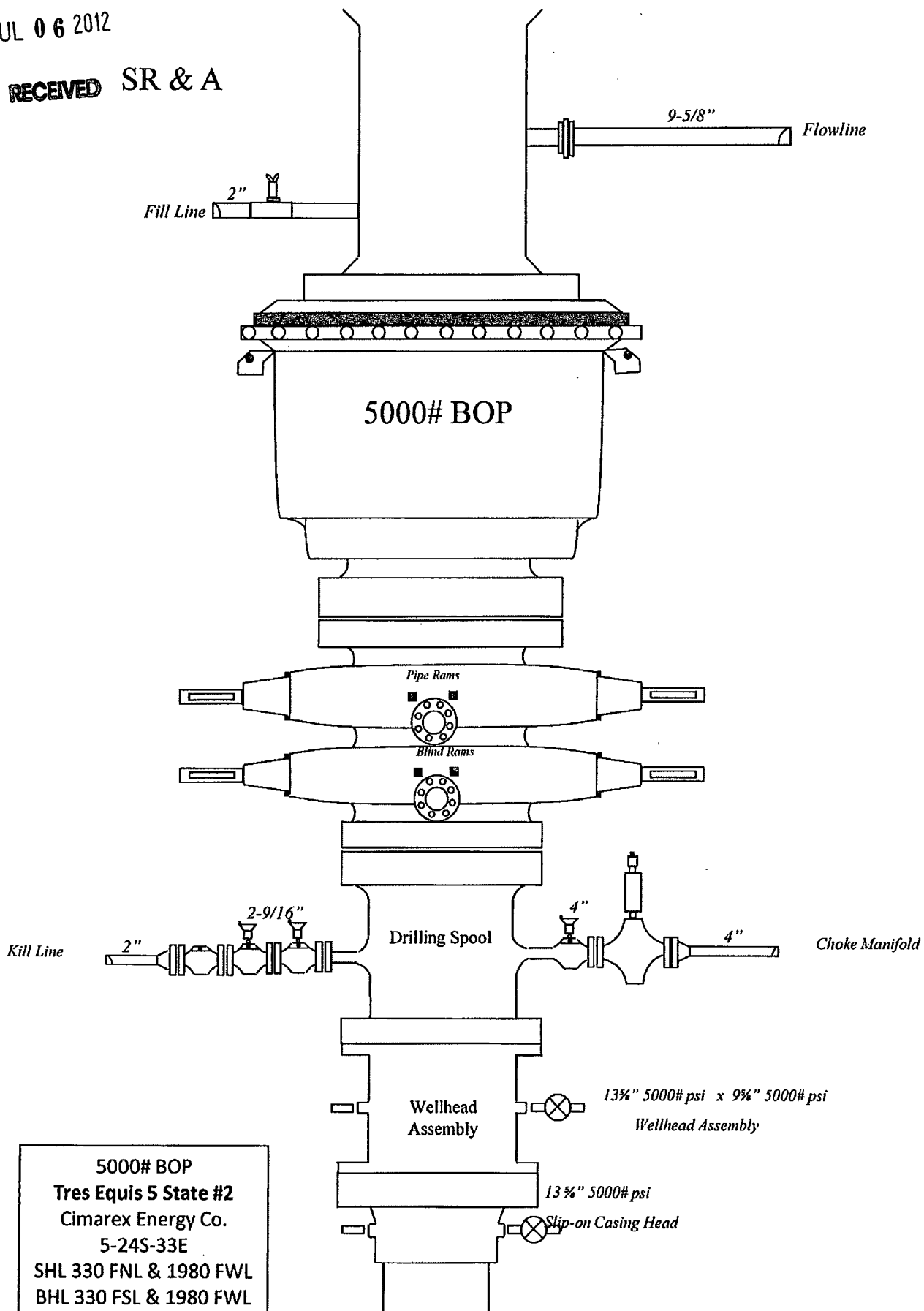


HOBBS OCD

30 025-40675

JUL 06 2012

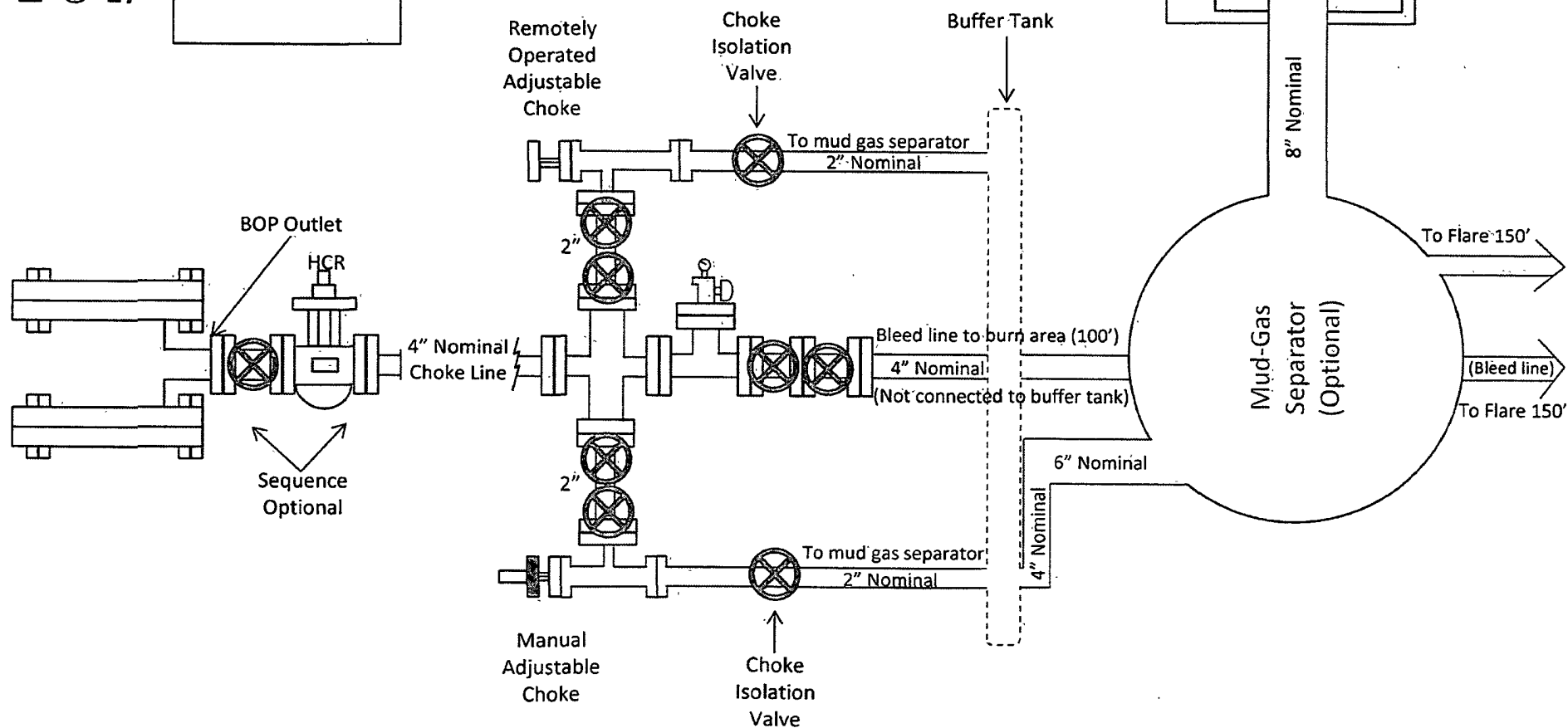
RECEIVED SR & A



5000# BOP
Tres Equis 5 State #2
Cimarex Energy Co.
5-24S-33E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

Drilling Operations Choke Manifold 5M Service

Choke Manifold Diagram
Tres Equis 5 State #2
Cimarex Energy Co.
5-24S-33E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM



CIMAREX

Cimarex Energy Co.

