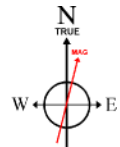


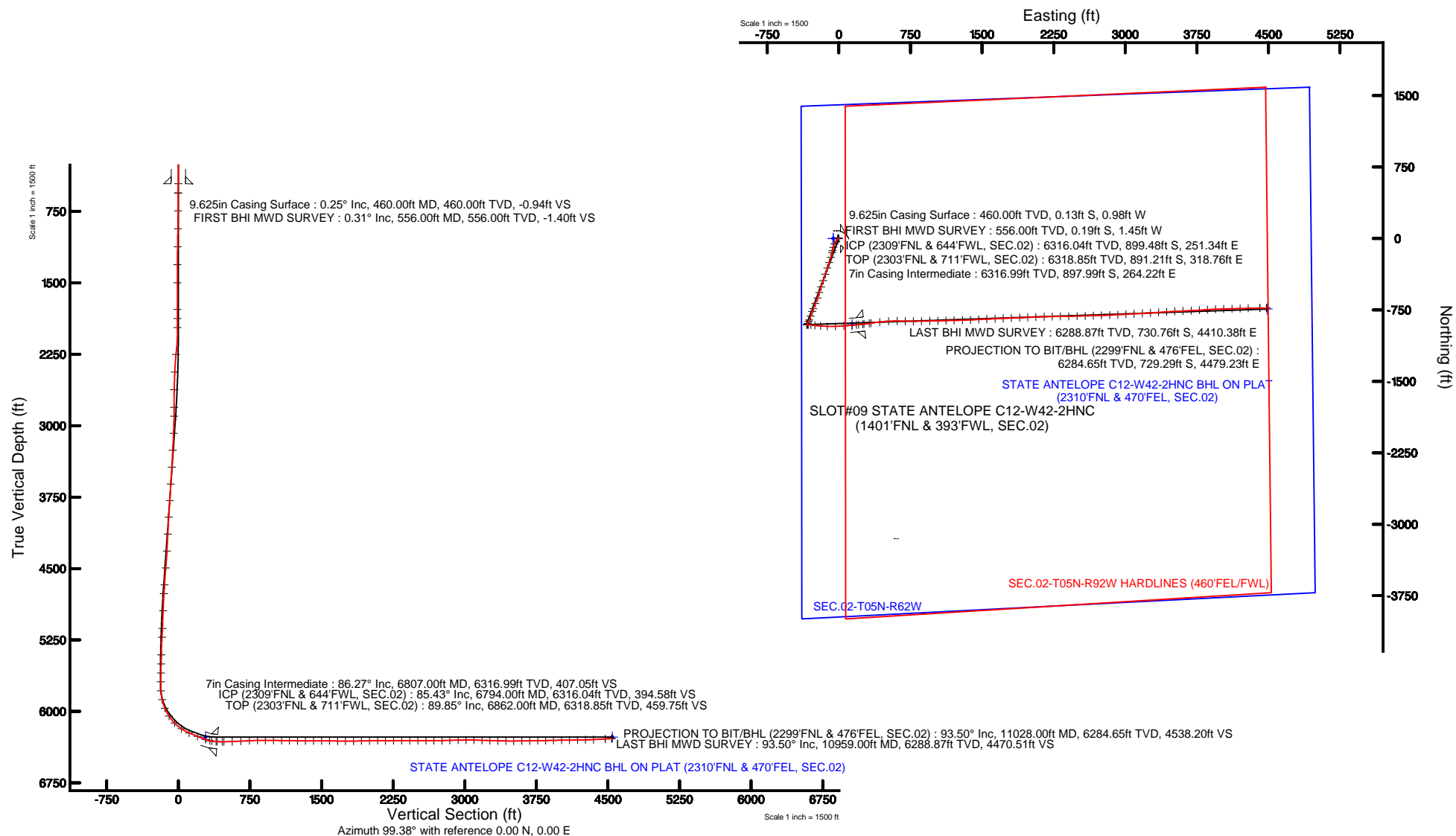
Location:	COLORADO	Slot:	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Field:	WELD COUNTY	Well:	STATE ANTELOPE C12-W42-2HNC
Facility:	SEC.02-T5N-R62W	Wellbore:	STATE ANTELOPE C12-W42-2HNC PWB

