

Location:	COLORADO	Slot:	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Field:	WELD COUNTY	Well:	ANTELOPE FEDERAL 44-20-17XRLNC
Facility:	SEC.20-T05N-R62W	Wellbore:	ANTELOPE FEDERAL 44-20-17XRLNC PWB

Location:	COLORADO	Slot:	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Field:	WELD COUNTY	Well:	ANTELOPE FEDERAL 44-20-17XRLNC
Facility:	SEC.20-T05N-R62W	Wellbore:	ANTELOPE FEDERAL 44-20-17XRLNC PWB

Plot reference wellpath is ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17KB) (RKB)		* - Wellpath was transformed from a different geoidic datum
Measured depths are referenced to RIG (17KB) (RKB)		North Reference: True north
RIG (17KB) (RKB) to Mean Sea Level: 4673 feet		Scale: True distance
Mean Sea Level to Ground level (N Slot: SLO7931 ANTELOPE FEDERAL 44-20-17XRLNC (669FSL & 2350FEL, SEC-20)) 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: ingmjann on 2018-07-31
		Database: Denver

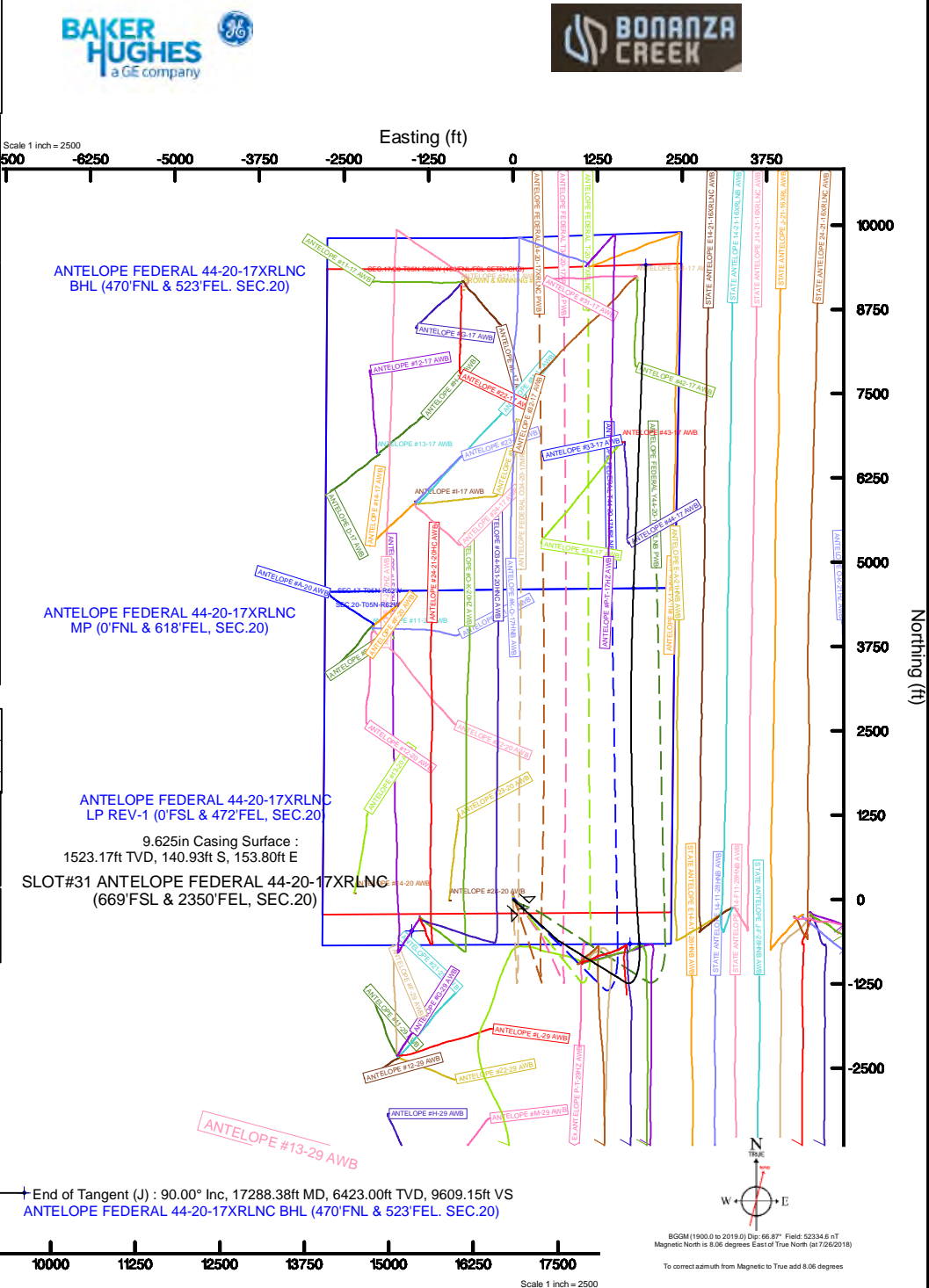
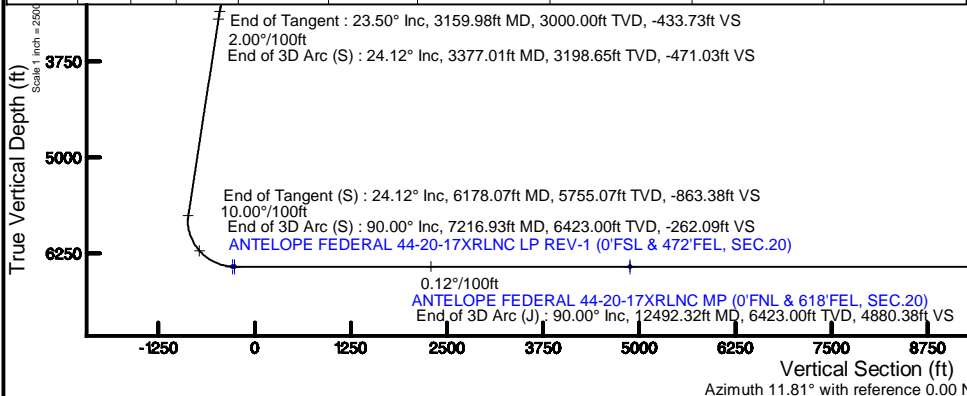
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC-20-TGSN-RE2W				1381882.546	1383119.349	40°22'47.856"N	104°21'17.364"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#31 ANTELOPE FEDERAL 44-20-173RLAC (669FSL & 2350FSL, SEC.20)	-92.08	2337.81	3321321.251	1383257.466	40°22'46.945"N	104°20'47.756"W	
ING 17(KB) (R90) to Ground level (At Slot: SLOT#31 ANTELOPE FEDERAL 44-20-173RLAC (669FSL & 2350FSL, SEC.20)						46731	
Mean Sea Level to Ground level (At Slot: SLOT#31 ANTELOPE FEDERAL 44-20-173RLAC (669FSL & 2350FSL, SEC.20)						01	
ING 17(KB) (R90) to Mean Sea Level						46731	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	132.500	17.00	0.00	0.00	0.00	0.00
End of Tangent	450.00	0.000	132.500	450.00	0.00	0.00	0.00	0.00
End of Build	1625.00	23.500	132.500	1592.33	-160.52	175.18	2.00	-121.29
End of Tangent	3159.98	23.500	132.500	3000.00	-574.03	626.45	0.00	-433.73
End of 3D Arc (S)	3377.01	24.124	121.847	3198.65	-626.69	696.06	2.00	-471.03
End of Tangent (S)	6178.07	24.124	121.847	5755.07	-1230.77	1668.55	0.00	-863.38
End of 3D Arc (S)	7216.93	90.000	355.890	6423.00	-658.63	1870.19	10.00	-262.09
End of 3D Arc (J)	12492.32	90.000	2.196	6423.00	4613.36	1782.12	0.12	4880.38
End of Tangent (J)	17288.38	90.000	2.196	6423.00	9405.90	1965.90	0.00	9609.15

