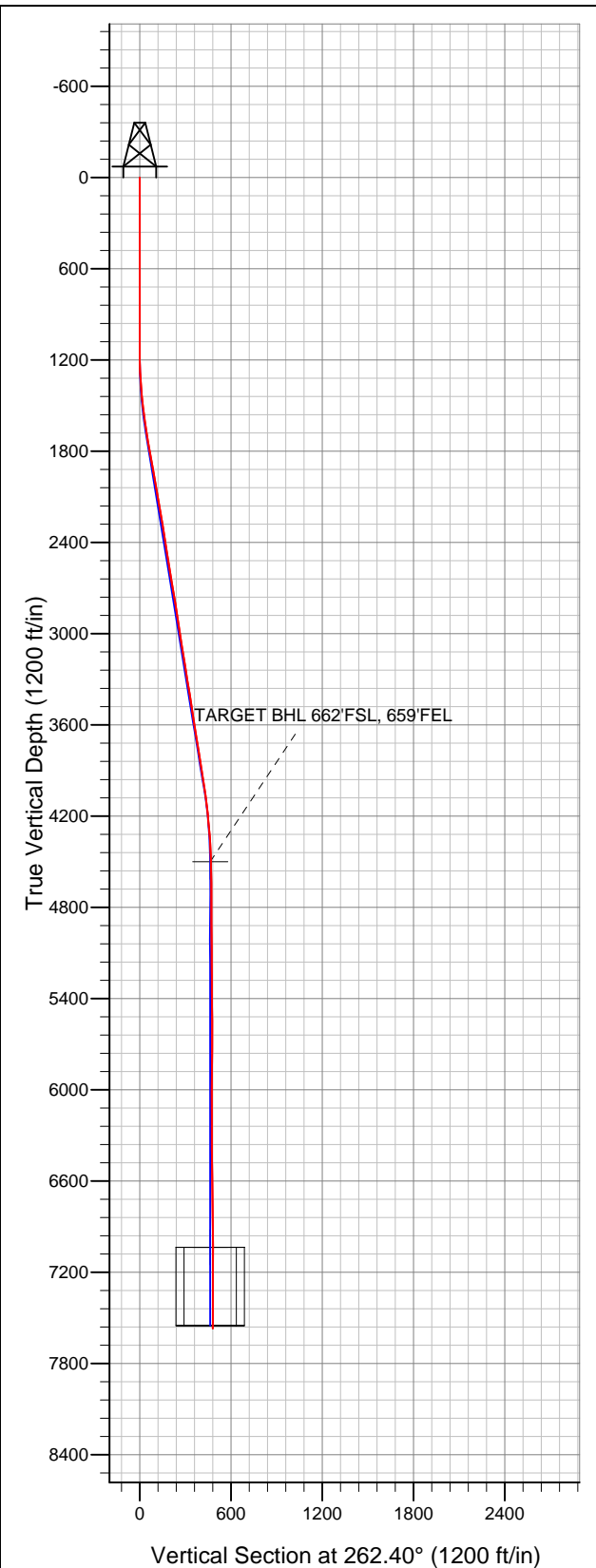


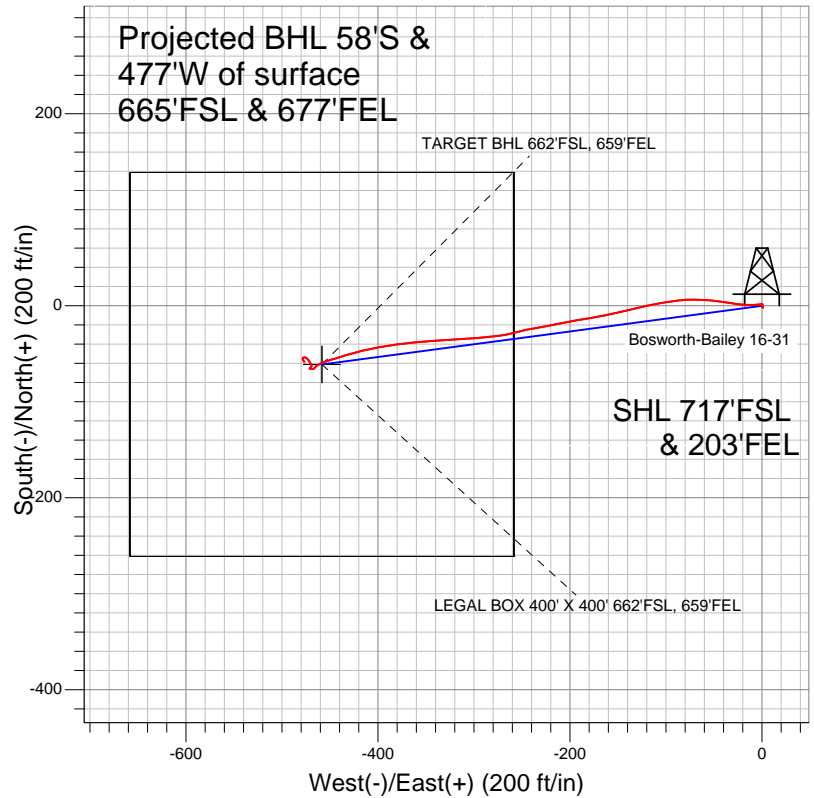
# Well Name: Bosworth-Bailey 16-31

Surface Location: Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W  
 North American Datum 1983 US State Plane 1983Colorado Northern Zone  
 Ground Elevation: 4875.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1435056.66	3190760.03	40.525605	-104.813792	
		Original Well Elev	WELL @ 4885.0ft (Original Well Elev)			



## BAYSWATER EXPLORATION & PRODUCTION



### LEGEND

- Survey #1
- Bosworth-Bailey 16-31, Wellbore #1, Plan #1 (10-24-11) V0
- Wellbore #1

## Final Survey Plot

Projected Final Survey -  
 7605'MD & 7569'TVD @ 480'VS  
 0.40 deg Inc 113.40 deg AZ

Project: SEC.31-T7N-R66W  
 Site: Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W  
 Well: Bosworth-Bailey 16-31  
 Plan: Wellbore #1



# **BAYSWATER EXPLORATION & PRODUCTION**

**SEC.31-T7N-R66W**

**Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W**

**Bosworth-Bailey 16-31**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**23 February, 2012**

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Bosworth-Bailey 16-31
<b>Project:</b>	SEC.31-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Bosworth-Bailey 16-31	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.31-T7N-R66W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W			
