

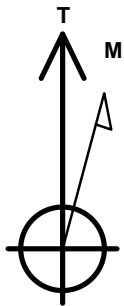
Caerus Oil and Gas LLC

Well Name: **Riggs 35-761-0662XCH**

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 1436867.85 3369083.88 40.525018 -104.172295
 RKB - 30' WELL @ 4799.0ft (RKB - 30')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 250'FSL, 1498'FEL, SEC.35	1.0	0.0	0.0	Point
BHL 460'FSL, 1927'FEL, SEC.11	6299.0	-10285.1	-319.3	Point
LPL 460'FNL, 1927'FEL, SEC.2	6434.0	-711.9	-421.2	Point



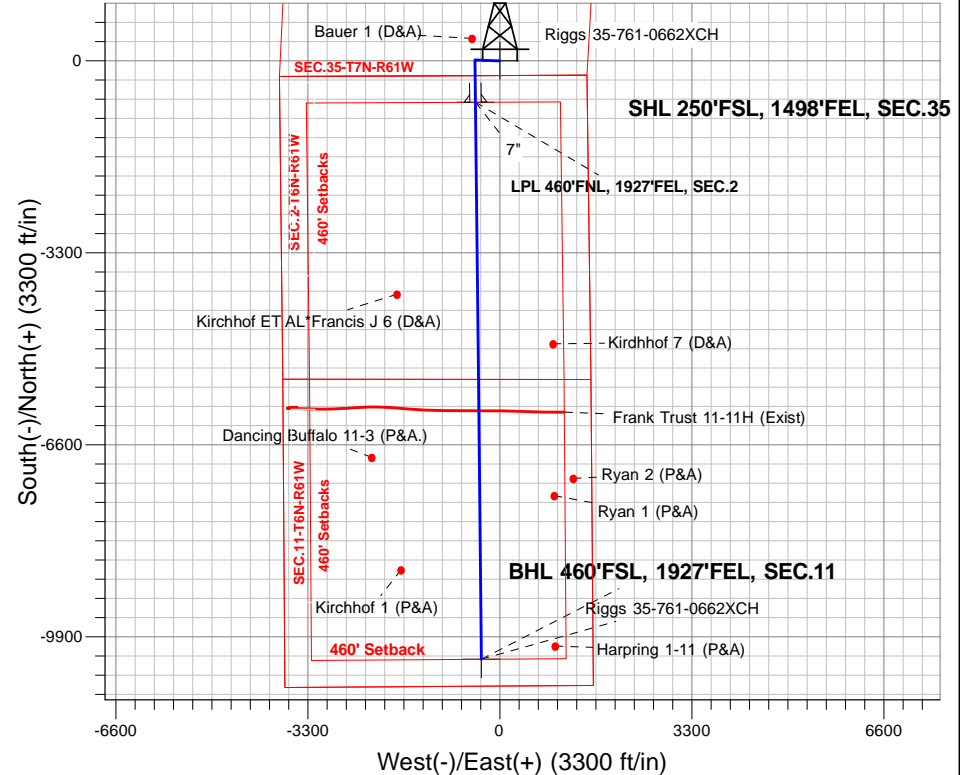
Azimuths to True North
 Magnetic North: 7.83°

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 35-761-0662XCH
 Plan #1 (9-29-16)
 10:54, October 04 2016

