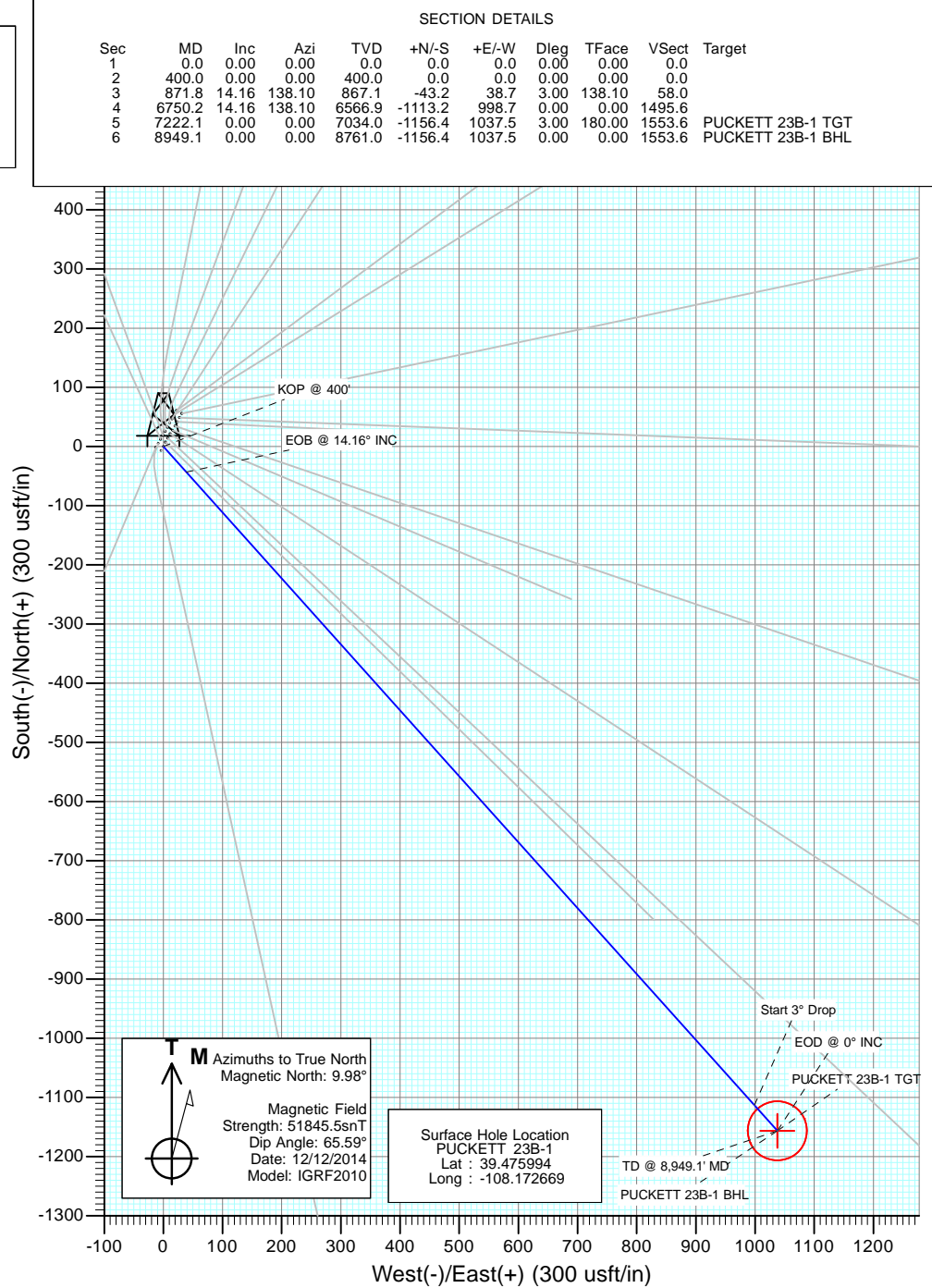
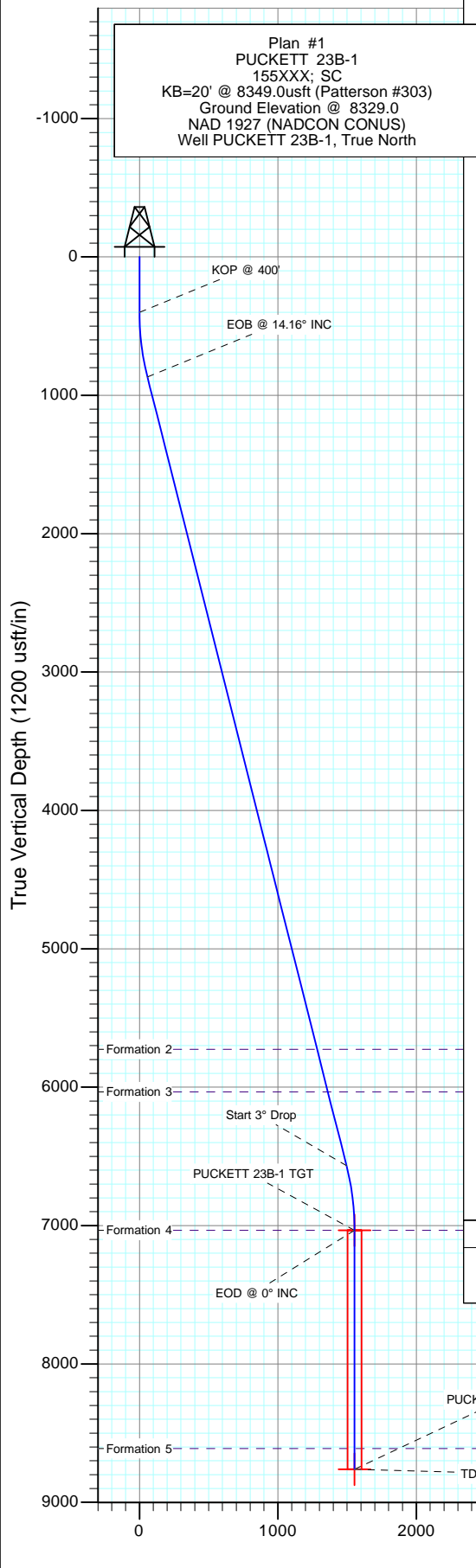


