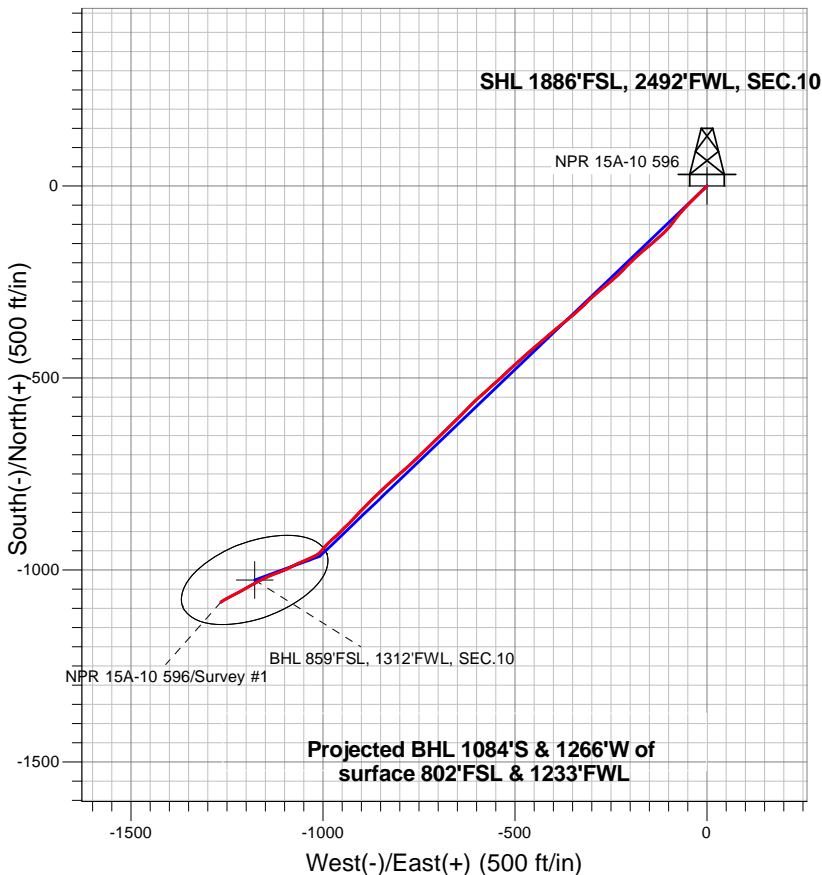
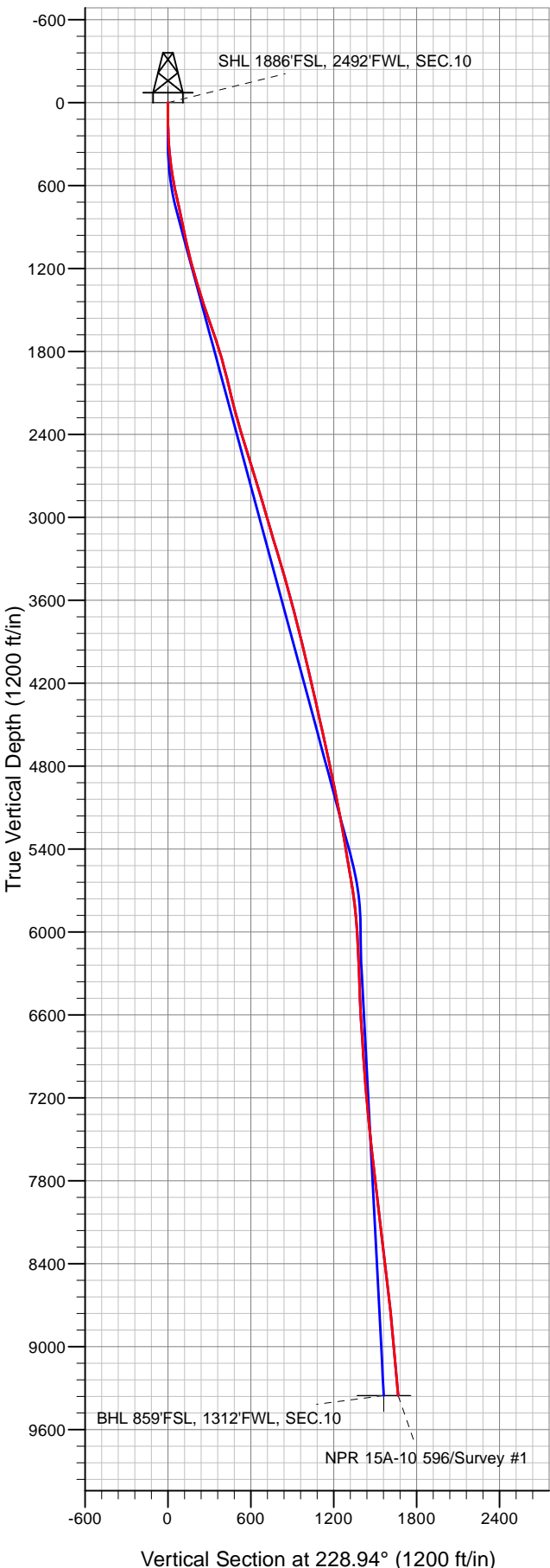


