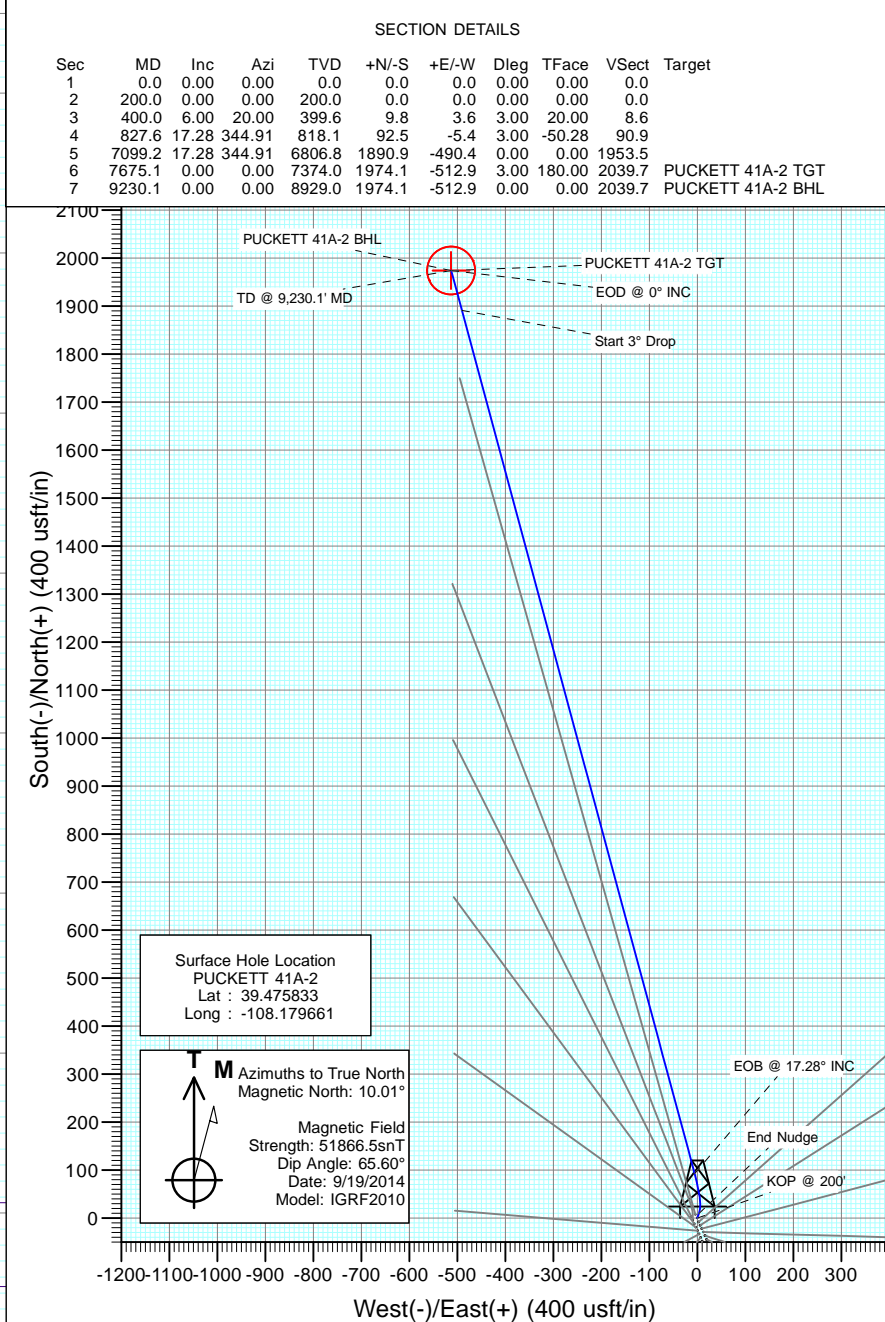
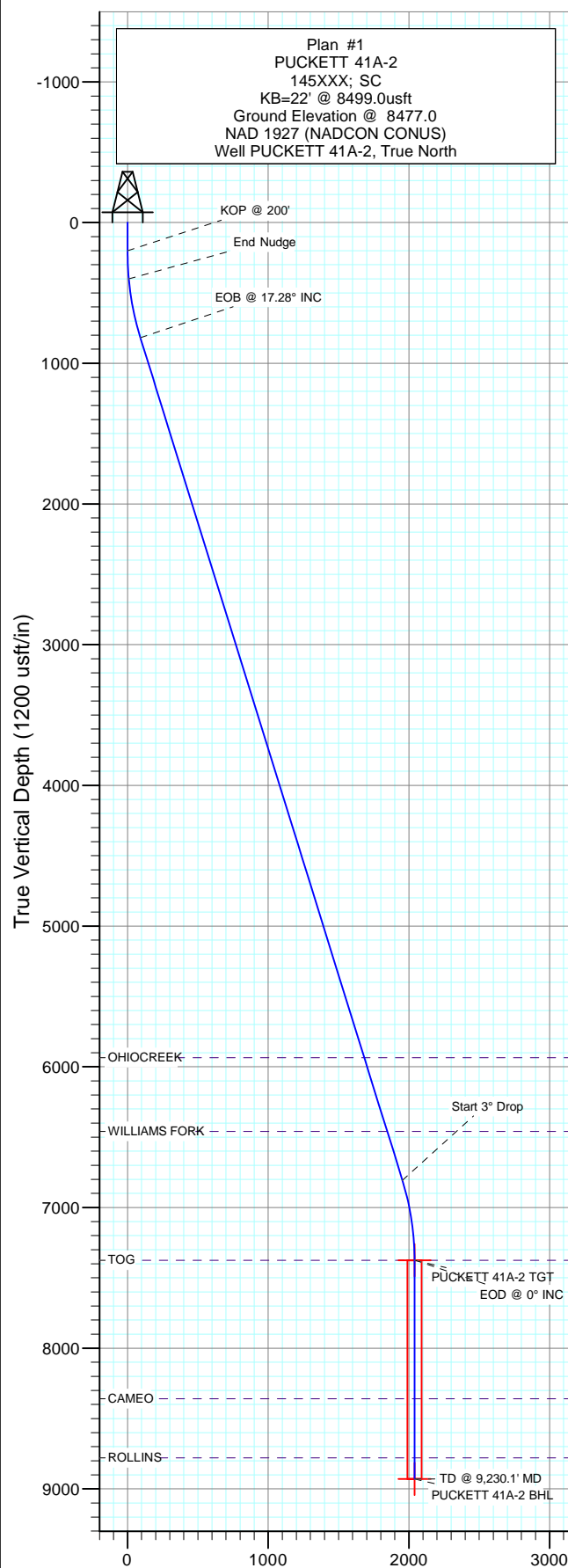


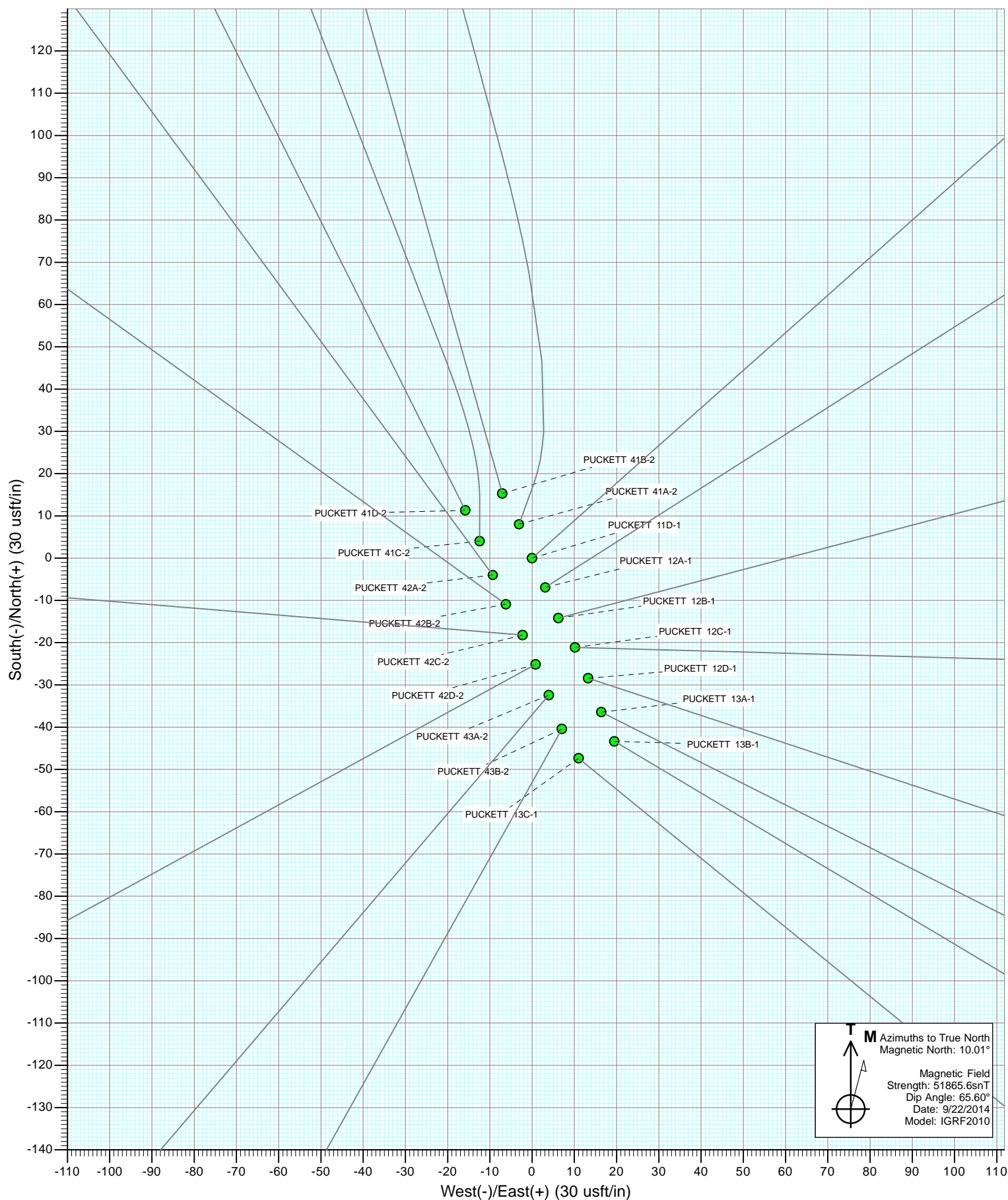


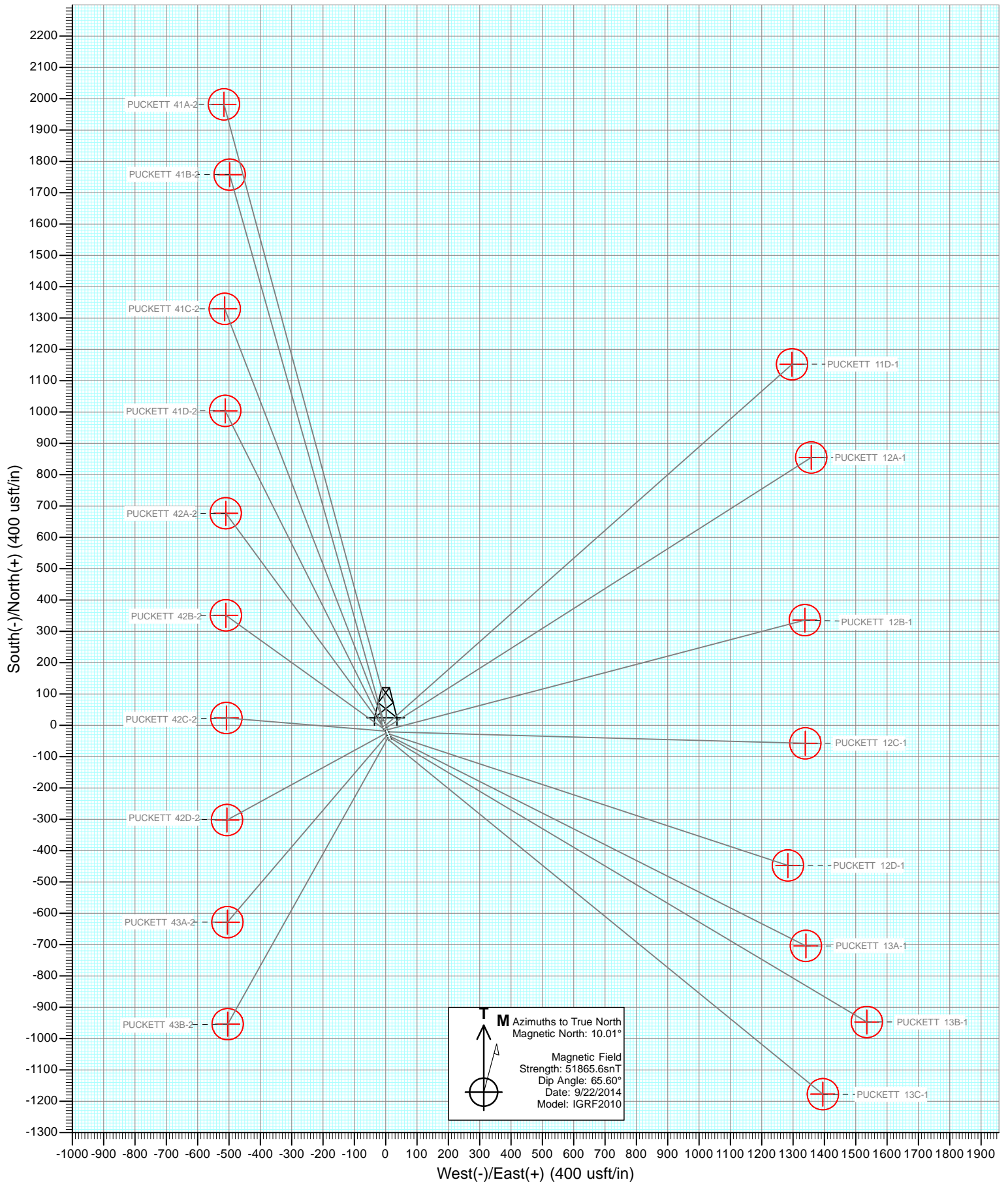
Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad)
Well: PUCKETT 41A-2
Wellbore: DD
Design: Plan #1



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 41A-2 TGT	1974.1	-512.9	611332.88	1243217.37	39.461253	-108.161478
PUCKETT 41A-2 BHL	1974.1	-512.9	611332.88	1243217.37	39.461253	-108.161478





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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 41A-2					
Well Position	+N/-S	0.0 usft	Northing:	609,344.46 usft	Latitude:	39.475833
	+E/-W	0.0 usft	Easting:	1,243,671.80 usft	Longitude:	-108.179661
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	345.44	

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	
400.0	6.00	20.00	399.6	9.8	3.6	3.00	3.00	0.00	20.00	
827.6	17.28	344.91	818.1	92.5	-5.4	3.00	2.64	-8.21	-50.28	
7,099.2	17.28	344.91	6,806.8	1,890.9	-490.4	0.00	0.00	0.00	0.00	
7,675.1	0.00	0.00	7,374.0	1,974.1	-512.9	3.00	-3.00	0.00	180.00	PUCKETT 41A-2 TG1
9,230.1	0.00	0.00	8,929.0	1,974.1	-512.9	0.00	0.00	0.00	0.00	PUCKETT 41A-2 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	20.00	300.0	2.5	0.9	2.2	3.00	3.00	
400.0	6.00	20.00	399.6	9.8	3.6	8.6	3.00	3.00	End Nudge
500.0	8.25	3.70	498.9	21.9	5.8	19.7	3.00	2.25	
600.0	10.86	354.74	597.5	38.4	5.4	35.8	3.00	2.61	
700.0	13.63	349.30	695.2	59.4	2.4	56.9	3.00	2.77	
800.0	16.48	345.69	791.8	84.7	-3.3	82.9	3.00	2.85	
827.6	17.28	344.91	818.1	92.5	-5.4	90.9	3.00	2.88	EOB @ 17.28° INC
900.0	17.28	344.91	887.3	113.3	-11.0	112.4	0.00	0.00	
1,000.0	17.28	344.91	982.8	141.9	-18.7	142.1	0.00	0.00	
1,100.0	17.28	344.91	1,078.3	170.6	-26.4	171.8	0.00	0.00	
1,200.0	17.28	344.91	1,173.8	199.3	-34.2	201.5	0.00	0.00	
1,300.0	17.28	344.91	1,269.2	228.0	-41.9	231.2	0.00	0.00	
1,400.0	17.28	344.91	1,364.7	256.6	-49.6	260.9	0.00	0.00	
1,500.0	17.28	344.91	1,460.2	285.3	-57.4	290.6	0.00	0.00	
1,600.0	17.28	344.91	1,555.7	314.0	-65.1	320.3	0.00	0.00	
1,700.0	17.28	344.91	1,651.2	342.7	-72.8	350.0	0.00	0.00	
1,800.0	17.28	344.91	1,746.7	371.3	-80.6	379.7	0.00	0.00	
1,900.0	17.28	344.91	1,842.2	400.0	-88.3	409.4	0.00	0.00	
2,000.0	17.28	344.91	1,937.7	428.7	-96.0	439.1	0.00	0.00	
2,100.0	17.28	344.91	2,033.1	457.4	-103.8	468.8	0.00	0.00	
2,200.0	17.28	344.91	2,128.6	486.0	-111.5	498.5	0.00	0.00	
2,300.0	17.28	344.91	2,224.1	514.7	-119.2	528.2	0.00	0.00	
2,400.0	17.28	344.91	2,319.6	543.4	-127.0	557.9	0.00	0.00	
2,500.0	17.28	344.91	2,415.1	572.1	-134.7	587.6	0.00	0.00	
2,600.0	17.28	344.91	2,510.6	600.7	-142.4	617.3	0.00	0.00	
2,700.0	17.28	344.91	2,606.1	629.4	-150.2	647.0	0.00	0.00	
2,800.0	17.28	344.91	2,701.6	658.1	-157.9	676.7	0.00	0.00	
2,900.0	17.28	344.91	2,797.0	686.8	-165.6	706.4	0.00	0.00	
3,000.0	17.28	344.91	2,892.5	715.4	-173.4	736.1	0.00	0.00	
3,100.0	17.28	344.91	2,988.0	744.1	-181.1	765.8	0.00	0.00	
3,200.0	17.28	344.91	3,083.5	772.8	-188.8	795.5	0.00	0.00	
3,300.0	17.28	344.91	3,179.0	801.5	-196.6	825.2	0.00	0.00	
3,400.0	17.28	344.91	3,274.5	830.2	-204.3	854.9	0.00	0.00	
3,500.0	17.28	344.91	3,370.0	858.8	-212.1	884.6	0.00	0.00	
3,600.0	17.28	344.91	3,465.5	887.5	-219.8	914.3	0.00	0.00	
3,700.0	17.28	344.91	3,560.9	916.2	-227.5	944.0	0.00	0.00	
3,800.0	17.28	344.91	3,656.4	944.9	-235.3	973.7	0.00	0.00	
3,900.0	17.28	344.91	3,751.9	973.5	-243.0	1,003.4	0.00	0.00	
4,000.0	17.28	344.91	3,847.4	1,002.2	-250.7	1,033.1	0.00	0.00	
4,100.0	17.28	344.91	3,942.9	1,030.9	-258.5	1,062.8	0.00	0.00	
4,200.0	17.28	344.91	4,038.4	1,059.6	-266.2	1,092.5	0.00	0.00	
4,300.0	17.28	344.91	4,133.9	1,088.2	-273.9	1,122.2	0.00	0.00	
4,400.0	17.28	344.91	4,229.4	1,116.9	-281.7	1,151.9	0.00	0.00	
4,500.0	17.28	344.91	4,324.8	1,145.6	-289.4	1,181.6	0.00	0.00	
4,600.0	17.28	344.91	4,420.3	1,174.3	-297.1	1,211.3	0.00	0.00	
4,700.0	17.28	344.91	4,515.8	1,202.9	-304.9	1,241.0	0.00	0.00	
4,800.0	17.28	344.91	4,611.3	1,231.6	-312.6	1,270.7	0.00	0.00	
4,900.0	17.28	344.91	4,706.8	1,260.3	-320.3	1,300.4	0.00	0.00	
5,000.0	17.28	344.91	4,802.3	1,289.0	-328.1	1,330.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	17.28	344.91	4,897.8	1,317.6	-335.8	1,359.7	0.00	0.00	
