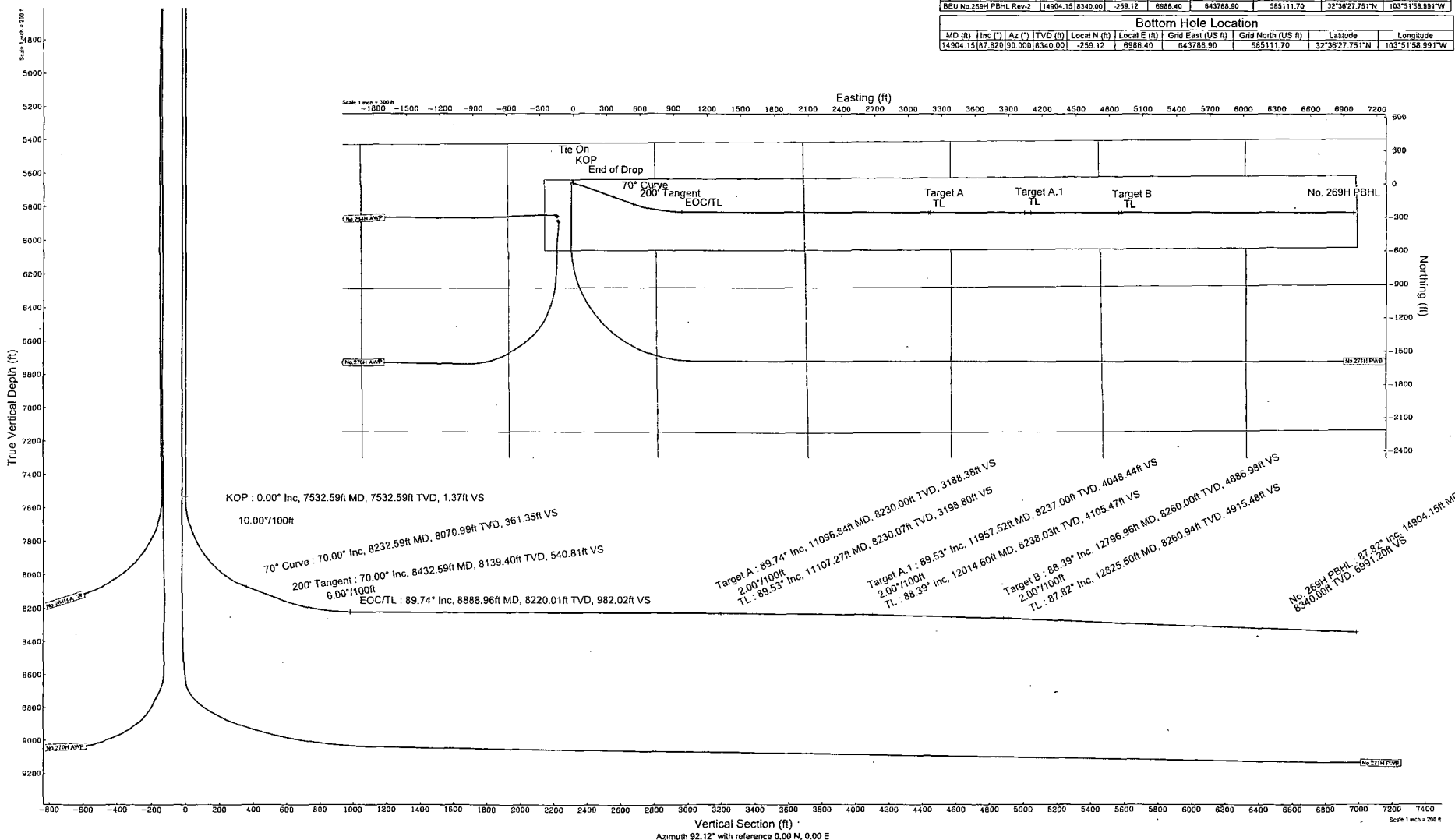
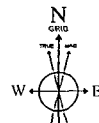


Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI-4	637263.900	585075.100	32°36'27.666"N	103°53'15.274"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
No.269H SHL	295.72	-460.93	636803.000	585370.800
Rig on No.269H SHL (KB) to Mud line (At Slot: No.269H SHL)				3491ft
Mean Sea Level to Mud line (At Slot: No.269H SHL)				0ft
Rig on No.269H SHL (KB) to Mean Sea Level				3491ft

Plot reference wellpath is BEU DI-4 No.269H Rev G.0

True vertical depths are referenced to Rig on No.269H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.269H SHL (KB)	North Reference: Grid north
Rig on No.269H SHL (KB) to Mean Sea Level: 3491 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.269H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: jandho on 11/12/2014

BGGM (1945.0 to 2016.0) Dip: 60.40° Field: 48428.2 nT
Magnetic North is 7.52 degrees East of True North (at 11/04/2014)
Grid North is 0.24 degrees East of True North
To correct azimuth from Magnetic to Grid add 7.28 degrees





Planned Wellpath Report

BEU DI-4 No.269H Rev G.0

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

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	Janotho
Scale	0.999931	Report Generated	11/12/2014 at 2:31:21 PM
Convergence at slot	0.24° East	Database/Source file	WA_Midland/No.269H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	295.72	-460.93	636803.00	585370.80	32°36'30.611"N	103°53'20.647"W
Facility Reference Pt			637263.90	585075.10	32°36'27.666"N	103°53'15.274"W
Field Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.269H SHL (KB) to Facility Vertical Datum	3491.00ft
Horizontal Reference Pt	Slot	Rig on No.269H SHL (KB) to Mean Sea Level	3491.00ft
Vertical Reference Pt	Rig on No.269H SHL (KB)	Rig on No.269H SHL (KB) to Mud Line at Slot (No.269H SHL)	3491.00ft
MD Reference Pt	Rig on No.269H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	92.12°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (164 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments	
0.00+	0.000	75.010	0.00	0.00	0.00	0.00	636803.00	585370.80	32°36'30.611"N	103°53'20.647"W	0.00	0.00	0.00		
26.00	0.000	75.010	26.00	0.00	0.00	0.00	636803.00	585370.80	32°36'30.611"N	103°53'20.647"W	0.00	0.00	0.00		
88.00	0.170	75.010	88.00	0.09	0.02	0.09	636803.09	585370.82	32°36'30.612"N	103°53'20.646"W	0.27	0.27	0.00		
178.00	0.190	38.550	178.00	0.30	0.18	0.31	636803.31	585370.98	32°36'30.613"N	103°53'20.644"W	0.13	0.02	-40.51		
268.00	0.220	42.260	268.00	0.50	0.42	0.52	636803.52	585371.22	32°36'30.616"N	103°53'20.641"W	0.04	0.03	-4.12		
358.00	0.210	35.510	358.00	0.71	0.68	0.73	636803.73	585371.48	32°36'30.618"N	103°53'20.639"W	0.03	-0.01	-7.50		
448.00	0.250	38.470	448.00	0.91	0.97	0.95	636803.95	585371.77	32°36'30.621"N	103°53'20.636"W	0.05	0.04	3.29		
538.00	0.260	36.940	538.00	1.15	1.29	1.19	636804.19	585372.09	32°36'30.624"N	103°53'20.633"W	0.01	0.01	-1.70		
628.00	0.270	12.030	628.00	1.30	1.66	1.36	636804.36	585372.46	32°36'30.628"N	103°53'20.631"W	0.13	0.01	-27.68		
658.00	0.180	47.670	658.00	1.35	1.76	1.41	636804.41	585372.56	32°36'30.629"N	103°53'20.631"W	0.54	-0.30	118.80	End of Drop	
676.00	0.000	109.400	676.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	1.00	-1.00	0.00	End of Drop	
758.00+	0.000	109.400	758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
858.00+	0.000	109.400	858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
958.00+	0.000	109.400	958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1058.00+	0.000	109.400	1058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1158.00+	0.000	109.400	1158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1258.00+	0.000	109.400	1258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1358.00+	0.000	109.400	1358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1458.00+	0.000	109.400	1458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1558.00+	0.000	109.400	1558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1658.00+	0.000	109.400	1658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1758.00+	0.000	109.400	1758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1858.00+	0.000	109.400	1858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
1958.00+	0.000	109.400	1958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2058.00+	0.000	109.400	2058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2158.00+	0.000	109.400	2158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2258.00+	0.000	109.400	2258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2358.00+	0.000	109.400	2358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2458.00+	0.000	109.400	2458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2558.00+	0.000	109.400	2558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2658.00+	0.000	109.400	2658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2758.00+	0.000	109.400	2758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2858.00+	0.000	109.400	2858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
2958.00+	0.000	109.400	2958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3058.00+	0.000	109.400	3058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3158.00+	0.000	109.400	3158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3258.00+	0.000	109.400	3258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3358.00+	0.000	109.400	3358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3458.00+	0.000	109.400	3458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3558.00+	0.000	109.400	3558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3658.00+	0.000	109.400	3658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3758.00+	0.000	109.400	3758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3858.00+	0.000	109.400	3858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
3958.00+	0.000	109.400	3958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		
4058.00+	0.000	109.400	4058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00		



Planned Wellpath Report

BEU DI-4 No.269H Rev G.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (164 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
4158.00†	0.000	109.400	4158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4258.00†	0.000	109.400	4258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4358.00†	0.000	109.400	4358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4458.00†	0.000	109.400	4458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4558.00†	0.000	109.400	4558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4658.00†	0.000	109.400	4658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4758.00†	0.000	109.400	4758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4858.00†	0.000	109.400	4858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
4958.00†	0.000	109.400	4958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5058.00†	0.000	109.400	5058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5158.00†	0.000	109.400	5158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5258.00†	0.000	109.400	5258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5358.00†	0.000	109.400	5358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5458.00†	0.000	109.400	5458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5558.00†	0.000	109.400	5558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5658.00†	0.000	109.400	5658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5758.00†	0.000	109.400	5758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5858.00†	0.000	109.400	5858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
5958.00†	0.000	109.400	5958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6058.00†	0.000	109.400	6058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6158.00†	0.000	109.400	6158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6258.00†	0.000	109.400	6258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6358.00†	0.000	109.400	6358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6458.00†	0.000	109.400	6458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6558.00†	0.000	109.400	6558.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6658.00†	0.000	109.400	6658.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6758.00†	0.000	109.400	6758.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6858.00†	0.000	109.400	6858.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
6958.00†	0.000	109.400	6958.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7058.00†	0.000	109.400	7058.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7158.00†	0.000	109.400	7158.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7258.00†	0.000	109.400	7258.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7358.00†	0.000	109.400	7358.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7458.00†	0.000	109.400	7458.00	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	
7532.59†	0.000	109.400	7532.59	1.37	1.78	1.43	636804.43	585372.58	32°36'30.629"N	103°53'20.630"W	0.00	0.00	0.00	KOP
7558.00†	2.541	109.400	7557.99	1.90	1.59	1.96	636804.96	585372.39	32°36'30.627"N	103°53'20.624"W	10.00	10.00	0.00	
7658.00†	12.541	109.400	7657.00	14.42	-2.76	14.33	636817.32	585368.04	32°36'30.584"N	103°53'20.480"W	10.00	10.00	0.00	
7758.00†	22.541	109.400	7752.23	43.16	-12.76	42.72	636845.71	585358.04	32°36'30.483"N	103°53'20.149"W	10.00	10.00	0.00	
7858.00†	32.541	109.400	7840.78	87.26	-28.10	86.27	636889.27	585342.70	32°36'30.330"N	103°53'19.640"W	10.00	10.00	0.00	
7958.00†	42.541	109.400	7919.97	145.37	-48.31	143.67	636946.66	585322.49	32°36'30.127"N	103°53'18.970"W	10.00	10.00	0.00	
8058.00†	52.541	109.400	7987.39	215.72	-72.79	213.17	637016.16	585298.02	32°36'29.882"N	103°53'18.159"W	10.00	10.00	0.00	
8158.00†	62.541	109.400	8041.00	296.19	-100.78	292.66	637095.64	585270.03	32°36'29.602"N	103°53'17.231"W	10.00	10.00	0.00	
8232.59	70.000	109.400	8070.99	361.35	-123.45	357.02	637160.00	585247.36	32°36'29.375"N	103°53'16.480"W	10.00	10.00	0.00	70° Curve
8258.00†	70.000	109.400	8079.68	384.15	-131.38	379.54	637182.51	585239.43	32°36'29.296"N	103°53'16.217"W	0.00	0.00	0.00	
8358.00†	70.000	109.400	8113.89	473.88	-162.59	468.17	637271.14	585208.22	32°36'28.983"N	103°53'15.182"W	0.00	0.00	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (164 stations)

= interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Seet [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Commer
8432.59	70.000	109.400	8139.40	540.81	-185.87	534.29	637337.25	585184.94	32°36'28.750"N	103°53'14.411"W	0.00	0.00	0.00	200' Tar
8458.00†	71.059	108.237	8147.87	563.75	-193.60	556.96	637359.92	585177.22	32°36'28.673"N	103°53'14.146"W	6.00	4.17	-4.58	
8558.00†	75.292	103.793	8176.82	656.64	-219.95	648.93	637451.88	585150.86	32°36'28.408"N	103°53'13.072"W	6.00	4.23	-4.44	
8658.00†	79.606	99.520	8198.55	752.86	-239.63	744.49	637547.43	585131.18	32°36'28.209"N	103°53'11.956"W	6.00	4.31	-4.27	
8758.00†	83.975	95.364	8212.89	851.36	-252.43	842.58	637645.92	585118.39	32°36'28.079"N	103°53'10.810"W	6.00	4.37	-4.16	
8858.00†	88.376	91.275	8219.51	951.07	-258.19	942.15	637745.08	585112.62	32°36'28.018"N	103°53'09.646"W	6.00	4.40	-4.09	
8888.96	89.741	90.015	8220.01	982.02	-258.54	973.11	637776.04	585112.28	32°36'28.013"N	103°53'09.285"W	6.00	4.41	-4.07	EOC/TL
8958.00†	89.741	90.015	8220.33	1051.01	-258.56	1042.14	637845.07	585112.26	32°36'28.010"N	103°53'08.478"W	0.00	0.00	0.00	
9058.00†	89.741	90.015	8220.78	1150.94	-258.59	1142.14	637945.06	585112.23	32°36'28.005"N	103°53'07.309"W	0.00	0.00	0.00	
9158.00†	89.741	90.015	8221.23	1250.87	-258.61	1242.14	638045.05	585112.21	32°36'28.001"N	103°53'06.140"W	0.00	0.00	0.00	
9258.00†	89.741	90.015	8221.68	1350.80	-258.64	1342.14	638145.04	585112.18	32°36'27.997"N	103°53'04.971"W	0.00	0.00	0.00	
9358.00†	89.741	90.015	8222.14	1450.73	-258.67	1442.14	638245.03	585112.15	32°36'27.992"N	103°53'03.802"W	0.00	0.00	0.00	
9458.00†	89.741	90.015	8222.59	1550.66	-258.69	1542.14	638345.03	585112.13	32°36'27.988"N	103°53'02.633"W	0.00	0.00	0.00	
9558.00†	89.741	90.015	8223.04	1650.60	-258.72	1642.13	638445.02	585112.10	32°36'27.983"N	103°53'01.464"W	0.00	0.00	0.00	
9658.00†	89.741	90.015	8223.49	1750.53	-258.74	1742.13	638545.01	585112.07	32°36'27.979"N	103°53'00.295"W	0.00	0.00	0.00	
9758.00†	89.741	90.015	8223.94	1850.46	-258.77	1842.13	638645.00	585112.05	32°36'27.974"N	103°52'59.126"W	0.00	0.00	0.00	
9858.00†	89.741	90.015	8224.40	1950.39	-258.80	1942.13	638744.99	585112.02	32°36'27.970"N	103°52'57.957"W	0.00	0.00	0.00	
9958.00†	89.741	90.015	8224.85	2050.32	-258.82	2042.13	638844.98	585112.00	32°36'27.965"N	103°52'56.788"W	0.00	0.00	0.00	
10058.00†	89.741	90.015	8225.30	2150.25	-258.85	2142.13	638944.98	585111.97	32°36'27.961"N	103°52'55.619"W	0.00	0.00	0.00	
10158.00†	89.741	90.015	8225.75	2250.18	-258.87	2242.13	639044.97	585111.94	32°36'27.956"N	103°52'54.450"W	0.00	0.00	0.00	
10258.00†	89.741	90.015	8226.21	2350.11	-258.90	2342.13	639144.96	585111.92	32°36'27.952"N	103°52'53.281"W	0.00	0.00	0.00	
10358.00†	89.741	90.015	8226.66	2450.05	-258.93	2442.13	639244.95	585111.89	32°36'27.948"N	103°52'52.112"W	0.00	0.00	0.00	
10458.00†	89.741	90.015	8227.11	2549.98	-258.95	2542.13	639344.94	585111.87	32°36'27.943"N	103°52'50.943"W	0.00	0.00	0.00	
10558.00†	89.741	90.015	8227.56	2649.91	-258.98	2642.12	639444.94	585111.84	32°36'27.939"N	103°52'49.774"W	0.00	0.00	0.00	
10658.00†	89.741	90.015	8228.02	2749.84	-259.01	2742.12	639544.93	585111.81	32°36'27.934"N	103°52'48.605"W	0.00	0.00	0.00	
10758.00†	89.741	90.015	8228.47	2849.77	-259.03	2842.12	639644.92	585111.79	32°36'27.930"N	103°52'47.436"W	0.00	0.00	0.00	
10858.00†	89.741	90.015	8228.92	2949.70	-259.06	2942.12	639744.91	585111.76	32°36'27.925"N	103°52'46.267"W	0.00	0.00	0.00	
10958.00†	89.741	90.015	8229.37	3049.63	-259.08	3042.12	639844.90	585111.73	32°36'27.921"N	103°52'45.099"W	0.00	0.00	0.00	
11058.00†	89.741	90.015	8229.82	3149.56	-259.11	3142.12	639944.89	585111.71	32°36'27.916"N	103°52'43.930"W	0.00	0.00	0.00	
11096.84†	89.741	90.015	8230.00	3188.38	-259.12	3180.96	639983.73	585111.70	32°36'27.914"N	103°52'43.476"W	0.00	0.00	0.00	Target
11107.27†	89.533	90.000	8230.07	3198.80	-259.12	3191.39	639994.17	585111.70	32°36'27.914"N	103°52'43.354"W	2.00	-1.99	-0.14	TL
11158.00†	89.533	90.000	8230.48	3249.49	-259.12	3242.12	640044.89	585111.70	32°36'27.912"N	103°52'42.761"W	0.00	0.00	0.00	
11258.00†	89.533	90.000	8231.30	3349.42	-259.12	3342.11	640144.87	585111.70	32°36'27.908"N	103°52'41.592"W	0.00	0.00	0.00	
11358.00†	89.533	90.000	8232.11	3449.35	-259.12	3442.11	640244.86	585111.70	32°36'27.903"N	103°52'40.423"W	0.00	0.00	0.00	
11458.00†	89.533	90.000	8232.93	3549.28	-259.12	3542.11	640344.85	585111.70	32°36'27.899"N	103°52'39.254"W	0.00	0.00	0.00	
11558.00†	89.533	90.000	8233.74	3649.21	-259.12	3642.10	640444.84	585111.70	32°36'27.895"N	103°52'38.085"W	0.00	0.00	0.00	
11658.00†	89.533	90.000	8234.56	3749.13	-259.12	3742.10	640544.83	585111.70	32°36'27.891"N	103°52'36.916"W	0.00	0.00	0.00	
11758.00†	89.533	90.000	8235.37	3849.06	-259.12	3842.10	640644.82	585111.70	32°36'27.886"N	103°52'35.747"W	0.00	0.00	0.00	
11858.00†	89.533	90.000	8236.19	3948.99	-259.12	3942.09	640744.81	585111.70	32°36'27.882"N	103°52'34.578"W	0.00	0.00	0.00	
11957.52†	89.533	90.000	8237.00	4048.92	-259.12	4041.61	640844.32	585111.70	32°36'27.878"N	103°52'33.415"W	0.00	0.00	0.00	Target
11958.00†	89.523	90.000	8237.00	4048.92	-259.12	4042.09	640844.80	585111.70	32°36'27.878"N	103°52'33.409"W	2.00	-2.00	0.00	
12014.60	88.391	90.000	8238.03	4105.47	-259.12	4098.68	640901.39	585111.70	32°36'27.876"N	103°52'32.748"W	2.00	-2.00	0.00	TL
12058.00†	88.391	90.000	8239.25	4148.82	-259.12	4142.06	640944.77	585111.70	32°36'27.874"N	103°52'32.241"W	0.00	0.00	0.00	
12158.00†	88.391	90.000	8242.06	4248.71	-259.12	4242.02	641044.72	585111.70	32°36'27.869"N	103°52'31.072"W	0.00	0.00	0.00	
12258.00†	88.391	90.000	8244.87	4348.60	-259.12	4341.98	641144.67	585111.70	32°36'27.865"N	103°52'29.904"W	0.00	0.00	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (164 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Commer
12358.00†	88.391	90.000	8247.68	4448.50	-259.12	4441.94	641244.63	585111.70	32°36'27.861"N	103°52'28.735"W	0.00	0.00	0.00	
12458.00†	88.391	90.000	8250.48	4548.39	-259.12	4541.91	641344.58	585111.70	32°36'27.857"N	103°52'27.567"W	0.00	0.00	0.00	
12558.00†	88.391	90.000	8253.29	4648.28	-259.12	4641.87	641444.53	585111.70	32°36'27.852"N	103°52'26.398"W	0.00	0.00	0.00	
12658.00†	88.391	90.000	8256.10	4748.17	-259.12	4741.83	641544.49	585111.70	32°36'27.848"N	103°52'25.230"W	0.00	0.00	0.00	
12758.00†	88.391	90.000	8258.91	4848.06	-259.12	4841.79	641644.44	585111.70	32°36'27.844"N	103°52'24.061"W	0.00	0.00	0.00	
12796.96	88.391	90.000	8260.00	4886.98	-259.12	4880.73	641683.38	585111.70	32°36'27.842"N	103°52'23.606"W	0.00	0.00	0.00	Target E
12825.50	87.820	90.000	8260.94	4915.48	-259.12	4909.25	641711.90	585111.70	32°36'27.841"N	103°52'23.272"W	2.00	-2.00	0.00	TL
12858.00†	87.820	90.000	8262.18	4947.94	-259.12	4941.73	641744.38	585111.70	32°36'27.840"N	103°52'22.893"W	0.00	0.00	0.00	
12958.00†	87.820	90.000	8265.98	5047.80	-259.12	5041.66	641844.30	585111.70	32°36'27.835"N	103°52'21.725"W	0.00	0.00	0.00	
13058.00†	87.820	90.000	8269.79	5147.66	-259.12	5141.59	641944.22	585111.70	32°36'27.831"N	103°52'20.556"W	0.00	0.00	0.00	
13158.00†	87.820	90.000	8273.59	5247.52	-259.12	5241.52	642044.14	585111.70	32°36'27.827"N	103°52'19.388"W	0.00	0.00	0.00	
13258.00†	87.820	90.000	8277.39	5347.38	-259.12	5341.44	642144.06	585111.70	32°36'27.822"N	103°52'18.220"W	0.00	0.00	0.00	
13358.00†	87.820	90.000	8281.20	5447.24	-259.12	5441.37	642243.98	585111.70	32°36'27.818"N	103°52'17.052"W	0.00	0.00	0.00	
13458.00†	87.820	90.000	8285.00	5547.09	-259.12	5541.30	642343.90	585111.70	32°36'27.814"N	103°52'15.884"W	0.00	0.00	0.00	
13558.00†	87.820	90.000	8288.80	5646.95	-259.12	5641.23	642443.82	585111.70	32°36'27.809"N	103°52'14.716"W	0.00	0.00	0.00	
13658.00†	87.820	90.000	8292.61	5746.81	-259.12	5741.15	642543.74	585111.70	32°36'27.805"N	103°52'13.548"W	0.00	0.00	0.00	
13758.00†	87.820	90.000	8296.41	5846.67	-259.12	5841.08	642643.66	585111.70	32°36'27.801"N	103°52'12.380"W	0.00	0.00	0.00	
13858.00†	87.820	90.000	8300.21	5946.53	-259.12	5941.01	642743.58	585111.70	32°36'27.797"N	103°52'11.212"W	0.00	0.00	0.00	
13958.00†	87.820	90.000	8304.02	6046.39	-259.12	6040.94	642843.50	585111.70	32°36'27.792"N	103°52'10.043"W	0.00	0.00	0.00	
14058.00†	87.820	90.000	8307.82	6146.25	-259.12	6140.86	642943.43	585111.70	32°36'27.788"N	103°52'08.875"W	0.00	0.00	0.00	
14158.00†	87.820	90.000	8311.62	6246.11	-259.12	6240.79	643043.35	585111.70	32°36'27.784"N	103°52'07.707"W	0.00	0.00	0.00	
14258.00†	87.820	90.000	8315.43	6345.97	-259.12	6340.72	643143.27	585111.70	32°36'27.779"N	103°52'06.539"W	0.00	0.00	0.00	
14358.00†	87.820	90.000	8319.23	6445.83	-259.12	6440.65	643243.19	585111.70	32°36'27.775"N	103°52'05.371"W	0.00	0.00	0.00	
14458.00†	87.820	90.000	8323.03	6545.68	-259.12	6540.57	643343.11	585111.70	32°36'27.771"N	103°52'04.203"W	0.00	0.00	0.00	
14558.00†	87.820	90.000	8326.84	6645.54	-259.12	6640.50	643443.03	585111.70	32°36'27.766"N	103°52'03.035"W	0.00	0.00	0.00	
14658.00†	87.820	90.000	8330.64	6745.40	-259.12	6740.43	643542.95	585111.70	32°36'27.762"N	103°52'01.867"W	0.00	0.00	0.00	
14758.00†	87.820	90.000	8334.44	6845.26	-259.12	6840.36	643642.87	585111.70	32°36'27.758"N	103°52'00.698"W	0.00	0.00	0.00	
14858.00†	87.820	90.000	8338.24	6945.12	-259.12	6940.29	643742.79	585111.70	32°36'27.753"N	103°51'59.530"W	0.00	0.00	0.00	
14904.15	87.820	90.000	8340.00	6991.20	-259.12	6986.40	643788.90	585111.70	32°36'27.751"N	103°51'58.991"W	0.00	0.00	0.00	No. 269



Planned Wellpath Report

BEU DI-4 No.269H Rev G.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Tgt-A	11096.84	8230.00	-259.12	3180.96	639983.73	585111.70	32°36'27.914"N	103°52'43.476"W	point
2) Tgt-A.1	11957.52	8237.00	-259.12	4041.61	640844.32	585111.70	32°36'27.878"N	103°52'33.415"W	point
3) Tgt-B	12796.96	8260.00	-259.12	4880.73	641683.38	585111.70	32°36'27.842"N	103°52'23.606"W	point
4) BEU No.269H PBHL Rev-2	14904.15	8340.00	-259.12	6986.40	643788.90	585111.70	32°36'27.751"N	103°51'58.991"W	point

SURVEY PROGRAM - Ref Wellbore: No.269H-PWB Ref Wellpath: BEU DI-4 No.269H Rev G.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	658.00	Generic gyro - northseeking (Standard)		BEU DI-4 No. 269H AWB
658.00	14904.15	NaviTrak (Standard)		No.269H PWB



Clearance Report

BEU DI-4 No.269H Rev G.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

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	Janotho
Scale	0.999931	Report Generated	11/12/2014 at 2:37:36 PM
Convergence at slot	0.24° East	Database/Source file	WA_Midland/No.269H_PWB_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	295.72	-460.93	636803.00	585370.80	32°36'30.611"N	103°53'20.647"W
Facility Reference Pt			637263.90	585075.10	32°36'27.666"N	103°53'15.274"W
Field Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM

Calculation method	Minimum Curvature	Rig on No.269H SHL (KB) to Facility Vertical Datum	3491.00ft
Horizontal Reference Pt	Slot	Rig on No.269H SHL (KB) to Mean Sea Level	3491.00ft
Vertical Reference Pt	Rig on No.269H SHL (KB)	Rig on No.269H SHL (KB) to Mud Line at Slot (No.269H SHL)	3491.00ft
MD Reference Pt	Rig on No.269H SHL (KB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	26.00ft	Surface Position Uncertainty	included
Declination	7.52° East of TN	Dip Angle	60.40°	Mag Field Strength	48428 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @1SD		Horizontal	3.300ft	Vertical	1.000ft

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes

ANTI-COLLISION RULE

Rule Name	Baker Hughes Stop Drilling	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Subtract Casing & Hole Size	yes	Apply Cone of Safety	no

SURVEY PROGRAM - Ref Wellbore: No.269H-PWB - Ref Wellpath: BEU DI-4 No.269H-Rev G.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	658.00	Generic gyro - northseeking (Standard)		BEU DI-4 No. 269H AWB
658.00	14904.15	NaviTrak (Standard)		No.269H PWB



Clearance Report

BEU DI-4 No.269H Rev G.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CALCULATION RANGE & CUTOFF		
From: 26.00ft MD	To: 14904.15ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (4 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane											
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD off Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
Big Eddy Unit DI-4	No.271H SHL	SL 358 FNL, 2078 FEL	No.271H PWB	Rev-E.0	658.00	21.59	14904.15	7532.59	0.44	14904.15	FAIL
Big Eddy Unit DI-4	No.271H SHL	SL 358 FNL, 2078 FEL	BEU DI-4 No. 271H AWB	BEU DI-4 No. 271H AWP	1989.33	11.22	1989.33	2026.00	1.07	13926.00	PASS
Big Eddy Unit DI-4	No.264H SHL	No.264H	No.264H AWP	AWP - Final	7536.97	324.15	7536.97	7579.00	7.15	11158.00	PASS
Big Eddy Unit DI-4	No.270H SHL	No.270H	No.270H AWP	AWP - Final	7458.00	363.48	7458.00	7726.00	7.97	12826.00	PASS



