



Cimarex Energy Co.

Location: Eddy County, NM
Field: Parkway
Facility: Parkway 17 State No. 3H

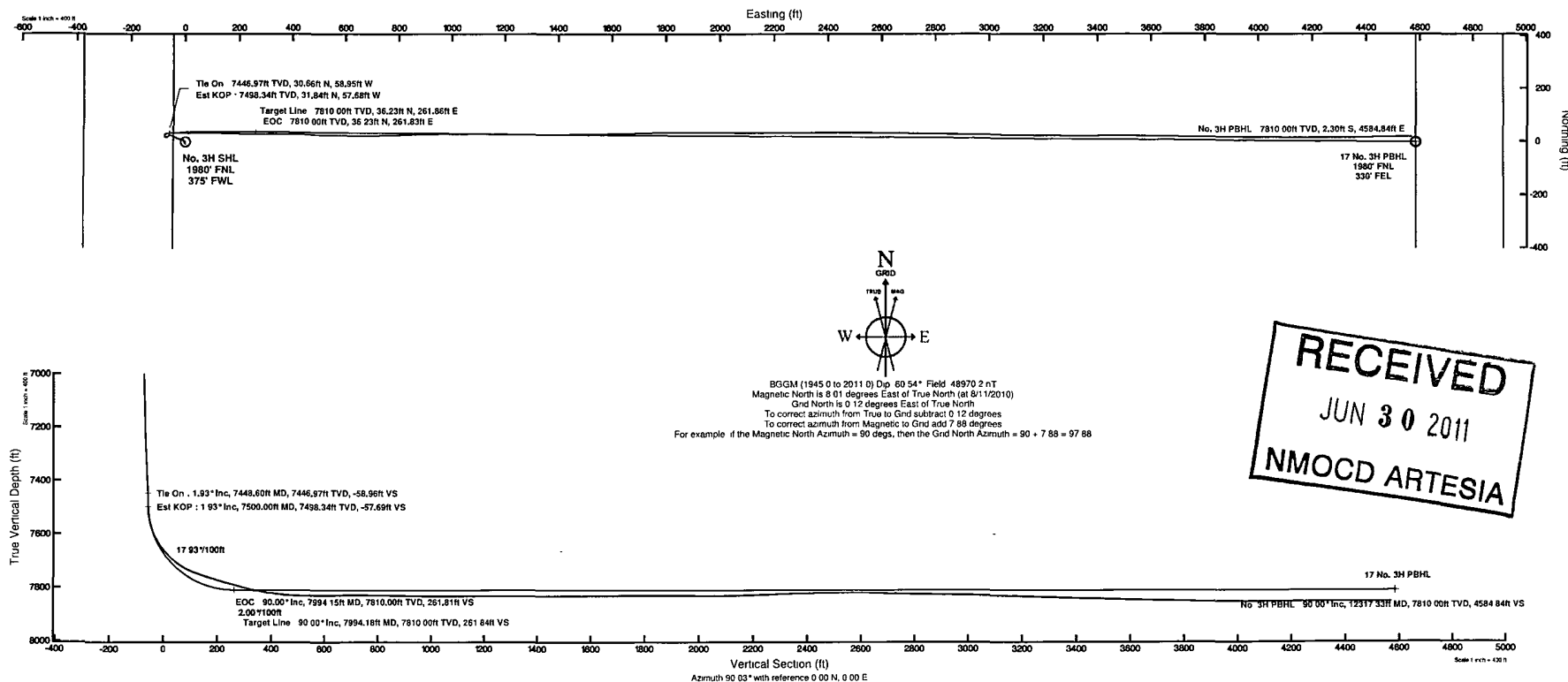
Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H PWB



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	7448.60	1.930	47.020	7446.97	30.66	-58.95	4.24	-58.96
Est KOP	7500.00	1.930	47.020	7498.34	31.84	-57.68	0.00	-57.69
EOC	7994.15	90.000	90.510	7810.00	36.23	261.83	17.93	261.81
Target Line	7994.18	90.000	90.511	7810.00	36.23	261.86	2.00	261.84
No. 3H PBHL	12317.33	90.000	90.511	7810.00	-2.30	4584.84	0.00	4584.84

Plot reference wellpath is Plan 1	
True vertical depths are referenced to Rig on No. 3H SHL (GL)	Grd System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 3H SHL (GL)	North Reference: Grd north
Rig on No. 3H SHL (GL) to Mean Sea Level: 3368 feet	Scale: True distance
Mean Sea Level to Mud line (Facility Parkway 17 State No. 3H) -3368 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by calphik on 3/22/2011





Actual Wellpath Report

No. 3H AWP

Page 1 of 7



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWB
Facility	Parkway 17 State No. 3H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Calhphik
Scale	0.999915	Report Generated	3/31/2011 at 7:31:33 AM
Convergence at slot	0.12° East	Database/Source file	WA Midland/No._3H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	611805.30	604892.30	32°39'45.671"N	104°06'15.650"W
Facility Reference Pt			611805.30	604892.30	32°39'45.671"N	104°06'15.650"W
Field Reference Pt			623994.14	604893.77	32°39'45.403"N	104°03'53.063"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 3H SHL (GL) to GL	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 3H SHL (GL) to Mean Sea Level	3368.00ft
Vertical Reference Pt	Rig on No. 3H SHL (GL)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.03°