Caerus Oil and Gas LLC



LEGEND

- ▲ NPR 15A-10 596, NPR 15A-10 596 Wellbore #1, Plan #1 (2-21-18)R V0
- NPR 15A-10 596 Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 9,540'MD & 9,353' TVD @ 1666.33'VS
 5.3 deg Inc 238.9 deg AZ

Project: SEC.10-T5S-R96W
 Site: K10 596 Pad Sec.10-T5S-R96W
 Well: NPR 15A-10 596
 Plan: NPR 15A-10 596 Wellbore #1



Caerus Oil and Gas LLC

SEC.10-T5S-R96W

K10 596 Pad Sec.10-T5S-R96W

NPR 15A-10 596

NPR 15A-10 596 Wellbore #1

Survey: Survey #1

Standard Survey Report

01 March, 2018

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 15A-10 596
Project:	SEC.10-T5S-R96W	TVD Reference:	WELL @ 6733.0ft (Original Well Elev)
Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 15A-10 596	North Reference:	True
Wellbore:	NPR 15A-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 15A-10 596 Wellbore #1	Database:	US_EDM

Project	SEC.10-T5S-R96W, Garfield County, CO		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		Using Well Reference Point
Map Zone:	Zone 12N (114 W to 108 W)		Using geodetic scale factor

Site	K10 596 Pad Sec.10-T5S-R96W				
Site Position:		Northing:	14,403,140.13 usft	Latitude:	39.627619
From:	Lat/Long	Easting:	2,441,439.81 usft	Longitude:	-108.155411
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	1.82 °

Well	NPR 15A-10 596					
Well Position	+N/-S	0.0 ft	Northing:	14,403,107.98 usft	Latitude:	39.627528
	+E/-W	0.0 ft	Easting:	2,441,472.12 usft	Longitude:	-108.155300
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	6,709.0 ft

Wellbore	NPR 15A-10 596 Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/21/2018	9.57	65.63	51,622

Design	NPR 15A-10 596 Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	228.94	

Survey Program	Date	3/1/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
120.0	9,540.0	Survey #1 (NPR 15A-10 596 Wellbore #1)	MWD	MWD - Standard	

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	
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00	
SHL 1886'FSL, 2492'FWL, SEC.10										
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	1.80	229.00	200.0	-0.8	-0.9	1.3	2.25	2.25	0.00	
292.0	3.50	221.40	291.9	-3.9	-3.9	5.5	1.88	1.85	-8.26	
386.0	6.20	227.10	385.5	-9.5	-9.5	13.4	2.91	2.87	6.06	
477.0	8.20	225.90	475.8	-17.3	-17.8	24.8	2.20	2.20	-1.32	
572.0	10.40	225.70	569.6	-28.1	-28.8	40.1	2.32	2.32	-0.21	
666.0	12.20	224.40	661.7	-41.1	-41.8	58.5	1.93	1.91	-1.38	
761.0	12.50	223.20	754.5	-55.7	-55.9	78.7	0.42	0.32	-1.26	

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 15A-10 596
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Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 15A-10 596	North Reference:	True
Wellbore:	NPR 15A-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 15A-10 596 Wellbore #1	Database:	US_EDM