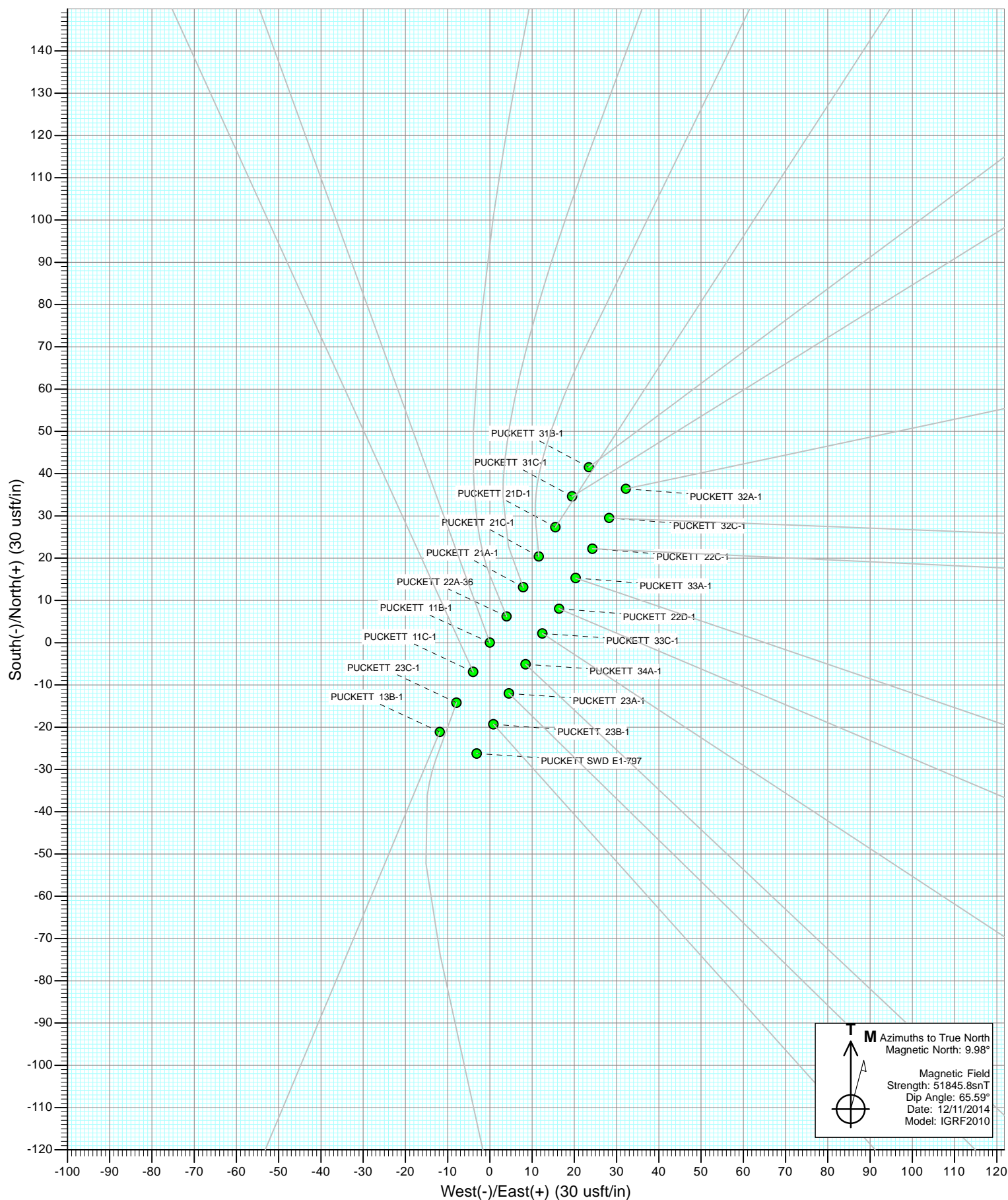


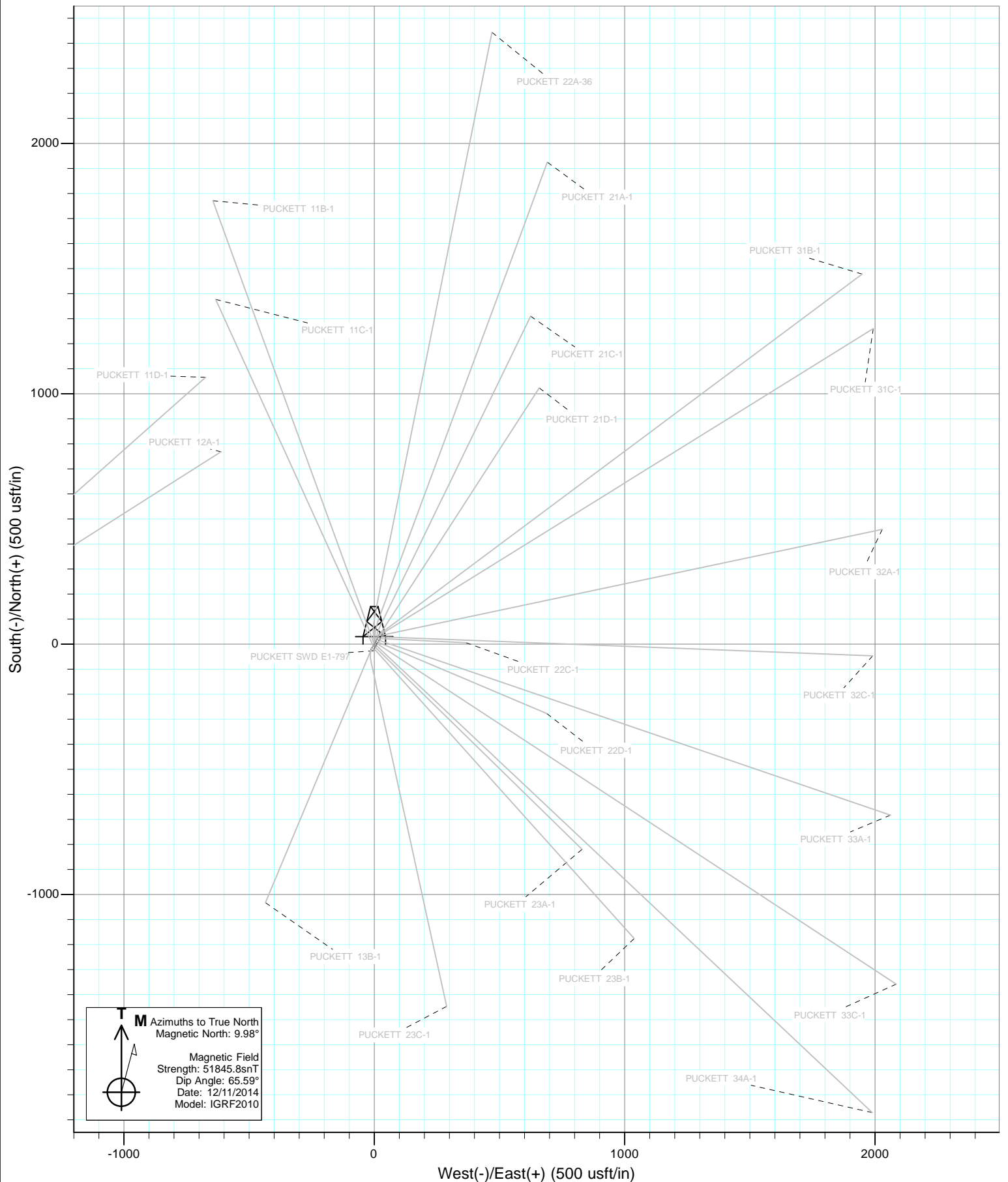
Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 23B-1
Wellbore: DD
Design: Plan #1



DESIGN TARGET DETAILS

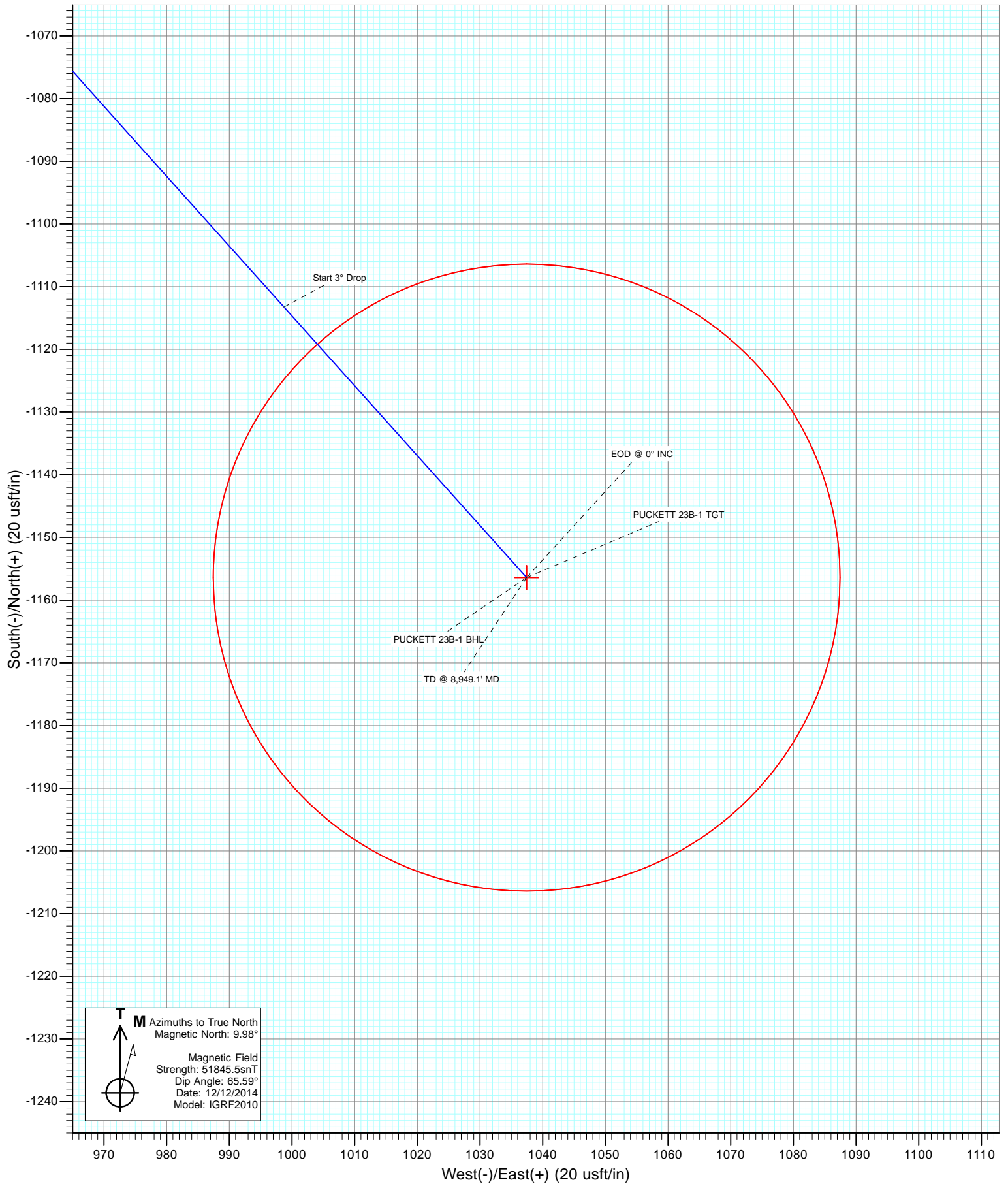
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 23B-1 TGT	-1156.4	1037.5	608158.52	1246649.42	39.472819	-108.168994
PUCKETT 23B-1 BHL	-1156.4	1037.5	608158.52	1246649.42	39.472819	-108.168994







Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 23B-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 23B-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		S1-T7S-R97W (Mesa E1 797)			
Site Position:		Northing:	609,370.34 usft	Latitude:	39.476064
From:	Lat/Long	Easting:	1,245,650.28 usft	Longitude:	-108.172658
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 23B-1					
Well Position	+N/-S	0.0 usft	Northing:	609,344.93 usft	Latitude:	39.475994
	+E/-W	0.0 usft	Easting:	1,245,646.43 usft	Longitude:	-108.172669
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,329.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/12/2014	9.98	65.59	51,846

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	138.10

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
871.8	14.16	138.10	867.1	-43.2	38.7	3.00	3.00	0.00	138.10	
6,750.2	14.16	138.10	6,566.9	-1,113.2	998.7	0.00	0.00	0.00	0.00	
7,222.1	0.00	0.00	7,034.0	-1,156.4	1,037.5	3.00	-3.00	0.00	180.00	PUCKETT 23B-1 TG1
8,949.1	0.00	0.00	8,761.0	-1,156.4	1,037.5	0.00	0.00	0.00	0.00	PUCKETT 23B-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 23B-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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400'
500.0	3.00	138.10	500.0	-1.9	1.7	2.6	3.00	3.00	
600.0	6.00	138.10	599.6	-7.8	7.0	10.5	3.00	3.00	
700.0	9.00	138.10	698.8	-17.5	15.7	23.5	3.00	3.00	
800.0	12.00	138.10	797.1	-31.1	27.9	41.7	3.00	3.00	
871.9	14.16	138.10	867.1	-43.2	38.7	58.0	3.00	3.00	EOB @ 14.16° INC
900.0	14.16	138.10	894.4	-48.3	43.3	64.9	0.00	0.00	
1,000.0	14.16	138.10	991.3	-66.5	59.7	89.3	0.00	0.00	
1,100.0	14.16	138.10	1,088.3	-84.7	76.0	113.8	0.00	0.00	
1,200.0	14.16	138.10	1,185.3	-102.9	92.3	138.2	0.00	0.00	
1,300.0	14.16	138.10	1,282.2	-121.1	108.6	162.7	0.00	0.00	
1,400.0	14.16	138.10	1,379.2	-139.3	125.0	187.2	0.00	0.00	
1,500.0	14.16	138.10	1,476.1	-157.5	141.3	211.6	0.00	0.00	
1,600.0	14.16	138.10	1,573.1	-175.7	157.6	236.1	0.00	0.00	
1,700.0	14.16	138.10	1,670.1	-193.9	174.0	260.5	0.00	0.00	
1,800.0	14.16	138.10	1,767.0	-212.1	190.3	285.0	0.00	0.00	
1,900.0	14.16	138.10	1,864.0	-230.3	206.6	309.4	0.00	0.00	
2,000.0	14.16	138.10	1,961.0	-248.5	223.0	333.9	0.00	0.00	
2,100.0	14.16	138.10	2,057.9	-266.7	239.3	358.3	0.00	0.00	
2,200.0	14.16	138.10	2,154.9	-284.9	255.6	382.8	0.00	0.00	
2,300.0	14.16	138.10	2,251.8	-303.1	272.0	407.3	0.00	0.00	
2,400.0	14.16	138.10	2,348.8	-321.3	288.3	431.7	0.00	0.00	
2,500.0	14.16	138.10	2,445.8	-339.5	304.6	456.2	0.00	0.00	
2,600.0	14.16	138.10	2,542.7	-357.7	321.0	480.6	0.00	0.00	
2,700.0	14.16	138.10	2,639.7	-376.0	337.3	505.1	0.00	0.00	
2,800.0	14.16	138.10	2,736.7	-394.2	353.6	529.5	0.00	0.00	
2,900.0	14.16	138.10	2,833.6	-412.4	369.9	554.0	0.00	0.00	
3,000.0	14.16	138.10	2,930.6	-430.6	386.3	578.4	0.00	0.00	
3,100.0	14.16	138.10	3,027.6	-448.8	402.6	602.9	0.00	0.00	
3,200.0	14.16	138.10	3,124.5	-467.0	418.9	627.4	0.00	0.00	
3,300.0	14.16	138.10	3,221.5	-485.2	435.3	651.8	0.00	0.00	
3,400.0	14.16	138.10	3,318.4	-503.4	451.6	676.3	0.00	0.00	
3,500.0	14.16	138.10	3,415.4	-521.6	467.9	700.7	0.00	0.00	
3,600.0	14.16	138.10	3,512.4	-539.8	484.3	725.2	0.00	0.00	
3,700.0	14.16	138.10	3,609.3	-558.0	500.6	749.6	0.00	0.00	
3,800.0	14.16	138.10	3,706.3	-576.2	516.9	774.1	0.00	0.00	
3,900.0	14.16	138.10	3,803.3	-594.4	533.3	798.5	0.00	0.00	
4,000.0	14.16	138.10	3,900.2	-612.6	549.6	823.0	0.00	0.00	
4,100.0	14.16	138.10	3,997.2	-630.8	565.9	847.4	0.00	0.00	
4,200.0	14.16	138.10	4,094.2	-649.0	582.3	871.9	0.00	0.00	
4,300.0	14.16	138.10	4,191.1	-667.2	598.6	896.4	0.00	0.00	
4,400.0	14.16	138.10	4,288.1	-685.4	614.9	920.8	0.00	0.00	
4,500.0	14.16	138.10	4,385.0	-703.6	631.2	945.3	0.00	0.00	
4,600.0	14.16	138.10	4,482.0	-721.8	647.6	969.7	0.00	0.00	
4,700.0	14.16	138.10	4,579.0	-740.0	663.9	994.2	0.00	0.00	
4,800.0	14.16	138.10	4,675.9	-758.2	680.2	1,018.6	0.00	0.00	
4,900.0	14.16	138.10	4,772.9	-776.4	696.6	1,043.1	0.00	0.00	
5,000.0	14.16	138.10	4,869.9	-794.6	712.9	1,067.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 23B-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	14.16	138.10	4,966.8	-812.8	729.2	1,092.0	0.00	0.00	
5,200.0	14.16	138.10	5,063.8	-831.0	745.6	1,116.5	0.00	0.00	
5,300.0	14.16	138.10	5,160.8	-849.2	761.9	1,140.9	0.00	0.00	
5,400.0	14.16	138.10	5,257.7	-867.4	778.2	1,165.4	0.00	0.00	
5,500.0	14.16	138.10	5,354.7	-885.6	794.6	1,189.8	0.00	0.00	
5,600.0	14.16	138.10	5,451.6	-903.8	810.9	1,214.3	0.00	0.00	
5,700.0	14.16	138.10	5,548.6	-922.1	827.2	1,238.7	0.00	0.00	
5,800.0	14.16	138.10	5,645.6	-940.3	843.5	1,263.2	0.00	0.00	
5,882.9	14.16	138.10	5,726.0	-955.4	857.1	1,283.5	0.00	0.00	Formation 2
5,900.0	14.16	138.10	5,742.5	-958.5	859.9	1,287.6	0.00	0.00	
6,000.0	14.16	138.10	5,839.5	-976.7	876.2	1,312.1	0.00	0.00	
6,100.0	14.16	138.10	5,936.5	-994.9	892.5	1,336.6	0.00	0.00	
6,200.0	14.16	138.10	6,033.4	-1,013.1	908.9	1,361.0	0.00	0.00	
6,200.6	14.16	138.10	6,034.0	-1,013.2	909.0	1,361.2	0.00	0.00	Formation 3
6,300.0	14.16	138.10	6,130.4	-1,031.3	925.2	1,385.5	0.00	0.00	
6,400.0	14.16	138.10	6,227.4	-1,049.5	941.5	1,409.9	0.00	0.00	
6,500.0	14.16	138.10	6,324.3	-1,067.7	957.9	1,434.4	0.00	0.00	
6,600.0	14.16	138.10	6,421.3	-1,085.9	974.2	1,458.8	0.00	0.00	
6,700.0	14.16	138.10	6,518.2	-1,104.1	990.5	1,483.3	0.00	0.00	
6,750.2	14.16	138.10	6,566.9	-1,113.2	998.7	1,495.6	0.00	0.00	Start 3° Drop
6,800.0	12.66	138.10	6,615.4	-1,121.8	1,006.4	1,507.1	3.00	-3.00	
6,900.0	9.66	138.10	6,713.5	-1,136.2	1,019.4	1,526.5	3.00	-3.00	
7,000.0	6.66	138.10	6,812.4	-1,146.8	1,028.8	1,540.7	3.00	-3.00	
7,100.0	3.66	138.10	6,912.0	-1,153.5	1,034.9	1,549.7	3.00	-3.00	
7,200.0	0.66	138.10	7,011.9	-1,156.3	1,037.4	1,553.4	3.00	-3.00	
7,222.1	0.00	0.00	7,034.0	-1,156.4	1,037.5	1,553.6	3.00	-3.00	EOD @ 0° INC - Formation 4
7,300.0	0.00	0.00	7,111.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,400.0	0.00	0.00	7,211.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,500.0	0.00	0.00	7,311.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,600.0	0.00	0.00	7,411.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,700.0	0.00	0.00	7,511.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,800.0	0.00	0.00	7,611.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
7,900.0	0.00	0.00	7,711.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,000.0	0.00	0.00	7,811.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,100.0	0.00	0.00	7,911.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,200.0	0.00	0.00	8,011.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,300.0	0.00	0.00	8,111.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,400.0	0.00	0.00	8,211.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,500.0	0.00	0.00	8,311.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,600.0	0.00	0.00	8,411.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,700.0	0.00	0.00	8,511.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,799.1	0.00	0.00	8,611.0	-1,156.4	1,037.5	1,553.6	0.00	0.00	Formation 5
8,800.0	0.00	0.00	8,611.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,900.0	0.00	0.00	8,711.9	-1,156.4	1,037.5	1,553.6	0.00	0.00	
8,949.1	0.00	0.00	8,761.0	-1,156.4	1,037.5	1,553.6	0.00	0.00	TD @ 8,949.1' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 23B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 23B-1 TGT	0.00	0.00	7,034.0	-1,156.4	1,037.5	608,158.52	1,246,649.42	39.472819	-108.168994
- plan hits target center									
- Point									
PUCKETT 23B-1 BHL	0.00	0.00	8,761.0	-1,156.4	1,037.5	608,158.52	1,246,649.42	39.472819	-108.168994
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,882.9	5,726.0	Formation 2				
6,200.6	6,034.0	Formation 3				
7,222.1	7,034.0	Formation 4				
8,799.1	8,611.0	Formation 5				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
400.0	400.0	0.0	0.0	KOP @ 400'	
871.9	867.1	-43.2	38.7	EOB @ 14.16° INC	
6,750.2	6,566.9	-1,113.2	998.7	Start 3° Drop	
7,222.1	7,034.0	-1,156.4	1,037.5	EOD @ 0° INC	
8,949.1	8,761.0	-1,156.4	1,037.5	TD @ 8,949.1' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 23B-1

