

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.1 Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2 Name of Operator
BOPCO, L. P.3a Address
P. O. Box 2760, Midland, TX 797023b. Phone No. (include area code)
432-683-2277

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

Surface: SWNE, UL G, 2619' FNL, 1980' FWL, Lat N32.363058, Long W103.836019**Bottom Hole: 1980' FNL, 330' FWL, Sec 27, T22S, R30E, Lat: N32.364894, Long: W103.876031**

5 Lease Serial No.

NM 02952A

6 If Indian, Allottee or Tribe Name

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

James Ranch NMNM 70965X

8. Well Name and No.

James Ranch Unit #140H

9. API Well No.

30-015-39809

10. Field and Pool, or Exploratory Area

Quahada Ridge SE (Delaware)

11. County or Parish, State

Sec 25, T22S, R30E, Mer NMP

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

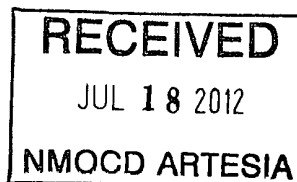
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Sidetrack
	☐ Change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

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleteness 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 recompleteness in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO, L.P. respectfully requests approval to sidetrack the lateral on the JRU #140H due to unsuccessful fishing operations. A cement sidetrack plug consisting of Class H cement at 17.5 PPG and 0.95 ft/sk, will be set in the open hole section from 8785' up to 8285' inside existing 7" casing. Left in the hole will be 6-1/8" PDC, Autotrak rotary steerable and 11,050' 4" drill pipe. The BHL will be altered from the approved footages of 1980' FNL & 2310' FEL of Sec 28, T22S, R30E on the Sundry Submitted on 6-7-2012, to a new BHL of 2280' FNL & 330' FWL of Sec 27, T22S, R30E. The drainage acreage (proration units) will be 320 acres. The 4-1/2" completion system will be run according to original APD. The new directional plan and C-102 are attached.

Original COA still Applies

Accepted for record
NMOCD

14 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)**Charles Warne**Title **Drilling Engineer**

Signature

Charles Warne

Date

6-27-12**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*EGF***PETROLEUM ENGINEER**

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 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)



DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 50443	Pool Name Quahada Ridge, SE (Delaware)
Property Code 306407	Property Name JAMES RANCH UNIT	Well Number 140H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3345'

Surface Location

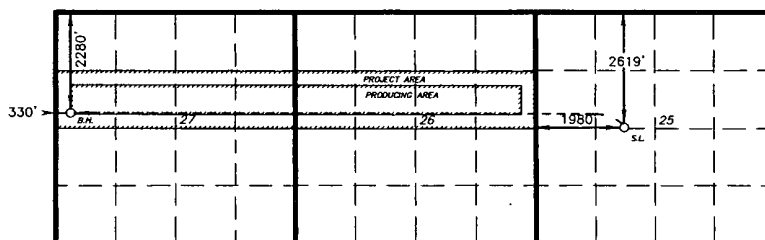
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	25	22 S	30 E		2619	NORTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	27	22 S	30 E		2280	NORTH	330	WEST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



PROPOSED BOTTOM
HOLE LOCATION

Lat - N 32°21'50.65"
Long - W 103°52'33.72"
NMSPCE- N 496464.950
E 641198.318
(NAD-27)

SURFACE LOCATION
DELAWARE PP

Lat - N 32°21'47.01"
Long - W 103°50'09.67"
NMSPCE- N 496152.802
E 653554.999
(NAD-27)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

Signature Jeremy Braden Date 6-27-12
Printed Name Jeremy Braden
Email Address jdbraden@basspet.com

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief

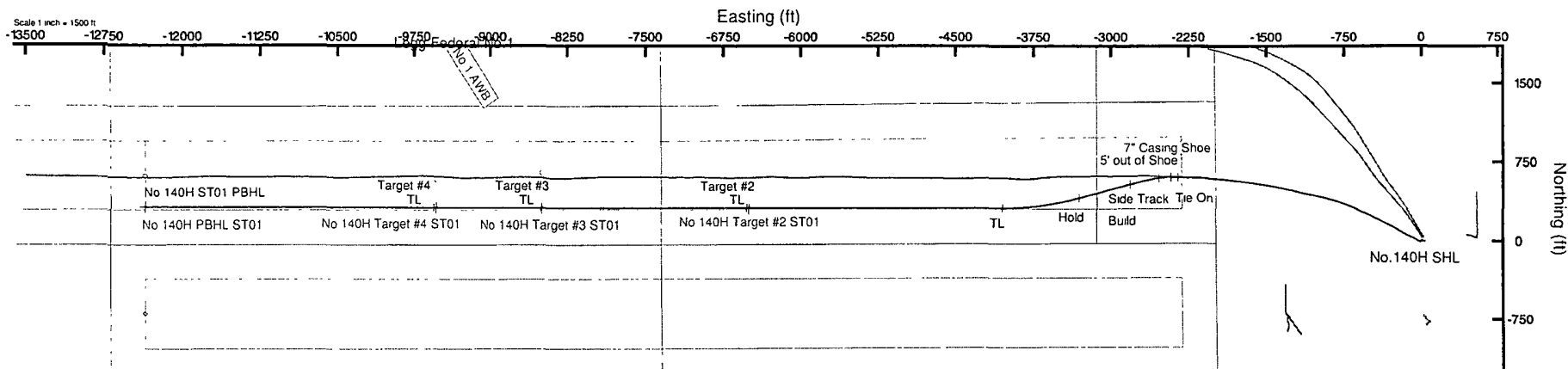
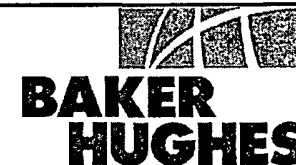
Date Surveyed 6-27-12
Signature & Seal of Professional Surveyor GARY L. JONES
Certificate No. Gary L. Jones 7977
BASIN SURVEYS 25273



BOPCO, L.P.