Actual Wellpath Report

No. 3H AWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWP
Facility	Parkway 17 State No. 3H		

WELLPATH DATA (206 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	205.570	0.00	0.00	0.00	0.00	611805.30	604892.30	32°39'45.671"N	104°06'15.650"W	0.00	
119.30	0.490	205.570	119.30	-0.22	-0.46	-0.22	611805.08	604891.84	32°39'45.666"N	104°06'15.652"W	0.41	
183.70	0.710	181.000	183.70	-0.35	-1.11	-0.35	611804.95	604891.19	32°39'45.660"N	104°06'15.654"W	0.52	
248.00	0.720	193.700	247.99	-0.45	-1.90	-0.45	611804.85	604890.40	32°39'45.652"N	104°06'15.655"W	0.25	
309.90	0.750	214.750	309.89	-0.77	-2.61	-0.77	611804.53	604889.69	32°39'45.645"N	104°06'15.659"W	0.44	
371.80	0.780	228.960	371.78	-1.32	-3.22	-1.32	611803.98	604889.08	32°39'45.639"N	104°06'15.665"W	0.31	
433.70	0.700	234.410	433.67	-1.94	-3.72	-1.95	611803.35	604888.59	32°39'45.634"N	104°06'15.672"W	0.17	
495.60	0.640	231.400	495.57	-2.52	-4.15	-2.52	611802.78	604888.15	32°39'45.630"N	104°06'15.679"W	0.11	
557.40	0.340	213.540	557.37	-2.89	-4.52	-2.89	611802.41	604887.78	32°39'45.626"N	104°06'15.684"W	0.54	
619.30	0.320	146.960	619.27	-2.90	-4.82	-2.90	611802.40	604887.48	32°39'45.623"N	104°06'15.684"W	0.59	
681.20	0.410	129.090	681.17	-2.63	-5.10	-2.64	611802.66	604887.20	32°39'45.620"N	104°06'15.681"W	0.23	
742.40	0.390	123.090	742.36	-2.29	-5.35	-2.29	611803.01	604886.95	32°39'45.618"N	104°06'15.676"W	0.08	
806.00	0.230	121.540	805.96	-2.00	-5.54	-2.00	611803.30	604886.76	32°39'45.616"N	104°06'15.673"W	0.25	
869.70	0.080	114.700	869.66	-1.85	-5.62	-1.85	611803.45	604886.68	32°39'45.615"N	104°06'15.671"W	0.24	
923.30	0.050	285.550	923.26	-1.84	-5.63	-1.84	611803.46	604886.67	32°39'45.615"N	104°06'15.671"W	0.24	
996.90	0.080	308.520	996.86	-1.91	-5.59	-1.91	611803.39	604886.71	32°39'45.615"N	104°06'15.672"W	0.05	
1060.60	0.490	350.550	1060.56	-1.99	-5.30	-1.99	611803.31	604887.00	32°39'45.618"N	104°06'15.673"W	0.68	
1124.20	0.810	307.020	1124.16	-2.39	-4.76	-2.39	611802.91	604887.54	32°39'45.624"N	104°06'15.678"W	0.89	
1187.90	0.980	324.470	1187.85	-3.07	-4.04	-3.07	611802.23	604888.26	32°39'45.631"N	104°06'15.686"W	0.50	
1251.50	1.160	11.330	1251.44	-3.26	-2.97	-3.26	611802.04	604889.33	32°39'45.641"N	104°06'15.688"W	1.36	
1315.10	1.170	320.680	1315.03	-3.54	-1.84	-3.54	611801.76	604890.46	32°39'45.653"N	104°06'15.691"W	1.57	
1378.80	1.230	333.630	1378.72	-4.26	-0.72	-4.26	611801.04	604891.58	32°39'45.664"N	104°06'15.699"W	0.44	
1442.40	1.270	15.240	1442.30	-4.38	0.57	-4.38	611800.92	604892.87	32°39'45.676"N	104°06'15.701"W	1.40	
1506.10	1.170	332.070	1505.99	-4.50	1.83	-4.50	611800.80	604894.13	32°39'45.689"N	104°06'15.702"W	1.42	
1569.70	1.040	333.780	1569.58	-5.06	2.92	-5.06	611800.24	604895.22	32°39'45.700"N	104°06'15.709"W	0.21	
1633.30	0.900	339.300	1633.17	-5.49	3.90	-5.49	611799.81	604896.20	32°39'45.709"N	104°06'15.714"W	0.26	
1697.00	0.740	326.950	1696.86	-5.89	4.72	-5.89	611799.41	604897.02	32°39'45.718"N	104°06'15.718"W	0.37	
1760.60	0.680	318.930	1760.46	-6.36	5.35	-6.36	611798.94	604897.65	32°39'45.724"N	104°06'15.724"W	0.18	
1824.30	0.600	312.260	1824.15	-6.86	5.85	-6.86	611798.44	604898.15	32°39'45.729"N	104°06'15.730"W	0.17	
1887.90	0.510	329.700	1887.75	-7.25	6.32	-7.25	611798.05	604898.62	32°39'45.733"N	104°06'15.734"W	0.30	
1951.60	0.470	341.480	1951.45	-7.48	6.82	-7.47	611797.83	604899.12	32°39'45.738"N	104°06'15.737"W	0.17	
2015.20	0.580	309.660	2015.04	-7.81	7.27	-7.80	611797.50	604899.57	32°39'45.743"N	104°06'15.741"W	0.48	
2078.80	0.620	297.090	2078.64	-8.36	7.63	-8.36	611796.94	604899.93	32°39'45.746"N	104°06'15.747"W	0.22	
2142.50	0.580	301.040	2142.34	-8.94	7.95	-8.94	611796.36	604900.25	32°39'45.750"N	104°06'15.754"W	0.09	
2206.10	0.590	255.180	2205.93	-9.54	8.04	-9.53	611795.77	604900.34	32°39'45.750"N	104°06'15.761"W	0.72	
2269.70	0.440	292.540	2269.53	-10.08	8.05	-10.07	611795.23	604900.35	32°39'45.751"N	104°06'15.767"W	0.56	
2333.40	0.420	306.010	2333.23	-10.49	8.28	-10.49	611794.81	604900.58	32°39'45.753"N	104°06'15.772"W	0.16	
2397.00	0.260	273.720	2396.83	-10.83	8.42	-10.82	611794.48	604900.72	32°39'45.754"N	104°06'15.776"W	0.38	
2460.70	0.210	320.080	2460.53	-11.05	8.52	-11.04	611794.26	604900.82	32°39'45.755"N	104°06'15.778"W	0.30	
2524.30	0.100	247.590	2524.13	-11.17	8.59	-11.17	611794.13	604900.89	32°39'45.756"N	104°06'15.780"W	0.32	
2587.90	0.090	207.010	2587.73	-11.25	8.52	-11.24	611794.06	604900.82	32°39'45.755"N	104°06'15.781"W	0.10	
2651.60	0.200	188.890	2651.43	-11.28	8.37	-11.28	611794.02	604900.67	32°39'45.754"N	104°06'15.781"W	0.18	
2715.20	0.110	146.700	2715.03	-11.27	8.21	-11.26	611794.04	604900.51	32°39'45.752"N	104°06'15.781"W	0.22	
2778.90	0.120	177.370	2778.73	-11.23	8.09	-11.23	611794.07	604900.39	32°39'45.751"N	104°06'15.781"W	0.10	
2842.50	0.090	134.900	2842.33	-11.19	7.99	-11.19	611794.11	604900.29	32°39'45.750"N	104°06'15.780"W	0.13	



