



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

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	0.999961	Report Generated	3/31/2017 at 2:32:30 PM
Convergence at slot	0.37° East	Database/Source file	WA_Midland/SD_WE_23_Federal_P25_No_2H_awp_263_-_19131_Proj_19157_.xml

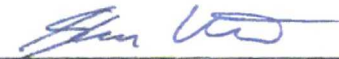
WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	25.00	713257.00	372222.00	32°01'17.349"N	103°38'42.873"W
Facility Reference Pt			713232.00	372222.00	32°01'17.350"N	103°38'43.163"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nabors X-30 (KB) to Facility Vertical Datum	3154.60ft
Horizontal Reference Pt	Slot	Nabors X-30 (KB) to Mean Sea Level	3154.60ft
Vertical Reference Pt	Nabors X-30 (KB)	Nabors X-30 (KB) to Ground Level at Slot (SD WE 23 Fed P25 No. 2H)	32.60ft
MD Reference Pt	Nabors X-30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.73°

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



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
0.00†	0.000	337.800	0.00	0.00	0.00	0.00	713257.00	372222.00	32°01'17.349"N	103°38'42.873"W	0.00	
32.60	0.000	337.800	32.60	0.00	0.00	0.00	713257.00	372222.00	32°01'17.349"N	103°38'42.873"W	0.00	
263.00	0.400	337.800	263.00	0.75	0.74	-0.30	713256.70	372222.74	32°01'17.356"N	103°38'42.877"W	0.17	
354.00	0.400	6.800	354.00	1.36	1.35	-0.39	713256.61	372223.35	32°01'17.362"N	103°38'42.877"W	0.22	
448.00	0.300	6.800	447.99	1.93	1.92	-0.32	713256.68	372223.92	32°01'17.368"N	103°38'42.877"W	0.11	
539.00	0.400	342.800	538.99	2.47	2.46	-0.38	713256.62	372224.46	32°01'17.373"N	103°38'42.877"W	0.19	
630.00	0.500	340.800	629.99	3.15	3.14	-0.61	713256.39	372225.14	32°01'17.380"N	103°38'42.880"W	0.11	
728.00	0.700	333.800	727.98	4.09	4.08	-1.01	713255.99	372226.08	32°01'17.389"N	103°38'42.885"W	0.22	
799.00	0.730	324.080	798.98	4.85	4.84	-1.47	713255.53	372226.84	32°01'17.397"N	103°38'42.890"W	0.18	
890.00	0.630	335.150	889.97	5.77	5.76	-2.02	713254.98	372227.76	32°01'17.406"N	103°38'42.896"W	0.18	
981.00	0.870	312.270	980.96	6.69	6.68	-2.74	713254.26	372228.68	32°01'17.415"N	103°38'42.904"W	0.42	
1072.00	1.480	304.520	1071.95	7.83	7.81	-4.22	713252.78	372229.81	32°01'17.426"N	103°38'42.922"W	0.69	
1160.00	2.070	262.250	1159.91	8.27	8.24	-6.73	713250.27	372230.24	32°01'17.431"N	103°38'42.951"W	1.58	
1248.00	3.680	231.050	1247.80	6.30	6.25	-10.50	713246.50	372228.25	32°01'17.411"N	103°38'42.995"W	2.49	
1337.00	5.350	221.640	1336.52	1.43	1.35	-15.48	713241.52	372223.35	32°01'17.363"N	103°38'43.053"W	2.05	
1425.00	5.960	220.040	1424.09	-5.11	-5.21	-21.15	713235.85	372216.79	32°01'17.299"N	103°38'43.119"W	0.72	
1514.00	5.680	202.650	1512.64	-12.69	-12.81	-25.82	713231.18	372209.19	32°01'17.224"N	103°38'43.174"W	2.00	
1602.00	5.710	198.230	1600.20	-20.85	-20.99	-28.86	713228.14	372201.01	32°01'17.143"N	103°38'43.210"W	0.50	
1691.00	5.300	191.780	1688.80	-29.07	-29.22	-31.09	713225.91	372192.78	32°01'17.062"N	103°38'43.236"W	0.83	
1779.00	5.040	187.870	1776.44	-36.87	-37.03	-32.45	713224.55	372184.98	32°01'16.985"N	103°38'43.253"W	0.50	