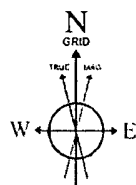
Location: Eddy County, NM
Field: JRU NAD27
Facility: (JRU) No.140H & No.141H

Slot: No.140H SHL
Well: No.140H ST01
Wellbore: No.140H ST01

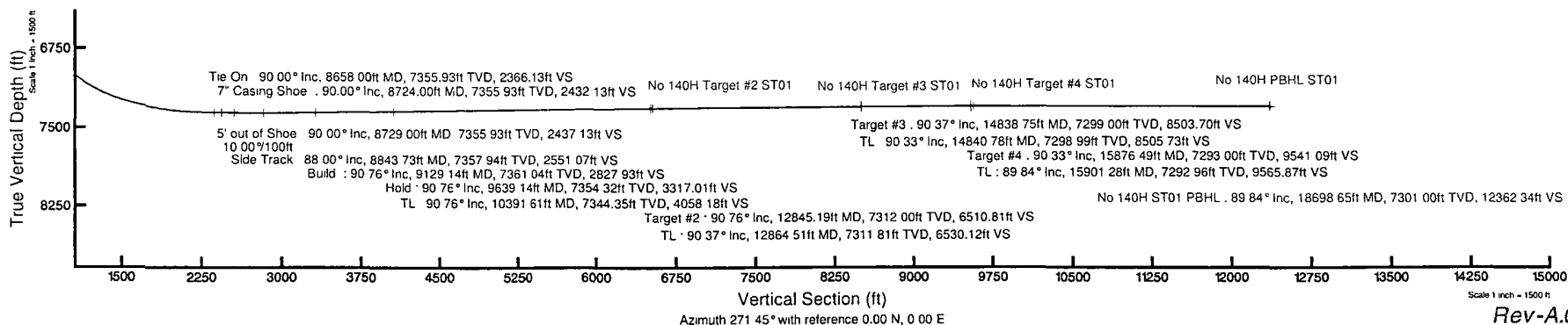


Plot reference wellpath is Rev-A.0 ST01	
True vertical depths are referenced to Rig on No. 140H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 140H SHL (KB)	North Reference: Grid north
Rig on No. 140H SHL (KB) to Mean Sea Level: 3375 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 140H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: genibry on 6/26/2012

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8658.00	90.000	271.300	7355.93	608.38	-2351.50	0.00	2366.13
7" Casing Shoe	8724.00	90.000	271.300	7355.93	609.87	-2417.48	0.00	2432.13
5' out of Shoe	8729.00	90.000	271.300	7355.93	609.99	-2422.48	0.00	2437.13
Side Track	8843.73	88.000	260.000	7357.94	601.30	-2536.68	10.00	2551.07
Build	9129.14	90.755	255.000	7361.04	539.56	-2815.18	2.00	2827.93
Hold	9639.14	90.755	255.000	7354.32	407.57	-3307.76	0.00	3317.01
TL	10391.61	90.755	270.051	7344.35	309.97	-4051.64	2.00	4058.18
Target #2	12845.19	90.755	270.051	7312.00	312.15	-6505.00	0.00	6510.81
TL	12864.51	90.372	270.005	7311.81	312.16	-6524.32	2.00	6530.12
Target #3	14838.75	90.372	270.005	7299.00	312.32	-8498.52	0.00	8503.70
TL	14840.78	90.331	270.004	7298.99	312.32	-8500.55	2.00	8505.73
Target #4	15876.49	90.331	270.004	7293.00	312.40	-9536.24	0.00	9541.09
TL	15901.28	89.835	270.004	7292.96	312.40	-9561.03	2.00	9565.87
No. 140H ST01 PBHL	18698.65	89.835	270.004	7301.00	312.62	-12358.39	0.00	12362.34



BGGM (1945.0 to 2013.0) Dip: 60.22° Field: 48607.5 nT
Magnetic North is 7.71 degrees East of True North (at 2/23/2012)
Grid North is 0.27 degrees East of True North
To correct azimuth from True to Grid subtract 0.27 degrees
To correct azimuth from Magnetic to Grid add 7.45 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.45 = 97.45





Planned Wellpath Report

Rev-A.0 ST01

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.140H SHL
Area	Eddy County, NM	Well	No.140H ST01
Field	JRU NAD27	Wellbore	No.140H ST01
Facility	(JRU) No.140H & No.141H	Sidetrack from	No.140H AWB at 8658.00 MD

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999936	Report Generated	6/26/2012 at 3:50:44 PM
Convergence at slot	0.27° East	Database/Source file	WA Midland/No.140H_ST01.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	653555.00	496152.80	32°21'47.011"N	103°50'09.669"W
Facility Reference Pt			653555.00	496152.80	32°21'47.011"N	103°50'09.669"W
Field Reference Pt			652495.44	494904.92	32°21'34.711"N	103°50'22.090"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.140H SHL (KB) to Facility Vertical Datum	3375.00ft
Horizontal Reference Pt	Slot	Rig on No.140H SHL (KB) to Mean Sea Level	3375.00ft
Vertical Reference Pt	Rig on No.140H SHL (KB)	Rig on No.140H SHL (KB) to Mud Line at Slot (No.140H SHL)	3375.00ft
MD Reference Pt	Rig on No.140H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	271.45°



Planned Wellpath Report

Rev-A.0 ST01

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Facility	(JRU) No.140H & No.141H	Sidetrack from	No.140H AWB at 8658.00 MD