DD

Plan #1

Anticollision Report

16 December, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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	12/12/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,949.1	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	200.0	200.0	19.3	18.7	30.710	CC, ES
PUCKETT 11B-1 - DD - Plan #1	400.0	397.4	29.4	27.8	18.976	SF
PUCKETT 11C-1 - DD - Plan #1	300.0	300.0	13.3	12.2	12.314	CC, ES
PUCKETT 11C-1 - DD - Plan #1	400.0	399.4	14.7	13.2	9.650	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	12.8	12.2	20.390	CC, ES
PUCKETT 13B-1 - DD - Plan #1	400.0	398.6	20.2	18.7	13.479	SF
PUCKETT 21A-1 - HZ - Plan #1	300.0	300.0	33.2	32.1	30.755	CC, ES
PUCKETT 21A-1 - HZ - Plan #1	500.0	496.1	44.1	42.0	21.724	SF
PUCKETT 21C-1 - DD - Plan #1	333.4	333.4	41.1	39.9	33.466	CC, ES
PUCKETT 21C-1 - DD - Plan #1	500.0	496.5	48.1	46.1	24.170	SF
PUCKETT 21D-1 - DD - Plan #1	400.0	400.0	48.9	47.4	31.982	CC, ES
PUCKETT 21D-1 - DD - Plan #1	600.0	593.9	64.3	61.8	26.091	SF
PUCKETT 22A-36 - DD - Plan #1	255.6	255.6	25.7	24.8	29.226	CC
PUCKETT 22A-36 - DD - Plan #1	300.0	299.7	25.8	24.8	23.966	ES
PUCKETT 22A-36 - DD - Plan #1	400.0	398.4	29.3	27.8	19.187	SF
PUCKETT 22C-1 - DD - Plan #1	400.0	400.0	47.7	46.2	31.196	CC, ES
PUCKETT 22C-1 - DD - Plan #1	700.0	698.4	59.8	56.9	20.358	SF
PUCKETT 22D-1 - DD - Plan #1	400.0	400.0	31.4	29.9	20.561	CC, ES
PUCKETT 22D-1 - DD - Plan #1	700.0	699.9	41.8	38.9	14.383	SF
PUCKETT 23A-1 - DD - Plan #1	400.0	400.0	8.2	6.6	5.339	CC, ES
PUCKETT 23A-1 - DD - Plan #1	500.0	500.0	9.4	7.5	4.779	SF
PUCKETT 23C-1 - DD - Plan #1	382.9	382.9	10.0	8.5	6.948	CC
PUCKETT 23C-1 - DD - Plan #1	400.0	400.0	10.0	8.5	6.634	ES, SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	64.9	64.3	103.097	CC, ES
PUCKETT 31B-1 - DD - Plan #1	600.0	583.5	104.3	101.8	40.986	SF
PUCKETT 31C-1 - DD - Plan #1	233.5	233.5	57.0	56.3	73.122	CC, ES
PUCKETT 31C-1 - DD - Plan #1	600.0	588.4	86.9	84.3	34.583	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	63.9	63.3	101.573	CC, ES
PUCKETT 32A-1 - DD - Plan #1	1,000.0	963.4	189.4	183.9	34.279	SF
PUCKETT 32C-1 - DD - Plan #1	300.0	300.0	56.0	54.9	51.872	CC, ES
PUCKETT 32C-1 - DD - Plan #1	1,200.0	1,174.0	186.4	178.9	24.850	SF
PUCKETT 33A-1 - DD - Plan #1	300.0	300.0	39.7	38.6	36.804	CC
PUCKETT 33A-1 - DD - Plan #1	400.0	399.7	40.0	38.5	26.375	ES
PUCKETT 33A-1 - DD - Plan #1	1,600.0	1,580.0	196.4	184.5	16.493	SF
PUCKETT 33C-1 - DD - Plan #1	339.8	339.8	24.3	23.1	19.573	CC, ES
PUCKETT 33C-1 - DD - Plan #1	900.0	891.7	60.4	55.8	13.033	SF
PUCKETT 34A-1 - DD - Plan #1	400.0	400.0	16.1	14.6	10.545	CC
PUCKETT 34A-1 - DD - Plan #1	500.0	500.2	16.3	14.4	8.407	ES
PUCKETT 34A-1 - DD - Plan #1	1,100.0	1,100.3	27.1	20.7	4.275	SF
PUCKETT SWD E1-797 - VH - Plan #1	498.0	497.9	7.6	5.6	3.883	CC
PUCKETT SWD E1-797 - VH - Plan #1	500.0	500.0	7.6	5.6	3.866	ES, SF
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 24A-1 - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 11B-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	-2.51	19.3	-0.8	19.3					
100.0	100.0	100.0	100.0	0.1	0.1	-2.51	19.3	-0.8	19.3	19.1	0.18	107.486		
200.0	200.0	200.0	200.0	0.3	0.3	-2.51	19.3	-0.8	19.3	18.7	0.63	30.710 CC, ES		
300.0	300.0	299.0	298.9	0.5	0.5	-4.54	21.7	-1.7	21.8	20.7	1.08	20.216		
400.0	400.0	397.4	397.0	0.8	0.8	-8.53	28.9	-4.3	29.4	27.8	1.55	18.976 SF		
500.0	500.0	494.4	493.2	1.0	1.1	-151.51	40.6	-8.6	44.3	42.2	2.10	21.139		
600.0	599.6	588.4	585.7	1.2	1.4	-155.86	56.3	-14.3	68.9	66.3	2.67	25.833		
700.0	698.8	678.2	673.2	1.4	1.8	-158.73	75.3	-21.2	103.1	99.8	3.27	31.515		
800.0	797.1	762.9	754.7	1.8	2.2	-160.50	96.7	-29.0	146.1	142.2	3.88	37.626		
900.0	894.4	849.1	837.2	2.2	2.6	-161.89	120.5	-37.7	195.7	191.3	4.43	44.127		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 11C-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	-21.17	12.4	-4.8	13.3				
100.0	100.0	100.0	100.0	0.1	0.1	-21.17	12.4	-4.8	13.3	13.1	0.18	73.885	
200.0	200.0	200.0	200.0	0.3	0.3	-21.17	12.4	-4.8	13.3	12.7	0.63	21.110	
300.0	300.0	300.0	300.0	0.5	0.5	-21.17	12.4	-4.8	13.3	12.2	1.08	12.314 CC, ES	
400.0	400.0	399.4	399.4	0.8	0.8	-21.50	13.7	-5.4	14.7	13.2	1.53	9.650 SF	
500.0	500.0	498.0	497.8	1.0	1.0	-162.51	19.5	-8.0	23.7	21.7	2.03	11.643	
600.0	599.6	594.5	593.6	1.2	1.2	-165.48	29.7	-12.7	42.7	40.1	2.60	16.421	
700.0	698.8	687.5	685.3	1.4	1.5	-167.15	43.6	-19.0	71.5	68.3	3.20	22.352	
800.0	797.1	775.8	771.6	1.8	1.9	-168.03	60.6	-26.7	109.7	105.9	3.81	28.795	
900.0	894.4	864.1	857.4	2.2	2.2	-168.67	79.9	-35.5	154.9	150.6	4.36	35.523	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - 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							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)	Offset Wellbore Centre +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	-98.14	-1.8	-12.7	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-98.14	-1.8	-12.7	12.8	12.7	0.18	71.364		
200.0	200.0	200.0	200.0	0.3	0.3	-98.14	-1.8	-12.7	12.8	12.2	0.63	20.390	CC, ES	
300.0	300.0	299.6	299.5	0.5	0.5	-107.08	-4.2	-13.7	14.3	13.3	1.06	13.577		
400.0	400.0	398.6	398.2	0.8	0.7	-124.20	-11.3	-16.7	20.2	18.7	1.50	13.479	SF	