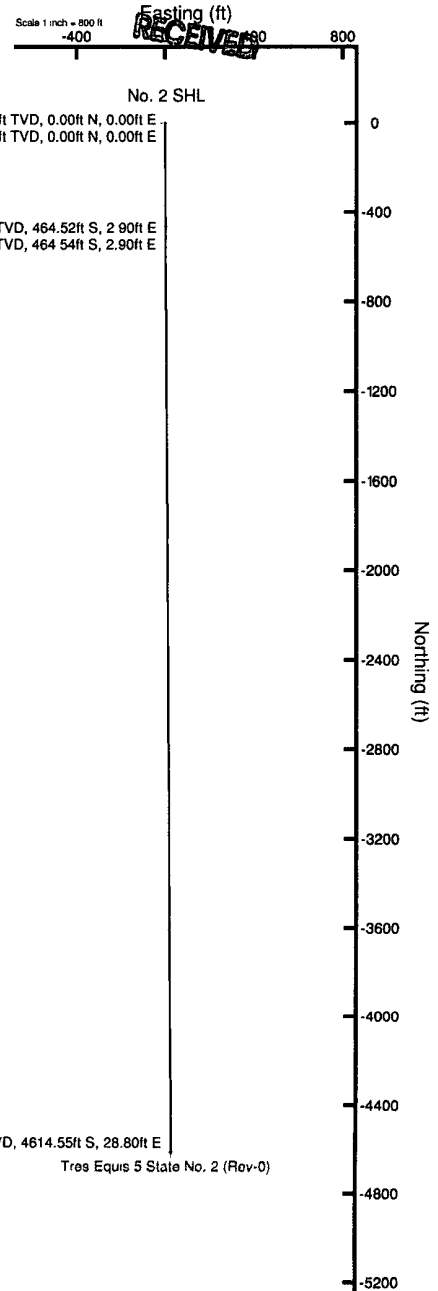
Location: Lea County, NM
Field: (Tres Equis) Sec 5, T24S, R33E
Facility: Tres Equis 5 State No. 2

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

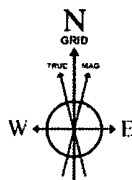


JUL 06 2012

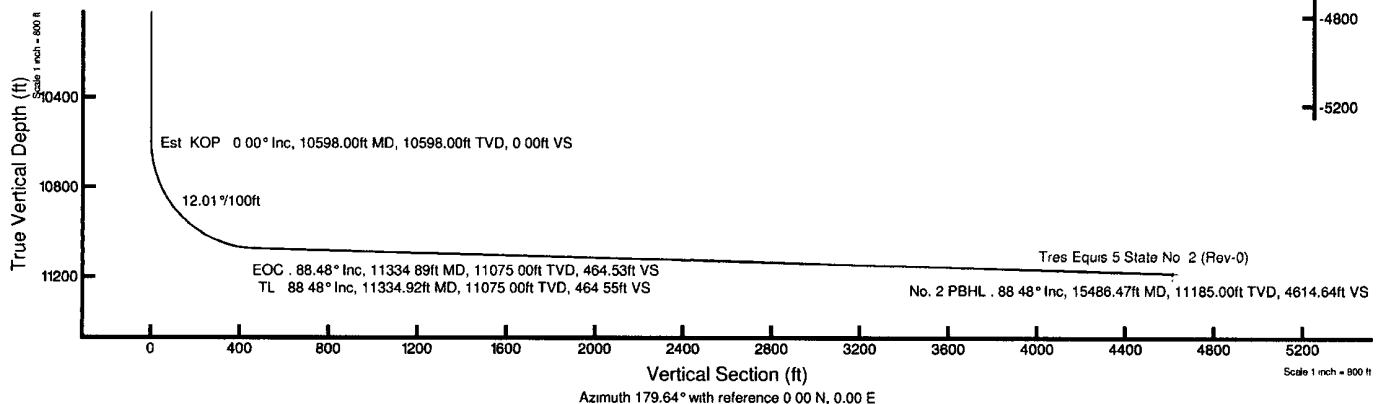
Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	0.00	0.000	179.642	0.00	0.00	0.00	0.00
Est KOP	10598.00	0.000	179.642	10598.00	0.00	0.00	0.00
EOC	11334.89	88.482	179.642	11075.00	-464.52	2.90	464.53
TL	11334.92	88.482	179.642	11075.00	-464.54	2.90	464.55
No. 2 PBHL	15486.47	88.482	179.642	11185.00	-4614.55	28.80	4614.64