Actual Wellpath Report

No. 3H AWP

Page 3 of 7



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWP
Facility	Parkway 17 State No. 3H		

WELLPATH DATA (206 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2906.10	0.050	140.360	2905.93	-11.14	7.93	-11.14	611794.16	604900.23	32°39'45.749"N	104°06'15.780"W	0.06	
2969.80	0.030	221.330	2969.63	-11.13	7.90	-11.13	611794.17	604900.20	32°39'45.749"N	104°06'15.780"W	0.08	
3033.40	0.070	283.150	3033.23	-11.18	7.90	-11.18	611794.12	604900.20	32°39'45.749"N	104°06'15.780"W	0.10	
3097.10	0.120	239.720	3096.93	-11.28	7.87	-11.27	611794.03	604900.17	32°39'45.749"N	104°06'15.781"W	0.13	
3160.70	0.210	259.470	3160.53	-11.45	7.82	-11.45	611793.86	604900.12	32°39'45.748"N	104°06'15.783"W	0.17	
3224.30	0.360	355.320	3224.13	-11.58	7.99	-11.58	611793.72	604900.29	32°39'45.750"N	104°06'15.785"W	0.68	
3288.00	0.420	263.840	3287.83	-11.83	8.17	-11.83	611793.48	604900.47	32°39'45.752"N	104°06'15.788"W	0.88	
3351.60	0.660	286.080	3351.42	-12.41	8.24	-12.41	611792.89	604900.54	32°39'45.753"N	104°06'15.794"W	0.49	
3418.40	0.970	280.570	3418.22	-13.34	8.46	-13.33	611791.97	604900.75	32°39'45.755"N	104°06'15.805"W	0.48	
3481.60	1.150	268.870	3481.41	-14.50	8.54	-14.49	611790.81	604900.84	32°39'45.756"N	104°06'15.819"W	0.44	
3544.90	1.300	325.570	3544.69	-15.54	9.12	-15.54	611789.77	604901.42	32°39'45.761"N	104°06'15.831"W	1.85	
3608.20	1.470	286.910	3607.98	-16.72	9.95	-16.72	611788.58	604902.25	32°39'45.770"N	104°06'15.845"W	1.47	
3671.50	1.680	280.370	3671.25	-18.41	10.35	-18.41	611786.89	604902.65	32°39'45.774"N	104°06'15.865"W	0.44	
3734.80	1.610	276.130	3734.53	-20.21	10.61	-20.20	611785.10	604902.91	32°39'45.776"N	104°06'15.886"W	0.22	
3798.00	1.490	269.120	3797.70	-21.91	10.70	-21.91	611783.39	604903.00	32°39'45.777"N	104°06'15.906"W	0.35	
3861.30	1.500	299.820	3860.98	-23.46	11.10	-23.45	611781.85	604903.39	32°39'45.781"N	104°06'15.924"W	1.25	
3924.60	1.600	269.810	3924.26	-25.06	11.50	-25.05	611780.25	604903.80	32°39'45.785"N	104°06'15.942"W	1.28	
3987.90	1.790	310.050	3987.53	-26.70	12.14	-26.69	611778.61	604904.44	32°39'45.791"N	104°06'15.961"W	1.86	
4051.20	1.800	297.000	4050.80	-28.34	13.23	-28.34	611776.97	604905.52	32°39'45.802"N	104°06'15.981"W	0.64	
4177.70	1.900	277.480	4177.24	-32.19	14.40	-32.19	611773.12	604906.70	32°39'45.814"N	104°06'16.026"W	0.50	
4243.90	1.890	308.660	4243.40	-34.13	15.23	-34.13	611771.18	604907.52	32°39'45.822"N	104°06'16.048"W	1.54	
4305.10	1.850	312.950	4304.57	-35.65	16.53	-35.64	611769.67	604908.83	32°39'45.835"N	104°06'16.066"W	0.24	
