

HOBBS OCD

MAR 27 2019

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Actual Wellpath Report

SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'

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a GE company


REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 FED COM P8 10H
Area	Lea County, NM	Well	SD EA 29 Federal COM P8 No. 10H
Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Tranlam
Scale	0.999970	Report Generated	4/12/2018 at 9:46:04 AM
Convergence at slot	0.40° East	Database/Source file	WA_Midland/SD_EA_29_Federal_COM_P8_No_10H_awp_254_-19781_Proj_19844_.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	-50.00	730185.00	372253.00	32°01'16.547"N	103°35'26.254"W
Facility Reference Pt			730235.00	372253.00	32°01'16.543"N	103°35'25.673"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig: Nabors X30 (KB) to Facility Vertical Datum	3282.60ft
Horizontal Reference Pt	Slot	Rig: Nabors X30 (KB) to Mean Sea Level	3282.60ft
Vertical Reference Pt	Rig: Nabors X30 (KB)	Rig: Nabors X30 (KB) to Ground Level at Slot (SD EA 29 FED COM P8 10H)	32.60ft
MD Reference Pt	Rig: Nabors X30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.57°

We hereby certify that the surveys contained herein, are to the best of our knowledge a true and accurate account of the well.


MWD COORDINATOR



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Facility	SD EA 29 Fed Com P8		

WELLPATH DATA (174 stations) † = Interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [ft/100ft]	Comments
0.00†	0.000	327.500	0.00	0.00	0.00	0.00	730185.00	372253.00	32°01'16.547"N	103°35'26.254"W	0.00	
32.60	0.000	327.500	32.60	0.00	0.00	0.00	730185.00	372253.00	32°01'16.547"N	103°35'26.254"W	0.00	
254.00	0.400	327.500	254.00	-0.65	0.65	-0.42	730184.58	372253.65	32°01'16.553"N	103°35'26.259"W	0.18	
348.00	0.200	322.500	348.00	-1.06	1.06	-0.69	730184.31	372254.06	32°01'16.557"N	103°35'26.262"W	0.21	
444.00†	0.700	22.500	443.99	-1.74	1.73	-0.57	730184.43†	372254.73	32°01'16.564"N	103°35'26.260"W	0.65	
533.00	0.500	17.500	532.99	-2.61	2.61	-0.24	730184.76	372255.61	32°01'16.572"N	103°35'26.256"W	0.23	
627.00	0.600	13.500	626.98	-3.48	3.48	-0.01	730184.99	372256.48	32°01'16.581"N	103°35'26.254"W	0.11	
717.00	0.900	350.500	716.98	-4.63	4.63	-0.01	730184.99	372257.63	32°01'16.592"N	103°35'26.254"W	0.47	
