

**Well Name: Booth 4-23**

Surface Location: Booth 10 Pad Sec.23-T7N-R65W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 4896.0  
Northing 1449906.73 Easting 3241357.58 Latitude 40.565148 Longitude -104.631268 Slot  
Original Well Elev WELL @ 4912.0ft (Original Well Elev)

+N/-S 0.0  
+E/-W 0.0

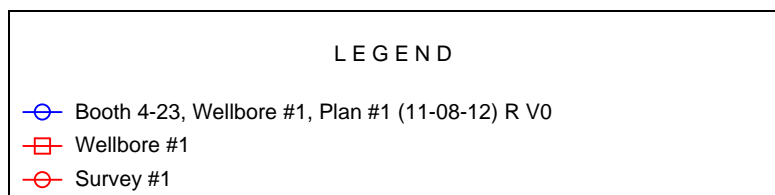
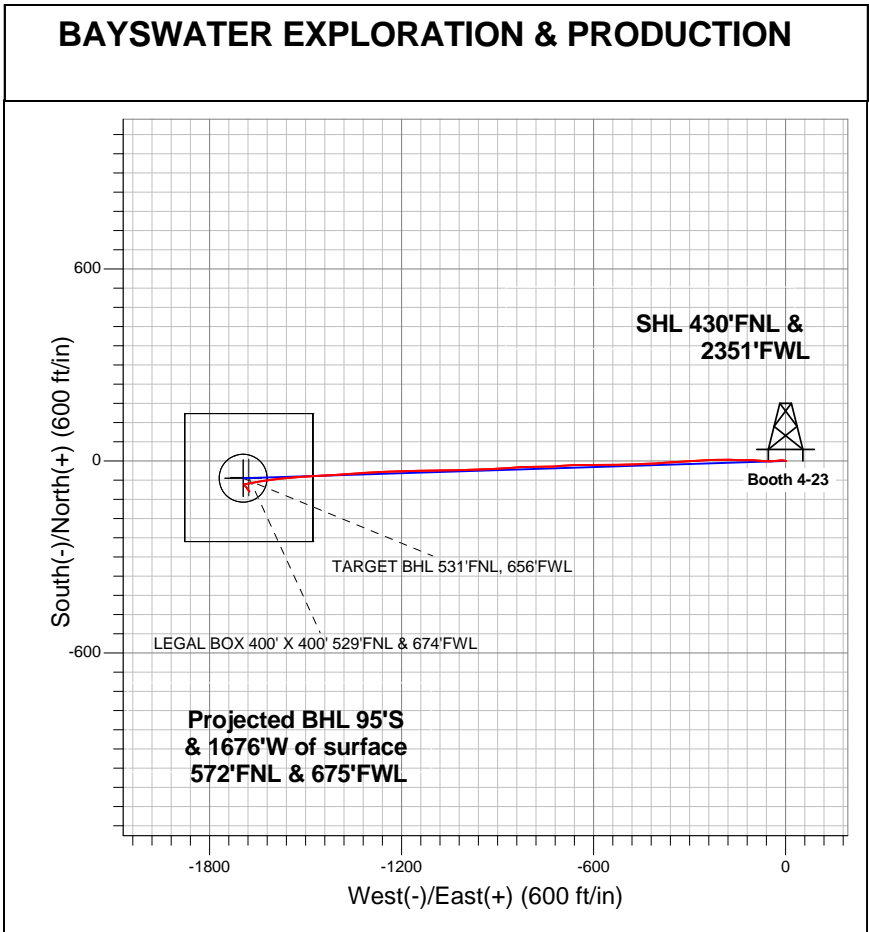
Northing 1449906.73

