



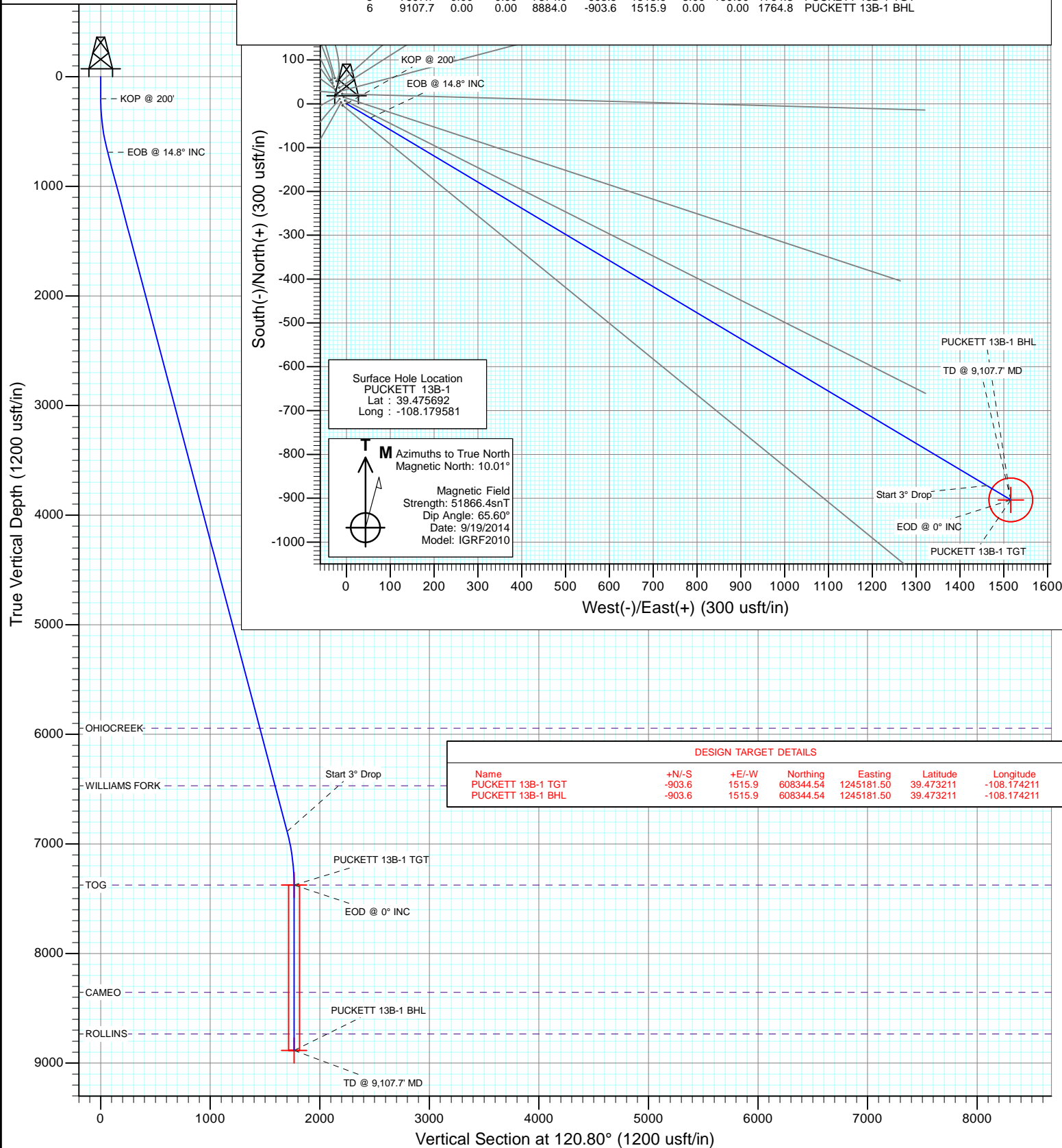
Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad)
Well: PUCKETT 13B-1
Wellbore: DD
Design: Plan #1

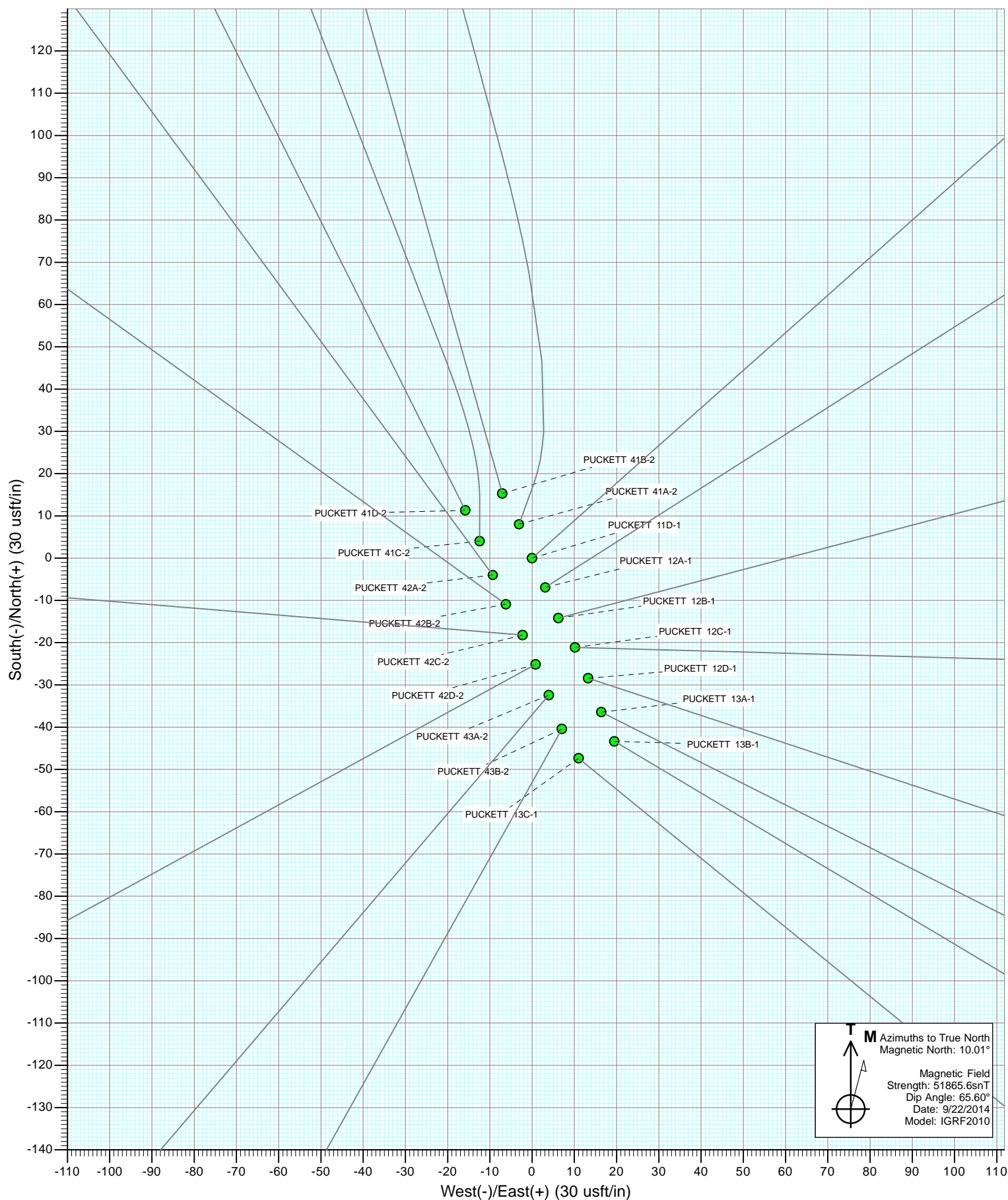


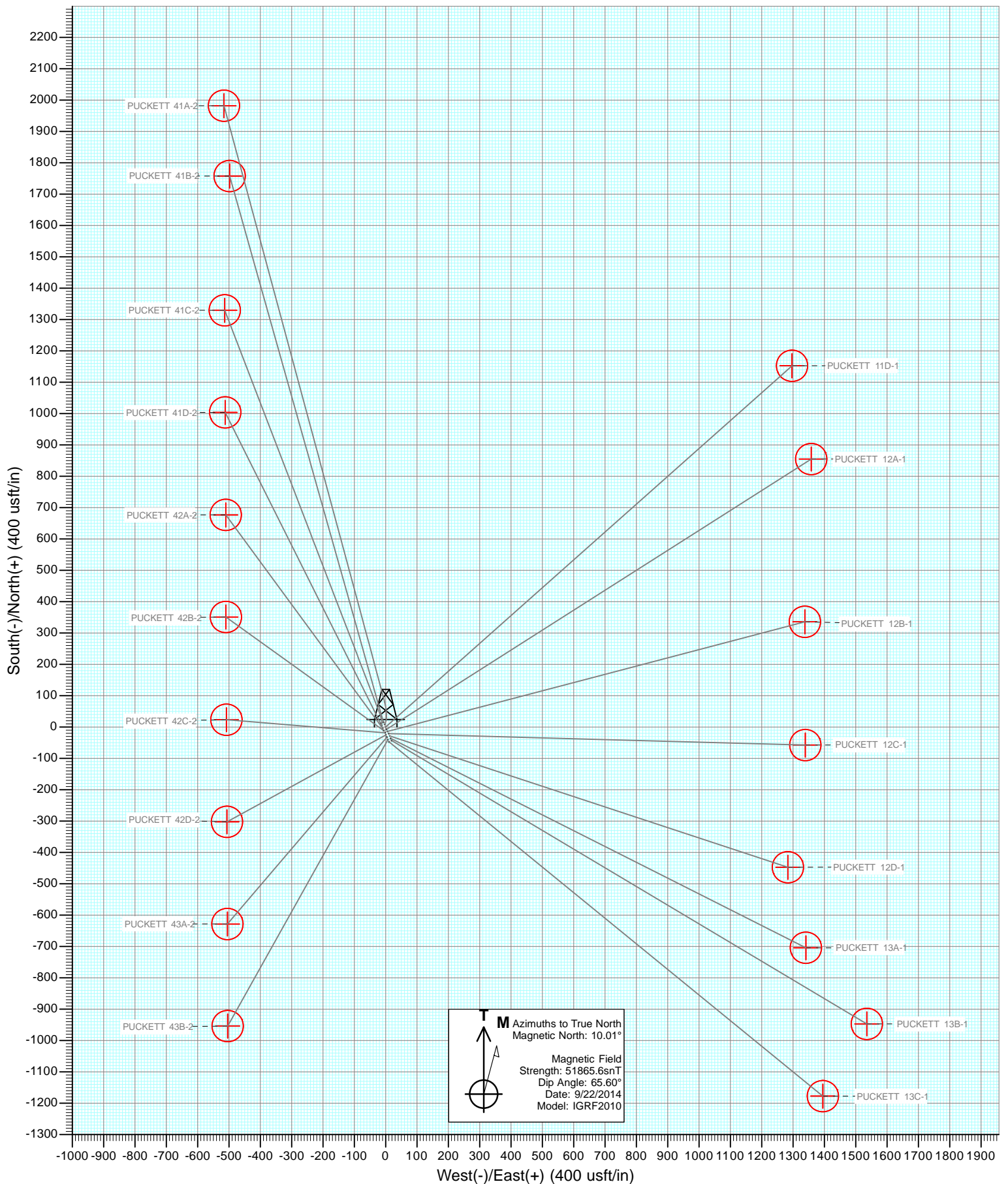
Plan #1
PUCKETT 13B-1
145XXX; SC
KB=22' @ 8499.0usft
Ground Elevation @ 8477.0
NAD 1927 (NADCON CONUS)
Well PUCKETT 13B-1, True North

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	693.5	14.80	120.80	688.0	-32.5	54.5	3.00	120.80	63.4	
4	7104.3	14.80	120.80	6886.0	-871.1	1461.5	0.00	0.00	1701.4	
5	7597.7	0.00	0.00	7374.0	-903.6	1515.9	3.00	180.00	1764.8	PUCKETT 13B-1 TGT
6	9107.7	0.00	0.00	8884.0	-903.6	1515.9	0.00	0.00	1764.8	PUCKETT 13B-1 BHL







Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Garfield County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site		S2-T7S-R97W (Puckett Pad)			
Site Position:		Northing:	609,295.75 usft	Latitude:	39.475700
From:	Lat/Long	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 13B-1					
Well Position	+N/-S	0.0 usft	Northing:	609,292.46 usft	Latitude:	39.475692
	+E/-W	0.0 usft	Easting:	1,243,692.86 usft	Longitude:	-108.179581
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,477.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	9/19/2014	10.01	65.60	51,866

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	120.80

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
693.5	14.80	120.80	688.0	-32.5	54.5	3.00	3.00	0.00	120.80	
7,104.3	14.80	120.80	6,886.0	-871.1	1,461.5	0.00	0.00	0.00	0.00	
7,597.7	0.00	0.00	7,374.0	-903.6	1,515.9	3.00	-3.00	0.00	180.00	PUCKETT 13B-1 TG1
9,107.7	0.00	0.00	8,884.0	-903.6	1,515.9	0.00	0.00	0.00	0.00	PUCKETT 13B-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	3.00	120.80	300.0	-1.3	2.2	2.6	3.00	3.00	
400.0	6.00	120.80	399.6	-5.4	9.0	10.5	3.00	3.00	
500.0	9.00	120.80	498.8	-12.0	20.2	23.5	3.00	3.00	
600.0	12.00	120.80	597.1	-21.4	35.8	41.7	3.00	3.00	
693.5	14.80	120.80	688.0	-32.5	54.5	63.4	3.00	3.00	EOB @ 14.8° INC
700.0	14.80	120.80	694.3	-33.3	55.9	65.1	0.00	0.00	
800.0	14.80	120.80	791.0	-46.4	77.8	90.6	0.00	0.00	
900.0	14.80	120.80	887.7	-59.5	99.8	116.2	0.00	0.00	
1,000.0	14.80	120.80	984.4	-72.6	121.7	141.7	0.00	0.00	
1,100.0	14.80	120.80	1,081.0	-85.6	143.7	167.3	0.00	0.00	
1,200.0	14.80	120.80	1,177.7	-98.7	165.6	192.8	0.00	0.00	
1,300.0	14.80	120.80	1,274.4	-111.8	187.6	218.4	0.00	0.00	
1,400.0	14.80	120.80	1,371.1	-124.9	209.5	243.9	0.00	0.00	
1,500.0	14.80	120.80	1,467.8	-138.0	231.5	269.5	0.00	0.00	
1,600.0	14.80	120.80	1,564.4	-151.1	253.4	295.0	0.00	0.00	
1,700.0	14.80	120.80	1,661.1	-164.1	275.4	320.6	0.00	0.00	
1,800.0	14.80	120.80	1,757.8	-177.2	297.3	346.1	0.00	0.00	
1,900.0	14.80	120.80	1,854.5	-190.3	319.3	371.7	0.00	0.00	
2,000.0	14.80	120.80	1,951.2	-203.4	341.2	397.2	0.00	0.00	
2,100.0	14.80	120.80	2,047.8	-216.5	363.2	422.8	0.00	0.00	
2,200.0	14.80	120.80	2,144.5	-229.5	385.1	448.3	0.00	0.00	
2,300.0	14.80	120.80	2,241.2	-242.6	407.1	473.9	0.00	0.00	
2,400.0	14.80	120.80	2,337.9	-255.7	429.0	499.4	0.00	0.00	
2,500.0	14.80	120.80	2,434.6	-268.8	451.0	525.0	0.00	0.00	
2,600.0	14.80	120.80	2,531.2	-281.9	472.9	550.5	0.00	0.00	
2,700.0	14.80	120.80	2,627.9	-295.0	494.8	576.1	0.00	0.00	
2,800.0	14.80	120.80	2,724.6	-308.0	516.8	601.6	0.00	0.00	
2,900.0	14.80	120.80	2,821.3	-321.1	538.7	627.2	0.00	0.00	
3,000.0	14.80	120.80	2,918.0	-334.2	560.7	652.7	0.00	0.00	
3,100.0	14.80	120.80	3,014.6	-347.3	582.6	678.3	0.00	0.00	
3,200.0	14.80	120.80	3,111.3	-360.4	604.6	703.8	0.00	0.00	
3,300.0	14.80	120.80	3,208.0	-373.5	626.5	729.4	0.00	0.00	
3,400.0	14.80	120.80	3,304.7	-386.5	648.5	754.9	0.00	0.00	
3,500.0	14.80	120.80	3,401.4	-399.6	670.4	780.5	0.00	0.00	
3,600.0	14.80	120.80	3,498.0	-412.7	692.4	806.0	0.00	0.00	
3,700.0	14.80	120.80	3,594.7	-425.8	714.3	831.6	0.00	0.00	
3,800.0	14.80	120.80	3,691.4	-438.9	736.3	857.1	0.00	0.00	
3,900.0	14.80	120.80	3,788.1	-451.9	758.2	882.7	0.00	0.00	
4,000.0	14.80	120.80	3,884.8	-465.0	780.2	908.2	0.00	0.00	
4,100.0	14.80	120.80	3,981.5	-478.1	802.1	933.8	0.00	0.00	
4,200.0	14.80	120.80	4,078.1	-491.2	824.1	959.4	0.00	0.00	
4,300.0	14.80	120.80	4,174.8	-504.3	846.0	984.9	0.00	0.00	
4,400.0	14.80	120.80	4,271.5	-517.4	868.0	1,010.5	0.00	0.00	
4,500.0	14.80	120.80	4,368.2	-530.4	889.9	1,036.0	0.00	0.00	
4,600.0	14.80	120.80	4,464.9	-543.5	911.9	1,061.6	0.00	0.00	
4,700.0	14.80	120.80	4,561.5	-556.6	933.8	1,087.1	0.00	0.00	
