

BONANZA CREEK ENERGY

Location: COLORADO Slot: SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Field: WELD COUNTY (NAD83/TRUE) Well: MULE DEER T34-32-29XRLNB
Facility: SEC.05-T05N-R61W Wellbore: MULE DEER T34-32-29XRLNB PWB

Plot reference wellpath is MULE DEER T34-32-29XRLNB (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4676 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)): 0 feet	Created by: robule01 on 2019-06-14
Coordinates are in feet referenced to Slot	Database: WA DENVER

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.05-T05N-R61W			3352971.931	1404526.872	40°26'12.840"N	104°13'54.876"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)	-107.11	160.34	3353133.781	1404422.072	40°26'11.782"N	104°13'52.802"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05))						4676ft
Mean Sea Level to Ground level (At Slot: SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05))						0ft
RIG (17) (RKB) to Mean Sea Level						4676ft

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		MULE DEER T34-32-29XRLNB PWB
1500.00	16116.20	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		MULE DEER T34-32-29XRLNB PWB

Well Profile Data

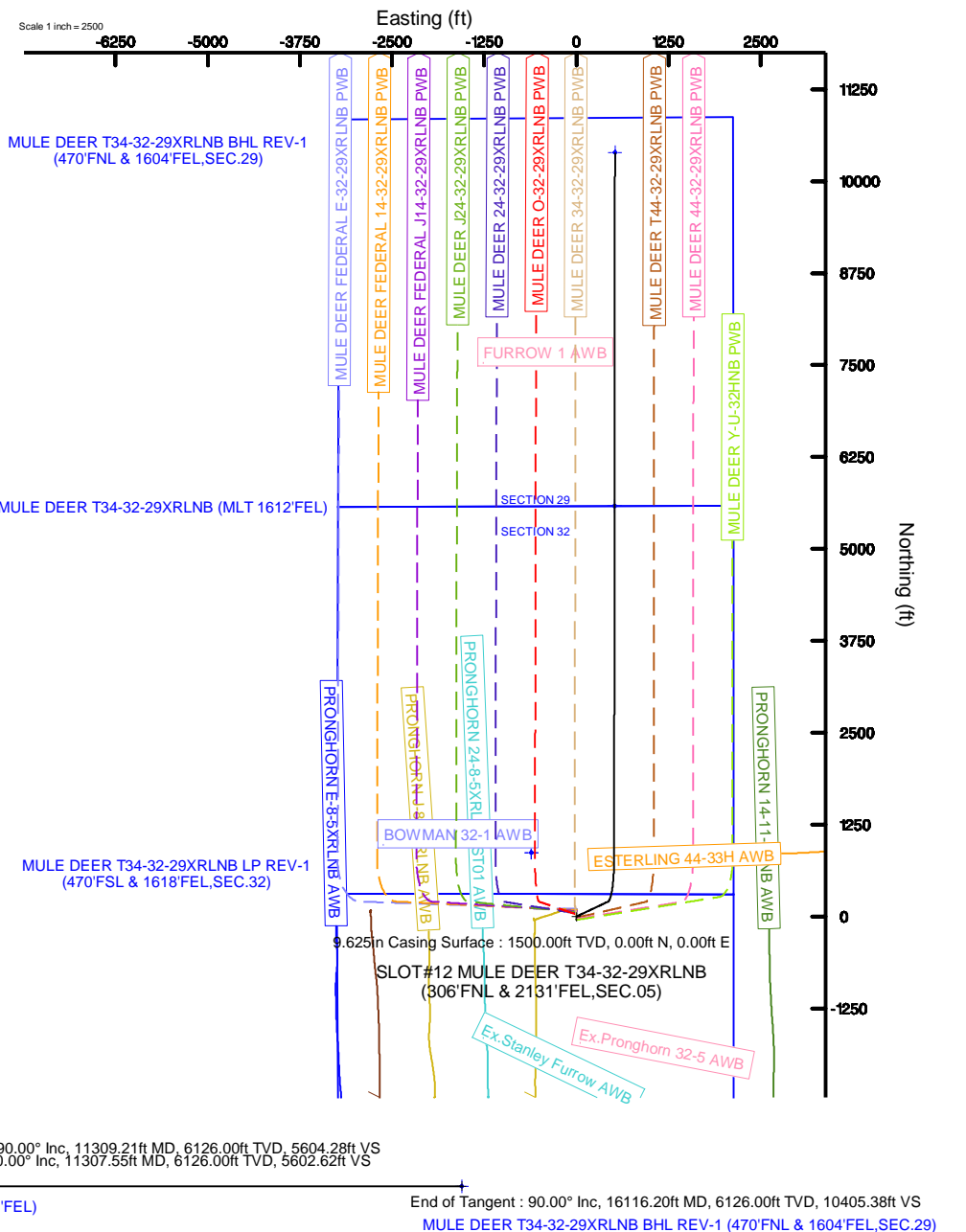
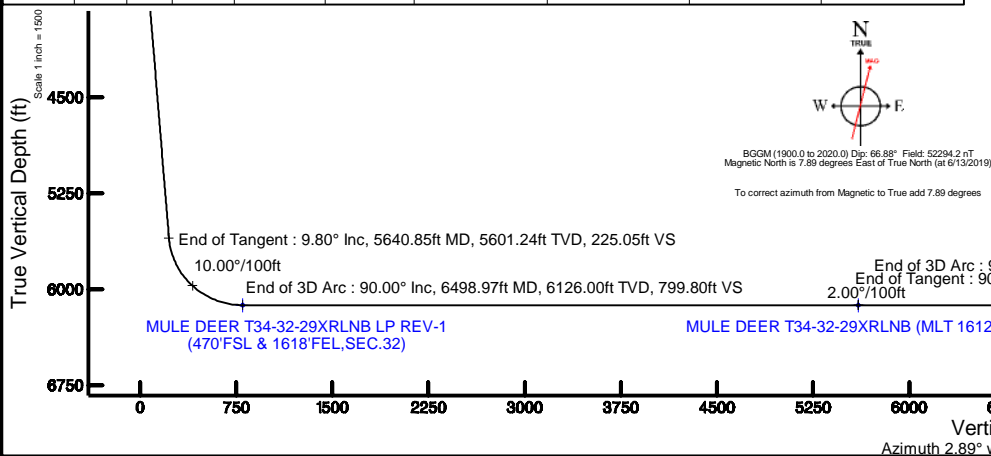
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	64.675	17.00	0.00	0.00	0.00	0.00
End of Tangent	2600.00	0.000	64.675	2600.00	0.00	0.00	0.00	0.00
End of Build	3090.03	9.801	64.675	3087.64	17.88	37.79	2.00	19.77