5,200.0	17.28	344.91	4,993.3	1,346.3	-343.5	1,389.4	0.00	0.00	
5,300.0	17.28	344.91	5,088.7	1,375.0	-351.3	1,419.1	0.00	0.00	
5,400.0	17.28	344.91	5,184.2	1,403.7	-359.0	1,448.8	0.00	0.00	
5,500.0	17.28	344.91	5,279.7	1,432.4	-366.7	1,478.5	0.00	0.00	
5,600.0	17.28	344.91	5,375.2	1,461.0	-374.5	1,508.2	0.00	0.00	
5,700.0	17.28	344.91	5,470.7	1,489.7	-382.2	1,537.9	0.00	0.00	
5,800.0	17.28	344.91	5,566.2	1,518.4	-389.9	1,567.6	0.00	0.00	
5,900.0	17.28	344.91	5,661.7	1,547.1	-397.7	1,597.3	0.00	0.00	
6,000.0	17.28	344.91	5,757.2	1,575.7	-405.4	1,627.0	0.00	0.00	
6,100.0	17.28	344.91	5,852.6	1,604.4	-413.2	1,656.7	0.00	0.00	
6,185.2	17.28	344.91	5,934.0	1,628.8	-419.7	1,682.0	0.00	0.00	OHIOCREEK
6,200.0	17.28	344.91	5,948.1	1,633.1	-420.9	1,686.4	0.00	0.00	
6,300.0	17.28	344.91	6,043.6	1,661.8	-428.6	1,716.1	0.00	0.00	
6,400.0	17.28	344.91	6,139.1	1,690.4	-436.4	1,745.8	0.00	0.00	
6,500.0	17.28	344.91	6,234.6	1,719.1	-444.1	1,775.5	0.00	0.00	
6,600.0	17.28	344.91	6,330.1	1,747.8	-451.8	1,805.2	0.00	0.00	
6,700.0	17.28	344.91	6,425.6	1,776.5	-459.6	1,834.9	0.00	0.00	
6,735.0	17.28	344.91	6,459.0	1,786.5	-462.3	1,845.3	0.00	0.00	WILLIAMS FORK
6,800.0	17.28	344.91	6,521.1	1,805.1	-467.3	1,864.6	0.00	0.00	
6,900.0	17.28	344.91	6,616.5	1,833.8	-475.0	1,894.3	0.00	0.00	
7,000.0	17.28	344.91	6,712.0	1,862.5	-482.8	1,924.0	0.00	0.00	
7,099.2	17.28	344.91	6,806.8	1,890.9	-490.4	1,953.5	0.00	0.00	Start 3° Drop
7,200.0	14.25	344.91	6,903.8	1,917.4	-497.6	1,980.9	3.00	-3.00	
7,300.0	11.25	344.91	7,001.3	1,938.7	-503.3	2,003.0	3.00	-3.00	
7,400.0	8.25	344.91	7,099.8	1,955.0	-507.7	2,019.9	3.00	-3.00	
7,500.0	5.25	344.91	7,199.1	1,966.4	-510.8	2,031.7	3.00	-3.00	
7,600.0	2.25	344.91	7,298.9	1,972.7	-512.5	2,038.2	3.00	-3.00	
7,675.1	0.00	0.00	7,374.0	1,974.1	-512.9	2,039.7	3.00	-3.00	EOD @ 0° INC - TOG
7,700.0	0.00	0.00	7,398.9	1,974.1	-512.9	2,039.7	0.00	0.00	
7,800.0	0.00	0.00	7,498.9	1,974.1	-512.9	2,039.7	0.00	0.00	
7,900.0	0.00	0.00	7,598.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,000.0	0.00	0.00	7,698.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,100.0	0.00	0.00	7,798.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,200.0	0.00	0.00	7,898.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,300.0	0.00	0.00	7,998.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,400.0	0.00	0.00	8,098.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,500.0	0.00	0.00	8,198.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,600.0	0.00	0.00	8,298.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,660.1	0.00	0.00	8,359.0	1,974.1	-512.9	2,039.7	0.00	0.00	CAMEO
8,700.0	0.00	0.00	8,398.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,800.0	0.00	0.00	8,498.9	1,974.1	-512.9	2,039.7	0.00	0.00	
8,900.0	0.00	0.00	8,598.9	1,974.1	-512.9	2,039.7	0.00	0.00	
9,000.0	0.00	0.00	8,698.9	1,974.1	-512.9	2,039.7	0.00	0.00	
9,080.1	0.00	0.00	8,779.0	1,974.1	-512.9	2,039.7	0.00	0.00	ROLLINS
9,100.0	0.00	0.00	8,798.9	1,974.1	-512.9	2,039.7	0.00	0.00	
9,200.0	0.00	0.00	8,898.9	1,974.1	-512.9	2,039.7	0.00	0.00	
9,230.1	0.00	0.00	8,929.0	1,974.1	-512.9	2,039.7	0.00	0.00	TD @ 9,230.1' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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 41A-2 TGT	0.00	0.00	7,374.0	1,974.1	-512.9	611,332.88	1,243,217.37	39.481253	-108.181478
- plan hits target center									
- Point									
PUCKETT 41A-2 BHL	0.00	0.00	8,929.0	1,974.1	-512.9	611,332.88	1,243,217.37	39.481253	-108.181478
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,185.2	5,934.0	OHIOCREEK				
6,735.0	6,459.0	WILLIAMS FORK				
7,675.1	7,374.0	TOG				
8,660.1	8,359.0	CAMEO				
9,080.1	8,779.0	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'	
400.0	399.6	9.8	3.6	End Nudge	
827.6	818.1	92.5	-5.4	EOB @ 17.28° INC	
7,099.2	6,806.8	1,890.9	-490.4	Start 3° Drop	
7,675.1	7,374.0	1,974.1	-512.9	EOD @ 0° INC	
9,230.1	8,929.0	1,974.1	-512.9	TD @ 9,230.1' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad)

PUCKETT 41A-2

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 41A-2