4,800.0	14.80	120.80	4,658.2	-569.7	955.8	1,112.7	0.00	0.00	
4,900.0	14.80	120.80	4,754.9	-582.8	977.7	1,138.2	0.00	0.00	
5,000.0	14.80	120.80	4,851.6	-595.9	999.6	1,163.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.0	14.80	120.80	4,948.3	-608.9	1,021.6	1,189.3	0.00	0.00	
5,200.0	14.80	120.80	5,044.9	-622.0	1,043.5	1,214.9	0.00	0.00	
5,300.0	14.80	120.80	5,141.6	-635.1	1,065.5	1,240.4	0.00	0.00	
5,400.0	14.80	120.80	5,238.3	-648.2	1,087.4	1,266.0	0.00	0.00	
5,500.0	14.80	120.80	5,335.0	-661.3	1,109.4	1,291.5	0.00	0.00	
5,600.0	14.80	120.80	5,431.7	-674.3	1,131.3	1,317.1	0.00	0.00	
5,700.0	14.80	120.80	5,528.3	-687.4	1,153.3	1,342.6	0.00	0.00	
5,800.0	14.80	120.80	5,625.0	-700.5	1,175.2	1,368.2	0.00	0.00	
5,900.0	14.80	120.80	5,721.7	-713.6	1,197.2	1,393.7	0.00	0.00	
6,000.0	14.80	120.80	5,818.4	-726.7	1,219.1	1,419.3	0.00	0.00	
6,100.0	14.80	120.80	5,915.1	-739.8	1,241.1	1,444.8	0.00	0.00	
6,129.9	14.80	120.80	5,944.0	-743.7	1,247.6	1,452.5	0.00	0.00	OHIOCREEK
6,200.0	14.80	120.80	6,011.7	-752.8	1,263.0	1,470.4	0.00	0.00	
6,300.0	14.80	120.80	6,108.4	-765.9	1,285.0	1,495.9	0.00	0.00	
6,400.0	14.80	120.80	6,205.1	-779.0	1,306.9	1,521.5	0.00	0.00	
6,500.0	14.80	120.80	6,301.8	-792.1	1,328.9	1,547.0	0.00	0.00	
6,600.0	14.80	120.80	6,398.5	-805.2	1,350.8	1,572.6	0.00	0.00	
6,673.0	14.80	120.80	6,469.0	-814.7	1,366.8	1,591.2	0.00	0.00	WILLIAMS FORK
6,700.0	14.80	120.80	6,495.1	-818.3	1,372.8	1,598.1	0.00	0.00	
6,800.0	14.80	120.80	6,591.8	-831.3	1,394.7	1,623.7	0.00	0.00	
6,900.0	14.80	120.80	6,688.5	-844.4	1,416.7	1,649.2	0.00	0.00	
7,000.0	14.80	120.80	6,785.2	-857.5	1,438.6	1,674.8	0.00	0.00	
7,104.3	14.80	120.80	6,886.0	-871.1	1,461.5	1,701.4	0.00	0.00	Start 3° Drop
7,200.0	11.93	120.80	6,979.1	-882.5	1,480.5	1,723.6	3.00	-3.00	
7,300.0	8.93	120.80	7,077.5	-891.7	1,496.1	1,741.7	3.00	-3.00	
7,400.0	5.93	120.80	7,176.6	-898.4	1,507.2	1,754.6	3.00	-3.00	
7,500.0	2.93	120.80	7,276.3	-902.3	1,513.8	1,762.3	3.00	-3.00	
7,597.7	0.00	0.00	7,374.0	-903.6	1,515.9	1,764.8	3.00	-3.00	EOD @ 0° INC - TOG
7,600.0	0.00	0.00	7,376.3	-903.6	1,515.9	1,764.8	0.00	0.00	
7,700.0	0.00	0.00	7,476.3	-903.6	1,515.9	1,764.8	0.00	0.00	
7,800.0	0.00	0.00	7,576.3	-903.6	1,515.9	1,764.8	0.00	0.00	
7,900.0	0.00	0.00	7,676.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,000.0	0.00	0.00	7,776.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,100.0	0.00	0.00	7,876.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,200.0	0.00	0.00	7,976.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,300.0	0.00	0.00	8,076.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,400.0	0.00	0.00	8,176.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,500.0	0.00	0.00	8,276.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,577.7	0.00	0.00	8,354.0	-903.6	1,515.9	1,764.8	0.00	0.00	CAMEO
8,600.0	0.00	0.00	8,376.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,700.0	0.00	0.00	8,476.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,800.0	0.00	0.00	8,576.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,900.0	0.00	0.00	8,676.3	-903.6	1,515.9	1,764.8	0.00	0.00	
8,957.7	0.00	0.00	8,734.0	-903.6	1,515.9	1,764.8	0.00	0.00	ROLLINS
9,000.0	0.00	0.00	8,776.3	-903.6	1,515.9	1,764.8	0.00	0.00	
9,107.7	0.00	0.00	8,884.0	-903.6	1,515.9	1,764.8	0.00	0.00	TD @ 9,107.7' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PUCKETT 13B-1 BHL	0.00	0.00	8,884.0	-903.6	1,515.9	608,344.54	1,245,181.50	39.473211	-108.174211
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 13B-1 TGT	0.00	0.00	7,374.0	-903.6	1,515.9	608,344.54	1,245,181.50	39.473211	-108.174211
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,129.9	5,944.0	OHIOCREEK				
6,673.0	6,469.0	WILLIAMS FORK				
7,597.7	7,374.0	TOG				
8,577.7	8,354.0	CAMEO				
8,957.7	8,734.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
693.5	688.0	-32.5	54.5	EOB @ 14.8° INC	
7,104.3	6,886.0	-871.1	1,461.5	Start 3° Drop	
7,597.7	7,374.0	-903.6	1,515.9	EOD @ 0° INC	
9,107.7	8,884.0	-903.6	1,515.9	TD @ 9,107.7' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad)

PUCKETT 13B-1

DD

Plan #1

Anticollision Report

22 September, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	9/22/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,107.7	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S2-T7S-R97W (Puckett Pad)						
PUCKETT 11D-1 - DD - Plan #1	200.0	200.0	47.5	46.9	76.049	CC, ES
