

HOBBS OGD

FEB 14 2012

DISTRICT I

1825 N. French Dr., Hobbs, NM 88240

DISTRICT II

1501 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Drazos 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

RECEIVED

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

Form C-102

Revised July 16, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40439	Pool Code 51687	Pool Name Red Tank; Bone Spring, East
Property Code 309304	Property Name MERCHANT LIVESTOCK 19 22 33 STATE COM	Well Number 2
OGRIID No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3690'

Surface Location

Ul. or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	22 S	33 E		330	SOUTH	1980	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
N	19	22 S	33 E		330	NORTH	1980	WEST	LEA
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						

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

	PROPOSED BOTTOM HOLE LOCATION Lot -- N 32°23'01.41" Long -- W 103°36'48.13" NMSPCE-- N 504078.3 E 763586.0 (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 <u>Terri Stathem</u> Date <u>2/13/12</u> Printed Name <u>Terri Stathem</u> Email Address <u>tstathem@cimarex.com</u>
	SURFACE LOCATION Lot -- N 32°22'15.69" Long -- W 103°36'48.10" NMSPCE-- N 499458.5 E 763619.5 (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 <u>DEC 13 2011</u> Signature & Seal of Professional Surveyor <u>Gary L. Jones</u> Certificate No. <u>Gary L. Jones 7977</u> BASIN SURVEYS 25913



Cimarex Energy Co.

Location Lea County, NM
Field (Merchant Livestock (NAD83)) Sec 19 T22S, R33E
Facility Merchant Livestock State Com No. 2H

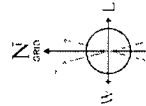
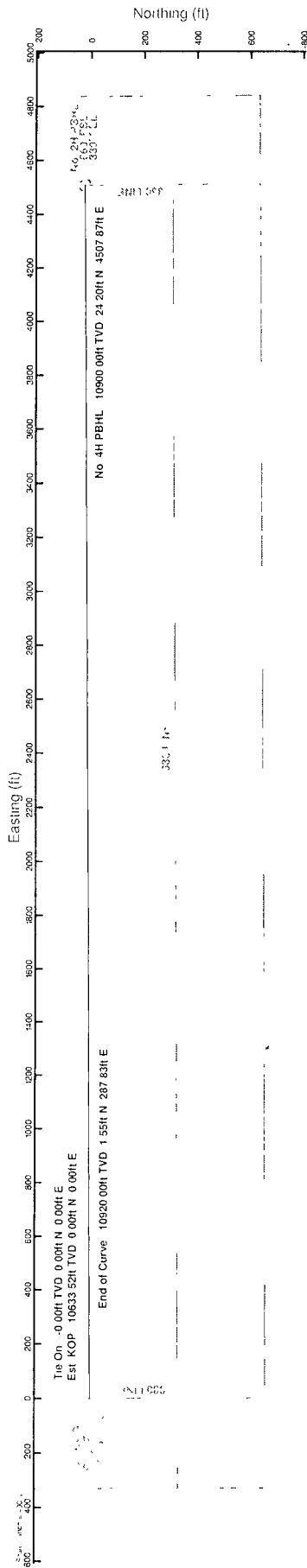
Slot No 2H SHL
Well No 2H PWB
Wellbore No 2H PWB



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%100ft)	VS (ft)
Tie On	0.00	0.000	89.692	0.00	0.00	0.00	0.00	0.00
Est KOP	10633.52	0.000	89.692	10633.52	0.00	0.00	0.00	0.00
End of Curve	11084.88	90.271	89.692	10920.00	1.55	287.83	20.00	287.84
No. 4H PBHL	15305.02	90.271	89.692	10900.00	24.20	4507.87	0.00	4507.93

Plot reference wellpath is Prelim. 1
True vertical depths are referenced to Rig on No. 2H SHL (KB)
Measured depths are referenced to Rig on No. 2H SHL (KB)
Rig on No. 2H SHL (KB) to Mean Sea Level 37.19 feet
Mean Sea Level to Mud line (At Slot No. 2H SHL) 0 feet
Coordinates are in feet referenced to Slot
Grid System: NAD83 TIA New Mexico SP Eastern Zone (2011), US feet
North Reference: Grid North
Scale: True distance
Depths are in feet
Created by: calliphik on 8/10/2011