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
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1523.17	0.00	0.00	-149.93	153.80	ANTELOPE FEDERAL 44-20-17XR/LNC PWB

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NavTrak	BHI NavTrak (Rotating+Axial Corr)		ANTELOPE FEDERAL 44-20-17XR/LNC PWB
1550.00	17419.65	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr; Short spacing)		ANTELOPE FEDERAL 44-20-17XR/LNC PWB

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
17288.38	90.000	2.196	6423.00	9405.90	1965.90	3323164.56	1392687.74	40°24'19.890"N	104°20'22.344"W





# Planned Wellpath Report

## ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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### REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Ingmjmr
Scale	0.999959	Report Generated	7/31/2018 at 10:08:48 AM
Convergence at slot	0.75° East	Database/Source file	Denver/ANTELOPE_FEDERAL_44-20-17XRLNC_PWP__REV-A.0_.xml

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-92.08	2337.81	3321321.25	1383257.47	40°22'46.945"N	104°20'47.756"W
Facility Reference Pt			3318982.55	1383319.35	40°22'47.856"N	104°21'17.964"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'KB) (RKB) to Facility Vertical Datum	4673.00ft
Horizontal Reference Pt	Slot	RIG (17'KB) (RKB) to Mean Sea Level	4673.00ft
Vertical Reference Pt	RIG (17'KB) (RKB)	RIG (17'KB) (RKB) to Ground Level at Slot (SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20))	4673.00ft
MD Reference Pt	RIG (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	11.81°



