

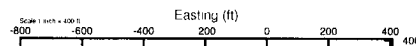


Cimarex Energy Co.

Location Lea County, NM
Field (State DR) Sec 16, T19S R32E
Facility State DR No. 7H

Slot No. 7H SHL
Well No. 7H
Wellbore No. 7H PWB

30-025-39794



No. 7H SHL
330' FNL
1980' FWL

Tie On: 0.00h TVD, 0.00h N, 0.00h E
Est KOP: 9209.30h TVD, 0.00h N, 0.00h E

End Curve: 31.0° Inc, 89.357° Az, 179.599° TVD, 4622.43h N, 32.33h E

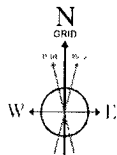
BAKER HUGHES INTEQ

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (7100ft)	VS (ft)
Tie On	0.00	0.000	179.599	0.00	0.00	0.00	0.00	0.00
Est KOP	9209.30	0.000	179.599	9209.30	0.00	0.00	0.00	0.00
End Curve	31.0° Inc	89.357	179.599	9450.00	4622.43	32.33	0.00	4622.55
No. 7H PWB	13941.14	89.357	179.599	9450.00	4622.43	32.33	0.00	4622.55

Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9 625in Casing Surface	0.00	4800.00	4800.00	0.00	4800.00	0.00	0.00	0.00	0.00	No. 7H PWB
7in Casing Intermediate	0.00	9000.00	9000.00	0.00	9000.00	0.00	0.00	0.00	0.00	No. 7H PWB



BGGM (1945.0 to 2011.0) Dip 60.60° Field 49028 nT
Magnetic North is 7.88 degrees East of True North (at 6/8/2010)

Grid North is 0.30 degrees East of True North

To correct azimuth from True to Grid subtract 0.30 degrees

To correct azimuth from Magnetic to Grid add 7.57 degrees

For example: if the Magnetic North Azimuth = 90 degrees, then the Grid North Azimuth = 90 + 7.57 = 97.57

Plot reference wellpath is Prelim 1

True vertical depths are referenced to Rig on No. 7H SHL (GL)

Measured depths are referenced to Rig on No. 7H SHL (GL)

Rig on No. 7H SHL (GL) to Mean Sea Level 3627 feet

Mean Sea Level to Mud line (Facility, State DR No. 7H) 3627 feet

Coordinates are in feet referenced to Slot Location

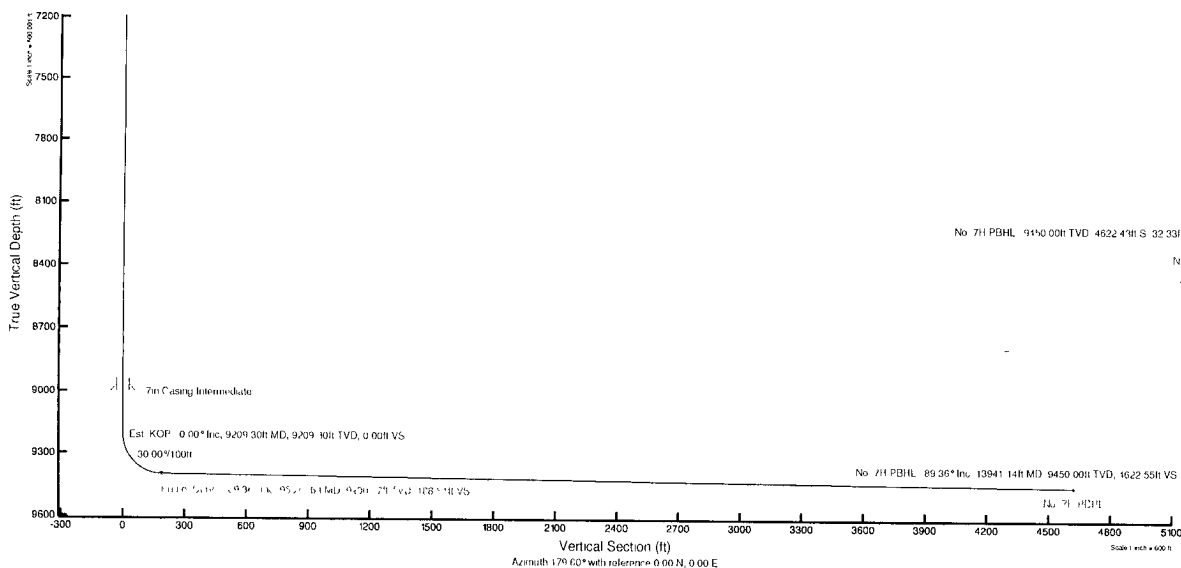
Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet

