

HOBBS OCD

NOV 07 2011

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

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

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

DISTRICT IV
1200 S. St. Francis Dr., Santa Fe, NM 87505

RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised July 10, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40351	Pool Code	Pool Name Teas; Bone Spring; Wildcat
Property Code 38859	Property Name WITHERSPOON "21" STATE	Well Number 1H
GORID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3673'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	21 S	33 E		330	NORTH	500	WEST	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
M	21	21 S	33 E		330	SOUTH	350	WEST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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 Lot - N 32°28'14.64" Long - W 103°35'03.98" USPCE - E 772204.8 (NAD-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 <i>Terri Stathem</i> Date _____ Printed Name tstathem@cimarex.com Email Address
	PROPOSED BOTTOM HOLE LOCATION Lot - N 32°27'28.94" Long - W 103°35'05.67" USPCE - E 772182.7 (NAD-83)	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 Surveyed SEPTEMBER 29, 2011 Signature <i>Terri Stathem</i> Title of Professional Surveyor Certification No. Gary L. Jones 7977 BASIN SURVEYS 25031

DEC 07 2011



Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Witherspoon) Sec 21, T21S, R33E	Wellbore	No. 1H PWB
Facility	Witherspoon 21 State Com		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Calhphik
Scale	0.99997	Report Generated	11/4/2011 at 10:03:18 AM
Convergence at slot	0.40° East	Database/Source file	WA_Midland/No._1H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	535663.63	772107.32	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W
Facility Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W
Field Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 1H SHL (KB) to GL	3673.00ft
Horizontal Reference Pt	Slot	Rig on No. 1H SHL (KB) to Mean Sea Level	3673.00ft
Vertical Reference Pt	Rig on No. 1H SHL (KB)	Rig on No. 1H SHL (KB) to Mud Line at Slot (No. 1H SHL)	3673.00ft
MD Reference Pt	Rig on No. 1H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	181.39°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Witherspoon) Sec 21, T21S, R33E	Wellbore	No. 1H PWB
Facility	Witherspoon 21 State Com		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	181.390	0.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Tie On
100.00†	0.000	181.390	100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
200.00†	0.000	181.390	200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
300.00†	0.000	181.390	300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
400.00†	0.000	181.390	400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
500.00†	0.000	181.390	500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
600.00†	0.000	181.390	600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
700.00†	0.000	181.390	700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
800.00†	0.000	181.390	800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
900.00†	0.000	181.390	900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1000.00†	0.000	181.390	1000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1100.00†	0.000	181.390	1100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1200.00†	0.000	181.390	1200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1300.00†	0.000	181.390	1300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1400.00†	0.000	181.390	1400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1500.00†	0.000	181.390	1500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1600.00†	0.000	181.390	1600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1700.00†	0.000	181.390	1700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1800.00†	0.000	181.390	1800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
1900.00†	0.000	181.390	1900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2000.00†	0.000	181.390	2000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2100.00†	0.000	181.390	2100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2200.00†	0.000	181.390	2200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2300.00†	0.000	181.390	2300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2400.00†	0.000	181.390	2400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2500.00†	0.000	181.390	2500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2600.00†	0.000	181.390	2600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2700.00†	0.000	181.390	2700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2800.00†	0.000	181.390	2800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
2900.00†	0.000	181.390	2900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3000.00†	0.000	181.390	3000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3100.00†	0.000	181.390	3100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3200.00†	0.000	181.390	3200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3300.00†	0.000	181.390	3300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3400.00†	0.000	181.390	3400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3500.00†	0.000	181.390	3500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3600.00†	0.000	181.390	3600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3700.00†	0.000	181.390	3700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3800.00†	0.000	181.390	3800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
3900.00†	0.000	181.390	3900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4000.00†	0.000	181.390	4000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4100.00†	0.000	181.390	4100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4200.00†	0.000	181.390	4200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4300.00†	0.000	181.390	4300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4400.00†	0.000	181.390	4400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Witherspoon) Sec 21, T21S, R33E	Wellbore	No. 1H PWB
Facility	Witherspoon 21 State Com		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4500.00†	0.000	181.390	4500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4600.00†	0.000	181.390	4600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4700.00†	0.000	181.390	4700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4800.00†	0.000	181.390	4800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
4900.00†	0.000	181.390	4900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5000.00†	0.000	181.390	5000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5100.00†	0.000	181.390	5100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5200.00†	0.000	181.390	5200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5250.00†	0.000	181.390	5250.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Delaware
5300.00†	0.000	181.390	5300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5400.00†	0.000	181.390	5400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5500.00†	0.000	181.390	5500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5600.00†	0.000	181.390	5600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5700.00†	0.000	181.390	5700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5800.00†	0.000	181.390	5800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
