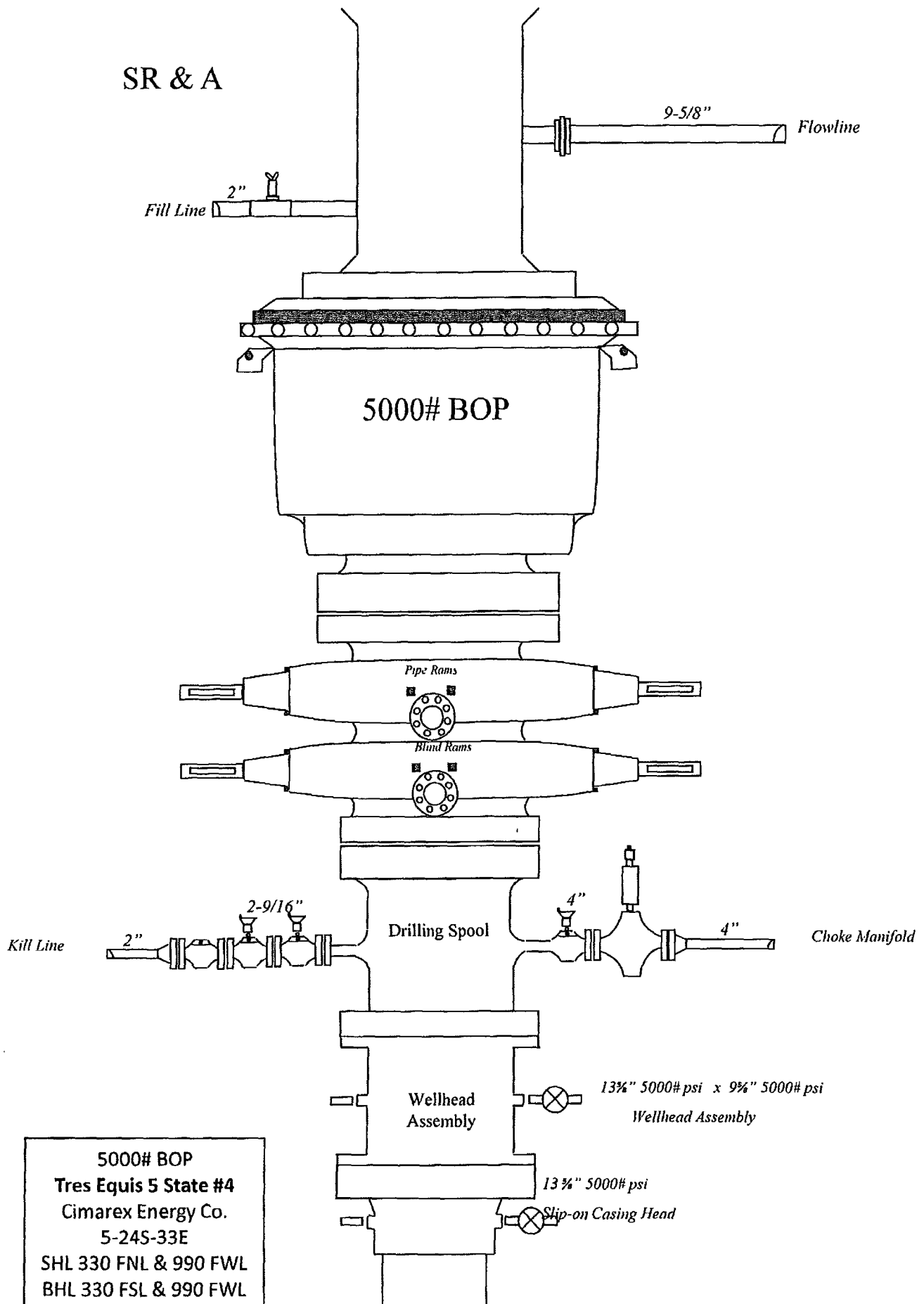


30-025-40646

SR & A

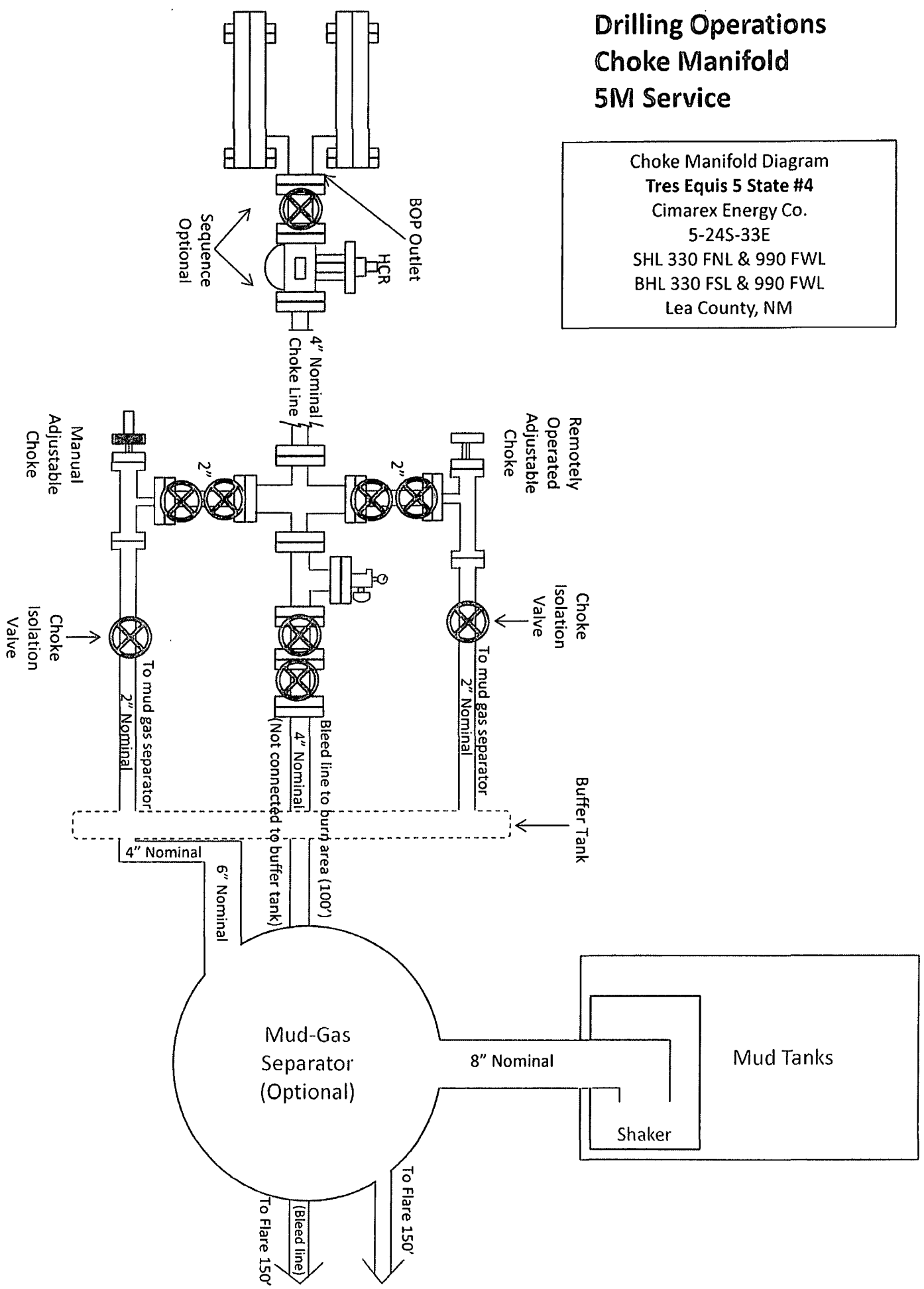


5000# BOP
 Tres Equis 5 State #4
 Cimarex Energy Co.
 5-24S-33E
 SHL 330 FNL & 990 FWL
 BHL 330 FSL & 990 FWL
 Lea County, NM