Plot reference wellpath is Rev-A.0	
True vertical depths are referenced to Rig on No. 2 SHL (RT)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No. 2 SHL (RT)	North Reference: Grid north
Rig on No. 2 SHL (RT) to Mean Sea Level 3681 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot No. 2 SHL) -3661 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harkol on 6/26/2012



BGGM (1945 0 to 2013 0) Dip 60.14° Field 48525.8 nT
Magnetic North is 7.55 degrees East of True North (at 6/26/2012)
Grid North is 0.39 degrees East of True North
To correct azimuth from True to Grid subtract 0.39 degrees
To correct azimuth from Magnetic to Grid add 7.16 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.16 = 97.16



Rev-A.0



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

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	Harrkol
Scale	0.999969	Report Generated	6/26/2012 at 11:32:45 AM
Convergence at slot	0.39° East	Database/Source file	WA Midland/No._2_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	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W
Facility Reference Pt			769132.60	456580.30	32°15'11.036"N	103°35'47.255"W
Field Reference Pt			769132.60	456580.30	32°15'11.036"N	103°35'47.255"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 2 SHL (RT) to Mean Sea Level	3661.00ft
Vertical Reference Pt	Rig on No. 2 SHL (RT)	Rig on No. 2 SHL (RT) to Mud Line at Slot (No. 2 SHL)	0.00ft
MD Reference Pt	Rig on No. 2 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.64°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

WELLPATH DATA (162 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	179.642	0.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Tie On
100.00†	0.000	179.642	100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
200.00†	0.000	179.642	200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
300.00†	0.000	179.642	300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
400.00†	0.000	179.642	400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
500.00†	0.000	179.642	500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
600.00†	0.000	179.642	600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
700.00†	0.000	179.642	700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
800.00†	0.000	179.642	800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
900.00†	0.000	179.642	900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1000.00†	0.000	179.642	1000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1100.00†	0.000	179.642	1100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1200.00†	0.000	179.642	1200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1300.00†	0.000	179.642	1300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1400.00†	0.000	179.642	1400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1500.00†	0.000	179.642	1500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1600.00†	0.000	179.642	1600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1700.00†	0.000	179.642	1700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1800.00†	0.000	179.642	1800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
1900.00†	0.000	179.642	1900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2000.00†	0.000	179.642	2000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2100.00†	0.000	179.642	2100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2200.00†	0.000	179.642	2200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2300.00†	0.000	179.642	2300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2400.00†	0.000	179.642	2400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2500.00†	0.000	179.642	2500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2600.00†	0.000	179.642	2600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2700.00†	0.000	179.642	2700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2800.00†	0.000	179.642	2800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
2900.00†	0.000	179.642	2900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3000.00†	0.000	179.642	3000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3100.00†	0.000	179.642	3100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3200.00†	0.000	179.642	3200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3300.00†	0.000	179.642	3300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3400.00†	0.000	179.642	3400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3500.00†	0.000	179.642	3500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3600.00†	0.000	179.642	3600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3700.00†	0.000	179.642	3700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3800.00†	0.000	179.642	3800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
3900.00†	0.000	179.642	3900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4000.00†	0.000	179.642	4000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4100.00†	0.000	179.642	4100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4200.00†	0.000	179.642	4200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4300.00†	0.000	179.642	4300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4400.00†	0.000	179.642	4400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

