

DISTRICT I
1025 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Arapaho, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 10, 2010

Submit one copy to appropriate
District Office

HOBBS OGD

FEB 14 2012

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CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40445	Pool Code 50600	Pool Name Querecho Plains; Upper Bone Spring
Property Code 38499	Property Name QUERECHO 36 STATE COM	Well Number 4
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3731'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	36	18 S	32 E		330	NORTH	660	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	18 S	32 E		330	SOUTH	660	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION Lat - N 32°42'36.794" Long - W 103°42'48.165" NMSPCE-- N 622667.2 E 732021.4 (HAD-83)	PROPOSED BOTTOM HOLE LOCATION Lat - N 32°41'51.038" Long - W 103°42'48.125" NMSPCE-- N 618043.07 E 732051.77 (HAD-83)	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>Terri Stathem</u> Date <u>2/13/12</u> Printed Name Email Address <u>tstathem@cimarex.com</u>
		SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date <u>JANUARY 11 2011</u> Signature & Seal of Professional Surveyor <u>GARY L. JONES</u> Certificate No. <u>Gary L. Jones 7977</u> BASIN SURVEYS 24013

FEB 16 2012



Cimarex Energy Co.

Location Lea County, NM
Field (Querecho) Sec 36, T18S, R32E
Egality Querecho 36 State No. 4H

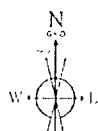
Slot No. 4H SHL
Well No. 4H
Wellbore No. 4H PWB



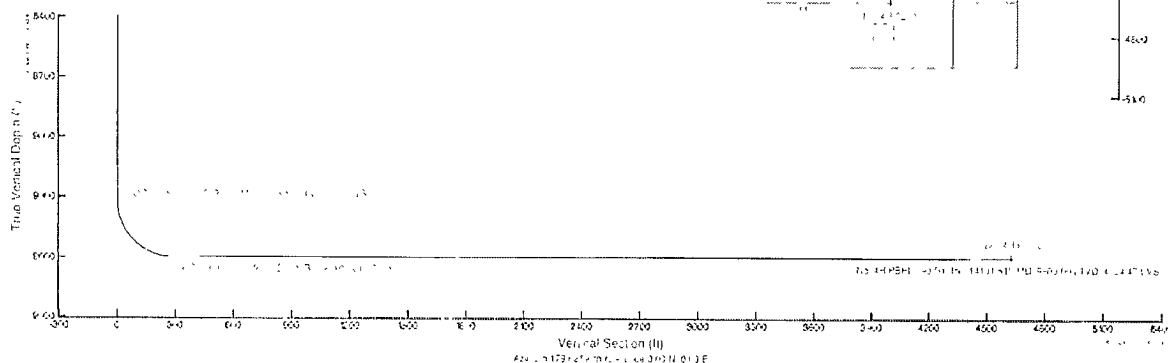
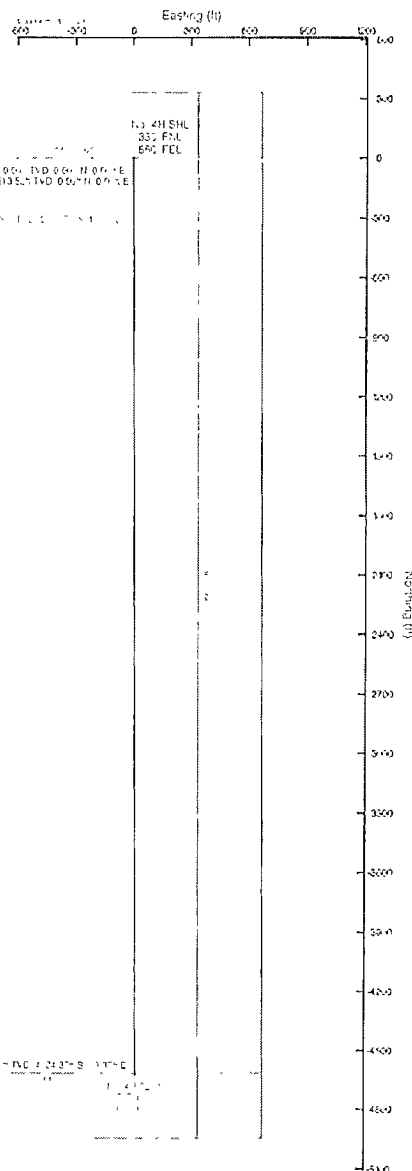
Well Profile Data								
Obs. in Cor. (ft)	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local H (ft)	Local F (ft)	DLS (γ100 ft)	VS (ft)
Tie On	0.00	0.000	179.621	0.00	0.00	0.00	0.00	0.00
KOP	9313.52	0.000	179.621	9313.52	0.00	0.00	0.00	0.00
EOC	9767.52	90.000	179.621	9600.00	-236.47	1.82	20.69	285.45
No. 4H PWB	11101.51	90.000	179.621	9600.00	-621.97	20.37	0.00	4674.47