822.00	1.300	355.500	821.96	-6.63	6.63	-0.24	730184.76	372259.63	32°01'16.612"N	103°35'26.256"W	0.39	
856.00†	1.300	356.640	855.95	-7.40	7.40	-0.30	730184.70†	372260.40	32°01'16.620"N	103°35'26.257"W	0.08	
977.00	0.810	198.010	976.94	-7.96	7.96	-0.64	730184.36	372260.96	32°01'16.625"N	103°35'26.261"W	1.72	
1073.00	2.960	181.190	1072.88	-4.84	4.83	-0.90	730184.10	372257.83	32°01'16.594"N	103°35'26.264"W	2.29	
1169.00	5.280	181.790	1168.63	2.05	-2.06	-1.09	730183.91	372250.94	32°01'16.526"N	103°35'26.267"W	2.42	
1263.00	6.230	171.960	1262.16	11.43	-11.43	-0.51	730184.49	372241.57	32°01'16.433"N	103°35'26.261"W	1.45	
1359.00†	6.720	149.850	1357.56†	21.47	-21.45	3.04	730188.04†	372231.55	32°01'16.334"N	103°35'26.220"W	2.63	
1454.00	7.930	132.440	1451.79	30.76	-30.68	10.67	730195.67	372222.32	32°01'16.242"N	103°35'26.132"W	2.65	
1550.00	9.140	123.880	1546.73	39.56	-39.40	21.89	730206.88	372213.60	32°01'16.155"N	103°35'26.003"W	1.82	
1644.00	9.760	116.940	1639.46	47.43	-47.17	35.19	730220.19	372205.83	32°01'16.077"N	103°35'25.849"W	1.38	
1739.00	11.070	110.280	1732.89	54.36	-53.98	50.92	730235.92	372199.02	32°01'16.009"N	103°35'25.667"W	1.87	
1834.00†	12.250	110.650	1825.93	61.21	-60.70	68.91	730253.91†	372192.30	32°01'15.941"N	103°35'25.458"W	1.24	
1929.00	12.620	113.610	1918.71	69.07	-68.41	87.85	730272.85	372184.59	32°01'15.864"N	103°35'25.239"W	0.78	
2022.00	12.970	115.350	2009.40	77.74	-76.95	106.59	730291.59	372176.06	32°01'15.778"N	103°35'25.022"W	0.56	
2116.00	11.740	118.100	2101.22	86.90	-85.97	124.56	730309.55	372167.04	32°01'15.687"N	103°35'24.814"W	1.45	
2210.00	11.400	119.600	2193.31	96.12	-95.06	141.07	730326.07	372157.94	32°01'15.596"N	103°35'24.623"W	0.48	
2305.00†	11.660	123.040	2288.39	106.11	-104.93	157.28	730342.28†	372148.07	32°01'15.498"N	103°35'24.435"W	0.77	
2399.00	10.360	121.850	2378.66	115.86	-114.57	172.43	730357.42	372138.43	32°01'15.401"N	103°35'24.260"W	1.40	
2493.00	9.820	119.300	2471.23	124.27	-122.87	186.46	730371.45	372130.13	32°01'15.318"N	103°35'24.098"W	0.92	
2588.00	9.740	118.800	2564.88	132.13	-130.63	200.42	730385.41	372122.37	32°01'15.240"N	103°35'23.936"W	0.15	
2684.00	8.700	117.330	2659.64	139.48	-137.88	213.99	730398.98	372115.13	32°01'15.168"N	103°35'23.780"W	1.11	
2779.00†	8.440	118.440	2753.58†	146.19	-144.50	226.50	730411.49†	372108.51	32°01'15.015"N	103°35'23.635"W	0.32	