1868.00	5.180	191.200	1865.08	-44.68	-44.84	-33.76	713223.24	372177.16	32°01'16.907"N	103°38'43.269"W	0.37	
1956.00	5.280	190.980	1952.72	-52.54	-52.71	-35.31	713221.70	372169.29	32°01'16.830"N	103°38'43.287"W	0.12	
2044.00	5.590	193.800	2040.32	-60.67	-60.85	-37.10	713219.90	372161.15	32°01'16.749"N	103°38'43.308"W	0.46	
2133.00	5.660	193.740	2128.89	-69.14	-69.32	-39.18	713217.83	372152.68	32°01'16.665"N	103°38'43.333"W	0.08	
2221.00	5.600	193.910	2216.47	-77.51	-77.70	-41.24	713215.76	372144.30	32°01'16.583"N	103°38'43.358"W	0.07	
2310.00	5.560	194.160	2305.05	-85.89	-86.10	-43.34	713213.66	372135.90	32°01'16.500"N	103°38'43.383"W	0.05	
2398.00	5.730	193.260	2392.62	-94.29	-94.51	-45.39	713211.61	372127.49	32°01'16.417"N	103°38'43.407"W	0.22	
2487.00	5.720	194.070	2481.18	-102.91	-103.14	-47.48	713209.52	372118.87	32°01'16.331"N	103°38'43.432"W	0.09	
2575.00	6.040	193.270	2568.71	-111.66	-111.90	-49.61	713207.39	372110.11	32°01'16.245"N	103°38'43.458"W	0.38	
2664.00	5.330	185.770	2657.28	-120.32	-120.57	-51.10	713205.90	372101.44	32°01'16.159"N	103°38'43.476"W	1.15	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'
Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
2752.00	5.440	181.460	2744.89	-128.56	-128.80	-51.62	713205.38	372093.20	32°01'16.078"N	103°38'43.482"W	0.48	
2841.00	3.610	188.170	2833.61	-135.55	-135.79	-52.13	713204.88	372086.21	32°01'16.008"N	103°38'43.489"W	2.14	
2929.00	2.770	197.350	2921.47	-140.31	-140.57	-53.15	713203.85	372081.44	32°01'15.961"N	103°38'43.501"W	1.11	
3018.00	3.170	201.500	3010.35	-144.65	-144.91	-54.70	713202.30	372077.10	32°01'15.918"N	103°38'43.519"W	0.51	
3106.00	1.970	188.660	3098.26	-148.40	-148.67	-55.82	713201.18	372073.34	32°01'15.881"N	103°38'43.532"W	1.50	
3196.00	1.340	152.930	3188.23	-150.87	-151.13	-55.57	713201.43	372070.87	32°01'15.857"N	103°38'43.530"W	1.31	
3284.00	1.700	129.050	3276.20	-152.62	-152.87	-54.09	713202.91	372069.13	32°01'15.840"N	103°38'43.513"W	0.82	
3373.00	2.010	113.370	3365.15	-154.08	-154.32	-51.63	713205.37	372067.68	32°01'15.825"N	103°38'43.484"W	0.67	
3462.00	0.770	84.780	3454.12	-154.65	-154.89	-49.60	713207.40	372067.12	32°01'15.819"N	103°38'43.461"W	1.55	
3550.00	0.770	37.220	3542.12	-154.13	-154.36	-48.66	713208.35	372067.64	32°01'15.824"N	103°38'43.450"W	0.71	
3638.00	1.090	36.320	3630.10	-152.99	-153.22	-47.80	713209.20	372068.79	32°01'15.836"N	103°38'43.440"W	0.36	
3727.00	1.170	30.980	3719.09	-151.54	-151.76	-46.83	713210.17	372070.25	32°01'15.850"N	103°38'43.428"W	0.15	
3815.00	1.090	29.330	3807.07	-150.04	-150.26	-45.96	713211.04	372071.75	32°01'15.865"N	103°38'43.418"W	0.10	
3904.00	1.350	27.560	3896.05	-148.38	-148.59	-45.06	713211.94	372073.42	32°01'15.881"N	103°38'43.407"W	0.30	
3992.00	1.430	43.110	3984.02	-146.66	-146.87	-43.83	713213.17	372075.14	32°01'15.898"N	103°38'43.393"W	0.44	
4081.00	1.330	42.280	4073.00	-145.09	-145.29	-42.38	713214.62	372076.71	32°01'15.914"N	103°38'43.376"W	0.11	