North Reference: Grid north

Scale: True distance

Depths are in feet

Created by: Roland Flores on 6/8/2010





Planned Wellpath Report

Prelim 1
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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 7H PWB
Facility	State DR No. 7H		

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	Florroll
Scale	0.999943	Report Generated	6/8/2010 at 9:30:25 AM
Convergence at slot	0.30° East	Database/Source file	WA Midland/No. 7H_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	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W
Facility Reference Pt			713647.50	606761.90	32°40'00.426"N	103°46'24.193"W
Field Reference Pt			712327.80	606759.10	32°40'00.467"N	103°46'39.631"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 7H SHL (GL) to Ground Level	0.00ft
Horizontal Reference Pt	Slot Location	Rig on No. 7H SHL (GL) to Mean Sea Level	3627.00ft
Vertical Reference Pt	Rig on No. 7H SHL (GL)	Ground Level to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 7H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.60°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 7H PWB
Facility	State DR No. 7H		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVI [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	179.599	0.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	Tie On
100.00†	0.000	179.599	100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
200.00†	0.000	179.599	200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
300.00†	0.000	179.599	300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
400.00†	0.000	179.599	400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
500.00†	0.000	179.599	500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
600.00†	0.000	179.599	600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
700.00†	0.000	179.599	700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
800.00†	0.000	179.599	800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
900.00†	0.000	179.599	900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1000.00†	0.000	179.599	1000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1100.00†	0.000	179.599	1100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1200.00†	0.000	179.599	1200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1300.00†	0.000	179.599	1300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1400.00†	0.000	179.599	1400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1500.00†	0.000	179.599	1500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1600.00†	0.000	179.599	1600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1700.00†	0.000	179.599	1700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1800.00†	0.000	179.599	1800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
1900.00†	0.000	179.599	1900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2000.00†	0.000	179.599	2000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2100.00†	0.000	179.599	2100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2200.00†	0.000	179.599	2200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2300.00†	0.000	179.599	2300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2400.00†	0.000	179.599	2400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2500.00†	0.000	179.599	2500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2600.00†	0.000	179.599	2600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2700.00†	0.000	179.599	2700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2800.00†	0.000	179.599	2800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
2900.00†	0.000	179.599	2900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3000.00†	0.000	179.599	3000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3100.00†	0.000	179.599	3100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3200.00†	0.000	179.599	3200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3300.00†	0.000	179.599	3300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3400.00†	0.000	179.599	3400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3500.00†	0.000	179.599	3500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3600.00†	0.000	179.599	3600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3700.00†	0.000	179.599	3700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3800.00†	0.000	179.599	3800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
3900.00†	0.000	179.599	3900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4000.00†	0.000	179.599	4000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4100.00†	0.000	179.599	4100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4200.00†	0.000	179.599	4200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4300.00†	0.000	179.599	4300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4400.00†	0.000	179.599	4400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 7H PWB
Facility	State DR No. 7H		