Site Position:		Northing:	1,435,057.26 ft	Latitude:	40.525606
From:	Lat/Long	Easting:	3,190,790.05 ft	Longitude:	-104.813684
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.44 °

Well	Bosworth-Bailey 16-31					
Well Position	+N-S	0.0 ft	Northing:	1,435,056.66 ft	Latitude:	40.525605
	+E-W	0.0 ft	Easting:	3,190,760.03 ft	Longitude:	-104.813792
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,875.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/24/2011	8.85	67.13	53,154

Design	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	262.40	

Survey Program		Date		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
157.0	7,605.0	Survey #1 (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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	157.0	0.10	55.00	157.0	0.1	0.1	-0.1	0.06	0.06	0.00
	246.0	0.20	63.50	246.0	0.2	0.3	-0.3	0.11	0.11	9.55
	338.0	0.40	153.00	338.0	0.0	0.6	-0.6	0.48	0.22	97.28
	430.0	0.60	217.40	430.0	-0.7	0.5	-0.4	0.61	0.22	70.00
	522.0	0.20	119.60	522.0	-1.2	0.3	-0.1	0.71	-0.43	-106.30
	614.0	0.60	135.30	614.0	-1.6	0.8	-0.6	0.45	0.43	17.07
	707.0	0.30	234.70	707.0	-2.1	0.9	-0.6	0.77	-0.32	106.88
	801.0	0.40	348.80	801.0	-1.9	0.7	-0.4	0.63	0.11	121.38
	895.0	0.70	344.70	895.0	-1.0	0.4	-0.3	0.32	0.32	-4.36
	965.0	0.80	334.30	965.0	-0.2	0.1	-0.1	0.24	0.14	-14.86
	991.0	1.10	1.70	991.0	0.3	0.1	-0.1	2.06	1.15	105.38