4169.00	1.560	62.690	4160.97	-143.80	-143.99	-40.63	713216.38	372078.02	32°01'15.927"N	103°38'43.356"W	0.64	
4258.00	1.700	93.310	4249.94	-143.33	-143.51	-38.23	713218.77	372078.50	32°01'15.931"N	103°38'43.328"W	0.98	
4346.00	1.480	96.940	4337.90	-143.55	-143.72	-35.80	713221.20	372078.28	32°01'15.929"N	103°38'43.299"W	0.27	
4434.00	1.110	85.150	4426.88	-143.63	-143.79	-33.82	713223.18	372078.22	32°01'15.928"N	103°38'43.277"W	0.52	12 1/4 BHI MWD 799' - 4434'
4606.00	0.970	95.430	4597.85	-143.64	-143.78	-30.71	713226.29	372078.22	32°01'15.928"N	103°38'43.240"W	0.14	
4784.00	0.810	81.100	4775.83	-143.60	-143.73	-27.97	713229.03	372078.27	32°01'15.928"N	103°38'43.209"W	0.15	
4961.00	0.830	67.590	4952.81	-142.93	-143.05	-25.55	713231.45	372078.96	32°01'15.935"N	103°38'43.180"W	0.11	
5137.00	0.610	53.170	5128.80	-141.89	-142.00	-23.62	713233.38	372080.00	32°01'15.945"N	103°38'43.158"W	0.16	
5315.00	0.650	44.750	5306.79	-140.61	-140.72	-22.15	713234.85	372081.29	32°01'15.958"N	103°38'43.141"W	0.06	
5492.00	0.480	20.340	5483.78	-139.21	-139.31	-21.19	713235.81	372082.70	32°01'15.972"N	103°38'43.129"W	0.16	
5669.00	0.360	15.200	5660.77	-137.98	-138.08	-20.78	713236.22	372083.93	32°01'15.984"N	103°38'43.125"W	0.07	
5846.00	0.380	350.360	5837.77	-136.86	-136.96	-20.74	713236.26	372085.04	32°01'15.995"N	103°38'43.124"W	0.09	
6023.00	0.370	29.650	6014.77	-135.79	-135.89	-20.55	713236.45	372086.12	32°01'16.006"N	103°38'43.122"W	0.14	
6200.00	0.400	22.460	6191.76	-134.72	-134.82	-20.03	713236.97	372087.19	32°01'16.016"N	103°38'43.116"W	0.03	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
6377.00	0.250	350.250	6368.76	-133.77	-133.87	-19.86	713237.14	372088.14	32°01'16.025"N	103°38'43.114"W	0.13	
6554.00	0.130	17.660	6545.76	-133.20	-133.30	-19.87	713237.13	372088.71	32°01'16.031"N	103°38'43.114"W	0.08	
6730.00	0.090	207.680	6721.76	-133.13	-133.23	-19.87	713237.13	372088.78	32°01'16.032"N	103°38'43.114"W	0.12	
6907.00	0.040	104.520	6898.76	-133.27	-133.37	-19.88	713237.12	372088.64	32°01'16.030"N	103°38'43.114"W	0.06	
7084.00	0.150	235.980	7075.76	-133.42	-133.51	-20.01	713236.99	372088.49	32°01'16.029"N	103°38'43.115"W	0.10	
7261.00	0.040	110.520	7252.76	-133.57	-133.66	-20.14	713236.86	372088.34	32°01'16.028"N	103°38'43.117"W	0.10	
7438.00	0.280	173.520	7429.76	-134.02	-134.11	-20.04	713236.97	372087.89	32°01'16.023"N	103°38'43.116"W	0.15	
7615.00	0.300	192.990	7606.76	-134.90	-135.00	-20.09	713236.91	372087.01	32°01'16.014"N	103°38'43.116"W	0.06	
7791.00	0.340	186.780	7782.75	-135.87	-135.96	-20.26	713236.74	372086.04	32°01'16.005"N	103°38'43.118"W	0.03	
7969.00	0.410	230.820	7960.75	-136.79	-136.89	-20.81	713236.19	372085.12	32°01'15.996"N	103°38'43.125"W	0.16	
8146.00	0.660	227.850	8137.74	-137.87	-137.97	-22.06	713234.94	372084.03	32°01'15.985"N	103°38'43.139"W	0.14	
8323.00	0.650	240.140	8314.73	-139.05	-139.16	-23.69	713233.32	372082.85	32°01'15.973"N	103°38'43.158"W	0.08	8 3/4 BHI MWD 4606' - 8323'
8406.00	1.350	343.320	8397.72	-138.34	-138.46	-24.37	713232.63	372083.55	32°01'15.980"N	103°38'43.166"W	1.96	
