Scientific Drilling, Intl

30.015-45471

WPX Energy
Bloodhound 15-23-27 Fee 401H - SDI MWD - Lateral

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 21 2019
RECEIVED

Eddy County, New Mexico (NAD 83)
Bloodhound 15-23-27 Fee Pad
Your Ref:
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Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Grid X	Grid Y	SSTVD
145	0.4	335.52	145	0.46	-0.21	0.2	0	591504.9	475997.3	-2996
238	0.78	5.89	237.99	1.39	-0.28	0.26	0.52	591504.8	475998.2	-2903.01
317	1.63	14.49	316.98	3.01	0.06	-0.09	1.1	591505.2	475999.8	-2824.02
422	1.89	10.69	421.93	6.16	0.75	-0.82	0.27	591505.9	476003	-2719.07
518	1.91	13.39	517.87	9.27	1.42	-1.52	0.1	591506.5	476006.1	-2623.13
610	1.92	9.58	609.82	12.28	2.03	-2.17	0.14	591507.1	476009.1	-2531.18
703	1.54	15.02	702.78	15.02	2.61	-2.78	0.44	591507.7	476011.8	-2438.22
795	1.58	14.63	794.75	17.44	3.25	-3.45	0.04	591508.4	476014.2	-2346.25
888	1.25	13.87	887.72	19.67	3.82	-4.04	0.36	591508.9	476016.5	-2253.28
980	1.15	18.31	979.7	21.52	4.35	-4.6	0.15	591509.5	476018.3	-2161.3
1073	0.92	26.86	1072.68	23.07	4.98	-5.24	0.3	591510.1	476019.9	-2068.32
1165	1.17	30.57	1164.67	24.54	5.79	-6.07	0.28	591510.9	476021.3	-1976.33
1257	0.34	92.93	1256.66	25.33	6.54	-6.83	1.15	591511.6	476022.1	-1884.34
1349	1.26	165.43	1348.65	24.34	7.07	-7.35	1.31	591512.2	476021.1	-1792.35
1443	1.79	139.31	1442.62	22.23	8.29	-8.54	0.92	591513.4	476019	-1698.38
1538	2.42	122.46	1537.55	20.03	10.95	-11.18	0.92	591516.1	476016.8	-1603.45
1632	1.34	144.26	1631.5	18.07	13.26	-13.47	1.36	591518.4	476014.9	-1509.5
1727	1.28	161.89	1726.48	16.16	14.24	-14.43	0.43	591519.3	476013	-1414.52
1822	1.65	138.33	1821.45	14.13	15.48	-15.64	0.74	591520.6	476010.9	-1319.55
1916	1.92	127.8	1915.4	12.15	17.62	-17.76	0.45	591522.7	476009	-1225.6
2011	2.01	118.87	2010.35	10.37	20.34	-20.46	0.34	591525.4	476007.2	-1130.65
2106	1.59	122.45	2105.3	8.86	22.91	-23.01	0.46	591528	476005.7	-1035.7
2164	1.46	120.67	2163.28	8.05	24.23	-24.32	0.24	591529.3	476004.9	-977.72
2358	1.47	102.7	2357.22	6.24	28.78	-28.85	0.24	591533.9	476003	-783.78
2389	1.81	115.15	2388.2	5.95	29.61	-29.68	1.58	591534.7	476002.8	-752.8
2484	4.7	144.03	2483.05	2.16	33.26	-33.28	3.41	591538.4	475999	-657.95
2579	7.95	149.89	2577.46	-6.68	38.84	-38.76	3.48	591543.9	475990.1	-563.54
2673	9.37	157.91	2670.39	-19.39	44.98	-44.75	1.98	591550.1	475977.4	-470.61
2768	8.7	158.46	2764.21	-33.24	50.52	-50.14	0.71	591555.6	475963.6	-376.79
2863	8.77	158.29	2858.1	-46.65	55.84	-55.3	0.08	591560.9	475950.2	-282.9

