ENSIGN Directional

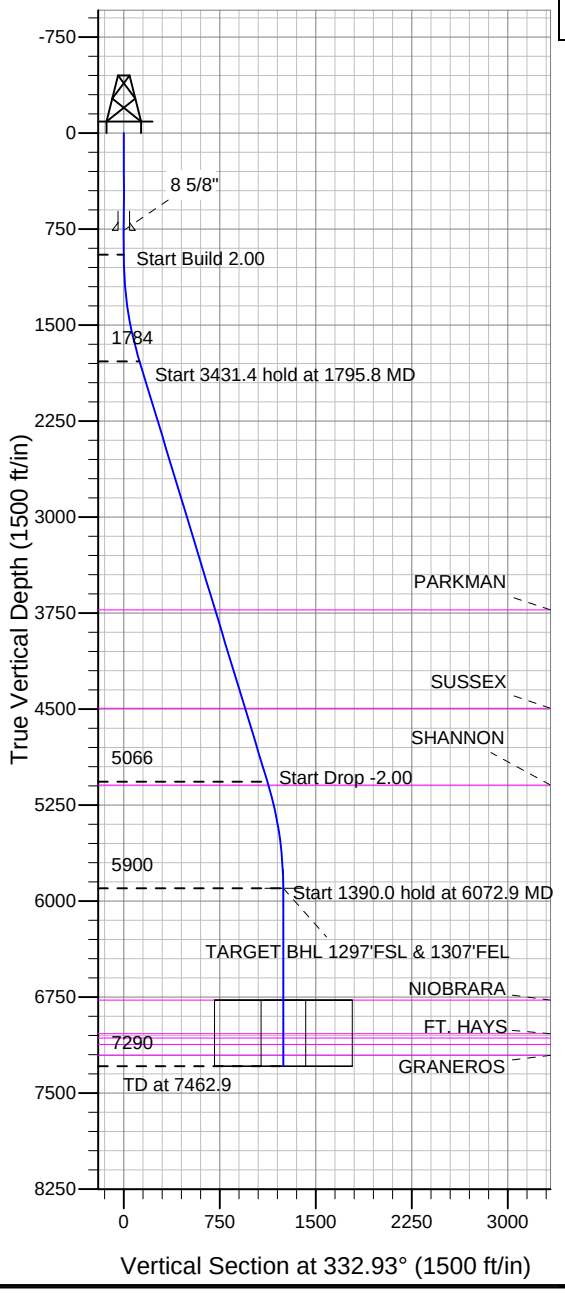
Well Name: NC Farms 20-32

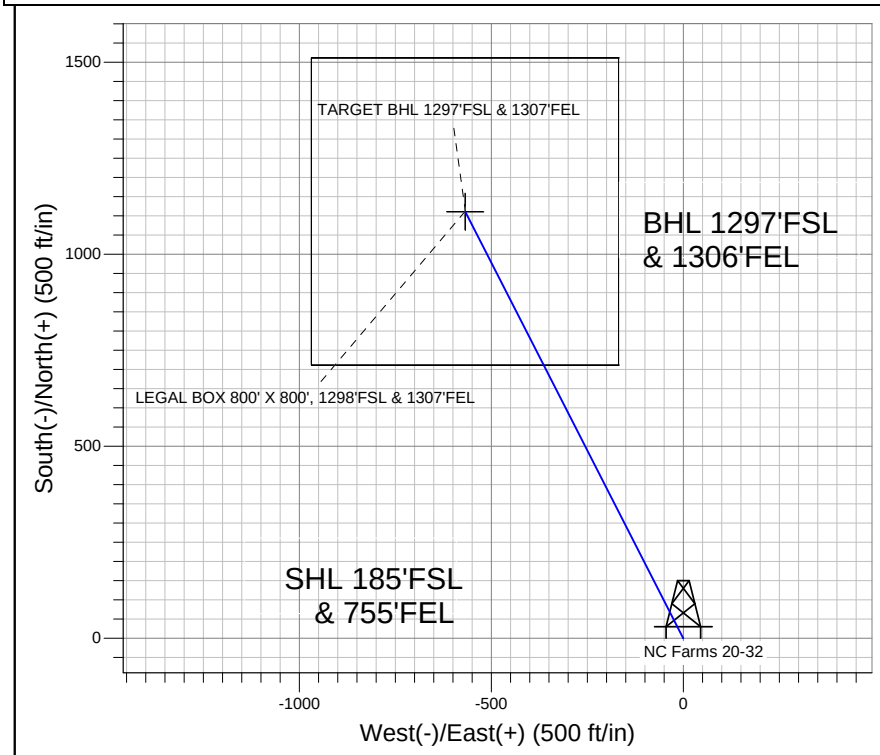
Surface Location: NC Farms 16-32 Pad Sec.32-T7N-R64W
North American Datum 1983 , US State Plane 1983Colorado Northern Zone
Ground Elevation: 4804.0