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	64.670	0.00	0.00	0.00	0.00	653555.00	496152.80	32°21'47.011"N	103°50'09.669"W	0.00	
75.00	0.390	64.670	75.00	-0.23	0.11	0.23	653555.23	496152.91	32°21'47.012"N	103°50'09.667"W	0.52	
175.00	0.370	90.780	175.00	-0.85	0.25	0.86	653555.86	496153.05	32°21'47.014"N	103°50'09.659"W	0.17	
275.00	0.180	29.610	275.00	-1.25	0.38	1.26	653556.26	496153.18	32°21'47.015"N	103°50'09.655"W	0.32	
369.00	0.390	288.800	369.00	-1.02	-0.61	-1.03	653556.03	496153.41	32°21'47.017"N	103°50'09.657"W	0.49	
463.00	0.410	295.820	462.99	-0.40	0.86	0.43	653555.43	496153.66	32°21'47.020"N	103°50'09.664"W	0.06	
557.00	0.140	246.580	556.99	0.01	0.96	0.02	653555.02	496153.76	32°21'47.021"N	103°50'09.669"W	0.36	
650.00	0.530	326.750	649.99	0.35	1.28	-0.32	653554.68	496154.08	32°21'47.024"N	103°50'09.673"W	0.56	
681.00	0.380	317.760	680.99	0.51	1.48	-0.47	653554.53	496154.27	32°21'47.026"N	103°50'09.675"W	0.53	
760.00	0.300	327.800	759.99	0.80	1.84	-0.76	653554.24	496154.64	32°21'47.030"N	103°50'09.678"W	0.13	
885.00	0.500	344.400	884.99	1.14	2.65	-1.08	653553.92	496155.45	32°21'47.038"N	103°50'09.682"W	0.18	
978.00	0.400	318.400	977.98	1.48	3.28	-1.40	653553.60	496156.08	32°21'47.044"N	103°50'09.686"W	0.24	
1262.00	0.100	0.000	1261.98	2.17	4.27	-2.06	653552.94	496157.07	32°21'47.054"N	103°50'09.693"W	0.12	
1553.00	0.200	155.900	1552.98	1.95	4.06	-1.85	653553.15	496156.86	32°21'47.052"N	103°50'09.691"W	0.10	
1843.00	0.200	81.800	1842.98	1.24	3.67	-1.14	653553.86	496156.47	32°21'47.048"N	103°50'09.683"W	0.08	
2132.00	0.100	92.200	2131.98	0.49	3.73	-0.39	653554.61	496156.53	32°21'47.048"N	103°50'09.674"W	0.04	
2422.00	0.100	36.200	2421.98	0.09	3.93	0.01	653555.01	496156.73	32°21'47.050"N	103°50'09.669"W	0.03	
2712.00	0.100	337.700	2711.98	0.05	4.36	0.06	653555.06	496157.16	32°21'47.055"N	103°50'09.668"W	0.03	
3003.00	0.300	140.700	3002.97	-0.35	4.01	0.45	653555.45	496156.81	32°21'47.051"N	103°50'09.664"W	0.14	
3292.00	1.200	265.900	3291.96	2.17	3.21	-2.09	653552.91	496156.01	32°21'47.043"N	103°50'09.694"W	0.48	
3583.00	1.300	120.400	3582.93	2.32	1.32	-2.28	653552.72	496154.12	32°21'47.025"N	103°50'09.696"W	0.82	
3800.00	1.200	243.000	3799.90	2.16	-0.96	-2.18	653552.82	496151.84	32°21'47.002"N	103°50'09.695"W	1.01	
3924.00	1.100	261.100	3923.88	4.47	-1.73	-4.52	653550.48	496151.07	32°21'46.994"N	103°50'09.722"W	0.30	
4021.00	2.100	273.700	4020.84	7.16	-1.76	-7.21	653547.79	496151.04	32°21'46.994"N	103°50'09.754"W	1.09	
4117.00	4.500	289.000	4116.68	12.51	-0.42	-12.53	653542.47	496152.38	32°21'47.008"N	103°50'09.816"W	2.64	
4214.00	6.500	290.500	4213.22	21.33	2.74	-21.27	653533.73	496155.54	32°21'47.039"N	103°50'09.917"W	2.07	
4311.00	8.700	295.900	4309.37	33.20	7.87	-33.01	653521.99	496160.67	32°21'47.091"N	103°50'10.054"W	2.38	
4408.00	9.400	297.500	4405.16	47.00	14.73	-46.64	653508.36	496167.53	32°21'47.159"N	103°50'10.212"W	0.77	
4504.00	9.400	297.700	4499.87	61.07	22.00	-60.53	653494.47	496174.79	32°21'47.232"N	103°50'10.374"W	0.03	
4601.00	10.800	293.800	4595.37	76.58	29.35	-75.86	653479.14	496182.14	32°21'47.305"N	103°50'10.552"W	1.61	
4698.00	13.300	292.500	4690.22	95.40	37.28	-94.49	653460.52	496190.08	32°21'47.385"N	103°50'10.769"W	2.59	
4795.00	14.200	293.700	4784.44	116.83	46.34	-115.69	653439.32	496199.13	32°21'47.475"N	103°50'11.016"W	0.97	
4892.00	17.200	295.500	4877.81	140.94	57.29	-139.54	653415.47	496210.09	32°21'47.585"N	103°50'11.293"W	3.13	
4988.00	18.900	298.800	4969.09	167.72	70.90	-165.98	653389.04	496223.69	32°21'47.721"N	103°50'11.601"W	2.07	
5085.00	19.900	301.800	5060.58	195.92	87.17	-193.77	653361.24	496239.96	32°21'47.883"N	103°50'11.924"W	1.46	
5182.00	22.200	298.800	5151.10	226.44	104.70	-223.87	653331.15	496257.49	32°21'48.058"N	103°50'12.274"W	2.62	
5279.00	22.800	298.900	5240.72	259.40	122.61	-256.38	653298.64	496275.40	32°21'48.236"N	103°50'12.652"W	0.62	
5374.00	22.400	297.600	5328.42	291.98	139.89	-288.54	653266.48	496292.68	32°21'48.409"N	103°50'13.026"W	0.67	
5471.00	19.800	296.100	5418.91	323.51	155.68	-319.67	653235.35	496308.47	32°21'48.567"N	103°50'13.388"W	2.74	
5567.00	19.200	296.000	5509.41	352.65	169.76	-348.46	653206.56	496322.54	32°21'48.707"N	103°50'13.723"W	0.63	
5664.00	19.100	295.900	5601.04	381.60	183.68	-377.08	653177.95	496336.47	32°21'48.846"N	103°50'14.056"W	0.11	
5761.00	19.600	296.700	5692.56	410.76	197.92	-405.89	653149.14	496350.71	32°21'48.988"N	103°50'14.391"W	0.58	
5857.00	20.600	296.900	5782.71	440.58	212.80	-435.33	653119.70	496365.58	32°21'49.137"N	103°50'14.733"W	1.04	
5954.00	21.000	296.600	5873.39	471.72	228.30	-466.09	653088.94	496381.09	32°21'49.292"N	103°50'15.091"W	0.43	
6050.00	20.200	295.100	5963.25	502.47	243.03	-496.48	653058.55	496395.82	32°21'49.439"N	103°50'15.444"W	1.00	