WELLPATH DATA (162 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	179.642	4500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4600.00†	0.000	179.642	4600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4700.00†	0.000	179.642	4700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4800.00†	0.000	179.642	4800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
4900.00†	0.000	179.642	4900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5000.00†	0.000	179.642	5000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Delaware Sands
5100.00†	0.000	179.642	5100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5200.00†	0.000	179.642	5200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5300.00†	0.000	179.642	5300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5400.00†	0.000	179.642	5400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5500.00†	0.000	179.642	5500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5600.00†	0.000	179.642	5600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5700.00†	0.000	179.642	5700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5800.00†	0.000	179.642	5800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
5900.00†	0.000	179.642	5900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6000.00†	0.000	179.642	6000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6100.00†	0.000	179.642	6100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6200.00†	0.000	179.642	6200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6300.00†	0.000	179.642	6300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6400.00†	0.000	179.642	6400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6500.00†	0.000	179.642	6500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6600.00†	0.000	179.642	6600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6700.00†	0.000	179.642	6700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6800.00†	0.000	179.642	6800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
6900.00†	0.000	179.642	6900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7000.00†	0.000	179.642	7000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7100.00†	0.000	179.642	7100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7200.00†	0.000	179.642	7200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7300.00†	0.000	179.642	7300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7400.00†	0.000	179.642	7400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7500.00†	0.000	179.642	7500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7600.00†	0.000	179.642	7600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7700.00†	0.000	179.642	7700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7800.00†	0.000	179.642	7800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
7900.00†	0.000	179.642	7900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8000.00†	0.000	179.642	8000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8100.00†	0.000	179.642	8100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8200.00†	0.000	179.642	8200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8300.00†	0.000	179.642	8300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8400.00†	0.000	179.642	8400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8500.00†	0.000	179.642	8500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8600.00†	0.000	179.642	8600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8700.00†	0.000	179.642	8700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8710.00†	0.000	179.642	8710.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Basal Brushy Canyon
8800.00†	0.000	179.642	8800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