Clearance Report

BEU DI-4 No.269H Rev G.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev-E.0												
Facility: Big Eddy Unit DI-4 Slot: No.271H SHL Well: SL 358 FNL, 2058 FEL Threshold Value: 1.00 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
658.00	658.00	1.76	1.41	658.00	658.00	-0.10	-20.10	265.06	21.59	3.66	5.90	PASS
676.00	676.00	1.78	1.43	676.00	676.00	-0.10	-20.10	265.02	21.62	3.70	5.84	PASS
758.00	758.00	1.78	1.43	758.00	758.00	-0.10	-20.10	265.02	21.62	3.80	5.69	PASS
858.00	858.00	1.78	1.43	858.00	858.00	-0.10	-20.10	265.02	21.62	4.03	5.36	PASS
958.00	958.00	1.78	1.43	958.00	958.00	-0.10	-20.10	265.02	21.62	4.37	4.95	PASS
1058.00	1058.00	1.78	1.43	1058.00	1058.00	-0.10	-20.10	265.02	21.62	4.79	4.51	PASS
1158.00	1158.00	1.78	1.43	1158.00	1158.00	-0.10	-20.10	265.02	21.62	5.27	4.10	PASS
1258.00	1258.00	1.78	1.43	1258.00	1258.00	-0.10	-20.10	265.02	21.62	5.81	3.72	PASS
1358.00	1358.00	1.78	1.43	1358.00	1358.00	-0.10	-20.10	265.02	21.62	6.38	3.39	PASS
1458.00	1458.00	1.78	1.43	1458.00	1458.00	-0.10	-20.10	265.02	21.62	6.97	3.10	PASS
1558.00	1558.00	1.78	1.43	1558.00	1558.00	-0.10	-20.10	265.02	21.62	7.59	2.85	PASS
1658.00	1658.00	1.78	1.43	1658.00	1658.00	-0.10	-20.10	265.02	21.62	8.22	2.63	PASS
1758.00	1758.00	1.78	1.43	1758.00	1758.00	-0.10	-20.10	265.02	21.62	8.87	2.44	PASS
1858.00	1858.00	1.78	1.43	1858.00	1858.00	-0.10	-20.10	265.02	21.62	9.50	2.28	PASS
1958.00	1958.00	1.78	1.43	1958.00	1958.00	-0.10	-20.10	265.02	21.62	10.19	2.12	PASS
2058.00	2058.00	1.78	1.43	2058.00	2058.00	-0.10	-20.10	265.02	21.62	10.86	1.99	PASS
2158.00	2158.00	1.78	1.43	2158.00	2158.00	-0.10	-20.10	265.02	21.62	11.54	1.87	PASS
2258.00	2258.00	1.78	1.43	2258.00	2258.00	-0.10	-20.10	265.02	21.62	12.22	1.77	PASS
2358.00	2358.00	1.78	1.43	2358.00	2358.00	-0.10	-20.10	265.02	21.62	12.90	1.68	PASS
2458.00	2458.00	1.78	1.43	2458.00	2458.00	-0.10	-20.10	265.02	21.62	13.59	1.59	PASS
2558.00	2558.00	1.78	1.43	2558.00	2558.00	-0.10	-20.10	265.02	21.62	14.28	1.51	PASS
2658.00	2658.00	1.78	1.43	2658.00	2658.00	-0.10	-20.10	265.02	21.62	14.98	1.44	PASS
2758.00	2758.00	1.78	1.43	2758.00	2758.00	-0.10	-20.10	265.02	21.62	15.68	1.38	PASS
2858.00	2858.00	1.78	1.43	2858.00	2858.00	-0.10	-20.10	265.02	21.62	16.37	1.32	PASS
2958.00	2958.00	1.78	1.43	2958.00	2958.00	-0.10	-20.10	265.02	21.62	17.07	1.27	PASS
3058.00	3058.00	1.78	1.43	3058.00	3058.00	-0.10	-20.10	265.02	21.62	17.78	1.22	PASS
3158.00	3158.00	1.78	1.43	3158.00	3158.00	-0.10	-20.10	265.02	21.62	18.48	1.17	PASS
3258.00	3258.00	1.78	1.43	3258.00	3258.00	-0.10	-20.10	265.02	21.62	19.18	1.13	PASS
3358.00	3358.00	1.78	1.43	3358.00	3358.00	-0.10	-20.10	265.02	21.62	19.89	1.09	PASS
3458.00	3458.00	1.78	1.43	3458.00	3458.00	-0.10	-20.10	265.02	21.62	20.60	1.05	PASS
3558.00	3558.00	1.78	1.43	3558.00	3558.00	-0.10	-20.10	265.02	21.62	21.30	1.01	PASS
3658.00	3658.00	1.78	1.43	3658.00	3658.00	-0.10	-20.10	265.02	21.62	22.01	0.98	FAIL
3758.00	3758.00	1.78	1.43	3758.00	3758.00	-0.10	-20.10	265.02	21.62	22.72	0.95	FAIL
3858.00	3858.00	1.78	1.43	3858.00	3858.00	-0.10	-20.10	265.02	21.62	23.43	0.92	FAIL
3958.00	3958.00	1.78	1.43	3958.00	3958.00	-0.10	-20.10	265.02	21.62	24.14	0.90	FAIL
4058.00	4058.00	1.78	1.43	4058.00	4058.00	-0.10	-20.10	265.02	21.62	24.85	0.87	FAIL
4158.00	4158.00	1.78	1.43	4158.00	4158.00	-0.10	-20.10	265.02	21.62	25.56	0.85	FAIL
4258.00	4258.00	1.78	1.43	4258.00	4258.00	-0.10	-20.10	265.02	21.62	26.27	0.82	FAIL
4358.00	4358.00	1.78	1.43	4358.00	4358.00	-0.10	-20.10	265.02	21.62	26.98	0.80	FAIL
4458.00	4458.00	1.78	1.43	4458.00	4458.00	-0.10	-20.10	265.02	21.62	27.69	0.78	FAIL
4558.00	4558.00	1.78	1.43	4558.00	4558.00	-0.10	-20.10	265.02	21.62	28.40	0.76	FAIL
4658.00	4658.00	1.78	1.43	4658.00	4658.00	-0.10	-20.10	265.02	21.62	29.12	0.74	FAIL
4758.00	4758.00	1.78	1.43	4758.00	4758.00	-0.10	-20.10	265.02	21.62	29.83	0.72	FAIL
4858.00	4858.00	1.78	1.43	4858.00	4858.00	-0.10	-20.10	265.02	21.62	30.54	0.71	FAIL
4958.00	4958.00	1.78	1.43	4958.00	4958.00	-0.10	-20.10	265.02	21.62	31.26	0.69	FAIL



Clearance Report

BEU DI-4 No.269H Rev G.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev E.0

Facility: Big Eddy Unit DI-4 Slot: No.271H SHL Well: SL 358 FNL, 2078 FEL Threshold Value=1.00 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5058.00†	5058.00	1.78	1.43	5058.00	5058.00	-0.10	-20.10	265.02	21.62	31.97	0.68	FAIL
5158.00†	5158.00	1.78	1.43	5158.00	5158.00	-0.10	-20.10	265.02	21.62	32.68	0.66	FAIL
5258.00†	5258.00	1.78	1.43	5258.00	5258.00	-0.10	-20.10	265.02	21.62	33.40	0.65	FAIL
5358.00†	5358.00	1.78	1.43	5358.00	5358.00	-0.10	-20.10	265.02	21.62	34.11	0.63	FAIL
5458.00†	5458.00	1.78	1.43	5458.00	5458.00	-0.10	-20.10	265.02	21.62	34.83	0.62	FAIL
5558.00†	5558.00	1.78	1.43	5558.00	5558.00	-0.10	-20.10	265.02	21.62	35.54	0.61	FAIL
5658.00†	5658.00	1.78	1.43	5658.00	5658.00	-0.10	-20.10	265.02	21.62	36.25	0.60	FAIL
5758.00†	5758.00	1.78	1.43	5758.00	5758.00	-0.10	-20.10	265.02	21.62	36.97	0.58	FAIL
5858.00†	5858.00	1.78	1.43	5858.00	5858.00	-0.10	-20.10	265.02	21.62	37.68	0.57	FAIL
5958.00†	5958.00	1.78	1.43	5958.00	5958.00	-0.10	-20.10	265.02	21.62	38.40	0.56	FAIL
6058.00†	6058.00	1.78	1.43	6058.00	6058.00	-0.10	-20.10	265.02	21.62	39.11	0.55	FAIL
6158.00†	6158.00	1.78	1.43	6158.00	6158.00	-0.10	-20.10	265.02	21.62	39.83	0.54	FAIL
6258.00†	6258.00	1.78	1.43	6258.00	6258.00	-0.10	-20.10	265.02	21.62	40.55	0.53	FAIL
6358.00†	6358.00	1.78	1.43	6358.00	6358.00	-0.10	-20.10	265.02	21.62	41.26	0.52	FAIL
6458.00†	6458.00	1.78	1.43	6458.00	6458.00	-0.10	-20.10	265.02	21.62	41.98	0.51	FAIL
6558.00†	6558.00	1.78	1.43	6558.00	6558.00	-0.10	-20.10	265.02	21.62	42.69	0.51	FAIL
6658.00†	6658.00	1.78	1.43	6658.00	6658.00	-0.10	-20.10	265.02	21.62	43.41	0.50	FAIL
6758.00†	6758.00	1.78	1.43	6758.00	6758.00	-0.10	-20.10	265.02	21.62	44.12	0.49	FAIL
6858.00†	6858.00	1.78	1.43	6858.00	6858.00	-0.10	-20.10	265.02	21.62	44.84	0.48	FAIL
6958.00†	6958.00	1.78	1.43	6958.00	6958.00	-0.10	-20.10	265.02	21.62	45.56	0.47	FAIL
7058.00†	7058.00	1.78	1.43	7058.00	7058.00	-0.10	-20.10	265.02	21.62	46.27	0.47	FAIL
7158.00†	7158.00	1.78	1.43	7158.00	7158.00	-0.10	-20.10	265.02	21.62	46.99	0.46	FAIL
7258.00†	7258.00	1.78	1.43	7258.00	7258.00	-0.10	-20.10	265.02	21.62	47.71	0.45	FAIL
7358.00†	7358.00	1.78	1.43	7358.00	7358.00	-0.10	-20.10	265.02	21.62	48.42	0.45	FAIL
7458.00†	7458.00	1.78	1.43	7458.00	7458.00	-0.10	-20.10	265.02	21.62	49.14	0.44	FAIL
7532.59	7532.59	1.78	1.43	7532.59	7532.59	-0.10	-20.10	265.02	21.62	49.67	0.44	FAIL
7558.00†	7557.99	1.59	1.96	7557.99	7557.99	-0.10	-20.10	265.62	22.13	49.86	0.44	FAIL
7658.00†	7657.00	-2.76	14.33	7657.00	7657.00	-0.10	-20.10	274.42	34.53	50.93	0.68	FAIL
7758.00†	7752.23	-12.76	42.72	7752.23	7752.23	-0.10	-20.10	281.40	64.08	52.94	1.21	PASS
7858.00†	7840.78	-28.10	86.27	7840.78	7840.78	-0.10	-20.10	284.75	110.00	54.69	12.01	PASS
7958.00†	7919.97	-48.31	143.67	7919.97	7919.97	-0.10	-20.10	286.40	170.72	56.12	3.04	PASS
8058.00†	7987.39	-72.79	213.17	7987.39	7987.39	-0.10	-20.10	287.31	244.34	57.21	4.27	PASS
8158.00†	8041.00	-100.78	292.66	8041.53	8041.53	-0.11	-20.10	287.84	328.56	57.99	5.67	PASS
8232.59	8070.99	-123.45	357.02	8079.84	8079.80	-1.59	-20.10	287.91	396.42	58.49	6.78	PASS
8258.00†	8079.68	-131.38	379.54	8091.77	8091.69	-2.57	-20.10	287.86	420.06	58.61	7.17	PASS
8358.00†	8113.89	-162.59	468.17	8142.57	8142.00	-9.53	-20.10	287.41	512.48	59.04	8.68	PASS
8432.59	8139.40	-185.87	534.29	8184.56	8182.99	-18.62	-20.10	286.79	580.71	59.41	9.77	PASS
8458.00†	8147.87	-193.60	556.96	8199.28	8197.18	-22.51	-20.10	286.51	603.91	59.54	10.14	PASS
8558.00†	8176.82	-219.95	648.93	8252.41	8247.48	-39.57	-20.10	285.09	696.52	59.99	11.61	PASS
8658.00†	8198.55	-239.63	744.49	8294.92	8286.45	-56.53	-20.10	283.47	791.11	60.36	13.11	PASS
8758.00†	8212.83	-252.43	842.58	8323.84	8312.19	-69.70	-20.10	281.96	887.41	60.58	14.65	PASS
8858.00†	8219.51	-258.19	942.15	8337.43	8324.05	-76.33	-20.10	280.70	984.85	60.67	16.23	PASS
8888.96	8220.01	-258.54	973.11	8338.40	8324.89	-76.81	-20.10	280.37	1015.13	60.67	16.73	PASS
8958.00†	8220.33	-258.56	1042.14	8338.84	8325.28	-77.03	-20.10	279.70	1082.74	60.65	17.85	PASS
9058.00†	8220.78	-258.59	1142.14	8339.48	8325.83	-77.35	-20.10	278.86	1180.97	60.62	19.48	PASS



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.271H PWB, Offset Wellpath: Rev E.0												
Facility: Big Eddy Unit DI-4 Slot: No.271H SHL Well: SL 358 FNL, 2078 FEL Threshold Value: 1.00 ft = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9158.00†	8221.23	-258.61	1242.14	8340.12	8326.38	-77.67	-20.10	278.16	1279.47	60.61	21.11	PASS
9258.00†	8221.68	-258.64	1342.14	8340.75	8326.93	-77.99	-20.10	277.55	1378.19	60.60	22.74	PASS
9358.00†	8222.14	-258.67	1442.14	8341.39	8327.48	-78.31	-20.10	277.03	1477.08	60.60	24.38	PASS
9458.00†	8222.59	-258.69	1542.14	11117.87	9047.63	-1598.17	1527.89	180.61	1573.24	112.80	13.95	PASS
9558.00†	8223.04	-258.72	1642.13	11121.786	9049.33	-1598.18	1627.87	180.61	1573.89	118.13	13.32	PASS
9658.00†	8223.49	-258.74	1742.13	111317.86	9051.03	-1598.20	1727.85	180.61	1574.54	123.55	12.74	PASS
9758.00†	8223.94	-258.77	1842.13	111417.85	9052.74	-1598.21	1827.83	180.61	1575.18	129.04	12.21	PASS
9858.00†	8224.40	-258.80	1942.13	111517.84	9054.44	-1598.23	1927.80	180.61	1575.83	134.60	11.71	PASS
9958.00†	8224.85	-258.82	2042.13	111617.83	9056.14	-1598.24	2027.78	180.61	1576.48	140.22	11.24	PASS
10058.00†	8225.30	-258.85	2142.13	111717.82	9057.84	-1598.26	2127.76	180.62	1577.13	145.88	10.81	PASS
10158.00†	8225.75	-258.87	2242.13	111817.82	9059.54	-1598.27	2227.74	180.62	1577.78	151.59	10.41	PASS
10258.00†	8226.21	-258.90	2342.13	111917.81	9061.24	-1598.29	2327.72	180.62	1578.43	157.34	10.03	PASS
10358.00†	8226.66	-258.93	2442.13	12017.80	9062.94	-1598.31	2427.69	180.62	1579.09	163.12	9.68	PASS
10458.00†	8227.11	-258.95	2542.13	12117.79	9064.64	-1598.32	2527.67	180.62	1579.74	168.93	9.35	PASS
10558.00†	8227.56	-258.98	2642.12	12217.79	9066.34	-1598.34	2627.65	180.62	1580.39	174.76	9.04	PASS
10658.00†	8228.02	-259.01	2742.12	12317.78	9068.04	-1598.35	2727.63	180.62	1581.05	180.63	8.75	PASS
10758.00†	8228.47	-259.03	2842.12	12417.77	9069.74	-1598.37	2827.60	180.62	1581.70	186.51	8.48	PASS
10858.00†	8228.92	-259.06	2942.12	12517.76	9071.44	-1598.38	2927.58	180.62	1582.36	192.41	8.22	PASS
10958.00†	8229.37	-259.08	3042.12	12617.75	9073.14	-1598.40	3027.56	180.62	1583.01	198.32	7.98	PASS
11058.00†	8229.82	-259.11	3142.12	12717.75	9074.84	-1598.41	3127.54	180.62	1583.67	204.25	7.75	PASS
11096.84	8230.00	-259.12	3180.96	12756.58	9075.50	-1598.42	3166.37	180.62	1583.92	206.56	7.67	PASS
11107.27	8230.07	-259.12	3191.39	12767.02	9075.68	-1598.42	3176.80	180.62	1583.98	207.18	7.65	PASS
11158.00†	8230.48	-259.12	3242.12	12817.74	9076.54	-1598.43	3227.52	180.63	1584.23	210.21	7.54	PASS
11258.00†	8231.30	-259.12	3342.11	12917.74	9078.24	-1598.45	3327.50	180.63	1584.72	216.18	7.33	PASS
11358.00†	8232.11	-259.12	3442.11	13017.73	9079.95	-1598.46	3427.48	180.63	1585.20	222.17	7.14	PASS
11458.00†	8232.93	-259.12	3542.11	13117.73	9081.65	-1598.48	3527.46	180.63	1585.69	228.17	6.95	PASS
11558.00†	8233.74	-259.12	3642.10	13217.72	9083.35	-1598.49	3627.44	180.63	1586.18	234.18	6.77	PASS
11658.00†	8234.56	-259.12	3742.10	13317.72	9085.05	-1598.51	3727.43	180.63	1586.67	240.20	6.61	PASS
11758.00†	8235.37	-259.12	3842.10	13417.72	9086.75	-1598.52	3827.41	180.63	1587.15	246.22	6.45	PASS
11858.00†	8236.19	-259.12	3942.09	13517.71	9088.45	-1598.54	3927.39	180.63	1587.64	252.25	6.29	PASS
11957.52	8237.00	-259.12	4041.61	13617.23	9090.14	-1598.55	4026.89	180.63	1588.13	258.26	6.15	PASS
11958.00†	8237.00	-259.12	4042.09	13617.71	9090.15	-1598.55	4027.37	180.63	1588.13	258.29	6.15	PASS
12014.60	8238.03	-259.12	4098.68	13674.31	9091.11	-1598.56	4083.96	180.63	1588.10	261.75	6.07	PASS
12058.00†	8239.25	-259.12	4142.06	13717.71	9091.85	-1598.57	4127.35	180.63	1587.85	264.43	6.00	PASS
12158.00†	8242.06	-259.12	4242.02	13817.70	9093.55	-1598.59	4227.33	180.63	1587.27	270.63	5.87	PASS
12258.00†	8244.87	-259.12	4341.98	13917.69	9095.25	-1598.60	4327.31	180.63	1586.69	276.84	5.73	PASS
12358.00†	8247.68	-259.12	4441.94	14017.69	9096.95	-1598.62	4427.29	180.63	1586.11	283.06	5.60	PASS
12458.00†	8250.48	-259.12	4541.91	14117.68	9098.65	-1598.63	4527.27	180.63	1585.53	289.30	5.48	PASS
12558.00†	8253.29	-259.12	4641.87	14217.67	9100.35	-1598.65	4627.25	180.63	1584.95	295.54	5.36	PASS
12658.00†	8256.10	-259.12	4741.83	14317.67	9102.05	-1598.66	4727.23	180.62	1584.37	301.79	5.25	PASS
12758.00†	8258.91	-259.12	4841.79	14417.66	9103.75	-1598.68	4827.21	180.62	1583.79	308.05	5.14	PASS
12796.96	8260.00	-259.12	4880.73	14456.62	9104.42	-1598.69	4866.16	180.62	1583.57	310.49	5.10	PASS
12825.50	8260.94	-259.12	4909.25	14485.15	9104.90	-1598.69	4894.69	180.62	1583.33	312.30	5.07	PASS
12858.00†	8262.18	-259.12	4941.73	14517.65	9105.45	-1598.69	4927.18	180.62	1582.97	314.36	5.04	PASS
12958.00†	8265.98	-259.12	5041.66	14617.63	9107.15	-1598.71	5027.14	180.62	1581.86	320.73	4.93	PASS