8494.00	12.050	353.860	8485.00	-128.18	-128.30	-25.66	713231.34	372093.70	32°01'16.081"N	103°38'43.181"W	12.19	
8532.00	16.190	352.690	8521.84	-118.97	-119.10	-26.76	713230.24	372102.91	32°01'16.172"N	103°38'43.193"W	10.92	
8576.00	22.280	353.690	8563.36	-104.57	-104.71	-28.46	713228.55	372117.29	32°01'16.315"N	103°38'43.211"W	13.86	
8620.00	29.070	352.880	8603.00	-85.64	-85.79	-30.70	713226.30	372136.21	32°01'16.502"N	103°38'43.236"W	15.45	
8664.00	35.070	352.300	8640.26	-62.48	-62.64	-33.72	713223.28	372159.37	32°01'16.731"N	103°38'43.269"W	13.65	
8708.00	36.180	352.220	8676.03	-37.06	-37.24	-37.17	713219.83	372184.76	32°01'16.983"N	103°38'43.308"W	2.52	
8752.00	40.460	354.450	8710.54	-9.96	-10.15	-40.31	713216.69	372211.85	32°01'17.251"N	103°38'43.342"W	10.22	
8797.00	46.410	355.000	8743.21	20.85	20.65	-43.15	713213.85	372242.64	32°01'17.556"N	103°38'43.373"W	13.25	
8841.00	47.910	354.980	8773.12	53.00	52.78	-45.97	713211.04	372274.78	32°01'17.874"N	103°38'43.403"W	3.41	
8885.00	50.710	356.600	8801.81	86.28	86.05	-48.41	713208.60	372308.05	32°01'18.204"N	103°38'43.429"W	6.95	
8930.00	54.340	359.160	8829.18	121.96	121.73	-49.71	713207.30	372343.73	32°01'18.557"N	103°38'43.441"W	9.24	
8974.00	57.780	359.180	8853.75	158.46	158.22	-50.24	713206.77	372380.22	32°01'18.918"N	103°38'43.445"W	7.82	
9018.00	59.670	359.850	8876.59	196.06	195.83	-50.55	713206.45	372417.82	32°01'19.290"N	103°38'43.446"W	4.49	
9062.00	62.060	359.870	8898.01	234.49	234.26	-50.64	713206.36	372456.25	32°01'19.670"N	103°38'43.444"W	5.43	
9107.00	65.650	359.800	8917.84	274.88	274.65	-50.76	713206.24	372496.63	32°01'20.070"N	103°38'43.442"W	7.98	
9151.00	69.330	2.240	8934.68	315.51	315.28	-50.03	713206.98	372537.26	32°01'20.472"N	103°38'43.431"W	9.81	
9195.00	73.030	2.520	8948.87	357.10	356.88	-48.30	713208.71	372578.87	32°01'20.884"N	103°38'43.408"W	8.43	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
9239.00	76.930	2.820	8960.27	399.54	399.32	-46.32	713210.69	372621.31	32°01'21.303"N	103°38'43.381"W	8.89	
9284.00	80.360	2.990	8969.13	443.58	443.38	-44.08	713212.92	372665.36	32°01'21.739"N	103°38'43.352"W	7.63	
9380.00	86.360	1.910	8980.23	538.79	538.60	-40.01	713216.99	372760.58	32°01'22.681"N	103°38'43.298"W	6.35	
9468.00	88.890	1.070	8983.87	626.66	626.49	-37.73	713219.28	372848.46	32°01'23.551"N	103°38'43.265"W	3.03	
9556.00	88.610	0.270	8985.79	714.63	714.46	-36.70	713220.30	372936.43	32°01'24.421"N	103°38'43.246"W	0.96	
9645.00	88.890	0.550	8987.73	803.60	803.44	-36.06	713220.94	373025.41	32°01'25.302"N	103°38'43.232"W	0.44	
9733.00	88.710	0.030	8989.58	891.58	891.42	-35.61	713221.39	373113.38	32°01'26.172"N	103°38'43.221"W	0.63	
9821.00	88.710	359.750	8991.56	979.55	979.40	-35.78	713221.22	373201.36	32°01'27.043"N	103°38'43.216"W	0.32	
9910.00	88.710	359.710	8993.56	1068.53	1068.37	-36.20	713220.80	373290.33	32°01'27.923"N	103°38'43.215"W	0.04	
9998.00	89.820	0.840	8994.69	1156.52	1156.36	-35.78	713221.22	373378.31	32°01'28.794"N	103°38'43.203"W	1.80	