4366.20	1.750	285.710	4365.64	-37.27	17.45	-37.26	611768.05	604909.75	32°39'45.844"N	104°06'16.085"W	1.40	
4430.10	1.700	304.810	4429.51	-38.98	18.26	-38.98	611766.33	604910.56	32°39'45.852"N	104°06'16.105"W	0.90	
4493.90	1.720	301.800	4493.29	-40.58	19.30	-40.57	611764.74	604911.60	32°39'45.863"N	104°06'16.124"W	0.14	
4557.70	1.730	299.680	4557.06	-42.23	20.29	-42.22	611763.09	604912.58	32°39'45.872"N	104°06'16.143"W	0.10	
4621.50	1.660	301.050	4620.83	-43.86	21.24	-43.84	611761.46	604913.54	32°39'45.882"N	104°06'16.162"W	0.13	
4685.30	1.640	297.620	4684.60	-45.46	22.14	-45.45	611759.86	604914.44	32°39'45.891"N	104°06'16.181"W	0.16	
4749.20	1.670	305.000	4748.48	-47.03	23.10	-47.02	611758.29	604915.39	32°39'45.900"N	104°06'16.199"W	0.34	
4813.00	1.770	294.730	4812.25	-48.69	24.04	-48.67	611756.63	604916.34	32°39'45.910"N	104°06'16.218"W	0.51	
4940.60	1.360	253.030	4939.80	-51.93	24.42	-51.91	611753.39	604916.72	32°39'45.913"N	104°06'16.256"W	0.92	
5004.40	1.190	281.610	5003.59	-53.30	24.34	-53.29	611752.02	604916.63	32°39'45.913"N	104°06'16.272"W	1.02	
5068.30	1.240	291.470	5067.47	-54.59	24.72	-54.58	611750.72	604917.02	32°39'45.917"N	104°06'16.287"W	0.34	
5132.10	0.970	346.590	5131.26	-55.36	25.50	-55.35	611749.96	604917.80	32°39'45.924"N	104°06'16.296"W	1.65	
5195.90	0.670	261.250	5195.06	-55.85	25.97	-55.84	611749.46	604918.27	32°39'45.929"N	104°06'16.302"W	1.78	
5259.70	0.580	285.830	5258.86	-56.53	26.00	-56.52	611748.78	604918.30	32°39'45.929"N	104°06'16.310"W	0.44	
5326.70	0.640	283.480	5325.85	-57.22	26.18	-57.21	611748.09	604918.48	32°39'45.931"N	104°06'16.318"W	0.10	
5389.40	0.570	228.350	5388.55	-57.80	26.06	-57.78	611747.52	604918.35	32°39'45.930"N	104°06'16.325"W	0.90	
5452.20	0.530	299.660	5451.35	-58.28	25.99	-58.27	611747.03	604918.29	32°39'45.929"N	104°06'16.330"W	1.02	
5515.00	0.870	225.670	5514.14	-58.88	25.80	-58.86	611746.44	604918.10	32°39'45.927"N	104°06'16.337"W	1.41	
5577.80	1.390	221.480	5576.93	-59.72	24.90	-59.71	611745.60	604917.20	32°39'45.918"N	104°06'16.347"W	0.84	
5640.60	2.020	217.260	5639.70	-60.90	23.45	-60.88	611744.42	604915.74	32°39'45.904"N	104°06'16.361"W	1.02	
5703.30	2.350	231.860	5702.36	-62.57	21.77	-62.56	611742.74	604914.07	32°39'45.887"N	104°06'16.381"W	1.03	
5766.10	2.360	252.940	5765.11	-64.82	20.60	-64.81	611740.49	604912.90	32°39'45.876"N	104°06'16.407"W	1.37	
5828.90	2.320	236.260	5827.85	-67.12	19.51	-67.11	611738.20	604911.81	32°39'45.865"N	104°06'16.434"W	1.08	