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Facility	SD EA 29 Fed Com P8		

WELLPATH DATA (174 stations)

MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS (ft/100ft)	Comments
2873.00	8.790	118.440	2846.52	152.99	-151.20	238.88	730423.87	372101.80	32°01'15.034"N	103°35'23.491"W	0.37	
2968.00	7.400	120.890	2940.57	159.67	-157.80	250.51	730435.51	372095.21	32°01'14.968"N	103°35'23.357"W	1.51	
3063.00	7.060	123.670	3034.82	166.13	-164.18	260.62	730445.62	372088.83	32°01'14.904"N	103°35'23.240"W	0.51	
3158.00	6.340	114.370	3129.17	171.60	-169.58	270.26	730455.25	372083.43	32°01'14.850"N	103°35'23.128"W	1.37	
3253.00	6.800	104.230	3223.55	175.23	-173.13	280.49	730465.48	372079.88	32°01'14.814"N	103°35'23.010"W	1.31	
3347.00	6.590	107.700	3316.91	178.31	-176.13	291.02	730476.01	372076.87	32°01'14.784"N	103°35'22.888"W	0.48	
3442.00	6.030	111.100	3411.33	181.84	-179.59	300.87	730485.86	372073.42	32°01'14.749"N	103°35'22.774"W	0.71	
3537.00	6.280	110.790	3505.78	185.55	-183.23	310.38	730495.37	372069.78	32°01'14.712"N	103°35'22.664"W	0.27	
3631.00	6.760	110.150	3599.18	189.36	-186.96	320.39	730505.37	372066.05	32°01'14.675"N	103°35'22.548"W	0.52	
3726.00	7.280	108.090	3693.46	193.03	-190.55	331.42	730516.41	372062.45	32°01'14.638"N	103°35'22.420"W	0.76	
3819.00	7.410	105.340	3785.70	196.34	-193.77	342.86	730527.85	372059.23	32°01'14.606"N	103°35'22.287"W	0.17	
3913.00	7.330	103.790	3878.92	199.46	-196.80	354.53	730539.52	372056.20	32°01'14.575"N	103°35'22.152"W	0.23	
4007.00	7.100	114.550	3972.18	203.39	-200.65	365.64	730550.63	372052.36	32°01'14.536"N	103°35'22.023"W	1.46	
4101.00	6.710	129.690	4065.51	209.38	-206.57	375.15	730560.14	372048.44	32°01'14.477"N	103°35'21.913"W	1.97	
4196.00	5.120	135.140	4160.00	215.98	-213.12	382.41	730567.40	372039.89	32°01'14.412"N	103°35'21.829"W	1.77	
4291.00	4.000	137.460	4254.70	221.47	-218.57	387.64	730572.63	372034.44	32°01'14.357"N	103°35'21.769"W	1.19	
4386.00	1.970	160.290	4349.57	225.47	-222.54	390.43	730575.42	372030.46	32°01'14.318"N	103°35'21.737"W	2.44	
4481.00	1.280	187.390	4444.53	228.06	-225.13	390.85	730575.84	372027.87	32°01'14.292"N	103°35'21.732"W	1.07	
4575.00	1.950	156.560	4538.50	230.57	-227.64	391.35	730576.34	372025.36	32°01'14.267"N	103°35'21.727"W	1.14	
4670.00	1.770	140.820	4633.45	233.21	-230.26	392.92	730577.91	372022.74	32°01'14.241"N	103°35'21.709"W	1.057	
4765.00	0.500	293.610	4728.43	234.18	-231.23	393.47	730578.45	372021.77	32°01'14.232"N	103°35'21.702"W	2.34	
4861.00	1.180	314.050	4824.42	233.32	-230.38	392.37	730577.36	372022.63	32°01'14.240"N	103°35'21.715"W	0.76	
4956.00	0.820	315.820	4919.41	232.14	-229.21	391.20	730576.18	372023.80	32°01'14.252"N	103°35'21.729"W	0.38	
5145.00	0.640	302.430	5108.39	230.59	-227.68	389.36	730574.35	372025.33	32°01'14.267"N	103°35'21.750"W	0.13	
5334.00	0.370	287.750	5297.39	229.83	-226.92	387.89	730572.88	372026.08	32°01'14.275"N	103°35'21.767"W	0.16	
5525.00	0.220	304.230	5488.38	229.43	-226.53	387.00	730571.99	372026.48	32°01'14.279"N	103°35'21.777"W	0.09	
5715.00	0.070	210.680	5678.38	229.32	-226.42	386.64	730571.63	372026.58	32°01'14.280"N	103°35'21.781"W	0.12	
5906.00	0.090	179.300	5869.38	229.57	-226.67	386.58	730571.57	372026.33	32°01'14.277"N	103°35'21.782"W	0.02	
6095.00	0.160	227.820	6058.38	229.89	-227.00	386.39	730571.37	372026.01	32°01'14.274"N	103°35'21.784"W	0.06	
6284.00	0.250	204.300	6247.38	230.44	-227.55	386.02	730571.01	372025.46	32°01'14.269"N	103°35'21.789"W	0.06	



