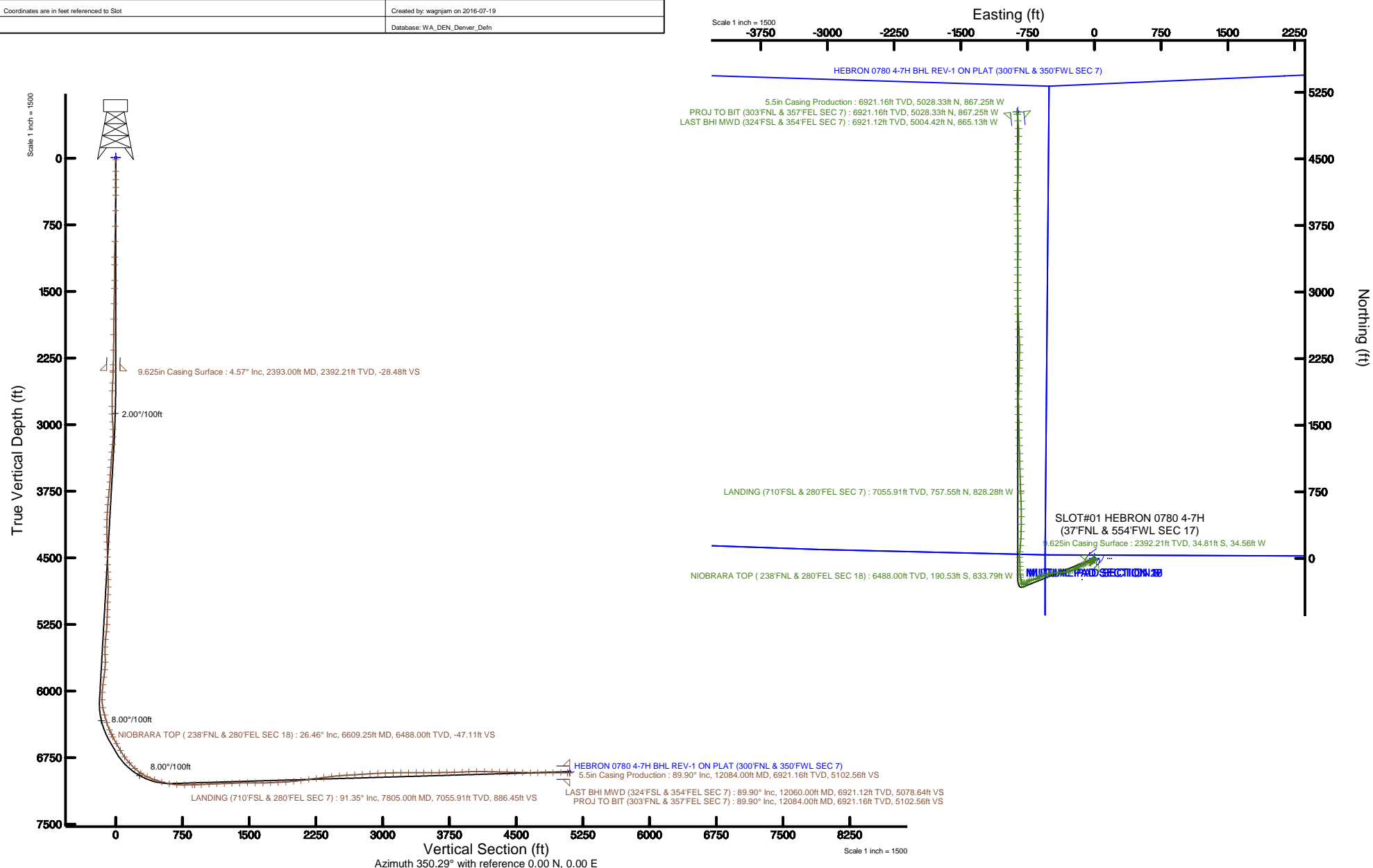


SANDRIDGE ENERGY

Location: COLORADO Slot: SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Field: JACKSON COUNTY Well: HEBRON 0780 4-7H
Facility: SEC.17-T07N-R80W Wellbore: HEBRON 0780 4-7H PWB API #05-057-06545-00