PUCKETT 11D-1 - DD - Plan #1	600.0	591.2	95.1	92.1	31.703	SF
PUCKETT 12A-1 - DD - Plan #1	200.0	200.0	39.9	39.3	63.909	CC, ES
PUCKETT 12A-1 - DD - Plan #1	600.0	595.6	79.0	76.0	26.797	SF
PUCKETT 12B-1 - DD - Plan #1	200.0	200.0	32.0	31.4	51.239	CC, ES
PUCKETT 12B-1 - DD - Plan #1	600.0	600.1	62.4	59.5	21.521	SF
PUCKETT 12C-1 - DD - Plan #1	200.0	200.0	24.1	23.5	38.556	CC, ES
PUCKETT 12C-1 - DD - Plan #1	1,700.0	1,694.9	189.8	178.6	16.934	SF
PUCKETT 12D-1 - DD - Plan #1	200.0	200.0	16.2	15.5	25.884	CC, ES
PUCKETT 12D-1 - DD - Plan #1	2,700.0	2,697.5	198.4	181.1	11.453	SF
PUCKETT 13A-1 - DD - Plan #1	200.0	200.0	7.6	7.0	12.139	CC, ES
PUCKETT 13A-1 - DD - Plan #1	700.0	702.4	20.5	17.0	5.848	SF
PUCKETT 13C-1 - DD - Plan #1	262.1	262.2	9.1	8.2	10.269	CC
PUCKETT 13C-1 - DD - Plan #1	300.0	300.2	9.2	8.1	8.741	ES
PUCKETT 13C-1 - DD - Plan #1	5,500.0	5,496.6	199.9	143.9	3.571	SF
PUCKETT 41A-2 - DD - Plan #1	200.0	200.0	56.1	55.5	89.786	CC, ES
PUCKETT 41A-2 - DD - Plan #1	500.0	488.6	92.2	89.9	39.422	SF
PUCKETT 41B-2 - DD - Plan #1	144.4	144.4	64.4	64.0	171.588	CC, ES
PUCKETT 41B-2 - DD - Plan #1	500.0	481.9	112.3	109.9	46.765	SF
PUCKETT 41C-2 - DD - Plan #1	200.0	200.0	57.1	56.5	91.370	CC, ES
PUCKETT 41C-2 - DD - Plan #1	500.0	488.3	94.2	91.9	39.483	SF
PUCKETT 41D-2 - DD - Plan #1	155.6	155.6	65.0	64.6	153.012	CC
PUCKETT 41D-2 - DD - Plan #1	200.0	199.2	65.2	64.6	104.659	ES
PUCKETT 41D-2 - DD - Plan #1	500.0	482.5	112.3	109.9	46.141	SF
PUCKETT 42A-2 - DD - Plan #1	200.0	200.0	48.7	48.1	78.017	CC, ES
PUCKETT 42A-2 - DD - Plan #1	500.0	489.9	83.5	81.1	34.901	SF
PUCKETT 42B-2 - DD - Plan #1	200.0	200.0	41.4	40.7	66.193	CC, ES
PUCKETT 42B-2 - DD - Plan #1	500.0	492.8	71.5	69.1	29.987	SF
PUCKETT 42C-2 - DD - Plan #1	200.0	200.0	33.2	32.6	53.177	CC, ES
PUCKETT 42C-2 - DD - Plan #1	400.0	399.2	43.4	41.7	25.017	SF
PUCKETT 42D-2 - DD - Plan #1	200.0	200.0	26.1	25.4	41.695	CC, ES
PUCKETT 42D-2 - DD - Plan #1	400.0	399.1	36.8	35.1	21.212	SF
PUCKETT 43A-2 - DD - Plan #1	200.0	200.0	19.0	18.4	30.384	CC, ES
PUCKETT 43A-2 - DD - Plan #1	400.0	399.2	30.2	28.5	17.507	SF
PUCKETT 43B-2 - DD - Plan #1	200.0	200.0	12.8	12.1	20.419	CC, ES
PUCKETT 43B-2 - DD - Plan #1	300.0	299.8	15.7	14.5	13.850	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 11D-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-24.20	43.3	-19.5	47.5					
100.0	100.0	100.0	100.0	0.1	0.1	-24.20	43.3	-19.5	47.5	47.3	0.18	271.044		
200.0	200.0	200.0	200.0	0.3	0.3	-24.20	43.3	-19.5	47.5	46.9	0.62	76.049	CC, ES	
300.0	300.0	299.2	299.1	0.5	0.5	-143.85	45.1	-17.6	50.4	49.3	1.12	44.866		
400.0	399.6	397.8	397.4	0.8	0.8	-141.06	50.1	-11.8	59.3	57.6	1.69	35.114		
500.0	498.8	495.3	494.1	1.0	1.1	-137.87	58.5	-2.4	74.2	71.9	2.31	32.125		
600.0	597.1	591.2	588.5	1.4	1.4	-135.00	69.9	10.4	95.1	92.1	3.00	31.703	SF	
700.0	694.3	685.1	679.9	1.9	1.8	-132.67	84.0	26.3	121.9	118.1	3.77	32.348		
800.0	791.0	780.6	772.4	2.4	2.2	-131.41	99.9	44.2	151.3	146.7	4.52	33.441		
900.0	887.7	876.2	864.9	2.9	2.7	-130.57	115.8	62.0	180.7	175.4	5.32	33.960		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 12A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-24.20	36.4	-16.4	39.9					
100.0	100.0	100.0	100.0	0.1	0.1	-24.20	36.4	-16.4	39.9	39.8	0.18	227.780		
200.0	200.0	200.0	200.0	0.3	0.3	-24.20	36.4	-16.4	39.9	39.3	0.62	63.909	CC, ES	
300.0	300.0	299.8	299.8	0.5	0.5	-146.13	36.8	-15.8	42.2	41.1	1.12	37.518		
400.0	399.6	399.2	399.1	0.8	0.8	-145.09	39.6	-11.5	49.3	47.7	1.68	29.424		
500.0	498.8	498.0	497.3	1.0	1.0	-142.27	45.1	-2.8	61.6	59.3	2.28	27.012		
600.0	597.1	595.6	593.8	1.4	1.3	-139.00	53.2	9.9	79.0	76.0	2.95	26.797	SF	
700.0	694.3	691.8	687.9	1.9	1.7	-136.00	63.7	26.6	101.6	97.9	3.70	27.458		
800.0	791.0	788.4	781.8	2.4	2.1	-133.86	75.8	45.5	126.7	122.3	4.44	28.526		
900.0	887.7	885.1	875.8	2.9	2.5	-132.43	87.9	64.5	152.0	146.7	5.24	28.993		
1,000.0	984.4	981.8	969.9	3.4	3.0	-131.40	100.0	83.5	177.3	171.2	6.08	29.185		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 12B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-24.48	29.1	-13.3	32.0					
100.0	100.0	100.0	100.0	0.1	0.1	-24.48	29.1	-13.3	32.0	31.8	0.18	182.622		
200.0	200.0	200.0	200.0	0.3	0.3	-24.48	29.1	-13.3	32.0	31.4	0.62	51.239 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-147.74	29.1	-13.3	34.2	33.1	1.13	30.299		
400.0	399.6	400.2	400.2	0.8	0.8	-149.98	29.8	-10.7	40.3	38.6	1.68	23.947		
500.0	498.8	500.3	500.0	1.0	1.0	-148.60	31.8	-3.1	49.7	47.4	2.26	21.935		