JUN 27 2012

Drilling Operations
Choke Manifold
5M Service

Choke Manifold Diagram
Tres Equis 5 State #4
Cimarex Energy Co.
5-24S-33E
SHL 330 FNL & 990 FWL
BHL 330 FSL & 990 FWL
Lea County, NM

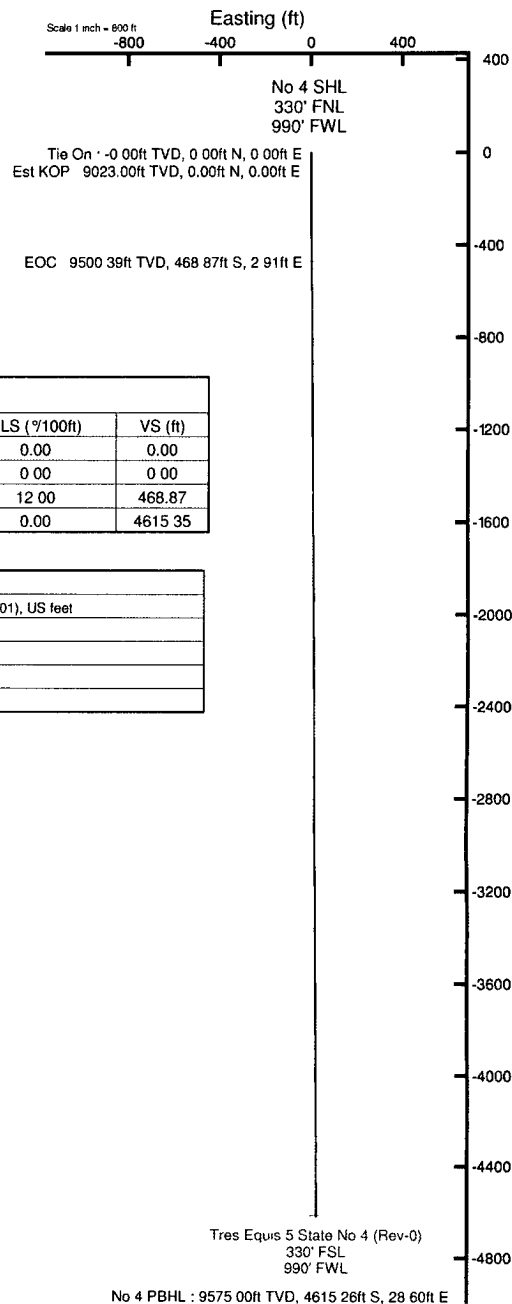




Cimarex Energy Co.

Location: Lea County, NM
Field: (Tres Equis) Sec 6, T24S, R33E
Facility: Tres Equis 5 State No 4

Slot: No 4 SHL
Well: No 4
Wellbore: No 4 PWB

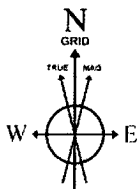


Well Profile Data

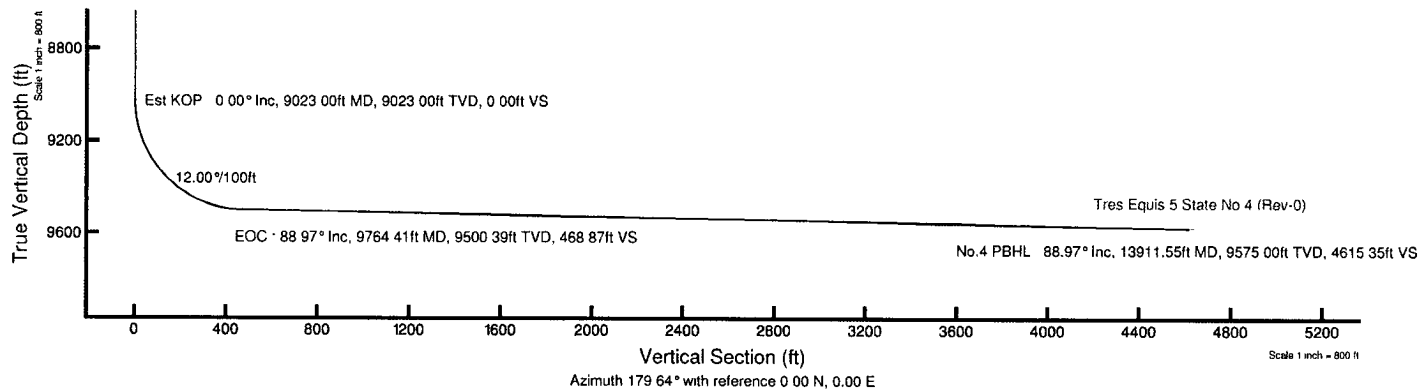
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	179.645	0.00	0.00	0.00	0.00	0.00
Est KOP	9023.00	0.000	179.645	9023.00	0.00	0.00	0.00	0.00
EOC	9764.41	88.969	179.645	9500.39	-468.87	2.91	12.00	468.87
No 4 PWB	13911.55	88.969	179.645	9575.00	-4615.26	28.60	0.00	4615.35