Easting 3241357.58

Latitude 40.565148

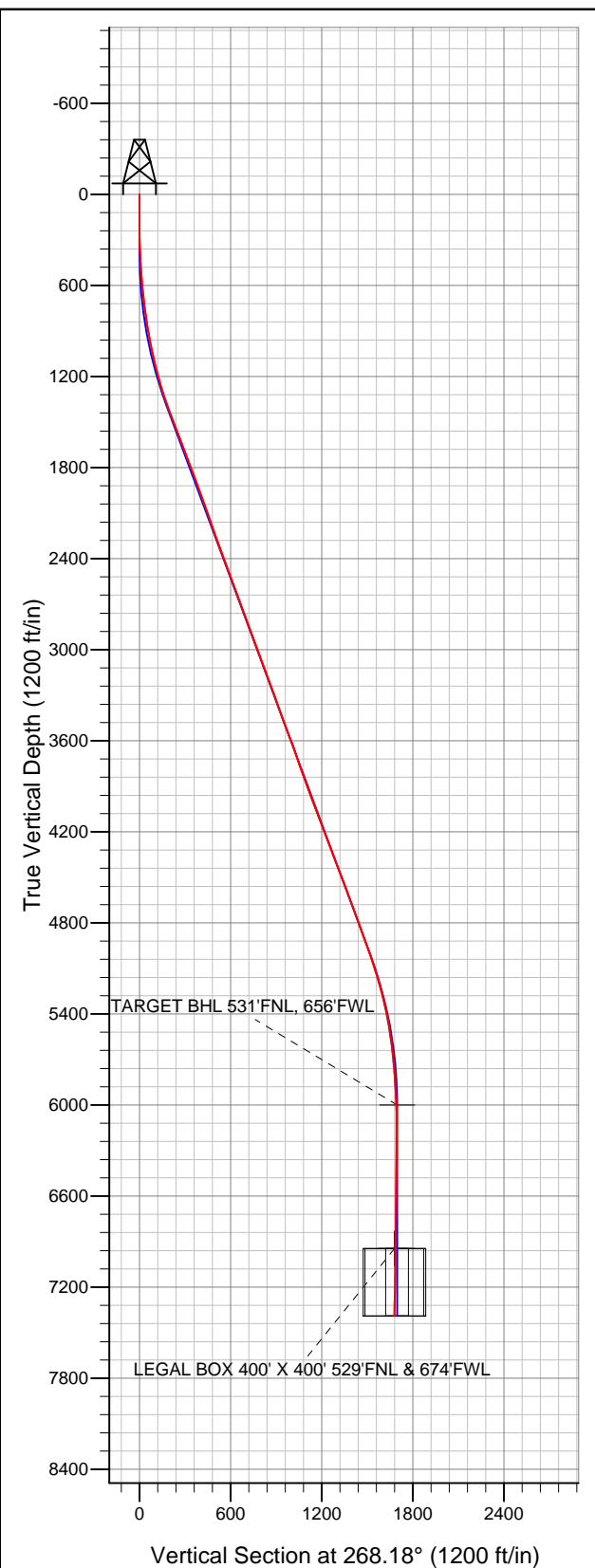
Longitude -104.631268

Slot



## Final Survey Plot

**Projected Final Survey -  
7668'MD & 7389'TVD @ 1678'VS  
1.90 deg Inc 137.80 deg AZ**



Project: SEC.23-T7N-R65W  
Site: Booth 10 Pad Sec.23-T7N-R65W  
Well: Booth 4-23  
Plan: Wellbore #1