500.0	500.0	496.7	495.5	1.0	1.0	89.34	-23.0	-21.6	31.8	29.8	1.99	15.993		
600.0	599.6	593.5	590.8	1.2	1.4	89.16	-39.1	-28.3	48.0	45.5	2.48	19.334		
700.0	698.8	689.6	684.3	1.4	1.8	91.37	-59.2	-36.7	68.5	65.5	3.07	22.288		
800.0	797.1	786.9	778.7	1.8	2.2	95.22	-80.8	-45.7	90.7	86.9	3.76	24.083		
900.0	894.4	883.7	872.7	2.2	2.7	100.00	-102.2	-54.6	113.9	109.3	4.59	24.808		
1,000.0	991.3	980.3	966.5	2.6	3.2	104.05	-123.6	-63.6	138.1	132.6	5.49	25.169		
1,100.0	1,088.3	1,077.0	1,060.4	3.1	3.7	106.88	-145.0	-72.5	162.7	156.3	6.40	25.421		
1,200.0	1,185.3	1,173.6	1,154.2	3.6	4.2	108.97	-166.4	-81.5	187.6	180.3	7.33	25.614		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21A-1 - HZ - 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	12.28	32.4	7.1	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	12.28	32.4	7.1	33.2	33.0	0.18	184.527		
200.0	200.0	200.0	200.0	0.3	0.3	12.28	32.4	7.1	33.2	32.6	0.63	52.722		
300.0	300.0	300.0	300.0	0.5	0.5	12.28	32.4	7.1	33.2	32.1	1.08	30.755 CC, ES		
400.0	400.0	398.5	398.4	0.8	0.8	10.08	34.8	6.2	35.4	33.9	1.53	23.201		
500.0	500.0	496.1	495.8	1.0	1.0	-135.37	41.9	3.7	44.1	42.0	2.03	21.724 SF		
600.0	599.6	592.2	591.2	1.2	1.2	-141.93	53.1	2.2	61.6	59.1	2.55	24.152		
700.0	698.8	685.9	683.7	1.4	1.5	-145.08	67.8	3.4	87.5	84.4	3.12	28.034		
800.0	797.1	776.4	772.4	1.8	1.9	-146.29	85.6	7.0	121.1	117.3	3.72	32.569		
900.0	894.4	863.2	856.5	2.2	2.2	-146.69	105.9	12.6	161.7	157.4	4.30	37.576		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21C-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		Total		Separation		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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	15.12	39.7	10.7	41.1					
100.0	100.0	100.0	100.0	0.1	0.1	15.12	39.7	10.7	41.1	40.9	0.18	228.733		
200.0	200.0	200.0	200.0	0.3	0.3	15.12	39.7	10.7	41.1	40.5	0.63	65.352		
300.0	300.0	300.0	300.0	0.5	0.5	15.12	39.7	10.7	41.1	40.1	1.08	38.122		
333.4	333.4	333.4	333.4	0.6	0.6	15.12	39.7	10.7	41.1	39.9	1.23	33.466 CC, ES		
400.0	400.0	399.0	399.0	0.8	0.8	14.82	40.3	10.7	41.7	40.2	1.53	27.344		
500.0	500.0	496.5	496.4	1.0	1.0	-127.70	45.3	10.2	48.1	46.1	1.99	24.170 SF		
600.0	599.6	592.8	592.2	1.2	1.2	-134.58	54.8	10.1	63.1	60.6	2.52	25.082		
700.0	698.8	687.3	685.8	1.4	1.5	-138.64	67.6	13.0	86.1	83.0	3.07	28.029		
800.0	797.1	779.2	776.2	1.8	1.8	-140.53	83.1	19.0	116.4	112.7	3.67	31.742		
900.0	894.4	870.3	865.0	2.2	2.1	-141.54	101.1	27.6	153.1	148.8	4.28	35.807		
1,000.0	991.3	962.7	955.0	2.6	2.5	-142.64	119.8	36.6	191.2	186.4	4.83	39.610		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21D-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	17.48	46.6	14.7	48.9					
100.0	100.0	100.0	100.0	0.1	0.1	17.48	46.6	14.7	48.9	48.7	0.18	271.850		
200.0	200.0	200.0	200.0	0.3	0.3	17.48	46.6	14.7	48.9	48.3	0.63	77.672		
300.0	300.0	300.0	300.0	0.5	0.5	17.48	46.6	14.7	48.9	47.8	1.08	45.308		
400.0	400.0	400.0	400.0	0.8	0.8	17.48	46.6	14.7	48.9	47.4	1.53	31.982 CC, ES		
500.0	500.0	497.4	497.4	1.0	1.0	-122.20	48.7	16.0	52.7	50.7	1.97	26.718		
600.0	599.6	593.9	593.6	1.2	1.2	-125.75	54.9	20.0	64.3	61.8	2.46	26.091 SF		
700.0	698.8	688.4	687.3	1.4	1.5	-129.34	64.9	26.5	83.9	80.8	3.02	27.756		
800.0	797.1	781.3	778.8	1.8	1.7	-132.15	78.4	35.2	111.2	107.6	3.64	30.538		
900.0	894.4	875.8	871.6	2.2	2.1	-135.01	93.2	44.8	143.3	139.1	4.26	33.634		
1,000.0	991.3	969.8	964.0	2.6	2.4	-137.47	108.0	54.3	176.7	171.8	4.85	36.468		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22A-36 - 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	6.94	25.5	3.1	25.7					
100.0	100.0	100.0	100.0	0.1	0.1	6.94	25.5	3.1	25.7	25.5	0.18	142.891		
200.0	200.0	200.0	200.0	0.3	0.3	6.94	25.5	3.1	25.7	25.1	0.63	40.826		
255.6	255.6	255.6	255.6	0.4	0.4	6.94	25.5	3.1	25.7	24.8	0.88	29.226 CC		
300.0	300.0	299.7	299.7	0.5	0.5	6.77	25.7	3.0	25.8	24.8	1.08	23.966 ES		
400.0	400.0	398.4	398.3	0.8	0.8	3.16	29.2	1.6	29.3	27.8	1.53	19.187 SF		
500.0	500.0	496.1	495.6	1.0	1.0	-142.73	37.4	-1.6	39.7	37.6	2.05	19.358		
600.0	599.6	591.8	590.5	1.2	1.3	-148.34	49.8	-4.1	59.4	56.8	2.59	22.952		
700.0	698.8	684.7	681.9	1.4	1.6	-150.71	66.2	-4.8	87.8	84.6	3.17	27.720		
800.0	797.1	773.8	768.8	1.8	1.9	-151.47	85.7	-3.9	124.2	120.5	3.76	33.003		
900.0	894.4	858.4	850.5	2.2	2.3	-151.65	107.7	-1.7	168.2	163.8	4.34	38.743		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22C-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	29.43	41.5	23.4	47.7					
100.0	100.0	100.0	100.0	0.1	0.1	29.43	41.5	23.4	47.7	47.5	0.18	265.168		
200.0	200.0	200.0	200.0	0.3	0.3	29.43	41.5	23.4	47.7	47.1	0.63	75.762		
300.0	300.0	300.0	300.0	0.5	0.5	29.43	41.5	23.4	47.7	46.6	1.08	44.195		
400.0	400.0	400.0	400.0	0.8	0.8	29.43	41.5	23.4	47.7	46.2	1.53	31.196 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	-111.57	41.5	23.4	48.6	46.6	1.96	24.745		
600.0	599.6	599.6	599.6	1.2	1.2	-119.53	41.5	23.4	52.0	49.6	2.42	21.458		
700.0	698.8	698.4	698.4	1.4	1.4	-127.83	41.4	26.0	59.8	56.9	2.94	20.358 SF		
800.0	797.1	797.3	797.1	1.8	1.6	-134.70	41.2	31.4	72.3	68.8	3.50	20.637		
900.0	894.4	895.3	894.9	2.2	1.8	-141.53	40.9	36.7	89.4	85.4	4.08	21.902		
1,000.0	991.3	993.0	992.6	2.6	2.1	-146.70	40.7	42.1	108.6	104.0	4.59	23.658		