Plot reference wellpath is STATE ANTELOPE C12-W42-2HNC PWP (REV-A.0)	
True vertical depths are referenced to XTREME 22 (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 22 (17KB) (RKB)	North Reference: True north
XTREME 22 (17KB) (RKB) to Mean Sea Level: 4664 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTH09 STATE ANTELOPE C12-W42-2HNC (1401FNL & 393FWL, SEC.02): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: jgammr on 10/16/2015



BGGM (1945.0 to 2017.0) Dip: 67.08° Field: 52700.8 nT  
Magnetic North is 8.29 degrees East of True North (at 7/14/2015)

To correct azimuth from Magnetic to True add 8.29 degrees





# Actual Wellpath Report

STATE ANTELOPE C12-W42-2HNC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE C12-W42-2HNC
Field	WELD COUNTY	Wellbore	STATE ANTELOPE C12-W42-2HNC AWB
Facility	SEC.02-T5N-R62W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Ingmjmr
Scale	0.999962	Report Generated	10/16/2015 at 9:00:37 AM
Convergence at slot	0.78° East	Database/Source file	WA_DEN_Denver_Defn/STATE_ANTELOPE_C12-W42-2HNC_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	3152.42	-621.92	3334422.93	1402819.61	40°25'58.523"N	104°17'55.046"W
Facility Reference Pt			3335087.55	1399676.06	40°25'27.372"N	104°17'47.004"W
Field Reference Pt			3335925.10	1457282.25	40°34'56.460"N	104°17'26.016"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 22 (17"KB) (RKB) to Facility Vertical Datum	4664.00ft
Horizontal Reference Pt	Slot	XTREME 22 (17"KB) (RKB) to Mean Sea Level	4664.00ft
Vertical Reference Pt	XTREME 22 (17"KB) (RKB)	XTREME 22 (17"KB) (RKB) to Mud Line at Slot (SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02))	4664.00ft
MD Reference Pt	XTREME 22 (17"KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	99.38°



# Actual Wellpath Report

STATE ANTELOPE C12-W42-2HNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE C12-W42-2HNC
Field	WELD COUNTY	Wellbore	STATE ANTELOPE C12-W42-2HNC AWB
Facility	SEC.02-T5N-R62W		