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 41A-2	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	9,230.1	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	Offset	Distance		Separation	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
Offset Well - Wellbore - Design						
S2-T7S-R97W (Puckett Pad)						
PUCKETT 11D-1 - DD - Plan #1	200.0	200.0	8.6	8.0	13.753	CC, ES
PUCKETT 11D-1 - DD - Plan #1	400.0	400.2	13.1	11.5	8.025	SF
PUCKETT 12A-1 - DD - Plan #1	200.0	200.0	16.2	15.5	25.884	CC, ES
PUCKETT 12A-1 - DD - Plan #1	400.0	400.2	22.9	21.2	13.623	SF
PUCKETT 12B-1 - DD - Plan #1	200.0	200.0	24.1	23.5	38.556	CC, ES
PUCKETT 12B-1 - DD - Plan #1	500.0	499.0	43.6	41.3	18.914	SF
PUCKETT 12C-1 - DD - Plan #1	200.0	200.0	32.0	31.4	51.239	CC, ES
PUCKETT 12C-1 - DD - Plan #1	500.0	497.9	52.9	50.6	22.897	SF
PUCKETT 12D-1 - DD - Plan #1	200.0	200.0	39.9	39.3	63.909	CC, ES
PUCKETT 12D-1 - DD - Plan #1	500.0	495.3	64.7	62.4	27.959	SF
PUCKETT 13A-1 - DD - Plan #1	200.0	200.0	48.5	47.9	77.647	CC, ES
PUCKETT 13A-1 - DD - Plan #1	500.0	492.2	78.5	76.2	33.710	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	56.1	55.5	89.786	CC, ES
PUCKETT 13B-1 - DD - Plan #1	500.0	488.7	92.2	89.9	39.177	SF
PUCKETT 13C-1 - DD - Plan #1	155.6	155.6	57.1	56.7	134.402	CC
PUCKETT 13C-1 - DD - Plan #1	200.0	199.4	57.3	56.6	92.515	ES
PUCKETT 13C-1 - DD - Plan #1	500.0	487.0	98.3	95.9	40.983	SF
PUCKETT 41B-2 - DD - Plan #1	144.5	144.5	8.3	7.9	22.083	CC, ES
PUCKETT 41B-2 - DD - Plan #1	1,700.0	1,694.5	25.6	11.4	1.798	SF
PUCKETT 41C-2 - DD - Plan #1	200.0	200.0	10.1	9.5	16.229	CC, ES
PUCKETT 41C-2 - DD - Plan #1	800.0	799.4	30.1	25.8	6.979	SF
PUCKETT 41D-2 - DD - Plan #1	155.6	155.6	13.1	12.7	30.839	CC
PUCKETT 41D-2 - DD - Plan #1	200.0	199.9	13.2	12.6	21.185	ES
PUCKETT 41D-2 - DD - Plan #1	900.0	895.0	51.3	46.0	9.828	SF
PUCKETT 42A-2 - DD - Plan #1	200.0	200.0	13.5	12.9	21.652	CC, ES
PUCKETT 42A-2 - DD - Plan #1	400.0	400.2	22.2	20.5	12.629	SF
PUCKETT 42B-2 - DD - Plan #1	200.0	200.0	19.2	18.6	30.716	CC, ES
PUCKETT 42B-2 - DD - Plan #1	400.0	400.0	29.0	27.2	16.358	SF
PUCKETT 42C-2 - DD - Plan #1	200.0	200.0	26.2	25.6	41.991	CC, ES
PUCKETT 42C-2 - DD - Plan #1	400.0	399.6	36.2	34.4	20.513	SF
PUCKETT 42D-2 - DD - Plan #1	200.0	200.0	33.4	32.8	53.420	CC, ES
PUCKETT 42D-2 - DD - Plan #1	400.0	398.8	43.7	41.9	24.943	SF
PUCKETT 43A-2 - DD - Plan #1	200.0	200.0	41.0	40.4	65.681	CC, ES
PUCKETT 43A-2 - DD - Plan #1	400.0	397.2	53.3	51.6	30.652	SF
PUCKETT 43B-2 - DD - Plan #1	200.0	200.0	49.5	48.9	79.207	CC, ES
PUCKETT 43B-2 - DD - Plan #1	500.0	488.9	87.0	84.6	36.393	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	158.82	-8.0	3.1	8.6					
100.0	100.0	100.0	100.0	0.1	0.1	158.82	-8.0	3.1	8.6	8.4	0.18	49.018		
200.0	200.0	200.0	200.0	0.3	0.3	158.82	-8.0	3.1	8.6	8.0	0.62	13.753 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	134.45	-6.3	5.1	9.7	8.6	1.12	8.646		
400.0	399.6	400.2	399.8	0.8	0.8	125.84	-1.1	10.9	13.1	11.5	1.64	8.025 SF		
500.0	498.9	499.8	498.6	1.1	1.1	129.90	7.6	20.7	20.6	18.4	2.25	9.175		
600.0	597.5	598.5	595.6	1.4	1.4	127.76	19.5	34.1	34.4	31.5	2.93	11.750		
700.0	695.2	695.7	690.1	1.8	1.8	126.12	34.4	50.9	54.8	51.1	3.70	14.814		
800.0	791.8	792.3	783.7	2.2	2.3	127.17	50.5	68.9	80.4	75.8	4.55	17.666		
900.0	887.3	888.1	876.5	2.8	2.8	128.04	66.4	86.8	109.0	103.6	5.40	20.165		
1,000.0	982.8	983.9	969.2	3.3	3.2	128.24	82.3	104.7	137.7	131.5	6.27	21.965		
1,100.0	1,078.3	1,079.7	1,061.9	3.9	3.7	128.37	98.2	122.6	166.5	159.3	7.16	23.261		
1,200.0	1,173.8	1,175.4	1,154.7	4.5	4.2	128.47	114.1	140.5	195.2	187.2	8.06	24.229		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	157.42	-14.9	6.2	16.2					
100.0	100.0	100.0	100.0	0.1	0.1	157.42	-14.9	6.2	16.2	16.0	0.18	92.252		
200.0	200.0	200.0	200.0	0.3	0.3	157.42	-14.9	6.2	16.2	15.5	0.62	25.884	CC, ES	
300.0	300.0	300.1	300.1	0.5	0.5	140.97	-14.6	6.8	18.0	16.9	1.13	15.941		
400.0	399.6	400.2	400.0	0.8	0.8	140.50	-11.8	11.2	22.9	21.2	1.68	13.623	SF	
500.0	498.9	500.0	499.3	1.1	1.0	149.31	-6.2	20.0	31.4	29.2	2.29	13.730		
600.0	597.5	598.7	596.8	1.4	1.3	147.52	2.1	33.0	45.6	42.7	2.95	15.472		
700.0	695.2	695.6	691.6	1.8	1.7	143.91	12.8	49.9	66.6	62.9	3.68	18.115		
800.0	791.8	791.6	784.9	2.2	2.1	142.14	24.8	68.7	94.0	89.5	4.47	21.036		
