

# BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL, SEC.13)  
Field: WELD COUNTY Well: STATE ANTELOPE Y44-E14-13HNB  
Facility: SEC.13-T5N-R62W Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB

Plot reference wellpath is STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

True vertical depths are referenced to RIG (17) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (17) (RKB)	North Reference: True north
RIG (17) (RKB) to Mean Sea Level: 4590 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL, SEC.13): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 2018-11-15
	Database: WA DENVER

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.13-T5N-R62W			3339859.889	1389969.906	40°23'50.820"N	104°15'47.028"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL, SEC.13)	1315.94	4472.99	3344314.164	1391347.212	40°24'03.820"N	104°15'49.212"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL, SEC.13))			4590ft			
Mean Sea Level to Ground level (At Slot: SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL, SEC.13))			0ft			
RIG (17) (RKB) to Mean Sea Level			4590ft			

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating)		STATE ANTELOPE Y44-E14-13HNB PWB
1550.00	11675.40	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y44-E14-13HNB PWB

## Hole and Casing Sections

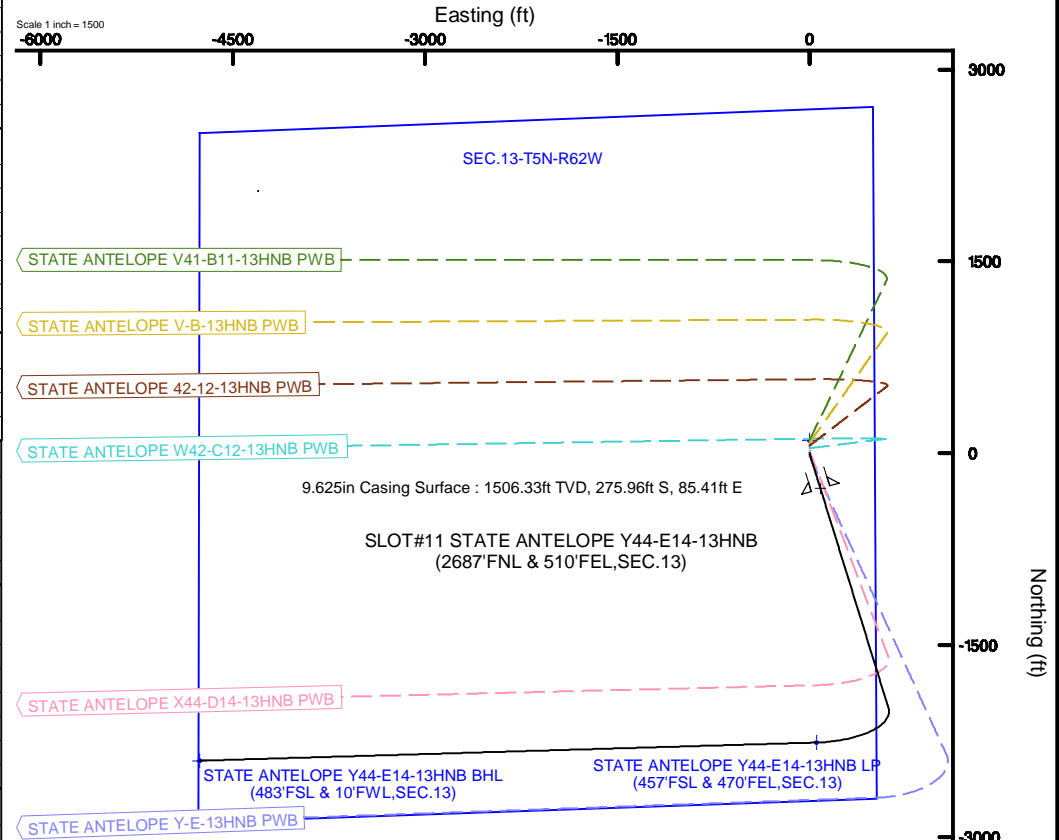
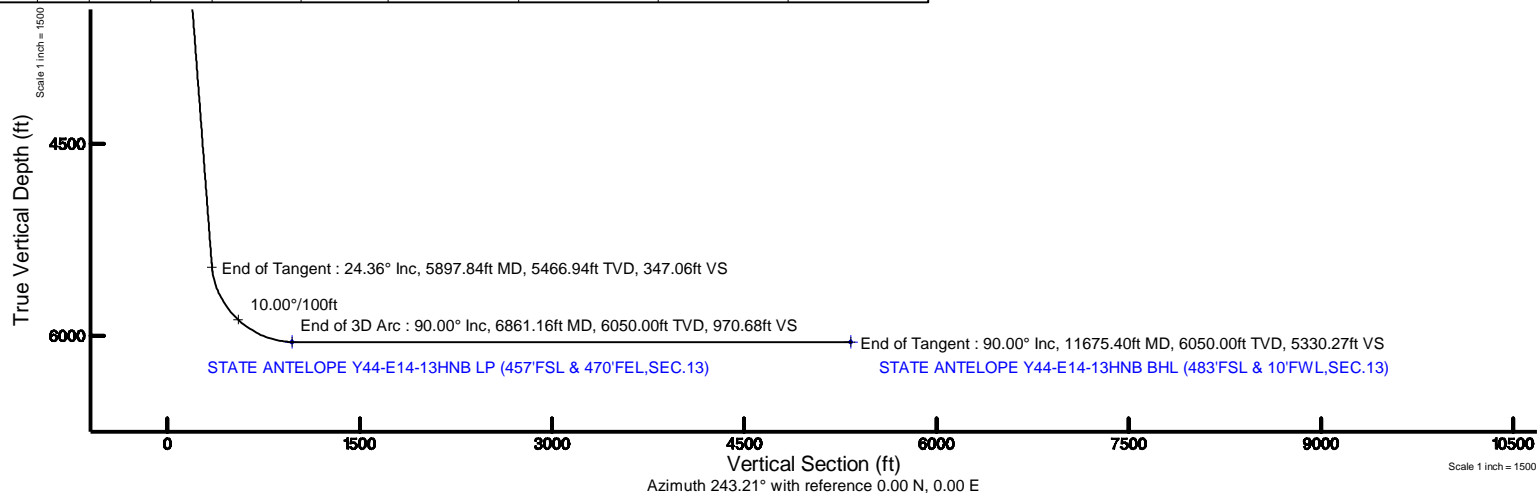
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41	STATE ANTELOPE Y44-E14-13HNB PWB
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41	STATE ANTELOPE Y44-E14-13HNB PWB
8.5in Open Hole	1550.00	11675.40	10125.40	1506.33	N/A	-275.96	85.41	N/A	N/A	STATE ANTELOPE Y44-E14-13HNB 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	162.802	17.00	0.00	0.00	0.00	0.00
End of Tangent	250.00	0.000	162.802	250.00	0.00	0.00	0.00	0.00
End of Build	1468.23	24.365	162.802	1431.85	-243.74	75.44	2.00	42.52
End of Tangent	5897.84	24.365	162.802	5466.94	-1989.43	615.75	0.00	347.06
End of 3D Arc	6861.16	90.000	268.310	6050.00	-2260.56	54.04	10.00	970.68
End of Tangent	11675.40	90.000	268.310	6050.00	-2402.54	-4758.10	0.00	5330.27

## 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
11675.40	90.000	268.310	6050.00	-2402.54	-4758.10	3339590.22	1388878.67	40°23'40.074"N	104°16'50.707"W



BGGM (1945.0 to 2015.0) Dip: 67.01° Field: 52833.7 nT  
Magnetic North is 8.26 degrees East of True North (at 4/24/2014)

To correct azimuth from Magnetic to True add 8.26 degrees



# Planned Wellpath Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

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	0.999960	Report Generated	11/15/2018 at 10:35:01 AM
Convergence at slot	0.80° East	Database/Source file	WA DENVER/STATE_ ANTELOPE_Y44-E14-13HNB_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	1315.94	4472.99	3344314.16	1391347.21	40°24'03.820"N	104°15'49.212"W
Facility Reference Pt			3339859.89	1389969.91	40°23'50.820"N	104°16'47.028"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	4590.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4590.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13))	4590.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	243.21°