BGSN (1645.9) to 2012.0) DLS 90.271 5.56H 487.97 7.7
Magnetic North is 90.271 degrees East of True North (8/10/2011)
To correct azimuth from True to Grid Subtract 0.38 degrees
For example if the Magnetic North Azimuth = 90.271 then the Grid North Azimuth = 90.271 - 0.38 = 97.25

HOBBS OCD
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Est. KOP 0.00° Inc, 10633.52ft MD 10633.52ft TVD, 0.00ft VS

20 62° 44' 24"

End of Curve 90.271° Inc 11084.88ft MD 10920.00ft TVD 287.84ft VS

No. 4H PBHL 90.271° Inc 15305.02ft MD 10900.00ft TVD 4507.93ft VS

Vertical Section (ft)
Azimuth 89.69° with reference 0.00 N, 0.00 E



Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Lea County, NM	Well	No. 2H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No. 2H PWB
Facility	Merchant Livestock State Com No. 2H		

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	0.999965	Report Generated	8/10/2011 at 3:49:26 PM
Convergence at slot	0.38° East	Database/Source file	WA_Midland/No._2H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W
Facility Reference Pt			761967.50	499779.60	32°22'18.979"N	103°37'07.336"W
Field Reference Pt			761967.50	499779.50	32°22'18.978"N	103°37'07.336"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 2H SHL (KB) to GL	3719.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (KB) to Mean Sea Level	3719.00ft
Vertical Reference Pt	Rig on No. 2H SHL (KB)	Rig on No. 2H SHL (KB) to Mud Line at Slot (No. 2H SHL)	3719.00ft
MD Reference Pt	Rig on No. 2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.69°



Planned Wellpath Report

Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Lea County, NM	Well	No. 2H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No. 2H PWB
Facility	Merchant Livestock State Com No. 2H		

WELLPATH DATA (157 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	89.692	0 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	Tie On
100 00	0.000	89.692	100 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
200 00	0.000	89.692	200 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
300 00	0.000	89.692	300 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
400 00	0.000	89.692	400 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
500 00	0.000	89.692	500 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
600 00	0.000	89.692	600 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
700 00	0.000	89.692	700 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
800 00	0.000	89.692	800 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
900 00	0.000	89.692	900 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1000 00	0.000	89.692	1000 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1100 00	0.000	89.692	1100 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1200 00	0.000	89.692	1200 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1300 00	0.000	89.692	1300 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1400 00	0.000	89.692	1400 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1500 00	0.000	89.692	1500 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1600 00	0.000	89.692	1600 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1700 00	0.000	89.692	1700 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1800 00	0.000	89.692	1800 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
1900 00	0.000	89.692	1900 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2000 00	0.000	89.692	2000 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2100 00	0.000	89.692	2100 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2200 00	0.000	89.692	2200 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2300 00	0.000	89.692	2300 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2400 00	0.000	89.692	2400 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2500 00	0.000	89.692	2500 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2600 00	0.000	89.692	2600 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2700 00	0.000	89.692	2700 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2800 00	0.000	89.692	2800 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
2900 00	0.000	89.692	2900 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3000 00	0.000	89.692	3000 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3100 00	0.000	89.692	3100 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3200 00	0.000	89.692	3200 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3300 00	0.000	89.692	3300 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3400 00	0.000	89.692	3400 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3500 00	0.000	89.692	3500 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3600 00	0.000	89.692	3600 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3700 00	0.000	89.692	3700 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3800 00	0.000	89.692	3800 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
3900 00	0.000	89.692	3900 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4000 00	0.000	89.692	4000 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4100 00	0.000	89.692	4100 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4200 00	0.000	89.692	4200 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4300 00	0.000	89.692	4300 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4400 00	0.000	89.692	4400 00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	



Planned Wellpath Report

Prelim_1

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Facility	Merchant Livestock State Com No. 2H		