900.0	887.3	886.5	877.3	2.8	2.6	140.81	36.7	87.4	125.0	119.8	5.21	23.985		
1,000.0	982.8	981.5	969.6	3.3	3.0	139.65	48.6	106.1	156.4	150.4	5.98	26.152		
1,100.0	1,078.3	1,076.4	1,061.9	3.9	3.5	138.87	60.4	124.7	187.7	181.0	6.77	27.712		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	157.25	-22.2	9.3	24.1					
100.0	100.0	100.0	100.0	0.1	0.1	157.25	-22.2	9.3	24.1	23.9	0.18	137.419		
200.0	200.0	200.0	200.0	0.3	0.3	157.25	-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	141.12	-22.2	9.3	26.1	24.9	1.13	22.982		
400.0	399.6	399.7	399.6	0.8	0.8	145.12	-21.6	11.8	32.5	30.8	1.70	19.073		
500.0	498.9	499.0	498.6	1.1	1.0	158.05	-19.6	19.3	43.6	41.3	2.31	18.914	SF	
600.0	597.5	596.9	595.7	1.4	1.3	159.29	-16.4	31.6	60.8	57.8	2.95	20.618		
700.0	695.2	692.6	689.8	1.8	1.6	157.10	-12.0	48.2	85.0	81.4	3.64	23.366		
800.0	791.8	787.4	782.7	2.2	1.9	155.60	-7.2	66.6	115.8	111.5	4.36	26.574		
900.0	887.3	880.9	874.3	2.8	2.3	153.77	-2.4	84.8	150.7	145.7	4.99	30.217		
1,000.0	982.8	974.4	965.9	3.3	2.7	152.19	2.4	103.0	185.9	180.3	5.62	33.095		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	155.52	-29.1	13.3	32.0					
100.0	100.0	100.0	100.0	0.1	0.1	155.52	-29.1	13.3	32.0	31.8	0.18	182.622		
200.0	200.0	200.0	200.0	0.3	0.3	155.52	-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	138.58	-29.1	13.3	33.9	32.8	1.13	30.019		
400.0	399.6	399.3	399.3	0.8	0.8	144.99	-29.2	13.9	40.3	38.6	1.70	23.677		
500.0	498.9	497.9	497.7	1.1	1.0	161.65	-29.3	19.0	52.9	50.6	2.31	22.897 SF		
600.0	597.5	594.9	594.2	1.4	1.2	165.83	-29.6	28.9	72.0	69.1	2.93	24.543		
700.0	695.2	689.2	687.4	1.8	1.5	165.43	-30.0	43.3	98.6	95.0	3.60	27.419		
800.0	791.8	781.8	778.3	2.2	1.8	164.02	-30.4	61.1	132.6	128.4	4.29	30.951		
900.0	887.3	873.8	868.5	2.8	2.2	161.75	-30.9	79.1	171.0	166.2	4.85	35.261		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	155.80	-36.4	16.4	39.9								
100.0	100.0	100.0	100.0	0.1	0.1	155.80	-36.4	16.4	39.9	39.8	0.18	227.780					
200.0	200.0	200.0	200.0	0.3	0.3	155.80	-36.4	16.4	39.9	39.3	0.62	63.909	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	138.26	-36.4	16.4	41.8	40.7	1.13	37.039					
400.0	399.6	398.2	398.1	0.8	0.7	141.84	-37.2	18.8	49.5	47.8	1.69	29.274					
500.0	498.9	495.3	494.9	1.1	1.0	157.86	-39.5	25.8	64.7	62.4	2.32	27.959	SF				
600.0	597.5	590.0	588.9	1.4	1.2	163.41	-43.3	37.2	88.1	85.2	2.96	29.740					
700.0	695.2	681.5	679.0	1.8	1.5	164.88	-48.3	52.4	119.9	116.2	3.64	32.976					
800.0	791.8	773.6	769.3	2.2	1.9	165.43	-54.0	69.6	158.3	154.0	4.30	36.787					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	156.33	-44.4	19.5	48.5					
100.0	100.0	100.0	100.0	0.1	0.1	156.33	-44.4	19.5	48.5	48.3	0.18	276.741		
200.0	200.0	200.0	200.0	0.3	0.3	156.33	-44.4	19.5	48.5	47.9	0.62	77.647	CC, ES	
300.0	300.0	299.0	299.0	0.5	0.5	137.84	-44.7	20.0	50.9	49.8	1.12	45.343		
400.0	399.6	396.4	396.2	0.8	0.7	139.42	-47.0	24.5	60.6	58.9	1.68	36.048		
500.0	498.9	492.2	491.6	1.1	1.0	155.28	-51.3	33.2	78.5	76.2	2.33	33.710	SF	
600.0	597.5	585.2	583.4	1.4	1.3	161.77	-57.6	45.7	105.1	102.1	2.99	35.113		
700.0	695.2	674.6	671.1	1.8	1.6	164.35	-65.6	61.4	140.3	136.6	3.67	38.202		
800.0	791.8	765.3	759.7	2.2	2.0	165.69	-74.4	78.9	182.0	177.6	4.33	41.993		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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 13B-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							
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	156.26	-51.4	22.6	56.1					
100.0	100.0	100.0	100.0	0.1	0.1	156.26	-51.4	22.6	56.1	55.9	0.18	320.005		
200.0	200.0	200.0	200.0	0.3	0.3	156.26	-51.4	22.6	56.1	55.5	0.62	89.786	CC, ES	
300.0	300.0	297.5	297.5	0.5	0.5	136.49	-52.6	24.7	60.1	59.0	1.12	53.669		
400.0	399.6	394.1	393.8	0.8	0.7	136.98	-56.4	31.0	71.9	70.3	1.69	42.506		
500.0	498.9	488.7	487.6	1.1	1.0	152.81	-62.5	41.3	92.2	89.9	2.35	39.177	SF	
600.0	597.5	580.1	577.6	1.4	1.3	159.89	-70.7	55.0	121.5	118.4	3.03	40.116		
700.0	695.2	667.2	662.5	1.8	1.7	163.16	-80.5	71.4	159.4	155.7	3.71	43.011		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	165.70	-55.4	14.1	57.1					
100.0	100.0	100.0	100.0	0.1	0.1	165.70	-55.4	14.1	57.1	57.0	0.18	325.888		
