

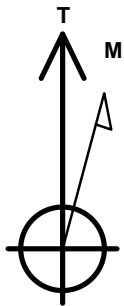
Caerus Oil and Gas LLC

Well Name: **Riggs 35-761-0561XBH**

Surface Location: Riggs OP 35-761 Pad Sec.35-T7N-R61W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4769.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1436866.81 3369038.85 40.525017 -104.172457
 RKB - 30' WELL @ 4799.0ft (RKB - 30')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 250'FSL, 1543'FEL, SEC.35	1.0	0.0	0.0	Point
BHL 460'FSL, 2402'FEL, SEC.11	6244.0	-10287.6	-749.3	Point
LPL 460'FNL, 2402'FEL, SEC.2	6354.0	-713.3	-851.3	Point



Azimuths to True North
 Magnetic North: 7.83°

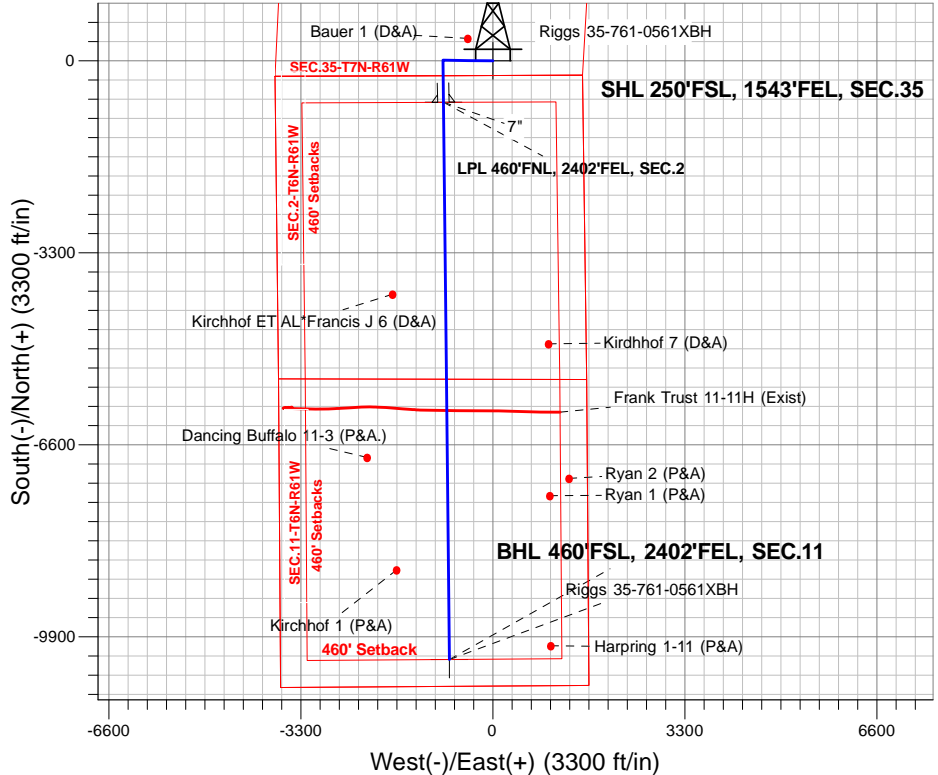
Magnetic Field
 Strength: 52697.1snT
 Dip Angle: 67.06°
 Date: 10/4/2016
 Model: IGRF2010

Riggs OP 35-761 Pad Sec.35-T7N-R61W
 Riggs 35-761-0561XBH
 Plan #1 (9-29-16)
 10:31, October 04 2016

ANNOTATIONS

TVD	MD	Annotation
400.0	400.0	KOP - Start Build 1.50
4729.5	4807.6	Start Drop -2.00
5300.0	5381.9	Start 337.9 hold at 5381.9 MD
5637.9	5719.8	Start Build 8.00
6354.0	6853.4	Start 9575.1 hold at 6853.4 MD
6244.0	16428.5	TD at 16428.5

South(-)/North(+) (3300 ft/in)