End of Tangent	5640.85	9.801	64.675	5601.24	203.62	430.26	0.00	225.05
End of 3D Arc	6498.97	90.000	0.085	6126.00	774.92	512.99	10.00	799.80
End of Tangent	11307.55	90.000	0.085	6126.00	5583.50	520.16	0.00	5602.62
End of 3D Arc	11309.21	90.000	0.052	6126.00	5585.16	520.16	2.00	5604.28
End of Tangent	16116.20	90.000	0.052	6126.00	10392.15	524.54	0.00	10405.38

Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.5in Open Hole	17.00	1500.00	1483.00	17.00	1500.00	0.00	0.00	0.00	0.00	MULE DEER T34-32-29XRLNB PWB
9.625in Casing Surface	17.00	1500.00	1483.00	17.00	1500.00	0.00	0.00	0.00	0.00	MULE DEER T34-32-29XRLNB PWB
8.5in Open Hole	1500.00	16116.20	14616.20	1500.00	6126.00	0.00	0.00	10392.15	524.54	MULE DEER T34-32-29XRLNB PWB

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16116.20	90.000	0.052	6126.00	10392.15	524.54	3353509.58	1414820.25	40°27'54.472"N	104°13'46.016"W



Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Robiale01
Scale	0.999962	Report Generated	6/14/2019 at 3:52:55 PM
Convergence at slot	0.82° East	Database/Source file	WA DENVER/MULE_DEER_T34-32-29XRLNB_REV-A.0_PWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-107.11	160.34	3353133.78	1404422.07	40°26'11.782"N	104°13'52.802"W
Facility Reference Pt			3352971.93	1404526.87	40°26'12.840"N	104°13'54.876"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	4676.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4676.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05))	4676.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	2.89°