155.6	155.6	155.6	155.6	0.2	0.2	165.70	-55.4	14.1	57.1	56.7	0.43	134.402	CC	
200.0	200.0	199.4	199.4	0.3	0.3	165.60	-55.5	14.2	57.3	56.6	0.62	92.515	ES	
300.0	300.0	296.8	296.7	0.5	0.5	144.81	-57.8	17.1	62.5	61.4	1.13	55.228		
400.0	399.6	393.0	392.5	0.8	0.8	144.09	-63.2	23.7	76.1	74.4	1.74	43.851		
500.0	498.9	487.0	485.6	1.1	1.0	159.02	-71.4	33.8	98.3	95.9	2.40	40.983	SF	
600.0	597.5	577.3	574.3	1.4	1.4	165.57	-82.1	46.8	129.5	126.4	3.07	42.206		
700.0	695.2	663.0	657.7	1.8	1.8	168.56	-94.6	62.1	169.4	165.6	3.74	45.292		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	-28.48	7.3	-4.0	8.3					
100.0	100.0	100.0	100.0	0.1	0.1	-28.48	7.3	-4.0	8.3	8.1	0.18	47.272		
144.5	144.5	144.5	144.5	0.2	0.2	-28.48	7.3	-4.0	8.3	7.9	0.38	22.083	CC, ES	
200.0	200.0	199.8	199.8	0.3	0.3	-27.88	7.7	-4.1	8.7	8.1	0.63	13.893		
300.0	300.0	299.3	299.1	0.5	0.6	-52.53	12.2	-5.3	11.6	10.4	1.11	10.370		
400.0	399.6	398.4	397.8	0.8	0.8	-64.04	21.6	-8.0	16.6	15.0	1.61	10.284		
500.0	498.9	497.4	495.6	1.1	1.1	-54.90	35.9	-12.0	22.9	20.7	2.20	10.388		
600.0	597.5	596.1	592.3	1.4	1.5	-47.81	55.0	-17.4	28.7	25.8	2.88	9.950		
700.0	695.2	695.1	688.2	1.8	2.0	-42.01	78.7	-24.1	33.5	29.9	3.63	9.225		
800.0	791.8	795.1	784.8	2.2	2.5	-40.21	103.8	-31.2	34.5	30.0	4.44	7.757		
900.0	887.3	895.1	881.2	2.8	3.0	-44.01	128.9	-38.2	32.0	26.7	5.29	6.050		
1,000.0	982.8	995.0	977.7	3.3	3.5	-49.49	154.0	-45.3	29.6	23.4	6.25	4.739		
1,100.0	1,078.3	1,094.9	1,074.2	3.9	4.0	-55.86	179.1	-52.3	27.6	20.2	7.35	3.750		
1,200.0	1,173.8	1,194.8	1,170.6	4.5	4.5	-63.14	204.2	-59.4	25.9	17.3	8.58	3.021		
1,300.0	1,269.2	1,294.8	1,267.1	5.1	5.1	-71.28	229.2	-66.5	24.7	14.8	9.87	2.503		
1,400.0	1,364.7	1,394.7	1,363.6	5.6	5.6	-80.04	254.3	-73.5	24.1	12.9	11.17	2.155		
1,461.6	1,423.6	1,456.3	1,423.0	6.0	5.9	-85.60	269.8	-77.9	23.9	12.0	11.93	2.007		
1,500.0	1,460.2	1,494.6	1,460.1	6.2	6.1	-89.08	279.4	-80.6	24.0	11.6	12.36	1.940		
1,600.0	1,555.7	1,594.5	1,556.5	6.8	6.6	-97.94	304.5	-87.7	24.5	11.1	13.39	1.830		
1,700.0	1,651.2	1,694.5	1,653.0	7.4	7.2	-106.25	329.6	-94.7	25.6	11.4	14.23	1.798	SF	
1,800.0	1,746.7	1,794.4	1,749.5	8.0	7.7	-113.74	354.6	-101.8	27.2	12.3	14.89	1.824		
1,900.0	1,842.2	1,894.3	1,845.9	8.6	8.2	-120.32	379.7	-108.9	29.1	13.7	15.41	1.890		
2,000.0	1,937.7	1,994.3	1,942.4	9.2	8.8	-126.00	404.8	-115.9	31.4	15.6	15.85	1.984		
2,100.0	2,033.1	2,094.2	2,038.9	9.8	9.3	-130.86	429.9	-123.0	34.0	17.8	16.24	2.095		
2,200.0	2,128.6	2,194.1	2,135.4	10.4	9.8	-135.01	455.0	-130.1	36.8	20.2	16.61	2.216		
2,300.0	2,224.1	2,294.0	2,231.8	11.0	10.3	-138.56	480.1	-137.1	39.8	22.8	16.98	2.342		
2,400.0	2,319.6	2,394.0	2,328.3	11.5	10.9	-141.61	505.1	-144.2	42.8	25.5	17.35	2.469		
2,500.0	2,415.1	2,493.9	2,424.8	12.1	11.4	-144.25	530.2	-151.3	46.0	28.3	17.74	2.594		
2,600.0	2,510.6	2,593.8	2,521.2	12.7	11.9	-146.54	555.3	-158.3	49.3	31.2	18.15	2.717		
2,700.0	2,606.1	2,693.8	2,617.7	13.3	12.5	-148.54	580.4	-165.4	52.6	34.1	18.57	2.835		
2,800.0	2,701.6	2,793.7	2,714.2	13.9	13.0	-150.30	605.5	-172.5	56.0	37.0	19.01	2.949		
2,900.0	2,797.0	2,893.6	2,810.6	14.5	13.5	-151.86	630.5	-179.5	59.5	40.0	19.46	3.057		
3,000.0	2,892.5	2,993.5	2,907.1	15.1	14.1	-153.24	655.6	-186.6	63.0	43.1	19.93	3.160		
3,100.0	2,988.0	3,093.5	3,003.6	15.7	14.6	-154.49	680.7	-193.7	66.5	46.1	20.41	3.259		
3,200.0	3,083.5	3,193.4	3,100.1	16.3	15.1	-155.60	705.8	-200.7	70.0	49.1	20.89	3.352		
3,300.0	3,179.0	3,293.3	3,196.5	16.9	15.7	-156.61	730.9	-207.8	73.6	52.2	21.39	3.441		
3,400.0	3,274.5	3,393.3	3,293.0	17.5	16.2	-157.52	755.9	-214.9	77.2	55.3	21.90	3.525		
3,500.0	3,370.0	3,493.2	3,389.5	18.1	16.7	-158.36	781.0	-221.9	80.8	58.4	22.42	3.605		
3,600.0	3,465.5	3,593.1	3,485.9	18.7	17.3	-159.12	806.1	-229.0	84.4	61.5	22.94	3.681		
3,700.0	3,560.9	3,693.0	3,582.4	19.3	17.8	-159.82	831.2	-236.0	88.1	64.6	23.47	3.753		
3,800.0	3,656.4	3,793.0	3,678.9	19.9	18.3	-160.46	856.3	-243.1	91.7	67.7	24.00	3.821		
3,900.0	3,751.9	3,892.9	3,775.4	20.5	18.8	-161.06	881.4	-250.2	95.4	70.8	24.54	3.887		
4,000.0	3,847.4	3,992.8	3,871.8	21.1	19.4	-161.61	906.4	-257.2	99.1	74.0	25.09	3.949		
4,100.0	3,942.9	4,092.8	3,968.3	21.6	19.9	-162.12	931.5	-264.3	102.7	77.1	25.63	4.008		
