



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Chaves County, NM	Well	No. 2H
Field	(Valley) Sec 20, T15S, R31E	Wellbore	No. 2H PWB
Facility	Valley Forge 20 State Com #2H		

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	Victor Hernandez
Scale	0.999934	Report Generated	7/20/2010 at 4:58:06 PM
Convergence at slot	0.26° East	Database/Source file	WA_Midland/No. 2H_PWB.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	689174.40	727513.50	32°59'56.420"N	103°51'04.041"W
Facility Reference Pt			689174.40	727513.50	32°59'56.420"N	103°51'04.041"W
Field Reference Pt			693616.10	726126.50	32°59'42.492"N	103°50'11.963"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (GL) to GL	0.00ft
Horizontal Reference Pt	SL	Rig on No. 2H SHL (GL) to Mean Sea Level	4433.00ft
Vertical Reference Pt	Rig on No. 2H SHL (GL)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	87.22°



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WELLPATH DATA (49 stations) * = interpolated/extrapolated station												
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	87.219	0.00	0.00	0.00	0.00	689174.40	727513.50	32°59'56.420"N	103°51'04.041"W	0.00	Tie On
8660.00	0.000	87.219	8660.00	0.00	0.00	0.00	689174.40	727513.50	32°59'56.420"N	103°51'04.041"W	0.00	EST. KOP
8760.00†	30.000	87.219	8755.49	25.59	1.24	25.56	689199.96	727514.74	32°59'56.431"N	103°51'03.741"W	30.00	
8860.00†	60.000	87.219	8825.40	95.49	4.63	95.38	689269.77	727518.13	32°59'56.462"N	103°51'02.921"W	30.00	
8960.00†	90.000	87.219	8850.99	190.99	9.27	190.76	689365.15	727522.77	32°59'56.503"N	103°51'01.801"W	30.00	
8964.71	91.414	87.219	8850.93	195.70	9.50	195.47	689369.86	727523.00	32°59'56.505"N	103°51'01.746"W	30.00	END OF CURVE
9060.00†	91.414	87.219	8848.58	290.96	14.12	290.61	689464.99	727527.62	32°59'56.547"N	103°51'00.628"W	0.00	
9160.00†	91.414	87.219	8846.11	390.93	18.97	390.47	689564.84	727532.47	32°59'56.590"N	103°50'59.456"W	0.00	
9260.00†	91.414	87.219	8843.64	490.90	23.82	490.32	689664.68	727537.32	32°59'56.634"N	103°50'58.283"W	0.00	
9360.00†	91.414	87.219	8841.17	590.87	28.67	590.17	689764.53	727542.17	32°59'56.677"N	103°50'57.110"W	0.00	
9460.00†	91.414	87.219	8838.70	690.83	33.52	690.02	689864.37	727547.02	32°59'56.720"N	103°50'55.938"W	0.00	
9560.00†	91.414	87.219	8836.23	790.80	38.37	789.87	689964.22	727551.87	32°59'56.764"N	103°50'54.765"W	0.00	
9660.00†	91.414	87.219	8833.77	890.77	43.22	889.72	690064.06	727556.72	32°59'56.807"N	103°50'53.592"W	0.00	
9760.00†	91.414	87.219	8831.30	990.74	48.07	989.58	690163.91	727561.57	32°59'56.851"N	103°50'52.420"W	0.00	
9860.00†	91.414	87.219	8828.83	1090.71	52.92	1089.43	690263.75	727566.42	32°59'56.894"N	103°50'51.247"W	0.00	
9960.00†	91.414	87.219	8826.36	1190.68	57.78	1189.28	690363.60	727571.27	32°59'56.938"N	103°50'50.074"W	0.00	
10060.00†	91.414	87.219	8823.89	1290.65	62.63	1289.13	690463.44	727576.12	32°59'56.981"N	103°50'48.902"W	0.00	
10160.00†	91.414	87.219	8821.42	1390.62	67.48	1388.98	690563.29	727580.97	32°59'57.024"N	103°50'47.729"W	0.00	
10260.00†	91.414	87.219	8818.96	1490.59	72.33	1488.83	690663.13	727585.82	32°59'57.068"N	103°50'46.556"W	0.00	
10360.00†	91.414	87.219	8816.49	1590.56	77.18	1588.69	690762.98	727590.67	32°59'57.111"N	103°50'45.384"W	0.00	
10460.00†	91.414	87.219	8814.02	1690.53	82.03	1688.54	690862.82	727595.52	32°59'57.155"N	103°50'44.211"W	0.00	
10560.00†	91.414	87.219	8811.55	1790.50	86.88	1788.39	690962.67	727600.37	32°59'57.198"N	103°50'43.038"W	0.00	
10660.00†	91.414	87.219	8809.08	1890.47	91.73	1888.24	691062.51	727605.22	32°59'57.242"N	103°50'41.866"W	0.00	
10760.00†	91.414	87.219	8806.61	1990.44	96.58	1988.09	691162.36	727610.08	32°59'57.285"N	103°50'40.693"W	0.00	
10860.00†	91.414	87.219	8804.15	2090.41	101.43	2087.95	691262.20	727614.93	32°59'57.328"N	103°50'39.521"W	0.00	
10960.00†	91.414	87.219	8801.68	2190.38	106.28	2187.80	691362.05	727619.78	32°59'57.372"N	103°50'38.348"W	0.00	
11060.00†	91.414	87.219	8799.21	2290.35	111.13	2287.65	691461.89	727624.63	32°59'57.415"N	103°50'37.175"W	0.00	
11160.00†	91.414	87.219	8796.74	2390.32	115.99	2387.50	691561.74	727629.48	32°59'57.459"N	103°50'36.003"W	0.00	
11260.00†	91.414	87.219	8794.27	2490.29	120.84	2487.35	691661.58	727634.33	32°59'57.502"N	103°50'34.830"W	0.00	
11360.00†	91.414	87.219	8791.80	2590.26	125.69	2587.20	691761.43	727639.18	32°59'57.545"N	103°50'33.657"W	0.00	



