

BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)
Field: WELD COUNTY Well: STATE ANTELOPE B-V-2HNB
Facility: SEC.02-T5N-R62W Wellbore: STATE ANTELOPE B-V-2HNB PWB

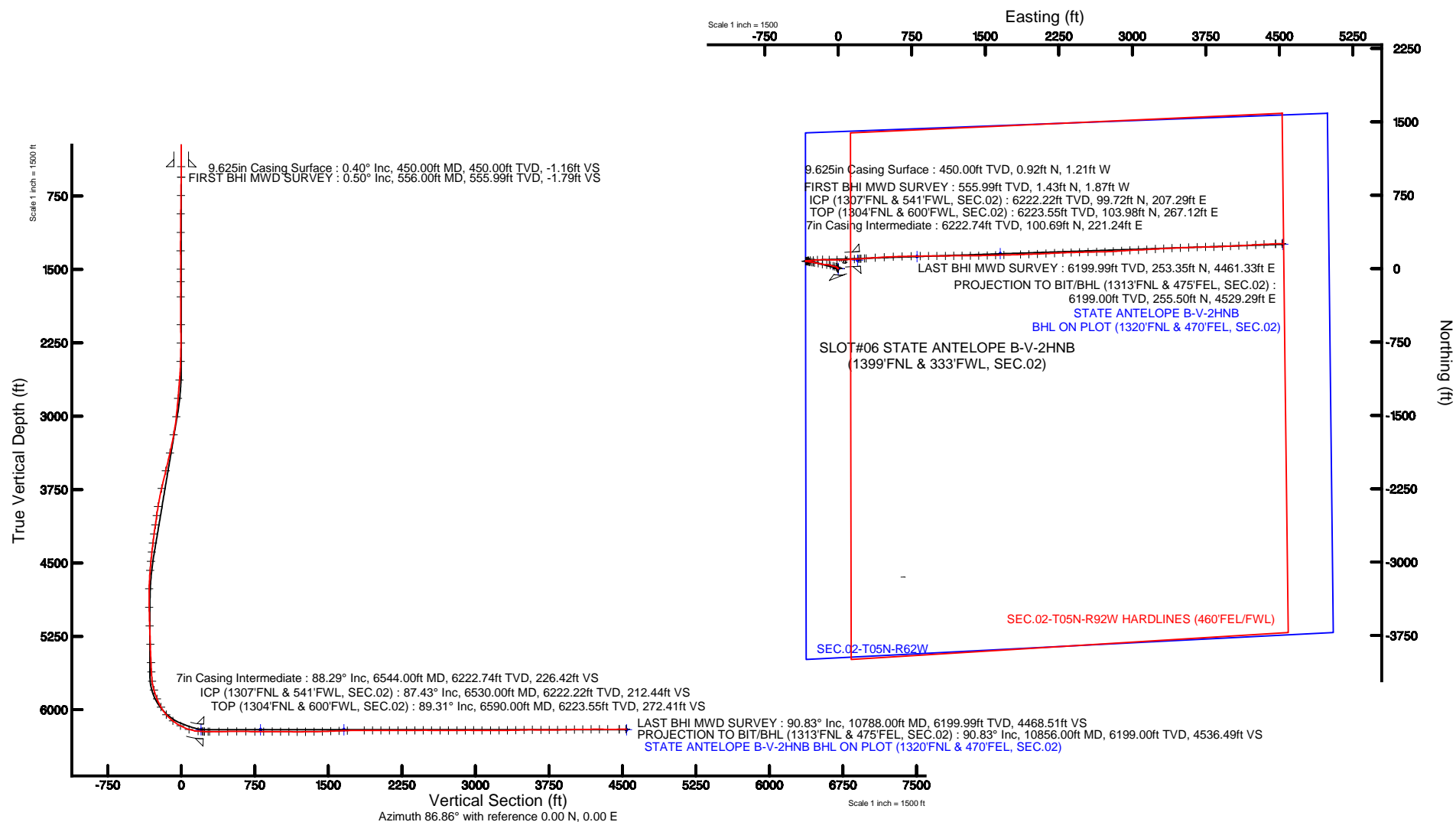
Plot reference wellpath is STATE ANTELOPE B-V-2HNB PWB (REV-A.0)

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: 4662 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjmr 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