4,200.0	4,038.4	4,192.7	4,064.8	22.2	20.4	-162.59	956.6	-271.4	106.4	80.2	26.19	4.064		
4,300.0	4,133.9	4,292.6	4,161.2	22.8	21.0	-163.04	981.7	-278.4	110.1	83.4	26.74	4.118		
4,400.0	4,229.4	4,392.5	4,257.7	23.4	21.5	-163.45	1,006.8	-285.5	113.8	86.5	27.30	4.169		
4,500.0	4,324.8	4,492.5	4,354.2	24.0	22.0	-163.84	1,031.8	-292.6	117.5	89.7	27.86	4.218		
4,600.0	4,420.3	4,592.4	4,450.7	24.6	22.6	-164.20	1,056.9	-299.6	121.2	92.8	28.43	4.265		
4,700.0	4,515.8	4,692.3	4,547.1	25.2	23.1	-164.55	1,082.0	-306.7	124.9	95.9	28.99	4.309		
4,800.0	4,611.3	4,792.3	4,643.6	25.8	23.6	-164.87	1,107.1	-313.8	128.7	99.1	29.56	4.352		
4,900.0	4,706.8	4,892.2	4,740.1	26.4	24.2	-165.18	1,132.2	-320.8	132.4	102.2	30.13	4.393		

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 41A-2
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 41A-2	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-ISCSWA 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	
5,000.0	4,802.3	4,992.1	4,836.5	27.0	24.7	-165.46	1,157.3	-327.9	136.1	105.4	30.70	4.433		
5,100.0	4,897.8	5,092.0	4,933.0	27.6	25.2	-165.74	1,182.3	-335.0	139.8	108.6	31.28	4.471		
5,200.0	4,993.3	5,192.0	5,029.5	28.2	25.8	-166.00	1,207.4	-342.0	143.6	111.7	31.85	4.507		
5,300.0	5,088.7	5,291.9	5,126.0	28.8	26.3	-166.24	1,232.5	-349.1	147.3	114.9	32.43	4.542		
5,400.0	5,184.2	5,391.8	5,222.4	29.4	26.8	-166.48	1,257.6	-356.2	151.0	118.0	33.01	4.576		
5,500.0	5,279.7	5,491.8	5,318.9	30.0	27.4	-166.70	1,282.7	-363.2	154.8	121.2	33.59	4.608		
5,600.0	5,375.2	5,591.7	5,415.4	30.6	27.9	-166.91	1,307.7	-370.3	158.5	124.4	34.17	4.640		
5,700.0	5,470.7	5,691.6	5,511.8	31.2	28.4	-167.11	1,332.8	-377.4	162.3	127.5	34.75	4.670		
5,800.0	5,566.2	5,791.5	5,608.3	31.8	28.9	-167.30	1,357.9	-384.4	166.0	130.7	35.33	4.699		
5,900.0	5,661.7	5,891.5	5,704.8	32.4	29.5	-167.49	1,383.0	-391.5	169.8	133.8	35.91	4.727		
6,000.0	5,757.2	5,991.4	5,801.3	33.0	30.0	-167.67	1,408.1	-398.6	173.5	137.0	36.50	4.754		
6,100.0	5,852.6	6,091.3	5,897.7	33.5	30.5	-167.83	1,433.1	-405.6	177.3	140.2	37.08	4.780		
6,200.0	5,948.1	6,191.3	5,994.2	34.1	31.1	-168.00	1,458.2	-412.7	181.0	143.3	37.67	4.805		
6,300.0	6,043.6	6,291.2	6,090.7	34.7	31.6	-168.15	1,483.3	-419.8	184.8	146.5	38.25	4.830		
6,400.0	6,139.1	6,391.1	6,187.1	35.3	32.1	-168.30	1,508.4	-426.8	188.5	149.7	38.84	4.854		
6,500.0	6,234.6	6,491.0	6,283.6	35.9	32.7	-168.44	1,533.5	-433.9	192.3	152.8	39.43	4.877		
6,600.0	6,330.1	6,591.0	6,380.1	36.5	33.2	-168.58	1,558.6	-440.9	196.0	156.0	40.02	4.899		
6,700.0	6,425.6	6,690.9	6,476.6	37.1	33.7	-168.71	1,583.6	-448.0	199.8	159.2	40.60	4.921		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	-113.27	-4.0	-9.3	10.1				
100.0	100.0	100.0	100.0	0.1	0.1	-113.27	-4.0	-9.3	10.1	10.0	0.18	57.841	
200.0	200.0	200.0	200.0	0.3	0.3	-113.27	-4.0	-9.3	10.1	9.5	0.62	16.229	CC, ES
300.0	300.0	300.2	300.2	0.5	0.5	-136.03	-2.5	-9.3	11.4	10.2	1.12	10.124	
400.0	399.6	400.4	400.2	0.8	0.8	-134.18	4.0	-9.3	14.1	12.5	1.66	8.528	
500.0	498.9	500.2	499.3	1.1	1.0	-115.50	15.5	-10.3	17.3	15.2	2.13	8.133	
600.0	597.5	600.0	597.8	1.4	1.4	-105.54	30.9	-14.4	21.3	18.5	2.74	7.774	
700.0	695.2	699.6	695.3	1.8	1.7	-101.47	49.6	-21.4	25.8	22.3	3.48	7.395	
800.0	791.8	799.4	793.0	2.2	2.1	-107.68	68.8	-28.8	30.1	25.8	4.31	6.979	SF
900.0	887.3	898.9	890.4	2.8	2.6	-120.17	87.9	-36.2	35.9	30.8	5.11	7.020	
1,000.0	982.8	998.4	987.8	3.3	3.0	-129.68	107.1	-43.5	43.1	37.3	5.81	7.420	
1,100.0	1,078.3	1,097.9	1,085.1	3.9	3.4	-136.35	126.2	-50.9	51.2	44.7	6.45	7.933	
1,200.0	1,173.8	1,197.5	1,182.5	4.5	3.8	-141.15	145.4	-58.3	59.7	52.6	7.06	8.456	
1,300.0	1,269.2	1,297.0	1,279.9	5.1	4.3	-144.74	164.5	-65.6	68.6	60.9	7.66	8.950	
1,400.0	1,364.7	1,396.5	1,377.3	5.6	4.7	-147.50	183.7	-73.0	77.7	69.4	8.26	9.402	
1,500.0	1,460.2	1,496.0	1,474.7	6.2	5.1	-149.68	202.8	-80.3	86.9	78.0	8.86	9.810	
1,600.0	1,555.7	1,595.6	1,572.1	6.8	5.6	-151.44	221.9	-87.7	96.2	86.7	9.45	10.176	
1,700.0	1,651.2	1,695.1	1,669.5	7.4	6.0	-152.88	241.1	-95.1	105.6	95.5	10.05	10.504	
1,800.0	1,746.7	1,794.6	1,766.9	8.0	6.4	-154.09	260.2	-102.4	115.0	104.4	10.65	10.798	
1,900.0	1,842.2	1,894.2	1,864.3	8.6	6.9	-155.12	279.4	-109.8	124.5	113.3	11.25	11.063	