Plot reference wellpath is Rev-A 0

True vertical depths are referenced to Rig on No 4 SHL (RT)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 4 SHL (RT)	North Reference: Grid north
Rig on No 4 SHL (RT) to Mean Sea Level: 3659 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot No 4 SHL): -3659 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentbry on 4/10/2012



BGGM (1945.0 to 2013.0) Dip: 60.15° Field: 48551.6 nT
Magnetic North is 7.58 degrees East of True North (at 4/10/2012)
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 7.19 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.19 = 97.19





Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No.4 PWB
Facility	Tres Equis 5 State No.4		

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	Gentbry
Scale	0.999968	Report Generated	4/10/2012 at 10:40:19 AM
Convergence at slot	0.39° East	Database/Source file	WA Midland/No.4_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	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W
Facility Reference Pt			768143.00	456575.60	32°15'11.057"N	103°35'58.779"W
Field Reference Pt			763911.80	456554.80	32°15'11.134"N	103°36'48.051"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.4 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.4 SHL (RT) to Mean Sea Level	3659.00ft
Vertical Reference Pt	Rig on No.4 SHL (RT)	Rig on No.4 SHL (RT) to Mud Line at Slot (No.4 SHL)	0.00ft
MD Reference Pt	Rig on No.4 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.64°



Planned Wellpath Report

Rev-A.0
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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No.4 PWB
Facility	Tres Equis 5 State No.4		

WELLPATH DATA (146 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	179.645	0.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Tie On
100.00†	0.000	179.645	100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
200.00†	0.000	179.645	200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
300.00†	0.000	179.645	300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
400.00†	0.000	179.645	400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
500.00†	0.000	179.645	500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
600.00†	0.000	179.645	600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
700.00†	0.000	179.645	700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
800.00†	0.000	179.645	800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
900.00†	0.000	179.645	900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1000.00†	0.000	179.645	1000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1100.00†	0.000	179.645	1100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1200.00†	0.000	179.645	1200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Rustler
1300.00†	0.000	179.645	1300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1400.00†	0.000	179.645	1400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1420.00†	0.000	179.645	1420.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Salt
1500.00†	0.000	179.645	1500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1600.00†	0.000	179.645	1600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1700.00†	0.000	179.645	1700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1800.00†	0.000	179.645	1800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
1900.00†	0.000	179.645	1900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2000.00†	0.000	179.645	2000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2100.00†	0.000	179.645	2100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2200.00†	0.000	179.645	2200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2300.00†	0.000	179.645	2300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2400.00†	0.000	179.645	2400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2500.00†	0.000	179.645	2500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2600.00†	0.000	179.645	2600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2700.00†	0.000	179.645	2700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2800.00†	0.000	179.645	2800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
2900.00†	0.000	179.645	2900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3000.00†	0.000	179.645	3000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3100.00†	0.000	179.645	3100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3200.00†	0.000	179.645	3200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3300.00†	0.000	179.645	3300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Castille
3400.00†	0.000	179.645	3400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3500.00†	0.000	179.645	3500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3600.00†	0.000	179.645	3600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3700.00†	0.000	179.645	3700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3800.00†	0.000	179.645	3800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
3900.00†	0.000	179.645	3900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4000.00†	0.000	179.645	4000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4100.00†	0.000	179.645	4100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4200.00†	0.000	179.645	4200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4300.00†	0.000	179.645	4300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	



Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No.4 PWB
Facility	Tres Equis 5 State No.4		

WELLPATH DATA (146 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
4400.00†	0.000	179.645	4400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4500.00†	0.000	179.645	4500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4600.00†	0.000	179.645	4600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4700.00†	0.000	179.645	4700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4800.00†	0.000	179.645	4800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
4900.00†	0.000	179.645	4900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5000.00†	0.000	179.645	5000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Delaware
5100.00†	0.000	179.645	5100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5200.00†	0.000	179.645	5200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5300.00†	0.000	179.645	5300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5400.00†	0.000	179.645	5400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5500.00†	0.000	179.645	5500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5600.00†	0.000	179.645	5600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5700.00†	0.000	179.645	5700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5800.00†	0.000	179.645	5800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
5900.00†	0.000	179.645	5900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6000.00†	0.000	179.645	6000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6100.00†	0.000	179.645	6100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6200.00†	0.000	179.645	6200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6300.00†	0.000	179.645	6300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6400.00†	0.000	179.645	6400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6500.00†	0.000	179.645	6500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6600.00†	0.000	179.645	6600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6700.00†	0.000	179.645	6700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6800.00†	0.000	179.645	6800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
6900.00†	0.000	179.645	6900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7000.00†	0.000	179.645	7000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7100.00†	0.000	179.645	7100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7200.00†	0.000	179.645	7200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7300.00†	0.000	179.645	7300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7400.00†	0.000	179.645	7400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7500.00†	0.000	179.645	7500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7600.00†	0.000	179.645	7600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7700.00†	0.000	179.645	7700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7800.00†	0.000	179.645	7800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
7900.00†	0.000	179.645	7900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8000.00†	0.000	179.645	8000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8100.00†	0.000	179.645	8100.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8200.00†	0.000	179.645	8200.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8300.00†	0.000	179.645	8300.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8400.00†	0.000	179.645	8400.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8500.00†	0.000	179.645	8500.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8575.00†	0.000	179.645	8575.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Basal Brushy Canyon
8600.00†	0.000	179.645	8600.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8700.00†	0.000	179.645	8700.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	



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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No.4 PWB
Facility	Tres Equis 5 State No.4		