600.0	597.1	600.1	598.8	1.4	1.3	-145.42	35.1	9.5	62.4	59.5	2.90	21.521 SF		
700.0	694.3	699.1	696.3	1.9	1.6	-141.75	39.7	26.9	78.6	75.0	3.61	21.770		
800.0	791.0	797.5	792.6	2.4	2.0	-139.26	44.7	46.0	96.5	92.2	4.30	22.443		
900.0	887.7	895.8	888.9	2.9	2.4	-137.54	49.7	65.1	114.6	109.5	5.06	22.650		
1,000.0	984.4	994.1	985.1	3.4	2.8	-136.30	54.8	84.2	132.7	126.9	5.86	22.661		
1,100.0	1,081.0	1,092.4	1,081.4	3.9	3.2	-135.35	59.8	103.4	150.9	144.2	6.68	22.591		
1,200.0	1,177.7	1,190.7	1,177.7	4.5	3.6	-134.61	64.8	122.5	169.1	161.6	7.52	22.495		
1,300.0	1,274.4	1,289.0	1,274.0	5.0	4.0	-134.01	69.9	141.6	187.4	179.0	8.37	22.390		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 12C-1 - DD - Plan #1												Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-22.75	22.2	-9.3	24.1				
100.0	100.0	100.0	100.0	0.1	0.1	-22.75	22.2	-9.3	24.1	23.9	0.18	137.419	
200.0	200.0	200.0	200.0	0.3	0.3	-22.75	22.2	-9.3	24.1	23.5	0.62	38.556	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-146.91	22.2	-9.3	26.2	25.1	1.13	23.275	
400.0	399.6	400.1	400.1	0.8	0.8	-153.34	22.2	-8.7	32.7	31.0	1.69	19.317	
500.0	498.8	500.9	500.7	1.0	1.0	-155.35	22.1	-3.4	41.5	39.2	2.27	18.265	
600.0	597.1	601.8	601.0	1.4	1.2	-154.25	21.8	7.2	51.9	49.0	2.88	18.053	
700.0	694.3	702.7	700.7	1.9	1.5	-151.63	21.3	23.1	64.0	60.5	3.52	18.182	
800.0	791.0	802.3	798.4	2.4	1.9	-148.44	20.8	42.5	76.3	72.2	4.11	18.554	
900.0	887.7	901.5	895.7	2.9	2.3	-146.07	20.3	61.9	88.7	83.9	4.79	18.505	
1,000.0	984.4	1,000.7	992.9	3.4	2.7	-144.28	19.7	81.3	101.1	95.6	5.52	18.311	
1,100.0	1,081.0	1,099.8	1,090.2	3.9	3.1	-142.88	19.2	100.7	113.7	107.4	6.29	18.074	
1,200.0	1,177.7	1,199.0	1,187.4	4.5	3.5	-141.76	18.7	120.1	126.3	119.2	7.08	17.836	
1,300.0	1,274.4	1,298.2	1,284.7	5.0	3.9	-140.85	18.1	139.5	138.9	131.1	7.89	17.614	
1,400.0	1,371.1	1,397.4	1,382.0	5.6	4.3	-140.09	17.6	158.9	151.6	142.9	8.71	17.414	
1,500.0	1,467.8	1,496.5	1,479.2	6.1	4.8	-139.44	17.1	178.3	164.3	154.8	9.53	17.235	
1,600.0	1,564.4	1,595.7	1,576.5	6.6	5.2	-138.89	16.6	197.7	177.0	166.7	10.37	17.076	
1,700.0	1,661.1	1,694.9	1,673.7	7.2	5.6	-138.41	16.0	217.1	189.8	178.6	11.21	16.934	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 12D-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-22.58	14.9	-6.2	16.2					
100.0	100.0	100.0	100.0	0.1	0.1	-22.58	14.9	-6.2	16.2	16.0	0.18	92.252		
200.0	200.0	200.0	200.0	0.3	0.3	-22.58	14.9	-6.2	16.2	15.5	0.62	25.884	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-148.23	14.9	-6.2	18.3	17.2	1.13	16.238		
400.0	399.6	400.6	400.6	0.8	0.8	-153.87	14.1	-3.7	23.2	21.6	1.68	13.812		
500.0	498.8	501.6	501.2	1.0	1.0	-155.45	11.6	3.9	28.8	26.6	2.26	12.783		
600.0	597.1	602.7	601.5	1.4	1.3	-154.81	7.4	16.5	35.0	32.1	2.86	12.215		
700.0	694.3	703.6	700.7	1.9	1.6	-153.12	1.7	34.0	41.8	38.3	3.51	11.922		
800.0	791.0	803.3	798.4	2.4	2.0	-152.17	-4.4	52.5	49.6	45.5	4.06	12.212		
900.0	887.7	903.0	896.2	2.9	2.4	-151.49	-10.5	71.0	57.4	52.7	4.67	12.304		
1,000.0	984.4	1,002.7	993.9	3.4	2.8	-150.97	-16.6	89.6	65.2	59.9	5.30	12.301		
1,100.0	1,081.0	1,102.4	1,091.7	3.9	3.2	-150.56	-22.8	108.1	73.1	67.1	5.96	12.254		
1,200.0	1,177.7	1,202.1	1,189.5	4.5	3.6	-150.23	-28.9	126.6	80.9	74.2	6.64	12.188		
1,300.0	1,274.4	1,301.8	1,287.2	5.0	4.1	-149.95	-35.0	145.2	88.7	81.4	7.32	12.116		
1,400.0	1,371.1	1,401.5	1,385.0	5.6	4.5	-149.73	-41.1	163.7	96.5	88.5	8.02	12.044		
1,500.0	1,467.8	1,501.2	1,482.8	6.1	4.9	-149.53	-47.2	182.2	104.4	95.7	8.72	11.974		
1,600.0	1,564.4	1,600.8	1,580.5	6.6	5.4	-149.36	-53.3	200.7	112.2	102.8	9.42	11.909		
1,700.0	1,661.1	1,700.5	1,678.3	7.2	5.8	-149.22	-59.4	219.3	120.0	109.9	10.13	11.849		
1,800.0	1,757.8	1,800.2	1,776.1	7.7	6.2	-149.09	-65.5	237.8	127.9	117.0	10.84	11.793		
1,900.0	1,854.5	1,899.9	1,873.8	8.3	6.7	-148.98	-71.6	256.3	135.7	124.1	11.56	11.742		
2,000.0	1,951.2	1,999.6	1,971.6	8.8	7.1	-148.88	-77.7	274.9	143.5	131.3	12.27	11.695		
2,100.0	2,047.8	2,099.3	2,069.4	9.4	7.5	-148.79	-83.9	293.4	151.4	138.4	12.99	11.651		
2,200.0	2,144.5	2,199.0	2,167.1	9.9	7.9	-148.71	-90.0	311.9	159.2	145.5	13.71	11.611		
2,300.0	2,241.2	2,298.7	2,264.9	10.4	8.4	-148.64	-96.1	330.5	167.1	152.6	14.43	11.574		
2,400.0	2,337.9	2,398.4	2,362.6	11.0	8.8	-148.57	-102.2	349.0	174.9	159.7	15.15	11.540		
2,500.0	2,434.6	2,498.1	2,460.4	11.5	9.2	-148.51	-108.3	367.5	182.7	166.8	15.88	11.509		