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Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
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WELLPATH DATA (174 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS (ft/100ft)	Comments
6473.00	0.140	136.260	6436.38	230.99	-228.09	386.01	730571.00	372024.91	32°01'14.263"N	103°35'21.789"W	0.13	
6663.00	0.170	24.430	6626.38	230.90	-228.01	386.29	730571.28	372025.00	32°01'14.264"N	103°35'21.786"W	0.14	
6853.00	0.100	202.640	6816.38	230.80	-227.90	386.34	730571.33	372025.11	32°01'14.265"N	103°35'21.785"W	0.14	
7041.00	0.430	331.990	7004.38	230.32	-227.43	385.95	730570.93	372025.58	32°01'14.270"N	103°35'21.789"W	0.27	
7231.00	0.250	309.290	7194.37	229.42	-228.54	385.29	730570.28	372026.47	32°01'14.279"N	103°35'21.797"W	0.12	
7421.00	0.290	248.340	7384.37	229.33	-226.45	384.52	730569.51	372026.55	32°01'14.280"N	103°35'21.806"W	0.15	
7611.00	0.450	218.340	7574.37	230.09	-227.22	383.61	730568.60	372025.79	32°01'14.272"N	103°35'21.817"W	0.13	
7801.00	0.670	184.800	7764.36	231.78	-228.91	383.06	730568.05	372024.10	32°01'14.255"N	103°35'21.823"W	0.20	
7989.00	1.010	203.590	7952.34	234.39	-231.52	382.30	730567.29	372021.48	32°01'14.230"N	103°35'21.832"W	0.23	
8177.00	0.800	193.710	8140.32	237.17	-234.32	381.33	730566.32	372018.69	32°01'14.202"N	103°35'21.844"W	0.14	
8366.00	0.640	177.290	8329.30	239.51	-236.65	381.07	730566.05	372016.36	32°01'14.179"N	103°35'21.847"W	0.14	
8556.00	0.550	198.800	8519.29	241.43	-238.58	380.82	730565.81	372014.43	32°01'14.160"N	103°35'21.850"W	0.13	
8744.00	0.530	202.690	8707.28	243.08	-240.23	380.20	730565.18	372012.78	32°01'14.143"N	103°35'21.857"W	0.02	
8934.00	0.930	203.580	8897.27	245.30	-242.46	379.24	730564.23	372010.55	32°01'14.122"N	103°35'21.869"W	0.21	
9122.00	0.720	221.150	9085.25	247.57	-244.74	377.85	730562.84	372008.26	32°01'14.099"N	103°35'21.885"W	0.17	
9311.00	1.110	263.230	9274.23	248.66	-245.85	375.25	730560.24	372007.15	32°01'14.088"N	103°35'21.915"W	0.40	
9500.00	1.910	280.140	9463.16	248.29	-245.51	370.33	730555.32	372007.49	32°01'14.092"N	103°35'21.972"W	0.48	
9689.00	1.100	289.770	9652.09	247.08	-244.35	365.53	730550.52	372008.66	32°01'14.104"N	103°35'22.028"W	0.45	
9878.00	1.310	301.060	9841.05	245.33	-242.62	361.97	730546.96	372010.39	32°01'14.121"N	103°35'22.069"W	0.17	
10067.00	1.860	301.510	10029.98	242.58	-239.90	357.50	730542.49	372013.11	32°01'14.148"N	103°35'22.121"W	0.29	
10256.00	1.550	311.990	10218.89	239.23	-236.59	352.99	730537.98	372016.42	32°01'14.181"N	103°35'22.173"W	0.23	
10445.00	0.760	288.220	10407.86	237.10	-234.49	349.90	730534.89	372018.52	32°01'14.202"N	103°35'22.209"W	0.48	
10634.00	1.070	327.730	10596.83	235.20	-232.60	347.77	730532.75	372020.41	32°01'14.221"N	103°35'22.233"W	0.36	
10824.00	1.480	320.650	10786.79	231.79	-229.20	345.26	730530.25	372023.80	32°01'14.255"N	103°35'22.262"W	0.23	
11014.00	0.390	250.400	10976.78	230.09	-227.52	343.10	730528.09	372025.48	32°01'14.272"N	103°35'22.287"W	0.74	
11069.00	1.020	209.820	11031.76	230.58	-228.01	342.68	730527.67	372025.00	32°01'14.267"N	103°35'22.292"W	1.39	
11109.00	1.140	203.480	11071.75	231.25	-228.68	342.34	730527.33	372024.32	32°01'14.260"N	103°35'22.296"W	0.42	12 1/4 BH MWD 856' - 11109'
11201.00	1.590	195.130	11163.72	233.31	-230.76	341.64	730526.63	372022.25	32°01'14.240"N	103°35'22.304"W	0.53	
11390.00	0.690	222.510	11352.69	236.67	-234.13	340.19	730525.18	372018.88	32°01'14.207"N	103°35'22.321"W	0.54	
11580.00	3.970	27.480	11542.55	231.69	-229.13	342.45	730527.44	372023.88	32°01'14.256"N	103°35'22.295"W	2.44	



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Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

