

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

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

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

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

HOBBS OCD

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

AUG 11 2011

OIL CONSERVATION DIVISION

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

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40229	Pool Code 51687	Pool Name Red Tank; Bone Spring, East
Property Code 38575	Property Name MERCHANT LIVESTOCK 19 22 33 STATE COM	Well Number 2
OCRID No 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3719'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	19	22 S	33 E		660	SOUTH	330	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
P	19	22 S	33 E		660	SOUTH	330	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
156.62		P	

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

<u>SURFACE LOCATION</u> Lat - N 32°22'18.98" Long - W 103°37'07.34" NAD83 - N 499779.6 E 761967.5 (NAD-83)		<u>PROPOSED BOTTOM HOLE LOCATION</u> Lat - N 32°22'18.92" Long - W 103°36'14.78" NAD83 - N 499803.8 E 766475.2 (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. <u>Natalie Krueger</u> 8/11/2011 Signature Date Natalie Krueger Printed Name nkrueger@cimarex.com Email Address
<u>SURVEYOR CERTIFICATION</u> 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. <u>GARY L. JONES</u> Date Surveyed Signature & Seal of Professional Surveyor W.C. 11-2-2010		Certificate No. Gary L. Jones 7977 BASIN SURVEYS 25024		

AUG 11 2011



Cimarex Energy Co.

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

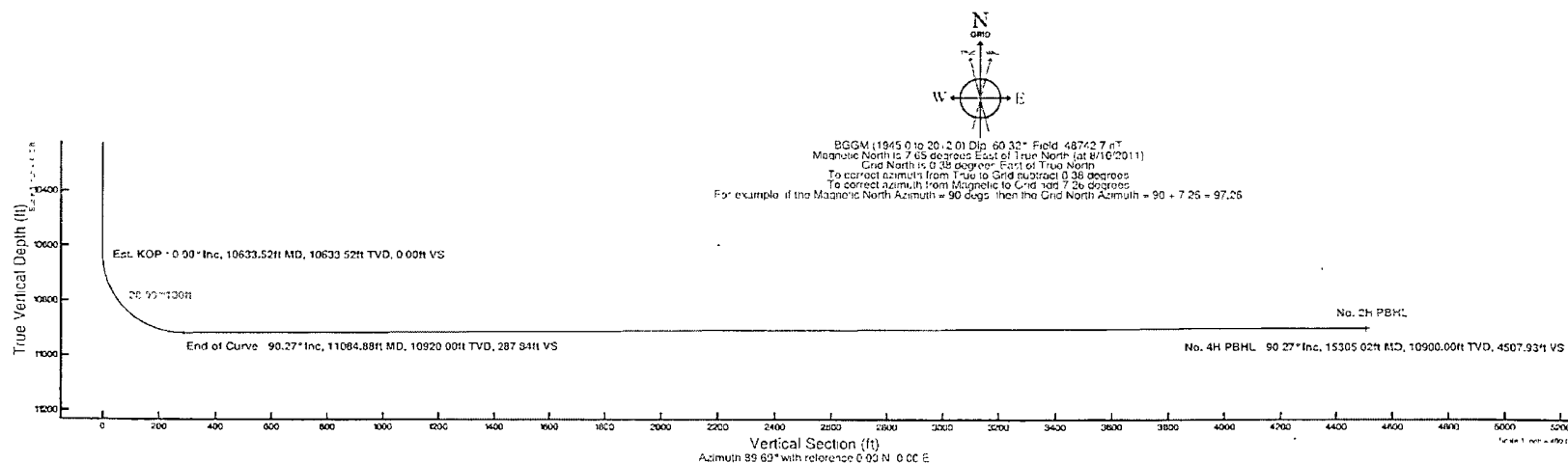
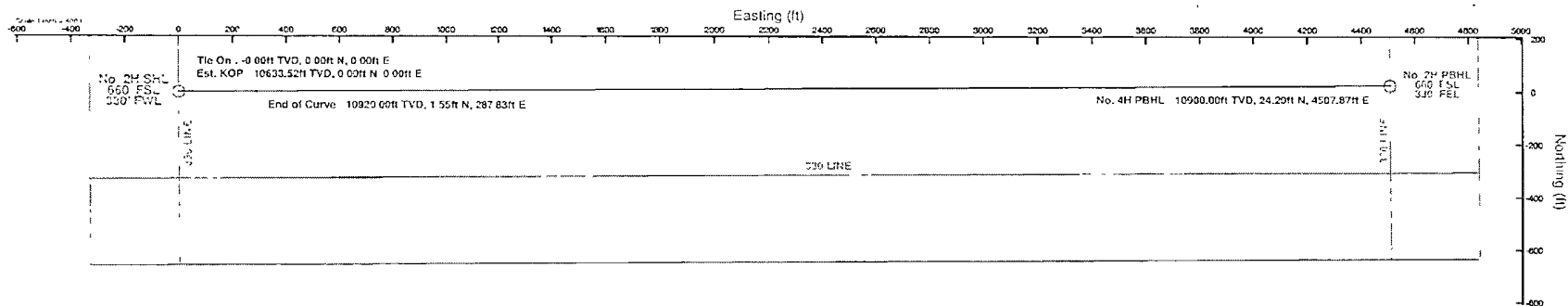
Slot: No. 2H SHL
Well: No. 2H
Wellbore: No. 2H PWB



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 length is 1 inch = 1 mile	
True vertical depths are referenced to Rig on No. 2H SHL (KB)	Grid System: NAD83 / TM New Mexico SP Eastern Zone (30N1) US feet
Measured depths are referenced to Rig on No. 2H SHL (KB)	North Reference: Grid north
Rig on No. 2H SHL (KB) to Mean Sea Level: 3719 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot No. 2H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Sini	Created by: calphik on 8/10/2011





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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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
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°36'52.141"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 PWB

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]
17.5in Open Hole	0.00	1185.00	1185.00	0.00	1185.00	0.00	0.00	0.00	0.00
13.375in Casing	0.00	1185.00	1185.00	0.00	1185.00	0.00	0.00	0.00	0.00
12.25in Open Hole	1185.00	4850.00	3665.00	1185.00	4850.00	0.00	0.00	0.00	0.00
9.625in Casing	0.00	4850.00	4850.00	0.00	4850.00	0.00	0.00	0.00	0.00
8.75in Open Hole	4850.00	15305.02	10455.02	4850.00	10900.00	0.00	0.00	24.20	4507.87
5.5in Casing	0.00	15305.02	15305.02	0.00	10900.00	0.00	0.00	24.20	4507.87



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		

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