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev-E.0												
Facility: Big Eddy Unit DI-4		Slot: No.271H SHL		Well: SL 358 FNL, 2058 FEL		Threshold Value: 1.00		Interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13058.00†	8269.79	-259.12	5141.59	14717.61	9108.86	-1598.73	5127.11	180.62	1580.76	327.11	4.83	PASS
13158.00†	8273.59	-259.12	5241.52	14817.58	9110.56	-1598.74	5227.07	180.62	1579.65	333.51	4.74	PASS
13258.00†	8277.39	-259.12	5341.44	14917.56	9112.26	-1598.76	5327.03	180.62	1578.55	339.91	4.64	PASS
13358.00†	8281.20	-259.12	5441.37	15017.54	9113.96	-1598.77	5427.00	180.62	1577.46	346.33	4.55	PASS
13458.00†	8285.00	-259.12	5541.30	15117.52	9115.66	-1598.79	5526.96	180.61	1576.36	352.75	4.47	PASS
13558.00†	8288.80	-259.12	5641.23	15217.49	9117.36	-1598.80	5626.92	180.61	1575.27	359.19	4.39	PASS
13658.00†	8292.61	-259.12	5741.15	15317.47	9119.06	-1598.82	5726.89	180.61	1574.17	365.64	4.31	PASS
13758.00†	8296.41	-259.12	5841.08	15417.45	9120.76	-1598.83	5826.85	180.61	1573.08	372.10	4.23	PASS
13858.00†	8300.21	-259.12	5941.01	15517.43	9122.46	-1598.85	5926.81	180.61	1572.00	378.57	4.15	PASS
13958.00†	8304.02	-259.12	6040.94	15617.41	9124.16	-1598.87	6026.78	180.61	1570.91	385.05	4.08	PASS
14058.00†	8307.82	-259.12	6140.86	15717.38	9125.86	-1598.88	6126.74	180.60	1569.83	391.54	4.01	PASS
14158.00†	8311.62	-259.12	6240.79	15817.36	9127.56	-1598.90	6226.70	180.60	1568.74	398.05	3.94	PASS
14258.00†	8315.43	-259.12	6340.72	15917.34	9129.26	-1598.91	6326.67	180.60	1567.66	404.56	3.88	PASS
14358.00†	8319.23	-259.12	6440.65	16017.32	9130.96	-1598.93	6426.63	180.60	1566.59	411.08	3.81	PASS
14458.00†	8323.03	-259.12	6540.57	16117.30	9132.66	-1598.94	6526.59	180.60	1565.51	417.61	3.75	PASS
14558.00†	8326.84	-259.12	6640.50	16217.27	9134.36	-1598.96	6626.56	180.60	1564.44	424.15	3.69	PASS
14658.00†	8330.64	-259.12	6740.43	16317.25	9136.06	-1598.97	6726.52	180.60	1563.37	430.70	3.63	PASS
14758.00†	8334.44	-259.12	6840.36	16417.23	9137.76	-1598.99	6826.48	180.59	1562.30	437.26	3.57	PASS
14858.00†	8338.24	-259.12	6940.29	16517.21	9139.46	-1599.01	6926.45	180.59	1561.23	443.83	3.52	PASS
14904.15†	8340.00	-259.12	6986.40	16548.87	9140.00	-1599.01	6958.10	181.21	1560.81	446.90	3.49	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev-E.0				
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical 0.100ft
Facility Surface Uncertainty @1SD		Horizontal	3.300ft	Vertical 1.000ft

SURVEY PROGRAM - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev-E.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	600.00	Generic gyro - northseeking (Standard)		No.271H PWB
600.00	16548.87	NaviTrak (Standard)		No.271H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.271H PWB - Offset Wellpath: Rev-E.0	
MD Reference: Rig on No.271H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	26.00ft



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: BEU DI-4 No. 271H AWP, Offset Wellpath: BEU DI-4 No. 271H AWP												
Facility: Big Eddy Unit DI-4, Slot: No.271H SHL, Well: SL 358 FNL, 2078 FEL, Threshold Value=1.00, †=interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
658.00	658.00	1.76	1.41	658.01	658.01	0.97	-22.17	268.08	23.59	4.24	5.57	PASS
676.00	676.00	1.78	1.43	676.02	676.02	1.00	-22.15	268.10	23.60	4.28	5.52	PASS
758.00†	758.00	1.78	1.43	758.06	758.05	1.13	-22.02	268.42	23.46	4.42	5.31	PASS
858.00†	858.00	1.78	1.43	858.11	858.10	1.32	-21.66	268.87	23.10	4.62	5.00	PASS
958.00†	958.00	1.78	1.43	958.17	958.16	1.58	-21.07	269.49	22.51	4.85	4.64	PASS
1058.00†	1058.00	1.78	1.43	1058.23	1058.21	1.93	-20.17	270.40	21.61	5.27	4.10	PASS
1158.00†	1158.00	1.78	1.43	1158.22	1158.20	2.43	-19.20	271.81	20.64	5.75	3.59	PASS
1258.00†	1258.00	1.78	1.43	1258.24	1258.21	3.08	-18.15	273.82	19.62	6.23	3.15	PASS
1358.00†	1358.00	1.78	1.43	1358.24	1358.20	3.79	-16.94	276.24	18.49	6.75	2.74	PASS
1458.00†	1458.00	1.78	1.43	1458.24	1458.20	4.29	-15.80	278.29	17.41	7.29	2.39	PASS
1558.00†	1558.00	1.78	1.43	1558.28	1558.22	4.61	-14.44	280.13	16.12	7.87	2.05	PASS
1658.00†	1658.00	1.78	1.43	1658.28	1658.21	4.83	-12.88	282.04	14.64	8.46	1.73	PASS
1758.00†	1758.00	1.78	1.43	1758.25	1758.17	5.23	-11.38	285.07	13.27	9.05	1.47	PASS
1858.00†	1858.00	1.78	1.43	1858.22	1858.13	5.94	-9.89	290.18	12.07	9.60	1.26	PASS
1958.00†	1958.00	1.78	1.43	1958.15	1958.04	7.27	-8.42	299.14	11.28	10.10	1.12	PASS
1989.33†	1989.33	1.78	1.43	1989.41	1989.29	7.86	-7.99	302.85	11.22	10.28	1.09	PASS
2026.00†	2026.00	1.78	1.43	2026.08	2025.95	8.66	-7.53	307.50	11.30	10.51	1.07	PASS
2058.00†	2058.00	1.78	1.43	2058.04	2057.90	9.42	-7.17	311.62	11.50	10.65	1.08	PASS
2158.00†	2158.00	1.78	1.43	2157.89	2157.70	12.32	-6.25	323.92	13.05	11.38	1.15	PASS
2258.00†	2258.00	1.78	1.43	2257.67	2257.41	16.08	-5.81	333.14	16.04	12.92	1.31	PASS
2358.00†	2358.00	1.78	1.43	2357.39	2357.02	20.53	-6.24	337.77	20.29	13.04	1.56	PASS
2458.00†	2458.00	1.78	1.43	2457.06	2456.55	25.61	-7.59	339.26	25.53	13.79	1.85	PASS
2558.00†	2558.00	1.78	1.43	2556.83	2556.16	31.00	-9.57	339.37	31.28	14.50	2.16	PASS
2658.00†	2658.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	44.28	13.95	3.17	PASS
2758.00†	2758.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	131.04	11.73	11.17	PASS
2858.00†	2858.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	228.87	11.65	19.65	PASS
2958.00†	2958.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	328.01	11.75	27.91	PASS
3058.00†	3058.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	427.55	11.90	35.93	PASS
3158.00†	3158.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	527.27	12.06	43.71	PASS
3258.00†	3258.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	627.08	12.24	51.24	PASS
3358.00†	3358.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	726.94	12.42	58.53	PASS
3458.00†	3458.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	826.83	12.61	65.59	PASS
3558.00†	3558.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	926.75	12.80	72.41	PASS
3658.00†	3658.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1026.68	13.00	79.00	PASS
3758.00†	3758.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1126.62	13.20	85.37	PASS
3858.00†	3858.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1226.58	13.40	91.52	PASS
3958.00†	3958.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1326.54	13.61	97.46	PASS
4058.00†	4058.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1426.50	13.83	103.18	PASS
4158.00†	4158.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1526.47	14.04	108.70	PASS
4258.00†	4258.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1626.45	14.26	114.02	PASS
4358.00†	4358.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1726.42	14.49	119.15	PASS
4458.00†	4458.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1826.40	14.72	124.08	PASS
4558.00†	4558.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	1926.39	14.95	128.83	PASS
4658.00†	4658.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2026.37	15.19	133.40	PASS
4758.00†	4758.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2126.35	15.43	137.79	PASS



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: BEU DI-4 No. 271H AWP - Offset Wellpath: BEU DI-4 No. 271H AWP Facility: Big Eddy Unit DI-4 Slot: No. 271H SHL Well: SL 358 FNL, 2058 FEL Threshold Value: 1.00 = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
4858.00†	4858.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2226.34	15.68	142.01	PASS	
4958.00†	4958.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2326.33	15.93	146.07	PASS	
5058.00†	5058.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2426.32	16.18	149.96	PASS	
5158.00†	5158.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2526.31	16.44	153.70	PASS	
5258.00†	5258.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2626.30	16.70	157.28	PASS	
5358.00†	5358.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2726.29	16.96	160.72	PASS	
5458.00†	5458.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2826.28	17.23	164.01	PASS	
5558.00†	5558.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	2926.27	17.51	167.16	PASS	
5658.00†	5658.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3026.27	17.78	170.17	PASS	
5758.00†	5758.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3126.26	18.06	173.06	PASS	
5858.00†	5858.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3226.25	18.35	175.81	PASS	
5958.00†	5958.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3326.25	18.64	178.45	PASS	
6058.00†	6058.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3426.24	18.93	180.96	PASS	
6158.00†	6158.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3526.24	19.23	183.36	PASS	
6258.00†	6258.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3626.23	19.53	185.64	PASS	
6358.00†	6358.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3726.23	19.84	187.82	PASS	
6458.00†	6458.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3826.22	20.15	189.89	PASS	
6558.00†	6558.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	3926.22	20.46	191.86	PASS	
6658.00†	6658.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4026.21	20.78	193.74	PASS	
6758.00†	6758.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4126.21	21.10	195.51	PASS	
6858.00†	6858.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4226.20	21.43	197.20	PASS	
6958.00†	6958.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4326.20	21.76	198.79	PASS	
7058.00†	7058.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4426.20	22.10	200.30	PASS	
7158.00†	7158.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4526.19	22.44	201.73	PASS	
7258.00†	7258.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4626.19	22.78	203.08	PASS	
7358.00†	7358.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4726.19	23.13	204.35	PASS	
7458.00†	7458.00	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4826.19	23.48	205.54	PASS	
7532.59	7532.59	1.78	1.43	2632.75	2631.94	35.27	-11.20	339.33	4900.78	23.75	206.39	PASS	
7558.00†	7557.99	1.59	1.96	2632.75	2631.94	35.27	-11.20	338.65	4926.18	23.84	206.67	PASS	
7658.00†	7657.00	-2.76	14.33	2632.75	2631.94	35.27	-11.20	326.13	5025.26	24.21	207.60	PASS	
7758.00†	7752.23	-12.76	42.72	2632.75	2631.94	35.27	-11.20	311.70	5120.79	24.66	207.68	PASS	
7858.00†	7840.78	-28.10	86.27	2632.75	2631.94	35.27	-11.20	303.03	5210.14	25.25	206.31	PASS	
7958.00†	7919.97	-48.31	143.67	2632.75	2631.94	35.27	-11.20	298.36	5290.96	26.04	203.22	PASS	
8058.00†	7987.39	-72.79	213.17	2632.75	2631.94	35.27	-11.20	295.72	5361.24	27.01	198.46	PASS	
8158.00†	8041.00	-100.78	292.66	2632.75	2631.94	35.27	-11.20	294.12	5419.29	28.17	192.35	PASS	
8232.59	8070.99	-123.45	357.02	2632.75	2631.94	35.27	-11.20	293.32	5453.81	28.95	188.40	PASS	
8258.00†	8079.68	-131.38	379.54	2632.75	2631.94	35.27	-11.20	293.10	5464.28	29.05	188.12	PASS	
8358.00†	8113.89	-162.59	468.17	2632.75	2631.94	35.27	-11.20	292.43	5506.42	29.18	188.70	PASS	
8432.59	8139.40	-185.87	534.29	2632.75	2631.94	35.27	-11.20	292.07	5538.82	29.31	188.98	PASS	
8458.00†	8147.87	-193.60	556.96	2632.75	2631.94	35.27	-11.20	291.94	5549.83	29.36	189.05	PASS	
8558.00†	8176.82	-219.95	648.93	2632.75	2631.94	35.27	-11.20	291.14	5589.86	29.63	188.69	PASS	
8658.00†	8198.55	-239.63	744.49	2632.75	2631.94	35.27	-11.20	289.99	5624.39	30.11	186.82	PASS	
8758.00†	8212.83	-252.43	842.58	2632.75	2631.94	35.27	-11.20	288.62	5653.15	30.64	184.53	PASS	
8858.00†	8219.51	-258.19	942.15	2632.75	2631.94	35.27	-11.20	287.11	5675.90	31.21	181.86	PASS	
8888.96†	8220.01	-258.54	973.11	2632.75	2631.94	35.27	-11.20	286.62	5681.70	31.36	181.19	PASS	