Plot reference wellpath is HEBRON 0780 4-7H REV-A.0 PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to XTREME 20 (16) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to XTREME 20 (16) (RKB)	North Reference: True north
XTREME 20 (16) (RKB) to Mean Sea Level: 8165 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wagnjam on 2016-07-19
	Database: WA_DEN_Denver_Defn



REFERENCE WELLPATH IDENTIFICATION

Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Wagnjam
Scale	0.999974	Report Generated	7/19/2016 at 11:29:16 AM
Convergence at slot	0.59° West	Database/Source file	WA_DEN_Denver_Defn/HEBRON_0780_4-7H_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W
Facility Reference Pt			2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W
Field Reference Pt			2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 20 (16') (RKB) to Facility Vertical Datum	8165.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16') (RKB) to Mean Sea Level	8165.00ft
Vertical Reference Pt	XTREME 20 (16') (RKB)	XTREME 20 (16') (RKB) to Mud Line at Slot (SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17))	8165.00ft
MD Reference Pt	XTREME 20 (16') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	350.29°

Actual Wellpath Report

HEBRON 0780 4-7H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

WELLPATH DATA (131 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
0.00†	0.000	243.490	0.00	0.00	0.00	0.00	0.00		
16.00	0.000	243.490	16.00	0.00	0.00	0.00	0.00		
148.00	0.290	243.490	148.00	-0.10	-0.15	-0.30	0.22		
240.00	0.280	264.120	240.00	-0.15	-0.28	-0.73	0.11		
327.00	0.370	241.280	327.00	-0.23	-0.43	-1.19	0.18		
414.00	0.610	233.080	413.99	-0.53	-0.85	-1.81	0.29		
591.00	1.710	213.310	590.96	-2.89	-3.62	-4.01	0.65		
765.00	0.380	152.360	764.93	-5.34	-6.30	-5.17	0.90		
939.00	2.120	203.860	938.88	-8.57	-9.75	-6.20	1.10		
1114.00	0.700	229.390	1113.82	-11.81	-13.41	-8.32	0.87		
1201.00	2.090	246.790	1200.80	-12.46	-14.38	-10.18	1.65		
1376.00	0.240	216.280	1375.75	-13.46	-15.94	-13.33	1.08		
1465.00	1.580	201.420	1464.74	-14.64	-17.23	-13.89	1.52		
1638.00	1.680	232.330	1637.67	-17.87	-21.00	-16.77	0.51		
1812.00	1.470	193.000	1811.61	-21.12	-24.73	-19.29	0.62		
1987.00	0.770	252.820	1986.58	-23.35	-27.27	-20.92	0.73		
2161.00	1.620	236.100	2160.54	-24.50	-28.98	-24.08	0.52		
2326.00	3.460	240.830	2325.37	-27.12	-32.71	-30.36	1.12		
2410.00	4.860	246.320	2409.15	-28.82	-35.38	-35.83	1.73		
2533.00	5.470	211.610	2531.68	-34.48	-42.46	-43.68	2.55		
2620.00	1.520	149.910	2618.52	-38.68	-47.00	-45.28	5.67		
2795.00	0.090	185.400	2793.50	-40.99	-49.14	-44.13	0.83		
2882.00	4.060	282.890	2880.43	-39.87	-48.52	-47.14	4.68		
2970.00	9.740	286.800	2967.75	-35.35	-45.67	-57.31	6.47		
3058.00	11.000	274.180	3054.33	-30.01	-42.91	-72.81	2.94		
3144.00	10.610	249.190	3138.85	-29.56	-45.12	-88.40	5.42		
3231.00	10.450	233.770	3224.40	-34.63	-52.63	-102.26	3.23		
3318.00	10.550	232.280	3309.94	-41.89	-62.17	-114.92	0.33		
3406.00	12.760	238.210	3396.13	-49.32	-72.22	-129.56	2.85		
3493.00	14.610	246.540	3480.66	-55.54	-81.65	-147.79	3.10		