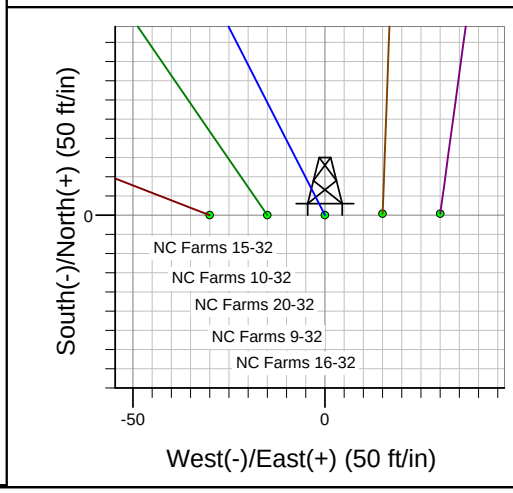
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1434686.25	3259262.65	40.522872	-104.567402	

Original Well EleWELL @ 4815.0ft (Original Well Elev)

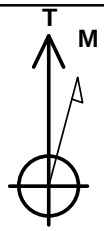
BAYSWATER EXPLORATION & PRODUCTION







NC Farms 16-32 Pad Sec.32-T7N-R64W
NC Farms 20-32
Plan #1 (11-03-11)
11:27, November 04 2011



Azimuths to True North
Magnetic North: 8.72°

Magnetic Field
Strength: 53176.3snT
Dip Angle: 67.17°
Date: 11/3/2011
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1297'FSL & 1307'FEL	5900.0	1109.7	-567.1	40.525918	-104.569442	Point
LEGAL BOX 800' X 800', 1298'FSL & 1307'FEL	6774.0	1110.7	-568.1	40.525921	-104.569446	Rectangle (Sides: L800.0 W800.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	950.0	0.00	0.00	950.0	0.0	0.0	0.00	0.00	0.0	
3	1795.8	16.91	332.93	1783.5	110.4	-56.4	2.00	332.93	123.9	
4	5227.2	16.91	332.93	5066.5	999.4	-510.7	0.00	0.00	1122.3	
5	6072.9	0.00	0.00	5900.0	1109.7	-567.1	2.00	180.00	1246.3	TARGET BHL 1297'FSL & 1307'FEL
6	7462.9	0.00	0.00	7290.0	1109.7	-567.1	0.00	0.00	1246.3	

ENSIGN Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.32-T7N-R64W
NC Farms 16-32 Pad Sec.32-T7N-R64W
NC Farms 20-32

Wellbore #1

Plan: Plan #1 (11-03-11)

Standard Planning Report

04 November, 2011

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Project SEC.32-T7N-R64W, 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 NC Farms 16-32 Pad Sec.32-T7N-R64W

Site Position:		**Northing:**	1,434,686.95 ft	**Latitude:**	40.522873
From:	Lat/Long	**Easting:**	3,259,292.67 ft	**Longitude:**	-104.567294
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.60 °

Well NC Farms 20-32

Well Position	**+N/-S**	-0.4 ft	**Northing:**	1,434,686.25 ft	**Latitude:**	40.522872
	+E/-W	-30.0 ft	**Easting:**	3,259,262.65 ft	**Longitude:**	-104.567402
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,804.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/3/2011	8.72	67.17	53,176

Design Plan #1 (11-03-11)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	332.93

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
950.0	0.00	0.00	950.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,795.8	16.91	332.93	1,783.5	110.4	-56.4	2.00	2.00	0.00	332.93	
5,227.2	16.91	332.93	5,066.5	999.4	-510.7	0.00	0.00	0.00	0.00	
6,072.9	0.00	0.00	5,900.0	1,109.7	-567.1	2.00	-2.00	0.00	180.00	TARGET BHL 1297
7,462.9	0.00	0.00	7,290.0	1,109.7	-567.1	0.00	0.00	0.00	0.00	