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11768.00	2.720	29.790	11730.23	222.09	-219.48	347.67	730532.66	372033.52	32°01'14.351"N	103°35'22.233"W	0.67	
11959.00	3.470	45.510	11920.95	214.15	-211.50	354.04	730539.03	372041.51	32°01'14.430"N	103°35'22.159"W	0.59	
12054.00	3.970	77.080	12015.76	211.44	-208.75	359.30	730544.29	372044.26	32°01'14.456"N	103°35'22.097"W	2.19	
12243.00	9.810	115.840	12203.40	217.16	-214.31	380.20	730565.18	372038.69	32°01'14.400"N	103°35'21.855"W	3.79	1/2 BH MWD 11201' - 12243'
12367.00	14.190	132.840	12324.70	232.26	-229.26	400.86	730585.85	372023.74	32°01'14.251"N	103°35'21.616"W	4.50	
12462.00	26.570	157.800	12413.73	260.13	-257.01	417.52	730602.51	371996.00	32°01'13.975"N	103°35'21.425"W	15.65	
12557.00	34.210	167.870	12495.67	306.11	-302.89	431.19	730616.18	371950.12	32°01'13.520"N	103°35'21.270"W	9.64	
12652.00	42.950	170.590	12569.87	364.35	-361.04	442.12	730627.10	371891.97	32°01'12.944"N	103°35'21.148"W	9.37	
12748.00	52.260	170.920	12634.52	434.33	-430.94	453.48	730638.47	371822.07	32°01'12.251"N	103°35'21.021"W	9.70	
12843.00	61.660	171.910	12686.26	513.08	-509.60	465.32	730650.30	371743.41	32°01'11.472"N	103°35'20.890"W	9.93	
12938.00	72.720	174.200	12723.04	599.95	-596.40	475.82	730660.80	371656.62	32°01'10.612"N	103°35'20.775"W	11.85	
13033.00	82.990	176.380	12743.00	692.44	-688.83	483.40	730668.39	371564.19	32°01'09.697"N	103°35'20.695"W	11.04	
13127.00	91.420	177.400	12747.58	786.14	-782.50	488.49	730673.47	371470.53	32°01'08.770"N	103°35'20.643"W	9.03	
13253.00	92.400	180.030	12743.38	912.04	-908.38	491.31	730676.30	371344.65	32°01'07.524"N	103°35'20.620"W	2.23	
13348.00	90.770	180.840	12740.75	1006.99	-1003.34	490.59	730675.57	371249.69	32°01'06.585"N	103°35'20.636"W	1.92	
13443.00	88.830	182.280	12741.09	1101.93	-1098.30	488.00	730672.99	371154.74	32°01'05.645"N	103°35'20.674"W	2.54	
13537.00	88.000	183.050	12743.69	1195.75	-1192.16	483.64	730668.62	371060.88	32°01'04.717"N	103°35'20.732"W	1.20	
13632.00	87.780	181.200	12747.18	1290.59	-1287.02	480.12	730665.10	370966.02	32°01'03.778"N	103°35'20.781"W	1.96	
13726.00	87.470	180.980	12751.08	1384.48	-1380.92	478.33	730663.31	370872.12	32°01'02.849"N	103°35'20.809"W	0.40	
13821.00	87.170	180.340	12755.52	1479.35	-1475.81	477.24	730662.22	370777.23	32°01'01.910"N	103°35'20.829"W	0.74	
13916.00	86.540	179.050	12760.73	1574.21	-1570.67	477.74	730662.72	370682.38	32°01'00.971"N	103°35'20.831"W	1.51	
14011.00	87.780	180.430	12765.44	1669.09	-1665.55	478.17	730663.15	370587.51	32°01'00.033"N	103°35'20.833"W	1.95	
14104.00	89.040	178.790	12768.02	1762.05	-1758.50	478.80	730663.79	370494.55	32°00'59.113"N	103°35'20.833"W	2.22	
14199.00	87.070	178.350	12771.25	1856.97	-1853.41	481.17	730666.16	370399.65	32°00'58.173"N	103°35'20.814"W	2.12	
14294.00	88.120	179.760	12775.23	1951.88	-1948.31	482.74	730667.72	370304.75	32°00'57.234"N	103°35'20.803"W	1.85	
14389.00	86.790	177.350	12779.45	2046.76	-2043.18	485.13	730670.11	370209.89	32°00'56.295"N	103°35'20.783"W	2.90	
14484.00	88.000	178.560	12783.77	2141.62	-2138.02	488.52	730673.50	370115.05	32°00'55.356"N	103°35'20.751"W	1.80	
14579.00	88.070	178.880	12787.03	2236.56	-2232.94	490.64	730675.62	370020.13	32°00'54.417"N	103°35'20.734"W	0.34	
14674.00	89.010	180.200	12789.45	2331.52	-2327.90	491.40	730676.38	369925.17	32°00'53.477"N	103°35'20.733"W	1.71	
14769.00	89.910	181.760	12790.34	2426.49	-2422.88	489.77	730674.76	369830.20	32°00'52.538"N	103°35'20.759"W	1.90	



Actual Wellpath Report

SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 FED COM P8 10H
Area	Lea County, NM	Well	SD EA 29 Federal COM P8 No. 10H
Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

WELLPATH DATA (174 stations)