Actual Wellpath Report

No. 3H AWP

Page 4 of 7



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWP
Facility	Parkway 17 State No. 3H		

WELLPATH DATA (206 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5895.80	2.200	228.490	5894.70	-69.20	17.91	-69.19	611736.11	604910.21	32°39'45.849"N	104°06'16.458"W	0.49	
5956.30	2.150	295.880	5955.17	-71.09	17.64	-71.08	611734.22	604909.93	32°39'45.847"N	104°06'16.481"W	3.99	
6016.70	1.500	309.400	6015.54	-72.72	18.63	-72.71	611732.59	604910.93	32°39'45.857"N	104°06'16.500"W	1.28	
6083.80	1.160	268.170	6082.62	-74.08	19.17	-74.07	611731.23	604911.47	32°39'45.862"N	104°06'16.515"W	1.47	
6150.90	0.960	244.730	6149.71	-75.27	18.91	-75.26	611730.05	604911.20	32°39'45.859"N	104°06'16.529"W	0.70	
6211.30	0.710	272.590	6210.10	-76.10	18.71	-76.09	611729.22	604911.01	32°39'45.857"N	104°06'16.539"W	0.78	
6271.80	0.490	255.830	6270.60	-76.73	18.66	-76.72	611728.59	604910.96	32°39'45.857"N	104°06'16.546"W	0.46	
6336.40	0.340	290.350	6335.20	-77.17	18.66	-77.16	611728.14	604910.96	32°39'45.857"N	104°06'16.552"W	0.44	
6401.00	0.180	323.570	6399.80	-77.41	18.81	-77.40	611727.90	604911.11	32°39'45.858"N	104°06'16.554"W	0.33	
6465.60	0.420	27.470	6464.40	-77.36	19.10	-77.35	611727.95	604911.40	32°39'45.861"N	104°06'16.554"W	0.58	
6590.20	1.910	13.010	6588.97	-76.69	21.53	-76.68	611728.63	604913.83	32°39'45.885"N	104°06'16.546"W	1.21	
6650.10	2.070	11.630	6648.83	-76.25	23.56	-76.23	611729.07	604915.86	32°39'45.905"N	104°06'16.541"W	0.28	
6717.40	1.450	13.150	6716.10	-75.81	25.58	-75.79	611729.51	604917.88	32°39'45.925"N	104°06'16.535"W	0.92	
6784.80	1.260	341.060	6783.48	-75.85	27.11	-75.84	611729.47	604919.41	32°39'45.941"N	104°06'16.536"W	1.14	
6848.00	1.190	72.370	6846.67	-75.46	27.97	-75.44	611729.87	604920.27	32°39'45.949"N	104°06'16.531"W	2.77	
6911.20	1.290	52.410	6909.86	-74.27	28.60	-74.25	611731.05	604920.90	32°39'45.955"N	104°06'16.517"W	0.70	
6974.40	1.480	55.710	6973.04	-73.03	29.49	-73.01	611732.29	604921.79	32°39'45.964"N	104°06'16.503"W	0.33	
7037.60	1.470	55.150	7036.22	-71.69	30.42	-71.67	611733.63	604922.71	32°39'45.973"N	104°06'16.487"W	0.03	
7100.90	1.660	68.300	7099.49	-70.17	31.22	-70.16	611735.15	604923.52	32°39'45.981"N	104°06'16.469"W	0.64	
7164.10	1.700	35.880	7162.67	-68.77	32.32	-68.76	611736.55	604924.62	32°39'45.992"N	104°06'16.453"W	1.49	
7227.30	1.910	106.990	7225.84	-67.22	32.77	-67.20	611738.11	604925.07	32°39'45.996"N	104°06'16.435"W	3.33	
7290.50	2.330	110.900	7289.00	-65.01	32.00	-64.99	611740.31	604924.30	32°39'45.989"N	104°06'16.409"W	0.70	