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MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

WELLPATH DATA (169 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	64.675	0.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
17.00	0.000	64.675	17.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	Tie On
117.00†	0.000	64.675	117.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
217.00†	0.000	64.675	217.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
317.00†	0.000	64.675	317.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
417.00†	0.000	64.675	417.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
517.00†	0.000	64.675	517.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
617.00†	0.000	64.675	617.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
717.00†	0.000	64.675	717.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
817.00†	0.000	64.675	817.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
917.00†	0.000	64.675	917.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1017.00†	0.000	64.675	1017.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1117.00†	0.000	64.675	1117.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1217.00†	0.000	64.675	1217.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1317.00†	0.000	64.675	1317.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1417.00†	0.000	64.675	1417.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1517.00†	0.000	64.675	1517.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1617.00†	0.000	64.675	1617.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1717.00†	0.000	64.675	1717.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1817.00†	0.000	64.675	1817.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
1917.00†	0.000	64.675	1917.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2017.00†	0.000	64.675	2017.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2117.00†	0.000	64.675	2117.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2217.00†	0.000	64.675	2217.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2317.00†	0.000	64.675	2317.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2417.00†	0.000	64.675	2417.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2517.00†	0.000	64.675	2517.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	
2600.00	0.000	64.675	2600.00	0.00	0.00	0.00	40°26'11.782"N	104°13'52.802"W	0.00	End of Tangent
2617.00†	0.340	64.675	2617.00	0.02	0.02	0.05	40°26'11.782"N	104°13'52.802"W	2.00	
2717.00†	2.340	64.675	2716.97	1.13	1.02	2.16	40°26'11.792"N	104°13'52.774"W	2.00	
2817.00†	4.340	64.675	2816.79	3.88	3.51	7.43	40°26'11.816"N	104°13'52.706"W	2.00	
2917.00†	6.340	64.675	2916.35	8.28	7.49	15.84	40°26'11.856"N	104°13'52.598"W	2.00	
3017.00†	8.340	64.675	3015.53	14.32	12.96	27.38	40°26'11.910"N	104°13'52.448"W	2.00	
3090.03	9.801	64.675	3087.64	19.77	17.88	37.79	40°26'11.958"N	104°13'52.314"W	2.00	End of Build
3117.00†	9.801	64.675	3114.22	21.94	19.85	41.94	40°26'11.978"N	104°13'52.260"W	0.00	
3217.00†	9.801	64.675	3212.76	29.98	27.13	57.33	40°26'12.050"N	104°13'52.061"W	0.00	

WELLPATH DATA (169 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	9.801	64.675	3311.30	38.03	34.41	72.71	40°26'12.122"N	104°13'51.862"W	0.00	
3417.00†	9.801	64.675	3409.84	46.08	41.69	88.10	40°26'12.194"N	104°13'51.663"W	0.00	
3517.00†	9.801	64.675	3508.38	54.13	48.97	103.48	40°26'12.266"N	104°13'51.464"W	0.00	
3617.00†	9.801	64.675	3606.92	62.18	56.25	118.87	40°26'12.337"N	104°13'51.265"W	0.00	
3717.00†	9.801	64.675	3705.46	70.22	63.54	134.26	40°26'12.409"N	104°13'51.066"W	0.00	
3817.00†	9.801	64.675	3804.00	78.27	70.82	149.64	40°26'12.481"N	104°13'50.867"W	0.00	
3917.00†	9.801	64.675	3902.55	86.32	78.10	165.03	40°26'12.553"N	104°13'50.668"W	0.00	
4017.00†	9.801	64.675	4001.09	94.37	85.38	180.41	40°26'12.625"N	104°13'50.469"W	0.00	
4117.00†	9.801	64.675	4099.63	102.41	92.66	195.80	40°26'12.697"N	104°13'50.270"W	0.00	

Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

WELLPATH DATA (169 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	9.801	64.675	4198.17	110.46	99.94	211.19	40°26'12.769"N	104°13'50.071"W	0.00	
4317.00†	9.801	64.675	4296.71	118.51	107.22	226.57	40°26'12.841"N	104°13'49.872"W	0.00	
4417.00†	9.801	64.675	4395.25	126.56	114.51	241.96	40°26'12.913"N	104°13'49.673"W	0.00	
4517.00†	9.801	64.675	4493.79	134.60	121.79	257.34	40°26'12.985"N	104°13'49.474"W	0.00	
4617.00†	9.801	64.675	4592.33	142.65	129.07	272.73	40°26'13.057"N	104°13'49.275"W	0.00	
4717.00†	9.801	64.675	4690.87	150.70	136.35	288.12	40°26'13.129"N	104°13'49.076"W	0.00	
4817.00†	9.801	64.675	4789.41	158.75	143.63	303.50	40°26'13.201"N	104°13'48.877"W	0.00	
4917.00†	9.801	64.675	4887.95	166.80	150.91	318.89	40°26'13.273"N	104°13'48.678"W	0.00	
5017.00†	9.801	64.675	4986.49	174.84	158.19	334.28	40°26'13.345"N	104°13'48.479"W	0.00	
5117.00†	9.801	64.675	5085.03	182.89	165.47	349.66	40°26'13.417"N	104°13'48.280"W	0.00	
5217.00†	9.801	64.675	5183.57	190.94	172.76	365.05	40°26'13.489"N	104°13'48.081"W	0.00	
5317.00†	9.801	64.675	5282.11	198.99	180.04	380.43	40°26'13.561"N	104°13'47.882"W	0.00	
5417.00†	9.801	64.675	5380.65	207.03	187.32	395.82	40°26'13.633"N	104°13'47.683"W	0.00	
5517.00†	9.801	64.675	5479.19	215.08	194.60	411.21	40°26'13.705"N	104°13'47.484"W	0.00	
5617.00†	9.801	64.675	5577.74	223.13	201.88	426.59	40°26'13.776"N	104°13'47.286"W	0.00	
5640.85	9.801	64.675	5601.24	225.05	203.62	430.26	40°26'13.794"N	104°13'47.238"W	0.00	End of Tangent
5717.00†	14.726	36.503	5675.69	236.19	214.18	441.89	40°26'13.898"N	104°13'47.088"W	10.00	
5817.00†	23.456	21.161	5770.16	265.75	243.04	456.68	40°26'14.183"N	104°13'46.896"W	10.00	
5917.00†	32.891	14.047	5858.23	311.40	288.05	470.49	40°26'14.628"N	104°13'46.718"W	10.00	
6017.00†	42.564	9.867	5937.25	371.76	347.86	482.90	40°26'15.219"N	104°13'46.557"W	10.00	
6117.00†	52.340	7.002	6004.79	445.00	420.66	493.55	40°26'15.938"N	104°13'46.420"W	10.00	
6217.00†	62.170	4.810	6058.82	528.89	504.22	502.11	40°26'16.764"N	104°13'46.309"W	10.00	
6317.00†	72.028	2.986	6097.69	620.87	596.01	508.31	40°26'17.671"N	104°13'46.229"W	10.00	
6417.00†	81.902	1.358	6120.22	718.16	693.24	511.97	40°26'18.632"N	104°13'46.181"W	10.00	
6498.97	90.000	0.085	6126.00 [†]	799.80	774.92	512.99	40°26'19.439"N	104°13'46.168"W	10.00	End of 3D Arc
6517.00†	90.000	0.085	6126.00	817.81	792.96	513.02	40°26'19.617"N	104°13'46.168"W	0.00	
6617.00†	90.000	0.085	6126.00	917.69	892.96	513.17	40°26'20.605"N	104°13'46.166"W	0.00	
6717.00†	90.000	0.085	6126.00	1017.57	992.96	513.32	40°26'21.594"N	104°13'46.164"W	0.00	
6817.00†	90.000	0.085	6126.00	1117.45	1092.96	513.46	40°26'22.582"N	104°13'46.162"W	0.00	
6917.00†	90.000	0.085	6126.00	1217.33	1192.96	513.61	40°26'23.570"N	104°13'46.160"W	0.00	
7017.00†	90.000	0.085	6126.00	1317.21	1292.96	513.76	40°26'24.558"N	104°13'46.158"W	0.00	
7117.00†	90.000	0.085	6126.00	1417.09	1392.96	513.91	40°26'25.546"N	104°13'46.156"W	0.00	
7217.00†	90.000	0.085	6126.00	1516.97	1492.95	514.06	40°26'26.534"N	104°13'46.154"W	0.00	
7317.00†	90.000	0.085	6126.00	1616.85	1592.95	514.21	40°26'27.522"N	104°13'46.152"W	0.00	
7417.00†	90.000	0.085	6126.00	1716.73	1692.95	514.36	40°26'28.511"N	104°13'46.150"W	0.00	