## WELLPATH DATA (96 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	262.670	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	262.670	17.00	0.00	0.00	0.00	0.00	
556.00	0.310	262.670	556.00	-1.40	-0.19	-1.45	0.06	FIRST BHI MWD SURVEY
744.00	0.660	283.210	743.99	-2.96	0.00	-3.00	0.20	
933.00	0.740	271.500	932.98	-5.26	0.28	-5.28	0.09	
1123.00	0.900	265.610	1122.96	-7.92	0.20	-8.00	0.10	
1310.00	0.170	0.040	1309.95	-9.40	0.36	-9.46	0.50	
1499.00	0.100	292.030	1498.95	-9.60	0.70	-9.62	0.09	
1781.00	0.220	152.780	1780.95	-9.52	0.31	-9.60	0.11	
1876.00	0.270	173.000	1875.95	-9.35	-0.07	-9.49	0.10	
1970.00	3.170	191.720	1969.90	-9.39	-2.84	-9.99	3.10	
2254.00	10.280	223.060	2251.83	-23.79	-29.08	-28.91	2.73	
2443.00	11.330	202.490	2437.54	-37.35	-58.57	-47.54	2.10	
2631.00	10.300	194.550	2622.21	-43.06	-91.90	-58.82	0.96	
2820.00	11.600	190.420	2807.77	-44.93	-126.95	-66.51	0.80	
2914.00	13.950	190.420	2899.44	-45.30	-147.39	-70.26	2.50	
3102.00	18.080	197.710	3080.12	-49.94	-197.49	-83.24	2.44	
3290.00	18.210	198.230	3258.77	-58.69	-253.18	-101.31	0.11	
3478.00	19.720	198.720	3436.56	-68.35	-311.13	-120.68	0.81	
3667.00	22.180	198.400	3613.05	-79.12	-375.19	-142.18	1.30	
3854.00	21.910	198.590	3786.38	-90.24	-441.75	-164.44	0.15	
4042.00	21.310	197.820	3961.17	-100.87	-507.52	-186.08	0.35	
4230.00	18.550	197.710	4137.89	-110.22	-568.54	-205.63	1.47	
4417.00	18.490	198.950	4315.21	-119.46	-624.92	-224.31	0.21	
4605.00	19.560	203.190	4492.94	-131.92	-682.05	-246.39	0.93	
4794.00	17.430	201.380	4672.17	-145.36	-737.50	-269.17	1.17	
4889.00	18.020	199.520	4762.66	-150.91	-764.60	-279.26	0.86	
5078.00	14.980	197.630	4943.86	-159.56	-815.44	-296.43	1.63	
5267.00	11.010	201.760	5127.99	-166.94	-855.50	-310.53	2.16	
5361.00	9.480	205.760	5220.49	-171.05	-870.81	-317.22	1.79	
5549.00	5.880	204.770	5406.77	-177.97	-893.50	-327.99	1.92	
5644.00	4.140	206.040	5501.40	-180.25	-901.00	-331.53	1.84	
5738.00	3.000	215.430	5595.22	-182.30	-906.06	-334.45	1.36	
5832.00	0.210	19.560	5689.18	-183.35	-907.90	-335.82	3.41	
5926.00	2.780	77.240	5783.14	-181.21	-907.23	-333.53	2.84	
6020.00	12.430	89.810	5876.21	-169.09	-906.69	-321.16	10.36	
6114.00	22.250	94.280	5965.83	-141.32	-907.99	-293.23	10.54	
6208.00	33.150	96.430	6048.93	-97.79	-912.21	-249.81	11.64	
6301.00	44.370	95.240	6121.34	-39.78	-918.05	-191.98	12.09	
6395.00	56.190	92.070	6181.31	32.00	-922.48	-119.96	12.84	
6489.00	67.000	87.400	6225.98	113.33	-921.92	-37.43	12.30	
6584.00	69.020	85.980	6261.55	199.26	-916.83	50.50	2.54	
6678.00	69.940	85.900	6294.50	284.88	-910.59	138.32	0.98	
6725.00	78.290	84.310	6307.35	328.65	-906.73	183.31	18.06	
6747.00	82.370	84.110	6311.05	349.58	-904.54	204.89	18.57	



# Actual Wellpath Report

STATE ANTELOPE C12-W42-2HNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE C12-W42-2HNC
Field	WELD COUNTY	Wellbore	STATE ANTELOPE C12-W42-2HNC AWB
Facility	SEC.02-T5N-R62W		