Clearance Report

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: BEU DI-4 No. 271H AWP Offset Wellpath: BEU DI-4 No. 271H AWP												
Facility: Big Eddy Unit DI-4		Slot: No.271H SHL		Well: SL 358 FNL, 2058 FEL		Threshold Value=1.00 1=interpolated/extrapolated station						
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8958.00†	8220.33	-258.56	1042.14	2632.75	2631.94	35.27	-11.20	285.59	5694.38	31.59	180.24	PASS
9058.00†	8220.78	-258.59	1142.14	2632.75	2631.94	35.27	-11.20	284.29	5714.16	31.96	178.77	PASS
9158.00†	8221.23	-258.61	1242.14	2632.75	2631.94	35.27	-11.20	283.20	5735.62	32.37	177.18	PASS
9258.00†	8221.68	-258.64	1342.14	2632.75	2631.94	35.27	-11.20	282.25	5758.74	32.82	175.48	PASS
9358.00†	8222.14	-258.67	1442.14	2632.75	2631.94	35.27	-11.20	281.43	5783.50	33.29	173.71	PASS
9458.00†	8222.59	-258.69	1542.14	2632.75	2631.94	35.27	-11.20	280.72	5809.87	33.80	171.88	PASS
9558.00†	8223.04	-258.72	1642.13	2632.75	2631.94	35.27	-11.20	280.08	5837.84	34.34	170.02	PASS
9658.00†	8223.49	-258.74	1742.13	2632.75	2631.94	35.27	-11.20	279.52	5867.37	34.89	168.16	PASS
9758.00†	8223.94	-258.77	1842.13	2632.75	2631.94	35.27	-11.20	279.02	5898.46	35.47	166.30	PASS
9858.00†	8224.40	-258.80	1942.13	2632.75	2631.94	35.27	-11.20	278.56	5931.07	36.06	164.46	PASS
9958.00†	8224.85	-258.82	2042.13	2632.75	2631.94	35.27	-11.20	278.15	5965.17	36.67	162.66	PASS
10058.00†	8225.30	-258.85	2142.13	2632.75	2631.94	35.27	-11.20	277.78	6000.75	37.29	160.90	PASS
10158.00†	8225.75	-258.87	2242.13	2632.75	2631.94	35.27	-11.20	277.44	6037.78	37.93	159.20	PASS
10258.00†	8226.21	-258.90	2342.13	2632.75	2631.94	35.27	-11.20	277.13	6076.22	38.57	157.55	PASS
10358.00†	8226.66	-258.93	2442.13	2632.75	2631.94	35.27	-11.20	276.84	6116.06	39.24	155.98	PASS
10458.00†	8227.11	-258.95	2542.13	2632.75	2631.94	35.27	-11.20	276.57	6157.27	39.86	154.47	PASS
10558.00†	8227.56	-258.98	2642.12	2632.75	2631.94	35.27	-11.20	276.33	6199.81	40.51	153.03	PASS
10658.00†	8228.02	-259.01	2742.12	2632.75	2631.94	35.27	-11.20	276.10	6243.67	41.17	151.67	PASS
10758.00†	8228.47	-259.03	2842.12	2632.75	2631.94	35.27	-11.20	275.89	6288.81	41.82	150.38	PASS
10858.00†	8228.92	-259.06	2942.12	2632.75	2631.94	35.27	-11.20	275.69	6335.21	42.47	149.17	PASS
10958.00†	8229.37	-259.08	3042.12	2632.75	2631.94	35.27	-11.20	275.51	6382.84	43.12	148.03	PASS
11058.00†	8229.82	-259.11	3142.12	2632.75	2631.94	35.27	-11.20	275.33	6431.67	43.76	146.97	PASS
11096.84	8230.00	-259.12	3180.96	2632.75	2631.94	35.27	-11.20	275.27	6450.95	44.01	146.57	PASS
11107.27	8230.07	-259.12	3191.39	2632.75	2631.94	35.27	-11.20	275.25	6456.18	44.08	146.47	PASS
11158.00†	8230.48	-259.12	3242.12	2632.75	2631.94	35.27	-11.20	275.17	6481.85	44.40	145.98	PASS
11258.00†	8231.30	-259.12	3342.11	2632.75	2631.94	35.27	-11.20	275.02	6533.31	45.04	145.06	PASS
11358.00†	8232.11	-259.12	3442.11	2632.75	2631.94	35.27	-11.20	274.87	6585.89	45.67	144.22	PASS
11458.00†	8232.93	-259.12	3542.11	2632.75	2631.94	35.27	-11.20	274.74	6639.56	46.29	143.45	PASS
11558.00†	8233.74	-259.12	3642.10	2632.75	2631.94	35.27	-11.20	274.61	6694.29	46.90	142.73	PASS
11658.00†	8234.56	-259.12	3742.10	2632.75	2631.94	35.27	-11.20	274.49	6750.06	47.51	142.08	PASS
11758.00†	8235.37	-259.12	3842.10	2632.75	2631.94	35.27	-11.20	274.37	6806.84	48.11	141.50	PASS
11858.00†	8236.19	-259.12	3942.09	2632.75	2631.94	35.27	-11.20	274.26	6864.60	48.70	140.97	PASS
11957.52	8237.00	-259.12	4041.61	2632.75	2631.94	35.27	-11.20	274.16	6923.05	49.28	140.49	PASS
11958.00†	8237.00	-259.12	4042.09	2632.75	2631.94	35.27	-11.20	274.15	6923.33	49.28	140.49	PASS
12014.60	8238.03	-259.12	4098.68	2632.75	2631.94	35.27	-11.20	274.10	6957.45	49.60	140.26	PASS
12058.00†	8239.25	-259.12	4142.06	2632.75	2631.94	35.27	-11.20	274.05	6984.14	49.85	140.10	PASS
12158.00†	8242.06	-259.12	4242.02	2632.75	2631.94	35.27	-11.20	273.96	7046.28	50.41	139.78	PASS
12258.00†	8244.87	-259.12	4341.98	2632.75	2631.94	35.27	-11.20	273.87	7109.28	50.96	139.50	PASS
12358.00†	8247.68	-259.12	4441.94	2632.75	2631.94	35.27	-11.20	273.78	7173.12	51.50	139.28	PASS
12458.00†	8250.48	-259.12	4541.91	2632.75	2631.94	35.27	-11.20	273.70	7237.78	52.03	139.10	PASS
12558.00†	8253.29	-259.12	4641.87	2632.75	2631.94	35.27	-11.20	273.62	7303.24	52.56	138.96	PASS
12658.00†	8256.10	-259.12	4741.83	2632.75	2631.94	35.27	-11.20	273.54	7369.47	53.07	138.86	PASS
12758.00†	8258.91	-259.12	4841.79	2632.75	2631.94	35.27	-11.20	273.47	7436.46	53.58	138.80	PASS
12796.96	8260.00	-259.12	4880.73	2632.75	2631.94	35.27	-11.20	273.44	7462.75	53.77	138.79	PASS
12825.50	8260.94	-259.12	4909.25	2632.75	2631.94	35.27	-11.20	273.42	7482.19	53.91	138.78	PASS



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**BAKER
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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: BEU DI-4 No. 271H AWB Offset Wellpath: BEU DI-4 No. 271H AWP

Facility: Big Eddy Unit DI-4 Slot: No.271H/SHL Well: SL 358 FNL, 2058 FEL Threshold Value: 1.00 Interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
12858.00†	8262.18	-259.12	4941.73	2632.75	2631.94	35.27	-11.20	273.40	7504.52	54.07	138.79	PASS
12958.00†	8265.98	-259.12	5041.66	2632.75	2631.94	35.27	-11.20	273.33	7573.67	54.56	138.82	PASS
13058.00†	8269.79	-259.12	5141.59	2632.75	2631.94	35.27	-11.20	273.27	7643.51	55.03	138.89	PASS
13158.00†	8273.59	-259.12	5241.52	2632.75	2631.94	35.27	-11.20	273.21	7714.01	55.50	138.99	PASS
13258.00†	8277.39	-259.12	5341.44	2632.75	2631.94	35.27	-11.20	273.15	7785.15	55.96	139.12	PASS
13358.00†	8281.20	-259.12	5441.37	2632.75	2631.94	35.27	-11.20	273.09	7856.93	56.41	139.28	PASS
13458.00†	8285.00	-259.12	5541.30	2632.75	2631.94	35.27	-11.20	273.04	7929.31	56.86	139.46	PASS
13558.00†	8288.80	-259.12	5641.23	2632.75	2631.94	35.27	-11.20	272.98	8002.29	57.29	139.68	PASS
13658.00†	8292.61	-259.12	5741.15	2632.75	2631.94	35.27	-11.20	272.93	8075.85	57.72	139.92	PASS
13758.00†	8296.41	-259.12	5841.08	2632.75	2631.94	35.27	-11.20	272.88	8149.97	58.14	140.18	PASS
13858.00†	8300.21	-259.12	5941.01	2632.75	2631.94	35.27	-11.20	272.83	8224.64	58.55	140.47	PASS
13958.00†	8304.02	-259.12	6040.94	2632.75	2631.94	35.27	-11.20	272.79	8299.85	58.96	140.77	PASS
14058.00†	8307.82	-259.12	6140.86	2632.75	2631.94	35.27	-11.20	272.74	8375.57	59.36	141.10	PASS
14158.00†	8311.62	-259.12	6240.79	2632.75	2631.94	35.27	-11.20	272.70	8451.80	59.75	141.45	PASS
14258.00†	8315.43	-259.12	6340.72	2632.75	2631.94	35.27	-11.20	272.65	8528.51	60.14	141.82	PASS
14358.00†	8319.23	-259.12	6440.65	2632.75	2631.94	35.27	-11.20	272.61	8605.71	60.51	142.21	PASS
14458.00†	8323.03	-259.12	6540.57	2632.75	2631.94	35.27	-11.20	272.57	8683.37	60.89	142.61	PASS
14558.00†	8326.84	-259.12	6640.50	2632.75	2631.94	35.27	-11.20	272.53	8761.49	61.25	143.03	PASS
14658.00†	8330.64	-259.12	6740.43	2632.75	2631.94	35.27	-11.20	272.50	8840.04	61.62	143.47	PASS
14758.00†	8334.44	-259.12	6840.36	2632.75	2631.94	35.27	-11.20	272.46	8919.03	61.97	143.92	PASS
14858.00†	8338.24	-259.12	6940.29	2632.75	2631.94	35.27	-11.20	272.43	8998.43	62.32	144.39	PASS
14904.15	8340.00	-259.12	6986.40	2632.75	2631.94	35.27	-11.20	272.41	9035.21	62.48	144.61	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: BEU DI-4 No. 271H AWB Offset Wellpath: BEU DI-4 No. 271H AWP

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	3.300ft	Vertical	1.000ft

WELLPATH COMPOSITION - Offset Wellbore: BEU DI-4 No. 271H AWB Offset Wellpath: BEU DI-4 No. 271H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	2632.75	Generic gyro - northseeking (Standard)	Gyro Data <73.95-2632.75>	BEU DI-4 No. 271H AWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: BEU DI-4 No. 271H AWB Offset Wellpath: BEU DI-4 No. 271H AWP

MD Reference: Rig on No.271H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	26.00ft



Clearance Report

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.264H AWP: Offset Wellpath: AWP: Final

Facility: Big Eddy Unit DI-4 Slot: No.264H SHL Well: No.264H Threshold Value=100% 1 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
658.00	658.00	1.76	1.41	661.71	658.70	-302.21	-154.49	207.15	341.62	4.82	70.82	PASS
676.00	676.00	1.78	1.43	679.72	676.71	-302.18	-154.46	207.15	341.61	4.92	69.41	PASS
758.00	758.00	1.78	1.43	761.82	758.81	-302.06	-154.31	207.14	341.43	5.18	65.94	PASS
858.00	858.00	1.78	1.43	862.17	859.16	-301.96	-153.89	207.08	341.15	5.58	61.13	PASS
958.00	958.00	1.78	1.43	962.69	959.67	-301.82	-153.23	207.00	340.73	6.01	56.67	PASS
1058.00	1058.00	1.78	1.43	1063.21	1060.19	-301.66	-152.29	206.87	340.16	6.48	52.49	PASS
1158.00	1158.00	1.78	1.43	1163.42	1160.39	-301.47	-151.12	206.71	339.47	6.98	48.60	PASS
1258.00	1258.00	1.78	1.43	1262.84	1259.81	-301.26	-150.10	206.57	338.82	7.52	45.03	PASS
1358.00	1358.00	1.78	1.43	1362.93	1359.90	-300.98	-149.53	206.50	338.31	8.12	41.66	PASS
1458.00	1458.00	1.78	1.43	1462.92	1459.89	-300.65	-148.88	206.43	337.73	8.73	38.68	PASS
1558.00	1558.00	1.78	1.43	1562.73	1559.69	-300.48	-148.03	206.31	337.20	9.32	36.16	PASS
1658.00	1658.00	1.78	1.43	1661.87	1658.82	-300.50	-147.14	206.17	336.82	9.89	34.06	PASS
1758.00	1758.00	1.78	1.43	1761.52	1758.48	-300.74	-146.24	206.02	336.64	10.43	32.29	PASS
1858.00	1858.00	1.78	1.43	1862.47	1859.41	-300.95	-145.18	205.84	336.36	10.99	30.61	PASS
1958.00	1958.00	1.78	1.43	1963.69	1960.63	-300.62	-144.42	205.75	335.74	11.64	28.85	PASS
2058.00	2058.00	1.78	1.43	2064.19	2061.12	-299.86	-143.96	205.74	334.87	12.35	27.12	PASS
2158.00	2158.00	1.78	1.43	2164.21	2161.14	-299.00	-143.57	205.74	333.92	13.06	25.56	PASS
2258.00	2258.00	1.78	1.43	2264.32	2261.24	-298.17	-143.15	205.74	332.99	13.79	24.16	PASS
2358.00	2358.00	1.78	1.43	2364.76	2361.69	-297.31	-142.47	205.69	331.93	14.50	22.88	PASS
2458.00	2458.00	1.78	1.43	2463.74	2460.66	-296.59	-141.56	205.61	330.87	15.19	21.78	PASS
2558.00	2558.00	1.78	1.43	2562.35	2559.27	-296.46	-140.64	205.47	330.35	15.83	20.87	PASS
2658.00	2658.00	1.78	1.43	2661.46	2658.37	-296.59	-139.72	205.32	330.07	16.42	20.10	PASS
2758.00	2758.00	1.78	1.43	2760.86	2757.76	-297.05	-138.80	205.14	330.09	16.96	19.46	PASS
2858.00	2858.00	1.78	1.43	2860.53	2857.42	-297.63	-137.80	204.94	330.20	17.48	18.89	PASS
2958.00	2958.00	1.78	1.43	2960.80	2957.69	-298.16	-137.07	204.79	330.37	18.00	18.35	PASS
3058.00	3058.00	1.78	1.43	3061.16	3058.05	-298.41	-136.59	204.69	330.40	18.55	17.81	PASS
3158.00	3158.00	1.78	1.43	3156.73	3153.61	-299.10	-136.29	204.60	330.93	19.05	17.37	PASS
3258.00	3258.00	1.78	1.43	3253.36	3250.23	-300.94	-136.64	204.52	332.81	19.51	17.06	PASS
3358.00	3358.00	1.78	1.43	3351.74	3348.57	-303.09	-138.10	204.59	335.41	19.95	16.81	PASS
3458.00	3458.00	1.78	1.43	3454.73	3451.53	-304.89	-140.16	204.78	337.84	20.42	16.54	PASS
3558.00	3558.00	1.78	1.43	3555.78	3552.56	-305.99	-142.00	204.99	339.59	20.92	16.24	PASS
3658.00	3658.00	1.78	1.43	3656.31	3653.07	-306.95	-143.53	205.15	341.10	21.41	15.93	PASS
3758.00	3758.00	1.78	1.43	3756.41	3753.16	-308.04	-144.68	205.25	342.58	21.90	15.64	PASS
3858.00	3858.00	1.78	1.43	3857.50	3854.24	-309.06	-145.30	205.27	343.75	22.40	15.34	PASS
3958.00	3958.00	1.78	1.43	3957.09	3953.82	-310.09	-145.96	205.30	344.97	22.91	15.05	PASS
4058.00	4058.00	1.78	1.43	4058.09	4054.81	-310.79	-146.96	205.40	346.02	23.45	14.75	PASS
4158.00	4158.00	1.78	1.43	4158.48	4155.20	-311.26	-147.93	205.51	346.86	24.00	14.45	PASS
4258.00	4258.00	1.78	1.43	4258.56	4255.27	-311.66	-148.94	205.63	347.66	24.56	14.15	PASS
4358.00	4358.00	1.78	1.43	4361.45	4358.15	-311.66	-150.26	205.83	348.21	25.16	13.84	PASS
4458.00	4458.00	1.78	1.43	4463.59	4460.27	-310.31	-151.81	206.15	347.69	25.81	13.47	PASS
4558.00	4558.00	1.78	1.43	4563.76	4560.41	-308.74	-153.46	206.51	347.01	26.45	13.12	PASS
4658.00	4658.00	1.78	1.43	4663.87	4660.50	-307.08	-155.17	206.89	346.30	27.09	12.79	PASS
4758.00	4758.00	1.78	1.43	4763.77	4760.37	-305.41	-156.89	207.27	345.59	27.72	12.47	PASS
4858.00	4858.00	1.78	1.43	4863.55	4860.12	-303.79	-158.58	207.64	344.94	28.35	12.17	PASS
4958.00	4958.00	1.78	1.43	4963.11	4959.95	-302.22	-160.31	208.02	344.35	28.97	11.88	PASS