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
950.0	0.00	0.00	950.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.20	332.93	960.0	0.0	0.0	0.0	2.00	2.00	0.00
1,000.0	1.00	332.93	1,000.0	0.4	-0.2	0.4	2.00	2.00	0.00
1,040.0	1.80	332.93	1,040.0	1.3	-0.6	1.4	2.00	2.00	0.00
1,080.0	2.60	332.93	1,080.0	2.6	-1.3	2.9	2.00	2.00	0.00
1,120.0	3.40	332.93	1,119.9	4.5	-2.3	5.0	2.00	2.00	0.00
1,160.0	4.20	332.93	1,159.8	6.9	-3.5	7.7	2.00	2.00	0.00
1,200.0	5.00	332.93	1,199.7	9.7	-5.0	10.9	2.00	2.00	0.00
1,240.0	5.80	332.93	1,239.5	13.1	-6.7	14.7	2.00	2.00	0.00
1,280.0	6.60	332.93	1,279.3	16.9	-8.6	19.0	2.00	2.00	0.00
1,320.0	7.40	332.93	1,319.0	21.2	-10.9	23.9	2.00	2.00	0.00
1,360.0	8.20	332.93	1,358.6	26.1	-13.3	29.3	2.00	2.00	0.00
1,400.0	9.00	332.93	1,398.2	31.4	-16.1	35.3	2.00	2.00	0.00
1,440.0	9.80	332.93	1,437.6	37.2	-19.0	41.8	2.00	2.00	0.00
1,480.0	10.60	332.93	1,477.0	43.5	-22.2	48.9	2.00	2.00	0.00
1,520.0	11.40	332.93	1,516.2	50.3	-25.7	56.5	2.00	2.00	0.00
1,560.0	12.20	332.93	1,555.4	57.6	-29.4	64.7	2.00	2.00	0.00
1,600.0	13.00	332.93	1,594.4	65.4	-33.4	73.4	2.00	2.00	0.00
1,640.0	13.80	332.93	1,633.3	73.6	-37.6	82.7	2.00	2.00	0.00
1,680.0	14.60	332.93	1,672.1	82.4	-42.1	92.5	2.00	2.00	0.00
1,720.0	15.40	332.93	1,710.8	91.6	-46.8	102.9	2.00	2.00	0.00
1,760.0	16.20	332.93	1,749.3	101.3	-51.8	113.7	2.00	2.00	0.00
1,795.8	16.91	332.93	1,783.5	110.4	-56.4	123.9	2.00	2.00	0.00
1,800.0	16.91	332.93	1,787.6	111.5	-57.0	125.2	0.00	0.00	0.00
1,840.0	16.91	332.93	1,825.9	121.8	-62.3	136.8	0.00	0.00	0.00
1,880.0	16.91	332.93	1,864.1	132.2	-67.6	148.5	0.00	0.00	0.00
1,920.0	16.91	332.93	1,902.4	142.6	-72.9	160.1	0.00	0.00	0.00
1,960.0	16.91	332.93	1,940.7	152.9	-78.1	171.7	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Planned 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)
2,000.0	16.91	332.93	1,978.9	163.3	-83.4	183.4	0.00	0.00	0.00
2,040.0	16.91	332.93	2,017.2	173.6	-88.7	195.0	0.00	0.00	0.00
2,080.0	16.91	332.93	2,055.5	184.0	-94.0	206.6	0.00	0.00	0.00
2,120.0	16.91	332.93	2,093.7	194.4	-99.3	218.3	0.00	0.00	0.00
2,160.0	16.91	332.93	2,132.0	204.7	-104.6	229.9	0.00	0.00	0.00
2,200.0	16.91	332.93	2,170.3	215.1	-109.9	241.6	0.00	0.00	0.00
2,240.0	16.91	332.93	2,208.5	225.5	-115.2	253.2	0.00	0.00	0.00
2,280.0	16.91	332.93	2,246.8	235.8	-120.5	264.8	0.00	0.00	0.00
2,320.0	16.91	332.93	2,285.1	246.2	-125.8	276.5	0.00	0.00	0.00
2,360.0	16.91	332.93	2,323.4	256.5	-131.1	288.1	0.00	0.00	0.00
2,400.0	16.91	332.93	2,361.6	266.9	-136.4	299.7	0.00	0.00	0.00
2,440.0	16.91	332.93	2,399.9	277.3	-141.7	311.4	0.00	0.00	0.00
2,480.0	16.91	332.93	2,438.2	287.6	-147.0	323.0	0.00	0.00	0.00
2,520.0	16.91	332.93	2,476.4	298.0	-152.3	334.7	0.00	0.00	0.00
2,560.0	16.91	332.93	2,514.7	308.4	-157.6	346.3	0.00	0.00	0.00
2,600.0	16.91	332.93	2,553.0	318.7	-162.9	357.9	0.00	0.00	0.00
2,640.0	16.91	332.93	2,591.2	329.1	-168.2	369.6	0.00	0.00	0.00
2,680.0	16.91	332.93	2,629.5	339.5	-173.5	381.2	0.00	0.00	0.00
2,720.0	16.91	332.93	2,667.8	349.8	-178.8	392.9	0.00	0.00	0.00
2,760.0	16.91	332.93	2,706.1	360.2	-184.1	404.5	0.00	0.00	0.00