7353.70	2.820	115.330	7352.14	-62.40	30.88	-62.39	611742.92	604923.18	32°39'45.978"N	104°06'16.379"W	0.84	
7416.90	1.990	87.130	7415.28	-59.90	30.27	-59.89	611745.42	604922.57	32°39'45.972"N	104°06'16.349"W	2.25	
7448.60	1.930	47.020	7446.97	-58.96	30.66	-58.95	611746.36	604922.96	32°39'45.975"N	104°06'16.338"W	4.24	
7462.00	2.000	41.500	7460.36	-58.64	30.99	-58.63	611746.68	604923.29	32°39'45.979"N	104°06'16.335"W	1.51	
7494.00	3.000	30.400	7492.33	-57.85	32.13	-57.83	611747.47	604924.43	32°39'45.990"N	104°06'16.325"W	3.46	
7526.00	6.400	74.400	7524.22	-55.71	33.33	-55.69	611749.62	604925.63	32°39'46.002"N	104°06'16.300"W	14.76	
7557.00	13.200	85.700	7554.76	-50.51	34.06	-50.49	611754.82	604926.36	32°39'46.009"N	104°06'16.239"W	22.69	
7589.00	19.800	89.600	7585.42	-41.43	34.38	-41.42	611763.89	604926.67	32°39'46.012"N	104°06'16.133"W	20.90	
7621.00	26.800	92.500	7614.79	-28.79	34.10	-28.77	611776.53	604926.40	32°39'46.009"N	104°06'15.985"W	22.16	
7653.00	33.100	92.000	7642.51	-12.83	33.48	-12.82	611792.48	604925.78	32°39'46.002"N	104°06'15.799"W	19.70	
7684.00	41.000	89.900	7667.23	5.83	33.20	5.84	611811.14	604925.50	32°39'45.999"N	104°06'15.580"W	25.81	
7716.00	46.700	89.100	7690.30	27.98	33.40	28.00	611833.30	604925.70	32°39'46.001"N	104°06'15.321"W	17.90	
7748.00	54.200	89.200	7710.66	52.64	33.77	52.65	611857.95	604926.06	32°39'46.004"N	104°06'15.033"W	23.44	
7780.00	60.200	89.600	7727.99	79.52	34.05	79.54	611884.83	604926.34	32°39'46.006"N	104°06'14.718"W	18.78	
7812.00	67.800	91.600	7742.00	108.26	33.73	108.28	611913.57	604926.03	32°39'46.002"N	104°06'14.382"W	24.40	
7844.00	71.900	91.700	7753.03	138.28	32.86	138.30	611943.59	604925.16	32°39'45.993"N	104°06'14.031"W	12.82	
7876.00	72.700	91.800	7762.75	168.75	31.93	168.77	611974.05	604924.23	32°39'45.983"N	104°06'13.675"W	2.52	
7908.00	72.800	91.800	7772.24	199.30	30.97	199.31	612004.60	604923.27	32°39'45.973"N	104°06'13.317"W	0.31	
7940.00	73.200	91.200	7781.60	229.89	30.17	229.90	612035.18	604922.47	32°39'45.964"N	104°06'12.960"W	2.19	
7972.00	74.700	90.600	7790.45	260.64	29.69	260.65	612065.93	604921.99	32°39'45.959"N	104°06'12.600"W	5.02	
8004.00	75.400	90.600	7798.70	291.55	29.37	291.57	612096.84	604921.66	32°39'45.955"N	104°06'12.238"W	2.19	
8035.00	76.600	90.200	7806.20	321.63	29.16	321.65	612126.92	604921.45	32°39'45.952"N	104°06'11.886"W	4.07	
8067.00	78.700	90.400	7813.05	352.89	28.99	352.90	612158.17	604921.29	32°39'45.950"N	104°06'11.521"W	6.59	