WELLPATH DATA (146 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
8800.00†	0.000	179.645	8800.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
8900.00†	0.000	179.645	8900.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Bone Spring
9000.00†	0.000	179.645	9000.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	
9023.00	0.000	179.645	9023.00	0.00	0.00	0.00	768143.00	456575.60	32°15'11.057"N	103°35'58.779"W	0.00	Est KOP
9100.00†	0.240	179.645	9099.67	6.20	-6.20	-0.04	768143.04	456569.40	32°15'10.995"N	103°35'58.779"W	12.00	
9200.00†	21.240	179.645	9195.97	32.43	-32.43	0.20	768143.20	456543.17	32°15'10.736"N	103°35'58.779"W	12.00	
9300.00†	33.240	179.645	9284.72	78.12	-78.12	0.48	768143.48	456497.48	32°15'10.284"N	103°35'58.780"W	12.00	
9318.51†	35.461	179.645	9300.00	88.56	-88.56	0.55	768143.55	456487.04	32°15'10.180"N	103°35'58.780"W	12.00	Upper Bone Spring Shale
9400.00†	45.240	179.645	9362.03	141.26	-141.26	0.88	768143.88	456434.34	32°15'09.659"N	103°35'58.780"W	12.00	
9500.00†	57.240	179.645	9424.52	219.10	-219.09	1.36	768144.36	456356.51	32°15'08.889"N	103°35'58.781"W	12.00	
9600.00†	69.240	179.645	9469.46	308.23	-308.22	1.91	768144.91	456267.39	32°15'08.007"N	103°35'58.781"W	12.00	
9700.00†	81.240	179.645	9494.90	404.75	-404.74	2.51	768145.51	456170.87	32°15'07.052"N	103°35'58.782"W	12.00	
9764.41	88.969	179.645	9500.39	468.87	-468.87	2.91	768145.91	456106.75	32°15'06.417"N	103°35'58.783"W	12.00	EOC
9800.00†	88.969	179.645	9501.03	504.46	-504.45	3.13	768146.13	456071.17	32°15'06.065"N	103°35'58.783"W	0.00	
9900.00†	88.969	179.645	9502.83	604.44	-604.43	3.75	768146.75	455971.19	32°15'05.076"N	103°35'58.784"W	0.00	
10000.00†	88.969	179.645	9504.63	704.43	-704.41	4.37	768147.37	455871.21	32°15'04.086"N	103°35'58.784"W	0.00	
10100.00†	88.969	179.645	9506.43	804.41	-804.40	4.98	768147.98	455771.23	32°15'03.097"N	103°35'58.785"W	0.00	
10200.00†	88.969	179.645	9508.22	904.39	-904.38	5.60	768148.60	455671.25	32°15'02.108"N	103°35'58.786"W	0.00	
10300.00†	88.969	179.645	9510.02	1004.38	-1004.36	6.22	768149.22	455571.27	32°15'01.118"N	103°35'58.787"W	0.00	
10400.00†	88.969	179.645	9511.82	1104.36	-1104.34	6.84	768149.84	455471.30	32°15'00.129"N	103°35'58.787"W	0.00	
10500.00†	88.969	179.645	9513.62	1204.35	-1204.32	7.46	768150.46	455371.32	32°14'59.140"N	103°35'58.788"W	0.00	
10600.00†	88.969	179.645	9515.42	1304.33	-1304.31	8.08	768151.08	455271.34	32°14'58.150"N	103°35'58.789"W	0.00	
10700.00†	88.969	179.645	9517.22	1404.31	-1404.29	8.70	768151.70	455171.36	32°14'57.161"N	103°35'58.790"W	0.00	
10800.00†	88.969	179.645	9519.02	1504.30	-1504.27	9.32	768152.32	455071.38	32°14'56.172"N	103°35'58.790"W	0.00	
10900.00†	88.969	179.645	9520.82	1604.28	-1604.25	9.94	768152.94	454971.40	32°14'55.182"N	103°35'58.791"W	0.00	
11000.00†	88.969	179.645	9522.62	1704.27	-1704.23	10.56	768153.56	454871.43	32°14'54.193"N	103°35'58.792"W	0.00	
11100.00†	88.969	179.645	9524.42	1804.25	-1804.21	11.18	768154.18	454771.45	32°14'53.203"N	103°35'58.793"W	0.00	
11200.00†	88.969	179.645	9526.22	1904.23	-1904.20	11.80	768154.80	454671.47	32°14'52.214"N	103°35'58.793"W	0.00	
11300.00†	88.969	179.645	9528.01	2004.22	-2004.18	12.42	768155.42	454571.49	32°14'51.225"N	103°35'58.794"W	0.00	
11400.00†	88.969	179.645	9529.81	2104.20	-2104.16	13.04	768156.04	454471.51	32°14'50.235"N	103°35'58.795"W	0.00	
11500.00†	88.969	179.645	9531.61	2204.18	-2204.14	13.66	768156.66	454371.53	32°14'49.246"N	103°35'58.795"W	0.00	
11600.00†	88.969	179.645	9533.41	2304.17	-2304.12	14.28	768157.28	454271.55	32°14'48.257"N	103°35'58.796"W	0.00	
11700.00†	88.969	179.645	9535.21	2404.15	-2404.11	14.90	768157.90	454171.58	32°14'47.267"N	103°35'58.797"W	0.00	
11800.00†	88.969	179.645	9537.01	2504.14	-2504.09	15.52	768158.52	454071.60	32°14'46.278"N	103°35'58.798"W	0.00	
11900.00†	88.969	179.645	9538.81	2604.12	-2604.07	16.14	768159.14	453971.62	32°14'45.289"N	103°35'58.798"W	0.00	
12000.00†	88.969	179.645	9540.61	2704.10	-2704.05	16.76	768159.76	453871.64	32°14'44.299"N	103°35'58.799"W	0.00	
12100.00†	88.969	179.645	9542.41	2804.09	-2804.03	17.38	768160.38	453771.66	32°14'43.310"N	103°35'58.800"W	0.00	
12200.00†	88.969	179.645	9544.21	2904.07	-2904.02	18.00	768161.00	453671.68	32°14'42.321"N	103°35'58.801"W	0.00	
12300.00†	88.969	179.645	9546.01	3004.05	-3004.00	18.62	768161.62	453571.70	32°14'41.331"N	103°35'58.801"W	0.00	
12400.00†	88.969	179.645	9547.81	3104.04	-3103.98	19.24	768162.23	453471.73	32°14'40.342"N	103°35'58.802"W	0.00	
12500.00†	88.969	179.645	9549.60	3204.02	-3203.96	19.86	768162.85	453371.75	32°14'39.353"N	103°35'58.803"W	0.00	
12600.00†	88.969	179.645	9551.40	3304.01	-3303.94	20.47	768163.47	453271.77	32°14'38.363"N	103°35'58.804"W	0.00	
12700.00†	88.969	179.645	9553.20	3403.99	-3403.92	21.09	768164.09	453171.79	32°14'37.374"N	103°35'58.804"W	0.00	
12800.00†	88.969	179.645	9555.00	3503.97	-3503.91	21.71	768164.71	453071.81	32°14'36.385"N	103°35'58.805"W	0.00	
12900.00†	88.969	179.645	9556.80	3603.96	-3603.89	22.33	768165.33	452971.83	32°14'35.395"N	103°35'58.806"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No.4 PWB
Facility	Tres Equis 5 State No.4		