1,100.0	1,088.3	1,090.8	1,090.2	3.1	2.3	-150.31	40.4	47.4	128.3	123.2	5.09	25.220		
1,200.0	1,185.3	1,188.6	1,187.8	3.6	2.5	-152.95	40.2	52.8	148.4	142.9	5.59	26.573		
1,300.0	1,282.2	1,286.3	1,285.4	4.1	2.7	-154.96	39.9	58.1	168.8	162.7	6.08	27.736		
1,400.0	1,379.2	1,384.1	1,383.0	4.6	3.0	-156.54	39.7	63.5	189.3	182.7	6.59	28.738		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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		S1-T7S-R97W (Mesa E1 797) - PUCKETT 22D-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	29.61	27.3	15.5	31.4					
100.0	100.0	100.0	100.0	0.1	0.1	29.61	27.3	15.5	31.4	31.2	0.18	174.766		
200.0	200.0	200.0	200.0	0.3	0.3	29.61	27.3	15.5	31.4	30.8	0.63	49.933		
300.0	300.0	300.0	300.0	0.5	0.5	29.61	27.3	15.5	31.4	30.3	1.08	29.128		
400.0	400.0	400.0	400.0	0.8	0.8	29.61	27.3	15.5	31.4	29.9	1.53	20.561	CC, ES	
500.0	500.0	500.0	500.0	1.0	1.0	-112.87	27.3	15.5	32.4	30.4	1.96	16.471		
600.0	599.6	599.8	599.8	1.2	1.2	-120.20	26.3	17.9	35.8	33.4	2.41	14.868		
700.0	698.8	699.9	699.5	1.4	1.4	-124.85	23.2	25.1	41.8	38.9	2.91	14.383	SF	
800.0	797.1	799.5	798.5	1.8	1.7	-128.79	18.8	35.7	50.5	47.0	3.49	14.453		
900.0	894.4	898.6	896.9	2.2	1.9	-134.84	14.3	46.4	62.7	58.6	4.12	15.223		
1,000.0	991.3	997.5	995.1	2.6	2.2	-139.69	9.8	57.0	76.4	71.7	4.69	16.282		
1,100.0	1,088.3	1,096.4	1,093.3	3.1	2.5	-143.04	5.3	67.6	90.5	85.2	5.26	17.199		
1,200.0	1,185.3	1,195.3	1,191.5	3.6	2.8	-145.49	0.8	78.2	104.8	99.0	5.83	17.978		
1,300.0	1,282.2	1,294.1	1,289.7	4.1	3.1	-147.35	-3.7	88.9	119.3	112.9	6.40	18.639		
1,400.0	1,379.2	1,393.0	1,387.9	4.6	3.4	-148.81	-8.2	99.5	133.8	126.8	6.97	19.202		
1,500.0	1,476.1	1,491.9	1,486.1	5.1	3.7	-149.98	-12.7	110.1	148.4	140.9	7.54	19.683		
1,600.0	1,573.1	1,590.8	1,584.4	5.6	4.0	-150.94	-17.2	120.7	163.1	155.0	8.12	20.099		
1,700.0	1,670.1	1,689.7	1,682.6	6.1	4.3	-151.74	-21.7	131.4	177.8	169.1	8.69	20.461		
1,800.0	1,767.0	1,788.6	1,780.8	6.7	4.6	-152.42	-26.2	142.0	192.6	183.3	9.27	20.778		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23A-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	26.72	7.3	3.7	8.2						
100.0	100.0	100.0	100.0	0.1	0.1	26.72	7.3	3.7	8.2	8.0	0.18	45.385			
200.0	200.0	200.0	200.0	0.3	0.3	26.72	7.3	3.7	8.2	7.5	0.63	12.967			
300.0	300.0	300.0	300.0	0.5	0.5	26.72	7.3	3.7	8.2	7.1	1.08	7.564			
400.0	400.0	400.0	400.0	0.8	0.8	26.72	7.3	3.7	8.2	6.6	1.53	5.339 CC, ES			
500.0	500.0	500.0	500.0	1.0	1.0	-126.31	7.3	3.7	9.4	7.5	1.97	4.779 SF			
600.0	599.6	600.2	600.2	1.2	1.2	-144.29	5.5	5.5	13.3	10.9	2.46	5.428			
700.0	698.8	700.8	700.4	1.4	1.4	-152.66	-0.1	11.2	18.1	15.1	2.97	6.085			
800.0	797.1	801.6	800.3	1.8	1.6	-156.67	-9.3	20.7	23.1	19.6	3.52	6.575			
900.0	894.4	902.1	899.2	2.2	2.0	-158.86	-21.8	33.4	28.7	24.6	4.06	7.058			
1,000.0	991.3	1,001.9	997.3	2.6	2.3	-160.60	-34.8	46.7	34.8	30.2	4.54	7.659			
1,100.0	1,088.3	1,101.7	1,095.3	3.1	2.7	-161.82	-47.7	59.9	40.9	35.9	5.04	8.123			
1,200.0	1,185.3	1,201.5	1,193.4	3.6	3.1	-162.72	-60.7	73.2	47.0	41.5	5.54	8.485			
1,300.0	1,282.2	1,301.3	1,291.5	4.1	3.5	-163.42	-73.7	86.4	53.2	47.1	6.06	8.774			
1,400.0	1,379.2	1,401.1	1,389.6	4.6	3.9	-163.96	-86.6	99.7	59.4	52.8	6.59	9.008			
1,500.0	1,476.1	1,500.9	1,487.6	5.1	4.3	-164.41	-99.6	112.9	65.5	58.4	7.12	9.199			
1,600.0	1,573.1	1,600.7	1,585.7	5.6	4.7	-164.78	-112.5	126.2	71.7	64.0	7.66	9.358			
1,700.0	1,670.1	1,700.5	1,683.8	6.1	5.1	-165.09	-125.5	139.4	77.9	69.7	8.20	9.492			
1,800.0	1,767.0	1,800.3	1,781.8	6.7	5.5	-165.35	-138.4	152.7	84.0	75.3	8.75	9.607			
1,900.0	1,864.0	1,900.1	1,879.9	7.2	5.9	-165.58	-151.4	165.9	90.2	80.9	9.30	9.705			
2,000.0	1,961.0	1,999.9	1,978.0	7.7	6.3	-165.78	-164.4	179.2	96.4	86.5	9.85	9.790			
2,100.0	2,057.9	2,099.8	2,076.1	8.2	6.7	-165.96	-177.3	192.4	102.6	92.2	10.40	9.864			
2,200.0	2,154.9	2,199.6	2,174.1	8.7	7.1	-166.11	-190.3	205.7	108.7	97.8	10.95	9.930			
2,300.0	2,251.8	2,299.4	2,272.2	9.3	7.6	-166.25	-203.2	219.0	114.9	103.4	11.50	9.989			
2,400.0	2,348.8	2,399.2	2,370.3	9.8	8.0	-166.38	-216.2	232.2	121.1	109.0	12.06	10.041			
2,500.0	2,445.8	2,499.0	2,468.4	10.3	8.4	-166.49	-229.2	245.5	127.3	114.6	12.62	10.087			
2,600.0	2,542.7	2,598.8	2,566.4	10.8	8.8	-166.59	-242.1	258.7	133.4	120.3	13.17	10.130			
2,700.0	2,639.7	2,698.6	2,664.5	11.3	9.2	-166.68	-255.1	272.0	139.6	125.9	13.73	10.168			
2,800.0	2,736.7	2,798.4	2,762.6	11.9	9.6	-166.77	-268.0	285.2	145.8	131.5	14.29	10.203			
2,900.0	2,833.6	2,898.2	2,860.6	12.4	10.1	-166.85	-281.0	298.5	152.0	137.1	14.85	10.235			
3,000.0	2,930.6	2,998.0	2,958.7	12.9	10.5	-166.92	-293.9	311.7	158.2	142.8	15.41	10.264			
3,100.0	3,027.6	3,097.8	3,056.8	13.4	10.9	-166.99	-306.9	325.0	164.3	148.4	15.97	10.292			
3,200.0	3,124.5	3,197.7	3,154.9	14.0	11.3	-167.05	-319.9	338.2	170.5	154.0	16.53	10.317			
3,300.0	3,221.5	3,297.5	3,252.9	14.5	11.7	-167.11	-332.8	351.5	176.7	159.6	17.09	10.340			
3,400.0	3,318.4	3,397.3	3,351.0	15.0	12.2	-167.16	-345.8	364.7	182.9	165.2	17.65	10.362			
3,500.0	3,415.4	3,497.1	3,449.1	15.5	12.6	-167.21	-358.7	378.0	189.1	170.9	18.21	10.382			
3,600.0	3,512.4	3,596.9	3,547.2	16.1	13.0	-167.26	-371.7	391.2	195.2	176.5	18.77	10.401			