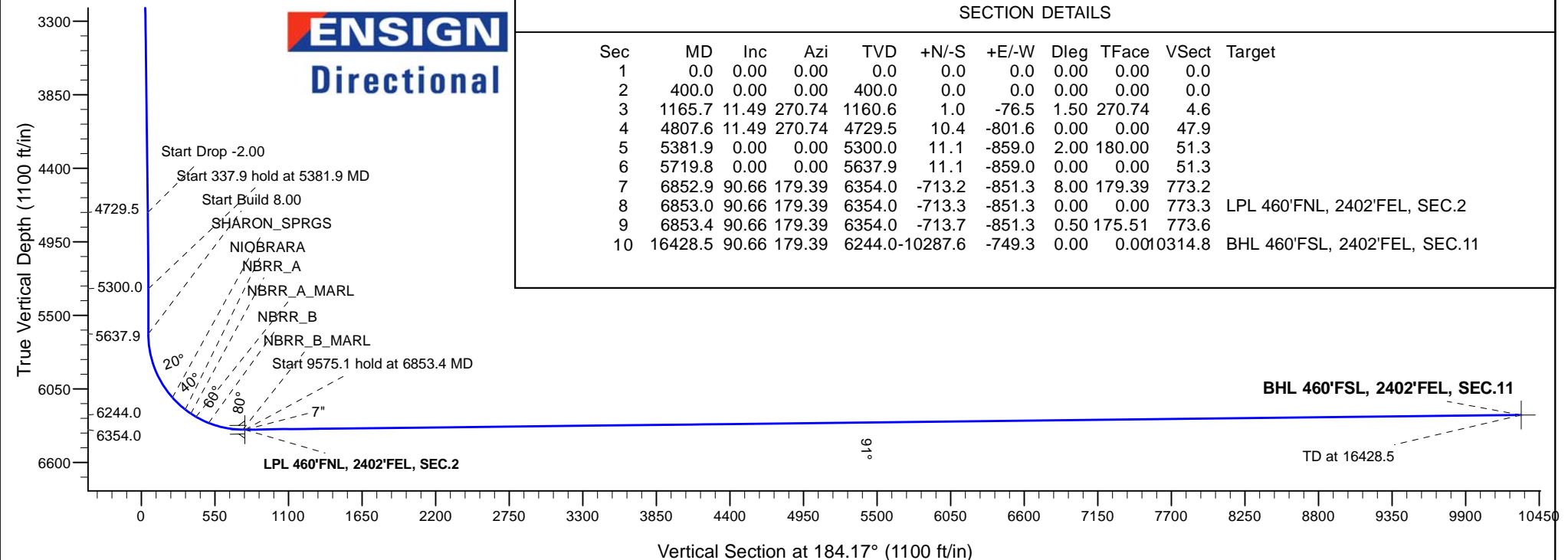


West(-)/East(+) (3300 ft/in)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1165.7	11.49	270.74	1160.6	1.0	-76.5	1.50	270.74	4.6	
4	4807.6	11.49	270.74	4729.5	10.4	-801.6	0.00	0.00	47.9	
5	5381.9	0.00	0.00	5300.0	11.1	-859.0	2.00	180.00	51.3	
6	5719.8	0.00	0.00	5637.9	11.1	-859.0	0.00	0.00	51.3	
7	6852.9	90.66	179.39	6354.0	-713.2	-851.3	8.00	179.39	773.2	
8	6853.0	90.66	179.39	6354.0	-713.3	-851.3	0.00	0.00	773.3	LPL 460'FNL, 2402'FEL, SEC.2
9	6853.4	90.66	179.39	6354.0	-713.7	-851.3	0.50	175.51	773.6	
10	16428.5	90.66	179.39	6244.0	-10287.6	-749.3	0.00	0.00	10314.8	BHL 460'FSL, 2402'FEL, SEC.11

ENSIGN
 Directional





Caerus Oil and Gas LLC

SEC.35-T7N-R61W

Riggs OP 35-761 Pad Sec.35-T7N-R61W

Riggs 35-761-0561XBH

Wellbore #1

Plan: Plan #1 (9-29-16)