# Planned Wellpath Report

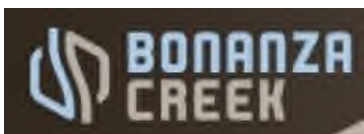
ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 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	132.500	0.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	
17.00	0.000	132.500	17.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	Tie On
117.00†	0.000	132.500	117.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	
217.00†	0.000	132.500	217.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	
317.00†	0.000	132.500	317.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	
417.00†	0.000	132.500	417.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	
450.00	0.000	132.500	450.00	0.00	0.00	0.00	40°22'46.945"N	104°20'47.756"W	0.00	End of Tangent
517.00†	1.340	132.500	516.99	-0.40	-0.53	0.58	40°22'46.940"N	104°20'47.749"W	2.00	
617.00†	3.340	132.500	616.91	-2.48	-3.29	3.59	40°22'46.913"N	104°20'47.710"W	2.00	
717.00†	5.340	132.500	716.61	-6.35	-8.40	9.17	40°22'46.862"N	104°20'47.638"W	2.00	
817.00†	7.340	132.500	816.00	-11.98	-15.86	17.31	40°22'46.788"N	104°20'47.532"W	2.00	
917.00†	9.340	132.500	914.93	-19.39	-25.66	28.00	40°22'46.691"N	104°20'47.394"W	2.00	
1017.00†	11.340	132.500	1013.31	-28.55	-37.78	41.23	40°22'46.572"N	104°20'47.223"W	2.00	
1117.00†	13.340	132.500	1110.99	-39.46	-52.22	56.99	40°22'46.429"N	104°20'47.020"W	2.00	
1217.00†	15.340	132.500	1207.87	-52.10	-68.95	75.25	40°22'46.264"N	104°20'46.784"W	2.00	
1317.00†	17.340	132.500	1303.83	-66.46	-87.96	95.99	40°22'46.076"N	104°20'46.516"W	2.00	
1417.00†	19.340	132.500	1398.74	-82.52	-109.22	119.19	40°22'45.866"N	104°20'46.216"W	2.00	
1517.00†	21.340	132.500	1492.50	-100.26	-132.70	144.81	40°22'45.634"N	104°20'45.885"W	2.00	
1617.00†	23.340	132.500	1584.99	-119.67	-158.38	172.84	40°22'45.380"N	104°20'45.523"W	2.00	
1625.00	23.500	132.500	1592.33	-121.29	-160.52	175.18	40°22'45.359"N	104°20'45.492"W	2.00	End of Build
1717.00†	23.500	132.500	1676.70	-140.02	-185.31	202.23	40°22'45.114"N	104°20'45.143"W	0.00	
1817.00†	23.500	132.500	1768.41	-160.37	-212.25	231.63	40°22'44.848"N	104°20'44.763"W	0.00	
1917.00†	23.500	132.500	1860.11	-180.72	-239.19	261.03	40°22'44.581"N	104°20'44.383"W	0.00	
2017.00†	23.500	132.500	1951.82	-201.08	-266.13	290.42	40°22'44.315"N	104°20'44.003"W	0.00	
2117.00†	23.500	132.500	2043.53	-221.43	-293.06	319.82	40°22'44.049"N	104°20'43.623"W	0.00	
2217.00†	23.500	132.500	2135.23	-241.79	-320.00	349.22	40°22'43.783"N	104°20'43.244"W	0.00	
2317.00†	23.500	132.500	2226.94	-262.14	-346.94	378.62	40°22'43.517"N	104°20'42.864"W	0.00	
2417.00†	23.500	132.500	2318.64	-282.50	-373.88	408.02	40°22'43.250"N	104°20'42.484"W	0.00	
2517.00†	23.500	132.500	2410.35	-302.85	-400.82	437.42	40°22'42.984"N	104°20'42.104"W	0.00	
2617.00†	23.500	132.500	2502.06	-323.21	-427.76	466.82	40°22'42.718"N	104°20'41.724"W	0.00	