Actual Wellpath Report

No. 3H AWP

Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWP
Facility	Parkway 17 State No. 3H		

WELLPATH DATA (206 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8099.00	80.700	90.200	7818.77	384.37	28.83	384.39	612189.65	604921.12	32°39'45.948"N	104°06'11.153"W	6.28	
8131.00	82.800	91.700	7823.36	416.03	28.30	416.05	612221.31	604920.60	32°39'45.942"N	104°06'10.782"W	8.04	
8163.00	84.400	91.600	7826.93	447.82	27.39	447.83	612253.09	604919.68	32°39'45.932"N	104°06'10.410"W	5.01	
8194.00	86.900	92.100	7829.28	478.71	26.39	478.73	612283.98	604918.69	32°39'45.922"N	104°06'10.049"W	8.22	
8226.00	89.700	91.400	7830.23	510.68	25.41	510.69	612315.95	604917.71	32°39'45.911"N	104°06'09.675"W	9.02	
8258.00	90.500	91.300	7830.17	542.67	24.66	542.68	612347.94	604916.95	32°39'45.903"N	104°06'09.301"W	2.52	
8290.00	90.600	91.100	7829.86	574.66	23.99	574.68	612379.92	604916.28	32°39'45.896"N	104°06'08.927"W	0.70	
8322.00	90.800	90.700	7829.47	606.66	23.48	606.67	612411.92	604915.78	32°39'45.890"N	104°06'08.553"W	1.40	
8385.00	90.600	89.800	7828.70	669.65	23.21	669.66	612474.90	604915.51	32°39'45.886"N	104°06'07.816"W	1.46	
8449.00	89.700	89.000	7828.53	733.65	23.88	733.66	612538.89	604916.18	32°39'45.891"N	104°06'07.067"W	1.88	
8512.00	88.800	88.700	7829.36	796.63	25.14	796.64	612601.87	604917.44	32°39'45.902"N	104°06'06.330"W	1.51	
8575.00	89.500	88.200	7830.29	859.59	26.85	859.61	612664.83	604919.15	32°39'45.918"N	104°06'05.594"W	1.37	
8639.00	88.800	89.600	7831.24	923.57	28.08	923.59	612728.81	604920.37	32°39'45.929"N	104°06'04.845"W	2.45	
8702.00	89.000	88.900	7832.45	986.56	28.90	986.57	612791.78	604921.20	32°39'45.935"N	104°06'04.109"W	1.16	
8766.00	89.900	90.100	7833.07	1050.55	29.46	1050.56	612855.77	604921.76	32°39'45.940"N	104°06'03.360"W	2.34	
8830.00	89.800	90.900	7833.24	1114.55	28.90	1114.56	612919.76	604921.20	32°39'45.933"N	104°06'02.612"W	1.26	
8893.00	90.000	90.800	7833.35	1177.54	27.97	1177.55	612982.75	604920.26	32°39'45.922"N	104°06'01.875"W	0.35	
8956.00	90.100	90.500	7833.29	1240.53	27.25	1240.55	613045.74	604919.55	32°39'45.914"N	104°06'01.138"W	0.50	
9020.00	90.300	90.100	7833.07	1304.53	26.92	1304.55	613109.73	604919.21	32°39'45.909"N	104°06'00.389"W	0.70	
9084.00	90.100	90.300	7832.84	1368.53	26.69	1368.55	613173.73	604918.99	32°39'45.905"N	104°05'59.641"W	0.44	
9147.00	89.900	88.800	7832.84	1431.53	27.19	1431.54	613236.72	604919.49	32°39'45.909"N	104°05'58.904"W	2.40	
9211.00	90.100	88.700	7832.84	1495.51	28.58	1495.53	613300.70	604920.88	32°39'45.921"N	104°05'58.155"W	0.35	
9274.00	90.700	89.500	7832.40	1558.50	29.57	1558.52	613363.68	604921.87	32°39'45.930"N	104°05'57.419"W	1.59	
9338.00	90.600	89.900	7831.68	1622.50	29.91	1622.51	613427.67	604922.21	32°39'45.932"N	104°05'56.670"W	0.64	
9401.00	90.700	88.200	7830.96	1685.48	30.95	1685.50	613490.65	604923.25	32°39'45.941"N	104°05'55.933"W	2.70	
9464.00	90.100	88.300	7830.52	1748.45	32.88	1748.47	613553.61	604925.17	32°39'45.958"N	104°05'55.197"W	0.97	
9528.00	90.000	89.300	7830.47	1812.43	34.22	1812.45	613617.59	604926.51	32°39'45.970"N	104°05'54.448"W	1.57	
9592.00	90.200	89.900	7830.36	1876.43	34.66	1876.45	613681.59	604926.96	32°39'45.973"N	104°05'53.700"W	0.99	
9655.00	89.700	90.500	7830.41	1939.43	34.44	1939.45	613744.58	604926.74	32°39'45.970"N	104°05'52.963"W	1.24	
9719.00	89.400	91.000	7830.91	2003.42	33.61	2003.44	613808.57	604925.90	32°39'45.960"N	104°05'52.214"W	0.91	
9783.00	90.100	90.500	7831.19	2067.42	32.77	2067.43	613872.55	604925.07	32°39'45.950"N	104°05'51.466"W	1.34	
9847.00	90.900	90.200	7830.63	2131.41	32.38	2131.43	613936.54	604924.67	32°39'45.945"N	104°05'50.717"W	1.33	
9910.00	91.500	89.900	7829.31	2194.40	32.32	2194.42	613999.52	604924.62	32°39'45.943"N	104°05'49.980"W	1.06	
9974.00	91.900	89.500	7827.42	2258.37	32.66	2258.39	614063.49	604924.95	32°39'45.945"N	104°05'49.232"W	0.88	
10037.00	92.300	89.400	7825.11	2321.32	33.26	2321.34	614126.44	604925.56	32°39'45.949"N	104°05'48.496"W	0.65	
10100.00	91.200	90.200	7823.18	2384.29	33.48	2384.31	614189.40	604925.78	32°39'45.950"N	104°05'47.759"W	2.16	
10164.00	91.400	90.100	7821.73	2448.28	33.31	2448.29	614253.38	604925.61	32°39'45.947"N	104°05'47.011"W	0.35	
10227.00	91.000	90.000	7820.41	2511.26	33.26	2511.28	614316.36	604925.56	32°39'45.945"N	104°05'46.274"W	0.65	
10291.00	89.900	90.300	7819.91	2575.26	33.09	2575.28	614380.35	604925.39	32°39'45.942"N	104°05'45.525"W	1.78	
10353.00	88.100	91.100	7820.99	2637.24	32.33	2637.26	614442.33	604924.63	32°39'45.933"N	104°05'44.800"W	3.18	
10416.00	88.500	91.100	7822.86	2700.20	31.13	2700.22	614505.28	604923.42	32°39'45.920"N	104°05'44.064"W	0.63	
10479.00	88.700	91.000	7824.40	2763.17	29.97	2763.19	614568.25	604922.27	32°39'45.907"N	104°05'43.327"W	0.35	
10543.00	89.000	91.300	7825.68	2827.15	28.69	2827.16	614632.22	604920.98	32°39'45.893"N	104°05'42.579"W	0.66	
10606.00	89.600	90.700	7826.45	2890.13	27.59	2890.15	614695.20	604919.89	32°39'45.881"N	104°05'41.842"W	1.35	
10670.00	89.700	90.200	7826.84	2954.13	27.09	2954.15	614759.19	604919.38	32°39'45.874"N	104°05'41.094"W	0.80	