## WELLPATH DATA (96 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6794.00†	85.426	83.466	6316.04	394.58	-899.48	251.34	6.64	CP (2309'FNL & 644'FWL, SEC.02)
6862.00†	89.849	82.544	6318.85	459.75	-891.21	318.76	6.64	TOP (2303'FNL & 711'FWL, SEC.02)
6880.00	91.020	82.300	6318.71	476.97	-888.84	336.60	6.64	
6972.00	92.350	82.910	6316.00	565.01	-877.00	427.79	1.59	
7064.00	92.990	86.300	6311.72	653.86	-868.36	519.27	3.75	
7156.00	92.370	91.090	6307.41	744.14	-866.27	611.12	5.24	
7241.00	90.980	91.490	6304.93	828.26	-868.18	696.06	1.70	
7326.00	89.810	89.950	6304.34	912.28	-869.25	781.05	2.28	
7411.00	89.350	88.770	6304.97	995.98	-868.30	866.04	1.49	
7497.00	89.900	88.750	6305.53	1080.51	-866.44	952.02	0.64	
7582.00	88.640	88.460	6306.61	1164.00	-864.37	1036.98	1.52	
7668.00	89.080	88.200	6308.32	1248.39	-861.87	1122.93	0.59	
7753.00	90.400	89.180	6308.71	1331.91	-859.92	1207.90	1.93	
7839.00	90.340	88.120	6308.15	1416.40	-857.90	1293.88	1.23	
7924.00	89.540	87.500	6308.24	1499.67	-854.65	1378.81	1.19	
8009.00	88.980	87.150	6309.34	1582.79	-850.68	1463.71	0.78	
8095.00	89.410	87.290	6310.55	1666.85	-846.51	1549.60	0.53	
8181.00	89.880	87.290	6311.08	1750.94	-842.44	1635.50	0.55	
8266.00	90.460	87.780	6310.83	1834.13	-838.79	1720.42	0.89	
8352.00	90.770	87.570	6309.91	1918.34	-835.30	1806.35	0.44	
8439.00	91.570	87.730	6308.13	2003.50	-831.73	1893.26	0.94	
8525.00	89.600	87.570	6307.25	2087.70	-828.21	1979.18	2.30	
8610.00	89.510	87.830	6307.91	2170.94	-824.80	2064.10	0.32	
8696.00	90.950	88.050	6307.57	2255.22	-821.71	2150.05	1.69	
8781.00	90.220	89.000	6306.70	2338.70	-819.52	2235.01	1.41	
8867.00	90.030	89.340	6306.51	2423.33	-818.27	2321.00	0.45	
8954.00	90.280	89.440	6306.28	2509.02	-817.35	2408.00	0.31	
9040.00	89.880	88.070	6306.16	2593.54	-815.48	2493.97	1.66	
9125.00	90.090	88.110	6306.18	2676.89	-812.64	2578.93	0.25	
9210.00	90.740	88.420	6305.56	2760.30	-810.07	2663.89	0.85	
9296.00	91.570	88.540	6303.83	2844.73	-807.79	2749.84	0.98	
9383.00	91.190	87.590	6301.73	2930.01	-804.85	2836.76	1.18	
9469.00	90.760	86.500	6300.27	3014.01	-800.42	2922.63	1.36	
9554.00	88.730	86.980	6300.65	3096.94	-795.59	3007.49	2.45	
9639.00	87.930	87.190	6303.13	3179.96	-791.27	3092.34	0.97	
9725.00	88.450	86.590	6305.84	3263.88	-786.60	3178.17	0.92	
9810.00	88.700	86.370	6307.96	3346.71	-781.39	3262.99	0.39	
9896.00	88.760	86.140	6309.86	3430.44	-775.77	3348.78	0.28	
9981.00	90.360	86.870	6310.51	3513.30	-770.59	3433.62	2.07	
10067.00	91.260	86.940	6309.30	3597.26	-765.95	3519.48	1.05	
10152.00	90.460	87.080	6308.02	3680.28	-761.51	3604.36	0.96	
10238.00	90.670	87.090	6307.17	3764.30	-757.14	3690.24	0.24	
10323.00	91.380	86.780	6305.65	3847.29	-752.59	3775.11	0.91	
10408.00	91.140	86.500	6303.79	3930.18	-747.61	3859.94	0.43	
10494.00	90.800	87.320	6302.33	4014.13	-742.98	3945.80	1.03	



# Actual Wellpath Report

## STATE ANTELOPE C12-W42-2HNC AWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE C12-W42-2HNC
Field	WELD COUNTY	Wellbore	STATE ANTELOPE C12-W42-2HNC AWB
Facility	SEC.02-T5N-R62W		