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	23.500	132.500	2593.76	-343.56	-454.70	496.22	40°22'42.452"N	104°20'41.344"W	0.00	
2817.00†	23.500	132.500	2685.47	-363.92	-481.64	525.62	40°22'42.186"N	104°20'40.964"W	0.00	
2917.00†	23.500	132.500	2777.17	-384.27	-508.58	555.01	40°22'41.919"N	104°20'40.585"W	0.00	
3017.00†	23.500	132.500	2868.88	-404.63	-535.52	584.41	40°22'41.653"N	104°20'40.205"W	0.00	
3117.00†	23.500	132.500	2960.59	-424.98	-562.46	613.81	40°22'41.387"N	104°20'39.825"W	0.00	
3159.98	23.500	132.500	3000.00	-433.73	-574.03	626.45	40°22'41.273"N	104°20'39.662"W	0.00	End of Tangent
3217.00†	23.593	129.655	3052.27	-444.86	-589.00	643.62	40°22'41.125"N	104°20'39.440"W	2.00	
3317.00†	23.879	124.736	3143.83	-462.10	-613.30	675.66	40°22'40.884"N	104°20'39.026"W	2.00	
3377.01	24.124	121.847	3198.65	-471.03	-626.69	696.06	40°22'40.752"N	104°20'38.762"W	2.00	End of 3D Arc (S)
3417.00†	24.124	121.847	3235.15	-476.64	-635.32	709.94	40°22'40.667"N	104°20'38.583"W	0.00	
3517.00†	24.124	121.847	3326.41	-490.64	-656.88	744.66	40°22'40.454"N	104°20'38.134"W	0.00	
3617.00†	24.124	121.847	3417.68	-504.65	-678.45	779.38	40°22'40.241"N	104°20'37.686"W	0.00	
3717.00†	24.124	121.847	3508.94	-518.66	-700.02	814.10	40°22'40.028"N	104°20'37.237"W	0.00	
3817.00†	24.124	121.847	3600.21	-532.66	-721.58	848.82	40°22'39.814"N	104°20'36.788"W	0.00	
3917.00†	24.124	121.847	3691.48	-546.67	-743.15	883.54	40°22'39.601"N	104°20'36.340"W	0.00	
4017.00†	24.124	121.847	3782.74	-560.68	-764.71	918.25	40°22'39.388"N	104°20'35.891"W	0.00	
4117.00†	24.124	121.847	3874.01	-574.68	-786.28	952.97	40°22'39.175"N	104°20'35.443"W	0.00	
4217.00†	24.124	121.847	3965.28	-588.69	-807.85	987.69	40°22'38.962"N	104°20'34.994"W	0.00	
4317.00†	24.124	121.847	4056.54	-602.70	-829.41	1022.41	40°22'38.749"N	104°20'34.545"W	0.00	
4417.00†	24.124	121.847	4147.81	-616.70	-850.98	1057.13	40°22'38.536"N	104°20'34.097"W	0.00	
4517.00†	24.124	121.847	4239.07	-630.71	-872.54	1091.85	40°22'38.323"N	104°20'33.648"W	0.00	
4617.00†	24.124	121.847	4330.34	-644.72	-894.11	1126.57	40°22'38.109"N	104°20'33.200"W	0.00	
4717.00†	24.124	121.847	4421.61	-658.73	-915.68	1161.29	40°22'37.896"N	104°20'32.751"W	0.00	
4817.00†	24.124	121.847	4512.87	-672.73	-937.24	1196.00	40°22'37.683"N	104°20'32.302"W	0.00	
4917.00†	24.124	121.847	4604.14	-686.74	-958.81	1230.72	40°22'37.470"N	104°20'31.854"W	0.00	
5017.00†	24.124	121.847	4695.40	-700.75	-980.37	1265.44	40°22'37.257"N	104°20'31.405"W	0.00	
5117.00†	24.124	121.847	4786.67	-714.75	-1001.94	1300.16	40°22'37.044"N	104°20'30.957"W	0.00	
5217.00†	24.124	121.847	4877.94	-728.76	-1023.51	1334.88	40°22'36.831"N	104°20'30.508"W	0.00	
5317.00†	24.124	121.847	4969.20	-742.77	-1045.07	1369.60	40°22'36.618"N	104°20'30.060"W	0.00	
5417.00†	24.124	121.847	5060.47	-756.77	-1066.64	1404.32	40°22'36.404"N	104°20'29.611"W	0.00	