5900.00†	0.000	181.390	5900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6000.00†	0.000	181.390	6000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6100.00†	0.000	181.390	6100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6200.00†	0.000	181.390	6200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6300.00†	0.000	181.390	6300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6400.00†	0.000	181.390	6400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6500.00†	0.000	181.390	6500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6600.00†	0.000	181.390	6600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6700.00†	0.000	181.390	6700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6800.00†	0.000	181.390	6800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
6900.00†	0.000	181.390	6900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7000.00†	0.000	181.390	7000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7100.00†	0.000	181.390	7100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7200.00†	0.000	181.390	7200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7300.00†	0.000	181.390	7300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7400.00†	0.000	181.390	7400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7500.00†	0.000	181.390	7500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7600.00†	0.000	181.390	7600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7700.00†	0.000	181.390	7700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7800.00†	0.000	181.390	7800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
7900.00†	0.000	181.390	7900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8000.00†	0.000	181.390	8000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8100.00†	0.000	181.390	8100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8200.00†	0.000	181.390	8200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8300.00†	0.000	181.390	8300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8400.00†	0.000	181.390	8400.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8500.00†	0.000	181.390	8500.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8575.00†	0.000	181.390	8575.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Basal Brushy Canyon
8600.00†	0.000	181.390	8600.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8700.00†	0.000	181.390	8700.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Witherspoon) Sec 21, T21S, R33E	Wellbore	No. 1H PWB
Facility	Witherspoon 21 State Com		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [%/100ft]	Comments
8750.00†	0.000	181.390	8750.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Bone Spring
8800.00†	0.000	181.390	8800.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
8900.00†	0.000	181.390	8900.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
9000.00†	0.000	181.390	9000.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
9100.00†	0.000	181.390	9100.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
9200.00†	0.000	181.390	9200.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	
9300.00†	0.000	181.390	9300.00	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Upper Bone Spring Shale
9388.52	0.000	181.390	9388.52	0.00	0.00	0.00	772294.80	535793.70	32°28'14.637"N	103°35'03.980"W	0.00	Est. KOP
9400.00†	2.296	181.390	9400.00	0.23	-0.23	-0.01	772294.79	535793.47	32°28'14.634"N	103°35'03.980"W	20.00	
9500.00†	22.296	181.390	9497.21	21.42	-21.41	-0.52	772294.28	535772.29	32°28'14.425"N	103°35'03.987"W	20.00	
9600.00†	42.296	181.390	9581.31	74.58	-74.55	-1.81	772292.99	535719.15	32°28'13.899"N	103°35'04.007"W	20.00	
9700.00†	62.296	181.390	9642.16	153.29	-153.25	-3.72	772291.08	535640.46	32°28'13.121"N	103°35'04.036"W	20.00	
9800.00†	82.296	181.390	9672.41	248.07	-248.00	-6.02	772288.78	535545.71	32°28'12.183"N	103°35'04.070"W	20.00	
9838.52	90.000	181.390	9675.00	286.48	-286.39	-6.95	772287.85	535507.31	32°28'11.803"N	103°35'04.084"W	20.00	End of Curve
9900.00†	90.000	181.390	9675.00	347.96	-347.86	-8.44	772286.36	535445.86	32°28'11.195"N	103°35'04.107"W	0.00	
10000.00†	90.000	181.390	9675.00	447.96	-447.83	-10.87	772283.93	535345.89	32°28'10.206"N	103°35'04.143"W	0.00	
10100.00†	90.000	181.390	9675.00	547.96	-547.80	-13.29	772281.51	535245.92	32°28'09.217"N	103°35'04.180"W	0.00	
10200.00†	90.000	181.390	9675.00	647.96	-647.77	-15.72	772279.08	535145.95	32°28'08.228"N	103°35'04.216"W	0.00	
10300.00†	90.000	181.390	9675.00	747.96	-747.74	-18.15	772276.65	535045.99	32°28'07.239"N	103°35'04.253"W	0.00	
10400.00†	90.000	181.390	9675.00	847.96	-847.71	-20.57	772274.23	534946.02	32°28'06.250"N	103°35'04.289"W	0.00	
10500.00†	90.000	181.390	9675.00	947.96	-947.68	-23.00	772271.80	534846.05	32°28'05.261"N	103°35'04.326"W	0.00	
10600.00†	90.000	181.390	9675.00	1047.96	-1047.65	-25.42	772269.38	534746.08	32°28'04.272"N	103°35'04.362"W	0.00	
10700.00†	90.000	181.390	9675.00	1147.96	-1147.62	-27.85	772266.95	534646.12	32°28'03.283"N	103°35'04.399"W	0.00	
10800.00†	90.000	181.390	9675.00	1247.96	-1247.59	-30.28	772264.52	534546.15	32°28'02.294"N	103°35'04.435"W	0.00	
10900.00†	90.000	181.390	9675.00	1347.96	-1347.56	-32.70	772262.10	534446.18	32°28'01.306"N	103°35'04.472"W	0.00	
11000.00†	90.000	181.390	9675.00	1447.96	-1447.53	-35.13	772259.67	534346.21	32°28'00.317"N	103°35'04.508"W	0.00	
11100.00†	90.000	181.390	9675.00	1547.96	-1547.50	-37.56	772257.25	534246.25	32°27'59.328"N	103°35'04.545"W	0.00	
11200.00†	90.000	181.390	9675.00	1647.96	-1647.47	-39.98	772254.82	534146.28	32°27'58.339"N	103°35'04.581"W	0.00	
11300.00†	90.000	181.390	9675.00	1747.96	-1747.44	-42.41	772252.39	534046.31	32°27'57.350"N	103°35'04.618"W	0.00	
11400.00†	90.000	181.390	9675.00	1847.96	-1847.41	-44.83	772249.97	533946.34	32°27'56.361"N	103°35'04.654"W	0.00	
11500.00†	90.000	181.390	9675.00	1947.96	-1947.38	-47.26	772247.54	533846.38	32°27'55.372"N	103°35'04.691"W	0.00	
11600.00†	90.000	181.390	9675.00	2047.96	-2047.35	-49.69	772245.12	533746.41	32°27'54.383"N	103°35'04.727"W	0.00	
11700.00†	90.000	181.390	9675.00	2147.96	-2147.33	-52.11	772242.69	533646.44	32°27'53.394"N	103°35'04.764"W	0.00	
11800.00†	90.000	181.390	9675.00	2247.96	-2247.30	-54.54	772240.26	533546.48	32°27'52.405"N	103°35'04.800"W	0.00	
11900.00†	90.000	181.390	9675.00	2347.96	-2347.27	-56.96	772237.84	533446.51	32°27'51.416"N	103°35'04.837"W	0.00	
12000.00†	90.000	181.390	9675.00	2447.96	-2447.24	-59.39	772235.41	533346.54	32°27'50.427"N	103°35'04.873"W	0.00	
12100.00†	90.000	181.390	9675.00	2547.96	-2547.21	-61.82	772232.99	533246.57	32°27'49.438"N	103°35'04.910"W	0.00	
12200.00†	90.000	181.390	9675.00	2647.96	-2647.18	-64.24	772230.56	533146.61	32°27'48.449"N	103°35'04.946"W	0.00	
12300.00†	90.000	181.390	9675.00	2747.96	-2747.15	-66.67	772228.13	533046.64	32°27'47.460"N	103°35'04.983"W	0.00	
12400.00†	90.000	181.390	9675.00	2847.96	-2847.12	-69.09	772225.71	532946.67	32°27'46.471"N	103°35'05.019"W	0.00	
12500.00†	90.000	181.390	9675.00	2947.96	-2947.09	-71.52	772223.28	532846.70	32°27'45.482"N	103°35'05.056"W	0.00	
12600.00†	90.000	181.390	9675.00	3047.96	-3047.06	-73.95	772220.86	532746.74	32°27'44.493"N	103°35'05.092"W	0.00	
12700.00†	90.000	181.390	9675.00	3147.96	-3147.03	-76.37	772218.43	532646.77	32°27'43.504"N	103°35'05.129"W	0.00	
12800.00†	90.000	181.390	9675.00	3247.96	-3247.00	-78.80	772216.00	532546.80	32°27'42.515"N	103°35'05.165"W	0.00	
12900.00†	90.000	181.390	9675.00	3347.96	-3346.97	-81.23	772213.58	532446.83	32°27'41.526"N	103°35'05.202"W	0.00	



Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Witherspoon) Sec 21, T21S, R33E	Wellbore	No. 1H PWB
Facility	Witherspoon 21 State Com		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS ["/100ft]	Comments
13000.00	90.000	181.390	9675.00	3447.96	-3446.94	-83.65	772211.15	532346.87	32°27'40.537"N	103°35'05.238"W	0.00	
13100.00	90.000	181.390	9675.00	3547.96	-3546.91	-86.08	772208.73	532246.90	32°27'39.548"N	103°35'05.275"W	0.00	
13200.00	90.000	181.390	9675.00	3647.96	-3646.88	-88.50	772206.30	532146.93	32°27'38.559"N	103°35'05.311"W	0.00	
13300.00	90.000	181.390	9675.00	3747.96	-3746.85	-90.93	772203.87	532046.96	32°27'37.570"N	103°35'05.348"W	0.00	
13400.00	90.000	181.390	9675.00	3847.96	-3846.83	-93.36	772201.45	531947.00	32°27'36.581"N	103°35'05.384"W	0.00	
13500.00	90.000	181.390	9675.00	3947.96	-3946.80	-95.78	772199.02	531847.03	32°27'35.592"N	103°35'05.421"W	0.00	
13600.00	90.000	181.390	9675.00	4047.96	-4046.77	-98.21	772196.60	531747.06	32°27'34.603"N	103°35'05.457"W	0.00	
13700.00	90.000	181.390	9675.00	4147.96	-4146.74	-100.63	772194.17	531647.10	32°27'33.614"N	103°35'05.494"W	0.00	
13800.00	90.000	181.390	9675.00	4247.96	-4246.71	-103.06	772191.74	531547.13	32°27'32.625"N	103°35'05.530"W	0.00	
13900.00	90.000	181.390	9675.00	4347.96	-4346.68	-105.49	772189.32	531447.16	32°27'31.636"N	103°35'05.567"W	0.00	
14000.00	90.000	181.390	9675.00	4447.96	-4446.65	-107.91	772186.89	531347.19	32°27'30.647"N	103°35'05.603"W	0.00	
14100.00	90.000	181.390	9675.00	4547.96	-4546.62	-110.34	772184.46	531247.23	32°27'29.658"N	103°35'05.640"W	0.00	
14172.75	90.000	181.390	9675.00 [†]	4620.71	-4619.35	-112.10	772182.70	531174.50	32°27'28.938"N	103°35'05.666"W	0.00	No. 1H PBHL