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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	89.692	4500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4600.00†	0.000	89.692	4600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4700.00†	0.000	89.692	4700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4800.00†	0.000	89.692	4800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
4900.00†	0.000	89.692	4900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5000.00†	0.000	89.692	5000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5100.00†	0.000	89.692	5100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5200.00†	0.000	89.692	5200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5300.00†	0.000	89.692	5300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5400.00†	0.000	89.692	5400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5500.00†	0.000	89.692	5500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5600.00†	0.000	89.692	5600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5700.00†	0.000	89.692	5700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5800.00†	0.000	89.692	5800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
5900.00†	0.000	89.692	5900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6000.00†	0.000	89.692	6000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6100.00†	0.000	89.692	6100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6200.00†	0.000	89.692	6200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6300.00†	0.000	89.692	6300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6400.00†	0.000	89.692	6400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6500.00†	0.000	89.692	6500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6600.00†	0.000	89.692	6600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6700.00†	0.000	89.692	6700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6800.00†	0.000	89.692	6800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
6900.00†	0.000	89.692	6900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7000.00†	0.000	89.692	7000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7100.00†	0.000	89.692	7100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7200.00†	0.000	89.692	7200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7300.00†	0.000	89.692	7300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7400.00†	0.000	89.692	7400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7500.00†	0.000	89.692	7500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7600.00†	0.000	89.692	7600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7700.00†	0.000	89.692	7700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7800.00†	0.000	89.692	7800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
7900.00†	0.000	89.692	7900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8000.00†	0.000	89.692	8000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8100.00†	0.000	89.692	8100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8200.00†	0.000	89.692	8200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8300.00†	0.000	89.692	8300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8400.00†	0.000	89.692	8400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8500.00†	0.000	89.692	8500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8600.00†	0.000	89.692	8600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8700.00†	0.000	89.692	8700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8800.00†	0.000	89.692	8800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
8900.00†	0.000	89.692	8900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Lea County, NM	Well	No. 2H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No. 2H PWB
Facility	Merchant Livestock State Com No. 2H		