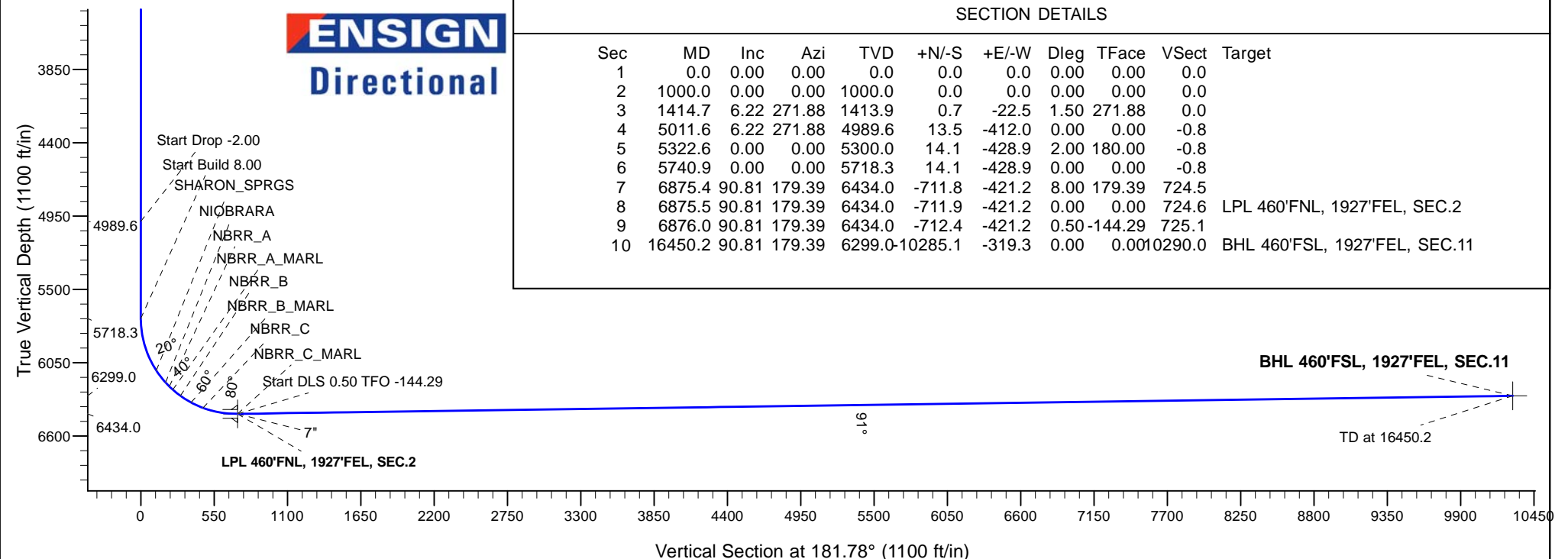
ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP - Start Build 1.50
4989.6	5011.6	Start Drop -2.00
5718.3	5740.9	Start Build 8.00
6434.0	6875.5	Start DLS 0.50 TFO -144.29
6434.0	6876.0	Start 9574.2 hold at 6876.0 MD
6299.0	16450.2	TD at 16450.2



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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1414.7	6.22	271.88	1413.9	0.7	-22.5	1.50	271.88	0.0	
4	5011.6	6.22	271.88	4989.6	13.5	-412.0	0.00	0.00	-0.8	
5	5322.6	0.00	0.00	5300.0	14.1	-428.9	2.00	180.00	-0.8	
6	5740.9	0.00	0.00	5718.3	14.1	-428.9	0.00	0.00	-0.8	
7	6875.4	90.81	179.39	6434.0	-711.8	-421.2	8.00	179.39	724.5	
8	6875.5	90.81	179.39	6434.0	-711.9	-421.2	0.00	0.00	724.6	LPL 460'FNL, 1927'FEL, SEC.2
9	6876.0	90.81	179.39	6434.0	-712.4	-421.2	0.50	-144.29	725.1	
10	16450.2	90.81	179.39	6299.0	-10285.1	-319.3	0.00	0.00	10290.0	BHL 460'FSL, 1927'FEL, SEC.11





Caerus Oil and Gas LLC

SEC.35-T7N-R61W

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

Riggs 35-761-0662XCH

Wellbore #1

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

Standard Planning Report

04 October, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XCH
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 35-761-0662XCH	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 35-761-0662XCH					
Well Position	+N/-S	0.3 ft	Northing:	1,436,867.85 usft	Latitude:	40.525018
	+E/-W	60.0 ft	Easting:	3,369,083.87 usft	Longitude:	-104.172295
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 (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	181.78