MD [m]	Inclination [°]	Azimuth [°]	TVD [m]	Vert Sect [m]	North [m]	East [m]	Grid East [US m]	Grid North [US m]	Latitude	Longitude	DLS [m/100ft]	Comments
14864.00	91.170	179.210	12789.45	2521.46	-2517.86	488.97	730673.95	369735.22	32°00'51.598"N	103°35'20.776"W	2.99	
14959.00	92.370	179.300	12786.51	2616.41	-2612.81	490.20	730675.19	369640.28	32°00'50.658"N	103°35'20.769"W	1.27	
15052.00	90.060	179.300	12784.54	2709.38	-2705.77	491.34	730676.32	369547.32	32°00'49.738"N	103°35'20.764"W	2.48	
15146.00	87.260	178.400	12786.74	2803.34	-2799.72	493.23	730678.21	369453.37	32°00'48.808"N	103°35'20.749"W	3.13	
15241.00	89.230	179.610	12789.65	2898.28	-2894.65	494.87	730679.86	369358.44	32°00'47.869"N	103°35'20.738"W	2.43	
15336.00	91.290	179.690	12789.22	2993.28	-2989.64	495.45	730680.44	369263.45	32°00'46.929"N	103°35'20.739"W	2.17	
15430.00	89.030	177.470	12788.95	3087.25	-3083.60	497.78	730682.77	369169.50	32°00'45.999"N	103°35'20.719"W	3.37	
15525.00	90.400	178.250	12789.43	3182.21	-3178.53	501.33	730686.31	369074.57	32°00'45.059"N	103°35'20.685"W	1.66	
15620.00	91.360	178.690	12787.97	3277.18	-3273.49	503.87	730688.85	368979.62	32°00'44.119"N	103°35'20.664"W	1.11	
15714.00	88.580	178.450	12788.02	3371.15	-3367.45	506.21	730691.20	368885.66	32°00'43.189"N	103°35'20.644"W	2.97	
15808.00	90.400	179.300	12788.85	3465.14	-3461.42	508.06	730693.04	368791.69	32°00'42.259"N	103°35'20.630"W	2.14	
15902.00	89.380	180.480	12789.03	3559.13	-3555.42	508.24	730693.22	368697.70	32°00'41.329"N	103°35'20.635"W	1.66	
15996.00	87.470	180.210	12791.62	3653.08	-3649.38	507.67	730692.66	368603.74	32°00'40.399"N	103°35'20.649"W	2.05	
16091.00	89.260	181.820	12794.33	3748.01	-3744.32	505.99	730690.97	368508.81	32°00'39.460"N	103°35'20.677"W	2.53	
16185.00	87.260	179.590	12797.18	3841.93	-3838.25	504.83	730689.82	368414.87	32°00'38.531"N	103°35'20.697"W	3.19	
16279.00	87.250	180.550	12801.68	3935.82	-3932.14	504.72	730689.70	368320.98	32°00'37.601"N	103°35'20.706"W	1.02	
16374.00	88.400	181.640	12805.29	4030.72	-4027.06	502.90	730687.89	368226.07	32°00'36.662"N	103°35'20.735"W	1.67	
16468.00	89.510	182.560	12807.00	4124.61	-4120.97	499.46	730684.44	368132.16	32°00'35.733"N	103°35'20.783"W	1.53	
16563.00	87.910	180.000	12809.14	4219.53	-4215.92	497.34	730682.32	368037.22	32°00'34.794"N	103°35'20.815"W	3.18	
16657.00	89.720	180.570	12811.09	4313.50	-4309.89	496.87	730681.85	367943.25	32°00'33.864"N	103°35'20.828"W	2.02	
16751.00	89.110	178.610	12812.05	4407.49	-4403.88	497.54	730682.53	367849.26	32°00'32.934"N	103°35'20.827"W	2.18	
16846.00	91.880	177.580	12811.23	4502.44	-4498.81	500.70	730685.68	367754.33	32°00'31.994"N	103°35'20.798"W	3.11	
16941.00	92.930	178.100	12807.24	4597.31	-4593.66	504.28	730689.26	367659.49	32°00'31.055"N	103°35'20.764"W	1.23	
17035.00	92.400	179.650	12802.87	4691.20	-4687.54	506.12	730691.10	367565.62	32°00'30.126"N	103°35'20.750"W	1.74	
17129.00	91.200	180.340	12799.92	4785.15	-4781.49	506.13	730691.11	367471.67	32°00'29.197"N	103°35'20.758"W	1.47	
17224.00	89.450	180.210	12799.38	4880.14	-4876.48	505.67	730690.66	367376.68	32°00'28.257"N	103°35'20.771"W	1.85	
17318.00	89.140	180.900	12800.53	4974.12	-4970.47	504.76	730689.75	367282.69	32°00'27.327"N	103°35'20.789"W	0.80	
17413.00	89.290	180.340	12801.84	5069.09	-5065.45	503.73	730688.72	367187.71	32°00'26.387"N	103°35'20.808"W	0.61	
17508.00	86.670	179.780	12805.18	5164.02	-5160.39	503.63	730688.62	367092.78	32°00'25.447"N	103°35'20.817"W	2.82	
17602.00	88.120	178.220	12809.46	5257.91	-5254.27	505.27	730690.26	366998.90	32°00'24.516"N	103°35'20.806"W	2.26	