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)
855.0	12.10	219.80	846.4	-70.7	-69.1	98.6	0.88	-0.43	-3.62
950.0	11.60	219.00	939.4	-85.8	-81.5	117.8	0.55	-0.53	-0.84
1,045.0	12.70	218.70	1,032.2	-101.4	-94.1	137.5	1.16	1.16	-0.32
1,140.0	14.80	222.60	1,124.5	-118.5	-108.8	159.8	2.42	2.21	4.11
1,234.0	15.40	228.90	1,215.3	-135.5	-126.3	184.3	1.86	0.64	6.70
1,328.0	16.60	231.20	1,305.6	-152.1	-146.2	210.2	1.44	1.28	2.45
1,423.0	17.60	229.00	1,396.4	-170.0	-167.6	238.1	1.25	1.05	-2.32
1,517.0	18.50	227.10	1,485.8	-189.5	-189.3	267.2	1.14	0.96	-2.02
1,612.0	19.40	224.30	1,575.6	-211.1	-211.3	298.0	1.35	0.95	-2.95
1,706.0	19.40	225.80	1,664.3	-233.1	-233.4	329.1	0.53	0.00	1.60
1,801.0	17.80	230.60	1,754.4	-253.4	-256.0	359.4	2.33	-1.68	5.05
1,896.0	15.70	231.10	1,845.3	-270.6	-277.2	386.8	2.22	-2.21	0.53
1,970.0	15.30	227.50	1,916.6	-283.5	-292.2	406.5	1.41	-0.54	-4.86
2,124.0	13.60	225.20	2,065.7	-310.0	-320.0	444.9	1.16	-1.10	-1.49
2,219.0	13.80	227.20	2,158.0	-325.6	-336.2	467.4	0.54	0.21	2.11
2,313.0	14.70	230.60	2,249.2	-340.8	-353.7	490.5	1.31	0.96	3.62
2,407.0	16.50	231.20	2,339.7	-356.7	-373.3	515.8	1.92	1.91	0.64
2,502.0	16.90	230.40	2,430.7	-374.0	-394.5	543.1	0.49	0.42	-0.84
2,597.0	17.20	230.40	2,521.5	-391.7	-415.9	570.9	0.32	0.32	0.00
2,691.0	17.10	230.60	2,611.3	-409.3	-437.3	598.6	0.12	-0.11	0.21
2,786.0	17.20	227.60	2,702.1	-427.7	-458.5	626.6	0.94	0.11	-3.16
2,880.0	17.10	227.20	2,791.9	-446.4	-478.9	654.3	0.16	-0.11	-0.43
2,975.0	16.90	227.00	2,882.8	-465.4	-499.2	682.1	0.22	-0.21	-0.21
3,069.0	16.20	227.50	2,972.9	-483.5	-518.9	708.9	0.76	-0.74	0.53
3,164.0	15.70	228.60	3,064.2	-501.0	-538.3	735.0	0.62	-0.53	1.16
3,259.0	17.10	228.10	3,155.4	-518.8	-558.3	761.8	1.48	1.47	-0.53
3,353.0	16.80	227.10	3,245.3	-537.3	-578.6	789.2	0.45	-0.32	-1.06
3,448.0	16.20	228.80	3,336.4	-555.4	-598.6	816.2	0.81	-0.63	1.79
3,543.0	16.30	224.70	3,427.6	-573.6	-618.0	842.7	1.21	0.11	-4.32
3,637.0	15.90	223.10	3,517.9	-592.3	-636.0	868.7	0.64	-0.43	-1.70
3,732.0	15.00	225.90	3,609.4	-610.4	-653.8	893.9	1.23	-0.95	2.95
3,826.0	14.50	226.30	3,700.4	-627.0	-671.0	917.8	0.54	-0.53	0.43
3,921.0	13.70	226.30	3,792.5	-643.0	-687.7	940.9	0.84	-0.84	0.00
4,015.0	13.80	225.70	3,883.8	-658.5	-703.8	963.2	0.19	0.11	-0.64
4,110.0	13.70	223.40	3,976.1	-674.6	-719.6	985.7	0.58	-0.11	-2.42
4,204.0	13.70	226.70	4,067.4	-690.3	-735.4	1,007.9	0.83	0.00	3.51
4,299.0	13.40	225.70	4,159.8	-705.7	-751.5	1,030.2	0.40	-0.32	-1.05
4,393.0	12.40	228.20	4,251.4	-720.1	-766.8	1,051.1	1.22	-1.06	2.66
4,488.0	12.80	227.80	4,344.1	-733.9	-782.2	1,071.9	0.43	0.42	-0.42
4,583.0	13.00	229.00	4,436.7	-748.0	-798.0	1,093.1	0.35	0.21	1.26
4,677.0	12.00	229.70	4,528.5	-761.3	-813.5	1,113.4	1.08	-1.06	0.74
4,772.0	12.40	226.90	4,621.3	-774.6	-828.4	1,133.5	0.75	0.42	-2.95
4,866.0	12.30	225.90	4,713.1	-788.5	-843.0	1,153.6	0.25	-0.11	-1.06

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Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 15A-10 596	North Reference:	True
Wellbore:	NPR 15A-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 15A-10 596 Wellbore #1	Database:	US_EDM