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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE B-V-2HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE B-V-2HNB 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 7:53:33 AM
Convergence at slot	0.78° East	Database/Source file	WA_DEN_Denver_Defn/STATE_ANTELOPE_B-V-2HNB_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	-682.05	3334362.81	1402818.80	40°25'58.523"N	104°17'55.824"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	4662.00ft
Horizontal Reference Pt	Slot	XTREME 22 (17'KB) (RKB) to Mean Sea Level	4662.00ft
Vertical Reference Pt	XTREME 22 (17'KB) (RKB)	XTREME 22 (17'KB) (RKB) to Mud Line at Slot (SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02))	4662.00ft
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	86.86°



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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE B-V-2HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE B-V-2HNB AWP
Facility	SEC.02-T5N-R62W		

WELLPATH DATA (95 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	307.300	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	307.300	17.00	0.00	0.00	0.00	0.00	
556.00	0.500	307.300	555.99	-1.79	1.43	-1.87	0.09	FIRST BHI MWD SURVEY
744.00	0.800	304.300	743.98	-3.46	2.66	-3.61	0.16	
933.00	0.650	306.080	932.97	-5.33	4.04	-5.56	0.08	
1121.00	0.560	303.560	1120.96	-6.90	5.17	-7.19	0.05	
1310.00	0.240	140.790	1309.95	-7.40	5.38	-7.71	0.42	
1498.00	0.280	121.080	1497.95	-6.79	4.83	-7.07	0.05	
1624.00	0.480	56.800	1623.95	-6.08	4.96	-6.36	0.35	
1780.00	0.190	78.150	1779.95	-5.26	5.38	-5.56	0.20	
2064.00	0.150	346.150	2063.94	-4.86	5.83	-5.19	0.09	
2252.00	0.460	14.760	2251.94	-4.68	6.80	-5.06	0.18	
2441.00	2.590	311.350	2440.87	-7.49	10.36	-8.07	1.28	
2630.00	5.020	293.370	2629.45	-17.94	16.46	-18.87	1.42	
2819.00	5.060	285.360	2817.72	-33.24	21.95	-34.50	0.37	
3008.00	6.280	281.470	3005.79	-51.15	26.21	-52.67	0.68	
3195.00	11.340	291.200	3190.53	-77.82	34.90	-79.85	2.81	
3383.00	12.880	268.820	3374.45	-115.62	41.16	-118.05	2.61	
3571.00	13.870	281.830	3557.39	-158.35	45.34	-161.07	1.68	
3758.00	13.470	280.310	3739.09	-201.18	53.84	-204.43	0.29	
3946.00	9.370	282.590	3923.33	-237.22	61.10	-240.93	2.19	
4040.00	7.890	281.390	4016.26	-250.84	64.04	-254.72	1.59	
4135.00	8.570	276.140	4110.28	-264.13	66.08	-268.15	1.07	
4229.00	7.920	276.370	4203.31	-277.43	67.55	-281.55	0.69	
4321.00	7.050	274.940	4294.53	-289.27	68.74	-293.48	0.97	
4416.00	6.460	286.980	4388.87	-300.07	70.80	-304.40	1.61	
4510.00	6.040	290.260	4482.31	-309.57	74.06	-314.09	0.59	
4604.00	5.100	287.210	4575.87	-318.03	77.01	-322.72	1.05	
4793.00	1.440	236.700	4764.55	-327.96	78.19	-332.74	2.29	
4982.00	1.770	135.440	4953.51	-328.08	74.81	-332.68	1.32	
5171.00	2.130	66.320	5142.42	-322.86	74.14	-327.41	1.18	
5360.00	2.120	60.270	5331.29	-316.45	77.28	-321.16	0.12	
5548.00	2.530	77.190	5519.14	-309.25	79.93	-314.09	0.42	
5643.00	2.680	80.630	5614.04	-304.97	80.75	-309.86	0.23	
5737.00	6.350	84.370	5707.73	-297.59	81.62	-302.51	3.91	
5831.00	16.030	85.140	5799.84	-279.38	83.23	-284.36	10.30	
5925.00	22.580	86.010	5888.50	-248.33	85.59	-253.40	6.97	
6019.00	29.240	84.510	5973.01	-207.30	89.05	-212.49	7.12	
6113.00	40.050	89.960	6050.25	-153.99	91.27	-159.23	11.95	
6207.00	52.910	91.660	6114.84	-86.15	90.20	-91.22	13.74	
6300.00	61.960	89.580	6164.85	-8.02	89.43	-12.93	9.91	
6393.00	72.500	87.600	6200.80	77.57	91.59	72.66	11.50	
6488.00	84.870	86.010	6219.40	170.54	96.80	165.49	13.12	
6530.00†	87.435	86.010	6222.22	212.44	99.72	207.29	6.11	ICP (1307'FNL & 541'FWL, SEC.02)
6554.00	88.900	86.010	6222.99	236.42	101.39	231.22	6.11	