WELLPATH DATA (162 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
8900.00†	0.000	179.642	8900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
8955.00†	0.000	179.642	8955.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Bone Spring
9000.00†	0.000	179.642	9000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9100.00†	0.000	179.642	9100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9200.00†	0.000	179.642	9200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9300.00†	0.000	179.642	9300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9400.00†	0.000	179.642	9400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9500.00†	0.000	179.642	9500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Avalon Shale
9600.00†	0.000	179.642	9600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9700.00†	0.000	179.642	9700.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9800.00†	0.000	179.642	9800.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
9900.00†	0.000	179.642	9900.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10000.00†	0.000	179.642	10000.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10100.00†	0.000	179.642	10100.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	1st BSS
10200.00†	0.000	179.642	10200.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10300.00†	0.000	179.642	10300.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10400.00†	0.000	179.642	10400.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10500.00†	0.000	179.642	10500.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	
10598.00	0.000	179.642	10598.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	0.00	Est. KOP
10600.00†	0.240	179.642	10600.00	0.00	0.00	0.00	769132.60	456580.30	32°15'11.036"N	103°35'47.255"W	12.01	
10650.10†	6.256	179.642	10650.00	2.84	-2.84	0.02	769132.62	456577.46	32°15'11.008"N	103°35'47.255"W	12.01	2nd BSS
10700.00†	12.248	179.642	10699.22	10.86	-10.86	0.07	769132.67	456569.44	32°15'10.929"N	103°35'47.255"W	12.01	
10800.00†	24.255	179.642	10794.02	42.12	-42.12	0.26	769132.86	456538.18	32°15'10.619"N	103°35'47.256"W	12.01	
10900.00†	36.263	179.642	10880.24	92.42	-92.42	0.58	769133.18	456487.88	32°15'10.122"N	103°35'47.256"W	12.01	
11000.00†	48.270	179.642	10954.11	159.56	-159.55	1.00	769133.60	456420.75	32°15'09.457"N	103°35'47.257"W	12.01	
11100.00†	60.278	179.642	11012.39	240.59	-240.58	1.50	769134.10	456339.72	32°15'08.656"N	103°35'47.257"W	12.01	
11200.00†	72.285	179.642	11052.54	331.97	-331.97	2.07	769134.67	456248.34	32°15'07.751"N	103°35'47.258"W	12.01	
11300.00†	84.292	179.642	11072.80	429.71	-429.70	2.68	769135.28	456150.61	32°15'06.784"N	103°35'47.258"W	12.01	
11334.89	88.482	179.642	11075.00	464.53	-464.52	2.90	769135.50	456115.80	32°15'06.440"N	103°35'47.259"W	12.01	EOC
11334.92	88.482	179.642	11075.00	464.55	-464.54	2.90	769135.50	456115.77	32°15'06.439"N	103°35'47.259"W	12.01	TL
11400.00†	88.482	179.642	11076.73	529.61	-529.60	3.31	769135.91	456050.71	32°15'05.796"N	103°35'47.259"W	0.00	
11500.00†	88.482	179.642	11079.37	629.58	-629.57	3.93	769136.53	455950.76	32°15'04.806"N	103°35'47.260"W	0.00	
11600.00†	88.482	179.642	11082.02	729.54	-729.53	4.56	769137.16	455850.80	32°15'03.817"N	103°35'47.261"W	0.00	
11700.00†	88.482	179.642	11084.67	829.51	-829.49	5.18	769137.78	455750.84	32°15'02.828"N	103°35'47.261"W	0.00	
11800.00†	88.482	179.642	11087.32	929.47	-929.45	5.80	769138.40	455650.88	32°15'01.839"N	103°35'47.262"W	0.00	
11900.00†	88.482	179.642	11089.97	1029.44	-1029.42	6.43	769139.03	455550.92	32°15'00.850"N	103°35'47.263"W	0.00	
12000.00†	88.482	179.642	11092.62	1129.40	-1129.38	7.05	769139.65	455450.96	32°14'59.861"N	103°35'47.264"W	0.00	
12100.00†	88.482	179.642	11095.27	1229.37	-1229.34	7.68	769140.28	455351.00	32°14'58.871"N	103°35'47.264"W	0.00	
12200.00†	88.482	179.642	11097.92	1329.33	-1329.31	8.30	769140.90	455251.04	32°14'57.882"N	103°35'47.265"W	0.00	
12300.00†	88.482	179.642	11100.57	1429.30	-1429.27	8.92	769141.52	455151.08	32°14'56.893"N	103°35'47.266"W	0.00	
12400.00†	88.482	179.642	11103.22	1529.26	-1529.23	9.55	769142.15	455051.12	32°14'55.904"N	103°35'47.266"W	0.00	
12500.00†	88.482	179.642	11105.87	1629.23	-1629.20	10.17	769142.77	454951.16	32°14'54.915"N	103°35'47.267"W	0.00	
12600.00†	88.482	179.642	11108.52	1729.19	-1729.16	10.79	769143.39	454851.20	32°14'53.926"N	103°35'47.268"W	0.00	
12700.00†	88.482	179.642	11111.17	1829.16	-1829.12	11.42	769144.02	454751.24	32°14'52.936"N	103°35'47.269"W	0.00	
12800.00†	88.482	179.642	11113.82	1929.12	-1929.08	12.04	769144.64	454651.28	32°14'51.947"N	103°35'47.269"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