WELLPATH DATA (143 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
4500.00†	0.000	179.599	4500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4600.00†	0.000	179.599	4600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4700.00†	0.000	179.599	4700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4800.00†	0.000	179.599	4800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
4900.00†	0.000	179.599	4900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5000.00†	0.000	179.599	5000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5100.00†	0.000	179.599	5100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5200.00†	0.000	179.599	5200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5300.00†	0.000	179.599	5300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5400.00†	0.000	179.599	5400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5500.00†	0.000	179.599	5500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5600.00†	0.000	179.599	5600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5700.00†	0.000	179.599	5700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5800.00†	0.000	179.599	5800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
5900.00†	0.000	179.599	5900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6000.00†	0.000	179.599	6000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6100.00†	0.000	179.599	6100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6200.00†	0.000	179.599	6200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6300.00†	0.000	179.599	6300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6400.00†	0.000	179.599	6400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6500.00†	0.000	179.599	6500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6600.00†	0.000	179.599	6600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6700.00†	0.000	179.599	6700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6800.00†	0.000	179.599	6800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
6900.00†	0.000	179.599	6900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7000.00†	0.000	179.599	7000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7100.00†	0.000	179.599	7100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7200.00†	0.000	179.599	7200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7300.00†	0.000	179.599	7300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7400.00†	0.000	179.599	7400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7500.00†	0.000	179.599	7500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7600.00†	0.000	179.599	7600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7700.00†	0.000	179.599	7700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7800.00†	0.000	179.599	7800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
7900.00†	0.000	179.599	7900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8000.00†	0.000	179.599	8000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8100.00†	0.000	179.599	8100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8200.00†	0.000	179.599	8200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8300.00†	0.000	179.599	8300.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8400.00†	0.000	179.599	8400.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8500.00†	0.000	179.599	8500.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8600.00†	0.000	179.599	8600.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8700.00†	0.000	179.599	8700.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8800.00†	0.000	179.599	8800.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
8900.00†	0.000	179.599	8900.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 7H PWB
Facility	State DR No. 7H		