**Directional**

# **BAYSWATER EXPLORATION & PRODUCTION**

**SEC.23-T7N-R65W**

**Booth 10 Pad Sec.23-T7N-R65W**

**Booth 4-23**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**19 November, 2012**

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
	97.0	0.50	93.70	97.0	0.0	0.4	-0.4	0.52	0.52	0.00
	184.0	0.20	295.50	184.0	0.0	0.7	-0.7	0.79	-0.34	-181.84
	274.0	0.70	288.30	274.0	0.3	0.0	0.0	0.56	0.56	-8.00
	365.0	1.70	281.60	365.0	0.7	-1.8	1.8	1.11	1.10	-7.36
	456.0	3.40	278.60	455.9	1.4	-5.8	5.8	1.87	1.87	-3.30
	547.0	4.70	271.60	546.7	1.9	-12.2	12.2	1.53	1.43	-7.69
	639.0	6.80	265.60	638.2	1.6	-21.4	21.4	2.37	2.28	-6.52
	642.0	6.80	265.60	641.2	1.5	-21.8	21.7	0.00	0.00	0.00
	739.0	7.30	261.70	737.4	0.2	-33.6	33.6	0.71	0.52	-4.02
	833.0	8.20	265.80	830.6	-1.1	-46.2	46.2	1.12	0.96	4.36
	926.0	9.50	274.20	922.5	-1.1	-60.5	60.5	1.97	1.40	9.03