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

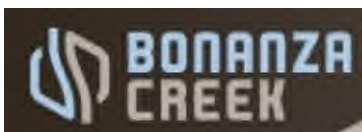
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5517.00†	24.124	121.847	5151.74	-770.78	-1088.20	1439.04	40°22'36.191"N	104°20'29.162"W	0.00	
5617.00†	24.124	121.847	5243.00	-784.79	-1109.77	1473.75	40°22'35.978"N	104°20'28.714"W	0.00	
5717.00†	24.124	121.847	5334.27	-798.79	-1131.34	1508.47	40°22'35.765"N	104°20'28.265"W	0.00	
5817.00†	24.124	121.847	5425.53	-812.80	-1152.90	1543.19	40°22'35.552"N	104°20'27.817"W	0.00	
5917.00†	24.124	121.847	5516.80	-826.81	-1174.47	1577.91	40°22'35.339"N	104°20'27.368"W	0.00	
6017.00†	24.124	121.847	5608.07	-840.81	-1196.03	1612.63	40°22'35.126"N	104°20'26.919"W	0.00	
6117.00†	24.124	121.847	5699.33	-854.82	-1217.60	1647.35	40°22'34.913"N	104°20'26.471"W	0.00	
6178.07	24.124	121.847	5755.07	-863.38	-1230.77	1668.55	40°22'34.782"N	104°20'26.197"W	0.00	End of Tangent (S)
6217.00†	22.199	113.230	5790.87	-867.56	-1237.87	1682.07	40°22'34.712"N	104°20'26.022"W	10.00	
6317.00†	19.925	85.869	5884.41	-866.62	-1244.11	1716.51	40°22'34.651"N	104°20'25.577"W	10.00	
6417.00†	22.206	58.516	5977.94	-848.94	-1232.99	1749.71	40°22'34.760"N	104°20'25.148"W	10.00	
6517.00†	27.945	38.996	6068.64	-815.06	-1204.84	1780.65	40°22'35.039"N	104°20'24.749"W	10.00	
6617.00†	35.499	26.435	6153.73	-766.00	-1160.51	1808.39	40°22'35.477"N	104°20'24.390"W	10.00	
6717.00†	43.936	17.989	6230.64	-703.25	-1101.37	1832.09	40°22'36.061"N	104°20'24.084"W	10.00	
6817.00†	52.827	11.845	6297.02	-628.73	-1029.20	1851.03	40°22'36.774"N	104°20'23.839"W	10.00	
6917.00†	61.968	7.018	6350.87	-544.70	-946.19	1864.63	40°22'37.594"N	104°20'23.663"W	10.00	
7017.00†	71.250	2.958	6390.54	-453.70	-854.87	1872.49	40°22'38.497"N	104°20'23.561"W	10.00	
7117.00†	80.611	359.326	6414.83	-358.51	-758.01	1874.36	40°22'39.454"N	104°20'23.537"W	10.00	
7216.93	90.000	355.890	6423.00†	-262.09	-658.63	1870.19	40°22'40.436"N	104°20'23.591"W	10.00	End of 3D Arc (S)
7217.00†	90.000	355.890	6423.00	-262.02	-658.56	1870.18	40°22'40.437"N	104°20'23.591"W	0.12	
7317.00†	90.000	356.010	6423.00	-165.82	-558.81	1863.12	40°22'41.422"N	104°20'23.682"W	0.12	
7417.00†	90.000	356.129	6423.00	-69.57	-459.05	1856.26	40°22'42.408"N	104°20'23.771"W	0.12	
7517.00†	90.000	356.249	6423.00	26.74	-359.27	1849.62	40°22'43.394"N	104°20'23.857"W	0.12	
7617.00†	90.000	356.368	6423.00	123.10	-259.48	1843.18	40°22'44.380"N	104°20'23.940"W	0.12	
7717.00†	90.000	356.488	6423.00	219.52	-159.67	1836.95	40°22'45.367"N	104°20'24.020"W	0.12	
7817.00†	90.000	356.607	6423.00	316.00	-59.85	1830.93	40°22'46.353"N	104°20'24.098"W	0.12	
7917.00†	90.000	356.727	6423.00	412.53	39.98	1825.11	40°22'47.339"N	104°20'24.173"W	0.12	
8017.00†	90.000	356.846	6423.00	509.11	139.82	1819.51	40°22'48.326"N	104°20'24.245"W	0.12	
8117.00†	90.000	356.966	6423.00	605.75	239.68	1814.11	40°22'49.313"N	104°20'24.315"W	0.12	
8217.00†	90.000	357.086	6423.00	702.44	339.54	1808.92	40°22'50.300"N	104°20'24.382"W	0.12	