2,600.0	2,531.2	2,597.8	2,558.2	12.1	9.7	-148.45	-114.4	386.1	190.6	174.0	16.60	11.480		
2,700.0	2,627.9	2,697.5	2,655.9	12.6	10.1	-148.40	-120.5	404.6	198.4	181.1	17.32	11.453	SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 13A-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-24.17	6.9	-3.1	7.6					
100.0	100.0	100.0	100.0	0.1	0.1	-24.17	6.9	-3.1	7.6	7.4	0.18	43.265		
200.0	200.0	200.0	200.0	0.3	0.3	-24.17	6.9	-3.1	7.6	7.0	0.62	12.139	CC, ES	
300.0	300.0	300.2	300.2	0.5	0.5	-151.69	6.6	-2.5	9.3	8.2	1.12	8.274		
400.0	399.6	400.6	400.5	0.8	0.7	-156.11	4.2	2.2	11.8	10.1	1.67	7.076		
500.0	498.8	501.2	500.5	1.0	1.0	-157.57	-0.5	11.6	14.5	12.2	2.25	6.431		
600.0	597.1	601.9	599.9	1.4	1.3	-157.40	-7.6	25.8	17.3	14.4	2.86	6.031		
700.0	694.3	702.4	698.2	1.9	1.7	-156.72	-16.9	44.2	20.5	17.0	3.51	5.848	SF	
800.0	791.0	802.3	795.8	2.4	2.1	-157.25	-26.6	63.5	24.9	20.9	4.03	6.182		
900.0	887.7	902.2	893.3	2.9	2.6	-157.62	-36.3	82.7	29.3	24.7	4.58	6.398		
1,000.0	984.4	1,002.1	990.9	3.4	3.0	-157.89	-46.1	102.0	33.7	28.5	5.15	6.541		
1,100.0	1,081.0	1,102.0	1,088.4	3.9	3.5	-158.10	-55.8	121.3	38.1	32.3	5.73	6.641		
1,200.0	1,177.7	1,201.9	1,186.0	4.5	4.0	-158.27	-65.5	140.5	42.5	36.1	6.33	6.710		
1,300.0	1,274.4	1,301.8	1,283.5	5.0	4.4	-158.40	-75.2	159.8	46.9	39.9	6.93	6.761		
1,400.0	1,371.1	1,401.7	1,381.1	5.6	4.9	-158.51	-84.9	179.1	51.3	43.7	7.54	6.798		
1,500.0	1,467.8	1,501.6	1,478.6	6.1	5.4	-158.61	-94.6	198.3	55.7	47.5	8.15	6.826		
1,600.0	1,564.4	1,601.5	1,576.2	6.6	5.8	-158.69	-104.3	217.6	60.0	51.3	8.77	6.847		
1,700.0	1,661.1	1,701.4	1,673.7	7.2	6.3	-158.76	-114.0	236.9	64.4	55.1	9.39	6.863		
1,800.0	1,757.8	1,801.3	1,771.3	7.7	6.8	-158.82	-123.7	256.1	68.8	58.8	10.01	6.876		
1,900.0	1,854.5	1,901.2	1,868.8	8.3	7.2	-158.87	-133.4	275.4	73.2	62.6	10.63	6.886		
2,000.0	1,951.2	2,001.1	1,966.3	8.8	7.7	-158.92	-143.2	294.7	77.6	66.4	11.26	6.894		
2,100.0	2,047.8	2,101.0	2,063.9	9.4	8.2	-158.96	-152.9	313.9	82.0	70.1	11.89	6.901		
2,200.0	2,144.5	2,200.9	2,161.4	9.9	8.7	-159.00	-162.6	333.2	86.4	73.9	12.51	6.906		
2,300.0	2,241.2	2,300.8	2,259.0	10.4	9.1	-159.03	-172.3	352.4	90.8	77.7	13.14	6.911		
2,400.0	2,337.9	2,400.7	2,356.5	11.0	9.6	-159.06	-182.0	371.7	95.2	81.4	13.77	6.914		
2,500.0	2,434.6	2,500.6	2,454.1	11.5	10.1	-159.09	-191.7	391.0	99.6	85.2	14.40	6.917		
2,600.0	2,531.2	2,600.6	2,551.6	12.1	10.5	-159.12	-201.4	410.2	104.0	89.0	15.03	6.920		
2,700.0	2,627.9	2,700.5	2,649.2	12.6	11.0	-159.14	-211.1	429.5	108.4	92.7	15.66	6.922		
2,800.0	2,724.6	2,800.4	2,746.7	13.2	11.5	-159.16	-220.8	448.8	112.8	96.5	16.29	6.924		
2,900.0	2,821.3	2,900.3	2,844.3	13.7	11.9	-159.18	-230.5	468.0	117.2	100.3	16.92	6.925		
3,000.0	2,918.0	3,000.2	2,941.8	14.3	12.4	-159.20	-240.3	487.3	121.6	104.0	17.55	6.926		
3,100.0	3,014.6	3,100.1	3,039.4	14.8	12.9	-159.22	-250.0	506.6	126.0	107.8	18.18	6.927		
3,200.0	3,111.3	3,200.0	3,136.9	15.3	13.4	-159.24	-259.7	525.8	130.4	111.6	18.82	6.928		
3,300.0	3,208.0	3,299.9	3,234.4	15.9	13.8	-159.25	-269.4	545.1	134.8	115.3	19.45	6.929		
3,400.0	3,304.7	3,399.8	3,332.0	16.4	14.3	-159.26	-279.1	564.4	139.2	119.1	20.08	6.930		
3,500.0	3,401.4	3,499.7	3,429.5	17.0	14.8	-159.28	-288.8	583.6	143.6	122.8	20.71	6.930		
3,600.0	3,498.0	3,599.6	3,527.1	17.5	15.2	-159.29	-298.5	602.9	148.0	126.6	21.35	6.931		
3,700.0	3,594.7	3,699.5	3,624.6	18.1	15.7	-159.30	-308.2	622.2	152.3	130.4	21.98	6.931		
3,800.0	3,691.4	3,799.4	3,722.2	18.6	16.2	-159.31	-317.9	641.4	156.7	134.1	22.61	6.932		
3,900.0	3,788.1	3,899.3	3,819.7	19.2	16.7	-159.32	-327.6	660.7	161.1	137.9	23.24	6.932		
4,000.0	3,884.8	3,999.2	3,917.3	19.7	17.1	-159.33	-337.4	680.0	165.5	141.7	23.88	6.933		
4,100.0	3,981.5	4,099.1	4,014.8	20.2	17.6	-159.34	-347.1	699.2	169.9	145.4	24.51	6.933		
4,200.0	4,078.1	4,199.0	4,112.4	20.8	18.1	-159.35	-356.8	718.5	174.3	149.2	25.14	6.933		
4,300.0	4,174.8	4,298.9	4,209.9	21.3	18.6	-159.36	-366.5	737.7	178.7	152.9	25.78	6.934		
4,400.0	4,271.5	4,398.8	4,307.5	21.9	19.0	-159.37	-376.2	757.0	183.1	156.7	26.41	6.934		
4,500.0	4,368.2	4,498.7	4,405.0	22.4	19.5	-159.38	-385.9	776.3	187.5	160.5	27.04	6.934		
4,600.0	4,464.9	4,598.6	4,502.6	23.0	20.0	-159.39	-395.6	795.5	191.9	164.2	27.67	6.934		
4,700.0	4,561.5	4,698.5	4,600.1	23.5	20.4	-159.39	-405.3	814.8	196.3	168.0	28.31	6.935		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 13C-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-115.32	-4.0	-8.5	9.4					