Planned Wellpath Report

Rev-A.0 ST01

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.140H SHL
Area	Eddy County, NM	Well	No.140H ST01
Field	JRU NAD27	Wellbore	No.140H ST01
Facility	(JRU) No.140H & No.141H	Sidetrack from	No.140H AWB at 8658.00 MD

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6146.00	18.300	292.100	6053.88	531.76	255.74	-525.46	653029.57	496408.52	32°21'49.566"N	103°50'15.781"W	2.23	
6243.00	17.800	291.800	6146.11	559.91	266.97	-553.34	653001.70	496419.75	32°21'49.679"N	103°50'16.106"W	0.52	
6340.00	18.200	296.600	6238.37	587.52	279.26	-580.65	652974.39	496432.04	32°21'49.801"N	103°50'16.424"W	1.58	
6436.00	17.900	297.800	6329.64	614.32	292.86	-607.10	652947.94	496445.64	32°21'49.937"N	103°50'16.731"W	0.50	
6533.00	20.300	294.400	6421.30	643.17	306.76	-635.62	652919.42	496459.54	32°21'50.076"N	103°50'17.063"W	2.73	
6630.00	22.500	293.200	6511.60	675.91	321.03	-668.01	652887.04	496473.80	32°21'50.219"N	103°50'17.440"W	2.31	
6727.00	29.400	292.500	6598.77	715.42	337.47	-707.11	652847.94	496490.25	32°21'50.383"N	103°50'17.895"W	7.12	
6823.00	34.000	290.200	6680.43	762.85	355.76	-754.10	652800.95	496508.54	32°21'50.566"N	103°50'18.442"W	4.95	
6920.00	38.000	287.400	6758.90	817.27	374.07	-808.07	652746.99	496526.84	32°21'50.750"N	103°50'19.070"W	4.46	
7018.00	42.900	285.500	6833.45	878.67	392.01	-869.04	652686.02	496544.79	32°21'50.930"N	103°50'19.780"W	5.16	
7115.00	47.600	284.800	6901.72	945.58	410.00	-935.52	652619.55	496562.77	32°21'51.111"N	103°50'20.554"W	4.87	
7212.00	50.400	282.300	6965.36	1017.15	427.11	-1006.67	652548.39	496579.88	32°21'51.284"N	103°50'21.382"W	3.48	
7308.00	52.800	280.900	7024.99	1091.20	442.22	-1080.37	652474.70	496594.99	32°21'51.437"N	103°50'22.241"W	2.75	
7405.00	56.600	283.300	7081.03	1168.98	458.85	-1157.74	652397.33	496611.62	32°21'51.605"N	103°50'23.142"W	4.41	
7501.00	61.300	283.900	7130.54	1249.35	478.19	-1237.66	652317.43	496630.96	32°21'51.800"N	103°50'24.072"W	4.92	
7598.00	65.300	282.000	7174.11	1334.25	497.58	-1322.09	652233.00	496650.35	32°21'51.996"N	103°50'25.056"W	4.48	
7695.00	69.700	280.900	7211.23	1422.48	515.36	-1409.90	652145.19	496668.12	32°21'52.175"N	103°50'26.079"W	4.66	
7792.00	73.900	279.100	7241.52	1513.59	531.34	-1500.63	652054.47	496684.10	32°21'52.338"N	103°50'27.135"W	4.67	
7888.00	75.000	278.400	7267.25	1605.32	545.40	-1592.04	651963.07	496698.17	32°21'52.481"N	103°50'28.200"W	1.34	
7985.00	79.500	277.600	7288.66	1699.29	558.56	-1685.70	651869.41	496711.32	32°21'52.616"N	103°50'29.292"W	4.71	
8082.00	79.500	277.500	7306.33	1794.12	571.09	-1780.25	651774.87	496723.85	32°21'52.744"N	103°50'30.393"W	0.10	
8178.00	79.700	277.100	7323.66	1888.05	583.09	-1873.91	651681.22	496735.85	32°21'52.867"N	103°50'31.484"W	0.46	