2,800.0	16.91	332.93	2,744.3	370.5	-189.4	416.1	0.00	0.00	0.00
2,840.0	16.91	332.93	2,782.6	380.9	-194.7	427.8	0.00	0.00	0.00
2,880.0	16.91	332.93	2,820.9	391.3	-200.0	439.4	0.00	0.00	0.00
2,920.0	16.91	332.93	2,859.1	401.6	-205.3	451.0	0.00	0.00	0.00
2,960.0	16.91	332.93	2,897.4	412.0	-210.5	462.7	0.00	0.00	0.00
3,000.0	16.91	332.93	2,935.7	422.4	-215.8	474.3	0.00	0.00	0.00
3,040.0	16.91	332.93	2,973.9	432.7	-221.1	486.0	0.00	0.00	0.00
3,080.0	16.91	332.93	3,012.2	443.1	-226.4	497.6	0.00	0.00	0.00
3,120.0	16.91	332.93	3,050.5	453.4	-231.7	509.2	0.00	0.00	0.00
3,160.0	16.91	332.93	3,088.7	463.8	-237.0	520.9	0.00	0.00	0.00
3,200.0	16.91	332.93	3,127.0	474.2	-242.3	532.5	0.00	0.00	0.00
3,240.0	16.91	332.93	3,165.3	484.5	-247.6	544.1	0.00	0.00	0.00
3,280.0	16.91	332.93	3,203.6	494.9	-252.9	555.8	0.00	0.00	0.00
3,320.0	16.91	332.93	3,241.8	505.3	-258.2	567.4	0.00	0.00	0.00
3,360.0	16.91	332.93	3,280.1	515.6	-263.5	579.1	0.00	0.00	0.00
3,400.0	16.91	332.93	3,318.4	526.0	-268.8	590.7	0.00	0.00	0.00
3,440.0	16.91	332.93	3,356.6	536.4	-274.1	602.3	0.00	0.00	0.00
3,480.0	16.91	332.93	3,394.9	546.7	-279.4	614.0	0.00	0.00	0.00
3,520.0	16.91	332.93	3,433.2	557.1	-284.7	625.6	0.00	0.00	0.00
3,560.0	16.91	332.93	3,471.4	567.4	-290.0	637.3	0.00	0.00	0.00
3,600.0	16.91	332.93	3,509.7	577.8	-295.3	648.9	0.00	0.00	0.00
3,640.0	16.91	332.93	3,548.0	588.2	-300.6	660.5	0.00	0.00	0.00
3,680.0	16.91	332.93	3,586.3	598.5	-305.9	672.2	0.00	0.00	0.00
3,720.0	16.91	332.93	3,624.5	608.9	-311.2	683.8	0.00	0.00	0.00
3,760.0	16.91	332.93	3,662.8	619.3	-316.5	695.4	0.00	0.00	0.00
3,800.0	16.91	332.93	3,701.1	629.6	-321.8	707.1	0.00	0.00	0.00
3,824.0	16.91	332.93	3,724.0	635.8	-324.9	714.1	0.00	0.00	0.00
PARKMAN									
3,840.0	16.91	332.93	3,739.3	640.0	-327.1	718.7	0.00	0.00	0.00
3,880.0	16.91	332.93	3,777.6	650.4	-332.4	730.4	0.00	0.00	0.00
3,920.0	16.91	332.93	3,815.9	660.7	-337.7	742.0	0.00	0.00	0.00
3,960.0	16.91	332.93	3,854.1	671.1	-343.0	753.6	0.00	0.00	0.00
4,000.0	16.91	332.93	3,892.4	681.4	-348.2	765.3	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Planned 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)
4,040.0	16.91	332.93	3,930.7	691.8	-353.5	776.9	0.00	0.00	0.00
4,080.0	16.91	332.93	3,968.9	702.2	-358.8	788.5	0.00	0.00	0.00
4,120.0	16.91	332.93	4,007.2	712.5	-364.1	800.2	0.00	0.00	0.00
4,160.0	16.91	332.93	4,045.5	722.9	-369.4	811.8	0.00	0.00	0.00
4,200.0	16.91	332.93	4,083.8	733.3	-374.7	823.5	0.00	0.00	0.00
4,240.0	16.91	332.93	4,122.0	743.6	-380.0	835.1	0.00	0.00	0.00
4,280.0	16.91	332.93	4,160.3	754.0	-385.3	846.7	0.00	0.00	0.00
4,320.0	16.91	332.93	4,198.6	764.3	-390.6	858.4	0.00	0.00	0.00
4,360.0	16.91	332.93	4,236.8	774.7	-395.9	870.0	0.00	0.00	0.00
4,400.0	16.91	332.93	4,275.1	785.1	-401.2	881.7	0.00	0.00	0.00
4,440.0	16.91	332.93	4,313.4	795.4	-406.5	893.3	0.00	0.00	0.00
4,480.0	16.91	332.93	4,351.6	805.8	-411.8	904.9	0.00	0.00	0.00
4,520.0	16.91	332.93	4,389.9	816.2	-417.1	916.6	0.00	0.00	0.00
4,560.0	16.91	332.93	4,428.2	826.5	-422.4	928.2	0.00	0.00	0.00
4,600.0	16.91	332.93	4,466.4	836.9	-427.7	939.8	0.00	0.00	0.00