Actual Wellpath Report

HEBRON 0780 4-7H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

WELLPATH DATA (131 stations)									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
3581.00	14.600	248.050	3565.82	-60.53	-90.22	-168.26	0.43		
3665.00	14.570	245.710	3647.11	-65.43	-98.52	-187.71	0.70		
3752.00	14.580	238.650	3731.32	-72.23	-108.72	-207.04	2.04		
3839.00	15.110	238.120	3815.41	-80.54	-120.41	-226.02	0.63		
3927.00	15.200	242.970	3900.36	-88.30	-131.71	-246.03	1.44		
4015.00	15.130	247.830	3985.30	-94.21	-141.28	-266.95	1.45		
4101.00	15.240	253.400	4068.30	-97.99	-148.75	-288.17	1.70		
4189.00	15.240	259.590	4153.21	-99.52	-154.14	-310.63	1.85		
4276.00	15.090	263.820	4237.18	-98.96	-157.43	-333.14	1.28		
4364.00	15.050	267.110	4322.16	-96.89	-159.24	-355.94	0.97		
4451.00	15.050	266.050	4406.17	-94.42	-160.58	-378.49	0.32		
4540.00	15.030	265.350	4492.13	-92.24	-162.32	-401.52	0.21		
4627.00	14.980	267.740	4576.16	-89.78	-163.67	-424.00	0.71		
4714.00	14.910	266.890	4660.22	-87.04	-164.72	-446.41	0.26		
4801.00	15.010	264.130	4744.27	-84.99	-166.48	-468.79	0.83		
4890.00	15.110	257.530	4830.22	-84.78	-170.17	-491.58	1.93		
4977.00	14.920	253.060	4914.25	-86.73	-175.88	-513.37	1.35		
5065.00	14.890	250.420	4999.29	-90.09	-182.97	-534.86	0.77		
5152.00	14.820	252.650	5083.38	-93.49	-190.03	-556.01	0.66		
5239.00	14.940	254.440	5167.47	-96.11	-196.36	-577.44	0.55		
5326.00	14.900	251.130	5251.54	-99.03	-202.99	-598.82	0.98		
5413.00	14.940	237.580	5335.63	-105.14	-212.62	-618.88	4.00		
5501.00	15.280	236.790	5420.59	-114.14	-225.05	-638.16	0.45		
5589.00	15.310	255.170	5505.52	-119.80	-234.38	-659.10	5.49		
5677.00	15.330	267.720	5590.42	-119.34	-237.82	-681.96	3.76		
5764.00	15.380	261.180	5674.32	-117.67	-240.05	-704.86	1.99		
5852.00	15.400	239.700	5759.23	-121.60	-247.74	-726.50	6.44		
5940.00	15.320	229.170	5844.10	-131.71	-261.24	-745.38	3.17		
6028.00	15.320	231.000	5928.98	-143.41	-276.15	-763.21	0.55		
6117.00	11.260	244.820	6015.60	-151.48	-287.26	-780.23	5.76		

REFERENCE WELLPATH IDENTIFICATION

Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWP
Facility	SEC.17-T07N-R80W		

WELLPATH DATA (131 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6204.00	11.180	261.000	6100.96	-153.64	-292.19	-796.25	3.61	
6292.00	11.610	326.150	6187.55	-145.42	-286.15	-809.66	13.88	
6378.00	15.760	342.430	6271.12	-125.94	-267.81	-818.01	6.54	
6466.00	17.240	346.840	6355.50	-101.08	-243.72	-824.59	2.20	
6554.00	23.570	349.980	6437.94	-70.44	-213.66	-830.62	7.30	
6609.25†	26.458	354.223	6488.00	-47.11	-190.53	-833.79	6.15	NOBRARA TOP (238'FNL & 280'FEL SEC 18)
6642.00	28.220	356.350	6517.09	-32.13	-175.54	-835.01	6.15	
6729.00	29.750	1.090	6593.20	9.54	-133.43	-835.91	3.17	
6816.00	29.030	0.720	6669.01	51.50	-90.74	-835.24	0.85	
6905.00	36.520	355.020	6743.80	99.21	-42.68	-837.27	9.09	
6991.00	42.590	359.620	6810.09	153.49	11.97	-839.68	7.83	
7079.00	47.930	5.050	6872.04	214.52	74.35	-837.00	7.48	
7166.00	57.510	4.580	6924.67	281.46	143.25	-831.22	11.02	
7253.00	64.690	2.640	6966.69	355.53	219.22	-826.47	8.48	
7342.00	72.040	1.930	6999.49	436.40	301.82	-823.19	8.29	
7429.00	73.070	1.420	7025.57	517.76	384.78	-820.76	1.31	
7516.00	81.250	359.970	7044.89	601.12	469.53	-819.75	9.54	
7603.00	84.450	358.580	7055.71	686.37	555.83	-820.85	4.01	
7691.00	91.530	357.480	7058.80	773.46	643.67	-823.87	8.14	
7779.00	91.410	357.990	7056.54	860.69	731.57	-827.35	0.60	
7805.00	91.350	357.910	7055.91	886.45	757.55	-828.28	0.38	LANDING (710'FSL & 280'FEL SEC 7)
7880.00	92.090	357.940	7053.66	960.75	832.46	-830.99	0.99	
7968.00	93.140	358.220	7049.65	1047.84	920.32	-833.94	1.23	
8056.00	92.030	358.190	7045.68	1134.91	1008.19	-836.69	1.26	
8142.00	91.810	358.490	7042.80	1220.02	1094.10	-839.18	0.43	
8229.00	92.400	358.900	7039.60	1306.02	1181.02	-841.16	0.83	
8317.00	91.750	358.970	7036.42	1392.96	1268.95	-842.79	0.74	
8405.00	89.590	358.510	7035.39	1480.00	1356.91	-844.73	2.51	
8493.00	89.500	358.880	7036.09	1567.05	1444.89	-846.73	0.43	
8581.00	91.010	358.750	7035.69	1654.07	1532.87	-848.55	1.72	