Clearance Report

BEU DI-4 No.269H Rev G.0

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.264H AWP, Offset Wellpath: AWP - Final												
Facility: Big Eddy Unit DI-4 Slot: No.264H SHL Well: No.264H Threshold Value: 100.0 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5058.00†	5058.00	1.78	1.43	5062.86	5059.37	-300.77	-161.98	208.37	343.86	29.60	11.62	PASS
5158.00†	5158.00	1.78	1.43	5160.90	5157.41	-300.09	-163.02	208.58	343.76	30.20	11.38	PASS
5258.00†	5258.00	1.78	1.43	5260.98	5257.49	-300.01	-163.51	208.66	343.92	30.79	11.17	PASS
5358.00†	5358.00	1.78	1.43	5361.53	5358.04	-299.95	-163.74	208.70	343.98	31.40	10.96	PASS
5458.00†	5458.00	1.78	1.43	5461.83	5458.34	-299.87	-163.79	208.71	343.94	32.04	10.74	PASS
5558.00†	5558.00	1.78	1.43	5562.33	5558.83	-299.69	-163.75	208.72	343.75	32.70	10.51	PASS
5658.00†	5658.00	1.78	1.43	5662.49	5659.00	-299.39	-163.71	208.74	343.48	33.38	10.29	PASS
5758.00†	5758.00	1.78	1.43	5762.77	5759.28	-299.03	-163.73	208.77	343.17	34.05	10.08	PASS
5858.00†	5858.00	1.78	1.43	5863.53	5860.04	-298.57	-163.57	208.78	342.69	34.73	9.87	PASS
5958.00†	5958.00	1.78	1.43	5964.20	5960.70	-298.09	-162.95	208.73	341.98	35.41	9.66	PASS
6058.00†	6058.00	1.78	1.43	6064.61	6061.10	-297.52	-162.21	208.67	341.13	36.09	9.45	PASS
6158.00†	6158.00	1.78	1.43	6164.66	6161.15	-296.81	-161.57	208.63	340.19	36.78	9.25	PASS
6258.00†	6258.00	1.78	1.43	6264.86	6261.35	-296.03	-161.03	208.61	339.25	37.48	9.05	PASS
6358.00†	6358.00	1.78	1.43	6365.05	6361.54	-295.11	-160.56	208.62	338.23	38.18	8.86	PASS
6458.00†	6458.00	1.78	1.43	6465.35	6461.83	-294.08	-160.18	208.65	337.14	38.88	8.67	PASS
6558.00†	6558.00	1.78	1.43	6565.27	6561.74	-293.01	-159.78	208.67	336.00	39.58	8.49	PASS
6658.00†	6658.00	1.78	1.43	6664.42	6660.88	-292.25	-159.09	208.63	335.01	40.27	8.32	PASS
6758.00†	6758.00	1.78	1.43	6764.65	6761.11	-291.77	-158.10	208.52	334.11	40.96	8.16	PASS
6858.00†	6858.00	1.78	1.43	6865.44	6861.90	-291.09	-157.15	208.43	333.06	41.66	7.99	PASS
6958.00†	6958.00	1.78	1.43	6965.92	6962.36	-290.18	-156.12	208.35	331.78	42.37	7.83	PASS
7058.00†	7058.00	1.78	1.43	7065.52	7061.95	-289.56	-154.81	208.21	330.61	43.06	7.68	PASS
7158.00†	7158.00	1.78	1.43	7167.04	7163.46	-288.59	-153.34	208.06	329.09	43.71	7.53	PASS
7258.00†	7258.00	1.78	1.43	7266.34	7262.75	-287.57	-151.96	207.93	327.53	44.16	7.42	PASS
7358.00†	7358.00	1.78	1.43	7365.79	7362.18	-286.99	-150.20	207.70	326.19	44.53	7.33	PASS
7458.00†	7458.00	1.78	1.43	7465.47	7461.84	-286.53	-148.33	207.45	324.91	44.90	7.24	PASS
7532.59	7532.59	1.78	1.43	7537.40	7533.76	-286.15	-147.47	207.35	324.16	45.18	7.17	PASS
7536.97†	7536.96	1.77	1.45	7540.68	7537.04	-286.14	-147.48	207.35	324.15	45.20	7.17	PASS
7558.00†	7557.99	1.59	1.96	7557.12	7553.48	-286.15	-147.69	207.48	324.37	45.28	7.16	PASS
7579.00†	7578.94	1.15	3.20	7572.82	7569.17	-286.25	-148.23	207.79	325.01	45.42	7.15	PASS
7658.00†	7657.00	-2.76	14.33	7629.15	7625.18	-287.09	-153.91	210.61	331.90	45.68	7.27	PASS
7758.00†	7752.23	-12.76	42.72	7693.30	7687.82	-288.43	-167.49	217.33	352.60	46.08	7.65	PASS
7858.00†	7840.78	-28.10	86.27	7740.04	7732.09	-288.90	-182.39	225.85	389.89	46.44	8.40	PASS
7958.00†	7919.97	-48.31	143.67	7769.96	7759.53	-289.14	-194.32	234.53	444.94	46.76	9.52	PASS
8058.00†	7987.39	-72.79	213.17	7788.43	7776.15	-289.36	-202.37	242.47	514.01	47.10	10.91	PASS
8158.00†	8041.00	-100.78	292.66	7795.92	7782.83	-289.45	-205.76	249.27	592.17	47.45	12.48	PASS
8232.59	8070.99	-123.45	357.02	7794.56	7781.62	-289.44	-205.14	253.55	653.69	47.74	13.69	PASS
8258.00†	8079.68	-131.38	379.54	7793.23	7780.44	-289.42	-204.54	254.86	675.03	47.84	14.11	PASS
8358.00†	8113.89	-162.59	468.17	7788.42	7776.13	-289.36	-202.36	259.29	761.42	48.19	15.80	PASS
8432.59	8139.40	-185.87	534.29	7785.20	7773.26	-289.32	-200.93	261.99	827.83	48.42	17.10	PASS
8458.00†	8147.87	-193.60	556.96	7784.04	7772.22	-289.31	-200.41	262.80	850.82	48.50	17.54	PASS
8558.00†	8176.82	-219.95	648.93	7778.12	7766.90	-289.23	-197.81	265.32	943.30	48.79	19.33	PASS
8658.00†	8198.55	-239.63	744.49	7770.16	7759.71	-289.14	-194.40	266.98	1037.57	49.08	21.14	PASS
8758.00†	8212.83	-252.43	842.58	7760.33	7750.77	-289.05	-190.31	267.97	1132.13	49.35	22.94	PASS
8858.00†	8219.51	-258.19	942.15	7749.49	7740.83	-288.96	-185.98	268.44	1225.87	49.63	24.70	PASS
8888.96†	8220.01	-258.54	973.11	7746.66	7738.22	-288.94	-184.89	268.50	1254.59	49.72	25.23	PASS



Clearance Report

BEU DI-4 No.269H Rev G.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.264H AWP, Offset Wellpath: AWP, Final												
Facility: Big Eddy Unit DI-4 Slot: No.264H SHL Well: No.264H Threshold Value=100 1 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8958.00†	8220.33	-258.56	1042.14	7740.51	7732.53	-288.90	-182.57	268.58	1318.63	49.92	26.42	PASS
9058.00†	8220.78	-258.59	1142.14	7732.38	7724.94	-288.84	-179.64	268.69	1412.04	50.18	28.14	PASS
9158.00†	8221.23	-258.61	1242.14	7725.04	7718.05	-288.78	-177.12	268.78	1506.12	50.41	29.87	PASS
9258.00†	8221.68	-258.64	1342.14	7718.23	7711.61	-288.72	-174.90	268.86	1600.78	50.63	31.62	PASS
9358.00†	8222.14	-258.67	1442.14	7710.40	7704.18	-288.64	-172.46	268.94	1695.91	50.82	33.37	PASS
9458.00†	8222.59	-258.69	1542.14	7703.22	7697.32	-288.56	-170.31	269.00	1791.45	51.00	35.13	PASS
9558.00†	8223.04	-258.72	1642.13	7696.59	7690.98	-288.47	-168.41	269.06	1887.34	51.16	36.89	PASS
9658.00†	8223.49	-258.74	1742.13	7690.47	7685.09	-288.39	-166.72	269.11	1983.55	51.32	38.65	PASS
9758.00†	8223.94	-258.77	1842.13	7685.32	7680.13	-288.31	-165.34	269.16	2080.04	51.47	40.41	PASS
9858.00†	8224.40	-258.80	1942.13	7680.92	7675.87	-288.24	-164.21	269.20	2176.79	51.61	42.17	PASS
9958.00†	8224.85	-258.82	2042.13	7676.83	7671.91	-288.16	-163.20	269.24	2273.78	51.75	43.94	PASS
10058.00†	8225.30	-258.85	2142.13	7673.02	7668.22	-288.09	-162.29	269.27	2370.98	51.89	45.70	PASS
10158.00†	8225.75	-258.87	2242.13	7669.47	7664.77	-288.02	-161.47	269.31	2468.37	52.02	47.45	PASS
10258.00†	8226.21	-258.90	2342.13	7666.15	7661.53	-287.95	-160.73	269.34	2565.93	52.15	49.21	PASS
10358.00†	8226.66	-258.93	2442.13	7663.04	7658.49	-287.88	-160.06	269.36	2663.65	52.27	50.96	PASS
10458.00†	8227.11	-258.95	2542.13	7660.12	7655.64	-287.81	-159.45	269.39	2761.50	52.39	52.71	PASS
10558.00†	8227.56	-258.98	2642.12	7657.37	7652.94	-287.74	-158.89	269.41	2859.49	52.51	54.45	PASS
10658.00†	8228.02	-259.01	2742.12	7654.26	7649.90	-287.66	-158.27	269.43	2957.59	52.62	56.21	PASS
10758.00†	8228.47	-259.03	2842.12	7651.24	7646.94	-287.59	-157.69	269.46	3055.79	52.72	57.96	PASS
10858.00†	8228.92	-259.06	2942.12	7648.38	7644.13	-287.52	-157.15	269.47	3154.09	52.82	59.71	PASS
10958.00†	8229.37	-259.08	3042.12	7645.67	7641.46	-287.45	-156.66	269.49	3252.48	52.91	61.47	PASS
11058.00†	8229.82	-259.11	3142.12	7643.09	7638.93	-287.40	-156.20	269.51	3350.95	52.96	63.27	PASS
11096.84	8230.00	-259.12	3180.96	7642.12	7637.97	-287.37	-156.03	269.52	3389.22	52.91	64.05	PASS
11107.27	8230.07	-259.12	3191.39	7641.87	7637.72	-287.37	-155.98	269.52	3399.50	52.86	64.31	PASS
11158.00†	8230.48	-259.12	3242.12	7640.67	7636.54	-287.34	-155.78	269.52	3449.53	53.26	64.77	PASS
11258.00†	8231.30	-259.12	3342.11	7638.38	7634.29	-287.29	-155.39	269.54	3548.20	53.32	66.54	PASS
11358.00†	8232.11	-259.12	3442.11	7636.20	7632.14	-287.24	-155.03	269.55	3646.94	53.40	68.29	PASS
11458.00†	8232.93	-259.12	3542.11	7634.12	7630.09	-287.20	-154.69	269.57	3745.73	53.50	70.02	PASS
11558.00†	8233.74	-259.12	3642.10	7632.14	7628.13	-287.16	-154.37	269.58	3844.58	53.60	71.73	PASS
11658.00†	8234.56	-259.12	3742.10	7630.24	7626.25	-287.12	-154.08	269.59	3943.48	53.70	73.43	PASS
11758.00†	8235.37	-259.12	3842.10	7628.42	7624.46	-287.08	-153.80	269.60	4042.42	53.80	75.13	PASS
11858.00†	8236.19	-259.12	3942.09	7626.68	7622.73	-287.04	-153.54	269.61	4141.41	53.91	76.82	PASS
11957.52	8237.00	-259.12	4041.61	7625.01	7621.09	-287.01	-153.29	269.62	4239.97	54.01	78.50	PASS
11958.00†	8237.00	-259.12	4042.09	7625.01	7621.08	-287.01	-153.29	269.62	4240.45	54.01	78.51	PASS
12014.60	8238.03	-259.12	4098.68	7624.21	7620.29	-286.99	-153.18	269.62	4296.59	54.08	79.46	PASS
12058.00†	8239.25	-259.12	4142.06	7623.65	7619.74	-286.98	-153.10	269.63	4339.70	54.12	80.18	PASS
12158.00†	8242.06	-259.12	4242.02	7622.41	7618.51	-286.96	-152.92	269.64	4439.05	54.23	81.86	PASS
12258.00†	8244.87	-259.12	4341.98	7621.22	7617.33	-286.94	-152.76	269.65	4538.42	54.34	83.52	PASS
12358.00†	8247.68	-259.12	4441.94	7620.07	7616.19	-286.91	-152.60	269.65	4637.82	54.45	85.18	PASS
12458.00†	8250.48	-259.12	4541.91	7618.96	7615.10	-286.89	-152.45	269.66	4737.24	54.56	86.83	PASS
12558.00†	8253.29	-259.12	4641.87	7617.90	7614.05	-286.87	-152.31	269.67	4836.68	54.67	88.47	PASS
12658.00†	8256.10	-259.12	4741.83	7616.87	7613.03	-286.86	-152.17	269.68	4936.15	54.78	90.11	PASS
12758.00†	8258.91	-259.12	4841.79	7615.89	7612.05	-286.84	-152.05	269.68	5035.63	54.89	91.73	PASS
12796.96	8260.00	-259.12	4880.73	7615.51	7611.68	-286.83	-152.00	269.69	5074.39	54.94	92.37	PASS
12825.50	8260.94	-259.12	4909.25	7615.25	7611.42	-286.83	-151.96	269.69	5102.80	54.97	92.83	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.264H AWP - Offset Wellpath: AWP - Final