8275.00	84.500	274.100	7336.99	1983.84	592.45	-1969.49	651585.64	496745.21	32°21'52.964"N	103°50'32.598"W	5.82	
8372.00	86.200	273.400	7344.86	2080.44	598.77	-2065.96	651489.18	496751.53	32°21'53.031"N	103°50'33.723"W	1.89	
8469.00	86.900	272.300	7350.69	2177.23	603.58	-2162.66	651392.48	496756.34	32°21'53.083"N	103°50'34.850"W	1.34	
8565.00	88.400	271.100	7354.63	2273.15	606.43	-2258.53	651296.61	496759.19	32°21'53.115"N	103°50'35.967"W	2.00	
8658.00	90.000	271.300	7355.93	2366.13	608.38	-2351.50	651203.65	496761.14	32°21'53.139"N	103°50'37.051"W	0.00	The On
8724.00	90.000	271.300	7355.93	2432.13	609.87	-2417.48	651137.67	496762.63	32°21'53.156"N	103°50'37.820"W	0.00	7" Casing Shoe
8729.00	90.000	271.300	7355.93	2437.13	609.99	-2422.48	651132.68	496762.75	32°21'53.158"N	103°50'37.878"W	0.00	5" out of Shoe
8758.00†	89.491	268.445	7356.06	2466.12	609.92	-2451.48	651103.68	496762.68	32°21'53.158"N	103°50'38.216"W	10.00	
8843.73	88.000	260.000	7357.94	2551.07	601.30	-2536.68	651018.49	496754.06	32°21'53.077"N	103°50'39.210"W	10.00	Side Track
8858.00†	88.138	259.750	7358.42	2565.04	598.80	-2550.71	651004.45	496751.56	32°21'53.053"N	103°50'39.374"W	2.00	
8958.00†	89.102	257.997	7360.83	2662.61	579.51	-2648.80	650906.37	496732.27	32°21'52.866"N	103°50'40.519"W	2.00	
9058.00†	90.068	256.246	7361.55	2759.49	557.22	-2746.28	650808.90	496709.98	32°21'52.650"N	103°50'41.656"W	2.00	
9129.14	90.755	255.000	7361.04	2827.93	539.56	-2815.18	650740.00	496692.32	32°21'52.479"N	103°50'42.460"W	2.00	Build
9158.00†	90.755	255.000	7360.66	2855.61	532.09	-2843.06	650712.13	496684.85	32°21'52.406"N	103°50'42.786"W	0.00	
9258.00†	90.755	255.000	7359.34	2951.51	506.21	-2939.65	650615.55	496658.97	32°21'52.154"N	103°50'43.913"W	0.00	
9358.00†	90.755	255.000	7358.02	3047.40	480.33	-3036.23	650518.97	496633.10	32°21'51.903"N	103°50'45.041"W	0.00	
9458.00†	90.755	255.000	7356.71	3143.30	454.45	-3132.81	650422.39	496607.22	32°21'51.651"N	103°50'46.168"W	0.00	
9558.00†	90.755	255.000	7355.39	3239.20	428.57	-3229.40	650325.82	496581.34	32°21'51.399"N	103°50'47.295"W	0.00	
9639.14	90.755	255.000	7354.32	3317.01	407.57	-3307.76	650247.45	496560.34	32°21'51.195"N	103°50'48.210"W	0.00	Hold
9658.00†	90.756	255.377	7354.07	3335.12	402.75	-3326.00	650229.22	496555.52	32°21'51.148"N	103°50'48.423"W	2.00	
9758.00†	90.759	257.377	7352.75	3431.67	379.20	-3423.17	650132.05	496531.97	32°21'50.919"N	103°50'49.557"W	2.00	
9858.00†	90.761	259.378	7351.42	3529.06	359.06	-3521.11	650034.12	496511.83	32°21'50.724"N	103°50'50.700"W	2.00	
9958.00†	90.762	261.378	7350.10	3627.19	342.34	-3619.69	649935.55	496495.12	32°21'50.563"N	103°50'51.850"W	2.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.140H SHL
Area	Eddy County, NM	Well	No.140H ST01
Field	JRU NAD27	Wellbore	No.140H ST01
Facility	(JRU) No.140H & No.141H		
		Sidetrack from	No.140H AWB at 8658.00 MD