Standard Planning Report

04 October, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Project	SEC.35-T7N-R61W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Riggs OP 35-761 Pad Sec.35-T7N-R61W				
Site Position:		Northing:	1,436,866.61 usft	Latitude:	40.525017
From:	Lat/Long	Easting:	3,369,023.84 usft	Longitude:	-104.172511
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.86

Well	Riggs 35-761-0561XBH					
Well Position	+N/-S	0.0 ft	Northing:	1,436,866.81 usft	Latitude:	40.525017
	+E/-W	15.0 ft	Easting:	3,369,038.85 usft	Longitude:	-104.172457
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,769.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/4/2016	7.83	67.06	52,697

Design	Plan #1 (9-29-16)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	184.17

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,165.7	11.49	270.74	1,160.6	1.0	-76.5	1.50	1.50	0.00	270.74	
4,807.6	11.49	270.74	4,729.5	10.4	-801.6	0.00	0.00	0.00	0.00	
5,381.9	0.00	0.00	5,300.0	11.1	-859.0	2.00	-2.00	0.00	180.00	
5,719.8	0.00	0.00	5,637.9	11.1	-859.0	0.00	0.00	0.00	0.00	
6,852.9	90.66	179.39	6,354.0	-713.2	-851.3	8.00	8.00	0.00	179.39	
6,853.0	90.66	179.39	6,354.0	-713.3	-851.3	0.00	0.00	0.00	0.00	LPL 460'FNL, 2402'FI
6,853.4	90.66	179.39	6,354.0	-713.7	-851.3	0.50	-0.50	0.04	175.51	
16,428.5	90.66	179.39	6,244.0	-10,287.6	-749.3	0.00	0.00	0.00	0.00	BHL 460'FSL, 2402'FI

