



Planned Wellpath Report

Plan #2
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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Topacio) Sec 28, T19S, R33E	Wellbore	No. 1H PWB
Facility	Topacio Fed Com 28 No. 1H		

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	0.999986	Report Generated	7/27/2009 at 3:36:44 PM
Convergence at slot	0.45° East	Database/Source file	WA_Midland/No. 1H_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	801210.36	544308.79	32°29'36.756"N	103°29'25.686"W
Facility Reference Pt			801210.36	544308.79	32°29'36.756"N	103°29'25.686"W
Field Reference Pt			801210.36	544308.79	32°29'36.757"N	103°29'25.686"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1H SHL (RT) to Mean Sea Level	3598.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.91°



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INTEQ

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WELLPATH DATA (38 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	179.906	0.00	0.00	0.00	0.00	0.00	Tie On
7443.00	0.000	179.906	7443.00	0.00	0.00	0.00	0.00	EST. KOP
7543.00†	29.998	179.906	7538.49	25.59	-25.59	0.04	30.00	
7643.00†	59.996	179.906	7608.40	95.49	-95.49	0.16	30.00	
7742.04†	89.705	179.906	7634.00	190.01	-190.01	0.31	30.00	END OF CURVE
7743.00†	89.705	179.906	7634.00	190.98	-190.98	0.31	0.00	
7843.00†	89.705	179.906	7634.52	290.98	-290.98	0.48	0.00	
7943.00†	89.705	179.906	7635.03	390.98	-390.98	0.64	0.00	
8043.00†	89.705	179.906	7635.55	490.97	-490.97	0.81	0.00	
8143.00†	89.705	179.906	7636.06	590.97	-590.97	0.97	0.00	
8243.00†	89.705	179.906	7636.58	690.97	-690.97	1.13	0.00	
8343.00†	89.705	179.906	7637.09	790.97	-790.97	1.30	0.00	
8443.00†	89.705	179.906	7637.61	890.97	-890.97	1.46	0.00	
8543.00†	89.705	179.906	7638.12	990.97	-990.97	1.63	0.00	
8643.00†	89.705	179.906	7638.64	1090.97	-1090.97	1.79	0.00	
8743.00†	89.705	179.906	7639.15	1190.97	-1190.96	1.95	0.00	
8843.00†	89.705	179.906	7639.67	1290.96	-1290.96	2.12	0.00	
8943.00†	89.705	179.906	7640.18	1390.96	-1390.96	2.28	0.00	
9043.00†	89.705	179.906	7640.70	1490.96	-1490.96	2.45	0.00	
9143.00†	89.705	179.906	7641.21	1590.96	-1590.96	2.61	0.00	
9243.00†	89.705	179.906	7641.73	1690.96	-1690.96	2.77	0.00	
9343.00†	89.705	179.906	7642.24	1790.96	-1790.96	2.94	0.00	
9443.00†	89.705	179.906	7642.76	1890.96	-1890.95	3.10	0.00	
9543.00†	89.705	179.906	7643.27	1990.95	-1990.95	3.27	0.00	
9643.00†	89.705	179.906	7643.79	2090.95	-2090.95	3.43	0.00	
9743.00†	89.705	179.906	7644.30	2190.95	-2190.95	3.59	0.00	
9843.00†	89.705	179.906	7644.82	2290.95	-2290.95	3.76	0.00	
9943.00†	89.705	179.906	7645.33	2390.95	-2390.95	3.92	0.00	
10043.00†	89.705	179.906	7645.85	2490.95	-2490.94	4.09	0.00	
10143.00†	89.705	179.906	7646.36	2590.95	-2590.94	4.25	0.00	



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Facility	Topacio Fed Com 28 No. 1H		

WELLPATH DATA (38 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10243.00†	89.705	179.906	7646.88	2690.95	-2690.94	4.41	0.00	
10343.00†	89.705	179.906	7647.39	2790.94	-2790.94	4.58	0.00	
10443.00†	89.705	179.906	7647.91	2890.94	-2890.94	4.74	0.00	
10543.00†	89.705	179.906	7648.42	2990.94	-2990.94	4.91	0.00	
10643.00†	89.705	179.906	7648.94	3090.94	-3090.94	5.07	0.00	
10743.00†	89.705	179.906	7649.46	3190.94	-3190.93	5.23	0.00	
10843.00†	89.705	179.906	7649.97	3290.94	-3290.93	5.40	0.00	
10848.75	89.705	179.906	7650.00	3296.69	-3296.69	5.41	0.00	No. 1H PBHL

HOLE & CASING SECTIONS Ref Wellbore: No. 1H PWB Ref Wellpath: Plan #2									
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]
4.75in Open Hole	7443.00	10848.75	3405.75	7443.00	7650.00	0.00	0.00	-3296.69	5.41

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	10848.75	7650.00	-3296.69	5.41	801215.77	541012.15	32°29'04.137"N	103°29'25.927"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Plan #2				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	10848.75	NaviTrak (Standard)		No. 1H PWB