WELLPATH DATA (146 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†	88.969	179.645	9558.60	3703.94	-3703.87	22.95	768165.95	452871.86	32°14'34.406"N	103°35'58.807"W	0.00	
13100.00†	88.969	179.645	9560.40	3803.93	-3803.85	23.57	768166.57	452771.88	32°14'33.416"N	103°35'58.807"W	0.00	
13200.00†	88.969	179.645	9562.20	3903.91	-3903.83	24.19	768167.19	452671.90	32°14'32.427"N	103°35'58.808"W	0.00	
13300.00†	88.969	179.645	9564.00	4003.89	-4003.82	24.81	768167.81	452571.92	32°14'31.438"N	103°35'58.809"W	0.00	
13400.00†	88.969	179.645	9565.80	4103.88	-4103.80	25.43	768168.43	452471.94	32°14'30.448"N	103°35'58.810"W	0.00	
13500.00†	88.969	179.645	9567.60	4203.86	-4203.78	26.05	768169.05	452371.96	32°14'29.459"N	103°35'58.810"W	0.00	
13600.00†	88.969	179.645	9569.39	4303.84	-4303.76	26.67	768169.67	452271.98	32°14'28.470"N	103°35'58.811"W	0.00	
13700.00†	88.969	179.645	9571.19	4403.83	-4403.74	27.29	768170.29	452172.01	32°14'27.480"N	103°35'58.812"W	0.00	
13800.00†	88.969	179.645	9572.99	4503.81	-4503.73	27.91	768170.91	452072.03	32°14'26.491"N	103°35'58.812"W	0.00	
13900.00†	88.969	179.645	9574.79	4603.80	-4603.71	28.53	768171.53	451972.05	32°14'25.502"N	103°35'58.813"W	0.00	
13911.55	88.969	179.645	9575.00†	4615.35	-4615.26	28.60	768171.60	451960.50	32°14'25.387"N	103°35'58.813"W	0.00	No.4 PBHL

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.4 (Rev-0)	13911.55	9575.00	-4615.26	28.60	768171.60	451960.50	32°14'25.387"N	103°35'58.813"W	point

SURVEY PROGRAM - Ref Wellbore: No.4 PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13911.55	NaviTrak (Standard)		No.4 PWB