10087.00	88.920	0.740	8995.67	1245.49	1245.35	-34.55	713222.45	373467.29	32°01'29.675"N	103°38'43.182"W	1.02	
10175.00	88.890	0.120	8997.35	1333.47	1333.33	-33.89	713223.11	373555.27	32°01'30.545"N	103°38'43.168"W	0.71	
10264.00	89.320	359.550	8998.74	1422.46	1422.31	-34.15	713222.85	373644.26	32°01'31.426"N	103°38'43.164"W	0.80	
10352.00	88.800	358.670	9000.19	1510.44	1510.29	-35.52	713221.49	373732.23	32°01'32.296"N	103°38'43.174"W	1.16	
10440.00	88.860	358.100	9001.98	1598.40	1598.24	-38.00	713219.01	373820.17	32°01'33.167"N	103°38'43.196"W	0.65	
10529.00	86.640	357.940	9005.48	1687.29	1687.11	-41.07	713215.93	373909.04	32°01'34.046"N	103°38'43.225"W	2.50	
10629.00	87.810	358.580	9010.32	1787.13	1786.94	-44.10	713212.90	374008.87	32°01'35.035"N	103°38'43.253"W	1.33	
10718.00	87.040	358.830	9014.32	1876.03	1875.83	-46.11	713210.89	374097.75	32°01'35.914"N	103°38'43.270"W	0.91	
10806.00	89.110	359.710	9017.27	1963.97	1963.77	-47.23	713209.77	374185.69	32°01'36.785"N	103°38'43.276"W	2.56	
10894.00	88.830	359.900	9018.85	2051.96	2051.75	-47.53	713209.47	374273.67	32°01'37.655"N	103°38'43.273"W	0.38	
10983.00	88.680	357.940	9020.79	2140.92	2140.71	-49.21	713207.80	374362.63	32°01'38.536"N	103°38'43.286"W	2.21	
11071.00	87.510	357.010	9023.71	2228.80	2228.58	-53.08	713203.92	374450.49	32°01'39.405"N	103°38'43.325"W	1.70	
11160.00	90.000	357.940	9025.65	2317.70	2317.46	-57.00	713200.00	374539.37	32°01'40.285"N	103°38'43.364"W	2.99	
11249.00	92.530	359.080	9023.68	2406.65	2406.40	-59.31	713197.69	374628.30	32°01'41.165"N	103°38'43.384"W	3.12	
11338.00	89.910	359.440	9021.79	2495.62	2495.37	-60.46	713196.54	374717.26	32°01'42.046"N	103°38'43.391"W	2.97	
11426.00	89.880	2.350	9021.95	2583.59	2583.34	-59.09	713197.91	374805.24	32°01'42.916"N	103°38'43.368"W	3.31	
11514.00	88.310	1.490	9023.34	2671.52	2671.28	-56.14	713200.86	374893.17	32°01'43.786"N	103°38'43.328"W	2.03	
11603.00	92.280	0.070	9022.88	2760.48	2760.25	-54.93	713202.07	374982.14	32°01'44.667"N	103°38'43.307"W	4.74	
11692.00	89.630	359.040	9021.40	2849.46	2849.23	-55.62	713201.38	375071.11	32°01'45.547"N	103°38'43.308"W	3.19	
11781.00	91.630	0.010	9020.42	2938.45	2938.21	-56.36	713200.64	375160.09	32°01'46.428"N	103°38'43.310"W	2.50	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
11872.00	91.450	358.620	9017.97	3029.41	3029.17	-57.45	713199.56	375251.05	32°01'47.328"N	103°38'43.316"W	1.54	
11963.00	90.990	358.900	9016.04	3120.37	3120.13	-59.41	713197.59	375342.00	32°01'48.228"N	103°38'43.332"W	0.59	
12054.00	92.250	358.940	9013.46	3211.33	3211.07	-61.13	713195.87	375432.94	32°01'49.128"N	103°38'43.346"W	1.39	
12145.00	92.280	358.980	9009.87	3302.25	3301.99	-62.78	713194.22	375523.85	32°01'50.028"N	103°38'43.358"W	0.05	
12236.00	93.940	2.140	9004.93	3393.09	3392.84	-61.89	713195.11	375614.70	32°01'50.927"N	103°38'43.341"W	3.92	
12327.00	92.220	1.690	9000.04	3483.89	3483.65	-58.86	713198.14	375705.51	32°01'51.825"N	103°38'43.299"W	1.95	