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,414.7	6.22	271.88	1,413.9	0.7	-22.5	1.50	1.50	0.00	271.88	
5,011.6	6.22	271.88	4,989.6	13.5	-412.0	0.00	0.00	0.00	0.00	
5,322.6	0.00	0.00	5,300.0	14.1	-428.9	2.00	-2.00	0.00	180.00	
5,740.9	0.00	0.00	5,718.3	14.1	-428.9	0.00	0.00	0.00	0.00	
6,875.4	90.81	179.39	6,434.0	-711.8	-421.2	8.00	8.00	0.00	179.39	
6,875.5	90.81	179.39	6,434.0	-711.9	-421.2	0.00	0.00	0.00	0.00	LPL 460'FNL, 1927'FI
6,876.0	90.81	179.39	6,434.0	-712.4	-421.2	0.50	-0.41	-0.29	-144.29	
16,450.2	90.81	179.39	6,299.0	-10,285.1	-319.3	0.00	0.00	0.00	0.00	BHL 460'FSL, 1927'FI

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XCH
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 35-761-0662XCH	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
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,100.0	1.50	271.88	1,100.0	0.0	-1.3	0.0	1.50	1.50	0.00
1,200.0	3.00	271.88	1,199.9	0.2	-5.2	0.0	1.50	1.50	0.00
1,300.0	4.50	271.88	1,299.7	0.4	-11.8	0.0	1.50	1.50	0.00
1,400.0	6.00	271.88	1,399.3	0.7	-20.9	0.0	1.50	1.50	0.00
1,414.7	6.22	271.88	1,413.9	0.7	-22.5	0.0	1.50	1.50	0.00
1,500.0	6.22	271.88	1,498.7	1.0	-31.7	-0.1	0.00	0.00	0.00
1,600.0	6.22	271.88	1,598.1	1.4	-42.5	-0.1	0.00	0.00	0.00
1,700.0	6.22	271.88	1,697.5	1.8	-53.4	-0.1	0.00	0.00	0.00
1,800.0	6.22	271.88	1,796.9	2.1	-64.2	-0.1	0.00	0.00	0.00
1,900.0	6.22	271.88	1,896.3	2.5	-75.0	-0.1	0.00	0.00	0.00
2,000.0	6.22	271.88	1,995.7	2.8	-85.9	-0.2	0.00	0.00	0.00
2,100.0	6.22	271.88	2,095.2	3.2	-96.7	-0.2	0.00	0.00	0.00
2,200.0	6.22	271.88	2,194.6	3.5	-107.5	-0.2	0.00	0.00	0.00
2,300.0	6.22	271.88	2,294.0	3.9	-118.4	-0.2	0.00	0.00	0.00
2,400.0	6.22	271.88	2,393.4	4.2	-129.2	-0.2	0.00	0.00	0.00
2,500.0	6.22	271.88	2,492.8	4.6	-140.0	-0.3	0.00	0.00	0.00
2,600.0	6.22	271.88	2,592.2	5.0	-150.9	-0.3	0.00	0.00	0.00
2,700.0	6.22	271.88	2,691.6	5.3	-161.7	-0.3	0.00	0.00	0.00
2,800.0	6.22	271.88	2,791.0	5.7	-172.5	-0.3	0.00	0.00	0.00
2,900.0	6.22	271.88	2,890.4	6.0	-183.3	-0.3	0.00	0.00	0.00
3,000.0	6.22	271.88	2,989.9	6.4	-194.2	-0.4	0.00	0.00	0.00
3,100.0	6.22	271.88	3,089.3	6.7	-205.0	-0.4	0.00	0.00	0.00
3,200.0	6.22	271.88	3,188.7	7.1	-215.8	-0.4	0.00	0.00	0.00
3,200.3	6.22	271.88	3,189.0	7.1	-215.9	-0.4	0.00	0.00	0.00
RICHARD_SD									
3,300.0	6.22	271.88	3,288.1	7.5	-226.7	-0.4	0.00	0.00	0.00
3,400.0	6.22	271.88	3,387.5	7.8	-237.5	-0.4	0.00	0.00	0.00
3,500.0	6.22	271.88	3,486.9	8.2	-248.3	-0.5	0.00	0.00	0.00
3,600.0	6.22	271.88	3,586.3	8.5	-259.2	-0.5	0.00	0.00	0.00
3,700.0	6.22	271.88	3,685.7	8.9	-270.0	-0.5	0.00	0.00	0.00
3,800.0	6.22	271.88	3,785.1	9.2	-280.8	-0.5	0.00	0.00	0.00
3,900.0	6.22	271.88	3,884.6	9.6	-291.7	-0.5	0.00	0.00	0.00
4,000.0	6.22	271.88	3,984.0	9.9	-302.5	-0.6	0.00	0.00	0.00
4,100.0	6.22	271.88	4,083.4	10.3	-313.3	-0.6	0.00	0.00	0.00
4,200.0	6.22	271.88	4,182.8	10.7	-324.1	-0.6	0.00	0.00	0.00
4,300.0	6.22	271.88	4,282.2	11.0	-335.0	-0.6	0.00	0.00	0.00
4,400.0	6.22	271.88	4,381.6	11.4	-345.8	-0.6	0.00	0.00	0.00
4,500.0	6.22	271.88	4,481.0	11.7	-356.6	-0.7	0.00	0.00	0.00
4,600.0	6.22	271.88	4,580.4	12.1	-367.5	-0.7	0.00	0.00	0.00
4,700.0	6.22	271.88	4,679.8	12.4	-378.3	-0.7	0.00	0.00	0.00
4,800.0	6.22	271.88	4,779.3	12.8	-389.1	-0.7	0.00	0.00	0.00
4,900.0	6.22	271.88	4,878.7	13.1	-400.0	-0.7	0.00	0.00	0.00