HOLE & CASING SECTIONS - Ref Wellbore: No. 1H 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]
12.25in Open Hole	0.00	5200.00	5200.00	0.00	5200.00	0.00	0.00	0.00	0.00
9.625in Casing	0.00	5200.00	5200.00	0.00	5200.00	0.00	0.00	0.00	0.00
7in Open Hole	5200.00	14172.75	8972.75	5200.00	NA	0.00	0.00	NA	NA
5.5in Casing	0.00	14172.75	14172.75	0.00	NA	0.00	0.00	NA	NA

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	14172.75	9675.00	-4619.35	-112.10	772182.70	531174.50	32°27'28.938"N	103°35'05.666"W	point

SURVEY PROGRAM - Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3673.00	14172.75	NavTrak (Standard)		No. 1H PWB

SR & A



HOBBS OCD

NOV 07 2011

RECEIVED

5000# BOP

Pipe Rams

Blind Rams

Drilling Spool

Kill Line

Choke Manifold

Wellhead Assembly

13 3/8" 5000# psi x 9 5/8" 5000# psi
Wellhead Assembly

13 3/8" 5000# psi

Slip-on Casing Head

5000# BOP
Witherspoon 21 State Com No. 1H
Cimarex Energy Co. of Colorado
21-21S-33E
SHL 330 FNL & 500 FWL
BHL 330 FSL & 350 FWL
Lea County NM

Drilling Operations Choke Manifold 5M Service

Choke Manifold Diagram
Witherspoon 21 State Com No. 1H
Cimarex Energy Co. of Colorado
21-21S-33E
SHL 330 FNL & 500 FWL
BHL 330 FSL & 350 FWL
Lea County, NM