4,628.8	16.91	332.93	4,494.0	844.3	-431.5	948.2	0.00	0.00	0.00
SUSSEX									
4,640.0	16.91	332.93	4,504.7	847.3	-433.0	951.5	0.00	0.00	0.00
4,680.0	16.91	332.93	4,543.0	857.6	-438.3	963.1	0.00	0.00	0.00
4,720.0	16.91	332.93	4,581.3	868.0	-443.6	974.8	0.00	0.00	0.00
4,760.0	16.91	332.93	4,619.5	878.3	-448.9	986.4	0.00	0.00	0.00
4,800.0	16.91	332.93	4,657.8	888.7	-454.2	998.0	0.00	0.00	0.00
4,840.0	16.91	332.93	4,696.1	899.1	-459.5	1,009.7	0.00	0.00	0.00
4,880.0	16.91	332.93	4,734.3	909.4	-464.8	1,021.3	0.00	0.00	0.00
4,920.0	16.91	332.93	4,772.6	919.8	-470.1	1,032.9	0.00	0.00	0.00
4,960.0	16.91	332.93	4,810.9	930.2	-475.4	1,044.6	0.00	0.00	0.00
5,000.0	16.91	332.93	4,849.1	940.5	-480.6	1,056.2	0.00	0.00	0.00
5,040.0	16.91	332.93	4,887.4	950.9	-485.9	1,067.9	0.00	0.00	0.00
5,080.0	16.91	332.93	4,925.7	961.2	-491.2	1,079.5	0.00	0.00	0.00
5,120.0	16.91	332.93	4,964.0	971.6	-496.5	1,091.1	0.00	0.00	0.00
5,160.0	16.91	332.93	5,002.2	982.0	-501.8	1,102.8	0.00	0.00	0.00
5,200.0	16.91	332.93	5,040.5	992.3	-507.1	1,114.4	0.00	0.00	0.00
5,227.2	16.91	332.93	5,066.5	999.4	-510.7	1,122.3	0.00	0.00	0.00
5,240.0	16.66	332.93	5,078.8	1,002.7	-512.4	1,126.0	2.00	-2.00	0.00
5,255.9	16.34	332.93	5,094.0	1,006.7	-514.5	1,130.5	2.00	-2.00	0.00
SHANNON									
5,280.0	15.86	332.93	5,117.2	1,012.6	-517.5	1,137.2	2.00	-2.00	0.00
5,320.0	15.06	332.93	5,155.7	1,022.1	-522.4	1,147.9	2.00	-2.00	0.00
5,360.0	14.26	332.93	5,194.4	1,031.2	-527.0	1,158.0	2.00	-2.00	0.00
5,400.0	13.46	332.93	5,233.3	1,039.7	-531.3	1,167.6	2.00	-2.00	0.00
5,440.0	12.66	332.93	5,272.2	1,047.7	-535.4	1,176.6	2.00	-2.00	0.00
5,480.0	11.86	332.93	5,311.3	1,055.3	-539.3	1,185.1	2.00	-2.00	0.00
5,520.0	11.06	332.93	5,350.5	1,062.4	-542.9	1,193.1	2.00	-2.00	0.00
5,560.0	10.26	332.93	5,389.8	1,069.0	-546.3	1,200.5	2.00	-2.00	0.00
5,600.0	9.46	332.93	5,429.2	1,075.1	-549.4	1,207.3	2.00	-2.00	0.00
5,640.0	8.66	332.93	5,468.7	1,080.7	-552.3	1,213.6	2.00	-2.00	0.00
5,680.0	7.86	332.93	5,508.3	1,085.8	-554.9	1,219.4	2.00	-2.00	0.00
5,720.0	7.06	332.93	5,548.0	1,090.4	-557.2	1,224.5	2.00	-2.00	0.00
5,760.0	6.26	332.93	5,587.7	1,094.5	-559.4	1,229.2	2.00	-2.00	0.00
5,800.0	5.46	332.93	5,627.5	1,098.2	-561.2	1,233.3	2.00	-2.00	0.00
5,840.0	4.66	332.93	5,667.3	1,101.3	-562.8	1,236.8	2.00	-2.00	0.00
5,880.0	3.86	332.93	5,707.2	1,104.0	-564.2	1,239.8	2.00	-2.00	0.00
5,920.0	3.06	332.93	5,747.2	1,106.1	-565.3	1,242.2	2.00	-2.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Planned 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)
5,960.0	2.26	332.93	5,787.1	1,107.8	-566.1	1,244.0	2.00	-2.00	0.00
6,000.0	1.46	332.93	5,827.1	1,108.9	-566.7	1,245.3	2.00	-2.00	0.00
6,040.0	0.66	332.93	5,867.1	1,109.6	-567.0	1,246.1	2.00	-2.00	0.00
6,072.9	0.00	0.00	5,900.0	1,109.7	-567.1	1,246.3	2.00	-2.00	0.00
TARGET BHL 1297'FSL & 1307'FEL									