2957	7.94	156.98	2951.11	-59.28	61.03	-60.34	0.91	591566.1	475937.5	-189.89
3052	7.48	152.96	3045.25	-70.83	66.41	-65.59	0.75	591571.5	475926	-95.75
3147	9.97	159.4	3139.14	-84.04	72.11	-71.14	2.81	591577.2	475912.8	-1.86
3242	10.21	158.16	3232.67	-99.55	78.14	-76.99	0.34	591583.2	475897.3	91.67
3336	9.95	154.53	3325.22	-114.62	84.73	-83.41	0.73	591589.8	475882.2	184.22
3431	9.56	155.46	3418.85	-129.2	91.54	-90.04	0.44	591596.6	475867.6	277.85
3526	11.13	162.78	3512.31	-145.14	97.53	-95.85	2.15	591602.6	475851.7	371.31
3621	10.8	161.92	3605.57	-162.36	103.01	-101.13	0.39	591608.1	475834.4	464.57
3715	10.27	162.07	3697.99	-178.7	108.32	-106.25	0.56	591613.4	475818.1	556.99
3810	10.31	161.6	3791.46	-194.83	113.61	-111.36	0.1	591618.7	475802	650.46
3904	10.36	160.64	3883.93	-210.78	119.07	-116.63	0.19	591624.2	475786	742.93
3999	10.59	159.01	3977.35	-226.99	125.02	-122.4	0.39	591630.1	475769.8	836.35
4094	10.31	160.47	4070.78	-243.16	130.99	-128.18	0.41	591636.1	475753.6	929.78
4188	7.33	164.43	4163.65	-256.86	135.42	-132.45	3.23	591640.5	475739.9	1022.65
4283	7.1	164.02	4257.9	-268.34	138.66	-135.56	0.25	591643.8	475728.5	1116.9
4378	6.52	165.66	4352.23	-279.21	141.61	-138.39	0.64	591646.7	475717.6	1211.23
4472	6.15	164.63	4445.66	-289.24	144.27	-140.93	0.41	591649.4	475707.6	1304.66
4567	7.15	157.42	4540.02	-299.61	147.89	-144.43	1.37	591653	475697.2	1399.02
4662	7.09	157.5	4634.29	-310.48	152.4	-148.81	0.06	591657.5	475686.3	1493.29
4757	6.65	159.01	4728.6	-321.03	156.61	-152.91	0.5	591661.7	475675.8	1587.6
4851	7.45	149.53	4821.9	-331.37	161.65	-157.83	1.5	591666.8	475665.4	1680.9
4946	8.58	149.15	4915.97	-342.76	168.41	-164.45	1.19	591673.5	475654	1774.97
5041	8.1	150.51	5009.96	-354.67	175.34	-171.24	0.55	591680.4	475642.1	1868.96
5135	8.05	151.52	5103.03	-366.22	181.74	-177.51	0.16	591686.8	475630.6	1962.03
5230	7.52	151.57	5197.15	-377.53	187.87	-183.51	0.56	591693	475619.3	2056.15
5325	8.12	149.87	5291.27	-388.8	194.2	-189.71	0.68	591699.3	475608	2150.27
5419	8.77	148.16	5384.25	-400.63	201.31	-196.68	0.74	591706.4	475596.2	2243.25
5514	7.78	147.58	5478.26	-412.21	208.58	-203.82	1.05	591713.7	475584.6	2337.26
5608	7.79	148.86	5571.39	-423.04	215.28	-210.4	0.18	591720.4	475573.8	2430.39
5703	8.52	151.31	5665.43	-434.72	221.99	-216.97	0.85	591727.1	475562.1	2524.43
5798	8.11	153.14	5759.43	-446.87	228.4	-223.24	0.51	591733.5	475549.9	2618.43
5892	7.21	152.22	5852.59	-458.01	234.14	-228.85	0.97	591739.2	475538.8	2711.59
5987	6.61	153.56	5946.9	-468.18	239.36	-233.95	0.65	591744.5	475528.6	2805.9
6081	5.87	155.49	6040.35	-477.4	243.76	-238.24	0.82	591748.9	475519.4	2899.35
6176	6.28	152.42	6134.81	-486.42	248.18	-242.56	0.55	591753.3	475510.4	2993.81
6270	8.35	149.25	6228.04	-496.85	254.05	-248.31	2.24	591759.2	475500	3087.04
6365	7.86	151.25	6322.09	-508.47	260.7	-254.83	0.6	591765.8	475488.3	3181.09
6460	7.19	151.01	6416.28	-519.36	266.71	-260.71	0.71	591771.8	475477.4	3275.28
6554	6.84	149.1	6509.57	-529.31	272.43	-266.32	0.45	591777.5	475467.5	3368.57
6649	8.11	147.71	6603.76	-539.83	278.92	-272.68	1.35	591784	475457	3462.76
6743	7.34	145.6	6696.91	-550.39	285.85	-279.49	0.87	591791	475446.4	3555.91
6838	6.68	145.42	6791.2	-559.95	292.42	-285.95	0.7	591797.5	475436.9	3650.2
6933	7.03	145.68	6885.52	-569.3	298.83	-292.25	0.37	591803.9	475427.5	3744.52
7027	6.88	144.48	6978.83	-578.63	305.35	-298.66	0.22	591810.5	475418.2	3837.83
7122	8.49	150.47	7072.97	-589.37	312.11	-305.3	1.89	591817.2	475407.4	3931.97
7217	6.73	144.35	7167.13	-599.99	318.81	-311.88	2.04	591823.9	475396.8	4026.13
7311	6.29	141.72	7260.53	-608.51	325.21	-318.18	0.57	591830.3	475388.3	4119.53