REFERENCE WELLPATH IDENTIFICATION			
Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

WELLPATH DATA (131 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8668.00	92.550	359.060	7032.99	1740.04	1619.81	-850.22	1.81	
8755.00	92.740	359.310	7028.98	1825.90	1706.70	-851.45	0.36	
8843.00	93.540	0.010	7024.16	1912.60	1794.57	-851.97	1.21	
8931.00	95.360	1.630	7017.33	1998.85	1882.29	-850.72	2.77	
9017.00	96.510	1.710	7008.44	2082.70	1967.79	-848.23	1.34	
9106.00	97.310	1.450	6997.73	2169.34	2056.11	-845.79	0.94	
9193.00	98.170	0.930	6986.01	2253.99	2142.30	-844.00	1.15	
9281.00	97.810	0.910	6973.78	2339.64	2229.43	-842.60	0.41	
9370.00	95.950	0.280	6963.12	2426.57	2317.78	-841.68	2.20	
9458.00	95.150	359.810	6954.61	2512.89	2405.37	-841.61	1.05	
9546.00	92.680	357.200	6948.60	2599.77	2493.12	-843.91	4.08	
9633.00	93.380	357.750	6944.00	2685.96	2579.91	-847.74	1.02	
9720.00	94.430	357.800	6938.08	2772.02	2666.64	-851.11	1.21	
9807.00	93.320	357.640	6932.20	2858.09	2753.37	-854.56	1.29	
9895.00	92.240	358.900	6927.93	2945.13	2841.23	-857.21	1.88	
9982.00	92.650	358.560	6924.22	3031.11	2928.13	-859.14	0.61	
10071.00	90.890	0.030	6921.47	3118.96	3017.07	-860.23	2.58	
10159.00	89.930	0.330	6920.84	3205.65	3105.07	-859.96	1.14	
10246.00	90.920	0.230	6920.19	3291.33	3192.06	-859.53	1.14	
10333.00	90.300	359.800	6919.27	3377.07	3279.06	-859.51	0.87	
10420.00	89.590	0.450	6919.35	3462.79	3366.05	-859.32	1.11	
10508.00	89.690	0.690	6919.90	3549.37	3454.05	-858.44	0.30	
10596.00	91.230	0.510	6919.20	3635.95	3542.04	-857.52	1.76	
10684.00	90.890	359.940	6917.57	3722.61	3630.02	-857.18	0.75	
10770.00	91.630	358.610	6915.68	3807.53	3715.99	-858.26	1.77	
10858.00	92.340	357.930	6912.63	3894.62	3803.90	-860.92	1.12	
10933.00	92.740	358.050	6909.31	3968.87	3878.78	-863.55	0.56	
11021.00	90.000	358.920	6907.20	4055.94	3966.71	-865.87	3.27	
11109.00	88.890	358.300	6908.05	4143.01	4054.68	-868.01	1.44	
11197.00	88.700	3.610	6909.91	4229.43	4142.62	-866.54	6.04	