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Bosworth-Bailey 16-31
<b>Project:</b>	SEC.31-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Bosworth-Bailey 16-31	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,084.0	0.30	65.90	1,084.0	1.3	0.3	-0.5	1.08	-0.86	69.03
1,178.0	0.30	7.00	1,178.0	1.6	0.6	-0.8	0.31	0.00	-62.66
1,272.0	3.00	262.80	1,271.9	1.5	-1.9	1.6	3.28	2.87	-110.85
1,365.0	4.20	265.50	1,364.7	1.0	-7.7	7.5	1.30	1.29	2.90
1,459.0	5.80	273.00	1,458.4	0.9	-15.8	15.6	1.84	1.70	7.98
1,553.0	7.60	277.20	1,551.7	2.0	-26.8	26.3	1.98	1.91	4.47
1,647.0	8.90	279.10	1,644.8	3.9	-40.1	39.2	1.41	1.38	2.02
1,740.0	9.80	275.40	1,736.5	5.8	-55.1	53.8	1.16	0.97	-3.98
1,834.0	9.90	269.90	1,829.1	6.5	-71.1	69.6	1.01	0.11	-5.85
1,928.0	10.90	263.00	1,921.6	5.4	-88.0	86.5	1.70	1.06	-7.34
2,021.0	10.40	259.70	2,013.0	2.8	-105.0	103.7	0.85	-0.54	-3.55
2,115.0	9.60	257.70	2,105.6	-0.3	-121.0	120.0	0.93	-0.85	-2.13
2,209.0	9.20	256.90	2,198.3	-3.7	-136.0	135.3	0.45	-0.43	-0.85
2,302.0	9.20	256.60	2,290.1	-7.1	-150.5	150.1	0.05	0.00	-0.32
2,396.0	9.10	259.50	2,382.9	-10.2	-165.1	165.0	0.50	-0.11	3.09
2,490.0	8.90	259.70	2,475.8	-12.9	-179.6	179.7	0.22	-0.21	0.21
2,583.0	9.10	260.70	2,567.6	-15.3	-193.9	194.2	0.27	0.22	1.08
2,677.0	9.30	258.10	2,660.4	-18.1	-208.7	209.2	0.49	0.21	-2.77
2,771.0	9.50	259.60	2,753.1	-21.1	-223.7	224.5	0.34	0.21	1.60
2,864.0	10.00	260.40	2,844.8	-23.8	-239.2	240.3	0.56	0.54	0.86
2,958.0	8.30	253.50	2,937.6	-27.1	-253.8	255.1	2.15	-1.81	-7.34
3,052.0	8.50	259.80	3,030.6	-30.3	-267.1	268.8	1.00	0.21	6.70
3,146.0	9.60	265.30	3,123.4	-32.1	-281.8	283.6	1.49	1.17	5.85
3,239.0	9.10	265.00	3,215.2	-33.4	-296.8	298.6	0.54	-0.54	-0.32
3,333.0	9.10	265.80	3,308.0	-34.6	-311.7	313.5	0.13	0.00	0.85
3,427.0	9.00	267.90	3,400.8	-35.4	-326.4	328.2	0.37	-0.11	2.23
3,520.0	8.60	265.70	3,492.7	-36.2	-340.6	342.4	0.56	-0.43	-2.37
3,614.0	8.80	263.30	3,585.7	-37.6	-354.8	356.6	0.44	0.21	-2.55
3,708.0	9.40	264.50	3,678.5	-39.1	-369.5	371.5	0.67	0.64	1.28
3,801.0	8.90	263.40	3,770.3	-40.7	-384.3	386.3	0.57	-0.54	-1.18
3,895.0	9.20	258.60	3,863.1	-43.0	-398.8	401.0	0.86	0.32	-5.11
3,989.0	9.10	256.90	3,955.9	-46.2	-413.5	415.9	0.31	-0.11	-1.81
4,082.0	8.10	253.20	4,047.9	-49.7	-426.9	429.7	1.23	-1.08	-3.98
4,176.0	6.70	253.40	4,141.1	-53.2	-438.5	441.7	1.49	-1.49	0.21
4,270.0	5.50	254.60	4,234.6	-56.0	-448.1	451.6	1.28	-1.28	1.28
4,364.0	4.60	250.00	4,328.2	-58.5	-456.0	459.7	1.05	-0.96	-4.89
4,457.0	2.90	236.90	4,421.0	-61.0	-461.4	465.5	2.04	-1.83	-14.09
4,535.9	1.39	241.95	4,499.8	-62.6	-464.0	468.2	1.93	-1.92	6.40
TARGET BHL 662'FSL, 659'FEL									
4,551.0	1.10	244.50	4,514.9	-62.7	-464.2	468.5	1.93	-1.90	16.86
4,645.0	0.50	207.80	4,608.9	-63.5	-465.3	469.6	0.81	-0.64	-39.04
4,738.0	0.50	210.90	4,701.9	-64.2	-465.7	470.1	0.03	0.00	3.33
4,832.0	0.30	217.90	4,795.9	-64.7	-466.0	470.5	0.22	-0.21	7.45
4,926.0	0.30	219.70	4,889.9	-65.1	-466.3	470.8	0.01	0.00	1.91
5,019.0	0.50	244.40	4,982.9	-65.5	-466.8	471.4	0.28	0.22	26.56
5,113.0	0.40	268.70	5,076.9	-65.7	-467.5	472.1	0.23	-0.11	25.85
5,207.0	0.40	268.30	5,170.9	-65.7	-468.2	472.8	0.00	0.00	-0.43
5,300.0	0.40	256.00	5,263.9	-65.8	-468.8	473.4	0.09	0.00	-13.23
5,394.0	0.60	275.80	5,357.9	-65.8	-469.6	474.2	0.28	0.21	21.06
5,488.0	0.50	270.50	5,451.9	-65.7	-470.5	475.1	0.12	-0.11	-5.64
5,582.0	0.40	319.70	5,545.9	-65.5	-471.2	475.7	0.41	-0.11	52.34
5,675.0	0.20	61.20	5,638.9	-65.2	-471.2	475.7	0.52	-0.22	109.14
5,769.0	0.40	59.00	5,732.9	-64.9	-470.8	475.3	0.21	0.21	-2.34