12418.00	90.620	359.900	8997.78	3574.84	3574.61	-57.60	713199.41	375796.46	32°01'52.725"N	103°38'43.278"W	2.64	
12510.00	90.180	358.010	8997.14	3666.82	3666.58	-59.27	713197.73	375888.43	32°01'53.636"N	103°38'43.290"W	2.11	
12601.00	90.030	358.060	8996.97	3757.78	3757.53	-62.39	713194.61	375979.38	32°01'54.536"N	103°38'43.320"W	0.17	
12677.00	89.910	357.260	8997.01	3833.73	3833.47	-65.50	713191.51	376055.31	32°01'55.287"N	103°38'43.350"W	1.06	
12766.00	89.050	357.720	8997.82	3922.66	3922.38	-69.39	713187.61	376144.22	32°01'56.167"N	103°38'43.389"W	1.10	
12855.00	89.750	359.040	8998.75	4011.63	4011.33	-71.91	713185.09	376233.17	32°01'57.048"N	103°38'43.412"W	1.68	
12944.00	89.850	358.860	8999.06	4100.62	4100.32	-73.54	713183.46	376322.15	32°01'57.929"N	103°38'43.424"W	0.23	
13032.00	90.370	1.680	8998.90	4188.61	4188.31	-73.13	713183.88	376410.14	32°01'58.799"N	103°38'43.413"W	3.26	
13120.00	90.060	2.200	8998.57	4276.54	4276.26	-70.15	713186.86	376498.08	32°01'59.669"N	103°38'43.372"W	0.69	
13209.00	90.680	3.260	8997.99	4365.41	4365.15	-65.91	713191.09	376586.97	32°02'00.549"N	103°38'43.316"W	1.38	
13297.00	88.740	2.010	8998.44	4453.29	4453.05	-61.86	713195.14	376674.87	32°02'01.418"N	103°38'43.262"W	2.62	
13386.00	90.060	1.910	8999.37	4542.22	4541.99	-58.82	713198.18	376763.81	32°02'02.298"N	103°38'43.220"W	1.49	
13474.00	90.340	1.520	8999.06	4630.17	4629.95	-56.19	713200.82	376851.76	32°02'03.169"N	103°38'43.183"W	0.55	
13563.00	91.050	1.730	8997.98	4719.11	4718.91	-53.66	713203.34	376940.72	32°02'04.049"N	103°38'43.147"W	0.83	
13651.00	90.310	1.220	8996.94	4807.06	4806.87	-51.40	713205.60	377028.68	32°02'04.919"N	103°38'43.114"W	1.02	
13741.00	90.590	0.470	8996.23	4897.04	4896.86	-50.07	713206.93	377118.66	32°02'05.809"N	103°38'43.092"W	0.89	
13829.00	90.920	359.820	8995.07	4985.03	4984.85	-49.85	713207.15	377206.65	32°02'06.680"N	103°38'43.083"W	0.83	
13918.00	89.540	358.390	8994.71	5074.02	5073.84	-51.24	713205.76	377295.63	32°02'07.561"N	103°38'43.093"W	2.23	
14006.00	89.690	356.920	8995.30	5161.96	5161.76	-54.84	713202.16	377383.55	32°02'08.431"N	103°38'43.128"W	1.68	
14094.00	89.660	355.130	8995.80	5249.77	5249.54	-60.94	713196.06	377471.33	32°02'09.300"N	103°38'43.193"W	2.03	
14183.00	89.410	357.300	8996.53	5338.59	5338.34	-66.81	713190.19	377560.12	32°02'10.179"N	103°38'43.254"W	2.45	
14271.00	89.690	359.310	8997.22	5426.56	5426.29	-69.42	713187.59	377648.07	32°02'11.050"N	103°38'43.278"W	2.31	
14360.00	90.030	0.290	8997.43	5515.56	5515.29	-69.73	713187.28	377737.07	32°02'11.930"N	103°38'43.275"W	1.17	
14448.00	90.060	0.700	8997.37	5603.55	5603.29	-68.97	713188.04	377825.06	32°02'12.801"N	103°38'43.260"W	0.47	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
14536.00	90.370	2.110	8997.04	5691.51	5691.26	-66.81	713190.19	377913.03	32°02'13.671"N	103°38'43.228"W	1.64	
14625.00	90.030	1.790	8996.72	5780.44	5780.21	-63.78	713193.22	378001.97	32°02'14.551"N	103°38'43.186"W	0.52	
14713.00	89.540	1.200	8997.06	5868.40	5868.17	-61.48	713195.52	378089.93	32°02'15.422"N	103°38'43.153"W	0.87	