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Booth 4-23
<b>Project:</b>	SEC.23-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4912.0ft (Original Well Elev)
<b>Site:</b>	Booth 10 Pad Sec.23-T7N-R65W	<b>MD Reference:</b>	WELL @ 4912.0ft (Original Well Elev)
<b>Well:</b>	Booth 4-23	<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)
1,020.0	11.60	275.60	1,014.9	0.4	-77.6	77.6	2.25	2.23	1.49
1,114.0	13.50	273.30	1,106.6	2.0	-98.0	97.9	2.09	2.02	-2.45
1,208.0	15.50	269.50	1,197.6	2.5	-121.5	121.4	2.36	2.13	-4.04
1,301.0	17.10	271.60	1,286.9	2.8	-147.6	147.4	1.83	1.72	2.26
1,395.0	19.90	272.30	1,376.0	3.8	-177.4	177.2	2.99	2.98	0.74
1,489.0	21.00	268.60	1,464.1	4.0	-210.2	210.0	1.81	1.17	-3.94
1,582.0	20.80	266.80	1,551.0	2.7	-243.4	243.2	0.72	-0.22	-1.94
1,676.0	20.40	266.70	1,639.0	0.8	-276.4	276.2	0.43	-0.43	-0.11
1,770.0	21.20	266.00	1,726.8	-1.3	-309.7	309.6	0.89	0.85	-0.74
1,863.0	21.10	266.70	1,813.6	-3.4	-343.2	343.1	0.29	-0.11	0.75
1,957.0	20.10	266.30	1,901.6	-5.5	-376.2	376.2	1.07	-1.06	-0.43
2,051.0	19.40	266.30	1,990.0	-7.5	-407.9	407.9	0.74	-0.74	0.00
2,144.0	19.40	268.80	2,077.8	-8.8	-438.8	438.8	0.89	0.00	2.69
2,238.0	19.60	266.80	2,166.4	-10.0	-470.1	470.2	0.74	0.21	-2.13
2,332.0	19.80	268.10	2,254.9	-11.4	-501.8	501.9	0.51	0.21	1.38
2,426.0	20.30	268.80	2,343.2	-12.3	-534.0	534.1	0.59	0.53	0.74
2,519.0	20.70	269.70	2,430.3	-12.7	-566.5	566.7	0.55	0.43	0.97
2,613.0	20.10	270.40	2,518.4	-12.7	-599.3	599.4	0.69	-0.64	0.74
2,707.0	19.70	270.20	2,606.8	-12.5	-631.3	631.4	0.43	-0.43	-0.21
2,800.0	20.00	267.20	2,694.2	-13.3	-662.9	662.9	1.14	0.32	-3.23
2,894.0	20.60	266.00	2,782.4	-15.2	-695.4	695.5	0.78	0.64	-1.28
2,988.0	20.10	267.40	2,870.5	-17.1	-728.0	728.2	0.74	-0.53	1.49
3,081.0	20.10	269.80	2,957.9	-17.9	-760.0	760.2	0.89	0.00	2.58
3,175.0	20.10	269.00	3,046.2	-18.2	-792.3	792.5	0.29	0.00	-0.85
3,269.0	20.80	267.50	3,134.2	-19.2	-825.1	825.3	0.93	0.74	-1.60
3,362.0	20.00	266.00	3,221.4	-21.0	-857.5	857.7	1.03	-0.86	-1.61
3,456.0	20.00	265.10	3,309.7	-23.5	-889.5	889.8	0.33	0.00	-0.96
3,550.0	20.00	268.20	3,398.1	-25.4	-921.6	922.0	1.13	0.00	3.30
3,644.0	19.80	269.50	3,486.4	-26.1	-953.6	953.9	0.52	-0.21	1.38
3,737.0	21.50	267.20	3,573.5	-27.0	-986.4	986.7	2.03	1.83	-2.47
3,831.0	19.80	267.40	3,661.4	-28.6	-1,019.5	1,019.9	1.81	-1.81	0.21
3,925.0	18.70	268.60	3,750.2	-29.7	-1,050.5	1,050.9	1.24	-1.17	1.28
4,018.0	19.70	269.50	3,838.0	-30.2	-1,081.0	1,081.5	1.12	1.08	0.97
4,112.0	20.10	269.80	3,926.4	-30.4	-1,113.0	1,113.4	0.44	0.43	0.32
4,206.0	20.60	270.20	4,014.5	-30.4	-1,145.7	1,146.1	0.55	0.53	0.43
4,299.0	21.10	268.10	4,101.4	-30.9	-1,178.8	1,179.2	0.97	0.54	-2.26
4,393.0	21.20	268.20	4,189.1	-32.0	-1,212.7	1,213.1	0.11	0.11	0.11
4,487.0	20.30	267.40	4,277.0	-33.2	-1,246.0	1,246.4	1.00	-0.96	-0.85
4,580.0	21.10	266.00	4,364.0	-35.1	-1,278.8	1,279.3	1.01	0.86	-1.51
4,674.0	20.80	266.70	4,451.8	-37.3	-1,312.3	1,312.9	0.42	-0.32	0.74
4,768.0	21.00	266.50	4,539.6	-39.3	-1,345.8	1,346.4	0.23	0.21	-0.21
4,861.0	19.70	265.60	4,626.8	-41.5	-1,378.1	1,378.7	1.44	-1.40	-0.97
4,955.0	20.60	266.70	4,715.0	-43.7	-1,410.4	1,411.1	1.04	0.96	1.17
5,049.0	20.40	266.10	4,803.1	-45.7	-1,443.2	1,444.0	0.31	-0.21	-0.64
5,143.0	19.90	267.70	4,891.3	-47.5	-1,475.6	1,476.3	0.79	-0.53	1.70
5,236.0	19.40	266.50	4,978.9	-49.1	-1,506.8	1,507.6	0.69	-0.54	-1.29
5,330.0	17.90	264.60	5,068.0	-51.4	-1,536.8	1,537.6	1.72	-1.60	-2.02
5,424.0	16.50	264.40	5,157.8	-54.0	-1,564.4	1,565.4	1.49	-1.49	-0.21
5,517.0	15.70	264.00	5,247.1	-56.6	-1,590.1	1,591.1	0.87	-0.86	-0.43
5,611.0	12.80	262.80	5,338.2	-59.3	-1,613.1	1,614.2	3.10	-3.09	-1.28
5,705.0	10.60	260.20	5,430.3	-62.1	-1,631.9	1,633.1	2.41	-2.34	-2.77
5,798.0	9.00	260.30	5,521.9	-64.7	-1,647.5	1,648.8	1.72	-1.72	0.11
5,892.0	7.20	257.90	5,615.0	-67.2	-1,660.5	1,661.8	1.95	-1.91	-2.55