Plot reference path is Path #1	
True vertical depths are referenced to the top of No. 4H SHL (GL)	Grid System: NAD83 / TM New Mexico State Plane, Eastern Zone (0001) US feet
Measured depths are referenced to the top of No. 4H SHL (GL)	North Reference: Grid north
Bottom of No. 4H SHL (GL) to Mean Sea Level: 9731 feet	Scale: True distance
Mean Sea Level to Mudline (factory): Querecho 36 State No. 4H: 3731 feet	Depths are in feet
Coordinates are in feet referenced to Section	Created by: calphack on 1/28/2011

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Querecho 36 State No. 4H: 3731 feet
Mean Sea Level to Mudline (factory): Querecho 36 State No. 4H: 3731 feet
Coordinates are in feet referenced to Section





Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Querecho) Sec 36, T18S, R32E	Wellbore	No. 4H PWB
Facility	Querecho 36 State No. 4H		

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect@ 2.0
North Reference	Grid	User	Calhphik
Scale	0.999951	Report Generated	1/27/2011 at 1:17:26 PM
Convergence at slot	0.34° East	Database/Source file	WellArchitectDB/No._4H_PWB.xml

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W
Facility Reference Pt			732021.40	622667.20	32°42'36.795"N	103°42'48.164"W
Field Reference Pt			729389.60	622658.30	32°42'36.858"N	103°43'18.967"W

Calculation method	Minimum curvature	Rig on No. 4H SHL (GL) to GL	0.00ft
Horizontal Reference Pt	Slot Loc	Rig on No. 4H SHL (GL) to Mean Sea Level	3731.00ft
Vertical Reference Pt	Rig on No. 4H SHL (GL)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 4H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.62°



Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Querecho) Sec 36, T18S, R32E	Wellbore	No. 4H PWB
Facility	Querecho 36 State No. 4H		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [sv ft]	Grid North [sv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	179.624	0.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	Tie On
100.00†	0.000	179.624	100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
200.00†	0.000	179.624	200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
300.00†	0.000	179.624	300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
400.00†	0.000	179.624	400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
500.00†	0.000	179.624	500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
600.00†	0.000	179.624	600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
700.00†	0.000	179.624	700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
800.00†	0.000	179.624	800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
900.00†	0.000	179.624	900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1000.00†	0.000	179.624	1000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1100.00†	0.000	179.624	1100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1200.00†	0.000	179.624	1200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1300.00†	0.000	179.624	1300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1400.00†	0.000	179.624	1400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1500.00†	0.000	179.624	1500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1600.00†	0.000	179.624	1600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1700.00†	0.000	179.624	1700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1800.00†	0.000	179.624	1800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
1900.00†	0.000	179.624	1900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2000.00†	0.000	179.624	2000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2100.00†	0.000	179.624	2100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2200.00†	0.000	179.624	2200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2300.00†	0.000	179.624	2300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2400.00†	0.000	179.624	2400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2500.00†	0.000	179.624	2500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2600.00†	0.000	179.624	2600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2700.00†	0.000	179.624	2700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2800.00†	0.000	179.624	2800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
2900.00†	0.000	179.624	2900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3000.00†	0.000	179.624	3000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3100.00†	0.000	179.624	3100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3200.00†	0.000	179.624	3200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3300.00†	0.000	179.624	3300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3400.00†	0.000	179.624	3400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3500.00†	0.000	179.624	3500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3600.00†	0.000	179.624	3600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3700.00†	0.000	179.624	3700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3800.00†	0.000	179.624	3800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
3900.00†	0.000	179.624	3900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4000.00†	0.000	179.624	4000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4100.00†	0.000	179.624	4100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4200.00†	0.000	179.624	4200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4300.00†	0.000	179.624	4300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4400.00†	0.000	179.624	4400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	