Planned Wellpath Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

WELLPATH DATA (123 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	162.802	0.00	0.00	0.00	0.00	40°24'03.820"N	104°15'49.212"W	0.00	
17.00	0.000	162.802	17.00	0.00	0.00	0.00	40°24'03.820"N	104°15'49.212"W	0.00	Tie On
117.00†	0.000	162.802	117.00	0.00	0.00	0.00	40°24'03.820"N	104°15'49.212"W	0.00	
217.00†	0.000	162.802	217.00	0.00	0.00	0.00	40°24'03.820"N	104°15'49.212"W	0.00	
250.00	0.000	162.802	250.00	0.00	0.00	0.00	40°24'03.820"N	104°15'49.212"W	0.00	End of Tangent
317.00†	1.340	162.802	316.99	0.13	-0.75	0.23	40°24'03.812"N	104°15'49.209"W	2.00	
417.00†	3.340	162.802	416.91	0.81	-4.65	1.44	40°24'03.774"N	104°15'49.193"W	2.00	
517.00†	5.340	162.802	516.61	2.07	-11.88	3.68	40°24'03.702"N	104°15'49.164"W	2.00	
617.00†	7.340	162.802	616.00	3.91	-22.43	6.94	40°24'03.598"N	104°15'49.122"W	2.00	
717.00†	9.340	162.802	714.93	6.33	-36.28	11.23	40°24'03.461"N	104°15'49.067"W	2.00	
817.00†	11.340	162.802	813.31	9.32	-53.43	16.54	40°24'03.292"N	104°15'48.998"W	2.00	
917.00†	13.340	162.802	910.99	12.88	-73.84	22.85	40°24'03.090"N	104°15'48.917"W	2.00	
1017.00†	15.340	162.802	1007.87	17.01	-97.50	30.18	40°24'02.856"N	104°15'48.822"W	2.00	
1117.00†	17.340	162.802	1103.83	21.70	-124.38	38.50	40°24'02.591"N	104°15'48.714"W	2.00	
1217.00†	19.340	162.802	1198.74	26.94	-154.43	47.80	40°24'02.294"N	104°15'48.594"W	2.00	
1317.00†	21.340	162.802	1292.50	32.73	-187.64	58.07	40°24'01.965"N	104°15'48.461"W	2.00	
1417.00†	23.340	162.802	1384.99	39.07	-223.94	69.31	40°24'01.607"N	104°15'48.316"W	2.00	
1468.23	24.365	162.802	1431.85	42.52	-243.74	75.44	40°24'01.411"N	104°15'48.237"W	2.00	End of Build
1517.00†	24.365	162.802	1476.27	45.87	-262.95	81.39	40°24'01.221"N	104°15'48.160"W	0.00	
1617.00†	24.365	162.802	1567.37	52.75	-302.36	93.58	40°24'00.832"N	104°15'48.002"W	0.00	
1717.00†	24.365	162.802	1658.46	59.62	-341.77	105.78	40°24'00.442"N	104°15'47.845"W	0.00	
1817.00†	24.365	162.802	1749.55	66.50	-381.18	117.98	40°24'00.053"N	104°15'47.687"W	0.00	
1917.00†	24.365	162.802	1840.65	73.37	-420.59	130.18	40°23'59.663"N	104°15'47.529"W	0.00	
2017.00†	24.365	162.802	1931.74	80.25	-460.00	142.38	40°23'59.274"N	104°15'47.372"W	0.00	
2117.00†	24.365	162.802	2022.83	87.12	-499.41	154.57	40°23'58.885"N	104°15'47.214"W	0.00	
2217.00†	24.365	162.802	2113.93	94.00	-538.82	166.77	40°23'58.495"N	104°15'47.056"W	0.00	
2317.00†	24.365	162.802	2205.02	100.87	-578.23	178.97	40°23'58.106"N	104°15'46.899"W	0.00	
2417.00†	24.365	162.802	2296.12	107.75	-617.64	191.17	40°23'57.716"N	104°15'46.741"W	0.00	
2517.00†	24.365	162.802	2387.21	114.62	-657.05	203.36	40°23'57.327"N	104°15'46.583"W	0.00	
2617.00†	24.365	162.802	2478.30	121.50	-696.46	215.56	40°23'56.937"N	104°15'46.426"W	0.00	
2717.00†	24.365	162.802	2569.40	128.37	-735.87	227.76	40°23'56.548"N	104°15'46.268"W	0.00	
2817.00†	24.365	162.802	2660.49	135.25	-775.28	239.96	40°23'56.159"N	104°15'46.111"W	0.00	
2917.00†	24.365	162.802	2751.59	142.12	-814.69	252.15	40°23'55.769"N	104°15'45.953"W	0.00	
3017.00†	24.365	162.802	2842.68	149.00	-854.10	264.35	40°23'55.380"N	104°15'45.795"W	0.00	
3117.00†	24.365	162.802	2933.77	155.87	-893.51	276.55	40°23'54.990"N	104°15'45.638"W	0.00	
3217.00†	24.365	162.802	3024.87	162.75	-932.92	288.75	40°23'54.601"N	104°15'45.480"W	0.00	

WELLPATH DATA (123 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	24.365	162.802	3115.96	169.62	-972.33	300.94	40°23'54.211"N	104°15'45.322"W	0.00	
3417.00†	24.365	162.802	3207.05	176.50	-1011.74	313.14	40°23'53.822"N	104°15'45.165"W	0.00	
3517.00†	24.365	162.802	3298.15	183.37	-1051.15	325.34	40°23'53.432"N	104°15'45.007"W	0.00	
3617.00†	24.365	162.802	3389.24	190.25	-1090.56	337.54	40°23'53.043"N	104°15'44.849"W	0.00	
3717.00†	24.365	162.802	3480.34	197.12	-1129.97	349.74	40°23'52.654"N	104°15'44.692"W	0.00	
3817.00†	24.365	162.802	3571.43	204.00	-1169.38	361.93	40°23'52.264"N	104°15'44.534"W	0.00	
3917.00†	24.365	162.802	3662.52	210.87	-1208.79	374.13	40°23'51.875"N	104°15'44.376"W	0.00	
4017.00†	24.365	162.802	3753.62	217.75	-1248.20	386.33	40°23'51.485"N	104°15'44.219"W	0.00	
4117.00†	24.365	162.802	3844.71	224.62	-1287.61	398.53	40°23'51.096"N	104°15'44.061"W	0.00	

## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	24.365	162.802	3935.81	231.50	-1327.02	410.72	40°23'50.706"N	104°15'43.903"W	0.00	
4317.00†	24.365	162.802	4026.90	238.37	-1366.43	422.92	40°23'50.317"N	104°15'43.746"W	0.00	
4417.00†	24.365	162.802	4117.99	245.25	-1405.84	435.12	40°23'49.928"N	104°15'43.588"W	0.00	
4517.00†	24.365	162.802	4209.09	252.12	-1445.25	447.32	40°23'49.538"N	104°15'43.431"W	0.00	
4617.00†	24.365	162.802	4300.18	259.00	-1484.66	459.51	40°23'49.149"N	104°15'43.273"W	0.00	
4717.00†	24.365	162.802	4391.27	265.87	-1524.07	471.71	40°23'48.759"N	104°15'43.115"W	0.00	
4817.00†	24.365	162.802	4482.37	272.75	-1563.48	483.91	40°23'48.370"N	104°15'42.958"W	0.00	
4917.00†	24.365	162.802	4573.46	279.62	-1602.89	496.11	40°23'47.980"N	104°15'42.800"W	0.00	
5017.00†	24.365	162.802	4664.56	286.50	-1642.30	508.31	40°23'47.591"N	104°15'42.642"W	0.00	
5117.00†	24.365	162.802	4755.65	293.37	-1681.71	520.50	40°23'47.202"N	104°15'42.485"W	0.00	
5217.00†	24.365	162.802	4846.74	300.25	-1721.12	532.70	40°23'46.812"N	104°15'42.327"W	0.00	
5317.00†	24.365	162.802	4937.84	307.12	-1760.53	544.90	40°23'46.423"N	104°15'42.169"W	0.00	
5417.00†	24.365	162.802	5028.93	314.00	-1799.93	557.10	40°23'46.033"N	104°15'42.012"W	0.00	
5517.00†	24.365	162.802	5120.03	320.87	-1839.34	569.29	40°23'45.644"N	104°15'41.854"W	0.00	
5617.00†	24.365	162.802	5211.12	327.75	-1878.75	581.49	40°23'45.254"N	104°15'41.696"W	0.00	
5717.00†	24.365	162.802	5302.21	334.62	-1918.16	593.69	40°23'44.865"N	104°15'41.539"W	0.00	
5817.00†	24.365	162.802	5393.31	341.50	-1957.57	605.89	40°23'44.475"N	104°15'41.381"W	0.00	
5897.84	24.365	162.802	5466.94	347.06	-1989.43	615.75	40°23'44.161"N	104°15'41.254"W	0.00	End of Tangent
5917.00†	23.963	167.381	5484.43	348.67	-1997.01	617.77	40°23'44.086"N	104°15'41.228"W	10.00	
6017.00†	24.191	192.045	5575.96	366.53	-2036.96	617.93	40°23'43.691"N	104°15'41.226"W	10.00	
6117.00†	28.013	213.198	5665.94	399.80	-2076.75	600.75	40°23'43.298"N	104°15'41.448"W	10.00	
6217.00†	34.242	228.435	5751.63	447.46	-2115.17	566.75	40°23'42.918"N	104°15'41.887"W	10.00	
6317.00†	41.808	239.105	5830.44	508.07	-2151.04	516.98	40°23'42.564"N	104°15'42.530"W	10.00	
6417.00†	50.100	246.910	5899.96	579.77	-2183.28	452.93	40°23'42.245"N	104°15'43.358"W	10.00	
6517.00†	58.800	252.985	5958.08	660.41	-2210.91	376.55	40°23'41.972"N	104°15'44.345"W	10.00	
6617.00†	67.737	258.019	6003.04	747.51	-2233.08	290.17	40°23'41.753"N	104°15'45.462"W	10.00	
6717.00†	76.810	262.440	6033.46	838.44	-2249.14	196.41	40°23'41.594"N	104°15'46.674"W	10.00	
6817.00†	85.953	266.541	6048.44	930.44	-2258.57	98.12	40°23'41.501"N	104°15'47.944"W	10.00	
6861.16	90.000	268.310	6050.00 <sup>1</sup>	970.68	-2260.56	54.04	40°23'41.482"N	104°15'48.514"W	10.00	End of 3D Arc
6917.00†	90.000	268.310	6050.00	1021.24	-2262.20	-1.77	40°23'41.465"N	104°15'49.235"W	0.00	
7017.00†	90.000	268.310	6050.00	1111.80	-2265.15	-101.73	40°23'41.436"N	104°15'50.527"W	0.00	
7117.00†	90.000	268.310	6050.00	1202.35	-2268.10	-201.69	40°23'41.407"N	104°15'51.819"W	0.00	
7217.00†	90.000	268.310	6050.00	1292.91	-2271.05	-301.64	40°23'41.378"N	104°15'53.111"W	0.00	
7317.00†	90.000	268.310	6050.00	1383.47	-2274.00	-401.60	40°23'41.349"N	104°15'54.402"W	0.00	
7417.00†	90.000	268.310	6050.00	1474.02	-2276.95	-501.56	40°23'41.320"N	104°15'55.694"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	268.310	6050.00	1564.58	-2279.90	-601.51	40°23'41.290"N	104°15'56.986"W	0.00	
7617.00†	90.000	268.310	6050.00	1655.13	-2282.85	-701.47	40°23'41.261"N	104°15'58.278"W	0.00	
7717.00†	90.000	268.310	6050.00	1745.69	-2285.80	-801.43	40°23'41.232"N	104°15'59.570"W	0.00	
7817.00†	90.000	268.310	6050.00	1836.25	-2288.75	-901.38	40°23'41.203"N	104°16'00.862"W	0.00	
7917.00†	90.000	268.310	6050.00	1926.80	-2291.70	-1001.34	40°23'41.174"N	104°16'02.154"W	0.00	
8017.00†	90.000	268.310	6050.00	2017.36	-2294.64	-1101.30	40°23'41.144"N	104°16'03.446"W	0.00	
8117.00†	90.000	268.310	6050.00	2107.92	-2297.59	-1201.25	40°23'41.115"N	104°16'04.737"W	0.00	
8217.00†	90.000	268.310	6050.00	2198.47	-2300.54	-1301.21	40°23'41.086"N	104°16'06.029"W	0.00	
8317.00†	90.000	268.310	6050.00	2289.03	-2303.49	-1401.17	40°23'41.057"N	104°16'07.321"W	0.00	
8417.00†	90.000	268.310	6050.00	2379.58	-2306.44	-1501.12	40°23'41.028"N	104°16'08.613"W	0.00	