100.0	100.0	100.0	100.0	0.1	0.1	-115.32	-4.0	-8.5	9.4	9.2	0.18	53.438		
200.0	200.0	200.1	200.1	0.3	0.3	-116.23	-4.1	-8.3	9.3	8.7	0.62	14.991		
262.1	262.1	262.2	262.2	0.4	0.4	117.85	-5.3	-6.9	9.1	8.2	0.89	10.269 CC		
300.0	300.0	300.2	300.1	0.5	0.5	114.31	-6.6	-5.3	9.2	8.1	1.05	8.741 ES		
400.0	399.6	400.3	399.8	0.8	0.8	104.73	-12.4	1.8	10.1	8.5	1.53	6.551		
500.0	498.8	500.3	498.7	1.0	1.1	96.63	-21.5	12.9	11.9	9.8	2.13	5.590		
600.0	597.1	600.2	596.7	1.4	1.5	90.95	-33.8	28.0	14.7	11.8	2.88	5.100		
700.0	694.3	700.0	693.5	1.9	2.0	87.92	-49.2	46.9	18.3	14.5	3.81	4.806		
800.0	791.0	799.9	790.0	2.4	2.5	88.32	-65.5	66.9	22.1	17.2	4.83	4.571		
900.0	887.7	899.9	886.6	2.9	3.0	88.60	-81.9	86.9	25.9	20.0	5.88	4.398		
1,000.0	984.4	999.8	983.1	3.4	3.5	88.81	-98.2	106.8	29.6	22.7	6.94	4.270		
1,100.0	1,081.0	1,099.7	1,079.7	3.9	4.1	88.98	-114.5	126.8	33.4	25.4	8.01	4.171		
1,200.0	1,177.7	1,199.7	1,176.2	4.5	4.6	89.11	-130.8	146.8	37.2	28.1	9.09	4.092		
1,300.0	1,274.4	1,299.6	1,272.8	5.0	5.2	89.21	-147.1	166.7	41.0	30.8	10.17	4.029		
1,400.0	1,371.1	1,399.5	1,369.3	5.6	5.7	89.30	-163.4	186.7	44.8	33.5	11.26	3.978		
1,500.0	1,467.8	1,499.4	1,465.8	6.1	6.3	89.38	-179.7	206.7	48.6	36.2	12.34	3.934		
1,600.0	1,564.4	1,599.4	1,562.4	6.6	6.8	89.44	-196.0	226.6	52.3	38.9	13.43	3.898		
1,700.0	1,661.1	1,699.3	1,658.9	7.2	7.3	89.50	-212.3	246.6	56.1	41.6	14.52	3.866		
1,800.0	1,757.8	1,799.2	1,755.5	7.7	7.9	89.54	-228.6	266.6	59.9	44.3	15.60	3.839		
1,900.0	1,854.5	1,899.2	1,852.0	8.3	8.4	89.59	-244.9	286.5	63.7	47.0	16.69	3.815		
2,000.0	1,951.2	1,999.1	1,948.6	8.8	9.0	89.62	-261.2	306.5	67.5	49.7	17.78	3.794		
2,100.0	2,047.8	2,099.0	2,045.1	9.4	9.5	89.66	-277.5	326.5	71.3	52.4	18.87	3.775		
2,200.0	2,144.5	2,198.9	2,141.7	9.9	10.1	89.69	-293.8	346.4	75.0	55.1	19.96	3.759		
2,300.0	2,241.2	2,298.9	2,238.2	10.4	10.6	89.72	-310.1	366.4	78.8	57.8	21.05	3.744		
2,400.0	2,337.9	2,398.8	2,334.8	11.0	11.2	89.74	-326.4	386.4	82.6	60.5	22.15	3.730		
2,500.0	2,434.6	2,498.7	2,431.3	11.5	11.7	89.76	-342.7	406.3	86.4	63.2	23.24	3.718		
2,600.0	2,531.2	2,598.7	2,527.9	12.1	12.3	89.78	-359.0	426.3	90.2	65.8	24.33	3.706		
2,700.0	2,627.9	2,698.6	2,624.4	12.6	12.8	89.80	-375.3	446.3	94.0	68.5	25.42	3.696		
2,800.0	2,724.6	2,798.5	2,721.0	13.2	13.4	89.82	-391.6	466.2	97.7	71.2	26.51	3.687		
2,900.0	2,821.3	2,898.4	2,817.5	13.7	13.9	89.84	-407.9	486.2	101.5	73.9	27.60	3.678		
3,000.0	2,918.0	2,998.4	2,914.0	14.3	14.5	89.85	-424.2	506.2	105.3	76.6	28.69	3.670		
3,100.0	3,014.6	3,098.3	3,010.6	14.8	15.0	89.87	-440.5	526.1	109.1	79.3	29.79	3.663		
3,200.0	3,111.3	3,198.2	3,107.1	15.3	15.6	89.88	-456.8	546.1	112.9	82.0	30.88	3.656		
3,300.0	3,208.0	3,298.1	3,203.7	15.9	16.1	89.89	-473.1	566.1	116.7	84.7	31.97	3.649		
3,400.0	3,304.7	3,398.1	3,300.2	16.4	16.7	89.90	-489.4	586.0	120.4	87.4	33.06	3.643		
3,500.0	3,401.4	3,498.0	3,396.8	17.0	17.2	89.91	-505.7	606.0	124.2	90.1	34.15	3.637		
3,600.0	3,498.0	3,597.9	3,493.3	17.5	17.8	89.92	-522.0	626.0	128.0	92.8	35.24	3.632		
3,700.0	3,594.7	3,697.9	3,589.9	18.1	18.3	89.93	-538.3	645.9	131.8	95.5	36.33	3.627		
3,800.0	3,691.4	3,797.8	3,686.4	18.6	18.9	89.94	-554.6	665.9	135.6	98.1	37.43	3.622		
3,900.0	3,788.1	3,897.7	3,783.0	19.2	19.4	89.95	-570.9	685.9	139.4	100.8	38.52	3.618		
4,000.0	3,884.8	3,997.6	3,879.5	19.7	20.0	89.96	-587.2	705.8	143.1	103.5	39.61	3.614		
4,100.0	3,981.5	4,097.6	3,976.1	20.2	20.5	89.97	-603.5	725.8	146.9	106.2	40.70	3.610		
4,200.0	4,078.1	4,197.5	4,072.6	20.8	21.1	89.97	-619.8	745.8	150.7	108.9	41.79	3.606		
4,300.0	4,174.8	4,297.4	4,169.1	21.3	21.6	89.98	-636.2	765.7	154.5	111.6	42.88	3.603		
4,400.0	4,271.5	4,397.4	4,265.7	21.9	22.2	89.99	-652.5	785.7	158.3	114.3	43.97	3.599		
4,500.0	4,368.2	4,497.3	4,362.2	22.4	22.7	89.99	-668.8	805.7	162.1	117.0	45.06	3.596		
4,600.0	4,464.9	4,597.2	4,458.8	23.0	23.3	90.00	-685.1	825.6	165.8	119.7	46.16	3.593		
4,700.0	4,561.5	4,697.1	4,555.3	23.5	23.8	90.01	-701.4	845.6	169.6	122.4	47.25	3.590		
4,800.0	4,658.2	4,797.1	4,651.9	24.1	24.4	90.01	-717.7	865.6	173.4	125.1	48.34	3.588		
4,900.0	4,754.9	4,897.0	4,748.4	24.6	24.9	90.02	-734.0	885.5	177.2	127.8	49.43	3.585		
5,000.0	4,851.6	4,996.9	4,845.0	25.1	25.5	90.02	-750.3	905.5	181.0	130.5	50.52	3.582		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 13C-1 - DD - Plan #1													Offset Site Error: 0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
5,100.0	4,948.3	5,096.9	4,941.5	25.7	26.0	90.03	-766.6	925.5	184.8	133.2	51.61	3.580	