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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 35-761-0662XCH	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)
5,000.0	6.22	271.88	4,978.1	13.5	-410.8	-0.8	0.00	0.00	0.00
5,011.6	6.22	271.88	4,989.6	13.5	-412.0	-0.8	0.00	0.00	0.00
Start Drop -2.00									
5,100.0	4.45	271.88	5,077.6	13.8	-420.3	-0.8	2.00	-2.00	0.00
5,200.0	2.45	271.88	5,177.4	14.0	-426.3	-0.8	2.00	-2.00	0.00
5,300.0	0.45	271.88	5,277.4	14.1	-428.8	-0.8	2.00	-2.00	0.00
5,322.6	0.00	0.00	5,300.0	14.1	-428.9	-0.8	2.00	-2.00	0.00
5,400.0	0.00	0.00	5,377.4	14.1	-428.9	-0.8	0.00	0.00	0.00
5,500.0	0.00	0.00	5,477.4	14.1	-428.9	-0.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,577.4	14.1	-428.9	-0.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,677.4	14.1	-428.9	-0.8	0.00	0.00	0.00
5,740.9	0.00	0.00	5,718.3	14.1	-428.9	-0.8	0.00	0.00	0.00
Start Build 8.00									
5,800.0	4.73	179.39	5,777.3	11.7	-428.9	1.7	8.01	8.01	0.00
5,900.0	12.74	179.39	5,876.1	-3.5	-428.7	16.8	8.00	8.00	0.00
6,000.0	20.74	179.39	5,971.8	-32.3	-428.4	45.6	8.00	8.00	0.00
6,100.0	28.75	179.39	6,062.5	-74.1	-428.0	87.3	8.00	8.00	0.00
6,154.2	33.08	179.39	6,109.0	-101.9	-427.7	115.2	8.00	8.00	0.00
SHARON_SPRGS									
6,200.0	36.75	179.39	6,146.6	-128.2	-427.4	141.4	8.00	8.00	0.00
6,268.0	42.19	179.39	6,199.0	-171.3	-426.9	184.5	8.00	8.00	0.00
NIOBRARA									
6,300.0	44.75	179.39	6,222.2	-193.4	-426.7	206.5	8.00	8.00	0.00
6,309.6	45.52	179.39	6,229.0	-200.2	-426.6	213.3	8.00	8.00	0.00
NBRR_A									
6,344.7	48.33	179.39	6,253.0	-225.8	-426.4	238.9	8.00	8.00	0.00
NBRR_A_MARL									
6,400.0	52.76	179.39	6,288.1	-268.5	-425.9	281.6	8.00	8.00	0.00
6,418.3	54.22	179.39	6,299.0	-283.2	-425.7	296.3	8.00	8.00	0.00
NBRR_B									
6,500.0	60.76	179.39	6,342.9	-352.1	-425.0	365.1	8.00	8.00	0.00
6,512.7	61.78	179.39	6,349.0	-363.2	-424.9	376.2	8.00	8.00	0.00
NBRR_B_MARL									
6,600.0	68.77	179.39	6,385.5	-442.4	-424.1	455.4	8.00	8.00	0.00
6,609.9	69.56	179.39	6,389.0	-451.7	-424.0	464.6	8.00	8.00	0.00
NBRR_C									
6,700.0	76.77	179.39	6,415.1	-537.9	-423.0	550.7	8.00	8.00	0.00
6,800.0	84.78	179.39	6,431.1	-636.5	-422.0	649.3	8.00	8.00	0.00
6,875.4	90.81	179.39	6,434.0	-711.8	-421.2	724.5	8.00	8.00	0.00
6,875.5	90.82	179.39	6,434.0	-711.9	-421.2	724.6	7.34	7.34	0.00
Start DLS 0.50 TFO -144.29 - NBRR_C_MARL									
6,876.0	90.81	179.39	6,434.0	-712.4	-421.2	725.1	1.84	-1.82	-0.29
Start 9574.2 hold at 6876.0 MD									
6,900.0	90.81	179.39	6,433.7	-736.4	-420.9	749.1	0.00	0.00	0.00
7,000.0	90.81	179.39	6,432.2	-836.4	-419.9	849.0	0.00	0.00	0.00
7,100.0	90.81	179.39	6,430.8	-936.4	-418.8	948.9	0.00	0.00	0.00
7,200.0	90.81	179.39	6,429.4	-1,036.3	-417.7	1,048.8	0.00	0.00	0.00
7,300.0	90.81	179.39	6,428.0	-1,136.3	-416.7	1,148.7	0.00	0.00	0.00
7,400.0	90.81	179.39	6,426.6	-1,236.3	-415.6	1,248.6	0.00	0.00	0.00
7,500.0	90.81	179.39	6,425.2	-1,336.3	-414.5	1,348.5	0.00	0.00	0.00
7,600.0	90.81	179.39	6,423.8	-1,436.3	-413.5	1,448.4	0.00	0.00	0.00
7,700.0	90.81	179.39	6,422.4	-1,536.3	-412.4	1,548.3	0.00	0.00	0.00
7,800.0	90.81	179.39	6,421.0	-1,636.3	-411.4	1,648.2	0.00	0.00	0.00