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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE B-V-2HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE B-V-2HNB AWP
Facility	SEC.02-T5N-R62W		

WELLPATH DATA (95 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6590.00†	89.308	85.711	6223.55	272.41	103.98	267.12	1.40	TOP (1304'FNL & 600'FWL, SEC.02)
6607.00	89.500	85.570	6223.73	289.40	105.28	284.07	1.40	
6700.00	90.400	86.170	6223.81	382.39	111.97	376.83	1.16	
6792.00	91.040	86.840	6222.65	474.38	117.58	468.65	1.01	
6884.00	90.090	87.870	6221.75	566.37	121.83	560.54	1.52	
6975.00	89.040	88.370	6222.44	657.34	124.81	651.49	1.28	
7067.00	89.660	89.010	6223.48	749.29	126.92	743.46	0.97	
7159.00	90.270	89.370	6223.54	841.21	128.22	835.45	0.77	
7245.00	90.270	89.750	6223.13	927.12	128.88	921.44	0.44	
7330.00	89.100	89.480	6223.60	1012.02	129.45	1006.44	1.41	
7416.00	89.130	89.150	6224.93	1097.93	130.48	1092.42	0.39	
7501.00	90.030	89.690	6225.55	1182.84	131.34	1177.41	1.23	
7586.00	90.670	89.780	6225.03	1267.73	131.73	1262.41	0.76	
7672.00	90.580	89.790	6224.09	1353.61	132.05	1348.41	0.11	
7757.00	91.470	88.870	6222.57	1438.52	133.05	1433.38	1.51	
7843.00	92.680	88.170	6219.46	1524.42	135.27	1519.30	1.63	
7928.00	92.130	88.650	6215.89	1609.32	137.62	1604.19	0.86	
8013.00	91.570	88.860	6213.15	1694.23	139.47	1689.12	0.70	
8184.00	89.320	87.950	6211.82	1865.15	144.23	1860.04	1.42	
8270.00	90.250	88.170	6212.14	1951.13	147.14	1945.99	1.11	
8356.00	89.970	87.910	6211.98	2037.11	150.08	2031.94	0.44	
8443.00	90.310	86.950	6211.76	2124.10	153.98	2118.85	1.17	
8530.00	89.690	86.990	6211.76	2211.10	158.58	2205.73	0.71	
8616.00	90.030	87.780	6211.97	2297.10	162.50	2291.64	1.00	
8701.00	90.920	88.650	6211.27	2382.07	165.15	2376.59	1.46	
8787.00	90.460	88.550	6210.23	2468.02	167.25	2462.56	0.55	
8873.00	88.540	88.420	6210.98	2553.98	169.52	2548.52	2.24	
8960.00	89.720	89.220	6212.31	2640.92	171.32	2635.49	1.64	
9045.00	90.090	88.560	6212.45	2725.86	172.96	2720.47	0.89	
9131.00	91.010	86.900	6211.62	2811.85	176.37	2806.40	2.21	
9216.00	90.590	86.270	6210.43	2896.84	181.43	2891.24	0.89	
9301.00	89.260	86.540	6210.55	2981.83	186.76	2976.07	1.60	
9387.00	90.090	87.700	6211.03	3067.83	191.08	3061.96	1.66	
9474.00	89.290	86.240	6211.50	3154.82	195.68	3148.83	1.91	
9560.00	90.710	87.070	6211.50	3240.82	200.70	3234.68	1.91	
9645.00	90.620	86.880	6210.52	3325.81	205.18	3319.56	0.25	
9730.00	91.850	87.470	6208.69	3410.79	209.37	3404.43	1.60	
9816.00	91.780	87.830	6205.96	3496.74	212.90	3490.32	0.43	
9901.00	89.220	87.920	6205.22	3581.71	216.05	3575.25	3.01	
9987.00	89.250	88.090	6206.37	3667.69	219.04	3661.19	0.20	
10072.00	90.210	88.640	6206.77	3752.66	221.47	3746.15	1.30	
10158.00	91.110	88.740	6205.78	3838.61	223.43	3832.12	1.05	
10245.00	91.410	87.480	6203.86	3925.56	226.30	3919.05	1.49	
10329.00	90.270	86.970	6202.63	4009.55	230.37	4002.94	1.49	
10414.00	90.980	87.270	6201.71	4094.55	234.64	4087.83	0.91	