6,080.0	0.00	0.00	5,907.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,120.0	0.00	0.00	5,947.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,160.0	0.00	0.00	5,987.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,027.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,240.0	0.00	0.00	6,067.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,280.0	0.00	0.00	6,107.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,320.0	0.00	0.00	6,147.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,360.0	0.00	0.00	6,187.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,227.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,440.0	0.00	0.00	6,267.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,480.0	0.00	0.00	6,307.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,520.0	0.00	0.00	6,347.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,560.0	0.00	0.00	6,387.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,427.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,640.0	0.00	0.00	6,467.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,680.0	0.00	0.00	6,507.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,720.0	0.00	0.00	6,547.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,760.0	0.00	0.00	6,587.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,627.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,840.0	0.00	0.00	6,667.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,880.0	0.00	0.00	6,707.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,920.0	0.00	0.00	6,747.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
6,946.9	0.00	0.00	6,774.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 800' X 800', 1298'FSL & 1307'FEL									
6,960.0	0.00	0.00	6,787.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,827.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,040.0	0.00	0.00	6,867.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,080.0	0.00	0.00	6,907.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,120.0	0.00	0.00	6,947.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,160.0	0.00	0.00	6,987.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,027.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,208.9	0.00	0.00	7,036.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
FT. HAYS									
7,240.0	0.00	0.00	7,067.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,242.9	0.00	0.00	7,070.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
CODELL									
7,280.0	0.00	0.00	7,107.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,292.9	0.00	0.00	7,120.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
GREENHORN									
7,320.0	0.00	0.00	7,147.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,360.0	0.00	0.00	7,187.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,377.9	0.00	0.00	7,205.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
GRANEROS									
7,400.0	0.00	0.00	7,227.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,440.0	0.00	0.00	7,267.1	1,109.7	-567.1	1,246.3	0.00	0.00	0.00
7,462.9	0.00	0.00	7,290.0	1,109.7	-567.1	1,246.3	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Project:	SEC.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**North Reference:**	True
Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-03-11)		