Facility: Big Eddy Unit DI-4 Slot: No.264H SHL Well: No.264H Threshold Value=1.00 ft = Interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
12858.00†	8262.18	-259.12	4941.73	7614.98	7611.15	-286.82	-151.93	269.69	5135.17	55.01	93.35	PASS
12958.00†	8265.98	-259.12	5041.66	7614.15	7610.32	-286.81	-151.83	269.70	5234.78	55.12	94.96	PASS
13058.00†	8269.79	-259.12	5141.59	7613.35	7609.53	-286.79	-151.73	269.70	5334.40	55.24	96.57	PASS
13158.00†	8273.59	-259.12	5241.52	7612.57	7608.76	-286.78	-151.63	269.71	5434.04	55.36	98.16	PASS
13258.00†	8277.39	-259.12	5341.44	7611.82	7608.02	-286.77	-151.54	269.71	5533.69	55.48	99.75	PASS
13358.00†	8281.20	-259.12	5441.37	7611.10	7607.30	-286.75	-151.45	269.72	5633.34	55.60	101.32	PASS
13458.00†	8285.00	-259.12	5541.30	7610.40	7606.60	-286.74	-151.37	269.72	5733.01	55.72	102.89	PASS
13558.00†	8288.80	-259.12	5641.23	7609.72	7605.93	-286.73	-151.29	269.73	5832.69	55.84	104.45	PASS
13658.00†	8292.61	-259.12	5741.15	7609.06	7605.27	-286.72	-151.21	269.73	5932.38	55.97	106.00	PASS
13758.00†	8296.41	-259.12	5841.08	7608.42	7604.64	-286.71	-151.14	269.74	6032.08	56.09	107.54	PASS
13858.00†	8300.21	-259.12	5941.01	7607.80	7604.02	-286.70	-151.07	269.74	6131.79	56.22	109.07	PASS
13958.00†	8304.02	-259.12	6040.94	7607.20	7603.43	-286.69	-151.00	269.75	6231.51	56.35	110.59	PASS
14058.00†	8307.82	-259.12	6140.86	7606.62	7602.85	-286.68	-150.94	269.75	6331.23	56.47	112.11	PASS
14158.00†	8311.62	-259.12	6240.79	7606.05	7602.28	-286.67	-150.87	269.75	6430.96	56.60	113.61	PASS
14258.00†	8315.43	-259.12	6340.72	7605.50	7601.73	-286.66	-150.81	269.76	6530.70	56.74	115.11	PASS
14358.00†	8319.23	-259.12	6440.65	7604.96	7601.20	-286.65	-150.75	269.76	6630.45	56.87	116.59	PASS
14458.00†	8323.03	-259.12	6540.57	7604.44	7600.68	-286.64	-150.70	269.76	6730.21	57.00	118.07	PASS
14558.00†	8326.84	-259.12	6640.50	7603.93	7600.18	-286.64	-150.64	269.77	6829.97	57.14	119.54	PASS
14658.00†	8330.64	-259.12	6740.43	7603.44	7599.69	-286.63	-150.59	269.77	6929.73	57.27	121.00	PASS
14758.00†	8334.44	-259.12	6840.36	7602.96	7599.21	-286.62	-150.54	269.78	7029.51	57.41	122.44	PASS
14858.00†	8338.24	-259.12	6940.29	7602.49	7598.75	-286.61	-150.49	269.78	7129.29	57.55	123.88	PASS
14904.15	8340.00	-259.12	6986.40	7602.28	7598.54	-286.61	-150.47	269.78	7175.33	57.61	124.54	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.264H AWP - Offset Wellpath: AWP - Final

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @1SD	Horizontal	3.300ft	Vertical	1.000ft

WELLPATH COMPOSITION - Offset Wellbore: No.264H AWP - Offset Wellpath: AWP - Final

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.00	7139.10	Generic gyro - northseeking (Standard)	MS Surveys <75 - 7139.1>	No.264H AWP
7139.10	13224.00	NaviTrak (Standard)	BHI MWD NaviTrak <7221 - 13224>	No.264H AWP
13224.00	13300.00	Blind Drilling (std)	Projection to bit	No.264H AWP

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.264H AWP - Offset Wellpath: AWP - Final

MD Reference: Rig on No.264H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	29.00ft



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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final

Facility: Big Eddy Unit DI-4 Slot: No.270H SHL Well: No.270H Threshold Value: 1.00 1 = Interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
658.00	658.00	1.76	1.41	659.97	657.96	-339.76	-156.50	204.82	376.26	4.39	85.67	PASS
676.00	676.00	1.78	1.43	677.95	675.94	-339.74	-156.55	204.83	376.29	4.46	84.39	PASS
758.00	758.00	1.78	1.43	759.94	757.92	-339.63	-156.83	204.87	376.31	4.68	80.42	PASS
858.00	858.00	1.78	1.43	860.00	857.99	-339.47	-157.18	204.93	376.31	4.98	75.55	PASS
958.00	958.00	1.78	1.43	959.90	957.88	-339.34	-157.50	204.98	376.33	5.33	70.58	PASS
1058.00	1058.00	1.78	1.43	1059.98	1057.96	-339.24	-157.79	205.03	376.35	5.73	65.70	PASS
1158.00	1158.00	1.78	1.43	1160.34	1158.32	-339.17	-157.86	205.04	376.32	6.19	60.80	PASS
1258.00	1258.00	1.78	1.43	1260.37	1258.35	-339.37	-157.17	204.93	376.21	6.73	55.94	PASS
1358.00	1358.00	1.78	1.43	1359.89	1357.85	-340.06	-155.58	204.67	376.17	7.25	51.92	PASS
1458.00	1458.00	1.78	1.43	1459.54	1457.45	-341.46	-152.74	204.19	376.27	7.75	48.52	PASS
1558.00	1558.00	1.78	1.43	1559.64	1557.46	-343.33	-148.89	203.54	376.43	8.28	45.46	PASS
1658.00	1658.00	1.78	1.43	1659.81	1657.52	-345.30	-144.64	202.82	376.56	8.82	42.70	PASS
1758.00	1758.00	1.78	1.43	1759.19	1756.79	-347.24	-140.51	202.13	376.77	9.37	40.23	PASS
1858.00	1858.00	1.78	1.43	1859.56	1857.07	-349.18	-136.44	201.45	377.07	9.92	38.00	PASS
1958.00	1958.00	1.78	1.43	1961.66	1959.09	-350.61	-132.71	200.84	377.05	10.50	35.92	PASS
2058.00	2058.00	1.78	1.43	2063.09	2060.46	-351.31	-129.49	200.35	376.59	11.08	33.98	PASS
2158.00	2158.00	1.78	1.43	2165.10	2162.43	-351.38	-126.64	199.93	375.69	11.68	32.17	PASS
2258.00	2258.00	1.78	1.43	2266.36	2263.67	-350.39	-124.89	199.73	374.18	12.32	30.37	PASS
2358.00	2358.00	1.78	1.43	2363.08	2360.39	-349.50	-124.29	199.69	373.10	12.96	28.79	PASS
2458.00	2458.00	1.78	1.43	2460.40	2457.70	-349.09	-124.78	199.79	372.88	13.58	27.45	PASS
2558.00	2558.00	1.78	1.43	2559.32	2556.61	-349.00	-125.78	199.93	373.13	14.17	26.33	PASS
2658.00	2658.00	1.78	1.43	2659.15	2656.44	-349.04	-126.87	200.09	373.55	14.73	25.35	PASS
2758.00	2758.00	1.78	1.43	2758.81	2756.09	-349.22	-127.59	200.18	373.97	15.29	24.46	PASS
2858.00	2858.00	1.78	1.43	2857.99	2855.27	-349.65	-128.24	200.25	374.60	15.76	23.77	PASS
2958.00	2958.00	1.78	1.43	2957.85	2955.13	-350.18	-129.03	200.34	375.37	16.42	22.86	PASS
3058.00	3058.00	1.78	1.43	3059.07	3056.35	-350.61	-129.78	200.42	376.02	17.00	22.11	PASS
3158.00	3158.00	1.78	1.43	3159.11	3156.38	-350.82	-130.25	200.48	376.39	17.60	21.39	PASS
3258.00	3258.00	1.78	1.43	3259.48	3256.75	-350.98	-131.00	200.58	376.80	18.20	20.70	PASS
3358.00	3358.00	1.78	1.43	3363.35	3360.60	-350.36	-132.35	200.80	376.70	18.82	20.01	PASS
3458.00	3458.00	1.78	1.43	3467.65	3464.88	-348.31	-136.99	201.45	375.43	19.48	19.28	PASS
3558.00	3558.00	1.78	1.43	3568.34	3565.52	-345.71	-135.25	201.47	373.48	20.11	18.58	PASS
3658.00	3658.00	1.78	1.43	3665.09	3662.25	-343.71	-136.18	201.72	371.91	20.72	17.95	PASS
3758.00	3758.00	1.78	1.43	3762.97	3760.11	-342.33	-137.45	201.98	371.08	21.34	17.39	PASS
3858.00	3858.00	1.78	1.43	3862.93	3860.04	-341.03	-139.17	202.30	370.53	21.95	16.88	PASS
3958.00	3958.00	1.78	1.43	3962.27	3959.36	-339.68	-141.00	202.64	369.97	22.57	16.40	PASS
4058.00	4058.00	1.78	1.43	4059.76	4056.82	-338.93	-143.00	202.97	370.06	23.17	15.97	PASS
4158.00	4158.00	1.78	1.43	4160.45	4157.49	-338.20	-145.28	203.34	370.28	23.78	15.57	PASS
4258.00	4258.00	1.78	1.43	4260.12	4257.13	-337.38	-147.43	203.70	370.39	24.39	15.19	PASS
4358.00	4358.00	1.78	1.43	4358.91	4355.92	-337.45	-148.36	203.83	370.84	24.99	14.84	PASS
4458.00	4458.00	1.78	1.43	4458.72	4455.73	-337.93	-148.75	203.85	371.43	25.59	14.52	PASS
4558.00	4558.00	1.78	1.43	4558.76	4555.77	-338.44	-149.11	203.87	372.04	26.20	14.20	PASS
4658.00	4658.00	1.78	1.43	4659.78	4656.78	-338.83	-149.50	203.90	372.55	26.82	13.89	PASS
4758.00	4758.00	1.78	1.43	4760.40	4757.39	-338.89	-149.86	203.95	372.75	27.44	13.59	PASS
4858.00	4858.00	1.78	1.43	4859.49	4856.49	-339.01	-150.19	203.99	372.99	28.05	13.30	PASS
4958.00	4958.00	1.78	1.43	4959.96	4956.96	-339.34	-150.42	204.00	373.39	28.68	13.02	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final													
Facility: Big Eddy Unit DI-4 Slot: No.270H SHL Well: No.270H Threshold Value: 1.00 1 = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5058.00†	5058.00	1.78	1.43	5059.20	5056.19	-339.50	-150.89	204.05	373.73	29.31	12.75	PASS	
5158.00†	5158.00	1.78	1.43	5159.09	5156.09	-339.91	-151.23	204.07	374.24	29.95	12.50	PASS	
5258.00†	5258.00	1.78	1.43	5260.05	5257.04	-340.32	-151.28	204.06	374.64	30.59	12.25	PASS	
5358.00†	5358.00	1.78	1.43	5360.57	5357.56	-340.73	-150.81	203.97	374.82	31.22	12.01	PASS	
5458.00†	5458.00	1.78	1.43	5460.69	5457.68	-341.15	-150.11	203.84	374.92	31.84	11.78	PASS	
5558.00†	5558.00	1.78	1.43	5560.82	5557.81	-341.53	-149.42	203.72	374.99	32.45	11.56	PASS	
5658.00†	5658.00	1.78	1.43	5661.33	5658.31	-341.86	-148.72	203.60	375.01	33.06	11.34	PASS	
5758.00†	5758.00	1.78	1.43	5762.70	5759.68	-341.80	-148.06	203.51	374.70	33.67	11.13	PASS	
5858.00†	5858.00	1.78	1.43	5862.84	5859.82	-341.50	-147.55	203.46	374.22	34.26	10.92	PASS	
5958.00†	5958.00	1.78	1.43	5962.96	5959.94	-341.11	-147.22	203.44	373.73	34.85	10.72	PASS	
6058.00†	6058.00	1.78	1.43	6063.23	6060.20	-340.62	-146.95	203.43	373.17	35.45	10.53	PASS	
6158.00†	6158.00	1.78	1.43	6163.51	6160.48	-340.03	-146.71	203.43	372.54	36.06	10.33	PASS	
6258.00†	6258.00	1.78	1.43	6263.78	6260.75	-339.38	-146.45	203.44	371.84	36.67	10.14	PASS	
6358.00†	6358.00	1.78	1.43	6364.07	6361.03	-338.64	-146.20	203.45	371.06	37.29	9.95	PASS	
6458.00†	6458.00	1.78	1.43	6463.96	6460.92	-337.80	-146.07	203.48	370.24	37.91	9.77	PASS	
6558.00†	6558.00	1.78	1.43	6564.09	6561.05	-336.88	-146.19	203.55	369.44	38.54	9.59	PASS	
6658.00†	6658.00	1.78	1.43	6663.38	6660.34	-335.90	-146.56	203.67	368.69	39.17	9.41	PASS	
6758.00†	6758.00	1.78	1.43	6764.71	6761.65	-334.80	-147.11	203.81	367.92	39.80	9.24	PASS	
6858.00†	6858.00	1.78	1.43	6866.42	6863.35	-333.29	-147.44	203.96	366.69	40.44	9.07	PASS	
6958.00†	6958.00	1.78	1.43	6961.78	6958.71	-332.46	-147.37	204.00	365.87	41.06	8.91	PASS	
7058.00†	7058.00	1.78	1.43	7061.67	7058.60	-332.62	-146.61	203.88	365.70	41.69	8.77	PASS	
7158.00†	7158.00	1.78	1.43	7163.02	7159.94	-332.74	-145.48	203.71	365.36	42.32	8.63	PASS	
7258.00†	7258.00	1.78	1.43	7264.44	7261.35	-332.40	-144.26	203.56	364.57	42.96	8.49	PASS	
7358.00†	7358.00	1.78	1.43	7363.22	7360.12	-332.10	-143.00	203.39	363.79	43.60	8.34	PASS	
7458.00†	7458.00	1.78	1.43	7461.19	7458.09	-332.20	-142.03	203.25	363.48	44.22	8.22	PASS	
7532.59	7532.59	1.78	1.43	7534.57	7531.47	-332.52	-141.61	203.17	363.61	44.67	8.14	PASS	
7558.00†	7557.99	1.59	1.96	7560.22	7557.12	-332.63	-141.51	203.23	363.72	44.83	8.11	PASS	
7658.00†	7657.00	-2.76	14.33	7662.07	7658.97	-332.74	-141.26	205.24	364.82	45.44	8.03	PASS	
7726.00†	7722.34	-8.96	31.93	7730.08	7726.97	-332.01	-141.20	208.19	366.54	45.97	7.97	PASS	
7758.00†	7752.23	-12.76	42.72	7759.71	7756.60	-331.63	-141.13	209.97	368.10	46.14	7.98	PASS	
7858.00†	7840.78	-28.10	86.27	7839.19	7836.07	-331.21	-140.70	216.83	378.70	46.93	8.07	PASS	
7958.00†	7919.97	-48.31	143.67	7899.08	7895.82	-334.89	-139.74	224.68	403.77	47.84	8.44	PASS	
8058.00†	7987.39	-72.79	213.17	7950.72	7946.93	-342.17	-138.61	232.56	444.92	48.92	9.10	PASS	
8158.00†	8041.00	-100.78	292.66	7994.92	7990.11	-351.48	-137.63	239.77	500.59	50.07	10.00	PASS	
8232.59	8070.99	-123.45	357.02	8021.48	8015.78	-358.26	-136.97	244.58	549.73	50.88	10.80	PASS	
8258.00†	8079.68	-131.38	379.54	8028.99	8023.00	-360.34	-136.82	246.09	567.68	51.13	11.10	PASS	
8358.00†	8113.89	-162.59	468.17	8057.32	8050.04	-368.80	-136.43	251.17	641.98	51.99	12.35	PASS	
8432.59	8139.40	-185.87	534.29	8080.01	8071.47	-376.23	-136.36	254.15	700.44	52.55	13.33	PASS	
8458.00†	8147.87	-193.60	556.96	8088.28	8079.25	-379.05	-136.36	255.03	720.97	52.74	13.67	PASS	
8558.00†	8176.82	-219.95	648.93	8113.89	8103.21	-388.09	-136.48	257.92	806.57	53.36	15.12	PASS	
8658.00†	8198.55	-239.63	744.49	8131.43	8119.52	-394.52	-136.73	260.03	898.20	53.85	16.68	PASS	
8758.00†	8212.83	-252.43	842.58	8143.24	8130.45	-398.99	-136.95	261.49	993.86	54.20	18.34	PASS	
8858.00†	8219.51	-258.19	942.15	8147.79	8134.65	-400.75	-137.04	262.48	1091.87	54.41	20.07	PASS	
8888.96	8220.01	-258.54	973.11	8147.75	8134.61	-400.73	-137.04	262.70	1122.47	54.46	20.61	PASS	
8958.00†	8220.33	-258.56	1042.14	8146.93	8133.85	-400.41	-137.03	263.14	1190.81	54.53	21.84	PASS	