14802.00	89.660	358.660	8997.68	5957.39	5957.16	-61.59	713195.41	378178.92	32°02'16.302"N	103°38'43.148"W	2.86	
14890.00	89.940	0.190	8997.98	6045.38	6045.16	-62.48	713194.53	378266.91	32°02'17.173"N	103°38'43.152"W	1.77	
14980.00	87.320	358.990	9000.14	6135.35	6135.12	-63.12	713193.88	378356.87	32°02'18.063"N	103°38'43.152"W	3.20	
15068.00	88.520	356.840	9003.33	6223.24	6223.00	-66.32	713190.68	378444.74	32°02'18.933"N	103°38'43.183"W	2.80	
15157.00	89.780	356.220	9004.65	6312.09	6311.82	-71.71	713185.30	378533.56	32°02'19.813"N	103°38'43.239"W	1.58	
15246.00	89.630	356.830	9005.11	6400.95	6400.66	-77.10	713179.90	378622.39	32°02'20.692"N	103°38'43.295"W	0.71	
15334.00	90.310	358.930	9005.15	6488.90	6488.59	-80.35	713176.65	378710.33	32°02'21.562"N	103°38'43.326"W	2.51	
15422.00	89.850	359.510	9005.03	6576.89	6576.58	-81.55	713175.45	378798.31	32°02'22.433"N	103°38'43.334"W	0.84	
15511.00	92.590	2.110	9003.14	6665.84	6665.54	-80.30	713176.71	378887.26	32°02'23.313"N	103°38'43.313"W	4.24	
15600.00	89.690	0.630	9001.37	6754.77	6754.48	-78.17	713178.83	378976.21	32°02'24.193"N	103°38'43.281"W	3.66	
15688.00	93.360	3.390	8999.02	6842.65	6842.37	-75.09	713181.92	379064.09	32°02'25.063"N	103°38'43.239"W	5.22	
15776.00	89.850	1.850	8996.56	6930.49	6930.23	-71.07	713185.94	379151.95	32°02'25.932"N	103°38'43.186"W	4.36	
15865.00	88.430	0.620	8997.89	7019.44	7019.19	-69.15	713187.85	379240.91	32°02'26.812"N	103°38'43.157"W	2.11	
15953.00	86.890	359.500	9001.49	7107.36	7107.12	-69.06	713187.95	379328.83	32°02'27.682"N	103°38'43.149"W	2.16	
16041.00	86.090	358.840	9006.88	7195.19	7194.94	-70.33	713186.67	379416.65	32°02'28.551"N	103°38'43.158"W	1.18	
16130.00	87.130	358.460	9012.14	7284.02	7283.76	-72.42	713184.58	379505.46	32°02'29.430"N	103°38'43.175"W	1.24	
16219.00	88.740	358.440	9015.35	7372.94	7372.67	-74.83	713182.18	379594.37	32°02'30.310"N	103°38'43.197"W	1.81	
16307.00	89.260	356.620	9016.88	7460.86	7460.57	-78.62	713178.38	379682.26	32°02'31.180"N	103°38'43.234"W	2.15	
16396.00	86.180	355.950	9020.42	7549.61	7549.30	-84.38	713172.62	379770.99	32°02'32.059"N	103°38'43.295"W	3.54	
16484.00	89.970	358.030	9023.38	7637.44	7637.11	-89.00	713168.01	379858.80	32°02'32.928"N	103°38'43.342"W	4.91	
16573.00	90.830	0.290	9022.76	7726.43	7726.09	-90.30	713166.70	379947.77	32°02'33.809"N	103°38'43.350"W	2.72	
16661.00	90.650	1.080	9021.62	7814.41	7814.07	-89.25	713167.76	380035.76	32°02'34.679"N	103°38'43.332"W	0.92	
16750.00	91.420	0.890	9020.01	7903.37	7903.05	-87.72	713169.28	380124.72	32°02'35.560"N	103°38'43.307"W	0.89	
16839.00	91.350	1.140	9017.86	7992.32	7992.01	-86.14	713170.86	380213.68	32°02'36.440"N	103°38'43.282"W	0.29	
16927.00	90.550	1.300	9016.40	8080.28	8079.97	-84.27	713172.73	380301.64	32°02'37.310"N	103°38'43.254"W	0.93	
17016.00	90.460	0.600	9015.62	8169.26	8168.96	-82.79	713174.21	380390.62	32°02'38.191"N	103°38'43.230"W	0.79	
17105.00	90.220	0.220	9015.09	8258.25	8257.95	-82.16	713174.85	380479.62	32°02'39.071"N	103°38'43.216"W	0.50	