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
500.0	1.50	270.74	500.0	0.0	-1.3	0.1	1.50	1.50	0.00
600.0	3.00	270.74	599.9	0.1	-5.2	0.3	1.50	1.50	0.00
700.0	4.50	270.74	699.7	0.2	-11.8	0.7	1.50	1.50	0.00
800.0	6.00	270.74	799.3	0.3	-20.9	1.3	1.50	1.50	0.00
900.0	7.50	270.74	898.6	0.4	-32.7	2.0	1.50	1.50	0.00
1,000.0	9.00	270.74	997.5	0.6	-47.0	2.8	1.50	1.50	0.00
1,100.0	10.50	270.74	1,096.1	0.8	-64.0	3.8	1.50	1.50	0.00
1,165.7	11.49	270.74	1,160.6	1.0	-76.5	4.6	1.50	1.50	0.00
1,200.0	11.49	270.74	1,194.2	1.1	-83.3	5.0	0.00	0.00	0.00
1,300.0	11.49	270.74	1,292.2	1.3	-103.2	6.2	0.00	0.00	0.00
1,400.0	11.49	270.74	1,390.2	1.6	-123.1	7.4	0.00	0.00	0.00
1,500.0	11.49	270.74	1,488.2	1.8	-143.0	8.5	0.00	0.00	0.00
1,600.0	11.49	270.74	1,586.2	2.1	-163.0	9.7	0.00	0.00	0.00
1,700.0	11.49	270.74	1,684.2	2.4	-182.9	10.9	0.00	0.00	0.00
1,800.0	11.49	270.74	1,782.2	2.6	-202.8	12.1	0.00	0.00	0.00
1,900.0	11.49	270.74	1,880.2	2.9	-222.7	13.3	0.00	0.00	0.00
2,000.0	11.49	270.74	1,978.2	3.1	-242.6	14.5	0.00	0.00	0.00
2,100.0	11.49	270.74	2,076.2	3.4	-262.5	15.7	0.00	0.00	0.00
2,200.0	11.49	270.74	2,174.2	3.6	-282.4	16.9	0.00	0.00	0.00
2,300.0	11.49	270.74	2,272.2	3.9	-302.3	18.1	0.00	0.00	0.00
2,400.0	11.49	270.74	2,370.2	4.2	-322.2	19.3	0.00	0.00	0.00
2,500.0	11.49	270.74	2,468.2	4.4	-342.2	20.4	0.00	0.00	0.00
2,600.0	11.49	270.74	2,566.2	4.7	-362.1	21.6	0.00	0.00	0.00
2,700.0	11.49	270.74	2,664.2	4.9	-382.0	22.8	0.00	0.00	0.00
2,800.0	11.49	270.74	2,762.2	5.2	-401.9	24.0	0.00	0.00	0.00
2,900.0	11.49	270.74	2,860.1	5.5	-421.8	25.2	0.00	0.00	0.00
3,000.0	11.49	270.74	2,958.1	5.7	-441.7	26.4	0.00	0.00	0.00
3,100.0	11.49	270.74	3,056.1	6.0	-461.6	27.6	0.00	0.00	0.00
3,200.0	11.49	270.74	3,154.1	6.2	-481.5	28.8	0.00	0.00	0.00
3,235.6	11.49	270.74	3,189.0	6.3	-488.6	29.2	0.00	0.00	0.00
RICHARD_SD									
3,300.0	11.49	270.74	3,252.1	6.5	-501.5	30.0	0.00	0.00	0.00
3,400.0	11.49	270.74	3,350.1	6.7	-521.4	31.2	0.00	0.00	0.00
3,500.0	11.49	270.74	3,448.1	7.0	-541.3	32.3	0.00	0.00	0.00
3,600.0	11.49	270.74	3,546.1	7.3	-561.2	33.5	0.00	0.00	0.00
3,700.0	11.49	270.74	3,644.1	7.5	-581.1	34.7	0.00	0.00	0.00
3,800.0	11.49	270.74	3,742.1	7.8	-601.0	35.9	0.00	0.00	0.00
3,900.0	11.49	270.74	3,840.1	8.0	-620.9	37.1	0.00	0.00	0.00
4,000.0	11.49	270.74	3,938.1	8.3	-640.8	38.3	0.00	0.00	0.00
4,100.0	11.49	270.74	4,036.1	8.5	-660.7	39.5	0.00	0.00	0.00
4,200.0	11.49	270.74	4,134.1	8.8	-680.7	40.7	0.00	0.00	0.00
4,300.0	11.49	270.74	4,232.1	9.1	-700.6	41.9	0.00	0.00	0.00
4,400.0	11.49	270.74	4,330.1	9.3	-720.5	43.0	0.00	0.00	0.00
4,500.0	11.49	270.74	4,428.1	9.6	-740.4	44.2	0.00	0.00	0.00
4,600.0	11.49	270.74	4,526.1	9.8	-760.3	45.4	0.00	0.00	0.00
4,700.0	11.49	270.74	4,624.1	10.1	-780.2	46.6	0.00	0.00	0.00
4,800.0	11.49	270.74	4,722.1	10.3	-800.1	47.8	0.00	0.00	0.00
4,807.6	11.49	270.74	4,729.5	10.4	-801.6	47.9	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
Start Drop -2.00										
4,900.0	9.64	270.74	4,820.4	10.6	-818.6	48.9	2.00	-2.00	0.00	