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<b>Well:</b>	Booth 4-23	<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)
5,986.0	5.40	257.40	5,708.4	-69.4	-1,670.6	1,672.0	1.92	-1.91	-0.53
6,079.0	4.70	259.60	5,801.0	-71.0	-1,678.6	1,680.0	0.78	-0.75	2.37
6,173.0	2.90	267.90	5,894.8	-71.8	-1,684.8	1,686.2	2.00	-1.91	8.83
6,267.0	2.50	266.10	5,988.7	-72.1	-1,689.2	1,690.7	0.43	-0.43	-1.91
6,278.2	2.19	263.00	5,999.9	-72.1	-1,689.7	1,691.1	3.00	-2.78	-27.62
TARGET BHL 531'FNL, 656'FWL									
6,361.0	1.00	168.10	6,082.7	-73.0	-1,691.1	1,692.6	3.00	-1.44	-114.65
6,454.0	0.80	163.00	6,175.7	-74.4	-1,690.7	1,692.3	0.23	-0.22	-5.48
6,548.0	0.60	154.50	6,269.7	-75.5	-1,690.3	1,691.9	0.24	-0.21	-9.04
6,642.0	0.50	161.40	6,363.7	-76.3	-1,690.0	1,691.6	0.13	-0.11	7.34
6,735.0	0.80	143.30	6,456.7	-77.2	-1,689.5	1,691.1	0.39	0.32	-19.46
6,829.0	0.90	152.20	6,550.6	-78.4	-1,688.7	1,690.4	0.18	0.11	9.47
6,923.0	1.20	139.40	6,644.6	-79.8	-1,687.8	1,689.4	0.40	0.32	-13.62
7,016.0	1.60	126.60	6,737.6	-81.3	-1,686.1	1,687.8	0.54	0.43	-13.76
7,110.0	1.50	144.50	6,831.6	-83.1	-1,684.3	1,686.1	0.52	-0.11	19.04
7,204.0	1.20	151.00	6,925.5	-85.0	-1,683.1	1,685.0	0.36	-0.32	6.91
7,223.8	1.20	151.00	6,945.3	-85.3	-1,682.9	1,684.8	0.00	0.00	0.00
TARGET CIRCLE 531'FNL & 656'FWL									
7,223.9	1.20	151.00	6,945.4	-85.3	-1,682.9	1,684.8	0.00	0.00	0.00
LEGAL BOX 400' X 400' 529'FNL & 674'FWL									
7,297.0	1.20	151.20	7,018.5	-86.7	-1,682.2	1,684.1	0.01	0.00	0.27
7,391.0	1.50	148.90	7,112.5	-88.6	-1,681.1	1,683.0	0.32	0.32	-2.45
7,485.0	1.60	144.90	7,206.5	-90.7	-1,679.7	1,681.7	0.16	0.11	-4.26
7,578.0	1.80	137.80	7,299.4	-92.9	-1,678.0	1,680.1	0.31	0.22	-7.63
7,668.0	1.90	137.80	7,389.4	-95.0	-1,676.0	1,678.2	0.11	0.11	0.00

Wellbore Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET BHL 531'FN	0.00	0.00	6,000.0	-53.8	-1,695.4	1,449,836.28	3,239,662.86	40.565000	-104.637370
- hit/miss target									
- Shape									
- survey misses target center by 19.1ft at 6278.2ft MD (5999.9 TVD, -72.1 N, -1689.7 E)									
- Point									
TARGET CIRCLE 531	0.00	0.00	6,946.0	-53.8	-1,695.4	1,449,836.28	3,239,662.86	40.565000	-104.637370
- survey misses target center by 33.9ft at 7223.8ft MD (6945.3 TVD, -85.3 N, -1682.9 E)									
- Circle (radius 75.0)									
LEGAL BOX 400' X 400'	0.00	0.00	6,946.0	-51.8	-1,677.4	1,449,838.50	3,239,680.82	40.565006	-104.637305
- survey misses target center by 34.0ft at 7223.9ft MD (6945.4 TVD, -85.3 N, -1682.9 E)									
- Rectangle (sides W400.0 H400.0 D444.0)									

Checked By: _____	Approved By: _____	Date: _____
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