7406	7.9	155.58	7354.8	-618.54	331.13	-323.99	2.46	591836.2	475378.3	4213.8
7501	7.68	158.6	7448.93	-630.4	336.15	-328.87	0.49	591841.3	475366.4	4307.93
7595	6.39	159.64	7542.22	-641.15	340.26	-332.85	1.38	591845.4	475355.7	4401.22
7690	6.37	165.55	7636.63	-651.21	343.42	-335.89	0.69	591848.5	475345.6	4495.63
7785	5.91	169.74	7731.09	-661.12	345.6	-337.96	0.68	591850.7	475335.7	4590.09
7880	8.15	177.34	7825.37	-672.67	346.79	-339.02	2.55	591851.9	475324.1	4684.37
7974	8.81	170.34	7918.34	-686.42	348.3	-340.37	1.3	591853.4	475310.4	4777.34
8069	7.45	165.62	8012.39	-699.56	351.05	-342.97	1.59	591856.2	475297.2	4871.39
8164	6.7	167.5	8106.66	-710.93	353.78	-345.57	0.83	591858.9	475285.9	4965.66
8258	9.08	170.32	8199.77	-723.6	356.22	-347.86	2.56	591861.3	475273.2	5058.77
8353	8.18	174.35	8293.69	-737.72	358.14	-349.62	1.14	591863.2	475259.1	5152.69
8448	6.76	177.78	8387.88	-750.03	359.03	-350.36	1.57	591864.1	475246.8	5246.88
8547	6.46	185.88	8486.23	-761.39	358.68	-349.89	0.99	591863.8	475235.4	5345.23
8641	17.04	199.91	8578.14	-779.66	353.43	-344.43	11.58	591858.5	475217.1	5437.14
8736	27.54	208.14	8665.94	-812.21	338.29	-328.91	11.51	591843.4	475184.6	5524.94
8831	39.42	219.18	8745.11	-855.15	308.74	-298.87	14.01	591813.8	475141.7	5604.11
8925	44.93	236.66	8814.99	-896.7	261.96	-251.61	13.75	591767.1	475100.1	5673.99
9020	47.83	254.48	8880.8	-924.69	199.74	-189.07	13.89	591704.8	475072.1	5739.8
9115	49.13	273.34	8944.09	-932.05	129.6	-118.86	14.9	591634.7	475064.8	5803.09
9209	57.56	285.17	9000.28	-919.55	55.53	-44.94	13.48	591560.6	475077.3	5859.28
9304	69.25	287.81	9042.74	-895.38	-25.74	36.05	12.55	591479.4	475101.4	5901.74
9369	76.99	283.68	9061.61	-878.57	-85.56	95.67	13.37	591419.5	475118.2	5920.61
9511	84.42	272.11	9084.61	-859.52	-224.04	233.93	9.59	591281.1	475137.3	5943.61
9606	90.03	271.18	9089.2	-856.8	-318.85	328.7	5.99	591186.3	475140	5948.2
9701	90.2	270.71	9089.01	-855.23	-413.84	423.66	0.53	591091.3	475141.6	5948.01
9795	90.17	270.46	9088.71	-854.27	-507.83	517.64	0.27	590997.3	475142.5	5947.71
9890	90.07	270.47	9088.51	-853.5	-602.83	612.62	0.11	590902.3	475143.3	5947.51
9985	90.1	270.28	9088.37	-852.88	-697.83	707.61	0.2	590807.3	475143.9	5947.37
10080	90.2	270.61	9088.12	-852.14	-792.82	802.59	0.36	590712.3	475144.7	5947.12
10175	90.03	270.31	9087.93	-851.38	-887.82	897.57	0.36	590617.3	475145.4	5946.93
10269	90.23	270.19	9087.72	-850.97	-981.82	991.56	0.25	590523.3	475145.8	5946.72
10364	90.98	270.66	9086.71	-850.26	-1076.81	1086.53	0.93	590428.3	475146.5	5945.71
10459	91.99	270.76	9084.25	-849.08	-1171.77	1181.47	1.07	590333.3	475147.7	5943.25
10554	91.95	270.79	9080.99	-847.8	-1266.71	1276.39	0.05	590238.4	475149	5939.99
10648	90.47	270.75	9079	-846.54	-1360.67	1370.33	1.58	590144.4	475150.3	5938
10743	90.07	270.85	9078.55	-845.21	-1455.66	1465.3	0.43	590049.4	475151.6	5937.55
10838	90.47	271	9078.11	-843.68	-1550.65	1560.27	0.45	589954.5	475153.1	5937.11
10932	91.28	270.9	9076.67	-842.12	-1644.63	1654.22	0.87	589860.5	475154.7	5935.67
11027	90.4	268.55	9075.28	-842.57	-1739.61	1749.2	2.64	589765.5	475154.2	5934.28
11122	90.77	268.54	9074.31	-844.99	-1834.57	1844.18	0.39	589670.5	475151.8	5933.31
11217	88.96	268.28	9074.53	-847.62	-1929.53	1939.17	1.92	589575.6	475149.2	5933.53
11311	88.83	267.43	9076.34	-851.14	-2023.45	2033.12	0.91	589481.7	475145.7	5935.34
11406	88.96	267.87	9078.18	-855.03	-2118.35	2128.06	0.48	589386.8	475141.8	5937.18
11500	89.56	267.43	9079.39	-858.89	-2212.26	2222.01	0.79	589292.8	475137.9	5938.39
11595	89.09	267.01	9080.51	-863.5	-2307.14	2316.93	0.66	589198	475133.3	5939.51
11690	89.93	266.88	9081.32	-868.56	-2402	2411.85	0.89	589103.1	475128.2	5940.32
11785	92.48	267.85	9079.32	-872.92	-2496.87	2506.76	2.87	589008.2	475123.9	5938.32