5,000.0	7.64	270.74	4,919.2	10.8	-833.6	49.8	2.00	-2.00	0.00	
5,100.0	5.64	270.74	5,018.6	10.9	-845.1	50.5	2.00	-2.00	0.00	
5,200.0	3.64	270.74	5,118.2	11.0	-853.2	51.0	2.00	-2.00	0.00	
5,300.0	1.64	270.74	5,218.1	11.1	-857.8	51.3	2.00	-2.00	0.00	
5,381.9	0.00	0.00	5,300.0	11.1	-859.0	51.3	2.00	-2.00	0.00	
Start 337.9 hold at 5381.9 MD										
5,400.0	0.00	0.00	5,318.1	11.1	-859.0	51.3	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,418.1	11.1	-859.0	51.3	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,518.1	11.1	-859.0	51.3	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,618.1	11.1	-859.0	51.3	0.00	0.00	0.00	
5,719.8	0.00	0.00	5,637.9	11.1	-859.0	51.3	0.00	0.00	0.00	
Start Build 8.00										
5,800.0	6.41	179.39	5,717.9	6.6	-859.0	55.8	8.00	8.00	0.00	
5,900.0	14.41	179.39	5,816.2	-11.4	-858.8	73.8	8.00	8.00	0.00	
6,000.0	22.42	179.39	5,911.0	-43.0	-858.4	105.2	8.00	8.00	0.00	
6,100.0	30.42	179.39	6,000.5	-87.5	-857.9	149.5	8.00	8.00	0.00	
6,200.0	38.42	179.39	6,082.9	-143.9	-857.3	205.8	8.00	8.00	0.00	
6,240.6	41.67	179.39	6,114.0	-170.0	-857.1	231.8	8.00	8.00	0.00	
SHARON_SPRGS										
6,300.0	46.42	179.39	6,156.7	-211.3	-856.6	273.0	8.00	8.00	0.00	
6,372.6	52.23	179.39	6,204.0	-266.4	-856.0	327.8	8.00	8.00	0.00	
NIOBRARA										
6,400.0	54.42	179.39	6,220.4	-288.3	-855.8	349.7	8.00	8.00	0.00	
6,424.0	56.34	179.39	6,234.0	-308.1	-855.6	369.4	8.00	8.00	0.00	
NBRR_A										
6,469.5	59.98	179.39	6,258.0	-346.7	-855.2	407.9	8.00	8.00	0.00	
NBRR_A_MARL										
6,500.0	62.42	179.39	6,272.7	-373.4	-854.9	434.6	8.00	8.00	0.00	
6,575.4	68.45	179.39	6,304.0	-442.0	-854.2	502.8	8.00	8.00	0.00	
NBRR_B										
6,600.0	70.42	179.39	6,312.6	-465.0	-853.9	525.8	8.00	8.00	0.00	
6,700.0	78.42	179.39	6,339.5	-561.3	-852.9	621.7	8.00	8.00	0.00	
6,800.0	86.42	179.39	6,352.7	-660.3	-851.8	720.4	8.00	8.00	0.00	
6,836.4	89.33	179.39	6,354.0	-696.6	-851.5	756.6	8.00	8.00	0.00	
NBRR_B_MARL										
6,852.9	90.66	179.39	6,354.0	-713.2	-851.3	773.2	8.00	8.00	0.00	
6,853.0	90.66	179.39	6,354.0	-713.3	-851.3	773.3	0.00	0.00	0.00	
6,853.4	90.66	179.39	6,354.0	-713.7	-851.3	773.6	0.49	-0.49	0.04	
Start 9575.1 hold at 6853.4 MD										
6,900.0	90.66	179.39	6,353.5	-760.3	-850.8	820.1	0.00	0.00	0.00	
7,000.0	90.66	179.39	6,352.3	-860.3	-849.7	919.7	0.00	0.00	0.00	
7,100.0	90.66	179.39	6,351.2	-960.2	-848.6	1,019.3	0.00	0.00	0.00	
7,200.0	90.66	179.39	6,350.0	-1,060.2	-847.6	1,119.0	0.00	0.00	0.00	
7,300.0	90.66	179.39	6,348.9	-1,160.2	-846.5	1,218.6	0.00	0.00	0.00	
7,400.0	90.66	179.39	6,347.7	-1,260.2	-845.5	1,318.3	0.00	0.00	0.00	
7,500.0	90.66	179.39	6,346.6	-1,360.2	-844.4	1,417.9	0.00	0.00	0.00	
7,600.0	90.66	179.39	6,345.4	-1,460.2	-843.3	1,517.6	0.00	0.00	0.00	
7,700.0	90.66	179.39	6,344.3	-1,560.2	-842.3	1,617.2	0.00	0.00	0.00	
7,800.0	90.66	179.39	6,343.1	-1,660.2	-841.2	1,716.9	0.00	0.00	0.00	
7,900.0	90.66	179.39	6,342.0	-1,760.1	-840.1	1,816.5	0.00	0.00	0.00	
8,000.0	90.66	179.39	6,340.8	-1,860.1	-839.1	1,916.2	0.00	0.00	0.00	