Actual Wellpath Report

HEBRON 0780 4-7H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

WELLPATH DATA (131 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11285.00	88.820	4.630	6911.81	4314.86	4230.37	-860.22	1.17	
11372.00	88.730	1.340	6913.67	4399.70	4317.22	-855.69	3.78	
11460.00	88.700	359.270	6915.64	4486.33	4405.19	-855.22	2.35	
11549.00	88.760	359.980	6917.62	4574.13	4494.17	-855.80	0.80	
11636.00	88.860	1.160	6919.42	4659.71	4581.14	-854.94	1.36	
11722.00	89.900	2.320	6920.35	4743.99	4667.09	-852.33	1.81	
11810.00	89.870	1.030	6920.53	4830.26	4755.05	-849.76	1.47	
11897.00	89.870	356.910	6920.73	4916.24	4842.02	-851.32	4.74	
11984.00	89.840	354.280	6920.95	5002.86	4928.76	-858.00	3.02	
12060.00	89.900	354.950	6921.12	5078.64	5004.42	-865.13	0.89	LAST BHI MWD (324'FSL & 354'FEL SEC 7)
12084.00	89.900	354.950	6921.16	5102.56	5028.33	-867.25	0.00	PROJ TO BIT (303'FNL & 357'FEL SEC 7)

HOLE & CASING SECTIONS - Ref Wellbore: HEBRON 0780 4-7H AWB Ref Wellpath: HEBRON 0780 4-7H 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]
12.25in Open Hole	16.00	2395.00	2379.00	16.00	2394.20	0.00	0.00	-34.87	-34.70
9.625in Casing Surface	16.00	2393.00	2377.00	16.00	2392.21	0.00	0.00	-34.81	-34.56
8.75in Open Hole	2395.00	12084.00	9689.00	2394.20	6921.16	-34.87	-34.70	5028.33	-867.25
5.5in Casing Production	16.00	12084.00	12068.00	16.00	6921.16	0.00	0.00	5028.33	-867.25

Actual Wellpath Report

HEBRON 0780 4-7H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MUTUAL PAD SECTION 17	-7.00	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W	polygon
MUTUAL PAD SECTION 18	-7.00	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W	polygon
MUTUAL PAD SECTION 20	-7.00	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W	polygon
MUTUAL PAD SECTION 7	-7.00	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W	polygon
MUTUAL PAD SECTION 8	-7.00	0.00	0.00	2748603.57	1457115.37	40°35'04.770"N	106°24'18.460"W	polygon
HEBRON 0780 4-7H BHL REV-1 ON PLAT (300'FNL & 350'FWL SEC 7)	6909.00	5028.70	-860.88	2747794.09	1462152.46	40°35'54.460"N	106°24'29.620"W	point

WELLPATH COMPOSITION - Ref Wellbore: HEBRON 0780 4-7H AWB Ref Wellpath: HEBRON 0780 4-7H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	2326.00	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI/INTEQ NAVITRAK MWD AXIAL ROCKIES GT <148-2326>	HEBRON 0780 4-7H AWB
2326.00	7805.00	Custom BHI AutoTrak Curve (Axial Corr, Short spacing) (Rockies 0.03Gt model)	BHI/INTEQ AUTOTRAK CURVE MWD AXIAL SHORT ROCKIES GT <2410-7805>	HEBRON 0780 4-7H AWB
7805.00	12060.00	Custom BHI OnTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI/INTEQ ONTRAK MAGCOR ROCKIES <7880-12060>	HEBRON 0780 4-7H AWB
12060.00	12084.00	Blind Drilling (std)	Projection to bit	HEBRON 0780 4-7H AWB

Actual Wellpath Report

HEBRON 0780 4-7H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SANDRIDGE ENERGY	Slot	SLOT#01 HEBRON 0780 4-7H (37'FNL & 554'FWL SEC 17)
Area	COLORADO	Well	HEBRON 0780 4-7H
Field	JACKSON COUNTY	Wellbore	HEBRON 0780 4-7H AWB
Facility	SEC.17-T07N-R80W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
6609.25	26.458	354.223	6488.00	NIOBRARA TOP (238'FNL & 280'FEL SEC 18)	
7805.00	91.350	357.910	7055.91	LANDING (710'FSL & 280'FEL SEC 7)	
12060.00	89.900	354.950	6921.12	LAST BHI MWD (324'FSL & 354'FEL SEC 7)	
12084.00	89.900	354.950	6921.16	PROJ TO BIT (303'FNL & 357'FEL SEC 7)	