Actual Wellpath Report

No. 3H AWP

Page 6 of 7



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H-SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWB
Facility	Parkway 17 State No. 3H		

WELLPATH DATA (206 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10733.00	88.000	91.400	7828.11	3017.11	26.21	3017.12	614822.16	604918.50	32°39'45.864"N	104°05'40.357"W	3.30	
10797.00	87.900	90.800	7830.40	3081.06	24.98	3081.07	614886.10	604917.28	32°39'45.851"N	104°05'39.609"W	0.95	
10861.00	88.100	91.000	7832.63	3145.01	23.97	3145.02	614950.05	604916.27	32°39'45.839"N	104°05'38.861"W	0.44	
10924.00	88.500	90.700	7834.50	3207.98	23.04	3207.99	615013.01	604915.34	32°39'45.829"N	104°05'38.125"W	0.79	
10987.00	88.400	90.500	7836.20	3270.95	22.38	3270.96	615075.98	604914.68	32°39'45.821"N	104°05'37.388"W	0.35	
11051.00	88.200	89.900	7838.10	3334.92	22.16	3334.93	615139.94	604914.45	32°39'45.817"N	104°05'36.640"W	0.99	
11115.00	88.400	89.700	7840.00	3398.89	22.38	3398.90	615203.91	604914.68	32°39'45.818"N	104°05'35.891"W	0.44	
11178.00	88.100	89.700	7841.93	3461.86	22.71	3461.87	615266.87	604915.01	32°39'45.820"N	104°05'35.155"W	0.48	
11241.00	88.200	90.600	7843.96	3524.83	22.54	3524.84	615329.83	604914.84	32°39'45.817"N	104°05'34.418"W	1.44	
11305.00	88.500	90.900	7845.80	3588.80	21.71	3588.81	615393.79	604914.01	32°39'45.807"N	104°05'33.670"W	0.66	
11369.00	89.100	91.300	7847.14	3652.77	20.48	3652.78	615457.76	604912.78	32°39'45.793"N	104°05'32.922"W	1.13	
11432.00	88.600	91.000	7848.41	3715.75	19.21	3715.76	615520.73	604911.51	32°39'45.779"N	104°05'32.185"W	0.93	
11496.00	88.400	90.400	7850.08	3779.72	18.43	3779.73	615584.70	604910.73	32°39'45.770"N	104°05'31.437"W	0.99	
11559.00	89.200	90.600	7851.40	3842.70	17.88	3842.71	615647.68	604910.18	32°39'45.763"N	104°05'30.700"W	1.31	
11623.00	89.400	90.400	7852.18	3906.70	17.32	3906.70	615711.66	604909.62	32°39'45.756"N	104°05'29.952"W	0.44	
11686.00	89.900	90.500	7852.57	3969.69	16.83	3969.70	615774.66	604909.13	32°39'45.750"N	104°05'29.215"W	0.81	
11749.00	89.500	90.000	7852.90	4032.69	16.56	4032.70	615837.65	604908.85	32°39'45.746"N	104°05'28.478"W	1.02	
11813.00	90.400	90.600	7852.95	4096.69	16.22	4096.70	615901.64	604908.52	32°39'45.741"N	104°05'27.729"W	1.69	
11877.00	90.400	90.400	7852.51	4160.69	15.66	4160.69	615965.63	604907.96	32°39'45.734"N	104°05'26.981"W	0.31	
11940.00	90.400	89.900	7852.07	4223.68	15.50	4223.69	616028.62	604907.80	32°39'45.731"N	104°05'26.244"W	0.79	
12004.00	90.200	89.900	7851.73	4287.68	15.61	4287.69	616092.62	604907.91	32°39'45.731"N	104°05'25.495"W	0.31	
12068.00	89.900	89.200	7851.68	4351.68	16.11	4351.69	616156.61	604908.41	32°39'45.734"N	104°05'24.747"W	1.19	
12131.00	90.000	89.200	7851.73	4414.67	16.99	4414.68	616219.60	604909.29	32°39'45.742"N	104°05'24.010"W	0.16	
12195.00	89.900	89.300	7851.79	4478.67	17.83	4478.68	616283.59	604910.13	32°39'45.748"N	104°05'23.261"W	0.22	
12226.00	89.900	89.000	7851.84	4509.66	18.29	4509.67	616314.58	604910.59	32°39'45.752"N	104°05'22.899"W	0.97	
12287.00	89.900	89.000	7851.95	4570.65	19.35	4570.66	616375.57	604911.65	32°39'45.761"N	104°05'22.185"W	0.00	Proj to Bit



Actual Wellpath Report

No. 3H AWP

Page 7 of 7



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	Parkway	Wellbore	No. 3H AWB
Facility	Parkway 17 State No. 3H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
17 No. 3H PBHL		7810.00	-2.30	4584.84	616389.74	604890.00	32°39'45.547"N	104°05'22.020"W	point

WELLPATH COMPOSITION					Ref Wellbore: No. 3H AWB		Ref Wellpath: No. 3H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore	
0.00	7448.60	Generic gyro - northseeking (Standard)			Gyro		No. 3H AWB	
7448.60	12287.00	NaviTrak (Standard)			MWD		No. 3H AWB	