WELLPATH DATA (185 stations) . † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10058.00†	90.762	263.378	7348.77	3725.92	329.08	-3718.79	649836.46	496481.86	32°21'50.437"N	103°50'53.006"W	2.00	
10158.00†	90.761	265.378	7347.44	3825.15	319.29	-3818.29	649736.96	496472.06	32°21'50.344"N	103°50'54.167"W	2.00	
10258.00†	90.759	267.378	7346.11	3924.74	312.97	-3918.08	649637.18	496465.75	32°21'50.286"N	103°50'55.330"W	2.00	
10358.00†	90.756	269.378	7344.79	4024.58	310.14	-4018.03	649537.24	496462.92	32°21'50.263"N	103°50'56.496"W	2.00	
10391.61†	90.755	270.051	7344.35	4058.18	309.97	-4051.64	649503.63	496462.75	32°21'50.262"N	103°50'56.887"W	2.00	TL
10458.00†	90.755	270.051	7343.47	4124.54	310.03	-4118.02	649437.25	496462.81	32°21'50.266"N	103°50'57.661"W	0.00	
10558.00†	90.755	270.051	7342.15	4224.50	310.12	-4218.01	649337.27	496462.90	32°21'50.271"N	103°50'58.827"W	0.00	
10658.00†	90.755	270.051	7340.83	4324.46	310.21	-4318.00	649237.28	496462.99	32°21'50.277"N	103°50'59.993"W	0.00	
10758.00†	90.755	270.051	7339.52	4424.43	310.30	-4417.99	649137.30	496463.08	32°21'50.282"N	103°51'01.158"W	0.00	
10858.00†	90.755	270.051	7338.20	4524.39	310.39	-4517.98	649037.31	496463.17	32°21'50.287"N	103°51'02.324"W	0.00	
10958.00†	90.755	270.051	7336.88	4624.35	310.48	-4617.97	648937.33	496463.25	32°21'50.293"N	103°51'03.490"W	0.00	
11058.00†	90.755	270.051	7335.56	4724.31	310.56	-4717.97	648837.35	496463.34	32°21'50.298"N	103°51'04.656"W	0.00	
11158.00†	90.755	270.051	7334.24	4824.27	310.65	-4817.96	648737.36	496463.43	32°21'50.303"N	103°51'05.821"W	0.00	
11258.00†	90.755	270.051	7332.92	4924.23	310.74	-4917.95	648637.38	496463.52	32°21'50.309"N	103°51'06.987"W	0.00	
11358.00†	90.755	270.051	7331.61	5024.19	310.83	-5017.94	648537.39	496463.61	32°21'50.314"N	103°51'08.153"W	0.00	
11458.00†	90.755	270.051	7330.29	5124.16	310.92	-5117.93	648437.41	496463.70	32°21'50.319"N	103°51'09.318"W	0.00	
11558.00†	90.755	270.051	7328.97	5224.12	311.01	-5217.92	648337.42	496463.79	32°21'50.325"N	103°51'10.484"W	0.00	
11658.00†	90.755	270.051	7327.65	5324.08	311.10	-5317.91	648237.44	496463.88	32°21'50.330"N	103°51'11.650"W	0.00	
11758.00†	90.755	270.051	7326.33	5424.04	311.19	-5417.90	648137.45	496463.96	32°21'50.335"N	103°51'12.816"W	0.00	
11858.00†	90.755	270.051	7325.01	5524.00	311.27	-5517.90	648037.47	496464.05	32°21'50.341"N	103°51'13.981"W	0.00	
11958.00†	90.755	270.051	7323.70	5623.96	311.36	-5617.89	647937.48	496464.14	32°21'50.346"N	103°51'15.147"W	0.00	
12058.00†	90.755	270.051	7322.38	5723.93	311.45	-5717.88	647837.50	496464.23	32°21'50.351"N	103°51'16.313"W	0.00	
12158.00†	90.755	270.051	7321.06	5823.89	311.54	-5817.87	647737.51	496464.32	32°21'50.357"N	103°51'17.478"W	0.00	
12258.00†	90.755	270.051	7319.74	5923.85	311.63	-5917.86	647637.53	496464.41	32°21'50.362"N	103°51'18.644"W	0.00	
12358.00†	90.755	270.051	7318.42	6023.81	311.72	-6017.85	647537.54	496464.50	32°21'50.367"N	103°51'19.810"W	0.00	
12458.00†	90.755	270.051	7317.10	6123.77	311.81	-6117.84	647437.56	496464.59	32°21'50.372"N	103°51'20.976"W	0.00	
12558.00†	90.755	270.051	7315.79	6223.73	311.90	-6217.83	647337.58	496464.67	32°21'50.378"N	103°51'22.141"W	0.00	
12658.00†	90.755	270.051	7314.47	6323.69	311.98	-6317.83	647237.59	496464.76	32°21'50.383"N	103°51'23.307"W	0.00	
12758.00†	90.755	270.051	7313.15	6423.66	312.07	-6417.82	647137.61	496464.85	32°21'50.388"N	103°51'24.473"W	0.00	
12845.19†	90.755	270.051	7312.00	6510.81	312.15	-6505.00	647050.43	496464.93	32°21'50.393"N	103°51'25.489"W	0.00	Target #2
12858.00†	90.501	270.020	7311.86	6523.62	312.16	-6517.81	647037.62	496464.94	32°21'50.394"N	103°51'25.638"W	2.00	
12864.51	90.372	270.005	7311.81	6530.12	312.16	-6524.32	647031.11	496464.94	32°21'50.394"N	103°51'25.714"W	2.00	TL
12958.00†	90.372	270.005	7311.20	6623.58	312.17	-6617.81	646937.63	496464.95	32°21'50.398"N	103°51'26.804"W	0.00	
13058.00†	90.372	270.005	7310.55	6723.55	312.18	-6717.80	646837.64	496464.95	32°21'50.403"N	103°51'27.970"W	0.00	
13158.00†	90.372	270.005	7309.91	6823.52	312.18	-6817.80	646737.65	496464.96	32°21'50.407"N	103°51'29.136"W	0.00	
13258.00†	90.372	270.005	7309.26	6923.48	312.19	-6917.80	646637.66	496464.97	32°21'50.411"N	103°51'30.302"W	0.00	
13358.00†	90.372	270.005	7308.61	7023.45	312.20	-7017.80	646537.66	496464.98	32°21'50.416"N	103°51'31.467"W	0.00	
13458.00†	90.372	270.005	7307.96	7123.41	312.21	-7117.80	646437.67	496464.99	32°21'50.420"N	103°51'32.633"W	0.00	
13558.00†	90.372	270.005	7307.31	7223.38	312.22	-7217.79	646337.68	496465.00	32°21'50.425"N	103°51'33.799"W	0.00	
13658.00†	90.372	270.005	7306.66	7323.35	312.22	-7317.79	646237.69	496465.00	32°21'50.429"N	103°51'34.965"W	0.00	
13758.00†	90.372	270.005	7306.01	7423.31	312.23	-7417.79	646137.70	496465.01	32°21'50.434"N	103°51'36.131"W	0.00	
13858.00†	90.372	270.005	7305.36	7523.28	312.24	-7517.79	646037.71	496465.02	32°21'50.438"N	103°51'37.296"W	0.00	
13958.00†	90.372	270.005	7304.71	7623.25	312.25	-7617.79	645937.72	496465.03	32°21'50.443"N	103°51'38.462"W	0.00	
14058.00†	90.372	270.005	7304.07	7723.21	312.26	-7717.78	645837.73	496465.04	32°21'50.447"N	103°51'39.628"W	0.00	
14158.00†	90.372	270.005	7303.42	7823.18	312.26	-7817.78	645737.73	496465.04	32°21'50.452"N	103°51'40.794"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.140H SHL
Area	Eddy County, NM	Well	No.140H ST01
Field	JRU NAD27	Wellbore	No.140H ST01
Facility	(JRU) No.140H & No.141H	Sidetrack from	No.140H AWB at 8658.00 MD