WELLPATH DATA (162 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
12900.00†	88.482	179.642	11116.47	2029.09	-2029.05	12.67	769145.27	454551.32	32°14'50.958"N	103°35'47.270"W	0.00	
13000.00†	88.482	179.642	11119.12	2129.05	-2129.01	13.29	769145.89	454451.36	32°14'49.969"N	103°35'47.271"W	0.00	
13100.00†	88.482	179.642	11121.77	2229.02	-2228.97	13.91	769146.51	454351.40	32°14'48.980"N	103°35'47.271"W	0.00	
13200.00†	88.482	179.642	11124.42	2328.98	-2328.94	14.54	769147.14	454251.44	32°14'47.991"N	103°35'47.272"W	0.00	
13300.00†	88.482	179.642	11127.07	2428.95	-2428.90	15.16	769147.76	454151.48	32°14'47.001"N	103°35'47.273"W	0.00	
13400.00†	88.482	179.642	11129.72	2528.91	-2528.86	15.79	769148.38	454051.52	32°14'46.012"N	103°35'47.274"W	0.00	
13500.00†	88.482	179.642	11132.37	2628.88	-2628.82	16.41	769149.01	453951.56	32°14'45.023"N	103°35'47.274"W	0.00	
13600.00†	88.482	179.642	11135.02	2728.84	-2728.79	17.03	769149.63	453851.60	32°14'44.034"N	103°35'47.275"W	0.00	
13700.00†	88.482	179.642	11137.67	2828.81	-2828.75	17.66	769150.26	453751.64	32°14'43.045"N	103°35'47.276"W	0.00	
13800.00†	88.482	179.642	11140.32	2928.77	-2928.71	18.28	769150.88	453651.68	32°14'42.056"N	103°35'47.277"W	0.00	
13900.00†	88.482	179.642	11142.97	3028.74	-3028.68	18.90	769151.50	453551.72	32°14'41.067"N	103°35'47.277"W	0.00	
14000.00†	88.482	179.642	11145.61	3128.70	-3128.64	19.53	769152.13	453451.77	32°14'40.077"N	103°35'47.278"W	0.00	
14100.00†	88.482	179.642	11148.26	3228.67	-3228.60	20.15	769152.75	453351.81	32°14'39.088"N	103°35'47.279"W	0.00	
14200.00†	88.482	179.642	11150.91	3328.63	-3328.57	20.78	769153.37	453251.85	32°14'38.099"N	103°35'47.279"W	0.00	
14300.00†	88.482	179.642	11153.56	3428.60	-3428.53	21.40	769154.00	453151.89	32°14'37.110"N	103°35'47.280"W	0.00	
14400.00†	88.482	179.642	11156.21	3528.56	-3528.49	22.02	769154.62	453051.93	32°14'36.121"N	103°35'47.281"W	0.00	
14500.00†	88.482	179.642	11158.86	3628.52	-3628.45	22.65	769155.25	452951.97	32°14'35.132"N	103°35'47.282"W	0.00	
14600.00†	88.482	179.642	11161.51	3728.49	-3728.42	23.27	769155.87	452852.01	32°14'34.142"N	103°35'47.282"W	0.00	
14700.00†	88.482	179.642	11164.16	3828.45	-3828.38	23.89	769156.49	452752.05	32°14'33.153"N	103°35'47.283"W	0.00	
14800.00†	88.482	179.642	11166.81	3928.42	-3928.34	24.52	769157.12	452652.09	32°14'32.164"N	103°35'47.284"W	0.00	
14900.00†	88.482	179.642	11169.46	4028.38	-4028.31	25.14	769157.74	452552.13	32°14'31.175"N	103°35'47.285"W	0.00	
15000.00†	88.482	179.642	11172.11	4128.35	-4128.27	25.77	769158.37	452452.17	32°14'30.186"N	103°35'47.285"W	0.00	
15100.00†	88.482	179.642	11174.76	4228.31	-4228.23	26.39	769158.99	452352.21	32°14'29.197"N	103°35'47.286"W	0.00	
15200.00†	88.482	179.642	11177.41	4328.28	-4328.19	27.01	769159.61	452252.25	32°14'28.207"N	103°35'47.287"W	0.00	
15300.00†	88.482	179.642	11180.06	4428.24	-4428.16	27.64	769160.24	452152.29	32°14'27.218"N	103°35'47.287"W	0.00	
15400.00†	88.482	179.642	11182.71	4528.21	-4528.12	28.26	769160.86	452052.33	32°14'26.229"N	103°35'47.288"W	0.00	
15486.47	88.482	179.642	11185.00†	4614.64	-4614.55	28.80	769161.40	451965.90	32°14'25.374"N	103°35'47.289"W	0.00	No. 2 PBHL



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2 SHL
Area	Lea County, NM	Well	No. 2
Field	(Tres Equis) Sec 5, T24S, R33E	Wellbore	No. 2 PWB
Facility	Tres Equis 5 State No. 2		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Tres Equis 5 State No. 2 (Rev-0)	15486.47	11185.00	-4614.55	28.80	769161.40	451965.90	32°14'25.374"N	103°35'47.289"W	point

SURVEY PROGRAM - Ref Wellbore: No. 2 PWB Ref Wellpath: Rev-A.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15486.47	NaviTrak (Standard)		No. 2 PWB