Actual Wellpath Report

SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 FED COM P8 10H
Area	Lea County, NM	Well	SD EA 29 Federal COM P8 No. 10H
Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

WELLPATH DATA (174 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS (ft/100ft)	Comments
17696.00	89.110	178.750	12811.73	5351.87	-5348.21	507.76	730692.74	366904.96	32°00'23.588"N	103°35'20.784"W	1.19	
17791.00	91.540	180.410	12811.19	5446.86	-5443.19	508.45	730693.44	366809.98	32°00'22.649"N	103°35'20.784"W	3.10	
17887.00	90.220	179.240	12809.72	5542.84	-5539.18	508.75	730693.73	366714.00	32°00'21.699"N	103°35'20.788"W	1.84	
17982.00	90.490	179.580	12809.13	5637.84	-5634.17	509.73	730694.71	366619.01	32°00'20.759"N	103°35'20.784"W	0.46	
18078.00	90.560	178.880	12808.27	5731.83	-5728.16	510.99	730695.97	366525.03	32°00'19.828"N	103°35'20.777"W	0.75	
18171.00	91.540	180.060	12806.52	5826.81	-5823.13	511.87	730696.85	366430.05	32°00'18.889"N	103°35'20.774"W	1.61	
18265.00	92.160	179.900	12803.49	5920.76	-5917.08	511.90	730696.88	366336.11	32°00'17.959"N	103°35'20.782"W	0.68	
18360.00	91.480	180.920	12800.47	6015.70	-6012.03	511.22	730696.20	366241.16	32°00'17.019"N	103°35'20.797"W	1.29	
18455.00	88.000	180.110	12800.90	6110.67	-6107.01	510.37	730695.35	366146.18	32°00'16.080"N	103°35'20.815"W	3.76	
18550.00	88.710	180.370	12803.63	6205.62	-6201.97	509.97	730694.95	366051.23	32°00'15.140"N	103°35'20.827"W	0.80	
18645.00	87.660	179.280	12806.64	6300.57	-6296.92	510.26	730695.24	365956.28	32°00'14.200"N	103°35'20.831"W	1.59	
18739.00	88.270	179.980	12809.98	6394.51	-6390.86	510.87	730695.85	365862.35	32°00'13.271"N	103°35'20.832"W	0.99	
18834.00	88.980	180.460	12812.26	6489.48	-6485.83	510.50	730695.48	365767.38	32°00'12.331"N	103°35'20.843"W	0.90	
18930.00	89.320	179.360	12813.68	6585.46	-6581.82	510.65	730695.64	365671.39	32°00'11.381"N	103°35'20.849"W	1.20	
19025.00	89.290	178.010	12814.83	6680.44	-6676.78	512.83	730697.82	365576.43	32°00'10.441"N	103°35'20.832"W	1.42	
19120.00	89.480	178.020	12815.85	6775.40	-6771.72	516.12	730701.11	365481.50	32°00'09.501"N	103°35'20.801"W	0.20	
19214.00	90.150	179.180	12816.16	6869.39	-6865.69	518.42	730703.40	365387.53	32°00'08.571"N	103°35'20.782"W	1.43	
19308.00	91.020	179.520	12815.20	6963.38	-6959.68	519.49	730704.47	365293.55	32°00'07.641"N	103°35'20.777"W	0.99	
19402.00	91.450	181.180	12813.17	7057.35	-7053.65	518.91	730703.89	365199.58	32°00'06.711"N	103°35'20.791"W	1.82	
19497.00	90.280	181.390	12811.74	7152.29	-7148.61	516.78	730701.76	365104.62	32°00'05.772"N	103°35'20.823"W	1.25	
19592.00	87.440	180.730	12813.63	7247.23	-7243.57	515.02	730700.01	365009.66	32°00'04.832"N	103°35'20.851"W	3.07	
19687.00	90.400	180.740	12815.42	7342.18	-7338.53	513.81	730698.79	364914.70	32°00'03.893"N	103°35'20.873"W	3.12	
19781.00	89.780	178.660	12815.27	7436.18	-7432.53	514.30	730699.28	364820.71	32°00'02.963"N	103°35'20.875"W	2.31	1/2 BH MWD 12367 - 19781'
19844.00	89.780	178.660	12815.51	7499.17	-7495.51	515.77	730700.75	364757.73	32°00'02.339"N	103°35'20.863"W	0.00	Projection to TD: 19844'