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.0	90.66	179.39	6,339.7	-1,960.1	-838.0	2,015.8	0.00	0.00	0.00
8,200.0	90.66	179.39	6,338.5	-2,060.1	-836.9	2,115.5	0.00	0.00	0.00
8,300.0	90.66	179.39	6,337.4	-2,160.1	-835.9	2,215.1	0.00	0.00	0.00
8,400.0	90.66	179.39	6,336.2	-2,260.1	-834.8	2,314.8	0.00	0.00	0.00
8,500.0	90.66	179.39	6,335.1	-2,360.1	-833.7	2,414.4	0.00	0.00	0.00
8,600.0	90.66	179.39	6,333.9	-2,460.1	-832.7	2,514.0	0.00	0.00	0.00
8,700.0	90.66	179.39	6,332.8	-2,560.0	-831.6	2,613.7	0.00	0.00	0.00
8,800.0	90.66	179.39	6,331.6	-2,660.0	-830.5	2,713.3	0.00	0.00	0.00
8,900.0	90.66	179.39	6,330.5	-2,760.0	-829.5	2,813.0	0.00	0.00	0.00
9,000.0	90.66	179.39	6,329.3	-2,860.0	-828.4	2,912.6	0.00	0.00	0.00
9,100.0	90.66	179.39	6,328.2	-2,960.0	-827.3	3,012.3	0.00	0.00	0.00
9,200.0	90.66	179.39	6,327.0	-3,060.0	-826.3	3,111.9	0.00	0.00	0.00
9,300.0	90.66	179.39	6,325.9	-3,160.0	-825.2	3,211.6	0.00	0.00	0.00
9,400.0	90.66	179.39	6,324.7	-3,260.0	-824.1	3,311.2	0.00	0.00	0.00
9,500.0	90.66	179.39	6,323.6	-3,359.9	-823.1	3,410.9	0.00	0.00	0.00
9,600.0	90.66	179.39	6,322.4	-3,459.9	-822.0	3,510.5	0.00	0.00	0.00
9,700.0	90.66	179.39	6,321.3	-3,559.9	-820.9	3,610.2	0.00	0.00	0.00
9,800.0	90.66	179.39	6,320.1	-3,659.9	-819.9	3,709.8	0.00	0.00	0.00
9,900.0	90.66	179.39	6,319.0	-3,759.9	-818.8	3,809.4	0.00	0.00	0.00
10,000.0	90.66	179.39	6,317.8	-3,859.9	-817.8	3,909.1	0.00	0.00	0.00
10,100.0	90.66	179.39	6,316.7	-3,959.9	-816.7	4,008.7	0.00	0.00	0.00
10,200.0	90.66	179.39	6,315.6	-4,059.9	-815.6	4,108.4	0.00	0.00	0.00
10,300.0	90.66	179.39	6,314.4	-4,159.8	-814.6	4,208.0	0.00	0.00	0.00
10,400.0	90.66	179.39	6,313.3	-4,259.8	-813.5	4,307.7	0.00	0.00	0.00
10,500.0	90.66	179.39	6,312.1	-4,359.8	-812.4	4,407.3	0.00	0.00	0.00
10,600.0	90.66	179.39	6,311.0	-4,459.8	-811.4	4,507.0	0.00	0.00	0.00
10,700.0	90.66	179.39	6,309.8	-4,559.8	-810.3	4,606.6	0.00	0.00	0.00
10,800.0	90.66	179.39	6,308.7	-4,659.8	-809.2	4,706.3	0.00	0.00	0.00
10,900.0	90.66	179.39	6,307.5	-4,759.8	-808.2	4,805.9	0.00	0.00	0.00
11,000.0	90.66	179.39	6,306.4	-4,859.8	-807.1	4,905.6	0.00	0.00	0.00
11,100.0	90.66	179.39	6,305.2	-4,959.8	-806.0	5,005.2	0.00	0.00	0.00
11,200.0	90.66	179.39	6,304.1	-5,059.7	-805.0	5,104.8	0.00	0.00	0.00
11,300.0	90.66	179.39	6,302.9	-5,159.7	-803.9	5,204.5	0.00	0.00	0.00
11,400.0	90.66	179.39	6,301.8	-5,259.7	-802.8	5,304.1	0.00	0.00	0.00
11,500.0	90.66	179.39	6,300.6	-5,359.7	-801.8	5,403.8	0.00	0.00	0.00