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23C-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	-59.77	5.1	-8.8	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	-59.77	5.1	-8.8	10.1	9.9	0.18	56.326		
200.0	200.0	200.0	200.0	0.3	0.3	-59.77	5.1	-8.8	10.1	9.5	0.63	16.093		
300.0	300.0	300.0	300.0	0.5	0.5	-59.77	5.1	-8.8	10.1	9.0	1.08	9.388		
382.9	382.9	382.9	382.9	0.7	0.7	-70.00	3.4	-9.4	10.0	8.5	1.43	6.948 CC		
400.0	400.0	400.0	400.0	0.8	0.7	-74.70	2.6	-9.6	10.0	8.5	1.51	6.634 ES, SF		
500.0	500.0	499.5	499.2	1.0	1.0	120.70	-4.7	-12.3	14.3	12.4	1.94	7.388		
600.0	599.6	599.1	597.9	1.2	1.2	109.95	-16.7	-15.6	24.4	22.0	2.42	10.090		
700.0	698.8	698.9	696.4	1.4	1.5	105.43	-32.7	-16.0	35.2	32.3	2.96	11.897		
800.0	797.1	798.7	794.1	1.8	1.9	102.89	-52.8	-13.0	46.4	42.7	3.64	12.725		
900.0	894.4	898.0	890.8	2.2	2.3	103.23	-75.0	-8.1	58.1	53.6	4.47	12.983		
1,000.0	991.3	997.3	987.4	2.6	2.8	104.69	-97.2	-3.3	70.1	64.7	5.38	13.038		
1,100.0	1,088.3	1,096.5	1,084.1	3.1	3.2	105.72	-119.4	1.6	82.2	75.9	6.31	13.015		
1,200.0	1,185.3	1,195.8	1,180.7	3.6	3.7	106.49	-141.6	6.5	94.3	87.0	7.27	12.968		
1,300.0	1,282.2	1,295.1	1,277.3	4.1	4.1	107.08	-163.8	11.3	106.4	98.1	8.24	12.915		
1,400.0	1,379.2	1,394.3	1,373.9	4.6	4.6	107.55	-186.0	16.2	118.5	109.3	9.21	12.863		
1,500.0	1,476.1	1,493.6	1,470.6	5.1	5.1	107.94	-208.2	21.1	130.6	120.4	10.19	12.814		
1,600.0	1,573.1	1,592.8	1,567.2	5.6	5.6	108.26	-230.4	25.9	142.7	131.5	11.18	12.769		
1,700.0	1,670.1	1,692.1	1,663.8	6.1	6.1	108.53	-252.6	30.8	154.8	142.7	12.16	12.729		
1,800.0	1,767.0	1,791.4	1,760.4	6.7	6.5	108.76	-274.8	35.7	167.0	153.8	13.15	12.693		
1,900.0	1,864.0	1,890.6	1,857.1	7.2	7.0	108.96	-297.0	40.5	179.1	164.9	14.15	12.661		
2,000.0	1,961.0	1,989.9	1,953.7	7.7	7.5	109.13	-319.2	45.4	191.2	176.1	15.14	12.631		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31B-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	20.37	60.8	22.6	64.9					
100.0	100.0	100.0	100.0	0.1	0.1	20.37	60.8	22.6	64.9	64.7	0.18	360.838		
200.0	200.0	200.0	200.0	0.3	0.3	20.37	60.8	22.6	64.9	64.3	0.63	103.097	CC, ES	
300.0	300.0	297.1	297.1	0.5	0.5	21.52	62.3	24.6	67.0	66.0	1.07	62.415		
400.0	400.0	393.8	393.5	0.8	0.8	24.54	66.7	30.5	73.6	72.1	1.54	47.926		
500.0	500.0	489.4	488.3	1.0	1.0	-110.86	73.9	40.1	85.8	83.8	2.03	42.193		
600.0	599.6	583.5	580.9	1.2	1.4	-110.12	83.8	53.3	104.3	101.8	2.55	40.986	SF	
700.0	698.8	675.4	670.5	1.4	1.7	-110.50	96.0	69.8	128.9	125.8	3.12	41.290		
800.0	797.1	764.6	756.4	1.8	2.2	-111.32	110.4	89.0	159.4	155.6	3.78	42.187		
900.0	894.4	850.7	838.2	2.2	2.7	-112.44	126.5	110.6	195.5	191.0	4.52	43.301		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31C-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	19.07	53.9	18.6	57.0					
100.0	100.0	100.0	100.0	0.1	0.1	19.07	53.9	18.6	57.0	56.9	0.18	317.190		
200.0	200.0	200.0	200.0	0.3	0.3	19.07	53.9	18.6	57.0	56.4	0.63	90.626		
233.5	233.5	233.5	233.5	0.4	0.4	19.07	53.9	18.6	57.0	56.3	0.78	73.122 CC, ES		
300.0	300.0	298.9	298.9	0.5	0.5	19.46	54.2	19.2	57.5	56.5	1.07	53.527		
400.0	400.0	396.3	396.2	0.8	0.8	22.36	56.9	23.4	61.6	60.1	1.52	40.417		
500.0	500.0	493.0	492.4	1.0	1.0	-112.66	62.1	31.7	71.1	69.1	2.00	35.484		
600.0	599.6	588.4	586.7	1.2	1.3	-111.59	69.7	44.0	86.9	84.3	2.51	34.583 SF		
700.0	698.8	682.0	678.3	1.4	1.6	-111.74	79.6	60.0	108.6	105.5	3.09	35.196		
800.0	797.1	773.2	766.7	1.8	2.1	-112.39	91.5	79.1	136.3	132.5	3.75	36.357		
900.0	894.4	861.6	851.2	2.2	2.5	-113.34	105.1	101.1	169.5	165.0	4.50	37.693		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 32A-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.35	55.7	31.3	63.9					
100.0	100.0	100.0	100.0	0.1	0.1	29.35	55.7	31.3	63.9	63.7	0.18	355.505		
200.0	200.0	200.0	200.0	0.3	0.3	29.35	55.7	31.3	63.9	63.3	0.63	101.573	CC, ES	
300.0	300.0	298.3	298.3	0.5	0.5	30.29	56.0	32.7	64.9	63.8	1.07	60.550		
400.0	400.0	395.8	395.5	0.8	0.8	34.10	57.3	38.8	69.3	67.8	1.52	45.504		
500.0	500.0	492.4	491.6	1.0	1.0	-99.89	59.6	49.6	78.4	76.4	2.00	39.145		
600.0	599.6	588.1	585.9	1.2	1.3	-97.76	62.8	65.0	92.4	89.9	2.51	36.796		
700.0	698.8	682.4	678.0	1.4	1.7	-97.08	67.0	84.7	111.0	107.9	3.10	35.810		
800.0	797.1	775.0	767.5	1.8	2.2	-97.24	72.0	108.3	134.0	130.2	3.80	35.302		
900.0	894.4	867.5	855.6	2.2	2.7	-98.03	77.8	135.9	161.2	156.6	4.62	34.874		
1,000.0	991.3	963.4	946.5	2.6	3.3	-99.24	84.1	165.5	189.4	183.9	5.53	34.279	SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 32C-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	29.29	48.8	27.4	56.0					
100.0	100.0	100.0	100.0	0.1	0.1	29.29	48.8	27.4	56.0	55.8	0.18	311.230		
200.0	200.0	200.0	200.0	0.3	0.3	29.29	48.8	27.4	56.0	55.3	0.63	88.923		
300.0	300.0	300.0	300.0	0.5	0.5	29.29	48.8	27.4	56.0	54.9	1.08	51.872 CC, ES		
400.0	400.0	398.6	398.6	0.8	0.8	31.56	48.7	29.9	57.2	55.7	1.52	37.700		
500.0	500.0	496.8	496.5	1.0	1.0	-102.55	48.4	37.5	61.9	59.9	1.96	31.598		
600.0	599.6	594.5	593.3	1.2	1.2	-99.84	47.9	50.0	70.7	68.2	2.44	28.943		
700.0	698.8	691.3	688.6	1.4	1.6	-98.35	47.3	67.3	83.4	80.4	3.02	27.614		
800.0	797.1	787.2	781.9	1.8	2.0	-97.75	46.4	89.1	99.9	96.2	3.72	26.839		
900.0	894.4	881.9	872.9	2.2	2.5	-97.74	45.4	115.3	120.1	115.5	4.57	26.285		
1,000.0	991.3	978.9	965.3	2.6	3.0	-97.61	44.3	144.9	142.2	136.6	5.51	25.782		
1,100.0	1,088.3	1,076.4	1,058.2	3.1	3.6	-97.50	43.1	174.7	164.3	157.8	6.50	25.292		
1,200.0	1,185.3	1,174.0	1,151.0	3.6	4.2	-97.42	41.9	204.6	186.4	178.9	7.50	24.850 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33A-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	29.38	34.6	19.5	39.7					
100.0	100.0	100.0	100.0	0.1	0.1	29.38	34.6	19.5	39.7	39.5	0.18	220.826		
200.0	200.0	200.0	200.0	0.3	0.3	29.38	34.6	19.5	39.7	39.1	0.63	63.093		
300.0	300.0	300.0	300.0	0.5	0.5	29.38	34.6	19.5	39.7	38.6	1.08	36.804 CC		
400.0	400.0	399.7	399.7	0.8	0.8	31.43	34.1	20.9	40.0	38.5	1.52	26.375 ES		