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Bosworth-Bailey 16-31
<b>Project:</b>	SEC.31-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Site:</b>	Bosworth-Bailey 9-31 Pad Sec.31-T7N-R66W	<b>MD Reference:</b>	WELL @ 4885.0ft (Original Well Elev)
<b>Well:</b>	Bosworth-Bailey 16-31	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,863.0	0.60	44.80	5,826.9	-64.4	-470.2	474.6	0.25	0.21	-15.11
5,956.0	0.50	37.60	5,919.9	-63.7	-469.6	473.9	0.13	-0.11	-7.74
6,050.0	0.40	13.50	6,013.9	-63.1	-469.3	473.5	0.23	-0.11	-25.64
6,144.0	0.40	10.80	6,107.9	-62.4	-469.1	473.3	0.02	0.00	-2.87
6,237.0	0.70	342.40	6,200.9	-61.6	-469.2	473.3	0.43	0.32	-30.54
6,331.0	0.70	319.80	6,294.9	-60.6	-469.8	473.7	0.29	0.00	-24.04
6,425.0	0.80	326.10	6,388.9	-59.6	-470.5	474.3	0.14	0.11	6.70
6,518.0	1.30	329.10	6,481.8	-58.2	-471.4	475.0	0.54	0.54	3.23
6,612.0	1.60	325.50	6,575.8	-56.2	-472.7	476.0	0.33	0.32	-3.83
6,706.0	1.00	306.50	6,669.8	-54.6	-474.1	477.2	0.78	-0.64	-20.21
6,799.0	0.70	295.00	6,762.8	-53.9	-475.3	478.2	0.37	-0.32	-12.37
6,893.0	0.70	260.90	6,856.8	-53.7	-476.4	479.3	0.44	0.00	-36.28
6,987.0	0.70	256.00	6,950.8	-54.0	-477.5	480.4	0.06	0.00	-5.21
7,071.1	0.51	227.86	7,034.9	-54.3	-478.3	481.3	0.41	-0.22	-33.46
LEGAL BOX 400' X 400' 662'FSL, 659'FEL									
7,081.0	0.50	223.40	7,044.8	-54.4	-478.3	481.3	0.41	-0.11	-45.03
7,174.0	0.40	166.80	7,137.8	-55.0	-478.5	481.6	0.47	-0.11	-60.86
7,268.0	0.70	159.50	7,231.8	-55.9	-478.3	481.4	0.33	0.32	-7.77
7,362.0	0.60	147.00	7,325.8	-56.8	-477.8	481.1	0.18	-0.11	-13.30
7,455.0	0.50	161.10	7,418.7	-57.6	-477.4	480.8	0.18	-0.11	15.16
7,549.0	0.40	113.40	7,512.7	-58.1	-477.0	480.5	0.40	-0.11	-50.74
7,605.0	0.40	113.40	7,568.7	-58.3	-476.6	480.1	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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