5,200.0	5,044.9	5,196.8	5,038.1	26.2	26.6	90.03	-782.9	945.4	188.5	135.8	52.70	3.578	
5,300.0	5,141.6	5,296.7	5,134.6	26.8	27.1	90.04	-799.2	965.4	192.3	138.5	53.79	3.576	
5,400.0	5,238.3	5,396.6	5,231.2	27.3	27.7	90.04	-815.5	985.4	196.1	141.2	54.88	3.573	
5,500.0	5,335.0	5,496.6	5,327.7	27.9	28.2	90.04	-831.8	1,005.3	199.9	143.9	55.97	3.571 SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 41A-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-23.74	51.4	-22.6	56.1					
100.0	100.0	100.0	100.0	0.1	0.1	-23.74	51.4	-22.6	56.1	55.9	0.18	320.005		
200.0	200.0	200.0	200.0	0.3	0.3	-23.74	51.4	-22.6	56.1	55.5	0.62	89.786	CC, ES	
300.0	300.0	297.8	297.7	0.5	0.5	-144.23	53.7	-21.7	60.1	59.0	1.13	53.136		
400.0	399.6	394.6	394.3	0.8	0.8	-143.50	60.7	-19.2	72.0	70.3	1.71	42.001		
500.0	498.8	488.6	487.6	1.0	1.0	-143.70	71.7	-16.9	92.2	89.9	2.34	39.422	SF	
600.0	597.1	579.2	577.0	1.4	1.3	-145.20	86.0	-16.9	121.3	118.3	3.00	40.424		
700.0	694.3	665.3	661.4	1.9	1.6	-146.95	103.0	-18.8	158.9	155.2	3.67	43.316		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 41B-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISOWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-24.35	58.6	-26.5	64.4					
100.0	100.0	100.0	100.0	0.1	0.1	-24.35	58.6	-26.5	64.4	64.2	0.18	367.135		
144.4	144.4	144.4	144.4	0.2	0.2	-24.35	58.6	-26.5	64.4	64.0	0.38	171.588	CC, ES	
200.0	200.0	198.7	198.7	0.3	0.3	-24.29	59.0	-26.6	64.8	64.1	0.62	104.043		
300.0	300.0	295.1	295.0	0.5	0.5	-145.62	63.2	-27.8	71.4	70.3	1.15	62.010		
400.0	399.6	389.9	389.3	0.8	0.8	-147.20	71.9	-30.3	87.3	85.6	1.76	49.639		
500.0	498.8	481.9	480.4	1.0	1.1	-148.92	84.7	-33.9	112.3	109.9	2.40	46.765	SF	
600.0	597.1	570.2	567.0	1.4	1.4	-150.29	100.9	-38.4	146.2	143.1	3.06	47.792		
700.0	694.3	653.7	648.2	1.9	1.8	-151.27	119.7	-43.7	188.3	184.6	3.72	50.655		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 41C-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-33.97	47.4	-31.9	57.1					
100.0	100.0	100.0	100.0	0.1	0.1	-33.97	47.4	-31.9	57.1	56.9	0.18	325.651		
200.0	200.0	200.0	200.0	0.3	0.3	-33.97	47.4	-31.9	57.1	56.5	0.62	91.370	CC, ES	
300.0	300.0	298.1	298.0	0.5	0.5	-155.01	48.7	-31.9	60.6	59.5	1.14	53.000		
400.0	399.6	394.5	394.3	0.8	0.8	-154.66	54.9	-31.9	73.0	71.2	1.75	41.824		
500.0	498.8	488.3	487.5	1.0	1.0	-154.38	65.2	-32.6	94.2	91.9	2.39	39.483	SF	
600.0	597.1	578.4	576.6	1.4	1.3	-155.14	78.5	-35.8	124.7	121.6	3.04	41.058		
700.0	694.3	665.4	661.9	1.9	1.6	-156.23	94.4	-41.5	163.8	160.1	3.70	44.317		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 41D-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-32.86	54.6	-35.3	65.0					
100.0	100.0	100.0	100.0	0.1	0.1	-32.86	54.6	-35.3	65.0	64.9	0.18	370.977		
155.6	155.6	155.6	155.6	0.2	0.2	-32.86	54.6	-35.3	65.0	64.6	0.43	153.012 CC		
200.0	200.0	199.2	199.2	0.3	0.3	-32.84	54.8	-35.4	65.2	64.6	0.62	104.659 ES		
300.0	300.0	295.6	295.5	0.5	0.5	-154.14	58.0	-37.0	71.3	70.2	1.16	61.648		
400.0	399.6	390.4	389.9	0.8	0.8	-155.45	65.5	-40.7	87.1	85.3	1.78	48.974		
500.0	498.8	482.5	481.2	1.0	1.0	-156.83	76.7	-46.3	112.3	109.9	2.43	46.141 SF		
600.0	597.1	577.1	574.6	1.4	1.4	-158.22	90.2	-53.1	144.4	141.4	3.07	47.011		
700.0	694.3	670.0	666.2	1.9	1.7	-159.57	103.4	-59.7	181.2	177.6	3.68	49.246		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													S2-T7S-R97W (Puckett Pad) - PUCKETT 42A-2 - DD - Plan #1		Offset Site Error:		0.0 usft
Survey Program:													0-ISWWSA MWD		Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	-36.20	39.3	-28.8	48.7								
100.0	100.0	100.0	100.0	0.1	0.1	-36.20	39.3	-28.8	48.7	48.6	0.18	278.060					
200.0	200.0	200.0	200.0	0.3	0.3	-36.20	39.3	-28.8	48.7	48.1	0.62	78.017	CC, ES				
300.0	300.0	299.3	299.3	0.5	0.5	-158.10	39.5	-28.9	51.3	50.2	1.14	44.887					
400.0	399.6	395.8	395.7	0.8	0.8	-160.55	42.4	-31.1	62.5	60.7	1.74	35.816					
500.0	498.8	489.9	489.4	1.0	1.0	-162.88	49.1	-36.0	83.5	81.1	2.39	34.901	SF				
600.0	597.1	584.6	583.4	1.4	1.2	-164.70	58.3	-42.8	112.8	109.7	3.05	37.026					
700.0	694.3	678.4	676.6	1.9	1.5	-166.20	67.6	-49.6	147.0	143.4	3.65	40.244					
800.0	791.0	771.5	768.9	2.4	1.8	-167.46	76.8	-56.4	183.5	179.4	4.07	45.133					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 42B-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-38.39	32.4	-25.7	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	-38.39	32.4	-25.7	41.4	41.2	0.18	235.919		