Planned Wellpath Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

WELLPATH DATA (123 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	268.310	6050.00	2470.14	-2309.39	-1601.08	40°23'40.999"N	104°16'09.905"W	0.00	
8617.00†	90.000	268.310	6050.00	2560.70	-2312.34	-1701.04	40°23'40.969"N	104°16'11.197"W	0.00	
8717.00†	90.000	268.310	6050.00	2651.25	-2315.29	-1800.99	40°23'40.940"N	104°16'12.489"W	0.00	
8817.00†	90.000	268.310	6050.00	2741.81	-2318.24	-1900.95	40°23'40.911"N	104°16'13.781"W	0.00	
8917.00†	90.000	268.310	6050.00	2832.37	-2321.19	-2000.90	40°23'40.882"N	104°16'15.072"W	0.00	
9017.00†	90.000	268.310	6050.00	2922.92	-2324.14	-2100.86	40°23'40.852"N	104°16'16.364"W	0.00	
9117.00†	90.000	268.310	6050.00	3013.48	-2327.09	-2200.82	40°23'40.823"N	104°16'17.656"W	0.00	
9217.00†	90.000	268.310	6050.00	3104.03	-2330.04	-2300.77	40°23'40.794"N	104°16'18.948"W	0.00	
9317.00†	90.000	268.310	6050.00	3194.59	-2332.99	-2400.73	40°23'40.765"N	104°16'20.240"W	0.00	
9417.00†	90.000	268.310	6050.00	3285.15	-2335.94	-2500.69	40°23'40.735"N	104°16'21.532"W	0.00	
9517.00†	90.000	268.310	6050.00	3375.70	-2338.88	-2600.64	40°23'40.706"N	104°16'22.824"W	0.00	
9617.00†	90.000	268.310	6050.00	3466.26	-2341.83	-2700.60	40°23'40.677"N	104°16'24.116"W	0.00	
9717.00†	90.000	268.310	6050.00	3556.82	-2344.78	-2800.56	40°23'40.648"N	104°16'25.407"W	0.00	
9817.00†	90.000	268.310	6050.00	3647.37	-2347.73	-2900.51	40°23'40.618"N	104°16'26.699"W	0.00	
9917.00†	90.000	268.310	6050.00	3737.93	-2350.68	-3000.47	40°23'40.589"N	104°16'27.991"W	0.00	
10017.00†	90.000	268.310	6050.00	3828.48	-2353.63	-3100.43	40°23'40.560"N	104°16'29.283"W	0.00	
10117.00†	90.000	268.310	6050.00	3919.04	-2356.58	-3200.38	40°23'40.531"N	104°16'30.575"W	0.00	
10217.00†	90.000	268.310	6050.00	4009.60	-2359.53	-3300.34	40°23'40.501"N	104°16'31.867"W	0.00	
10317.00†	90.000	268.310	6050.00	4100.15	-2362.48	-3400.30	40°23'40.472"N	104°16'33.159"W	0.00	
10417.00†	90.000	268.310	6050.00	4190.71	-2365.43	-3500.25	40°23'40.443"N	104°16'34.450"W	0.00	
10517.00†	90.000	268.310	6050.00	4281.27	-2368.38	-3600.21	40°23'40.414"N	104°16'35.742"W	0.00	
10617.00†	90.000	268.310	6050.00	4371.82	-2371.33	-3700.17	40°23'40.384"N	104°16'37.034"W	0.00	
10717.00†	90.000	268.310	6050.00	4462.38	-2374.28	-3800.12	40°23'40.355"N	104°16'38.326"W	0.00	
10817.00†	90.000	268.310	6050.00	4552.93	-2377.23	-3900.08	40°23'40.326"N	104°16'39.618"W	0.00	
10917.00†	90.000	268.310	6050.00	4643.49	-2380.18	-4000.03	40°23'40.296"N	104°16'40.910"W	0.00	
11017.00†	90.000	268.310	6050.00	4734.05	-2383.12	-4099.99	40°23'40.267"N	104°16'42.202"W	0.00	
11117.00†	90.000	268.310	6050.00	4824.60	-2386.07	-4199.95	40°23'40.238"N	104°16'43.493"W	0.00	
11217.00†	90.000	268.310	6050.00	4915.16	-2389.02	-4299.90	40°23'40.208"N	104°16'44.785"W	0.00	
11317.00†	90.000	268.310	6050.00	5005.72	-2391.97	-4399.86	40°23'40.179"N	104°16'46.077"W	0.00	
11417.00†	90.000	268.310	6050.00	5096.27	-2394.92	-4499.82	40°23'40.150"N	104°16'47.369"W	0.00	
11517.00†	90.000	268.310	6050.00	5186.83	-2397.87	-4599.77	40°23'40.120"N	104°16'48.661"W	0.00	
11617.00†	90.000	268.310	6050.00	5277.38	-2400.82	-4699.73	40°23'40.091"N	104°16'49.953"W	0.00	
11675.40	90.000	268.310	6050.00 <sup>2</sup>	5330.27	-2402.54	-4758.10	40°23'40.074"N	104°16'50.707"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB      Ref Wellpath: STATE ANTELOPE Y44-E14-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41
8.5in Open Hole	1550.00	11675.40	10125.40	1506.33	N/A	-275.96	85.41	N/A	N/A





Planned Wellpath Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T5N-R62W		0.00	100.19	-0.56	3344312.21	1391447.38	40°24'04.810"N	104°15'49.219"W	polygon
2) STATE ANTELOPE Y44-E14-13HNB BHL (483'FSL & 10'FWL,SEC.13)	11675.40	6050.00	-2402.54	-4758.10	3339590.22	1388878.67	40°23'40.074"N	104°16'50.707"W	point
1) STATE ANTELOPE Y44-E14-13HNB LP (457'FSL & 470'FEL,SEC.13)	6861.16	6050.00	-2260.56	54.04	3344399.71	1389087.72	40°23'41.482"N	104°15'48.514"W	point

SURVEY PROGRAM - Ref Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB    Ref Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE Y44-E14-13HNB PWB
1550.00	11675.40	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y44-E14-13HNB PWB



Planned Wellpath Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	162.802	17.00	Tie On
250.00	0.000	162.802	250.00	End of Tangent
1468.23	24.365	162.802	1431.85	End of Build
5897.84	24.365	162.802	5466.94	End of Tangent
6861.16	90.000	268.310	6050.00	End of 3D Arc
11675.40	90.000	268.310	6050.00	End of Tangent



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

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	0.999960	Report Generated	11/15/2018 at 10:36:20 AM
Convergence at slot	0.80° East	Database/Source file	WA DENVER/STATE_ANTELOPE_Y44-E14-13HNB_PWP_REV-A.0_CR.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1315.94	4472.99	3344314.16	1391347.21	40°24'03.820"N	104°15'49.212"W
Facility Reference Pt			3339859.89	1389969.91	40°23'50.820"N	104°16'47.028"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	4590.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4590.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13))	4590.00ft
MD Reference Pt	RIG (17') (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS					
Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	17.00ft	Surface Position Uncertainty	included
Declination	8.26° East of TN	Dip Angle	67.01°	Mag Field Strength	52834 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft	Vertical	3.000ft
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			

ANTI-COLLISION RULE			
Rule Name	Baker Hughes Stop Drilling (offset is HSE risk)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

HOLE & CASING SECTIONS - Ref Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB      Ref Wellpath: STATE ANTELOPE Y44-E14-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1506.33	0.00	0.00	-275.96	85.41
8.5in Open Hole	1550.00	11675.40	10125.40	1506.33	N/A	-275.96	85.41	N/A	N/A

SURVEY PROGRAM - Ref Wellbore: STATE ANTELOPE Y44-E14-13HNB PWB      Ref Wellpath: STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE Y44-E14-13HNB PWB
1550.00	11675.40	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y44-E14-13HNB PWB

CALCULATION RANGE & CUTOFF		
From: 17.00ft MD	To: 11675.40ft MD	C-C Cutoff: 1000.00 ft