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7517.00†	90.000	0.085	6126.00	1816.61	1792.95	514.51	40°26'29.499"N	104°13'46.148"W	0.00	
7617.00†	90.000	0.085	6126.00	1916.49	1892.95	514.66	40°26'30.487"N	104°13'46.146"W	0.00	
7717.00†	90.000	0.085	6126.00	2016.37	1992.95	514.81	40°26'31.475"N	104°13'46.144"W	0.00	
7817.00†	90.000	0.085	6126.00	2116.25	2092.95	514.96	40°26'32.463"N	104°13'46.142"W	0.00	
7917.00†	90.000	0.085	6126.00	2216.13	2192.95	515.10	40°26'33.451"N	104°13'46.140"W	0.00	
8017.00†	90.000	0.085	6126.00	2316.01	2292.95	515.25	40°26'34.440"N	104°13'46.138"W	0.00	
8117.00†	90.000	0.085	6126.00	2415.89	2392.95	515.40	40°26'35.428"N	104°13'46.136"W	0.00	
8217.00†	90.000	0.085	6126.00	2515.77	2492.95	515.55	40°26'36.416"N	104°13'46.134"W	0.00	
8317.00†	90.000	0.085	6126.00	2615.65	2592.95	515.70	40°26'37.404"N	104°13'46.132"W	0.00	
8417.00†	90.000	0.085	6126.00	2715.53	2692.95	515.85	40°26'38.392"N	104°13'46.131"W	0.00	

Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

WELLPATH DATA (169 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.085	6126.00	2815.41	2792.95	516.00	40°26'39.380"N	104°13'46.129"W	0.00	
8617.00†	90.000	0.085	6126.00	2915.29	2892.95	516.15	40°26'40.368"N	104°13'46.127"W	0.00	
8717.00†	90.000	0.085	6126.00	3015.17	2992.95	516.30	40°26'41.357"N	104°13'46.125"W	0.00	
8817.00†	90.000	0.085	6126.00	3115.05	3092.95	516.45	40°26'42.345"N	104°13'46.123"W	0.00	
8917.00†	90.000	0.085	6126.00	3214.94	3192.95	516.59	40°26'43.333"N	104°13'46.121"W	0.00	
9017.00†	90.000	0.085	6126.00	3314.82	3292.95	516.74	40°26'44.321"N	104°13'46.119"W	0.00	
9117.00†	90.000	0.085	6126.00	3414.70	3392.95	516.89	40°26'45.309"N	104°13'46.117"W	0.00	
9217.00†	90.000	0.085	6126.00	3514.58	3492.95	517.04	40°26'46.297"N	104°13'46.115"W	0.00	
9317.00†	90.000	0.085	6126.00	3614.46	3592.95	517.19	40°26'47.286"N	104°13'46.113"W	0.00	
9417.00†	90.000	0.085	6126.00	3714.34	3692.95	517.34	40°26'48.274"N	104°13'46.111"W	0.00	
9517.00†	90.000	0.085	6126.00	3814.22	3792.95	517.49	40°26'49.262"N	104°13'46.109"W	0.00	
9617.00†	90.000	0.085	6126.00	3914.10	3892.95	517.64	40°26'50.250"N	104°13'46.107"W	0.00	
9717.00†	90.000	0.085	6126.00	4013.98	3992.95	517.79	40°26'51.238"N	104°13'46.105"W	0.00	
9817.00†	90.000	0.085	6126.00	4113.86	4092.95	517.94	40°26'52.226"N	104°13'46.103"W	0.00	
9917.00†	90.000	0.085	6126.00	4213.74	4192.95	518.09	40°26'53.214"N	104°13'46.101"W	0.00	
10017.00†	90.000	0.085	6126.00	4313.62	4292.95	518.23	40°26'54.203"N	104°13'46.099"W	0.00	
10117.00†	90.000	0.085	6126.00	4413.50	4392.95	518.38	40°26'55.191"N	104°13'46.097"W	0.00	
10217.00†	90.000	0.085	6126.00	4513.38	4492.95	518.53	40°26'56.179"N	104°13'46.095"W	0.00	
10317.00†	90.000	0.085	6126.00	4613.26	4592.95	518.68	40°26'57.167"N	104°13'46.093"W	0.00	
10417.00†	90.000	0.085	6126.00	4713.14	4692.95	518.83	40°26'58.155"N	104°13'46.091"W	0.00	
10517.00†	90.000	0.085	6126.00	4813.02	4792.95	518.98	40°26'59.143"N	104°13'46.089"W	0.00	
10617.00†	90.000	0.085	6126.00	4912.90	4892.95	519.13	40°27'00.132"N	104°13'46.088"W	0.00	
10717.00†	90.000	0.085	6126.00	5012.78	4992.95	519.28	40°27'01.120"N	104°13'46.086"W	0.00	
10817.00†	90.000	0.085	6126.00	5112.66	5092.95	519.43	40°27'02.108"N	104°13'46.084"W	0.00	
10917.00†	90.000	0.085	6126.00	5212.54	5192.95	519.58	40°27'03.096"N	104°13'46.082"W	0.00	
11017.00†	90.000	0.085	6126.00	5312.42	5292.95	519.72	40°27'04.084"N	104°13'46.080"W	0.00	
11117.00†	90.000	0.085	6126.00	5412.30	5392.95	519.87	40°27'05.072"N	104°13'46.078"W	0.00	
11217.00†	90.000	0.085	6126.00	5512.18	5492.95	520.02	40°27'06.060"N	104°13'46.076"W	0.00	
11307.55	90.000	0.085	6126.00 ²	5602.62	5583.50	520.16	40°27'06.955"N	104°13'46.074"W	0.00	End of Tangent
11309.21	90.000	0.052	6126.00	5604.28	5585.16	520.16	40°27'06.972"N	104°13'46.074"W	2.00	End of 3D Arc
11317.00†	90.000	0.052	6126.00	5612.06	5592.95	520.17	40°27'07.049"N	104°13'46.074"W	0.00	
11417.00†	90.000	0.052	6126.00	5711.94	5692.95	520.26	40°27'08.037"N	104°13'46.073"W	0.00	
11517.00†	90.000	0.052	6126.00	5811.82	5792.95	520.35	40°27'09.025"N	104°13'46.071"W	0.00	
11617.00†	90.000	0.052	6126.00	5911.69	5892.95	520.44	40°27'10.013"N	104°13'46.070"W	0.00	
11717.00†	90.000	0.052	6126.00	6011.57	5992.95	520.53	40°27'11.001"N	104°13'46.069"W	0.00	

WELLPATH DATA (169 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.000	0.052	6126.00	6111.45	6092.95	520.62	40°27'11.989"N	104°13'46.068"W	0.00	
11917.00†	90.000	0.052	6126.00	6211.33	6192.95	520.71	40°27'12.978"N	104°13'46.067"W	0.00	
12017.00†	90.000	0.052	6126.00	6311.20	6292.95	520.80	40°27'13.966"N	104°13'46.065"W	0.00	
12117.00†	90.000	0.052	6126.00	6411.08	6392.95	520.90	40°27'14.954"N	104°13'46.064"W	0.00	
12217.00†	90.000	0.052	6126.00	6510.96	6492.95	520.99	40°27'15.942"N	104°13'46.063"W	0.00	
12317.00†	90.000	0.052	6126.00	6610.84	6592.95	521.08	40°27'16.930"N	104°13'46.062"W	0.00	
12417.00†	90.000	0.052	6126.00	6710.71	6692.95	521.17	40°27'17.918"N	104°13'46.061"W	0.00	
12517.00†	90.000	0.052	6126.00	6810.59	6792.95	521.26	40°27'18.906"N	104°13'46.059"W	0.00	
12617.00†	90.000	0.052	6126.00	6910.47	6892.95	521.35	40°27'19.895"N	104°13'46.058"W	0.00	
12717.00†	90.000	0.052	6126.00	7010.34	6992.95	521.44	40°27'20.883"N	104°13'46.057"W	0.00	

Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

WELLPATH DATA (169 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12817.00†	90.000	0.052	6126.00	7110.22	7092.95	521.53	40°27'21.871"N	104°13'46.056"W	0.00	
12917.00†	90.000	0.052	6126.00	7210.10	7192.95	521.62	40°27'22.859"N	104°13'46.055"W	0.00	
13017.00†	90.000	0.052	6126.00	7309.98	7292.95	521.72	40°27'23.847"N	104°13'46.053"W	0.00	
13117.00†	90.000	0.052	6126.00	7409.85	7392.95	521.81	40°27'24.835"N	104°13'46.052"W	0.00	
13217.00†	90.000	0.052	6126.00	7509.73	7492.95	521.90	40°27'25.824"N	104°13'46.051"W	0.00	
13317.00†	90.000	0.052	6126.00	7609.61	7592.95	521.99	40°27'26.812"N	104°13'46.050"W	0.00	
13417.00†	90.000	0.052	6126.00	7709.49	7692.95	522.08	40°27'27.800"N	104°13'46.049"W	0.00	
13517.00†	90.000	0.052	6126.00	7809.36	7792.95	522.17	40°27'28.788"N	104°13'46.047"W	0.00	
13617.00†	90.000	0.052	6126.00	7909.24	7892.95	522.26	40°27'29.776"N	104°13'46.046"W	0.00	
13717.00†	90.000	0.052	6126.00	8009.12	7992.95	522.35	40°27'30.764"N	104°13'46.045"W	0.00	
13817.00†	90.000	0.052	6126.00	8109.00	8092.95	522.44	40°27'31.752"N	104°13'46.044"W	0.00	
13917.00†	90.000	0.052	6126.00	8208.87	8192.95	522.54	40°27'32.741"N	104°13'46.043"W	0.00	
14017.00†	90.000	0.052	6126.00	8308.75	8292.95	522.63	40°27'33.729"N	104°13'46.041"W	0.00	
14117.00†	90.000	0.052	6126.00	8408.63	8392.95	522.72	40°27'34.717"N	104°13'46.040"W	0.00	
14217.00†	90.000	0.052	6126.00	8508.51	8492.95	522.81	40°27'35.705"N	104°13'46.039"W	0.00	
14317.00†	90.000	0.052	6126.00	8608.38	8592.95	522.90	40°27'36.693"N	104°13'46.038"W	0.00	
14417.00†	90.000	0.052	6126.00	8708.26	8692.95	522.99	40°27'37.681"N	104°13'46.036"W	0.00	
14517.00†	90.000	0.052	6126.00	8808.14	8792.95	523.08	40°27'38.669"N	104°13'46.035"W	0.00	
14617.00†	90.000	0.052	6126.00	8908.02	8892.95	523.17	40°27'39.658"N	104°13'46.034"W	0.00	
14717.00†	90.000	0.052	6126.00	9007.89	8992.95	523.26	40°27'40.646"N	104°13'46.033"W	0.00	
14817.00†	90.000	0.052	6126.00	9107.77	9092.95	523.36	40°27'41.634"N	104°13'46.032"W	0.00	
14917.00†	90.000	0.052	6126.00	9207.65	9192.95	523.45	40°27'42.622"N	104°13'46.030"W	0.00	
15017.00†	90.000	0.052	6126.00	9307.53	9292.95	523.54	40°27'43.610"N	104°13'46.029"W	0.00	
15117.00†	90.000	0.052	6126.00	9407.40	9392.95	523.63	40°27'44.598"N	104°13'46.028"W	0.00	
15217.00†	90.000	0.052	6126.00	9507.28	9492.95	523.72	40°27'45.587"N	104°13'46.027"W	0.00	
15317.00†	90.000	0.052	6126.00	9607.16	9592.95	523.81	40°27'46.575"N	104°13'46.026"W	0.00	
15417.00†	90.000	0.052	6126.00	9707.04	9692.95	523.90	40°27'47.563"N	104°13'46.024"W	0.00	
15517.00†	90.000	0.052	6126.00	9806.91	9792.95	523.99	40°27'48.551"N	104°13'46.023"W	0.00	
15617.00†	90.000	0.052	6126.00	9906.79	9892.95	524.08	40°27'49.539"N	104°13'46.022"W	0.00	
15717.00†	90.000	0.052	6126.00	10006.67	9992.95	524.18	40°27'50.527"N	104°13'46.021"W	0.00	
15817.00†	90.000	0.052	6126.00	10106.54	10092.95	524.27	40°27'51.515"N	104°13'46.020"W	0.00	
15917.00†	90.000	0.052	6126.00	10206.42	10192.95	524.36	40°27'52.504"N	104°13'46.018"W	0.00	
16017.00†	90.000	0.052	6126.00	10306.30	10292.95	524.45	40°27'53.492"N	104°13'46.017"W	0.00	
16116.20	90.000	0.052	6126.00 ³	10405.38	10392.15	524.54	40°27'54.472"N	104°13'46.016"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: MULE DEER T34-32-29XRLNB PWB Ref Wellpath: MULE DEER T34-32-29XRLNB (REV-A.0) PWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	17.00	1500.00	1483.00	17.00	1500.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1500.00	1483.00	17.00	1500.00	0.00	0.00	0.00	0.00
8.5in Open Hole	1500.00	16116.20	14616.20	1500.00	6126.00	0.00	0.00	10392.15	524.54

Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.29-T06N-R61W		-2.00	871.08	-607.94	3352513.47	1405284.33	40°26'20.389"N	104°14'00.665"W	polygon
SEC.32-T06N-R61W		-2.00	871.08	-607.94	3352513.47	1405284.33	40°26'20.389"N	104°14'00.665"W	polygon
SEC.05-T05N-R61W		0.00	-9825.92	-1941.14	3351333.48	1394569.78	40°24'34.685"N	104°14'17.896"W	polygon
2) MULE DEER T34-32-29XRLNB (MLT 1612'FEL)	11307.55	6126.00	5583.50	520.16	3353573.99	1410012.22	40°27'06.955"N	104°13'46.074"W	point
3) MULE DEER T34-32-29XRLNB BHL REV-1 (470'FNL & 1604'FEL,SEC.29)	16116.20	6126.00	10392.15	524.54	3353509.58	1414820.25	40°27'54.472"N	104°13'46.016"W	point
1) MULE DEER T34-32-29XRLNB LP REV-1 (470'FSL & 1618'FEL,SEC.32)	6498.97	6126.00	774.92	512.99	3353635.61	1405204.22	40°26'19.439"N	104°13'46.168"W	point

SURVEY PROGRAM - Ref Wellbore: MULE DEER T34-32-29XRLNB PWB Ref Wellpath: MULE DEER T34-32-29XRLNB (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak (Rotating+Axial Corr)		MULE DEER T34-32-29XRLNB PWB
1500.00	16116.20	BHI AutoTrak Curve (Short)		MULE DEER T34-32-29XRLNB PWB

Planned Wellpath Report

MULE DEER T34-32-29XRLNB (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 MULE DEER T34-32-29XRLNB (306'FNL & 2131'FEL,SEC.05)
Area	COLORADO	Well	MULE DEER T34-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	MULE DEER T34-32-29XRLNB PWB
Facility	SEC.05-T05N-R61W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	64.675	17.00	Tie On
2600.00	0.000	64.675	2600.00	End of Tangent
3090.03	9.801	64.675	3087.64	End of Build
5640.85	9.801	64.675	5601.24	End of Tangent
6498.97	90.000	0.085	6126.00	End of 3D Arc
11307.55	90.000	0.085	6126.00	End of Tangent
11309.21	90.000	0.052	6126.00	End of 3D Arc
16116.20	90.000	0.052	6126.00	End of Tangent