200.0	200.0	200.0	200.0	0.3	0.3	-38.39	32.4	-25.7	41.4	40.7	0.62	66.193 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-160.38	32.4	-25.7	43.8	42.7	1.14	38.280		
400.0	399.6	397.7	397.7	0.8	0.8	-163.51	33.2	-26.8	52.7	50.9	1.74	30.322		
500.0	498.8	492.8	492.6	1.0	1.0	-167.24	36.7	-31.7	71.5	69.1	2.38	29.987 SF		
600.0	597.1	588.9	588.3	1.4	1.2	-170.14	41.8	-38.7	98.1	95.1	3.03	32.364		
700.0	694.3	683.6	682.6	1.9	1.5	-172.09	46.8	-45.6	129.8	126.2	3.64	35.710		
800.0	791.0	777.6	776.2	2.4	1.7	-173.47	51.7	-52.5	163.8	159.8	4.04	40.561		
900.0	887.7	871.6	869.8	2.9	2.0	-174.37	56.6	-59.4	197.8	193.4	4.46	44.321		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 42C-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-40.86	25.1	-21.7	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	-40.86	25.1	-21.7	33.2	33.1	0.18	189.528		
200.0	200.0	200.0	200.0	0.3	0.3	-40.86	25.1	-21.7	33.2	32.6	0.62	53.177 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-162.95	25.1	-21.7	35.7	34.6	1.15	31.141		
400.0	399.6	399.2	399.2	0.8	0.8	-166.06	25.1	-21.9	43.4	41.7	1.73	25.017 SF		
500.0	498.8	495.8	495.7	1.0	1.0	-171.29	25.4	-25.5	59.2	56.9	2.36	25.111		
600.0	597.1	592.1	591.7	1.4	1.2	-175.94	26.0	-32.5	83.4	80.4	3.01	27.706		
700.0	694.3	687.5	686.9	1.9	1.4	-178.62	26.6	-39.6	113.0	109.3	3.62	31.212		
800.0	791.0	782.2	781.3	2.4	1.6	179.79	27.2	-46.6	144.9	140.8	4.03	35.976		
900.0	887.7	876.9	875.8	2.9	1.9	178.77	27.7	-53.6	176.8	172.4	4.46	39.651		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 42D-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-45.65	18.2	-18.6	26.1					
100.0	100.0	100.0	100.0	0.1	0.1	-45.65	18.2	-18.6	26.1	25.9	0.18	148.607		
200.0	200.0	200.0	200.0	0.3	0.3	-45.65	18.2	-18.6	26.1	25.4	0.62	41.695 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-167.66	18.2	-18.6	28.6	27.5	1.15	24.857		
400.0	399.6	399.1	399.1	0.8	0.7	-172.36	17.5	-19.9	36.8	35.1	1.74	21.212 SF		
500.0	498.8	496.7	496.5	1.0	1.0	179.43	14.5	-25.4	52.8	50.4	2.37	22.281		
600.0	597.1	593.9	593.3	1.4	1.2	174.07	10.6	-32.5	75.6	72.6	3.00	25.167		
700.0	694.3	689.8	688.9	1.9	1.4	171.57	6.7	-39.6	103.7	100.1	3.63	28.580		
800.0	791.0	785.0	783.8	2.4	1.7	170.36	2.9	-46.6	134.1	130.0	4.07	32.969		
900.0	887.7	880.3	878.7	2.9	1.9	169.60	-0.9	-53.7	164.5	159.9	4.54	36.255		
1,000.0	984.4	975.5	973.6	3.4	2.2	169.08	-4.8	-60.7	194.9	189.9	5.03	38.752		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 43A-2 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-54.86	10.9	-15.5	19.0				
100.0	100.0	100.0	100.0	0.1	0.1	-54.86	10.9	-15.5	19.0	18.8	0.18	108.292	
200.0	200.0	200.0	200.0	0.3	0.3	-54.86	10.9	-15.5	19.0	18.4	0.62	30.384	CC, ES
300.0	300.0	299.9	299.9	0.5	0.5	-176.61	10.8	-15.6	21.6	20.5	1.15	18.807	
400.0	399.6	399.2	399.1	0.8	0.7	175.13	7.9	-18.1	30.2	28.5	1.72	17.507	SF
500.0	498.8	497.1	496.6	1.0	1.0	165.54	1.1	-23.9	46.1	43.7	2.36	19.532	
600.0	597.1	594.5	593.3	1.4	1.2	160.45	-7.3	-31.1	68.5	65.5	3.01	22.757	
700.0	694.3	690.6	688.9	1.9	1.5	158.91	-15.6	-38.2	95.9	92.2	3.67	26.096	
800.0	791.0	786.2	783.8	2.4	1.8	158.60	-23.9	-45.3	125.4	121.2	4.19	29.925	
900.0	887.7	881.7	878.7	2.9	2.1	158.42	-32.2	-52.3	154.8	150.1	4.74	32.680	
1,000.0	984.4	977.3	973.7	3.4	2.4	158.29	-40.4	-59.4	184.3	179.0	5.31	34.711	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad) - PUCKETT 43B-2 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-76.78	2.9	-12.4	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	-76.78	2.9	-12.4	12.8	12.6	0.18	72.776	
200.0	200.0	200.0	200.0	0.3	0.3	-76.78	2.9	-12.4	12.8	12.1	0.62	20.419 CC, ES	
300.0	300.0	299.8	299.8	0.5	0.5	160.13	1.6	-13.1	15.7	14.5	1.13	13.850 SF	
400.0	399.6	398.9	398.6	0.8	0.7	152.07	-4.0	-16.3	25.3	23.6	1.70	14.941	
500.0	498.8	496.5	495.6	1.0	1.0	145.97	-13.9	-21.8	42.2	39.9	2.32	18.190	
600.0	597.1	593.5	591.5	1.4	1.3	143.31	-26.7	-29.0	65.3	62.3	3.01	21.718	
700.0	694.3	689.7	686.6	1.9	1.6	143.76	-39.4	-36.1	92.5	88.8	3.73	24.811	
800.0	791.0	785.4	781.1	2.4	2.0	144.91	-52.1	-43.2	121.6	117.2	4.36	27.896	
900.0	887.7	881.1	875.7	2.9	2.3	145.62	-64.8	-50.3	150.7	145.6	5.01	30.047	
1,000.0	984.4	976.7	970.3	3.4	2.6	146.10	-77.5	-57.4	179.8	174.1	5.69	31.597	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=22' @ 8499.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 13B-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