OFFSET WELL CLEARANCE SUMMARY (6 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 of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.13-T5N-R62W	SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13)	STATE ANTELOPE Y-E-13HNB	STATE ANTELOPE Y-E-13HNB PWB	STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)	17.00	20.04	6861.16	11675.40	0.80	11675.40	FAIL
SEC.13-T5N-R62W	SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13)	STATE ANTELOPE X44-D14-13HNB	STATE ANTELOPE X44-D14-13HNB PWB	STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)	17.00	20.04	250.00	11662.61	0.84	11662.61	FAIL
SEC.13-T5N-R62W	SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13)	STATE ANTELOPE W42-C12-13HNB	STATE ANTELOPE W42-C12-13HNB PWB	STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)	17.00	40.08	250.00	11675.40	4.35	11675.40	PASS
SEC.13-T5N-R62W	SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)	STATE ANTELOPE 42-12-13HNB	STATE ANTELOPE 42-12-13HNB PWB	STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)	17.00	60.11	250.00	11675.40	5.22	11675.40	PASS
SEC.13-T5N-R62W	SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13)	STATE ANTELOPE V-B-13HNB	STATE ANTELOPE V-B-13HNB PWB	STATE ANTELOPE V-B-13HNB PWP (REV-A.0)	17.00	80.15	250.00	11675.40	6.09	11675.40	PASS
SEC.13-T5N-R62W	SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13)	STATE ANTELOPE V41-B11-13HNB	STATE ANTELOPE V41-B11-13HNB PWB	STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)	17.00	100.19	117.00	11675.40	6.96	11675.40	PASS









Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)													
Facility: SEC.13-T5N-R62W		Slot: SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13)				Well: STATE ANTELOPE Y-E-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
4317.00†	4026.90	-1366.43	422.92	4283.16	3874.55	-1535.50	693.42	-36.39	353.51	69.84	5.10	PASS	
4417.00†	4117.99	-1405.84	435.12	4382.55	3960.81	-1580.38	713.96	-36.35	364.58	71.83	5.12	PASS	
4517.00†	4209.09	-1445.25	447.32	4481.93	4047.08	-1625.26	734.49	-36.32	375.66	73.82	5.13	PASS	
4617.00†	4300.18	-1484.66	459.51	4581.32	4133.34	-1670.14	755.03	-36.28	386.74	75.82	5.14	PASS	
4717.00†	4391.27	-1524.07	471.71	4680.70	4219.60	-1715.01	775.56	-36.25	397.81	77.82	5.15	PASS	
4817.00†	4482.37	-1563.48	483.91	4780.08	4305.87	-1759.89	796.10	-36.23	408.89	79.82	5.16	PASS	
4917.00†	4573.46	-1602.89	496.11	4879.47	4392.13	-1804.77	816.63	-36.20	419.97	81.83	5.17	PASS	
5017.00†	4664.56	-1642.30	508.31	4978.85	4478.40	-1849.65	837.17	-36.17	431.05	83.84	5.18	PASS	
5117.00†	4755.65	-1681.71	520.50	5078.24	4564.66	-1894.53	857.70	-36.15	442.12	85.86	5.18	PASS	
5217.00†	4846.74	-1721.12	532.70	5177.62	4650.92	-1939.41	878.24	-36.13	453.20	87.88	5.19	PASS	
5317.00†	4937.84	-1760.53	544.90	5277.01	4737.19	-1984.29	898.77	-36.10	464.28	89.90	5.20	PASS	
5417.00†	5028.93	-1799.93	557.10	5376.39	4823.45	-2029.16	919.31	-36.08	475.36	91.92	5.20	PASS	
5517.00†	5120.03	-1839.34	569.29	5475.78	4909.72	-2074.04	939.84	-36.06	486.43	93.95	5.21	PASS	
5617.00†	5211.12	-1878.75	581.49	5575.16	4995.98	-2118.92	960.38	-36.04	497.51	95.98	5.21	PASS	
5717.00†	5302.21	-1918.16	593.69	5674.54	5082.24	-2163.80	980.91	-36.03	508.59	98.01	5.22	PASS	
5817.00†	5393.31	-1957.57	605.89	5773.93	5168.51	-2208.68	1001.45	-36.01	519.67	100.05	5.22	PASS	
5897.84	5466.94	-1989.43	615.75	5854.27	5238.24	-2244.96	1018.05	-35.99	528.62	101.69	5.23	PASS	
5917.00†	5484.43	-1997.01	617.77	5873.28	5254.75	-2253.54	1021.97	-40.04	530.99	102.12	5.23	PASS	
6017.00†	5575.96	-2036.96	617.93	5970.81	5339.39	-2297.58	1042.13	-62.08	551.21	105.70	5.24	PASS	
6117.00†	5665.94	-2076.75	600.75	6063.33	5419.70	-2339.36	1061.24	-80.66	584.51	111.38	5.27	PASS	
6217.00†	5751.63	-2115.17	566.75	6507.01	5798.65	-2541.56	1006.68	-96.04	614.46	98.79	6.26	PASS	
6317.00†	5830.44	-2151.04	516.98	7018.46	6044.30	-2685.53	602.22	-89.15	581.97	67.41	8.71	PASS	
6417.00†	5899.96	-2183.28	452.93	7150.45	6050.00	-2693.14	470.73	-89.68	531.77	79.26	6.76	PASS	
6517.00†	5958.08	-2210.91	376.55	7227.75	6050.00	-2695.83	393.49	-91.65	493.85	84.51	5.88	PASS	
6617.00†	6003.04	-2233.08	290.17	7314.85	6050.00	-2698.87	306.44	-91.61	468.43	90.03	5.24	PASS	
6717.00†	6033.46	-2249.14	196.41	7409.11	6050.00	-2702.16	212.23	-90.77	453.61	95.75	4.77	PASS	
6817.00†	6048.44	-2258.57	98.12	7507.67	6050.00	-2705.60	113.73	-90.10	447.30	101.64	4.42	PASS	
6861.16	6050.00	-2260.56	54.04	7551.79	6050.00	-2707.14	69.63	-90.00	446.86	104.28	4.31	PASS	
6917.00†	6050.00	-2262.20	-1.77	7607.63	6050.00	-2709.09	13.83	-90.00	447.16	107.68	4.17	PASS	
7017.00†	6050.00	-2265.15	-101.73	7707.63	6050.00	-2712.58	-86.11	-90.00	447.70	114.37	3.93	PASS	
7117.00†	6050.00	-2268.10	-201.69	7807.63	6050.00	-2716.07	-186.04	-90.00	448.24	121.68	3.70	PASS	
7217.00†	6050.00	-2271.05	-301.64	7907.63	6050.00	-2719.56	-285.98	-90.00	448.79	129.57	3.48	PASS	
7317.00†	6050.00	-2274.00	-401.60	8007.62	6050.00	-2723.05	-385.92	-90.00	449.33	137.87	3.27	PASS	



CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB    Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13)				Well: STATE ANTELOPE Y-E-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
7417.00†	6050.00	-2276.95	-501.56	8107.62	6050.00	-2726.54	-485.86	-90.00	449.87	146.53	3.08	PASS
7517.00†	6050.00	-2279.90	-601.51	8207.62	6050.00	-2730.03	-585.79	-90.00	450.41	155.48	2.91	PASS
7617.00†	6050.00	-2282.85	-701.47	8307.62	6050.00	-2733.52	-685.73	-90.00	450.95	164.67	2.75	PASS
7717.00†	6050.00	-2285.80	-801.43	8407.62	6050.00	-2737.01	-785.67	-90.00	451.49	174.01	2.60	PASS
7817.00†	6050.00	-2288.75	-901.38	8507.62	6050.00	-2740.50	-885.61	-90.00	452.03	183.60	2.47	PASS
7917.00†	6050.00	-2291.70	-1001.34	8607.62	6050.00	-2743.99	-985.54	-90.00	452.57	193.31	2.35	PASS
8017.00†	6050.00	-2294.64	-1101.30	8707.61	6050.00	-2747.48	-1085.48	-90.00	453.11	203.14	2.23	PASS
8117.00†	6050.00	-2297.59	-1201.25	8807.61	6050.00	-2750.97	-1185.42	-90.00	453.66	213.08	2.13	PASS
8217.00†	6050.00	-2300.54	-1301.21	8907.61	6050.00	-2754.46	-1285.36	-90.00	454.20	223.10	2.04	PASS
8317.00†	6050.00	-2303.49	-1401.17	9007.61	6050.00	-2757.95	-1385.29	-90.00	454.74	233.20	1.95	PASS
8417.00†	6050.00	-2306.44	-1501.12	9107.61	6050.00	-2761.44	-1485.23	-90.00	455.28	243.37	1.87	PASS
8517.00†	6050.00	-2309.39	-1601.08	9207.61	6050.00	-2764.93	-1585.17	-90.00	455.82	253.59	1.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)													
Facility: SEC.13-T5N-R62W		Slot: SLOT#12 STATE ANTELOPE Y-E-13HNB (2699'FSL & 510'FEL,SEC.13)		Well: STATE ANTELOPE Y-E-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8617.00†	6050.00	-2312.34	-1701.04	9307.61	6050.00	-2768.42	-1685.11	-90.00	456.36	263.88	1.73	PASS	
8717.00†	6050.00	-2315.29	-1800.99	9407.60	6050.00	-2771.91	-1785.05	-90.00	456.90	274.20	1.67	PASS	
8817.00†	6050.00	-2318.24	-1900.95	9507.60	6050.00	-2775.40	-1884.98	-90.00	457.44	284.57	1.61	PASS	
8917.00†	6050.00	-2321.19	-2000.90	9607.60	6050.00	-2778.89	-1984.92	-90.00	457.98	294.98	1.55	PASS	
9017.00†	6050.00	-2324.14	-2100.86	9707.60	6050.00	-2782.38	-2084.86	-90.00	458.53	305.42	1.50	PASS	
9117.00†	6050.00	-2327.09	-2200.82	9807.60	6050.00	-2785.87	-2184.80	-90.00	459.07	315.89	1.45	PASS	
9217.00†	6050.00	-2330.04	-2300.77	9907.60	6050.00	-2789.36	-2284.73	-90.00	459.61	326.39	1.41	PASS	
9317.00†	6050.00	-2332.99	-2400.73	10007.60	6050.00	-2792.85	-2384.67	-90.00	460.15	336.91	1.37	PASS	
9417.00†	6050.00	-2335.94	-2500.69	10107.59	6050.00	-2796.34	-2484.61	-90.00	460.69	347.46	1.33	PASS	
9517.00†	6050.00	-2338.88	-2600.64	10207.59	6050.00	-2799.83	-2584.55	-90.00	461.23	358.03	1.29	PASS	
9617.00†	6050.00	-2341.83	-2700.60	10307.59	6050.00	-2803.33	-2684.48	-90.00	461.77	368.61	1.25	PASS	
9717.00†	6050.00	-2344.78	-2800.56	10407.59	6050.00	-2806.82	-2784.42	-90.00	462.31	379.21	1.22	PASS	
9817.00†	6050.00	-2347.73	-2900.51	10507.59	6050.00	-2810.31	-2884.36	-90.00	462.85	389.83	1.19	PASS	
9917.00†	6050.00	-2350.68	-3000.47	10607.59	6050.00	-2813.80	-2984.30	-90.00	463.40	400.46	1.16	PASS	
10017.00†	6050.00	-2353.63	-3100.43	10707.59	6050.00	-2817.29	-3084.23	-90.00	463.94	411.11	1.13	PASS	
10117.00†	6050.00	-2356.58	-3200.38	10807.58	6050.00	-2820.78	-3184.17	-90.00	464.48	421.76	1.10	PASS	
10217.00†	6050.00	-2359.53	-3300.34	10907.58	6050.00	-2824.27	-3284.11	-90.00	465.02	432.43	1.08	PASS	
10317.00†	6050.00	-2362.48	-3400.30	11007.58	6050.00	-2827.76	-3384.05	-90.00	465.56	443.11	1.05	PASS	
10417.00†	6050.00	-2365.43	-3500.25	11107.58	6050.00	-2831.25	-3483.98	-90.00	466.10	453.80	1.03	PASS	
10517.00†	6050.00	-2368.38	-3600.21	11207.58	6050.00	-2834.74	-3583.92	-90.00	466.64	464.50	1.00	PASS	
10617.00†	6050.00	-2371.33	-3700.17	11307.58	6050.00	-2838.23	-3683.86	-90.00	467.18	475.21	0.98	FAIL	
10717.00†	6050.00	-2374.28	-3800.12	11407.57	6050.00	-2841.72	-3783.80	-90.00	467.72	485.92	0.96	FAIL	
10817.00†	6050.00	-2377.23	-3900.08	11507.57	6050.00	-2845.21	-3883.74	-90.00	468.27	496.64	0.94	FAIL	
10917.00†	6050.00	-2380.18	-4000.03	11607.57	6050.00	-2848.70	-3983.67	-90.00	468.81	507.37	0.92	FAIL	
11017.00†	6050.00	-2383.12	-4099.99	11707.57	6050.00	-2852.19	-4083.61	-90.00	469.35	518.11	0.91	FAIL	
11117.00†	6050.00	-2386.07	-4199.95	11807.57	6050.00	-2855.68	-4183.55	-90.00	469.89	528.85	0.89	FAIL	
11217.00†	6050.00	-2389.02	-4299.90	11907.57	6050.00	-2859.17	-4283.49	-90.00	470.43	539.60	0.87	FAIL	
11317.00†	6050.00	-2391.97	-4399.86	12007.57	6050.00	-2862.66	-4383.42	-90.00	470.97	550.35	0.86	FAIL	
11417.00†	6050.00	-2394.92	-4499.82	12107.56	6050.00	-2866.15	-4483.36	-90.00	471.51	561.11	0.84	FAIL	
11517.00†	6050.00	-2397.87	-4599.77	12207.56	6050.00	-2869.64	-4583.30	-90.00	472.05	571.87	0.83	FAIL	
11617.00†	6050.00	-2400.82	-4699.73	12307.56	6050.00	-2873.13	-4683.24	-90.00	472.59	582.64	0.81	FAIL	
11675.40	6050.00	-2402.54	-4758.10	12365.96	6050.00	-2875.17	-4741.60	-90.00	472.91	588.93	0.80	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB    Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB    Offset Wellpath: STATE ANTELOPE Y-E-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1500.59	-12.21	0.00	-98.76	39.60
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1500.59	-12.21	0.00	-98.76	39.60
8.5in Open Hole	1550.00	12383.68	10833.68	1500.59	N/A	-98.76	39.60	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB    Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE Y-E-13HNB PWB
1550.00	12383.68	BHI AutoTrak Curve (Short)		STATE ANTELOPE Y-E-13HNB PWB

OFFSET WELLPATH REFERENCE -    Offset Wellbore: STATE ANTELOPE Y-E-13HNB PWB    Offset Wellpath: STATE ANTELOPE Y-E-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft







Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)													
Facility: SEC.13-T5N-R62W		Slot: SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13)				Well: STATE ANTELOPE X44-D14-13HNB			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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
4317.00†	4026.90	-1366.43	422.92	4318.59	4109.39	-1123.20	437.36	-160.48	257.24	51.82	5.02	PASS	
4417.00†	4117.99	-1405.84	435.12	4418.32	4202.87	-1155.64	449.78	-160.53	264.61	53.23	5.02	PASS	
4517.00†	4209.09	-1445.25	447.32	4518.04	4296.35	-1188.08	462.19	-160.57	271.97	54.65	5.03	PASS	
4617.00†	4300.18	-1484.66	459.51	4617.77	4389.84	-1220.53	474.61	-160.60	279.34	56.07	5.03	PASS	
4717.00†	4391.27	-1524.07	471.71	4717.50	4483.32	-1252.97	487.03	-160.64	286.71	57.50	5.04	PASS	
4817.00†	4482.37	-1563.48	483.91	4817.23	4576.80	-1285.41	499.45	-160.67	294.08	58.93	5.04	PASS	
4917.00†	4573.46	-1602.89	496.11	4916.96	4670.28	-1317.85	511.87	-160.71	301.44	60.37	5.04	PASS	
5017.00†	4664.56	-1642.30	508.31	5016.68	4763.77	-1350.29	524.29	-160.74	308.81	61.82	5.04	PASS	
5117.00†	4755.65	-1681.71	520.50	5116.41	4857.25	-1382.73	536.71	-160.77	316.18	63.27	5.04	PASS	
5217.00†	4846.74	-1721.12	532.70	5216.14	4950.73	-1415.18	549.13	-160.79	323.55	64.72	5.04	PASS	
5317.00†	4937.84	-1760.53	544.90	5315.87	5044.22	-1447.62	561.54	-160.82	330.91	66.18	5.04	PASS	
5417.00†	5028.93	-1799.93	557.10	5415.60	5137.70	-1480.06	573.96	-160.85	338.28	67.64	5.04	PASS	
5517.00†	5120.03	-1839.34	569.29	5515.32	5231.18	-1512.50	586.38	-160.87	345.65	69.10	5.04	PASS	
5617.00†	5211.12	-1878.75	581.49	5615.05	5324.66	-1544.94	598.80	-160.89	353.02	70.57	5.04	PASS	
5717.00†	5302.21	-1918.16	593.69	5714.78	5418.15	-1577.38	611.22	-160.92	360.39	72.04	5.04	PASS	
5817.00†	5393.31	-1957.57	605.89	5817.49	5514.75	-1611.02	619.41	-161.66	367.46	72.68	5.10	PASS	
5897.84	5466.94	-1989.43	615.75	5898.68	5591.06	-1637.90	613.50	-164.12	372.81	71.04	5.29	PASS	
5917.00†	5484.43	-1997.01	617.77	5917.26	5608.35	-1644.03	610.54	-169.18	374.17	70.52	5.35	PASS	
6017.00†	5575.96	-2036.96	617.93	6011.78	5694.31	-1674.73	586.39	163.77	382.38	68.18	5.66	PASS	
6117.00†	5665.94	-2076.75	600.75	6102.75	5772.31	-1702.96	549.31	140.57	392.02	67.09	5.89	PASS	
6217.00†	5751.63	-2115.17	566.75	6190.76	5841.50	-1728.37	501.37	123.74	402.44	66.93	6.07	PASS	
6317.00†	5830.44	-2151.04	516.98	6276.36	5901.30	-1750.72	444.47	112.03	412.96	67.51	6.17	PASS	
6417.00†	5899.96	-2183.28	452.93	6360.03	5951.32	-1769.82	380.27	103.82	422.93	68.68	6.21	PASS	
6517.00†	5958.08	-2210.91	376.55	6442.19	5991.29	-1785.53	310.31	98.03	431.78	70.49	6.18	PASS	
6617.00†	6003.04	-2233.08	290.17	6523.19	6021.01	-1797.76	236.03	94.03	439.04	73.05	6.06	PASS	
6717.00†	6033.46	-2249.14	196.41	6603.39	6040.37	-1806.44	158.76	91.49	444.34	76.47	5.86	PASS	
6817.00†	6048.44	-2258.57	98.12	6683.07	6049.33	-1811.52	79.81	90.19	447.43	80.62	5.59	PASS	
6861.16	6050.00	-2260.56	54.04	6719.86	6050.00	-1812.65	43.05	90.00	448.04	82.63	5.46	PASS	
6917.00†	6050.00	-2262.20	-1.77	6775.69	6050.00	-1814.02	-12.77	90.00	448.31	85.54	5.28	PASS	
7017.00†	6050.00	-2265.15	-101.73	6875.69	6050.00	-1816.47	-112.74	90.00	448.81	91.47	4.94	PASS	
7117.00†	6050.00	-2268.10	-201.69	6975.69	6050.00	-1818.93	-212.71	90.00	449.31	98.27	4.60	PASS	
7217.00†	6050.00	-2271.05	-301.64	7075.69	6050.00	-1821.38	-312.67	90.00	449.81	105.76	4.28	PASS	
7317.00†	6050.00	-2274.00	-401.60	7175.69	6050.00	-1823.83	-412.64	90.00	450.30	119.30	3.79	PASS	