500.0	500.0	499.0	498.8	1.0	1.0	-101.42	32.0	27.0	42.3	40.4	1.94	21.827		
600.0	599.6	598.0	597.1	1.2	1.2	-97.15	28.3	37.9	47.6	45.2	2.41	19.740		
700.0	698.8	696.6	694.3	1.4	1.5	-94.19	22.9	53.6	55.6	52.6	2.99	18.613		
800.0	797.1	794.7	790.0	1.8	1.9	-92.41	16.0	73.9	66.2	62.5	3.70	17.889		
900.0	894.4	892.2	883.9	2.2	2.4	-91.43	7.6	98.6	79.3	74.7	4.57	17.328		
1,000.0	991.3	989.1	975.8	2.6	3.0	-89.07	-2.4	127.6	94.7	89.2	5.56	17.025		
1,100.0	1,088.3	1,087.5	1,068.5	3.1	3.6	-86.40	-13.1	159.0	111.4	104.8	6.61	16.859		
1,200.0	1,185.3	1,186.0	1,161.2	3.6	4.3	-84.43	-23.8	190.3	128.2	120.6	7.66	16.740		
1,300.0	1,282.2	1,284.5	1,254.0	4.1	4.9	-82.92	-34.5	221.7	145.2	136.4	8.72	16.651		
1,400.0	1,379.2	1,383.0	1,346.7	4.6	5.6	-81.72	-45.3	253.1	162.2	152.4	9.78	16.584		
1,500.0	1,476.1	1,481.5	1,439.5	5.1	6.3	-80.75	-56.0	284.4	179.3	168.4	10.84	16.532		
1,600.0	1,573.1	1,580.0	1,532.2	5.6	7.0	-79.95	-66.7	315.8	196.4	184.5	11.91	16.493 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33C-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	28.31	21.5	11.6	24.4					
100.0	100.0	100.0	100.0	0.1	0.1	28.31	21.5	11.6	24.4	24.2	0.18	135.742		
200.0	200.0	200.0	200.0	0.3	0.3	28.31	21.5	11.6	24.4	23.8	0.63	38.783		
300.0	300.0	300.0	300.0	0.5	0.5	29.84	21.1	12.1	24.4	23.3	1.07	22.781		
339.8	339.8	339.8	339.8	0.6	0.6	33.27	20.3	13.3	24.3	23.1	1.24	19.573	CC, ES	
400.0	400.0	399.9	399.7	0.8	0.7	42.07	18.3	16.5	24.6	23.1	1.50	16.356		
500.0	500.0	499.1	498.4	1.0	1.0	-79.81	12.6	25.1	27.6	25.6	1.97	14.024		
600.0	599.6	598.0	596.1	1.2	1.3	-68.65	4.1	38.0	33.4	30.9	2.49	13.442		
700.0	698.8	696.4	692.3	1.4	1.7	-62.10	-7.0	55.0	41.2	38.1	3.10	13.280		
800.0	797.1	794.3	787.0	1.8	2.2	-58.62	-20.8	76.0	50.2	46.4	3.82	13.164		
900.0	894.4	891.7	879.7	2.2	2.7	-56.92	-37.1	100.9	60.4	55.8	4.64	13.033	SF	
1,000.0	991.3	988.2	970.0	2.6	3.4	-54.15	-55.8	129.4	73.7	68.2	5.48	13.440		
1,100.0	1,088.3	1,086.8	1,061.2	3.1	4.1	-51.08	-76.3	160.6	89.3	82.9	6.34	14.091		
1,200.0	1,185.3	1,185.4	1,152.5	3.6	4.9	-48.92	-96.9	191.9	105.0	97.9	7.18	14.640		
1,300.0	1,282.2	1,284.1	1,243.8	4.1	5.7	-47.33	-117.4	223.2	120.9	112.9	8.02	15.076		
1,400.0	1,379.2	1,382.8	1,335.1	4.6	6.4	-46.10	-137.9	254.5	136.9	128.0	8.86	15.441		
1,500.0	1,476.1	1,481.5	1,426.4	5.1	7.2	-45.14	-158.5	285.8	152.9	143.1	9.71	15.746		
1,600.0	1,573.1	1,580.2	1,517.7	5.6	8.0	-44.35	-179.0	317.1	168.9	158.3	10.55	16.005		
1,700.0	1,670.1	1,678.9	1,609.0	6.1	8.7	-43.70	-199.5	348.4	184.9	173.5	11.40	16.227		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 34A-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	28.22	14.2	7.6	16.1					
100.0	100.0	100.0	100.0	0.1	0.1	28.22	14.2	7.6	16.1	15.9	0.18	89.629		
200.0	200.0	200.0	200.0	0.3	0.3	28.22	14.2	7.6	16.1	15.5	0.63	25.608		
300.0	300.0	300.0	300.0	0.5	0.5	28.22	14.2	7.6	16.1	15.0	1.08	14.938		
400.0	400.0	400.0	400.0	0.8	0.8	28.22	14.2	7.6	16.1	14.6	1.53	10.545 CC		
500.0	500.0	500.2	500.2	1.0	1.0	-109.62	12.4	9.5	16.3	14.4	1.94	8.407 ES		
600.0	599.6	600.4	600.1	1.2	1.2	-108.89	7.0	15.3	17.0	14.6	2.37	7.163		
700.0	698.8	700.6	699.4	1.4	1.4	-107.78	-2.0	24.8	18.0	15.1	2.89	6.239		
800.0	797.1	800.8	797.9	1.8	1.8	-106.42	-14.5	38.1	19.5	15.9	3.54	5.507		
900.0	894.4	901.0	895.3	2.2	2.2	-104.44	-30.6	55.2	21.3	17.0	4.35	4.897		
1,000.0	991.3	1,001.0	991.1	2.6	2.7	-93.16	-50.1	75.9	23.1	17.7	5.35	4.315		
1,100.0	1,088.3	1,100.3	1,084.7	3.1	3.3	-73.01	-72.8	100.0	27.1	20.7	6.33	4.275 SF		
1,200.0	1,185.3	1,198.3	1,175.3	3.6	4.0	-52.85	-98.5	127.3	36.7	29.7	6.95	5.276		
1,300.0	1,282.2	1,295.9	1,263.7	4.1	4.8	-38.99	-126.7	157.3	52.3	45.0	7.36	7.106		
1,400.0	1,379.2	1,394.0	1,352.5	4.6	5.6	-31.47	-155.4	187.7	70.0	62.2	7.83	8.945		
1,500.0	1,476.1	1,492.1	1,441.3	5.1	6.5	-27.01	-184.0	218.1	88.4	80.1	8.36	10.582		
1,600.0	1,573.1	1,590.2	1,530.0	5.6	7.3	-24.10	-212.7	248.5	107.2	98.2	8.92	12.009		
1,700.0	1,670.1	1,688.3	1,618.8	6.1	8.2	-22.06	-241.3	279.0	126.1	116.6	9.52	13.248		
1,800.0	1,767.0	1,786.4	1,707.5	6.7	9.0	-20.55	-270.0	309.4	145.1	135.0	10.13	14.327		
1,900.0	1,864.0	1,884.5	1,796.3	7.2	9.9	-19.39	-298.6	339.8	164.3	153.5	10.75	15.273		
2,000.0	1,961.0	1,982.6	1,885.1	7.7	10.7	-18.47	-327.3	370.2	183.4	172.0	11.39	16.106		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 23B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT SWD E1-797 - VH - 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	-150.27	-6.9	-4.0	8.0				
100.0	100.0	100.0	100.0	0.1	0.1	-150.27	-6.9	-4.0	8.0	7.8	0.18	44.320	
200.0	200.0	200.0	200.0	0.3	0.3	-150.27	-6.9	-4.0	8.0	7.3	0.63	12.663	
300.0	300.0	300.0	300.0	0.5	0.5	-150.27	-6.9	-4.0	8.0	6.9	1.08	7.387	
400.0	400.0	400.0	400.0	0.8	0.8	-150.27	-6.9	-4.0	8.0	6.4	1.53	5.214	
498.0	497.9	497.9	497.9	1.0	1.0	90.00	-6.9	-4.0	7.6	5.6	1.95	3.883 CC	
500.0	500.0	500.0	500.0	1.0	1.0	90.80	-6.9	-4.0	7.6	5.6	1.96	3.866 ES, SF	
600.0	599.6	599.6	599.6	1.2	1.2	136.27	-6.9	-4.0	11.0	8.5	2.46	4.453	
700.0	698.8	698.8	698.8	1.4	1.4	159.97	-6.9	-4.0	22.3	19.3	3.06	7.292	
800.0	797.1	797.1	797.1	1.8	1.7	168.85	-6.9	-4.0	39.9	36.3	3.65	10.950	
900.0	894.4	894.4	894.4	2.2	1.9	172.87	-6.9	-4.0	62.8	58.6	4.19	15.006	
1,000.0	991.3	991.3	991.3	2.6	2.1	174.87	-6.9	-4.0	87.1	82.5	4.62	18.863	
1,100.0	1,088.3	1,088.3	1,088.3	3.1	2.3	175.99	-6.9	-4.0	111.5	106.5	5.07	22.011	
1,200.0	1,185.3	1,185.3	1,185.3	3.6	2.5	176.71	-6.9	-4.0	135.9	130.4	5.53	24.605	
1,300.0	1,282.2	1,282.2	1,282.2	4.1	2.7	177.21	-6.9	-4.0	160.4	154.4	5.99	26.765	
1,400.0	1,379.2	1,379.2	1,379.2	4.6	3.0	177.58	-6.9	-4.0	184.8	178.3	6.46	28.585	

Cathedral Energy Services

Anticollision Report

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Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 23B-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=20' @ 8349.0usft (Patterson #303)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 23B-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