2,000.0	1,937.7	1,993.7	1,961.7	9.2	7.3	-156.00	298.5	-117.1	134.0	122.2	11.86	11.303	
2,100.0	2,033.1	2,093.2	2,059.0	9.8	7.7	-156.76	317.7	-124.5	143.6	131.1	12.46	11.520	
2,200.0	2,128.6	2,192.7	2,156.4	10.4	8.2	-157.43	336.8	-131.9	153.2	140.1	13.07	11.717	
2,300.0	2,224.1	2,292.3	2,253.8	11.0	8.6	-158.02	356.0	-139.2	162.7	149.1	13.68	11.898	
2,400.0	2,319.6	2,391.8	2,351.2	11.5	9.1	-158.54	375.1	-146.6	172.3	158.1	14.29	12.063	
2,500.0	2,415.1	2,491.3	2,448.6	12.1	9.5	-159.01	394.3	-153.9	182.0	167.1	14.90	12.214	
2,600.0	2,510.6	2,590.8	2,546.0	12.7	9.9	-159.44	413.4	-161.3	191.6	176.1	15.51	12.354	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	-75.53	3.3	-12.7	13.1					
100.0	100.0	100.0	100.0	0.1	0.1	-75.53	3.3	-12.7	13.1	12.9	0.18	74.831		
155.6	155.6	155.6	155.6	0.2	0.2	-75.53	3.3	-12.7	13.1	12.7	0.43	30.839 CC		
200.0	200.0	199.9	199.9	0.3	0.3	-75.00	3.4	-12.8	13.2	12.6	0.62	21.185 ES		
300.0	300.0	299.3	299.2	0.5	0.5	-93.80	6.9	-14.5	16.0	15.0	1.08	14.838		
400.0	399.6	398.4	397.9	0.8	0.8	-96.47	15.0	-18.5	22.8	21.2	1.58	14.390		
500.0	498.9	497.4	495.8	1.1	1.1	-82.64	27.5	-24.8	31.3	29.1	2.14	14.631		
600.0	597.5	597.1	594.3	1.4	1.4	-79.04	41.7	-31.9	37.6	34.8	2.78	13.523		
700.0	695.2	696.8	692.7	1.8	1.8	-83.51	55.9	-39.0	41.6	38.1	3.52	11.814		
800.0	791.8	796.1	790.8	2.2	2.1	-94.11	70.1	-46.1	45.2	40.9	4.36	10.373		
900.0	887.3	895.0	888.5	2.8	2.5	-109.06	84.1	-53.1	51.3	46.0	5.22	9.828 SF		
1,000.0	982.8	994.0	986.1	3.3	2.8	-121.03	98.2	-60.2	60.3	54.4	5.96	10.119		
1,100.0	1,078.3	1,092.9	1,083.7	3.9	3.2	-129.64	112.3	-67.2	71.3	64.7	6.62	10.778		
1,200.0	1,173.8	1,191.8	1,181.4	4.5	3.6	-135.86	126.4	-74.3	83.5	76.3	7.23	11.554		
1,300.0	1,269.2	1,290.7	1,279.0	5.1	3.9	-140.47	140.5	-81.3	96.4	88.6	7.82	12.338		
1,400.0	1,364.7	1,389.6	1,376.7	5.6	4.3	-143.98	154.6	-88.4	109.8	101.4	8.39	13.082		
1,500.0	1,460.2	1,488.5	1,474.3	6.2	4.7	-146.72	168.7	-95.4	123.5	114.5	8.97	13.771		
1,600.0	1,555.7	1,587.4	1,571.9	6.8	5.0	-148.92	182.8	-102.4	137.4	127.8	9.54	14.399		
1,700.0	1,651.2	1,686.3	1,669.6	7.4	5.4	-150.70	196.9	-109.5	151.4	141.3	10.12	14.969		
1,800.0	1,746.7	1,785.2	1,767.2	8.0	5.7	-152.19	211.0	-116.5	165.6	154.9	10.70	15.486		
1,900.0	1,842.2	1,884.1	1,864.9	8.6	6.1	-153.44	225.1	-123.6	179.9	168.6	11.28	15.956		
2,000.0	1,937.7	1,983.0	1,962.5	9.2	6.5	-154.50	239.1	-130.6	194.3	182.4	11.86	16.382		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	-152.68	-12.0	-6.2	13.5				
100.0	100.0	100.0	100.0	0.1	0.1	-152.68	-12.0	-6.2	13.5	13.4	0.18	77.170	
200.0	200.0	200.0	200.0	0.3	0.3	-152.68	-12.0	-6.2	13.5	12.9	0.62	21.652	CC, ES
300.0	300.0	300.1	300.0	0.5	0.5	-173.33	-11.9	-6.3	16.1	14.9	1.17	13.748	
400.0	399.6	400.2	400.1	0.8	0.8	-166.58	-8.7	-8.6	22.2	20.5	1.76	12.629	SF
500.0	498.9	500.2	499.7	1.1	1.0	-142.97	-1.3	-14.1	30.6	28.4	2.24	13.664	
600.0	597.5	599.8	598.5	1.4	1.3	-132.71	8.5	-21.3	40.2	37.4	2.79	14.410	
700.0	695.2	699.0	697.0	1.8	1.6	-131.95	18.3	-28.5	51.5	48.0	3.43	15.012	
800.0	791.8	797.8	795.0	2.2	1.9	-135.37	28.0	-35.7	65.4	61.3	4.13	15.849	
900.0	887.3	896.0	892.5	2.8	2.2	-141.44	37.7	-42.8	82.1	77.4	4.77	17.206	
1,000.0	982.8	994.1	989.9	3.3	2.5	-146.08	47.4	-49.9	99.8	94.4	5.37	18.580	
1,100.0	1,078.3	1,092.3	1,087.3	3.9	2.8	-149.32	57.1	-57.1	117.9	112.0	5.96	19.796	
1,200.0	1,173.8	1,190.5	1,184.7	4.5	3.1	-151.69	66.8	-64.2	136.3	129.8	6.54	20.849	
1,300.0	1,269.2	1,288.6	1,282.2	5.1	3.4	-153.50	76.5	-71.3	154.9	147.7	7.12	21.754	
1,400.0	1,364.7	1,386.8	1,379.6	5.6	3.7	-154.92	86.2	-78.5	173.5	165.8	7.70	22.535	
1,500.0	1,460.2	1,484.9	1,477.0	6.2	4.0	-156.07	95.9	-85.6	192.3	184.0	8.28	23.211	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	-170.69	-18.9	-3.1	19.2					
100.0	100.0	100.0	100.0	0.1	0.1	-170.69	-18.9	-3.1	19.2	19.0	0.18	109.475		
200.0	200.0	200.0	200.0	0.3	0.3	-170.69	-18.9	-3.1	19.2	18.6	0.62	30.716 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	170.58	-18.9	-3.1	21.8	20.6	1.17	18.631		
400.0	399.6	400.0	400.0	0.8	0.8	175.75	-18.1	-4.3	29.0	27.2	1.77	16.358 SF		
500.0	498.9	499.9	499.6	1.1	1.0	-160.46	-14.3	-9.6	39.3	37.0	2.29	17.138		
600.0	597.5	599.0	598.3	1.4	1.2	-149.24	-9.1	-16.9	52.5	49.6	2.84	18.474		