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

WELLPATH DATA (204 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 [°/100ft]	Comments
17193.00	90.520	359.480	9014.52	8346.25	8345.95	-82.39	713174.62	380567.61	32°02'39.942"N	103°38'43.213"W	0.91	
17281.00	91.260	359.570	9013.15	8434.23	8433.94	-83.12	713173.89	380655.59	32°02'40.813"N	103°38'43.214"W	0.85	
17370.00	90.990	359.500	9011.41	8523.22	8522.92	-83.84	713173.16	380744.57	32°02'41.693"N	103°38'43.216"W	0.31	
17457.00	90.430	0.010	9010.33	8610.21	8609.91	-84.21	713172.79	380831.56	32°02'42.554"N	103°38'43.214"W	0.87	
17547.00	90.620	0.550	9009.50	8700.20	8699.90	-83.77	713173.23	380921.55	32°02'43.445"N	103°38'43.202"W	0.64	
17635.00	90.860	1.180	9008.37	8788.18	8787.88	-82.44	713174.56	381009.53	32°02'44.315"N	103°38'43.180"W	0.77	
17723.00	90.340	0.150	9007.45	8876.16	8875.87	-81.42	713175.58	381097.51	32°02'45.186"N	103°38'43.162"W	1.31	
17812.00	90.120	359.540	9007.09	8965.16	8964.87	-81.66	713175.34	381186.51	32°02'46.067"N	103°38'43.158"W	0.73	
17900.00	90.180	0.290	9006.86	9053.15	9052.87	-81.79	713175.21	381274.50	32°02'46.937"N	103°38'43.153"W	0.85	
17989.00	90.030	359.500	9006.69	9142.15	9141.87	-81.96	713175.05	381363.50	32°02'47.818"N	103°38'43.149"W	0.90	
18077.00	90.180	0.980	9006.53	9230.15	9229.87	-81.59	713175.42	381451.49	32°02'48.689"N	103°38'43.138"W	1.69	
18165.00	90.120	0.030	9006.30	9318.14	9317.86	-80.81	713176.19	381539.48	32°02'49.560"N	103°38'43.122"W	1.08	
18254.00	90.580	359.850	9005.76	9407.14	9406.86	-80.90	713176.10	381628.47	32°02'50.440"N	103°38'43.117"W	0.56	
18342.00	89.940	359.990	9005.36	9495.13	9494.86	-81.03	713175.98	381716.47	32°02'51.311"N	103°38'43.112"W	0.74	
18431.00	91.540	0.080	9004.21	9584.12	9583.85	-80.97	713176.03	381805.46	32°02'52.192"N	103°38'43.104"W	1.80	
18519.00	89.450	359.520	9003.45	9672.11	9671.84	-81.28	713175.72	381893.44	32°02'53.062"N	103°38'43.102"W	2.46	
18607.00	89.910	359.260	9003.94	9760.11	9759.83	-82.22	713174.79	381981.43	32°02'53.933"N	103°38'43.106"W	0.60	
18696.00	90.030	359.630	9003.99	9849.11	9848.83	-83.08	713173.92	382070.42	32°02'54.814"N	103°38'43.109"W	0.44	
18784.00	90.370	359.660	9003.68	9937.11	9936.82	-83.62	713173.38	382158.42	32°02'55.685"N	103°38'43.109"W	0.39	
18873.00	88.890	358.350	9004.26	10026.09	10025.80	-85.17	713171.83	382247.40	32°02'56.565"N	103°38'43.121"W	2.22	
18961.00	90.120	358.590	9005.02	10114.07	10113.77	-87.52	713169.48	382335.36	32°02'57.436"N	103°38'43.141"W	1.42	
19050.00	89.510	358.920	9005.30	10203.05	10202.75	-89.45	713167.55	382424.33	32°02'58.316"N	103°38'43.157"W	0.78	
19131.00	89.820	358.770	9005.78	10284.04	10283.73	-91.09	713165.92	382505.31	32°02'59.118"N	103°38'43.170"W	0.43	8 3/4 BHI MWD 8406' - 19131'
19157.00	89.820	358.770	9005.86	10310.04	10309.72	-91.64	713165.36	382531.30	32°02'59.375"N	103°38'43.175"W	0.00	Projection to TD: 19157'



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD WE 23 Fed P25 No. 2H 3000' from LP	9005.00	3410.72	-54.77	713202.23	375632.58	32°01'51.103"N	103°38'43.257"W	point
SD WE 23 Fed P25 No. 2H BHL rev 2	9005.00	10258.42	-87.00	713170.00	382480.00	32°02'58.867"N	103°38'43.125"W	point
SD WE 23 Fed P25 No. 2H 1800' from LP	9030.00	2610.74	-51.00	713206.00	374832.63	32°01'43.187"N	103°38'43.272"W	point

WELLPATH COMPOSITION - Ref Wellbore: SD WE 23 Fed P25 No. 2H AWB Ref Wellpath: SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	728.00	ISCWSA MWD, Rev. 4 (Standard)	Imported surveys from 263' - 728'	SD WE 23 Fed P25 No. 2H AWB
728.00	4434.00	BHI NaviTrak (Standard)	12 1/4 BHI MWD 799' - 4434'	SD WE 23 Fed P25 No. 2H AWB
4434.00	8323.00	BHI NaviTrak (Standard)	8 3/4 BHI MWD 4606' - 8323'	SD WE 23 Fed P25 No. 2H AWB
8323.00	19131.00	BHI AutoTrak Curve (Short)	8 3/4 BHI MWD 8406' - 19131'	SD WE 23 Fed P25 No. 2H AWB
19131.00	19157.00	Blind Drilling (std)	Projection to bit	SD WE 23 Fed P25 No. 2H AWB



Actual Wellpath Report

SD WE 23 Federal P25 No. 2H awp 263' - 19131' Proj: 19157'

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD WE 23 Fed P25 No. 2H
Area	Lea County, NM	Well	SD WE 23 Federal P25 No. 2H
Field	Jennings / Upper BN SPR Shale (Lea County, NM)	Wellbore	SD WE 23 Fed P25 No. 2H AWB
Facility	SD WE 23 Fed P25		

COMMENTS

Wellpath general comments

Well: SD WE 23 Federal P25 No. 2H
Field: Jennings / Upper BN SPR Shale
Rig: X30
Location: Lea Co., NM
API: 30-025-43461-00
Latitude: 32° 01' 17.349" N
Longitude: 103° 38' 42.873" W
DF Elevation: 3154.6 feet
Elev. GL: 3122 feet
Proposed Direction: 359.73°
PBHL: 19157 feet
Duration: 01/30/2017-03/20/2017
FSE's: D. Hardeman
SO#: 8369339
12 1/4 BHI MWD 799' - 4434'
8 3/4 BHI MWD 4606' - 8323'
8 3/4 BHI MWD 8406' - 19131'
Projection to TD: 19157'