WELLPATH DATA (185 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14258.00†	90.372	270.005	7302.77	7923.14	312.27	-7917.78	645637.74	496465.05	32°21'50.456"N	103°51'41.960"W	0.00	
14358.00†	90.372	270.005	7302.12	8023.11	312.28	-8017.78	645537.75	496465.06	32°21'50.460"N	103°51'43.125"W	0.00	
14458.00†	90.372	270.005	7301.47	8123.08	312.29	-8117.77	645437.76	496465.07	32°21'50.465"N	103°51'44.291"W	0.00	
14558.00†	90.372	270.005	7300.82	8223.04	312.30	-8217.77	645337.77	496465.08	32°21'50.469"N	103°51'45.457"W	0.00	
14658.00†	90.372	270.005	7300.17	8323.01	312.31	-8317.77	645237.78	496465.08	32°21'50.474"N	103°51'46.623"W	0.00	
14758.00†	90.372	270.005	7299.52	8422.97	312.31	-8417.77	645137.79	496465.09	32°21'50.478"N	103°51'47.789"W	0.00	
14838.75	90.372	270.005	7299.00 ²	8503.70	312.32	-8498.52	645057.04	496465.10	32°21'50.482"N	103°51'48.730"W	0.00	Target #3
14840.78	90.331	270.004	7298.99	8505.73	312.32	-8500.55	645055.01	496465.10	32°21'50.482"N	103°51'48.754"W	2.00	TL
14858.00†	90.331	270.004	7298.89	8522.94	312.32	-8517.77	645037.79	496465.10	32°21'50.483"N	103°51'48.954"W	0.00	
14958.00†	90.331	270.004	7298.31	8622.91	312.33	-8617.76	644937.80	496465.11	32°21'50.487"N	103°51'50.120"W	0.00	
15058.00†	90.331	270.004	7297.73	8722.87	312.34	-8717.76	644837.81	496465.12	32°21'50.491"N	103°51'51.286"W	0.00	
15158.00†	90.331	270.004	7297.15	8822.84	312.34	-8817.76	644737.82	496465.12	32°21'50.496"N	103°51'52.452"W	0.00	
15258.00†	90.331	270.004	7296.58	8922.81	312.35	-8917.76	644637.83	496465.13	32°21'50.500"N	103°51'53.618"W	0.00	
15358.00†	90.331	270.004	7296.00	9022.77	312.36	-9017.76	644537.84	496465.14	32°21'50.505"N	103°51'54.783"W	0.00	
15458.00†	90.331	270.004	7295.42	9122.74	312.37	-9117.76	644437.84	496465.15	32°21'50.509"N	103°51'55.949"W	0.00	
15558.00†	90.331	270.004	7294.84	9222.71	312.38	-9217.75	644337.85	496465.15	32°21'50.513"N	103°51'57.115"W	0.00	
15658.00†	90.331	270.004	7294.26	9322.67	312.38	-9317.75	644237.86	496465.16	32°21'50.518"N	103°51'58.281"W	0.00	
15758.00†	90.331	270.004	7293.69	9422.64	312.39	-9417.75	644137.87	496465.17	32°21'50.522"N	103°51'59.447"W	0.00	
15858.00†	90.331	270.004	7293.11	9522.61	312.40	-9517.75	644037.88	496465.18	32°21'50.527"N	103°52'00.612"W	0.00	
15876.49	90.331	270.004	7293.00 ³	9541.09	312.40	-9536.24	644019.39	496465.18	32°21'50.527"N	103°52'00.828"W	0.00	Target #4
15901.28	89.835	270.004	7292.96	9565.87	312.40	-9561.03	643994.60	496465.18	32°21'50.529"N	103°52'01.117"W	2.00	TL
15958.00†	89.835	270.004	7293.13	9622.57	312.41	-9617.75	643937.88	496465.19	32°21'50.531"N	103°52'01.778"W	0.00	
16058.00†	89.835	270.004	7293.41	9722.54	312.41	-9717.75	643837.89	496465.19	32°21'50.535"N	103°52'02.944"W	0.00	
16158.00†	89.835	270.004	7293.70	9822.51	312.42	-9817.75	643737.90	496465.20	32°21'50.540"N	103°52'04.110"W	0.00	
16258.00†	89.835	270.004	7293.99	9922.48	312.43	-9917.75	643637.91	496465.21	32°21'50.544"N	103°52'05.276"W	0.00	
16358.00†	89.835	270.004	7294.28	10022.44	312.44	-10017.75	643537.91	496465.22	32°21'50.549"N	103°52'06.442"W	0.00	
16458.00†	89.835	270.004	7294.56	10122.41	312.45	-10117.75	643437.92	496465.22	32°21'50.553"N	103°52'07.607"W	0.00	
16558.00†	89.835	270.004	7294.85	10222.38	312.45	-10217.75	643337.93	496465.23	32°21'50.557"N	103°52'08.773"W	0.00	
16658.00†	89.835	270.004	7295.14	10322.35	312.46	-10317.75	643237.93	496465.24	32°21'50.562"N	103°52'09.939"W	0.00	
16758.00†	89.835	270.004	7295.43	10422.32	312.47	-10417.75	643137.94	496465.25	32°21'50.566"N	103°52'11.105"W	0.00	
16858.00†	89.835	270.004	7295.71	10522.28	312.48	-10517.75	643037.95	496465.26	32°21'50.570"N	103°52'12.271"W	0.00	
16958.00†	89.835	270.004	7296.00	10622.25	312.48	-10617.74	642937.95	496465.26	32°21'50.575"N	103°52'13.436"W	0.00	
17058.00†	89.835	270.004	7296.29	10722.22	312.49	-10717.74	642837.96	496465.27	32°21'50.579"N	103°52'14.602"W	0.00	
17158.00†	89.835	270.004	7296.57	10822.19	312.50	-10817.74	642737.97	496465.28	32°21'50.583"N	103°52'15.768"W	0.00	
17258.00†	89.835	270.004	7296.86	10922.16	312.51	-10917.74	642637.98	496465.29	32°21'50.588"N	103°52'16.934"W	0.00	
17358.00†	89.835	270.004	7297.15	11022.12	312.52	-11017.74	642537.98	496465.29	32°21'50.592"N	103°52'18.100"W	0.00	
17458.00†	89.835	270.004	7297.44	11122.09	312.52	-11117.74	642437.99	496465.30	32°21'50.597"N	103°52'19.266"W	0.00	
17558.00†	89.835	270.004	7297.72	11222.06	312.53	-11217.74	642338.00	496465.31	32°21'50.601"N	103°52'20.431"W	0.00	
17658.00†	89.835	270.004	7298.01	11322.03	312.54	-11317.74	642238.00	496465.32	32°21'50.605"N	103°52'21.597"W	0.00	
17758.00†	89.835	270.004	7298.30	11421.99	312.55	-11417.74	642138.01	496465.33	32°21'50.610"N	103°52'22.763"W	0.00	
17858.00†	89.835	270.004	7298.59	11521.96	312.55	-11517.74	642038.02	496465.33	32°21'50.614"N	103°52'23.929"W	0.00	
17958.00†	89.835	270.004	7298.87	11621.93	312.56	-11617.74	641938.02	496465.34	32°21'50.618"N	103°52'25.095"W	0.00	
18058.00†	89.835	270.004	7299.16	11721.90	312.57	-11717.74	641838.03	496465.35	32°21'50.623"N	103°52'26.261"W	0.00	
18158.00†	89.835	270.004	7299.45	11821.87	312.58	-11817.74	641738.04	496465.36	32°21'50.627"N	103°52'27.426"W	0.00	
18258.00†	89.835	270.004	7299.73	11921.83	312.59	-11917.74	641638.05	496465.37	32°21'50.631"N	103°52'28.592"W	0.00	