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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 35-761-0662XCH	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)
7,900.0	90.81	179.39	6,419.6	-1,736.2	-410.3	1,748.1	0.00	0.00	0.00
8,000.0	90.81	179.39	6,418.1	-1,836.2	-409.2	1,848.0	0.00	0.00	0.00
8,100.0	90.81	179.39	6,416.7	-1,936.2	-408.2	1,947.9	0.00	0.00	0.00
8,200.0	90.81	179.39	6,415.3	-2,036.2	-407.1	2,047.8	0.00	0.00	0.00
8,300.0	90.81	179.39	6,413.9	-2,136.2	-406.0	2,147.7	0.00	0.00	0.00
8,400.0	90.81	179.39	6,412.5	-2,236.2	-405.0	2,247.7	0.00	0.00	0.00
8,500.0	90.81	179.39	6,411.1	-2,336.1	-403.9	2,347.6	0.00	0.00	0.00
8,600.0	90.81	179.39	6,409.7	-2,436.1	-402.8	2,447.5	0.00	0.00	0.00
8,700.0	90.81	179.39	6,408.3	-2,536.1	-401.8	2,547.4	0.00	0.00	0.00
8,800.0	90.81	179.39	6,406.9	-2,636.1	-400.7	2,647.3	0.00	0.00	0.00
8,900.0	90.81	179.39	6,405.5	-2,736.1	-399.6	2,747.2	0.00	0.00	0.00
9,000.0	90.81	179.39	6,404.0	-2,836.1	-398.6	2,847.1	0.00	0.00	0.00
9,100.0	90.81	179.39	6,402.6	-2,936.1	-397.5	2,947.0	0.00	0.00	0.00
9,200.0	90.81	179.39	6,401.2	-3,036.0	-396.5	3,046.9	0.00	0.00	0.00
9,300.0	90.81	179.39	6,399.8	-3,136.0	-395.4	3,146.8	0.00	0.00	0.00
9,400.0	90.81	179.39	6,398.4	-3,236.0	-394.3	3,246.7	0.00	0.00	0.00
9,500.0	90.81	179.39	6,397.0	-3,336.0	-393.3	3,346.6	0.00	0.00	0.00
9,600.0	90.81	179.39	6,395.6	-3,436.0	-392.2	3,446.5	0.00	0.00	0.00
9,700.0	90.81	179.39	6,394.2	-3,536.0	-391.1	3,546.4	0.00	0.00	0.00
9,800.0	90.81	179.39	6,392.8	-3,635.9	-390.1	3,646.3	0.00	0.00	0.00
9,900.0	90.81	179.39	6,391.4	-3,735.9	-389.0	3,746.2	0.00	0.00	0.00
10,000.0	90.81	179.39	6,389.9	-3,835.9	-387.9	3,846.1	0.00	0.00	0.00
10,100.0	90.81	179.39	6,388.5	-3,935.9	-386.9	3,946.0	0.00	0.00	0.00
10,200.0	90.81	179.39	6,387.1	-4,035.9	-385.8	4,045.9	0.00	0.00	0.00
10,300.0	90.81	179.39	6,385.7	-4,135.9	-384.7	4,145.8	0.00	0.00	0.00
10,400.0	90.81	179.39	6,384.3	-4,235.8	-383.7	4,245.7	0.00	0.00	0.00
10,500.0	90.81	179.39	6,382.9	-4,335.8	-382.6	4,345.6	0.00	0.00	0.00
10,600.0	90.81	179.39	6,381.5	-4,435.8	-381.5	4,445.5	0.00	0.00	0.00