### WELLPATH DATA (96 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10579.00	90.830	88.150	6301.12	4097.38	-739.62	4030.72	0.98	
10665.00	90.920	88.810	6299.81	4181.81	-737.34	4116.68	0.77	
10750.00	91.500	88.460	6298.01	4265.30	-735.32	4201.64	0.80	
10836.00	92.340	88.850	6295.13	4349.75	-733.30	4287.57	1.08	
10959.00	93.500	88.780	6288.87	4470.51	-730.76	4410.38	0.94	LAST BHI MWD SURVEY
11028.00	93.500	88.780	6284.65	4538.20	-729.29	4479.23	0.00	PROJECTION TO BIT/BHL (2299'FNL & 476'FEL, SEC.02)

### HOLE & CASING SECTIONS

- Ref Wellbore: STATE ANTELOPE C12-W42-2HNC AWB      Ref Wellpath: STATE ANTELOPE C12-W42-2HNC AWP									
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	460.00	443.00	17.00	460.00	0.00	0.00	-0.13	-0.98
8.75in Open Hole	460.00	6811.00	6351.00	460.00	6317.24	-0.13	-0.98	-897.52	268.18
7in Casing Intermediate	17.00	6807.00	6790.00	17.00	6316.99	0.00	0.00	-897.99	264.22
6.125in Open Hole	6811.00	11028.00	4217.00	6317.24	6284.65	-897.52	268.18	-729.29	4479.23

### TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T05N-R62W	2.00	0.73	-59.82	3334363.11	1402819.53	40°25'58.530"N	104°17'55.820"W	polygon
SEC.02-T05N-R92W HARDLINES (460'FEL/FWL)	6207.00	0.73	-59.82	3334363.11	1402819.53	40°25'58.530"N	104°17'55.820"W	polygon
STATE ANTELOPE C12-W42-2HNC BHL ON PLAT (2310'FNL & 470'FEL, SEC.02)	6268.00	-740.97	4485.77	3338918.15	1402139.51	40°25'51.197"N	104°16'57.040"W	point
STATE ANTELOPE C12-W42-2HNC EP (2310'FNL & 531'FWL, SEC.02)	6268.00	-904.59	138.92	3334574.09	1401917.02	40°25'49.584"N	104°17'53.250"W	point
Ex.Grace State #2-1 200'R	6925.00	908.47	3400.92	3337811.10	1403774.04	40°26'07.498"N	104°17'11.065"W	circle

### WELLPATH COMPOSITION - Ref Wellbore: STATE ANTELOPE C12-W42-2HNC AWB      Ref Wellpath: STATE ANTELOPE C12-W42-2HNC AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	6747.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 8.75" HOLE <556-6747>	STATE ANTELOPE C12-W42-2HNC AWB
6747.00	10959.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 6.125" HOLE <6880-10959>	STATE ANTELOPE C12-W42-2HNC AWB
10959.00	11028.00	Blind Drilling (std)	Projection to bit	STATE ANTELOPE C12-W42-2HNC AWB



# Actual Wellpath Report

STATE ANTELOPE C12-W42-2HNC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#09 STATE ANTELOPE C12-W42-2HNC (1401'FNL & 393'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE C12-W42-2HNC
Field	WELD COUNTY	Wellbore	STATE ANTELOPE C12-W42-2HNC AWB
Facility	SEC.02-T5N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
556.00	0.310	262.670	556.00	FIRST BHI MWD SURVEY
6794.00	85.426	83.466	6316.04	ICP (2309'FNL & 644'FWL, SEC.02)
6862.00	89.849	82.544	6318.85	TOP (2303'FNL & 711'FWL, SEC.02)
10959.00	93.500	88.780	6288.87	LAST BHI MWD SURVEY
11028.00	93.500	88.780	6284.65	PROJECTION TO BIT/BHL (2299'FNL & 476'FEL, SEC.02)