# Planned Wellpath Report

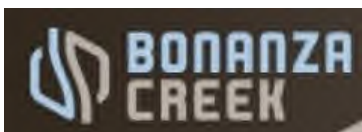
ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8317.00†	90.000	357.205	6423.00	799.18	439.42	1803.94	40°22'51.287"N	104°20'24.446"W	0.12	
8417.00†	90.000	357.325	6423.00	895.98	539.30	1799.17	40°22'52.274"N	104°20'24.508"W	0.12	
8517.00†	90.000	357.444	6423.00	992.83	639.20	1794.61	40°22'53.261"N	104°20'24.566"W	0.12	
8617.00†	90.000	357.564	6423.00	1089.73	739.10	1790.25	40°22'54.248"N	104°20'24.623"W	0.12	
8717.00†	90.000	357.683	6423.00	1186.68	839.02	1786.10	40°22'55.235"N	104°20'24.676"W	0.12	
8817.00†	90.000	357.803	6423.00	1283.69	938.94	1782.17	40°22'56.223"N	104°20'24.727"W	0.12	
8917.00†	90.000	357.922	6423.00	1380.74	1038.87	1778.44	40°22'57.210"N	104°20'24.775"W	0.12	
9017.00†	90.000	358.042	6423.00	1477.84	1138.81	1774.92	40°22'58.198"N	104°20'24.820"W	0.12	
9117.00†	90.000	358.161	6423.00	1575.00	1238.75	1771.60	40°22'59.185"N	104°20'24.863"W	0.12	
9217.00†	90.000	358.281	6423.00	1672.20	1338.71	1768.50	40°23'00.173"N	104°20'24.903"W	0.12	
9317.00†	90.000	358.400	6423.00	1769.45	1438.66	1765.60	40°23'01.161"N	104°20'24.940"W	0.12	
9417.00†	90.000	358.520	6423.00	1866.75	1538.63	1762.91	40°23'02.149"N	104°20'24.975"W	0.12	
9517.00†	90.000	358.639	6423.00	1964.10	1638.60	1760.44	40°23'03.136"N	104°20'25.007"W	0.12	
9617.00†	90.000	358.759	6423.00	2061.49	1738.57	1758.17	40°23'04.124"N	104°20'25.036"W	0.12	
9717.00†	90.000	358.879	6423.00	2158.94	1838.55	1756.10	40°23'05.112"N	104°20'25.063"W	0.12	
9817.00†	90.000	358.998	6423.00	2256.43	1938.53	1754.25	40°23'06.100"N	104°20'25.087"W	0.12	
9917.00†	90.000	359.118	6423.00	2353.96	2038.52	1752.61	40°23'07.088"N	104°20'25.108"W	0.12	
10017.00†	90.000	359.237	6423.00	2451.54	2138.51	1751.17	40°23'08.076"N	104°20'25.126"W	0.12	
10117.00†	90.000	359.357	6423.00	2549.17	2238.50	1749.94	40°23'09.065"N	104°20'25.142"W	0.12	
10217.00†	90.000	359.476	6423.00	2646.84	2338.50	1748.93	40°23'10.053"N	104°20'25.155"W	0.12	
10317.00†	90.000	359.596	6423.00	2744.56	2438.49	1748.12	40°23'11.041"N	104°20'25.166"W	0.12	
10417.00†	90.000	359.715	6423.00	2842.32	2538.49	1747.51	40°23'12.029"N	104°20'25.173"W	0.12	
10517.00†	90.000	359.835	6423.00	2940.12	2638.49	1747.12	40°23'13.017"N	104°20'25.178"W	0.12	
10617.00†	90.000	359.954	6423.00	3037.97	2738.49	1746.94	40°23'14.005"N	104°20'25.180"W	0.12	
10717.00†	90.000	0.074	6423.00	3135.86	2838.49	1746.96	40°23'14.993"N	104°20'25.180"W	0.12	
10817.00†	90.000	0.193	6423.00	3233.79	2938.49	1747.20	40°23'15.982"N	104°20'25.177"W	0.12	
10917.00†	90.000	0.313	6423.00	3331.76	3038.49	1747.64	40°23'16.970"N	104°20'25.171"W	0.12	
11017.00†	90.000	0.432	6423.00	3429.78	3138.49	1748.29	40°23'17.958"N	104°20'25.163"W	0.12	
11117.00†	90.000	0.552	6423.00	3527.84	3238.48	1749.15	40°23'18.946"N	104°20'25.151"W	0.12	
11217.00†	90.000	0.672	6423.00	3625.93	3338.48	1750.22	40°23'19.934"N	104°20'25.138"W	0.12	



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11317.00†	90.000	0.791	6423.00	3724.07	3438.47	1751.49	40°23'20.922"N	104°20'25.121"W	0.12	
11417.00†	90.000	0.911	6423.00	3822.25	3538.46	1752.98	40°23'21.910"N	104°20'25.102"W	0.12	
11517.00†	90.000	1.030	6423.00	3920.47	3638.44	1754.67	40°23'22.898"N	104°20'25.080"W	0.12	
11617.00†	90.000	1.150	6423.00	4018.72	3738.43	1756.57	40°23'23.886"N	104°20'25.055"W	0.12	
11717.00†	90.000	1.269	6423.00	4117.02	3838.40	1758.68	40°23'24.874"N	104°20'25.028"W	0.12	
11817.00†	90.000	1.389	6423.00	4215.35	3938.38	1761.00	40°23'25.862"N	104°20'24.998"W	0.12	
11917.00†	90.000	1.508	6423.00	4313.72	4038.34	1763.53	40°23'26.850"N	104°20'24.965"W	0.12	
12017.00†	90.000	1.628	6423.00	4412.13	4138.31	1766.27	40°23'27.838"N	104°20'24.929"W	0.12	
12117.00†	90.000	1.747	6423.00	4510.57	4238.26	1769.21	40°23'28.825"N	104°20'24.891"W	0.12	
12217.00†	90.000	1.867	6423.00	4609.06	4338.21	1772.36	40°23'29.813"N	104°20'24.850"W	0.12	
12317.00†	90.000	1.986	6423.00	4707.57	4438.16	1775.73	40°23'30.801"N	104°20'24.807"W	0.12	
12417.00†	90.000	2.106	6423.00	4806.13	4538.09	1779.30	40°23'31.788"N	104°20'24.761"W	0.12	
12492.32	90.000	2.196	6423.00 <sup>2</sup>	4880.38	4613.36	1782.12	40°23'32.532"N	104°20'24.724"W	0.12	End of 3D Arc (J)
12517.00†	90.000	2.196	6423.00	4904.71	4638.02	1783.07	40°23'32.776"N	104°20'24.712"W	0.00	
12617.00†	90.000	2.196	6423.00	5003.31	4737.95	1786.90	40°23'33.763"N	104°20'24.662"W	0.00	
12717.00†	90.000	2.196	6423.00	5101.91	4837.88	1790.73	40°23'34.751"N	104°20'24.613"W	0.00	
12817.00†	90.000	2.196	6423.00	5200.50	4937.80	1794.56	40°23'35.738"N	104°20'24.563"W	0.00	
12917.00†	90.000	2.196	6423.00	5299.10	5037.73	1798.40	40°23'36.725"N	104°20'24.513"W	0.00	
13017.00†	90.000	2.196	6423.00	5397.70	5137.65	1802.23	40°23'37.713"N	104°20'24.464"W	0.00	
13117.00†	90.000	2.196	6423.00	5496.29	5237.58	1806.06	40°23'38.700"N	104°20'24.414"W	0.00	
13217.00†	90.000	2.196	6423.00	5594.89	5337.51	1809.89	40°23'39.688"N	104°20'24.364"W	0.00	
13317.00†	90.000	2.196	6423.00	5693.49	5437.43	1813.72	40°23'40.675"N	104°20'24.315"W	0.00	
13417.00†	90.000	2.196	6423.00	5792.08	5537.36	1817.56	40°23'41.663"N	104°20'24.265"W	0.00	
13517.00†	90.000	2.196	6423.00	5890.68	5637.29	1821.39	40°23'42.650"N	104°20'24.216"W	0.00	
13617.00†	90.000	2.196	6423.00	5989.28	5737.21	1825.22	40°23'43.638"N	104°20'24.166"W	0.00	
13717.00†	90.000	2.196	6423.00	6087.88	5837.14	1829.05	40°23'44.625"N	104°20'24.116"W	0.00	
13817.00†	90.000	2.196	6423.00	6186.47	5937.07	1832.88	40°23'45.612"N	104°20'24.067"W	0.00	
13917.00†	90.000	2.196	6423.00	6285.07	6036.99	1836.71	40°23'46.600"N	104°20'24.017"W	0.00	
14017.00†	90.000	2.196	6423.00	6383.67	6136.92	1840.55	40°23'47.587"N	104°20'23.967"W	0.00	
14117.00†	90.000	2.196	6423.00	6482.26	6236.85	1844.38	40°23'48.575"N	104°20'23.918"W	0.00	