10,700.0	90.81	179.39	6,380.1	-4,535.8	-380.5	4,545.4	0.00	0.00	0.00
10,800.0	90.81	179.39	6,378.7	-4,635.8	-379.4	4,645.3	0.00	0.00	0.00
10,900.0	90.81	179.39	6,377.3	-4,735.8	-378.4	4,745.2	0.00	0.00	0.00
11,000.0	90.81	179.39	6,375.8	-4,835.8	-377.3	4,845.1	0.00	0.00	0.00
11,100.0	90.81	179.39	6,374.4	-4,935.7	-376.2	4,945.0	0.00	0.00	0.00
11,200.0	90.81	179.39	6,373.0	-5,035.7	-375.2	5,044.9	0.00	0.00	0.00
11,300.0	90.81	179.39	6,371.6	-5,135.7	-374.1	5,144.8	0.00	0.00	0.00
11,400.0	90.81	179.39	6,370.2	-5,235.7	-373.0	5,244.7	0.00	0.00	0.00
11,500.0	90.81	179.39	6,368.8	-5,335.7	-372.0	5,344.7	0.00	0.00	0.00
11,600.0	90.81	179.39	6,367.4	-5,435.7	-370.9	5,444.6	0.00	0.00	0.00
11,700.0	90.81	179.39	6,366.0	-5,535.6	-369.8	5,544.5	0.00	0.00	0.00
11,800.0	90.81	179.39	6,364.6	-5,635.6	-368.8	5,644.4	0.00	0.00	0.00
11,900.0	90.81	179.39	6,363.2	-5,735.6	-367.7	5,744.3	0.00	0.00	0.00
12,000.0	90.81	179.39	6,361.7	-5,835.6	-366.6	5,844.2	0.00	0.00	0.00
12,100.0	90.81	179.39	6,360.3	-5,935.6	-365.6	5,944.1	0.00	0.00	0.00
12,200.0	90.81	179.39	6,358.9	-6,035.6	-364.5	6,044.0	0.00	0.00	0.00
12,300.0	90.81	179.39	6,357.5	-6,135.6	-363.5	6,143.9	0.00	0.00	0.00
12,400.0	90.81	179.39	6,356.1	-6,235.5	-362.4	6,243.8	0.00	0.00	0.00
12,500.0	90.81	179.39	6,354.7	-6,335.5	-361.3	6,343.7	0.00	0.00	0.00
12,600.0	90.81	179.39	6,353.3	-6,435.5	-360.3	6,443.6	0.00	0.00	0.00
12,700.0	90.81	179.39	6,351.9	-6,535.5	-359.2	6,543.5	0.00	0.00	0.00
12,800.0	90.81	179.39	6,350.5	-6,635.5	-358.1	6,643.4	0.00	0.00	0.00
12,900.0	90.81	179.39	6,349.1	-6,735.5	-357.1	6,743.3	0.00	0.00	0.00
13,000.0	90.81	179.39	6,347.6	-6,835.4	-356.0	6,843.2	0.00	0.00	0.00
13,100.0	90.81	179.39	6,346.2	-6,935.4	-354.9	6,943.1	0.00	0.00	0.00
13,200.0	90.81	179.39	6,344.8	-7,035.4	-353.9	7,043.0	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XCH
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 35-761-0662XCH	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)
13,300.0	90.81	179.39	6,343.4	-7,135.4	-352.8	7,142.9	0.00	0.00	0.00
13,400.0	90.81	179.39	6,342.0	-7,235.4	-351.7	7,242.8	0.00	0.00	0.00
13,500.0	90.81	179.39	6,340.6	-7,335.4	-350.7	7,342.7	0.00	0.00	0.00