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Field	(Valley) Sec 20, T15S, R31E	Wellbore	No. 2H PWB
Facility	Valley Forge 20 State Com #2H		

WELLPATH DATA (49 stations) * = interpolated/extrapolated station

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
11460.00†	91.414	87.219	8789.34	2690.23	130.54	2687.06	691861.27	727644.03	32°59'57.589"N	103°50'32.485"W	0.00	
11560.00†	91.414	87.219	8786.87	2790.19	135.39	2786.91	691961.12	727648.88	32°59'57.632"N	103°50'31.312"W	0.00	
11660.00†	91.414	87.219	8784.40	2890.16	140.24	2886.76	692060.96	727653.73	32°59'57.675"N	103°50'30.139"W	0.00	
11760.00†	91.414	87.219	8781.93	2990.13	145.09	2986.61	692160.81	727658.58	32°59'57.719"N	103°50'28.967"W	0.00	
11860.00†	91.414	87.219	8779.46	3090.10	149.94	3086.46	692260.65	727663.43	32°59'57.762"N	103°50'27.794"W	0.00	
11960.00†	91.414	87.219	8776.99	3190.07	154.79	3186.32	692360.50	727668.28	32°59'57.806"N	103°50'26.621"W	0.00	
12060.00†	91.414	87.219	8774.53	3290.04	159.64	3286.17	692460.34	727673.13	32°59'57.849"N	103°50'25.449"W	0.00	
12160.00†	91.414	87.219	8772.06	3390.01	164.49	3386.02	692560.19	727677.98	32°59'57.892"N	103°50'24.276"W	0.00	
12260.00†	91.414	87.219	8769.59	3489.98	169.34	3485.87	692660.03	727682.83	32°59'57.936"N	103°50'23.103"W	0.00	
12360.00†	91.414	87.219	8767.12	3589.95	174.19	3585.72	692759.88	727687.68	32°59'57.979"N	103°50'21.931"W	0.00	
12460.00†	91.414	87.219	8764.65	3689.92	179.05	3685.57	692859.72	727692.53	32°59'58.022"N	103°50'20.758"W	0.00	
12560.00†	91.414	87.219	8762.18	3789.89	183.90	3785.43	692959.57	727697.38	32°59'58.066"N	103°50'19.585"W	0.00	
12660.00†	91.414	87.219	8759.71	3889.86	188.75	3885.28	693059.41	727702.23	32°59'58.109"N	103°50'18.413"W	0.00	
12760.00†	91.414	87.219	8757.25	3989.83	193.60	3985.13	693159.26	727707.08	32°59'58.152"N	103°50'17.240"W	0.00	
12860.00†	91.414	87.219	8754.78	4089.80	198.45	4084.98	693259.10	727711.94	32°59'58.196"N	103°50'16.067"W	0.00	
12960.00†	91.414	87.219	8752.31	4189.77	203.30	4184.83	693358.95	727716.79	32°59'58.239"N	103°50'14.895"W	0.00	
13060.00†	91.414	87.219	8749.84	4289.74	208.15	4284.68	693458.79	727721.64	32°59'58.282"N	103°50'13.722"W	0.00	
13160.00†	91.414	87.219	8747.37	4389.71	213.00	4384.54	693558.64	727726.49	32°59'58.326"N	103°50'12.549"W	0.00	
13256.14	91.414	87.219	8745.00	4485.82	217.66	4480.53	693654.63	727731.45	32°59'58.367"N	103°50'11.422"W	0.00	No. 2H PBHL



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Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Chaves County, NM	Well	No. 2H
Field	(Valley) Sec 20, T15S, R31E	Wellbore	No. 2H PWB
Facility	Valley Forge 20 State Com #2H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 2H PBHL	13256.14	8745.00	217.66	4480.53	693654.63	727731.15	32°59'58.367"N	103°50'11.422"W	point

SURVEY PROGRAM Ref Wellbore: No. 2H PWB Ref Wellpath: Prelim_2				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13256.14	NaviTrak (Standard)		No. 2H PWB