Planned Wellpath Report

Prelim_1

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**BAKER
HUGHES**

Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Querecho) Sec 36, T18S, R32E	Wellbore	No. 4H PWB
Facility	Querecho 36 State No. 4H		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [serv ft]	Grid North [serv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4500.00†	0.000	179.624	4500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4600.00†	0.000	179.624	4600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4700.00†	0.000	179.624	4700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4800.00†	0.000	179.624	4800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
4900.00†	0.000	179.624	4900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5000.00†	0.000	179.624	5000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5100.00†	0.000	179.624	5100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5200.00†	0.000	179.624	5200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5300.00†	0.000	179.624	5300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5400.00†	0.000	179.624	5400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5500.00†	0.000	179.624	5500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5600.00†	0.000	179.624	5600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5700.00†	0.000	179.624	5700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5800.00†	0.000	179.624	5800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
5900.00†	0.000	179.624	5900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6000.00†	0.000	179.624	6000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6100.00†	0.000	179.624	6100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6200.00†	0.000	179.624	6200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6300.00†	0.000	179.624	6300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6400.00†	0.000	179.624	6400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6500.00†	0.000	179.624	6500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6600.00†	0.000	179.624	6600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6700.00†	0.000	179.624	6700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6800.00†	0.000	179.624	6800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
6900.00†	0.000	179.624	6900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7000.00†	0.000	179.624	7000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7100.00†	0.000	179.624	7100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7200.00†	0.000	179.624	7200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7300.00†	0.000	179.624	7300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7400.00†	0.000	179.624	7400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7500.00†	0.000	179.624	7500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7600.00†	0.000	179.624	7600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7700.00†	0.000	179.624	7700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7800.00†	0.000	179.624	7800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
7900.00†	0.000	179.624	7900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8000.00†	0.000	179.624	8000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8100.00†	0.000	179.624	8100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8200.00†	0.000	179.624	8200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8300.00†	0.000	179.624	8300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8400.00†	0.000	179.624	8400.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8500.00†	0.000	179.624	8500.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8600.00†	0.000	179.624	8600.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8700.00†	0.000	179.624	8700.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8800.00†	0.000	179.624	8800.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
8900.00†	0.000	179.624	8900.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Querecho) Sec 36, T18S, R32E	Wellbore	No. 4H PWB
Facility	Querecho 36 State No. 4H		