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)
4,961.0	12.20	225.90	4,806.0	-802.5	-857.5	1,173.7	0.11	-0.11	0.00
5,055.0	11.90	226.10	4,897.9	-816.1	-871.6	1,193.3	0.32	-0.32	0.21
5,150.0	11.30	225.50	4,991.0	-829.5	-885.3	1,212.4	0.64	-0.63	-0.63
5,245.0	10.90	222.60	5,084.2	-842.6	-898.0	1,230.6	0.72	-0.42	-3.05
5,339.0	10.50	221.90	5,176.6	-855.5	-909.7	1,247.9	0.45	-0.43	-0.74
5,434.0	10.40	223.60	5,270.0	-868.2	-921.4	1,265.0	0.34	-0.11	1.79
5,528.0	9.60	225.20	5,362.6	-879.8	-932.9	1,281.3	0.90	-0.85	1.70
5,622.0	9.70	228.00	5,455.2	-890.7	-944.3	1,297.0	0.51	0.11	2.98
5,717.0	9.20	223.20	5,548.9	-901.5	-955.4	1,312.6	0.98	-0.53	-5.05
5,811.0	8.80	228.10	5,641.8	-911.8	-965.9	1,327.3	0.92	-0.43	5.21
5,906.0	8.20	229.00	5,735.7	-921.1	-976.5	1,341.3	0.65	-0.63	0.95
6,001.0	7.30	224.80	5,829.9	-929.8	-985.8	1,354.1	1.12	-0.95	-4.42
6,095.0	5.00	223.10	5,923.3	-937.1	-992.8	1,364.1	2.45	-2.45	-1.81
6,190.0	3.30	219.50	6,018.1	-942.2	-997.4	1,371.0	1.81	-1.79	-3.79
6,285.0	2.60	220.50	6,112.9	-946.0	-1,000.5	1,375.8	0.74	-0.74	1.05
6,380.0	2.00	214.40	6,207.9	-949.0	-1,002.9	1,379.5	0.68	-0.63	-6.42
6,663.0	2.50	229.30	6,490.7	-957.1	-1,010.4	1,390.5	0.27	0.18	5.27
6,947.0	4.10	243.50	6,774.2	-965.6	-1,024.1	1,406.5	0.63	0.56	5.00
7,231.0	5.00	248.70	7,057.3	-974.7	-1,044.8	1,428.0	0.35	0.32	1.83
7,514.0	5.20	244.40	7,339.2	-984.7	-1,067.8	1,451.9	0.15	0.07	-1.52
7,798.0	6.30	244.70	7,621.7	-996.9	-1,093.5	1,479.3	0.39	0.39	0.11
8,081.0	7.70	249.70	7,902.6	-1,010.1	-1,125.3	1,512.0	0.54	0.49	1.77
8,365.0	6.60	242.40	8,184.4	-1,024.3	-1,157.6	1,545.7	0.50	-0.39	-2.57
8,649.0	7.30	241.10	8,466.3	-1,040.6	-1,187.9	1,579.2	0.25	0.25	-0.46
8,932.0	5.70	241.10	8,747.5	-1,056.0	-1,215.9	1,610.5	0.57	-0.57	0.00
9,216.0	5.30	243.00	9,030.2	-1,068.8	-1,240.0	1,637.0	0.15	-0.14	0.67
9,460.0	5.30	238.90	9,273.1	-1,079.8	-1,259.7	1,659.0	0.16	0.00	-1.68
9,532.5	5.30	238.90	9,345.3	-1,083.2	-1,265.4	1,665.6	0.00	0.00	0.00
BHL 859'FSL, 1312'FWL, SEC.10									
9,540.0	5.30	238.90	9,352.8	-1,083.6	-1,266.0	1,666.3	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 1886'FSL, 2492'FWL	0.00	0.00	1.0	0.0	0.0	14,403,107.98	2,441,472.12	39.627528	-108.155300
- hit/miss target									
- Shape									
- survey hits target center									
- Point									
BHL 859'FSL, 1312'FWL	0.00	0.00	9,355.0	-1,026.1	-1,177.8	14,402,044.75	2,440,327.05	39.624711	-108.159481
- survey misses target center by 105.0ft at 9532.5ft MD (9345.3 TVD, -1083.2 N, -1265.4 E)									
- Ellipse (radii L200.0 W100.0 on 250.00 azi)									

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Wellbore:	NPR 15A-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 15A-10 596 Wellbore #1	Database:	US_EDM

Checked By: _____	Approved By: _____	Date: _____
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