11880	92.02	267.99	9075.6	-876.37	-2591.74	2601.66	0.51	588913.4	475120.4	5934.6
11975	91.24	268.25	9072.89	-879.49	-2686.65	2696.6	0.87	588818.5	475117.3	5931.89
12070	90.5	269.29	9071.45	-881.52	-2781.61	2791.58	1.34	588723.5	475115.3	5930.45
12164	89.5	269.02	9071.45	-882.91	-2875.6	2885.58	1.1	588629.5	475113.9	5930.45
12259	89.33	268.66	9072.42	-884.83	-2970.57	2980.57	0.42	588534.5	475112	5931.42
12354	88.79	268.24	9073.98	-887.4	-3065.53	3075.54	0.72	588439.6	475109.4	5932.98
12449	89.19	267.97	9075.65	-890.54	-3160.46	3170.51	0.51	588344.6	475106.3	5934.65
12544	90.87	268.92	9075.6	-893.12	-3255.42	3265.49	2.03	588249.7	475103.7	5934.6
12639	91.34	269.85	9073.77	-894.14	-3350.4	3360.47	1.1	588154.7	475102.7	5932.77
12733	90.47	269.64	9072.29	-894.56	-3444.38	3454.46	0.95	588060.7	475102.2	5931.29
12828	92.15	270.01	9070.12	-894.85	-3539.35	3549.43	1.81	587965.8	475102	5929.12
12923	92.25	270.71	9066.47	-894.25	-3634.28	3644.34	0.74	587870.8	475102.6	5925.47
13018	90.84	270.65	9063.91	-893.13	-3729.24	3739.28	1.49	587775.9	475103.7	5922.91
13112	91.07	269.85	9062.34	-892.72	-3823.22	3833.25	0.89	587681.9	475104.1	5921.34
13207	91.98	269.9	9059.81	-892.92	-3918.19	3928.21	0.96	587586.9	475103.9	5918.81
13302	92.01	270.84	9056.5	-892.31	-4013.13	4023.14	0.99	587492	475104.5	5915.5
13397	91.11	269.95	9053.92	-891.66	-4108.09	4118.09	1.33	587397	475105.1	5912.92
13491	90.34	270.22	9052.73	-891.52	-4202.08	4212.07	0.87	587303	475105.3	5911.73
13586	90.54	269.85	9052	-891.46	-4297.08	4307.06	0.44	587208	475105.3	5911
13681	91.78	269.75	9050.08	-891.79	-4392.05	4402.03	1.31	587113.1	475105	5909.08
13777	92.75	269.6	9046.28	-892.33	-4487.98	4497.96	1.02	587017.1	475104.5	5905.28
13851	92.75	269.6	9042.73	-892.85	-4561.89	4571.87	0	586943.2	475104	5901.73

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to GL 3115 + KB 26 =. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 269.340° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.087°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 13851.00ft.,
the Bottom Hole Displacement is 4648.44ft., in the Direction of 269.340° (Grid).

FINAL MWD Survey @ 13,777'
FINAL PTB @ 13,851'