Clearance Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final												
Facility: Big Eddy Unit DI-4 Slot: No.270H SHL Well: No.270H Threshold Value=1.000 1 = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9058.00†	8220.78	-258.59	1142.14	8145.77	8132.78	-399.97	-137.00	263.69	1289.93	54.63	23.61	PASS
9158.00†	8221.23	-258.61	1242.14	8144.64	8131.75	-399.53	-136.98	264.17	1389.18	54.72	25.39	PASS
9258.00†	8221.68	-258.64	1342.14	8143.55	8130.74	-399.11	-136.96	264.58	1488.53	54.80	27.16	PASS
9358.00†	8222.14	-258.67	1442.14	8142.49	8129.76	-398.70	-136.93	264.93	1587.96	54.87	28.94	PASS
9458.00†	8222.59	-258.69	1542.14	8141.46	8128.81	-398.31	-136.91	265.25	1687.45	54.94	30.71	PASS
9558.00†	8223.04	-258.72	1642.13	8140.46	8127.88	-397.93	-136.89	265.53	1787.00	55.01	32.49	PASS
9658.00†	8223.49	-258.74	1742.13	8139.48	8126.98	-397.56	-136.87	265.78	1886.60	55.07	34.26	PASS
9758.00†	8223.94	-258.77	1842.13	8138.54	8126.11	-397.20	-136.86	266.00	1986.24	55.14	36.02	PASS
9858.00†	8224.40	-258.80	1942.13	8137.62	8125.25	-396.85	-136.84	266.20	2085.91	55.20	37.79	PASS
9958.00†	8224.85	-258.82	2042.13	8136.72	8124.43	-396.51	-136.82	266.38	2185.61	55.26	39.55	PASS
10058.00†	8225.30	-258.85	2142.13	8135.85	8123.62	-396.18	-136.81	266.55	2285.33	55.32	41.31	PASS
10158.00†	8225.75	-258.87	2242.13	8135.00	8122.83	-395.86	-136.79	266.70	2385.08	55.38	43.07	PASS
10258.00†	8226.21	-258.90	2342.13	8134.17	8122.06	-395.55	-136.78	266.85	2484.85	55.44	44.82	PASS
10358.00†	8226.66	-258.93	2442.13	8133.36	8121.32	-395.25	-136.76	266.97	2584.63	55.50	46.57	PASS
10458.00†	8227.11	-258.95	2542.13	8132.58	8120.59	-394.95	-136.75	267.09	2684.44	55.56	48.31	PASS
10558.00†	8227.56	-258.98	2642.12	8131.81	8119.88	-394.66	-136.73	267.21	2784.25	55.63	50.05	PASS
10658.00†	8228.02	-259.01	2742.12	8131.06	8119.18	-394.39	-136.72	267.31	2884.08	55.69	51.79	PASS
10758.00†	8228.47	-259.03	2842.12	8130.33	8118.50	-394.11	-136.71	267.40	2983.92	55.75	53.52	PASS
10858.00†	8228.92	-259.06	2942.12	8129.62	8117.84	-393.85	-136.69	267.49	3083.77	55.82	55.25	PASS
10958.00†	8229.37	-259.08	3042.12	8128.94	8117.22	-393.60	-136.68	267.58	3183.62	55.88	56.97	PASS
11058.00†	8229.82	-259.11	3142.12	8128.46	8116.77	-393.42	-136.67	267.65	3283.49	55.95	58.68	PASS
11096.84	8230.00	-259.12	3180.96	8128.28	8116.60	-393.35	-136.67	267.68	3322.28	55.98	59.35	PASS
11107.27	8230.07	-259.12	3191.39	8128.24	8116.56	-393.34	-136.67	267.69	3332.70	55.99	59.53	PASS
11158.00†	8230.48	-259.12	3242.12	8128.06	8116.40	-393.27	-136.67	267.73	3383.37	56.02	60.39	PASS
11258.00†	8231.30	-259.12	3342.11	8127.73	8116.09	-393.15	-136.66	267.79	3483.26	56.09	62.10	PASS
11358.00†	8232.11	-259.12	3442.11	8127.41	8115.79	-393.03	-136.66	267.86	3583.16	56.17	63.80	PASS
11458.00†	8232.93	-259.12	3542.11	8127.10	8115.50	-392.92	-136.65	267.92	3683.06	56.24	65.49	PASS
11558.00†	8233.74	-259.12	3642.10	8126.80	8115.22	-392.80	-136.65	267.97	3782.97	56.32	67.17	PASS
11658.00†	8234.56	-259.12	3742.10	8126.51	8114.95	-392.70	-136.64	268.03	3882.88	56.39	68.85	PASS
11758.00†	8235.37	-259.12	3842.10	8126.23	8114.69	-392.59	-136.64	268.08	3982.80	56.47	70.53	PASS
11858.00†	8236.19	-259.12	3942.09	8125.96	8114.44	-392.49	-136.63	268.13	4082.72	56.55	72.20	PASS
11957.52	8237.00	-259.12	4041.61	8125.69	8114.19	-392.40	-136.63	268.17	4182.17	56.63	73.85	PASS
11958.00†	8237.00	-259.12	4042.09	8125.69	8114.19	-392.39	-136.63	268.17	4182.65	56.63	73.86	PASS
12014.60	8238.03	-259.12	4098.68	8125.72	8114.22	-392.40	-136.63	268.20	4239.22	56.68	74.79	PASS
12058.00†	8239.25	-259.12	4142.06	8125.86	8114.35	-392.46	-136.63	268.22	4282.59	56.72	75.51	PASS
12158.00†	8242.06	-259.12	4242.02	8126.19	8114.66	-392.58	-136.64	268.25	4382.55	56.81	77.15	PASS
12258.00†	8244.87	-259.12	4341.98	8126.52	8114.96	-392.70	-136.64	268.29	4482.50	56.90	78.78	PASS
12358.00†	8247.68	-259.12	4441.94	8126.83	8115.25	-392.81	-136.65	268.33	4582.46	56.99	80.41	PASS
12458.00†	8250.48	-259.12	4541.91	8127.13	8115.53	-392.93	-136.65	268.36	4682.42	57.08	82.03	PASS
12558.00†	8253.29	-259.12	4641.87	8127.43	8115.80	-393.04	-136.66	268.40	4782.38	57.18	83.64	PASS
12658.00†	8256.10	-259.12	4741.83	8127.71	8116.07	-393.14	-136.66	268.43	4882.34	57.28	85.24	PASS
12758.00†	8258.91	-259.12	4841.79	8127.99	8116.33	-393.24	-136.67	268.46	4982.30	57.37	86.84	PASS
12796.96	8260.00	-259.12	4880.73	8128.10	8116.43	-393.28	-136.67	268.47	5021.24	57.41	87.46	PASS
12825.50	8260.94	-259.12	4909.25	8128.21	8116.54	-393.33	-136.67	268.48	5049.77	57.44	87.91	PASS
12858.00†	8262.18	-259.12	4941.73	8128.39	8116.70	-393.39	-136.67	268.49	5082.26	57.47	88.43	PASS



Clearance Report

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Closest Approach

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.269H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2058 FEL
Field	Big Eddy	Wellbore	No.269H PWB
Facility	Big Eddy Unit DI-4		

CLEARANCE DATA - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final

Facility: Big Eddy Unit DI-4				Slot: No.270H SHL		Well: No.270H		Threshold Value=100		= interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD	Sep Ratio	ACR Status	
12958.00†	8265.98	-259.12	5041.66	8128.91	8117.18	-393.58	-136.68	268.51	5182.22	57.58	90.00	PASS	
13058.00†	8269.79	-259.12	5141.59	8129.64	8117.86	-393.86	-136.69	268.54	5282.19	57.68	91.57	PASS	
13158.00†	8273.59	-259.12	5241.52	8130.41	8118.58	-394.14	-136.71	268.56	5382.15	57.79	93.13	PASS	
13258.00†	8277.39	-259.12	5341.44	8131.16	8119.28	-394.42	-136.72	268.59	5482.12	57.90	94.68	PASS	
13358.00†	8281.20	-259.12	5441.37	8131.90	8119.96	-394.70	-136.73	268.61	5582.08	58.01	96.22	PASS	
13458.00†	8285.00	-259.12	5541.30	8132.63	8120.63	-394.97	-136.75	268.63	5682.05	58.13	97.75	PASS	
13558.00†	8288.80	-259.12	5641.23	8133.34	8121.29	-395.23	-136.76	268.65	5782.02	58.24	99.28	PASS	
13658.00†	8292.61	-259.12	5741.15	8134.03	8121.94	-395.50	-136.77	268.67	5881.98	58.36	100.79	PASS	
13758.00†	8296.41	-259.12	5841.08	8134.72	8122.57	-395.75	-136.79	268.69	5981.95	58.47	102.30	PASS	
13858.00†	8300.21	-259.12	5941.01	8135.39	8123.19	-396.01	-136.80	268.71	6081.92	58.59	103.80	PASS	
13958.00†	8304.02	-259.12	6040.94	8136.05	8123.80	-396.25	-136.81	268.73	6181.90	58.71	105.29	PASS	
14058.00†	8307.82	-259.12	6140.86	8136.69	8124.40	-396.50	-136.82	268.75	6281.87	58.83	106.77	PASS	
14158.00†	8311.62	-259.12	6240.79	8137.33	8124.99	-396.74	-136.83	268.76	6381.84	58.96	108.24	PASS	
14258.00†	8315.43	-259.12	6340.72	8137.95	8125.57	-396.97	-136.85	268.78	6481.81	59.08	109.71	PASS	
14358.00†	8319.23	-259.12	6440.65	8138.57	8126.13	-397.21	-136.86	268.80	6581.79	59.21	111.16	PASS	
14458.00†	8323.03	-259.12	6540.57	8139.17	8126.69	-397.44	-136.87	268.81	6681.76	59.33	112.61	PASS	
14558.00†	8326.84	-259.12	6640.50	8139.76	8127.24	-397.66	-136.88	268.83	6781.74	59.46	114.05	PASS	
14658.00†	8330.64	-259.12	6740.43	8140.34	8127.77	-397.88	-136.89	268.84	6881.71	59.59	115.48	PASS	
14758.00†	8334.44	-259.12	6840.36	8140.91	8128.30	-398.10	-136.90	268.86	6981.69	59.72	116.90	PASS	
14858.00†	8338.24	-259.12	6940.29	8141.48	8128.82	-398.32	-136.91	268.87	7081.67	59.86	118.31	PASS	
14904.15	8340.00	-259.12	6986.40	8141.73	8129.06	-398.41	-136.92	268.88	7127.80	59.92	118.96	PASS	

POSITIONAL UNCERTAINTY - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @1SD	Horizontal	3.300ft	Vertical	1.000ft

WELLPATH COMPOSITION - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.00	7810.00	Generic gyro - northseeking (Standard)	Gyrodata Gyro Surveys <102 - 7810>	No.270H AWP
7810.00	14657.00	NaviTrak (Standard)	BHI NaviTrak <7848-14657>	No.270H AWP
14657.00	14732.00	Blind Drilling (std)	Projection to bit	No.270H AWP

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.270H AWP - Offset Wellpath: AWP - Final

MD Reference: Rig on No.270H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	29.00ft

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	NMNM-04557
WELL NAME & NO.:	Big Eddy Unit D14 269H
SURFACE HOLE FOOTAGE:	0358' FNL & 2058' FEL
BOTTOM HOLE FOOTAGE	0660' FNL & 0330' FEL Sec. 04, T. 20 S., R 31 E.
LOCATION:	Section 05, T. 20 S., R 31 E., NMPM
COUNTY:	Eddy County, New Mexico
API:	30-015-42638

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**

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

1. Operator has state that Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is encountered in quantities greater than 10 PPM the well shall be shut in and H₂S equipment shall be installed and flare line must be extended pursuant to Onshore Oil and Gas Order #6. Report measured values and formation to the BLM. After detection, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.
2. Operator shall sufficiently secure the wellbore prior to skidding the rig to the 271H as stated by the operator.
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 or are Non-API. 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.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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.

Capitan Reef

Secretary's Potash

Possibility of water flows in the Artesia Group and Salado.

Possibility of lost circulation in the Red Beds, Artesia Group, Rustler, Capitan Reef, and Delaware.

1. The 16 inch surface casing shall be set at approximately 830 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
 - 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, which shall be set at approximately 2700 feet (in the Seven Rivers formation), 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 potash.

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

Operator has proposed DV tool at depth of 2895', 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. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- 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 circulation 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 potash and Capitan Reef. Excess calculates to 17% - Additional cement may be required.**

Centralizers required through the curve and a minimum of one every other joint.

4. The minimum required fill of cement behind the 5-1/2 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 2804')**. 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. 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.

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 20" surface casing.**
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 1st intermediate casing shoe shall be 3000 (3M) psi.
5. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 111914