11,600.0	90.66	179.39	6,299.5	-5,459.7	-800.7	5,503.4	0.00	0.00	0.00
11,700.0	90.66	179.39	6,298.3	-5,559.7	-799.6	5,603.1	0.00	0.00	0.00
11,800.0	90.66	179.39	6,297.2	-5,659.7	-798.6	5,702.7	0.00	0.00	0.00
11,900.0	90.66	179.39	6,296.0	-5,759.7	-797.5	5,802.4	0.00	0.00	0.00
12,000.0	90.66	179.39	6,294.9	-5,859.6	-796.4	5,902.0	0.00	0.00	0.00
12,100.0	90.66	179.39	6,293.7	-5,959.6	-795.4	6,001.7	0.00	0.00	0.00
12,200.0	90.66	179.39	6,292.6	-6,059.6	-794.3	6,101.3	0.00	0.00	0.00
12,300.0	90.66	179.39	6,291.4	-6,159.6	-793.2	6,201.0	0.00	0.00	0.00
12,400.0	90.66	179.39	6,290.3	-6,259.6	-792.2	6,300.6	0.00	0.00	0.00
12,500.0	90.66	179.39	6,289.1	-6,359.6	-791.1	6,400.2	0.00	0.00	0.00
12,600.0	90.66	179.39	6,288.0	-6,459.6	-790.1	6,499.9	0.00	0.00	0.00
12,700.0	90.66	179.39	6,286.8	-6,559.6	-789.0	6,599.5	0.00	0.00	0.00
12,800.0	90.66	179.39	6,285.7	-6,659.5	-787.9	6,699.2	0.00	0.00	0.00
12,900.0	90.66	179.39	6,284.5	-6,759.5	-786.9	6,798.8	0.00	0.00	0.00
13,000.0	90.66	179.39	6,283.4	-6,859.5	-785.8	6,898.5	0.00	0.00	0.00
13,100.0	90.66	179.39	6,282.2	-6,959.5	-784.7	6,998.1	0.00	0.00	0.00
13,200.0	90.66	179.39	6,281.1	-7,059.5	-783.7	7,097.8	0.00	0.00	0.00
13,300.0	90.66	179.39	6,279.9	-7,159.5	-782.6	7,197.4	0.00	0.00	0.00
13,400.0	90.66	179.39	6,278.8	-7,259.5	-781.5	7,297.1	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.0	90.66	179.39	6,277.6	-7,359.5	-780.5	7,396.7	0.00	0.00	0.00
13,600.0	90.66	179.39	6,276.5	-7,459.4	-779.4	7,496.4	0.00	0.00	0.00
13,700.0	90.66	179.39	6,275.3	-7,559.4	-778.3	7,596.0	0.00	0.00	0.00
13,800.0	90.66	179.39	6,274.2	-7,659.4	-777.3	7,695.6	0.00	0.00	0.00
13,900.0	90.66	179.39	6,273.0	-7,759.4	-776.2	7,795.3	0.00	0.00	0.00
14,000.0	90.66	179.39	6,271.9	-7,859.4	-775.1	7,894.9	0.00	0.00	0.00
14,100.0	90.66	179.39	6,270.7	-7,959.4	-774.1	7,994.6	0.00	0.00	0.00
14,200.0	90.66	179.39	6,269.6	-8,059.4	-773.0	8,094.2	0.00	0.00	0.00
14,300.0	90.66	179.39	6,268.5	-8,159.4	-771.9	8,193.9	0.00	0.00	0.00
14,400.0	90.66	179.39	6,267.3	-8,259.3	-770.9	8,293.5	0.00	0.00	0.00
14,500.0	90.66	179.39	6,266.2	-8,359.3	-769.8	8,393.2	0.00	0.00	0.00
14,600.0	90.66	179.39	6,265.0	-8,459.3	-768.7	8,492.8	0.00	0.00	0.00
14,700.0	90.66	179.39	6,263.9	-8,559.3	-767.7	8,592.5	0.00	0.00	0.00
14,800.0	90.66	179.39	6,262.7	-8,659.3	-766.6	8,692.1	0.00	0.00	0.00
14,900.0	90.66	179.39	6,261.6	-8,759.3	-765.5	8,791.8	0.00	0.00	0.00