700.0	695.2	697.6	696.6	1.8	1.5	-146.01	-3.9	-24.1	68.6	65.1	3.44	19.937		
800.0	791.8	795.6	794.1	2.2	1.8	-146.34	1.3	-31.2	88.0	83.9	4.09	21.535		
900.0	887.3	892.8	890.9	2.8	2.0	-149.66	6.4	-38.4	110.4	105.7	4.68	23.600		
1,000.0	982.8	989.9	987.7	3.3	2.3	-152.52	11.5	-45.5	133.2	128.0	5.23	25.464		
1,100.0	1,078.3	1,087.1	1,084.5	3.9	2.5	-154.54	16.6	-52.6	156.3	150.5	5.79	26.996		
1,200.0	1,173.8	1,184.3	1,181.3	4.5	2.8	-156.04	21.7	-59.7	179.5	173.2	6.35	28.267		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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	178.15	-26.2	0.8	26.2				
100.0	100.0	100.0	100.0	0.1	0.1	178.15	-26.2	0.8	26.2	26.1	0.18	149.661	
200.0	200.0	200.0	200.0	0.3	0.3	178.15	-26.2	0.8	26.2	25.6	0.62	41.991	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	160.07	-26.2	0.8	28.7	27.5	1.16	24.719	
400.0	399.6	399.6	399.6	0.8	0.8	164.50	-26.2	0.7	36.2	34.4	1.76	20.513	SF
500.0	498.9	498.6	498.5	1.1	1.0	-172.99	-25.9	-3.1	48.6	46.3	2.32	20.939	
600.0	597.5	597.0	596.7	1.4	1.2	-160.49	-25.3	-10.3	65.7	62.8	2.88	22.814	
700.0	695.2	694.9	694.2	1.8	1.4	-155.29	-24.7	-17.6	86.5	83.0	3.46	24.985	
800.0	791.8	791.7	790.8	2.2	1.7	-153.57	-24.1	-24.7	111.0	106.9	4.08	27.208	
900.0	887.3	887.7	886.6	2.8	1.9	-155.21	-23.5	-31.8	138.4	133.8	4.62	29.922	
1,000.0	982.8	983.7	982.3	3.3	2.2	-156.96	-23.0	-38.9	166.1	161.0	5.15	32.273	
1,100.0	1,078.3	1,079.7	1,078.0	3.9	2.4	-158.21	-22.4	-46.0	194.0	188.3	5.68	34.138	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	173.20	-33.1	4.0	33.4					
100.0	100.0	100.0	100.0	0.1	0.1	173.20	-33.1	4.0	33.4	33.2	0.18	190.396		
200.0	200.0	200.0	200.0	0.3	0.3	173.20	-33.1	4.0	33.4	32.8	0.62	53.420 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	155.06	-33.1	4.0	35.7	34.6	1.15	30.947		
400.0	399.6	398.8	398.8	0.8	0.7	161.02	-33.8	2.7	43.7	41.9	1.75	24.943 SF		
500.0	498.9	496.1	495.9	1.1	1.0	-175.31	-36.8	-2.7	59.4	57.1	2.35	25.329		
600.0	597.5	593.7	593.1	1.4	1.2	-163.30	-40.7	-9.9	80.8	77.9	2.91	27.787		
700.0	695.2	690.5	689.5	1.8	1.4	-157.87	-44.6	-17.1	106.0	102.5	3.48	30.418		
800.0	791.8	786.1	784.8	2.2	1.7	-155.57	-48.5	-24.1	135.0	130.9	4.09	32.986		
900.0	887.3	880.7	879.1	2.8	1.9	-156.68	-52.3	-31.1	167.0	162.4	4.63	36.097		
1,000.0	982.8	975.3	973.3	3.3	2.2	-158.11	-56.1	-38.1	199.2	194.1	5.14	38.777		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	170.10	-40.4	7.1	41.0					
100.0	100.0	100.0	100.0	0.1	0.1	170.10	-40.4	7.1	41.0	40.9	0.18	234.095		
200.0	200.0	200.0	200.0	0.3	0.3	170.10	-40.4	7.1	41.0	40.4	0.62	65.681 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	151.94	-40.5	7.0	43.4	42.3	1.15	37.891		
400.0	399.6	397.2	397.1	0.8	0.7	158.78	-43.4	4.5	53.3	51.6	1.74	30.652 SF		
500.0	498.9	492.8	492.4	1.1	0.9	-178.22	-49.9	-1.0	72.4	70.0	2.36	30.653		
600.0	597.5	589.1	588.1	1.4	1.2	-166.27	-58.2	-8.1	98.0	95.1	2.95	33.228		
700.0	695.2	684.6	682.9	1.8	1.5	-160.41	-66.5	-15.2	127.7	124.2	3.53	36.178		
800.0	791.8	778.8	776.5	2.2	1.8	-157.53	-74.6	-22.1	161.2	157.1	4.13	39.004		
900.0	887.3	871.8	868.9	2.8	2.0	-158.14	-82.7	-29.0	197.6	192.9	4.66	42.449		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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-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	168.15	-48.4	10.2	49.5					
100.0	100.0	100.0	100.0	0.1	0.1	168.15	-48.4	10.2	49.5	49.3	0.18	282.303		
200.0	200.0	200.0	200.0	0.3	0.3	168.15	-48.4	10.2	49.5	48.9	0.62	79.207	CC, ES	
300.0	300.0	298.4	298.4	0.5	0.5	150.58	-49.7	9.5	52.9	51.7	1.14	46.403		
400.0	399.6	394.9	394.7	0.8	0.7	157.16	-55.0	6.5	65.1	63.4	1.75	37.129		
500.0	498.9	488.9	488.1	1.1	1.0	179.31	-64.3	1.3	87.0	84.6	2.39	36.393	SF	
600.0	597.5	583.1	581.2	1.4	1.3	-168.76	-76.6	-5.6	116.8	113.7	3.00	38.863		
700.0	695.2	677.2	674.2	1.8	1.6	-162.51	-89.1	-12.6	150.7	147.2	3.58	42.055		
800.0	791.8	769.7	765.6	2.2	1.9	-159.13	-101.4	-19.5	188.6	184.4	4.18	45.099		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41A-2
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 41A-2	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 41A-2
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