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14217.00†	90.000	2.196	6423.00	6580.86	6336.77	1848.21	40°23'49.562"N	104°20'23.868"W	0.00	
14317.00†	90.000	2.196	6423.00	6679.46	6436.70	1852.04	40°23'50.550"N	104°20'23.819"W	0.00	
14417.00†	90.000	2.196	6423.00	6778.05	6536.63	1855.87	40°23'51.537"N	104°20'23.769"W	0.00	
14517.00†	90.000	2.196	6423.00	6876.65	6636.55	1859.70	40°23'52.524"N	104°20'23.719"W	0.00	
14617.00†	90.000	2.196	6423.00	6975.25	6736.48	1863.54	40°23'53.512"N	104°20'23.670"W	0.00	
14717.00†	90.000	2.196	6423.00	7073.84	6836.41	1867.37	40°23'54.499"N	104°20'23.620"W	0.00	
14817.00†	90.000	2.196	6423.00	7172.44	6936.33	1871.20	40°23'55.487"N	104°20'23.571"W	0.00	
14917.00†	90.000	2.196	6423.00	7271.04	7036.26	1875.03	40°23'56.474"N	104°20'23.521"W	0.00	
15017.00†	90.000	2.196	6423.00	7369.63	7136.19	1878.86	40°23'57.462"N	104°20'23.471"W	0.00	
15117.00†	90.000	2.196	6423.00	7468.23	7236.11	1882.70	40°23'58.449"N	104°20'23.422"W	0.00	
15217.00†	90.000	2.196	6423.00	7566.83	7336.04	1886.53	40°23'59.436"N	104°20'23.372"W	0.00	
15317.00†	90.000	2.196	6423.00	7665.43	7435.97	1890.36	40°24'00.424"N	104°20'23.322"W	0.00	
15417.00†	90.000	2.196	6423.00	7764.02	7535.89	1894.19	40°24'01.411"N	104°20'23.273"W	0.00	
15517.00†	90.000	2.196	6423.00	7862.62	7635.82	1898.02	40°24'02.399"N	104°20'23.223"W	0.00	
15617.00†	90.000	2.196	6423.00	7961.22	7735.75	1901.85	40°24'03.386"N	104°20'23.174"W	0.00	
15717.00†	90.000	2.196	6423.00	8059.81	7835.67	1905.69	40°24'04.374"N	104°20'23.124"W	0.00	
15817.00†	90.000	2.196	6423.00	8158.41	7935.60	1909.52	40°24'05.361"N	104°20'23.074"W	0.00	
15917.00†	90.000	2.196	6423.00	8257.01	8035.53	1913.35	40°24'06.349"N	104°20'23.025"W	0.00	
16017.00†	90.000	2.196	6423.00	8355.60	8135.45	1917.18	40°24'07.336"N	104°20'22.975"W	0.00	
16117.00†	90.000	2.196	6423.00	8454.20	8235.38	1921.01	40°24'08.323"N	104°20'22.925"W	0.00	
16217.00†	90.000	2.196	6423.00	8552.80	8335.30	1924.84	40°24'09.311"N	104°20'22.876"W	0.00	
16317.00†	90.000	2.196	6423.00	8651.39	8435.23	1928.68	40°24'10.298"N	104°20'22.826"W	0.00	
16417.00†	90.000	2.196	6423.00	8749.99	8535.16	1932.51	40°24'11.286"N	104°20'22.776"W	0.00	
16517.00†	90.000	2.196	6423.00	8848.59	8635.08	1936.34	40°24'12.273"N	104°20'22.727"W	0.00	
16617.00†	90.000	2.196	6423.00	8947.19	8735.01	1940.17	40°24'13.261"N	104°20'22.677"W	0.00	
16717.00†	90.000	2.196	6423.00	9045.78	8834.94	1944.00	40°24'14.248"N	104°20'22.628"W	0.00	
16817.00†	90.000	2.196	6423.00	9144.38	8934.86	1947.83	40°24'15.235"N	104°20'22.578"W	0.00	
16917.00†	90.000	2.196	6423.00	9242.98	9034.79	1951.67	40°24'16.223"N	104°20'22.528"W	0.00	
17017.00†	90.000	2.196	6423.00	9341.57	9134.72	1955.50	40°24'17.210"N	104°20'22.479"W	0.00	
17117.00†	90.000	2.196	6423.00	9440.17	9234.64	1959.33	40°24'18.198"N	104°20'22.429"W	0.00	





# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17217.00†	90.000	2.196	6423.00	9538.77	9334.57	1963.16	40°24'19.185"N	104°20'22.379"W	0.00	
17288.38	90.000	2.196	6423.00 <sup>3</sup>	9609.15	9405.90	1965.90	40°24'19.890"N	104°20'22.344"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS									
- Ref Wellbore: ANTELOPE FEDERAL 44-20-17XRLNC PWB					Ref Wellpath: ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)				
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]
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1523.17	0.00	0.00	-140.93	153.80



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION				
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)	
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC	
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB	
Facility	SEC.20-T05N-R62W			

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T05N-R62W		-8.00	-468.09	-1498.69	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
SEC.20-T05N-R62W		-8.00	-468.09	-1498.69	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
SEC.17/20-T05N-R62W (460'FNL/FSL SETBACKS)		6373.00	-468.09	-1498.69	3319828.83	1382769.94	40°22'42.319"N	104°21'07.121"W	polygon
3) ANTELOPE FEDERAL 44-20-17XRLNC BHL (470'FNL & 523'FEL, SEC.20)	17288.38	6423.00	9405.90	1965.90	3323164.56	1392687.74	40°24'19.890"N	104°20'22.344"W	point
ANTELOPE FEDERAL 44-20-17XRLNC LP (0'FSL & 612'FEL, SEC.20)		6423.00	-658.63	1730.19	3323059.78	1382621.42	40°22'40.436"N	104°20'25.400"W	point
1) ANTELOPE FEDERAL 44-20-17XRLNC LP REV-1 (0'FSL & 472'FEL, SEC.20)	7216.93	6423.00	-658.63	1870.19	3323199.77	1382623.24	40°22'40.436"N	104°20'23.591"W	point
2) ANTELOPE FEDERAL 44-20-17XRLNC MP (0'FNL & 618'FEL, SEC.20)	12492.32	6423.00	4613.36	1782.12	3323043.15	1387893.42	40°23'32.532"N	104°20'24.724"W	point

SURVEY PROGRAM -				
Ref Wellbore: ANTELOPE FEDERAL 44-20-17XRLNC PWB		Ref Wellpath: ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating+Axial Corr)		ANTELOPE FEDERAL 44-20-17XRLNC PWB
1550.00	17419.65	BHI AutoTrak Curve (Axial Corr, Short spacing)		ANTELOPE FEDERAL 44-20-17XRLNC PWB



# Planned Wellpath Report

ANTELOPE FEDERAL 44-20-17XRLNC PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#31 ANTELOPE FEDERAL 44-20-17XRLNC (669'FSL & 2350'FEL, SEC.20)
Area	COLORADO	Well	ANTELOPE FEDERAL 44-20-17XRLNC
Field	WELD COUNTY	Wellbore	ANTELOPE FEDERAL 44-20-17XRLNC PWB
Facility	SEC.20-T05N-R62W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	132.500	17.00	Tie On
450.00	0.000	132.500	450.00	End of Tangent
1625.00	23.500	132.500	1592.33	End of Build
3159.98	23.500	132.500	3000.00	End of Tangent
3377.01	24.124	121.847	3198.65	End of 3D Arc (S)
6178.07	24.124	121.847	5755.07	End of Tangent (S)
7216.93	90.000	355.890	6423.00	End of 3D Arc (S)
12492.32	90.000	2.196	6423.00	End of 3D Arc (J)
17288.38	90.000	2.196	6423.00	End of Tangent (J)