WELLPATH DATA (157 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
9000.00†	0.000	89.692	9000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9100.00†	0.000	89.692	9100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9200.00†	0.000	89.692	9200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9300.00†	0.000	89.692	9300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9400.00†	0.000	89.692	9400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9500.00†	0.000	89.692	9500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9600.00†	0.000	89.692	9600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9700.00†	0.000	89.692	9700.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9800.00†	0.000	89.692	9800.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
9900.00†	0.000	89.692	9900.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10000.00†	0.000	89.692	10000.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10100.00†	0.000	89.692	10100.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10200.00†	0.000	89.692	10200.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10300.00†	0.000	89.692	10300.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10400.00†	0.000	89.692	10400.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10500.00†	0.000	89.692	10500.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10600.00†	0.000	89.692	10600.00	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	
10633.52	0.000	89.692	10633.52	0.00	0.00	0.00	761967.50	499779.60	32°22'18.979"N	103°37'07.336"W	0.00	Est. KOP
10700.00†	13.296	89.692	10699.40	7.68	0.04	7.68	761975.18	499779.64	32°22'18.979"N	103°37'07.246"W	20.00	
10800.00†	33.296	89.692	10790.79	47.03	0.25	47.03	762014.52	499779.85	32°22'18.978"N	103°37'06.787"W	20.00	
10900.00†	53.296	89.692	10863.20	115.26	0.62	115.25	762082.75	499780.22	32°22'18.977"N	103°37'05.992"W	20.00	
11000.00†	73.296	89.692	10907.91	204.14	1.10	204.13	762171.63	499780.70	32°22'18.976"N	103°37'04.955"W	20.00	
11084.88	90.271	89.692	10920.00	287.84	1.55	287.83	762255.32	499781.15	32°22'18.975"N	103°37'03.980"W	20.00	End of Curve
11100.00†	90.271	89.692	10919.92	302.96	1.63	302.95	762270.44	499781.23	32°22'18.975"N	103°37'03.803"W	0.00	
11200.00†	90.271	89.692	10919.45	402.96	2.16	402.95	762370.44	499781.76	32°22'18.974"N	103°37'02.637"W	0.00	
11300.00†	90.271	89.692	10918.98	502.96	2.70	502.95	762470.43	499782.30	32°22'18.972"N	103°37'01.471"W	0.00	
11400.00†	90.271	89.692	10918.50	602.96	3.24	602.95	762570.42	499782.84	32°22'18.971"N	103°37'00.305"W	0.00	
11500.00†	90.271	89.692	10918.03	702.95	3.77	702.94	762670.42	499783.37	32°22'18.970"N	103°36'59.139"W	0.00	
11600.00†	90.271	89.692	10917.55	802.95	4.31	802.94	762770.41	499783.91	32°22'18.968"N	103°36'57.973"W	0.00	
11700.00†	90.271	89.692	10917.08	902.95	4.85	902.94	762870.41	499784.45	32°22'18.967"N	103°36'56.808"W	0.00	
11800.00†	90.271	89.692	10916.61	1002.95	5.38	1002.94	762970.40	499784.98	32°22'18.966"N	103°36'55.642"W	0.00	
11900.00†	90.271	89.692	10916.13	1102.95	5.92	1102.93	763070.39	499785.52	32°22'18.964"N	103°36'54.476"W	0.00	
12000.00†	90.271	89.692	10915.66	1202.95	6.46	1202.93	763170.39	499786.06	32°22'18.963"N	103°36'53.310"W	0.00	
12100.00†	90.271	89.692	10915.19	1302.95	6.99	1302.93	763270.38	499786.59	32°22'18.962"N	103°36'52.144"W	0.00	
12200.00†	90.271	89.692	10914.71	1402.95	7.53	1402.93	763370.37	499787.13	32°22'18.960"N	103°36'50.978"W	0.00	
12300.00†	90.271	89.692	10914.24	1502.95	8.07	1502.92	763470.37	499787.67	32°22'18.959"N	103°36'49.812"W	0.00	
12400.00†	90.271	89.692	10913.76	1602.94	8.61	1602.92	763570.36	499788.21	32°22'18.958"N	103°36'48.646"W	0.00	
12500.00†	90.271	89.692	10913.29	1702.94	9.14	1702.92	763670.36	499788.74	32°22'18.956"N	103°36'47.480"W	0.00	
12600.00†	90.271	89.692	10912.82	1802.94	9.68	1802.92	763770.35	499789.28	32°22'18.955"N	103°36'46.314"W	0.00	
12700.00†	90.271	89.692	10912.34	1902.94	10.22	1902.91	763870.34	499789.82	32°22'18.954"N	103°36'45.148"W	0.00	
12800.00†	90.271	89.692	10911.87	2002.94	10.75	2002.91	763970.34	499790.35	32°22'18.952"N	103°36'43.982"W	0.00	
12900.00†	90.271	89.692	10911.40	2102.94	11.29	2102.91	764070.33	499790.89	32°22'18.951"N	103°36'42.816"W	0.00	
13000.00†	90.271	89.692	10910.92	2202.94	11.83	2202.91	764170.32	499791.43	32°22'18.950"N	103°36'41.650"W	0.00	
13100.00†	90.271	89.692	10910.45	2302.94	12.36	2302.90	764270.32	499791.96	32°22'18.948"N	103°36'40.484"W	0.00	
13200.00†	90.271	89.692	10909.97	2402.94	12.90	2402.90	764370.31	499792.50	32°22'18.947"N	103°36'39.318"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Lea County, NM	Well	No. 2H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No. 2H PWB
Facility	Merchant Livestock State Com No. 2H		