15,000.0	90.66	179.39	6,260.4	-8,859.3	-764.5	8,891.4	0.00	0.00	0.00
15,100.0	90.66	179.39	6,259.3	-8,959.3	-763.4	8,991.0	0.00	0.00	0.00
15,200.0	90.66	179.39	6,258.1	-9,059.2	-762.3	9,090.7	0.00	0.00	0.00
15,300.0	90.66	179.39	6,257.0	-9,159.2	-761.3	9,190.3	0.00	0.00	0.00
15,400.0	90.66	179.39	6,255.8	-9,259.2	-760.2	9,290.0	0.00	0.00	0.00
15,500.0	90.66	179.39	6,254.7	-9,359.2	-759.2	9,389.6	0.00	0.00	0.00
15,600.0	90.66	179.39	6,253.5	-9,459.2	-758.1	9,489.3	0.00	0.00	0.00
15,700.0	90.66	179.39	6,252.4	-9,559.2	-757.0	9,588.9	0.00	0.00	0.00
15,800.0	90.66	179.39	6,251.2	-9,659.2	-756.0	9,688.6	0.00	0.00	0.00
15,900.0	90.66	179.39	6,250.1	-9,759.2	-754.9	9,788.2	0.00	0.00	0.00
16,000.0	90.66	179.39	6,248.9	-9,859.1	-753.8	9,887.9	0.00	0.00	0.00
16,100.0	90.66	179.39	6,247.8	-9,959.1	-752.8	9,987.5	0.00	0.00	0.00
16,200.0	90.66	179.39	6,246.6	-10,059.1	-751.7	10,087.2	0.00	0.00	0.00
16,300.0	90.66	179.39	6,245.5	-10,159.1	-750.6	10,186.8	0.00	0.00	0.00
16,400.0	90.66	179.39	6,244.3	-10,259.1	-749.6	10,286.4	0.00	0.00	0.00
16,428.5	90.66	179.39	6,244.0	-10,287.6	-749.3	10,314.8	0.00	0.00	0.00
TD at 16428.5									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL 250'FSL, 1543'FEL	0.00	0.00	1.0	0.0	0.0	1,436,866.83	3,369,038.85	40.525017	-104.172457
- plan hits target center									
- Point									
BHL 460'FSL, 2402'FEL	0.00	0.00	6,244.0	-10,287.6	-749.3	1,426,569.50	3,368,443.70	40.496779	-104.175151
- plan hits target center									
- Point									
LPL 460'FNL, 2402'FEL,	0.00	0.00	6,354.0	-713.3	-851.3	1,436,140.87	3,368,198.37	40.523059	-104.175519
- plan hits target center									
- Point									

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0561XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0561XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,853.0	6,354.0	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,235.6	3,189.0	RICHARD_SD		0.00	
6,240.6	6,114.0	SHARON_SPRGS		0.00	
6,372.6	6,204.0	NIOBRARA		0.00	
6,424.0	6,234.0	NBRR_A		0.00	
6,469.5	6,258.0	NBRR_A_MARL		0.00	
6,575.4	6,304.0	NBRR_B		0.00	
6,836.4	6,354.0	NBRR_B_MARL		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
400.0	400.0	0.0	0.0	KOP - Start Build 1.50	
4,807.6	4,729.5	1.0	-76.5	Start Drop -2.00	
5,381.9	5,300.0	10.4	-801.6	Start 337.9 hold at 5381.9 MD	
5,719.8	5,637.9	11.1	-859.0	Start Build 8.00	
6,853.4	6,354.0	11.1	-859.0	Start 9575.1 hold at 6853.4 MD	
16,428.5	6,244.0	-713.7	-851.3	TD at 16428.5	