Planned Wellpath Report

Rev-A.0 ST01

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.140H SHL
Area	Eddy County, NM	Well	No.140H ST01
Field	JRU NAD27	Wellbore	No.140H ST01
Facility	(JRU) No.140H & No.141H	Sidetrack from	No.140H AWB at 8658.00 MD

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
18358.00†	89.835	270.004	7300.02	12021.80	312.59	-12017.74	641538.05	496465.37	32°21'50.635"N	103°52'29.758"W	0.00	
18458.00†	89.835	270.004	7300.31	12121.77	312.60	-12117.74	641438.06	496465.38	32°21'50.640"N	103°52'30.924"W	0.00	
18558.00†	89.835	270.004	7300.60	12221.74	312.61	-12217.74	641338.07	496465.39	32°21'50.644"N	103°52'32.090"W	0.00	
18658.00†	89.835	270.004	7300.88	12321.70	312.62	-12317.74	641238.07	496465.40	32°21'50.648"N	103°52'33.255"W	0.00	
18698.65	89.835	270.004	7301.00	12362.34	312.62	-12358.39	641197.42	496465.40	32°21'50.650"N	103°52'33.729"W	0.00	No.140H ST01 PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
3) No.140H Target #4 ST01	15876.49	7293.00	312.40	-9536.24	644019.39	496465.18	32°21'50.527"N	103°52'00.828"W	point
2) No.140H Target #3 ST01	14838.75	7299.00	312.32	-8498.52	645057.04	496465.10	32°21'50.482"N	103°51'48.730"W	point
4) No.140H PBHL ST01	18698.65	7301.00	312.62	-12358.39	641197.42	496465.40	32°21'50.650"N	103°52'33.729"W	point
1) No.140H Target #2 ST01	12845.19	7312.00	312.15	-6505.00	647050.43	496464.93	32°21'50.393"N	103°51'25.489"W	point

SURVEY PROGRAM - Ref Wellbore: No.140H ST01 - Ref Wellpath: Rev-A.0 ST01

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	681.00	Generic gyro - northseeking (Standard)		No.140H AWB
681.00	3800.00	NaviTrak (Standard)		No.140H AWB
3800.00	8658.00	NaviTrak (Standard)		No.140H AWB
8658.00	18698.65	NaviTrak (Standard)		No.140H ST01