WELLPATH DATA (157 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
13300.00†	90.271	89.692	10909.50	2502.93	13.44	2502.90	764470.30	499793.04	32°22'18.946"N	103°36'38.152"W	0.00	
13400.00†	90.271	89.692	10909.03	2602.93	13.97	2602.90	764570.30	499793.57	32°22'18.944"N	103°36'36.987"W	0.00	
13500.00†	90.271	89.692	10908.55	2702.93	14.51	2702.89	764670.29	499794.11	32°22'18.943"N	103°36'35.821"W	0.00	
13600.00†	90.271	89.692	10908.08	2802.93	15.05	2802.89	764770.29	499794.65	32°22'18.941"N	103°36'34.655"W	0.00	
13700.00†	90.271	89.692	10907.60	2902.93	15.58	2902.89	764870.28	499795.18	32°22'18.940"N	103°36'33.489"W	0.00	
13800.00†	90.271	89.692	10907.13	3002.93	16.12	3002.89	764970.27	499795.72	32°22'18.939"N	103°36'32.323"W	0.00	
13900.00†	90.271	89.692	10906.66	3102.93	16.66	3102.88	765070.27	499796.26	32°22'18.937"N	103°36'31.157"W	0.00	
14000.00†	90.271	89.692	10906.18	3202.93	17.19	3202.88	765170.26	499796.79	32°22'18.936"N	103°36'29.991"W	0.00	
14100.00†	90.271	89.692	10905.71	3302.93	17.73	3302.88	765270.25	499797.33	32°22'18.934"N	103°36'28.825"W	0.00	
14200.00†	90.271	89.692	10905.24	3402.92	18.27	3402.87	765370.25	499797.87	32°22'18.933"N	103°36'27.659"W	0.00	
14300.00†	90.271	89.692	10904.76	3502.92	18.81	3502.87	765470.24	499798.40	32°22'18.932"N	103°36'26.493"W	0.00	
14400.00†	90.271	89.692	10904.29	3602.92	19.34	3602.87	765570.24	499798.94	32°22'18.930"N	103°36'25.327"W	0.00	
14500.00†	90.271	89.692	10903.81	3702.92	19.88	3702.87	765670.23	499799.48	32°22'18.929"N	103°36'24.161"W	0.00	
14600.00†	90.271	89.692	10903.34	3802.92	20.42	3802.86	765770.22	499800.02	32°22'18.927"N	103°36'22.995"W	0.00	
14700.00†	90.271	89.692	10902.87	3902.92	20.95	3902.86	765870.22	499800.55	32°22'18.926"N	103°36'21.829"W	0.00	
14800.00†	90.271	89.692	10902.39	4002.92	21.49	4002.86	765970.21	499801.09	32°22'18.925"N	103°36'20.663"W	0.00	
14900.00†	90.271	89.692	10901.92	4102.92	22.03	4102.86	766070.20	499801.63	32°22'18.923"N	103°36'19.497"W	0.00	
15000.00†	90.271	89.692	10901.45	4202.91	22.56	4202.85	766170.20	499802.16	32°22'18.922"N	103°36'18.331"W	0.00	
15100.00†	90.271	89.692	10900.97	4302.91	23.10	4302.85	766270.19	499802.70	32°22'18.920"N	103°36'17.165"W	0.00	
15200.00†	90.271	89.692	10900.50	4402.91	23.64	4402.85	766370.19	499803.24	32°22'18.919"N	103°36'16.000"W	0.00	
15300.00†	90.271	89.692	10900.02	4502.91	24.17	4502.85	766470.18	499803.77	32°22'18.918"N	103°36'14.834"W	0.00	
15305.02	90.271	89.692	10900.00†	4507.93	24.20	4507.87	766475.20	499803.80	32°22'18.917"N	103°36'14.775"W	0.00	No. 4H PBHL

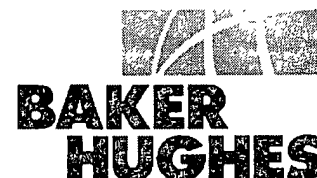
HOLE & CASING SECTIONS - Ref Wellbore: No. 2H PWB Ref Wellpath: Prelim_1									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
17.5m Open Hole	0.00	1185.00	1185.00	0.00	1185.00	0.00	0.00	0.00	0.00
13.375m Casing	0.00	1185.00	1185.00	0.00	1185.00	0.00	0.00	0.00	0.00
12.25m Open Hole	1185.00	4850.00	3665.00	1185.00	4850.00	0.00	0.00	0.00	0.00
9.625m Casing	0.00	4850.00	4850.00	0.00	4850.00	0.00	0.00	0.00	0.00
8.75m Open Hole	4850.00	15305.02	10455.02	4850.00	10900.00	0.00	0.00	24.20	4507.87
5.5m Casing	0.00	15305.02	15305.02	0.00	10900.00	0.00	0.00	24.20	4507.87



Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Lea County, NM	Well	No. 2H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No. 2H PWB
Facility	Merchant Livestock State Com No. 2H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No. 1H PBHL		10895.00	3981.94	5747.98	767715.26	503761.39	32°22'57.994"N	103°36'00.000"W	point
1) No. 2H PBHL	15305.02	10900.00	24.20	4507.87	766475.20	499803.80	32°22'18.917"N	103°36'14.775"W	point

SURVEY PROGRAM - Ref Wellbore: No. 2H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3719.00	15305.02	NaviTrak (Standard)		No. 2H PWB