WELLPATH DATA (145 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	179.624	9000.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
9100.00†	0.000	179.624	9100.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
9200.00†	0.000	179.624	9200.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
9300.00†	0.000	179.624	9300.00	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	
9313.52	0.000	179.624	9313.52	0.00	0.00	0.00	732021.40	622667.20	32°42'36.795"N	103°42'48.164"W	0.00	KOP
9400.00†	17.296	179.624	9398.69	12.95	-12.95	0.09	732021.49	622654.25	32°42'36.667"N	103°42'48.164"W	20.00	
9500.00†	37.296	179.624	9487.11	58.58	-58.58	0.38	732021.78	622608.62	32°42'36.215"N	103°42'48.164"W	20.00	
9600.00†	57.296	179.624	9551.58	131.69	-131.69	0.86	732022.26	622535.52	32°42'35.492"N	103°42'48.163"W	20.00	
9700.00†	77.296	179.624	9592.99	223.48	-223.47	1.47	732022.87	622443.74	32°42'34.584"N	103°42'48.162"W	20.00	
9763.52	90.000	179.624	9600.00	286.48	286.47	1.88	732023.28	622380.74	32°42'33.960"N	103°42'48.162"W	20.00	EOC
9800.00†	90.000	179.624	9600.00	322.96	-322.95	2.12	732023.52	622344.27	32°42'33.599"N	103°42'48.162"W	0.00	
9900.00†	90.000	179.624	9600.00	422.96	-422.95	2.78	732024.18	622244.27	32°42'32.610"N	103°42'48.161"W	0.00	
10000.00†	90.000	179.624	9600.00	522.96	-522.95	3.43	732024.83	622144.28	32°42'31.620"N	103°42'48.160"W	0.00	
10100.00†	90.000	179.624	9600.00	622.96	-622.94	4.09	732025.49	622044.29	32°42'30.631"N	103°42'48.159"W	0.00	
10200.00†	90.000	179.624	9600.00	722.96	-722.94	4.75	732026.15	621944.29	32°42'29.642"N	103°42'48.158"W	0.00	
10300.00†	90.000	179.624	9600.00	822.96	-822.94	5.40	732026.80	621844.30	32°42'28.652"N	103°42'48.157"W	0.00	
10400.00†	90.000	179.624	9600.00	922.96	-922.94	6.06	732027.46	621744.31	32°42'27.663"N	103°42'48.157"W	0.00	
10500.00†	90.000	179.624	9600.00	1022.96	-1022.94	6.72	732028.12	621644.32	32°42'26.673"N	103°42'48.156"W	0.00	
10600.00†	90.000	179.624	9600.00	1122.96	-1122.93	7.38	732028.77	621544.32	32°42'25.684"N	103°42'48.155"W	0.00	
10700.00†	90.000	179.624	9600.00	1222.96	-1222.93	8.03	732029.43	621444.33	32°42'24.694"N	103°42'48.154"W	0.00	
10800.00†	90.000	179.624	9600.00	1322.96	-1322.93	8.69	732030.09	621344.34	32°42'23.705"N	103°42'48.153"W	0.00	
10900.00†	90.000	179.624	9600.00	1422.96	-1422.93	9.35	732030.74	621244.35	32°42'22.715"N	103°42'48.152"W	0.00	
11000.00†	90.000	179.624	9600.00	1522.96	-1522.92	10.00	732031.40	621144.35	32°42'21.726"N	103°42'48.151"W	0.00	
11100.00†	90.000	179.624	9600.00	1622.96	-1622.92	10.66	732032.06	621044.36	32°42'20.737"N	103°42'48.151"W	0.00	
11200.00†	90.000	179.624	9600.00	1722.96	-1722.92	11.32	732032.72	620944.37	32°42'19.747"N	103°42'48.150"W	0.00	
11300.00†	90.000	179.624	9600.00	1822.96	-1822.92	11.97	732033.37	620844.37	32°42'18.758"N	103°42'48.149"W	0.00	
11400.00†	90.000	179.624	9600.00	1922.96	-1922.92	12.63	732034.03	620744.38	32°42'17.768"N	103°42'48.148"W	0.00	
11500.00†	90.000	179.624	9600.00	2022.96	-2022.91	13.29	732034.69	620644.39	32°42'16.779"N	103°42'48.147"W	0.00	
11600.00†	90.000	179.624	9600.00	2122.96	-2122.91	13.94	732035.34	620544.40	32°42'15.789"N	103°42'48.146"W	0.00	
11700.00†	90.000	179.624	9600.00	2222.96	-2222.91	14.60	732036.00	620444.40	32°42'14.800"N	103°42'48.146"W	0.00	
11800.00†	90.000	179.624	9600.00	2322.96	-2322.91	15.26	732036.66	620344.41	32°42'13.811"N	103°42'48.145"W	0.00	
11900.00†	90.000	179.624	9600.00	2422.96	-2422.91	15.91	732037.31	620244.42	32°42'12.821"N	103°42'48.144"W	0.00	
12000.00†	90.000	179.624	9600.00	2522.96	-2522.90	16.57	732037.97	620144.43	32°42'11.832"N	103°42'48.143"W	0.00	
12100.00†	90.000	179.624	9600.00	2622.96	-2622.90	17.23	732038.63	620044.43	32°42'10.842"N	103°42'48.142"W	0.00	
12200.00†	90.000	179.624	9600.00	2722.96	-2722.90	17.88	732039.28	619944.44	32°42'09.853"N	103°42'48.141"W	0.00	
12300.00†	90.000	179.624	9600.00	2822.96	-2822.90	18.54	732039.94	619844.45	32°42'08.863"N	103°42'48.140"W	0.00	
12400.00†	90.000	179.624	9600.00	2922.96	-2922.89	19.20	732040.60	619744.46	32°42'07.874"N	103°42'48.140"W	0.00	
12500.00†	90.000	179.624	9600.00	3022.96	-3022.89	19.85	732041.25	619644.46	32°42'06.884"N	103°42'48.139"W	0.00	
12600.00†	90.000	179.624	9600.00	3122.96	-3122.89	20.51	732041.91	619544.47	32°42'05.895"N	103°42'48.138"W	0.00	
12700.00†	90.000	179.624	9600.00	3222.96	-3222.89	21.17	732042.57	619444.48	32°42'04.906"N	103°42'48.137"W	0.00	
12800.00†	90.000	179.624	9600.00	3322.96	-3322.89	21.82	732043.22	619344.48	32°42'03.916"N	103°42'48.136"W	0.00	
12900.00†	90.000	179.624	9600.00	3422.96	-3422.88	22.48	732043.88	619244.49	32°42'02.927"N	103°42'48.135"W	0.00	
13000.00†	90.000	179.624	9600.00	3522.96	-3522.88	23.14	732044.54	619144.50	32°42'01.937"N	103°42'48.135"W	0.00	
13100.00†	90.000	179.624	9600.00	3622.96	-3622.88	23.79	732045.19	619044.51	32°42'00.948"N	103°42'48.134"W	0.00	
13200.00†	90.000	179.624	9600.00	3722.96	-3722.88	24.45	732045.85	618944.51	32°41'59.958"N	103°42'48.133"W	0.00	