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REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#06 STATE ANTELOPE B-V-2HNB (1399'FNL & 333'FWL, SEC.02)
Area	COLORADO	Well	STATE ANTELOPE B-V-2HNB
Field	WELD COUNTY	Wellbore	STATE ANTELOPE B-V-2HNB AWB
Facility	SEC.02-T5N-R62W		

WELLPATH DATA (95 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10499.00	90.890	87.020	6200.32	4179.53	238.87	4172.71	0.31	
10585.00	89.500	86.530	6200.03	4265.53	243.71	4258.57	1.71	
10670.00	89.750	87.060	6200.58	4350.53	248.46	4343.44	0.69	
10788.00	90.830	88.190	6199.99	4468.51	253.35	4461.33	1.32	LAST BHI MWD SURVEY
10856.00	90.830	88.190	6199.00	4536.49	255.50	4529.29	0.00	PROJECTION TO BIT/BHL (1313'FNL & 475'FEL, SEC.02)

HOLE & CASING SECTIONS

- Ref Wellbore: STATE ANTELOPE B-V-2HNB AWB Ref Wellpath: STATE ANTELOPE B-V-2HNB 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	450.00	433.00	17.00	450.00	0.00	0.00	0.92	-1.21
8.75in Open Hole	17.00	6554.00	6537.00	17.00	6222.99	0.00	0.00	101.39	231.22
7in Casing Intermediate	17.00	6544.00	6527.00	17.00	6222.74	0.00	0.00	100.69	221.24
6.125in Open Hole	6554.00	10856.00	4302.00	6222.99	6199.00	101.39	231.22	255.50	4529.29

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T05N-R62W	0.00	0.73	0.31	3334363.11	1402819.53	40°25'58.530"N	104°17'55.820"W	polygon
SEC.02-T05N-R92W HARDLINES (460'FEL/FWL)	6205.00	0.73	0.31	3334363.11	1402819.53	40°25'58.530"N	104°17'55.820"W	polygon
STATE ANTELOPE B-V-2HNB BHL ON PLOT (1320'FNL & 470'FEL, SEC.02)	6205.00	249.28	4534.56	3338893.39	1403129.47	40°26'00.982"N	104°16'57.184"W	point
STATE ANTELOPE B-V-2HNB EP (1320'FNL & 531'FWL, SEC.02)	6205.00	86.34	197.65	3334559.27	1402907.81	40°25'59.376"N	104°17'53.268"W	point
TARGET 1 (300' PRIOR)	6205.00	124.16	803.11	3335164.13	1402953.82	40°25'59.750"N	104°17'45.438"W	point
TARGET 2 (150' AFTER)	6205.00	152.65	1652.63	3336013.15	1402993.81	40°26'00.031"N	104°17'34.453"W	point
Ex.Grace State #2-1 200'R	6923.00	908.48	3461.05	3337811.10	1403774.04	40°26'07.498"N	104°17'11.065"W	circle

WELLPATH COMPOSITION - Ref Wellbore: STATE ANTELOPE B-V-2HNB AWB Ref Wellpath: STATE ANTELOPE B-V-2HNB AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	6554.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 8.75" HOLE <556-6554>	STATE ANTELOPE B-V-2HNB AWB
6554.00	10788.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 6.125" HOLE <6607-10788>	STATE ANTELOPE B-V-2HNB AWB
10788.00	10856.00	Blind Drilling (std)	Projection to bit	STATE ANTELOPE B-V-2HNB AWB



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Field	WELD COUNTY	Wellbore	STATE ANTELOPE B-V-2HNB AWB
Facility	SEC.02-T5N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
556.00	0.500	307.300	555.99	FIRST BHI MWD SURVEY
6530.00	87.435	86.010	6222.22	ICP (1307'FNL & 541'FWL, SEC.02)
6590.00	89.308	85.711	6223.55	TOP (1304'FNL & 600'FWL, SEC.02)
10788.00	90.830	88.190	6199.99	LAST BHI MWD SURVEY
10856.00	90.830	88.190	6199.00	PROJECTION TO BIT/BHL (1313'FNL & 475'FWL, SEC.02)