WELLPATH DATA (143 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
9000.00†	0.000	179.599	9000.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
9100.00†	0.000	179.599	9100.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
9200.00†	0.000	179.599	9200.00	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	
9209.30	0.000	179.599	9209.30	0.00	0.00	0.00	713647.50	606761.90	32°40'00.426"N	103°46'24.193"W	0.00	Est KOP
9300.00†	27.210	179.599	9296.63	-21.14	-21.13	0.15	713647.65	606740.77	32°40'00.217"N	103°46'24.192"W	30.00	
9400.00†	57.210	179.599	9369.85	87.56	-87.55	0.61	713648.11	606674.35	32°39'59.560"N	103°46'24.191"W	30.00	
9500.00†	87.210	179.599	9400.06	181.69	-181.69	1.27	713648.77	606580.23	32°39'58.628"N	103°46'24.189"W	30.00	
9507.16	89.357	179.599	9400.27	188.84	-188.84	1.32	713648.82	606573.07	32°39'58.557"N	103°46'24.189"W	30.00	End of Curve
9600.00†	89.357	179.599	9401.32	281.68	-281.67	1.97	713649.47	606480.24	32°39'57.639"N	103°46'24.187"W	0.00	
9700.00†	89.357	179.599	9402.44	381.67	-381.66	2.67	713650.17	606380.26	32°39'56.649"N	103°46'24.185"W	0.00	
9800.00†	89.357	179.599	9403.56	481.67	-481.66	3.37	713650.87	606280.27	32°39'55.660"N	103°46'24.183"W	0.00	
9900.00†	89.357	179.599	9404.68	581.66	-581.65	4.07	713651.57	606180.29	32°39'54.671"N	103°46'24.181"W	0.00	
10000.00†	89.357	179.599	9405.80	681.65	-681.64	4.77	713652.27	606080.30	32°39'53.681"N	103°46'24.179"W	0.00	
10100.00†	89.357	179.599	9406.92	781.65	-781.63	5.47	713652.97	605980.32	32°39'52.692"N	103°46'24.177"W	0.00	
10200.00†	89.357	179.599	9408.04	881.64	-881.62	6.17	713653.67	605880.33	32°39'51.703"N	103°46'24.175"W	0.00	
10300.00†	89.357	179.599	9409.17	981.64	-981.61	6.87	713654.37	605780.35	32°39'50.713"N	103°46'24.173"W	0.00	
10400.00†	89.357	179.599	9410.29	1081.63	-1081.60	7.57	713655.06	605680.36	32°39'49.724"N	103°46'24.171"W	0.00	
10500.00†	89.357	179.599	9411.41	1181.62	-1181.59	8.26	713655.76	605580.37	32°39'48.734"N	103°46'24.169"W	0.00	
10600.00†	89.357	179.599	9412.53	1281.62	-1281.59	8.96	713656.46	605480.39	32°39'47.745"N	103°46'24.167"W	0.00	
10700.00†	89.357	179.599	9413.65	1381.61	-1381.58	9.66	713657.16	605380.40	32°39'46.756"N	103°46'24.165"W	0.00	
10800.00†	89.357	179.599	9414.77	1481.60	-1481.57	10.36	713657.86	605280.42	32°39'45.766"N	103°46'24.163"W	0.00	
10900.00†	89.357	179.599	9415.89	1581.60	-1581.56	11.06	713658.56	605180.43	32°39'44.777"N	103°46'24.161"W	0.00	
11000.00†	89.357	179.599	9417.02	1681.59	-1681.55	11.76	713659.26	605080.45	32°39'43.788"N	103°46'24.159"W	0.00	
11100.00†	89.357	179.599	9418.14	1781.59	-1781.54	12.46	713659.96	604980.46	32°39'42.798"N	103°46'24.157"W	0.00	
11200.00†	89.357	179.599	9419.26	1881.58	-1881.53	13.16	713660.66	604880.48	32°39'41.809"N	103°46'24.155"W	0.00	
11300.00†	89.357	179.599	9420.38	1981.57	-1981.52	13.86	713661.36	604780.49	32°39'40.819"N	103°46'24.153"W	0.00	
11400.00†	89.357	179.599	9421.50	2081.57	-2081.52	14.56	713662.06	604680.51	32°39'39.830"N	103°46'24.151"W	0.00	
11500.00†	89.357	179.599	9422.62	2181.56	-2181.51	15.26	713662.76	604580.52	32°39'38.841"N	103°46'24.149"W	0.00	
11600.00†	89.357	179.599	9423.74	2281.55	-2281.50	15.96	713663.46	604480.54	32°39'37.851"N	103°46'24.147"W	0.00	
11700.00†	89.357	179.599	9424.87	2381.55	-2381.49	16.66	713664.16	604380.55	32°39'36.862"N	103°46'24.145"W	0.00	
11800.00†	89.357	179.599	9425.99	2481.54	-2481.48	17.36	713664.86	604280.57	32°39'35.872"N	103°46'24.143"W	0.00	
11900.00†	89.357	179.599	9427.11	2581.54	-2581.47	18.06	713665.56	604180.58	32°39'34.883"N	103°46'24.141"W	0.00	
12000.00†	89.357	179.599	9428.23	2681.53	-2681.46	18.76	713666.25	604080.59	32°39'33.894"N	103°46'24.139"W	0.00	
12100.00†	89.357	179.599	9429.35	2781.52	-2781.45	19.46	713666.95	603980.61	32°39'32.904"N	103°46'24.137"W	0.00	
12200.00†	89.357	179.599	9430.47	2881.52	-2881.45	20.15	713667.65	603880.62	32°39'31.915"N	103°46'24.135"W	0.00	
12300.00†	89.357	179.599	9431.60	2981.51	-2981.44	20.85	713668.35	603780.64	32°39'30.926"N	103°46'24.133"W	0.00	
12400.00†	89.357	179.599	9432.72	3081.50	-3081.43	21.55	713669.05	603680.65	32°39'29.936"N	103°46'24.131"W	0.00	
12500.00†	89.357	179.599	9433.84	3181.50	-3181.42	22.25	713669.75	603580.67	32°39'28.947"N	103°46'24.129"W	0.00	
12600.00†	89.357	179.599	9434.96	3281.49	-3281.41	22.95	713670.45	603480.68	32°39'27.957"N	103°46'24.127"W	0.00	
12700.00†	89.357	179.599	9436.08	3381.49	-3381.40	23.65	713671.15	603380.70	32°39'26.968"N	103°46'24.124"W	0.00	
12800.00†	89.357	179.599	9437.20	3481.48	-3481.39	24.35	713671.85	603280.71	32°39'25.979"N	103°46'24.122"W	0.00	
12900.00†	89.357	179.599	9438.32	3581.47	-3581.39	25.05	713672.55	603180.73	32°39'24.989"N	103°46'24.120"W	0.00	
13000.00†	89.357	179.599	9439.45	3681.47	-3681.38	25.75	713673.25	603080.74	32°39'24.000"N	103°46'24.118"W	0.00	
13100.00†	89.357	179.599	9440.57	3781.46	-3781.37	26.45	713673.95	602980.76	32°39'23.011"N	103°46'24.116"W	0.00	
13200.00†	89.357	179.599	9441.69	3881.45	-3881.36	27.15	713674.65	602880.77	32°39'22.021"N	103°46'24.114"W	0.00	