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13)					Well: STATE ANTELOPE X44-D14-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
7417.00↑	6050.00	-2276.95	-501.56	7275.69	6050.00	-1826.28	-512.61	90.00	450.80	122.27	3.70	PASS
7517.00↑	6050.00	-2279.90	-601.51	7375.69	6050.00	-1828.74	-612.58	90.00	451.30	131.09	3.46	PASS
7617.00↑	6050.00	-2282.85	-701.47	7475.68	6050.00	-1831.19	-712.55	90.00	451.80	140.22	3.23	PASS
7717.00↑	6050.00	-2285.80	-801.43	7575.68	6050.00	-1833.64	-812.52	90.00	452.29	149.60	3.03	PASS
7817.00↑	6050.00	-2288.75	-901.38	7675.68	6050.00	-1836.09	-912.49	90.00	452.79	159.18	2.85	PASS
7917.00↑	6050.00	-2291.70	-1001.34	7775.68	6050.00	-1838.54	-1012.46	90.00	453.29	168.92	2.69	PASS
8017.00↑	6050.00	-2294.64	-1101.30	7875.68	6050.00	-1841.00	-1112.42	90.00	453.78	178.79	2.54	PASS
8117.00↑	6050.00	-2297.59	-1201.25	7975.68	6050.00	-1843.45	-1212.39	90.00	454.28	188.77	2.41	PASS
8217.00↑	6050.00	-2300.54	-1301.21	8075.68	6050.00	-1845.90	-1312.36	90.00	454.78	198.84	2.29	PASS
8317.00↑	6050.00	-2303.49	-1401.17	8175.68	6050.00	-1848.35	-1412.33	90.00	455.28	209.00	2.18	PASS
8417.00↑	6050.00	-2306.44	-1501.12	8275.68	6050.00	-1850.81	-1512.30	90.00	455.77	219.23	2.08	PASS
8517.00↑	6050.00	-2309.39	-1601.08	8375.67	6050.00	-1853.26	-1612.27	90.00	456.27	229.52	1.99	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#10 STATE ANTELOPE X44-D14-13HNB (2667'FNL & 510'FEL,SEC.13)				Well: STATE ANTELOPE X44-D14-13HNB			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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8617.00†	6050.00	-2312.34	-1701.04	8475.67	6050.00	-1855.71	-1712.24	90.00	456.77	239.86	1.91	PASS
8717.00†	6050.00	-2315.29	-1800.99	8575.67	6050.00	-1858.16	-1812.21	90.00	457.27	250.25	1.83	PASS
8817.00†	6050.00	-2318.24	-1900.95	8675.67	6050.00	-1860.61	-1912.17	90.00	457.76	260.68	1.76	PASS
8917.00†	6050.00	-2321.19	-2000.90	8775.67	6050.00	-1863.07	-2012.14	90.00	458.26	271.15	1.69	PASS
9017.00†	6050.00	-2324.14	-2100.86	8875.67	6050.00	-1865.52	-2112.11	90.00	458.76	281.65	1.63	PASS
9117.00†	6050.00	-2327.09	-2200.82	8975.67	6050.00	-1867.97	-2212.08	90.00	459.25	292.17	1.57	PASS
9217.00†	6050.00	-2330.04	-2300.77	9075.67	6050.00	-1870.42	-2312.05	90.00	459.75	302.73	1.52	PASS
9317.00†	6050.00	-2332.99	-2400.73	9175.66	6050.00	-1872.88	-2412.02	90.00	460.25	313.30	1.47	PASS
9417.00†	6050.00	-2335.94	-2500.69	9275.66	6050.00	-1875.33	-2511.99	90.00	460.75	323.90	1.42	PASS
9517.00†	6050.00	-2338.88	-2600.64	9375.66	6050.00	-1877.78	-2611.95	90.00	461.24	334.52	1.38	PASS
9617.00†	6050.00	-2341.83	-2700.60	9475.66	6050.00	-1880.23	-2711.92	90.00	461.74	345.15	1.34	PASS
9717.00†	6050.00	-2344.78	-2800.56	9575.66	6050.00	-1882.68	-2811.89	90.00	462.24	355.80	1.30	PASS
9817.00†	6050.00	-2347.73	-2900.51	9675.66	6050.00	-1885.14	-2911.86	90.00	462.74	366.47	1.26	PASS
9917.00†	6050.00	-2350.68	-3000.47	9775.66	6050.00	-1887.59	-3011.83	90.00	463.23	377.14	1.23	PASS
10017.00†	6050.00	-2353.63	-3100.43	9875.66	6050.00	-1890.04	-3111.80	90.00	463.73	387.83	1.20	PASS
10117.00†	6050.00	-2356.58	-3200.38	9975.65	6050.00	-1892.49	-3211.77	90.00	464.23	398.53	1.17	PASS
10217.00†	6050.00	-2359.53	-3300.34	10075.65	6050.00	-1894.95	-3311.74	90.00	464.72	409.24	1.14	PASS
10317.00†	6050.00	-2362.48	-3400.30	10175.65	6050.00	-1897.40	-3411.70	90.00	465.22	419.96	1.11	PASS
10417.00†	6050.00	-2365.43	-3500.25	10275.65	6050.00	-1899.85	-3511.67	90.00	465.72	430.69	1.08	PASS
10517.00†	6050.00	-2368.38	-3600.21	10375.65	6050.00	-1902.30	-3611.64	90.00	466.22	441.42	1.06	PASS
10617.00†	6050.00	-2371.33	-3700.17	10475.65	6050.00	-1904.75	-3711.61	90.00	466.71	452.17	1.03	PASS
10717.00†	6050.00	-2374.28	-3800.12	10575.65	6050.00	-1907.21	-3811.58	90.00	467.21	462.92	1.01	PASS
10817.00†	6050.00	-2377.23	-3900.08	10675.65	6050.00	-1909.66	-3911.55	90.00	467.71	473.68	0.99	FAIL
10917.00†	6050.00	-2380.18	-4000.03	10775.64	6050.00	-1912.11	-4011.52	90.00	468.21	484.44	0.97	FAIL
11017.00†	6050.00	-2383.12	-4099.99	10875.64	6050.00	-1914.56	-4111.49	90.00	468.70	495.21	0.95	FAIL
11117.00†	6050.00	-2386.07	-4199.95	10975.64	6050.00	-1917.02	-4211.45	90.00	469.20	505.98	0.93	FAIL
11217.00†	6050.00	-2389.02	-4299.90	11075.64	6050.00	-1919.47	-4311.42	90.00	469.70	516.75	0.91	FAIL
11317.00†	6050.00	-2391.97	-4399.86	11175.64	6050.00	-1921.92	-4411.39	90.00	470.19	527.54	0.89	FAIL
11417.00†	6050.00	-2394.92	-4499.82	11275.64	6050.00	-1924.37	-4511.36	90.00	470.69	538.33	0.87	FAIL
11517.00†	6050.00	-2397.87	-4599.77	11375.64	6050.00	-1926.82	-4611.33	90.00	471.19	549.12	0.86	FAIL
11617.00†	6050.00	-2400.82	-4699.73	11475.64	6050.00	-1929.28	-4711.30	90.00	471.69	559.92	0.84	FAIL
11662.61†	6050.00	-2402.17	-4745.32	11521.25	6050.00	-1930.40	-4756.90	90.00	471.91	564.85	0.84	FAIL
11675.40	6050.00	-2402.54	-4758.10	11521.25	6050.00	-1930.40	-4756.90	90.00	472.15	563.76	0.84	FAIL

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1514.18	12.21	-0.17	-61.74	28.14
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1514.18	12.21	-0.17	-61.74	28.14
8.5in Open Hole	1550.00	11521.25	9971.25	1514.18	N/A	-61.74	28.14	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE X44-D14-13HNB PWB
1550.00	11521.25	BHI AutoTrak Curve (Short)		STATE ANTELOPE X44-D14-13HNB PWB

OFFSET WELLPATH REFERENCE -    Offset Wellbore: STATE ANTELOPE X44-D14-13HNB PWB    Offset Wellpath: STATE ANTELOPE X44-D14-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft



Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13)				Well: STATE ANTELOPE W42-C12-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	40.07	-0.28	-0.40	40.08	1.56	65.19	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	40.07	-0.28	-0.40	40.08	2.18	32.08	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	40.07	-0.28	-0.40	40.08	3.16	17.78	PASS
250.00	250.00	0.00	0.00	250.00	250.00	40.07	-0.28	-0.40	40.08	3.50	15.43	PASS
317.00†	316.99	-0.75	0.23	316.99	316.99	40.07	-0.28	-163.51	40.83	4.23	12.21	PASS
417.00†	416.91	-4.65	1.44	416.91	416.91	40.07	-0.28	-164.98	44.76	5.57	9.50	PASS
517.00†	516.61	-11.88	3.68	516.60	516.60	40.08	-0.23	-167.05	52.10	7.02	8.45	PASS
617.00†	616.00	-22.43	6.94	615.92	615.89	40.36	2.05	-167.15	62.97	8.33	8.42	PASS
717.00†	714.93	-36.28	11.23	714.69	714.49	41.05	7.70	-165.21	77.41	9.56	8.89	PASS
817.00†	813.31	-53.43	16.54	812.65	812.03	42.14	16.64	-162.37	95.58	10.77	9.65	PASS
917.00†	910.99	-73.84	22.85	909.78	908.42	43.59	28.49	-159.44	117.59	12.01	10.56	PASS
1017.00†	1007.87	-97.50	30.18	1006.42	1004.25	45.09	40.83	-157.66	143.04	13.19	11.62	PASS
1117.00†	1103.83	-124.38	38.50	1102.22	1099.26	46.59	53.07	-156.80	171.64	14.43	12.67	PASS
1217.00†	1198.74	-154.43	47.80	1197.06	1193.32	48.07	65.19	-156.50	203.32	15.68	13.75	PASS
1317.00†	1292.50	-187.64	58.07	1290.84	1286.31	49.53	77.17	-156.53	238.01	16.94	14.84	PASS
1417.00†	1384.99	-223.94	69.31	1383.43	1378.13	50.97	89.00	-156.76	275.71	18.20	15.94	PASS
1468.23	1431.85	-243.74	75.44	1430.37	1424.68	51.70	94.99	-156.92	296.17	18.82	16.53	PASS
1517.00†	1476.27	-262.95	81.39	1474.89	1468.83	52.40	100.68	-157.24	316.03	19.40	17.09	PASS
1617.00†	1567.37	-302.36	93.58	1566.17	1559.35	53.82	112.34	-157.78	356.77	20.03	18.43	PASS
1717.00†	1658.46	-341.77	105.78	1657.45	1649.87	55.25	124.00	-158.20	397.53	20.51	20.04	PASS
1817.00†	1749.55	-381.18	117.98	1748.72	1740.39	56.67	135.66	-158.55	438.31	20.94	21.63	PASS
1917.00†	1840.65	-420.59	130.18	1840.00	1830.91	58.09	147.32	-158.84	479.09	21.44	23.07	PASS
2017.00†	1931.74	-460.00	142.38	1931.28	1921.43	59.52	158.99	-159.08	519.89	22.02	24.36	PASS
2117.00†	2022.83	-499.41	154.57	2022.56	2011.95	60.94	170.65	-159.29	560.69	22.66	25.51	PASS
2217.00†	2113.93	-538.82	166.77	2113.84	2102.47	62.36	182.31	-159.47	601.50	23.36	26.52	PASS
2317.00†	2205.02	-578.23	178.97	2205.12	2192.99	63.79	193.97	-159.63	642.31	24.12	27.40	PASS
2417.00†	2296.12	-617.64	191.17	2296.40	2283.51	65.21	205.63	-159.76	683.12	24.93	28.17	PASS
2517.00†	2387.21	-657.05	203.36	2387.68	2374.04	66.63	217.29	-159.89	723.94	25.78	28.84	PASS
2617.00†	2478.30	-696.46	215.56	2478.96	2464.56	68.06	228.95	-160.00	764.76	26.68	29.42	PASS
2717.00†	2569.40	-735.87	227.76	2570.24	2555.08	69.48	240.61	-160.09	805.58	27.61	29.92	PASS
2817.00†	2660.49	-775.28	239.96	2661.52	2645.60	70.90	252.27	-160.18	846.41	28.57	30.36	PASS
2917.00†	2751.59	-814.69	252.15	2752.80	2736.12	72.33	263.93	-160.26	887.23	29.56	30.73	PASS
3017.00†	2842.68	-854.10	264.35	2844.08	2826.64	73.75	275.60	-160.34	928.06	30.58	31.05	PASS

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB    Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#09 STATE ANTELOPE W42-C12-13HNB (2647'FNL & 510'FEL,SEC.13)					Well: STATE ANTELOPE W42-C12-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
3117.00†	2933.77	-893.51	276.55	2935.36	2917.16	75.17	287.26	-160.40	968.89	31.62	31.32	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB    Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB    Offset Wellpath: STATE ANTELOPE W42-C12-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1543.32	24.43	-0.17	28.54	33.53
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1543.32	24.43	-0.17	28.54	33.53
8.5in Open Hole	1550.00	11208.26	9658.26	1543.32	6050.00	28.54	33.53	24.57	-1448.51

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB    Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE W42-C12-13HNB PWB
1550.00	11208.26	BHI AutoTrak Curve (Short)		STATE ANTELOPE W42-C12-13HNB PWB

OFFSET WELLPATH REFERENCE -    Offset Wellbore: STATE ANTELOPE W42-C12-13HNB PWB    Offset Wellpath: STATE ANTELOPE W42-C12-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft



Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE 42-12-13HNB PWB Offset Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#08 STATE ANTELOPE 42-12-13HNB (2627'FNL & 510'FEL,SEC.13)				Well: STATE ANTELOPE 42-12-13HNB		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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	60.11	-0.56	-0.53	60.11	1.56	98.58	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	60.11	-0.56	-0.53	60.11	2.18	48.51	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	60.11	-0.56	-0.53	60.11	3.16	26.90	PASS
250.00	250.00	0.00	0.00	250.00	250.00	60.11	-0.56	-0.53	60.11	3.50	23.34	PASS
317.00†	316.99	-0.75	0.23	316.99	316.99	60.11	-0.56	-163.54	60.87	4.23	18.35	PASS
417.00†	416.91	-4.65	1.44	416.69	416.69	60.14	-0.52	-164.50	64.82	5.57	13.86	PASS
517.00†	516.61	-11.88	3.68	514.93	514.90	61.51	1.27	-164.58	73.45	7.05	11.91	PASS
617.00†	616.00	-22.43	6.94	612.33	612.13	64.89	5.69	-163.40	87.41	8.50	11.48	PASS
717.00†	714.93	-36.28	11.23	708.42	707.82	70.19	12.62	-161.63	106.72	9.85	11.91	PASS
817.00†	813.31	-53.43	16.54	802.79	801.46	77.29	21.89	-159.74	131.36	11.14	12.82	PASS
917.00†	910.99	-73.84	22.85	896.60	894.17	86.01	33.28	-158.01	161.07	12.36	14.05	PASS
1017.00†	1007.87	-97.50	30.18	990.92	987.31	95.04	45.09	-157.00	194.20	13.50	15.41	PASS
1117.00†	1103.83	-124.38	38.50	1084.15	1079.37	103.96	56.75	-156.54	230.37	14.67	16.74	PASS
1217.00†	1198.74	-154.43	47.80	1176.16	1170.24	112.77	68.26	-156.41	269.50	15.85	18.04	PASS
1317.00†	1292.50	-187.64	58.07	1266.86	1259.81	121.45	79.61	-156.48	311.56	17.04	19.32	PASS
1417.00†	1384.99	-223.94	69.31	1356.12	1347.95	130.00	90.78	-156.65	356.52	18.26	20.56	PASS
1468.23	1431.85	-243.74	75.44	1401.27	1392.53	134.32	96.43	-156.77	380.68	18.85	21.23	PASS
1517.00†	1476.27	-262.95	81.39	1444.04	1434.77	138.42	101.78	-157.08	404.03	19.36	21.91	PASS
1617.00†	1567.37	-302.36	93.58	1531.75	1521.39	146.82	112.76	-157.61	451.93	20.08	23.35	PASS
1717.00†	1658.46	-341.77	105.78	1619.46	1608.00	155.21	123.73	-158.03	499.86	20.55	25.15	PASS
1817.00†	1749.55	-381.18	117.98	1707.17	1694.61	163.61	134.71	-158.39	547.81	20.95	27.03	PASS
1917.00†	1840.65	-420.59	130.18	1794.88	1781.23	172.01	145.68	-158.68	595.77	21.41	28.74	PASS
2017.00†	1931.74	-460.00	142.38	1882.59	1867.84	180.41	156.66	-158.94	643.75	21.95	30.28	PASS
2117.00†	2022.83	-499.41	154.57	1970.30	1954.46	188.80	167.63	-159.16	691.73	22.54	31.65	PASS
2217.00†	2113.93	-538.82	166.77	2058.00	2041.07	197.20	178.60	-159.34	739.71	23.19	32.87	PASS
2317.00†	2205.02	-578.23	178.97	2145.71	2127.68	205.60	189.58	-159.51	787.71	23.90	33.94	PASS
2417.00†	2296.12	-617.64	191.17	2233.42	2214.30	213.99	200.55	-159.66	835.70	24.65	34.88	PASS
2517.00†	2387.21	-657.05	203.36	2321.13	2300.91	222.39	211.53	-159.79	883.71	25.45	35.69	PASS
2617.00†	2478.30	-696.46	215.56	2408.84	2387.52	230.79	222.50	-159.91	931.71	26.28	36.40	PASS
2717.00†	2569.40	-735.87	227.76	2496.55	2474.14	239.19	233.48	-160.01	979.72	27.16	37.01	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE 42-12-13HNB PWB    Offset Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE 42-12-13HNB PWB    Offset Wellpath: STATE ANTELOPE 42-12-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1539.41	36.64	-0.34	63.60	34.89
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1539.41	36.64	-0.34	63.60	34.89
8.5in Open Hole	1550.00	11226.99	9676.99	1539.41	N/A	63.60	34.89	N/A	N/A





Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE 42-12-13HNB PWB    Offset Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE 42-12-13HNB PWB
1550.00	11226.99	BHI AutoTrak Curve (Short)		STATE ANTELOPE 42-12-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE 42-12-13HNB PWB    Offset Wellpath: STATE ANTELOPE 42-12-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft



Clearance Report  
STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W Slot: SLOT#07 STATE ANTELOPE V-B-13HNB (2607'FNL & 510'FEL,SEC.13)				Well: STATE ANTELOPE V-B-13HNB				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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	80.15	-0.56	-0.40	80.15	1.56	131.98	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	80.15	-0.56	-0.40	80.15	2.18	64.95	PASS
217.00†	217.00	0.00	0.00	217.00	217.00	80.15	-0.56	-0.40	80.15	3.16	36.01	PASS
250.00	250.00	0.00	0.00	250.00	250.00	80.15	-0.56	-0.40	80.15	3.50	31.24	PASS
317.00†	316.99	-0.75	0.23	316.61	316.61	80.19	-0.53	-163.34	80.94	4.23	24.52	PASS
417.00†	416.91	-4.65	1.44	414.13	414.10	82.01	0.75	-163.20	86.70	5.68	18.19	PASS
517.00†	516.61	-11.88	3.68	510.87	510.68	86.49	3.91	-162.50	98.54	7.41	15.13	PASS
617.00†	616.00	-22.43	6.94	606.29	605.71	93.52	8.87	-161.50	116.41	8.92	14.52	PASS
717.00†	714.93	-36.28	11.23	699.90	698.61	102.92	15.51	-160.44	140.22	10.33	14.86	PASS
817.00†	813.31	-53.43	16.54	791.24	788.83	114.48	23.66	-159.43	169.83	11.58	15.90	PASS
917.00†	910.99	-73.84	22.85	879.88	875.93	127.94	33.16	-158.51	205.07	12.82	17.21	PASS
1017.00†	1007.87	-97.50	30.18	969.27	963.32	143.31	44.00	-157.73	245.29	13.92	18.86	PASS
1117.00†	1103.83	-124.38	38.50	1059.38	1051.37	158.97	55.05	-157.30	288.63	15.00	20.50	PASS
1217.00†	1198.74	-154.43	47.80	1148.05	1138.00	174.37	65.91	-157.11	334.86	16.09	22.07	PASS
1317.00†	1292.50	-187.64	58.07	1235.15	1223.12	189.51	76.59	-157.06	383.92	17.24	23.53	PASS
1417.00†	1384.99	-223.94	69.31	1320.60	1306.61	204.35	87.06	-157.09	435.77	18.31	25.06	PASS
1468.23	1431.85	-243.74	75.44	1363.69	1348.72	211.84	92.35	-157.13	463.41	18.87	25.82	PASS
1517.00†	1476.27	-262.95	81.39	1404.49	1388.59	218.93	97.35	-157.40	490.06	19.38	26.56	PASS
1617.00†	1567.37	-302.36	93.58	1488.15	1470.33	233.46	107.60	-157.87	544.72	20.08	28.15	PASS
1717.00†	1658.46	-341.77	105.78	1571.81	1552.08	248.00	117.85	-158.25	599.41	20.58	30.12	PASS
1817.00†	1749.55	-381.18	117.98	1655.47	1633.82	262.54	128.11	-158.58	654.12	21.04	32.14	PASS
1917.00†	1840.65	-420.59	130.18	1739.13	1715.57	277.07	138.36	-158.85	708.83	21.45	34.14	PASS
2017.00†	1931.74	-460.00	142.38	1822.78	1797.31	291.61	148.62	-159.08	763.56	21.93	35.95	PASS
2117.00†	2022.83	-499.41	154.57	1906.44	1879.06	306.14	158.87	-159.28	818.30	22.47	37.57	PASS
2217.00†	2113.93	-538.82	166.77	1990.10	1960.80	320.68	169.12	-159.46	873.04	23.07	39.02	PASS
2317.00†	2205.02	-578.23	178.97	2073.76	2042.55	335.21	179.38	-159.61	927.78	23.71	40.30	PASS
2417.00†	2296.12	-617.64	191.17	2157.42	2124.30	349.75	189.63	-159.75	982.53	24.41	41.43	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)			
Slot Surface Uncertainty @1SD		Horizontal	0.100ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft
		Vertical	1.000ft
		Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB    Offset Wellpath: STATE ANTELOPE V-B-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1530.77	48.86	-0.34	98.86	34.94
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1530.77	48.86	-0.34	98.86	34.94
8.5in Open Hole	1550.00	11280.38	9730.38	1530.77	N/A	98.86	34.94	N/A	N/A



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB    Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE V-B-13HNB PWB
1550.00	11280.38	BHI AutoTrak Curve (Short)		STATE ANTELOPE V-B-13HNB PWB

OFFSET WELLPATH REFERENCE -    Offset Wellbore: STATE ANTELOPE V-B-13HNB PWB    Offset Wellpath: STATE ANTELOPE V-B-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft



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STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

CLEARANCE DATA - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)												
Facility: SEC.13-T5N-R62W		Slot: SLOT#06 STATE ANTELOPE V41-B11-13HNB (2587'FNL & 510'FEL,SEC.13)			Well: STATE ANTELOPE V41-B11-13HNB			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]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17.00	17.00	0.00	0.00	17.00	17.00	100.19	-0.56	-0.32	100.19	1.56	165.37	PASS
117.00†	117.00	0.00	0.00	117.00	117.00	100.19	-0.56	-0.32	100.19	2.18	81.38	PASS
217.00†	217.00	0.00	0.00	216.48	216.48	100.23	-0.54	-0.31	100.23	3.16	45.20	PASS
250.00	250.00	0.00	0.00	248.47	248.47	100.56	-0.38	-0.22	100.57	3.55	38.49	PASS
317.00†	316.99	-0.75	0.23	313.35	313.32	102.21	0.41	-162.68	103.02	4.40	29.67	PASS
417.00†	416.91	-4.65	1.44	409.67	409.48	107.10	2.76	-162.03	112.00	6.17	21.33	PASS
517.00†	516.61	-11.88	3.68	504.86	504.29	114.79	6.46	-161.30	127.30	7.86	18.33	PASS
617.00†	616.00	-22.43	6.94	598.39	597.11	125.11	11.42	-160.61	148.81	9.32	17.69	PASS
717.00†	714.93	-36.28	11.23	689.75	687.37	137.83	17.53	-159.98	176.39	10.69	18.04	PASS
817.00†	813.31	-53.43	16.54	778.48	774.56	152.65	24.65	-159.43	209.85	11.90	19.10	PASS
917.00†	910.99	-73.84	22.85	864.19	858.25	169.27	32.64	-158.94	248.96	13.08	20.47	PASS
1017.00†	1007.87	-97.50	30.18	946.54	938.11	187.36	41.33	-158.49	293.49	14.19	22.12	PASS
1117.00†	1103.83	-124.38	38.50	1027.94	1016.50	207.16	50.85	-158.07	343.07	15.24	23.96	PASS
1217.00†	1198.74	-154.43	47.80	1112.81	1098.07	228.27	60.99	-157.79	395.94	16.26	25.82	PASS
1317.00†	1292.50	-187.64	58.07	1195.90	1177.94	248.94	70.92	-157.62	451.54	17.31	27.57	PASS
1417.00†	1384.99	-223.94	69.31	1277.11	1255.99	269.14	80.62	-157.51	509.80	18.33	29.30	PASS
1468.23	1431.85	-243.74	75.44	1317.96	1295.25	279.30	85.50	-157.48	540.67	18.85	30.17	PASS
1517.00†	1476.27	-262.95	81.39	1356.59	1332.38	288.90	90.12	-157.72	570.37	19.32	31.02	PASS
1617.00†	1567.37	-302.36	93.58	1435.80	1408.52	308.61	99.59	-158.14	631.31	19.97	32.81	PASS
1717.00†	1658.46	-341.77	105.78	1515.01	1484.66	328.31	109.05	-158.49	692.26	20.61	34.82	PASS
1817.00†	1749.55	-381.18	117.98	1594.23	1560.80	348.01	118.52	-158.78	753.23	21.07	36.96	PASS
1917.00†	1840.65	-420.59	130.18	1673.44	1636.94	367.71	127.99	-159.03	814.20	21.49	39.15	PASS
2017.00†	1931.74	-460.00	142.38	1752.65	1713.07	387.41	137.45	-159.24	875.19	21.91	41.24	PASS
2117.00†	2022.83	-499.41	154.57	1831.86	1789.21	407.11	146.92	-159.43	936.18	22.39	43.15	PASS
2217.00†	2113.93	-538.82	166.77	1911.08	1865.35	426.82	156.39	-159.59	997.17	22.92	44.85	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB    Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)				
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB    Offset Wellpath: STATE ANTELOPE V41-B11-13HNB 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]
13.5in Open Hole	17.00	1550.00	1533.00	17.00	1518.29	61.07	-0.34	133.26	34.34
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1518.29	61.07	-0.34	133.26	34.34
8.5in Open Hole	1550.00	11366.41	9816.41	1518.29	N/A	133.26	34.34	N/A	N/A



Clearance Report

STATE ANTELOPE Y44-E14-13HNB PWP (REV-A.0)

Closest Approach

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#11 STATE ANTELOPE Y44-E14-13HNB (2687'FNL & 510'FEL,SEC.13)
Area	COLORADO	Well	STATE ANTELOPE Y44-E14-13HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE Y44-E14-13HNB PWB
Facility	SEC.13-T5N-R62W		

SURVEY PROGRAM - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB    Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating)		STATE ANTELOPE V41-B11-13HNB PWB
1550.00	11366.41	BHI AutoTrak Curve (Short)		STATE ANTELOPE V41-B11-13HNB PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE ANTELOPE V41-B11-13HNB PWB    Offset Wellpath: STATE ANTELOPE V41-B11-13HNB PWP (REV-A.0)	
MD Reference: RIG (17') (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	17.00ft