Actual Wellpath Report

SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'
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**BAKER
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 FED COM P8 10H
Area	Lea County, NM	Well	SD EA 29 Federal COM P8 No. 10H
Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD EA 29 FED COM P8 10H ip1	12744.82	-1770.84	500.08	730685.07	370482.22	32°00'58.989"N	103°35'20.587"W	point
SD EA 29 FED COM P8 10H ip2	12760.57	-3064.24	509.78	730694.77	369188.86	32°00'46.189"N	103°35'20.578"W	point
SD EA 29 FED COM P8 10H PBHL rev 4	12775.80	-7509.03	544.46	730729.44	364744.21	32°00'02.203"N	103°35'20.531"W	point
SD EA 29 FED COM P8 10H ip3	12781.76	-4550.35	521.03	730706.01	367702.79	32°00'31.483"N	103°35'20.566"W	point
SD EA 29 FED COM P8 10H ip4	12789.26	-5894.88	531.10	730716.09	366358.30	32°00'18.177"N	103°35'20.557"W	point
SD EA 29 FED COM P8 10H ip5	12798.17	-6974.34	539.27	730724.25	365278.88	32°00'07.495"N	103°35'20.548"W	point
SD EA 29 FED COM P8 10H PBHL rev 5	12802.80	-7509.03	544.46	730729.44	364744.21	32°00'02.203"N	103°35'20.531"W	point

WELLPATH COMPOSITION - Ref Wellbore: SD EA 29 FED COM P8 10H PWB Ref Wellpath: SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	822.00	ISCWSA MWD, Rev. 4 (Standard)	Surface Surveys	SD EA 29 FED COM P8 10H PWB
822.00	11109.00	BHI NaviTrak (Standard)	12 1/4 BH MWD 856' - 11109'	SD EA 29 FED COM P8 10H PWB
11109.00	12243.00	BHI NaviTrak (Standard)	8 1/2 BH MWD 11201' - 12243'	SD EA 29 FED COM P8 10H PWB
12243.00	19781.00	BHI NaviTrak (Standard)	6 1/2 BH MWD 12367' - 19781'	SD EA 29 FED COM P8 10H PWB
19781.00	19844.00	Blind Drilling (std)	Projection to bit	SD EA 29 FED COM P8 10H PWB



Actual Wellpath Report

SD EA 29 Federal COM P8 No. 10H awp 254' - 19781' Proj: 19844'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 FED COM P8 10H
Area	Lea County, NM	Well	SD EA 29 Federal COM P8 No. 10H
Field	Bone Spring (Lea County, NM) NAD 27	Wellbore	SD EA 29 FED COM P8 10H PWB
Facility	SD EA 29 Fed Com P8		

COMMENTS

Wellpath general comments

Well: SD EA 29 Federal COM P8 No. 10H
Field: Bone Spring
Rig: Nabors X30
Location: Lea Co., NM
API: 30-025-43271-01
Latitude: 32° 01' 16.547" N
Longitude: 103° 35' 26.254" W
DF Elevation: 3282.6 feet
Elev. GL: 3250 feet
Proposed Direction: 179.57°
PBHL: 19844 feet
Duration: 12/14/2017-3/18/2017
FSE's: D. Hardeman
SO#: 8793353
12 1/4 BH MWD 856' - 11109'
8 1/2 BH MWD 11201' - 12243'
6 1/2 BH MWD 12367' - 19781'
Projection to TD: 19844'