Planned Wellpath Report

Prelim 1
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REFERENCE WELLPATH IDENTIFICATION

Operator **Cimarex Energy Co.**

Slot **No. 7H SHL**

Area **Lea County, NM**

Well **No. 7H**

Field **(State DR) Sec 16, T19S, R32E**

Wellbore **No. 7H PWB**

Facility **State DR No. 7H**

WELLPATH DATA (143 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
13300.00†	89.357	179.599	9442.81	3981.45	-3981.35	27.85	713675.35	602780.78	32°39'21.032"N	103°46'24.112"W	0.00	
13400.00†	89.357	179.599	9443.93	4081.44	-4081.34	28.55	713676.05	602680.80	32°39'20.042"N	103°46'24.110"W	0.00	
13500.00†	89.357	179.599	9445.05	4181.43	-4181.33	29.25	713676.74	602580.81	32°39'19.053"N	103°46'24.108"W	0.00	
13600.00†	89.357	179.599	9446.17	4281.43	-4281.32	29.95	713677.44	602480.83	32°39'18.064"N	103°46'24.106"W	0.00	
13700.00†	89.357	179.599	9447.30	4381.42	-4381.32	30.65	713678.14	602380.84	32°39'17.074"N	103°46'24.104"W	0.00	
13800.00†	89.357	179.599	9448.42	4481.42	-4481.31	31.34	713678.84	602280.86	32°39'16.085"N	103°46'24.102"W	0.00	
13900.00†	89.357	179.599	9449.54	4581.41	-4581.30	32.04	713679.54	602180.87	32°39'15.095"N	103°46'24.100"W	0.00	
13941.14	89.357	179.599	9450.00†	4622.55	-4622.43	32.33	713679.83	602139.74	32°39'14.688"N	103°46'24.100"W	0.00	No. 7H PBHL

HOLE & CASING SECTIONS Ref Wellbore: No. 7H PWB Ref Wellpath: Prelim 1

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	0.00	4800.00	4800.00	0.00	4800.00	0.00	0.00	0.00	0.00
7in Casing Intermediate	0.00	9000.00	9000.00	0.00	9000.00	0.00	0.00	0.00	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 7H PBHL	13941.14	9450.00	-4622.43	32.33	713679.83	602139.74	32°39'14.688"N	103°46'24.100"W	point

SURVEY PROGRAM Ref Wellbore: No. 7H PWB Ref Wellpath: Prelim 1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13941.14	NaviTrak (Standard)		No. 7H PWB