Cimarex Energy Co. of Colorado

Topacio Federal 28 Com No. 1

SPUDDED 02-04-99

API 30-025-34522

Proposed Hz Delaware RC

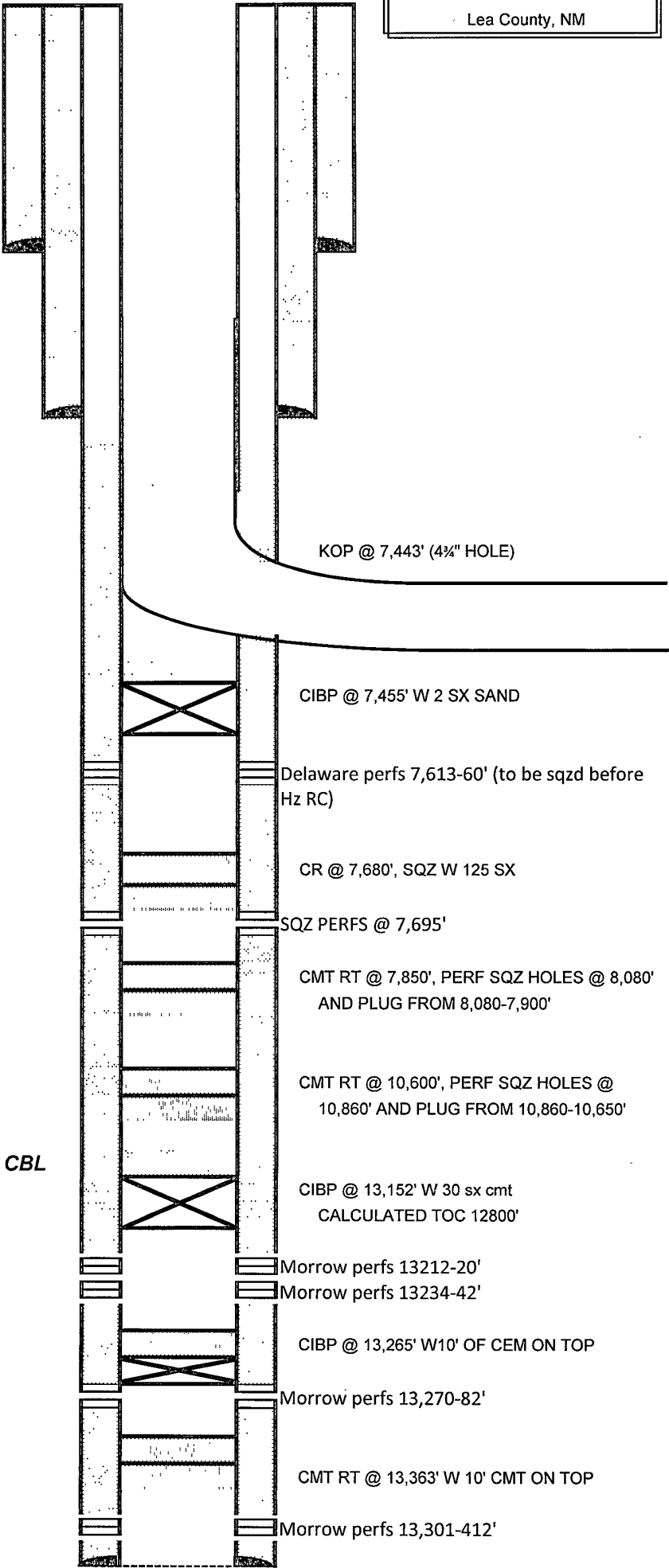
KB:
CH:
GL: 3598' GR

1650 FNL & 1980 FEL
28-19S-33E
Unit Letter G
Lea County, NM

Casing Strings:

13 3/8" 48# H-40 (17 1/2" hole)
360 sx
TOC @ surf

8 3/4" 32# J-55, S-80 (11" hole)
1500 sx
TOC @ Surf



TOC 12100' by CBL

5 1/2" 17# L-80/P-110 (7 7/8" hole)
300 sx
TOC @ 12100' by CBL

TD 13722'
PBD 13255'

**Topacio Federal 28 Com No. 1
30-025-34522
Cimarex Energy Co. of Colorado
August 3, 2009
Conditions of Approval**

- 1. Surface disturbance beyond the existing pad must have prior approval.**
- 2. Closed loop system required.**
- 3. Notify BLM at 575-393-3615 a minimum of 4 hours prior to starting work.**
- 4. 3M BOP required and is to be tested prior to setting CIBP at 7455'.**
- 5. Plugs at top of Wolfcamp and Bone Spring formations should already be set prior to starting the horizontal drilling.**
- 6. When the well is plugged, cement will be placed on top of the CIBP at 7455'.**
- 7. No mud weight was listed, used a 9.0 ppg mud.**
- 8. Operator to attempt to establish an injection rate down the 5-1/2" by 8-5/8" annulus. If a rate can be established, operator will do a Bradenhead squeeze. A CBL will be required to determine the results of the Bradenhead squeeze.**
- 9. If a Bradenhead squeeze is not possible, an annulus monitoring procedure will be developed.**
- 10. Subsequent sundry and completion report required.**
- 11. This well will be removed from Communitization Agreement 103150, which was for the Atoka and Morrow formations, upon receipt of the subsequent sundry detailing the plugging operations.**
- 12. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. Operator to supply NMOCD order or description of pool which details the vertical and horizontal extent of pool to verify that requested communitization is within an approved and established pool. Currently, there is no Delaware Pool in Section 28 and the Gem-Delaware pool is the closest.**

WWI 080309