13,600.0	90.81	179.39	6,339.2	-7,435.4	-349.6	7,442.6	0.00	0.00	0.00
13,700.0	90.81	179.39	6,337.8	-7,535.3	-348.6	7,542.5	0.00	0.00	0.00
13,800.0	90.81	179.39	6,336.4	-7,635.3	-347.5	7,642.4	0.00	0.00	0.00
13,900.0	90.81	179.39	6,335.0	-7,735.3	-346.4	7,742.3	0.00	0.00	0.00
14,000.0	90.81	179.39	6,333.5	-7,835.3	-345.4	7,842.2	0.00	0.00	0.00
14,100.0	90.81	179.39	6,332.1	-7,935.3	-344.3	7,942.1	0.00	0.00	0.00
14,200.0	90.81	179.39	6,330.7	-8,035.3	-343.2	8,042.0	0.00	0.00	0.00
14,300.0	90.81	179.39	6,329.3	-8,135.2	-342.2	8,141.9	0.00	0.00	0.00
14,400.0	90.81	179.39	6,327.9	-8,235.2	-341.1	8,241.8	0.00	0.00	0.00
14,500.0	90.81	179.39	6,326.5	-8,335.2	-340.0	8,341.7	0.00	0.00	0.00
14,600.0	90.81	179.39	6,325.1	-8,435.2	-339.0	8,441.7	0.00	0.00	0.00
14,700.0	90.81	179.39	6,323.7	-8,535.2	-337.9	8,541.6	0.00	0.00	0.00
14,800.0	90.81	179.39	6,322.3	-8,635.2	-336.8	8,641.5	0.00	0.00	0.00
14,900.0	90.81	179.39	6,320.9	-8,735.1	-335.8	8,741.4	0.00	0.00	0.00
15,000.0	90.81	179.39	6,319.4	-8,835.1	-334.7	8,841.3	0.00	0.00	0.00
15,100.0	90.81	179.39	6,318.0	-8,935.1	-333.7	8,941.2	0.00	0.00	0.00
15,200.0	90.81	179.39	6,316.6	-9,035.1	-332.6	9,041.1	0.00	0.00	0.00
15,300.0	90.81	179.39	6,315.2	-9,135.1	-331.5	9,141.0	0.00	0.00	0.00
15,400.0	90.81	179.39	6,313.8	-9,235.1	-330.5	9,240.9	0.00	0.00	0.00
15,500.0	90.81	179.39	6,312.4	-9,335.1	-329.4	9,340.8	0.00	0.00	0.00
15,600.0	90.81	179.39	6,311.0	-9,435.0	-328.3	9,440.7	0.00	0.00	0.00
15,700.0	90.81	179.39	6,309.6	-9,535.0	-327.3	9,540.6	0.00	0.00	0.00
15,800.0	90.81	179.39	6,308.2	-9,635.0	-326.2	9,640.5	0.00	0.00	0.00
15,900.0	90.81	179.39	6,306.8	-9,735.0	-325.1	9,740.4	0.00	0.00	0.00
16,000.0	90.81	179.39	6,305.3	-9,835.0	-324.1	9,840.3	0.00	0.00	0.00
16,100.0	90.81	179.39	6,303.9	-9,935.0	-323.0	9,940.2	0.00	0.00	0.00
16,200.0	90.81	179.39	6,302.5	-10,034.9	-321.9	10,040.1	0.00	0.00	0.00
16,300.0	90.81	179.39	6,301.1	-10,134.9	-320.9	10,140.0	0.00	0.00	0.00
16,400.0	90.81	179.39	6,299.7	-10,234.9	-319.8	10,239.9	0.00	0.00	0.00
16,450.2	90.81	179.39	6,299.0	-10,285.1	-319.3	10,290.0	0.00	0.00	0.00
TD at 16450.2									