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Querecho) Sec 36, T18S, R32E	Wellbore	No. 4H PWB
Facility	Querecho 36 State No. 4H		

WELLPATH DATA (145 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†	90.000	179.624	9600.00	3822.96	-3822.88	25.11	732046.51	618844.52	32°41'58.969"N	103°42'48.132"W	0.00	
13400.00†	90.000	179.624	9600.00	3922.96	-3922.87	25.76	732047.16	618744.53	32°41'57.980"N	103°42'48.131"W	0.00	
13500.00†	90.000	179.624	9600.00	4022.96	-4022.87	26.42	732047.82	618644.54	32°41'56.990"N	103°42'48.130"W	0.00	
13600.00†	90.000	179.624	9600.00	4122.96	-4122.87	27.08	732048.48	618544.54	32°41'56.001"N	103°42'48.130"W	0.00	
13700.00†	90.000	179.624	9600.00	4222.96	-4222.87	27.73	732049.13	618444.55	32°41'55.011"N	103°42'48.129"W	0.00	
13800.00†	90.000	179.624	9600.00	4322.96	-4322.86	28.39	732049.79	618344.56	32°41'54.022"N	103°42'48.128"W	0.00	
13900.00†	90.000	179.624	9600.00	4422.96	-4422.86	29.05	732050.45	618244.56	32°41'53.032"N	103°42'48.127"W	0.00	
14000.00†	90.000	179.624	9600.00	4522.96	-4522.86	29.70	732051.10	618144.57	32°41'52.043"N	103°42'48.126"W	0.00	
14100.00†	90.000	179.624	9600.00	4622.96	-4622.86	30.36	732051.76	618044.58	32°41'51.053"N	103°42'48.125"W	0.00	
14101.51	90.000	179.624	9600.00†	4624.47	-4624.37	30.37	732051.77	618043.07	32°41'51.039"N	103°42'48.125"W	0.00	No. 4H PBHL

HOLE & CASING SECTIONS Ref Wellbore: No. 4H 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]
17.5in Open Hole	0.00	500.00	500.00	0.00	500.00	0.00	0.00	0.00	0.00
13.375in Casing	0.00	500.00	500.00	0.00	500.00	0.00	0.00	0.00	0.00
12.25in Open Hole	500.00	4600.00	4100.00	500.00	4600.00	0.00	0.00	0.00	0.00
9.625in Casing	500.00	4600.00	4100.00	500.00	4600.00	0.00	0.00	0.00	0.00
8.75in Open Hole	4600.00	14101.51	9501.51	4600.00	NA	0.00	0.00	NA	NA
5.5in Casing	4600.00	14101.51	9501.51	4600.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 4H PBHL	14101.51	9600.00	-4624.37	30.37	732051.77	618043.07	32°41'51.039"N	103°42'48.125"W	point

SURVEY PROGRAM Ref Wellbore: No. 4H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	14101.51	NaviTrak (Standard)		No. 4H PWB