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, 1498'FEL - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,436,867.87	3,369,083.87	40.525018	-104.172295
BHL 460'FSL, 1927'FEL - plan hits target center - Point	0.00	0.00	6,299.0	-10,285.1	-319.3	1,426,579.51	3,368,918.62	40.496787	-104.173443
LPL 460'FNL, 1927'FEL, - plan hits target center - Point	0.00	0.00	6,434.0	-711.9	-421.2	1,436,149.79	3,368,673.40	40.523064	-104.173810

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XCH
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 35-761-0662XCH	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 (")	
6,875.4	6,434.0	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,200.3	3,189.0	RICHARD_SD		0.00	
6,154.2	6,109.0	SHARON_SPRGS		0.00	
6,268.0	6,199.0	NIOBRARA		0.00	
6,309.6	6,229.0	NBRR_A		0.00	
6,344.7	6,253.0	NBRR_A_MARL		0.00	
6,418.3	6,299.0	NBRR_B		0.00	
6,512.7	6,349.0	NBRR_B_MARL		0.00	
6,609.9	6,389.0	NBRR_C		0.00	
6,875.5	6,434.0	NBRR_C_MARL		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.0	1,000.0	0.0	0.0	KOP - Start Build 1.50
5,011.6	4,989.6	13.5	-412.0	Start Drop -2.00
5,740.9	5,718.3	14.1	-428.9	Start Build 8.00
6,875.5	6,434.0	-711.9	-421.2	Start DLS 0.50 TFO -144.29
6,876.0	6,434.0	-712.4	-421.2	Start 9574.2 hold at 6876.0 MD
16,450.2	6,299.0	-10,285.1	-319.3	TD at 16450.2