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
LEGAL BOX 800' X 8(- plan misses target center by 1.4ft at 6946.9ft MD (6774.0 TVD, 1109.7 N, -567.1 E) - Rectangle (sides W800.0 H800.0 D516.0)	0.00	0.00	6,774.0	1,110.7	-568.1	1,435,790.89	3,258,682.92	40.525921	-104.569446
TARGET BHL 1297'F: - plan hits target center - Point	0.00	0.00	5,900.0	1,109.7	-567.1	1,435,789.93	3,258,683.91	40.525918	-104.569442

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
760.0	760.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,824.0	3,724.0	PARKMAN		0.00	
4,628.8	4,494.0	SUSSEX		0.00	
5,255.9	5,094.0	SHANNON		0.00	
6,946.9	6,774.0	NIOBRARA		0.00	
7,208.9	7,036.0	FT. HAYS		0.00	
7,242.9	7,070.0	CODELL		0.00	
7,292.9	7,120.0	GREENHORN		0.00	
7,377.9	7,205.0	GRANEROS		0.00	

ENSIGN Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.32-T7N-R64W
NC Farms 16-32 Pad Sec.32-T7N-R64W
NC Farms 20-32

Wellbore #1
Plan #1 (11-03-11)

Anticollision Report

04 November, 2011

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (11-03-11)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 11/4/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,462.9	Plan #1 (11-03-11) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NC Farms 16-32 Pad Sec.32-T7N-R64W						
NC Farms 10-32 - Wellbore #1 - Plan #1 (11-03-11)	200.0	200.0	15.0	14.3	22.264	CC, ES
NC Farms 10-32 - Wellbore #1 - Plan #1 (11-03-11)	400.0	399.1	19.8	18.2	12.520	SF
NC Farms 9-32 - Wellbore #1 - Plan #1 (11-03-11)	166.3	167.3	15.0	14.5	28.594	CC
NC Farms 9-32 - Wellbore #1 - Plan #1 (11-03-11)	300.0	300.9	15.2	14.1	13.526	ES
NC Farms 9-32 - Wellbore #1 - Plan #1 (11-03-11)	400.0	400.6	17.0	15.4	10.733	SF

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 10-32 - Wellbore #1 - Plan #1 (11-03-11)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.05	0.0	-15.0	15.0	15.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-90.05	0.0	-15.0	15.0	14.8	0.22	66.793	
200.0	200.0	200.0	200.0	0.3	0.3	-90.05	0.0	-15.0	15.0	14.3	0.67	22.264	CC, ES
300.0	300.0	299.7	299.6	0.6	0.6	-84.94	1.4	-16.0	16.1	14.9	1.12	14.300	
400.0	400.0	399.1	398.9	0.8	0.8	-73.27	5.7	-18.9	19.8	18.2	1.58	12.520	SF
500.0	500.0	498.0	497.5	1.0	1.0	-61.78	12.8	-23.8	27.1	25.1	2.04	13.263	
600.0	600.0	596.3	595.0	1.2	1.3	-53.52	22.5	-30.5	38.3	35.7	2.51	15.237	
700.0	700.0	693.6	691.1	1.5	1.6	-48.14	35.0	-39.0	53.1	50.1	2.99	17.788	
800.0	800.0	789.8	785.6	1.7	2.0	-44.64	49.9	-49.2	71.5	68.1	3.48	20.585	
900.0	900.0	884.6	878.1	1.9	2.4	-42.31	67.1	-61.1	93.3	89.4	3.98	23.462	
950.0	950.0	931.5	923.5	2.0	2.6	-41.43	76.6	-67.6	105.5	101.2	4.24	24.896	
1,000.0	1,000.0	978.0	968.5	2.1	2.9	-13.61	86.6	-74.4	118.0	113.6	4.39	26.858	
1,100.0	1,099.9	1,070.7	1,057.3	2.4	3.4	-12.62	108.2	-89.3	143.0	138.1	4.87	29.390	
1,200.0	1,199.7	1,162.6	1,144.5	2.6	3.9	-12.06	132.1	-105.7	167.8	162.4	5.34	31.393	
1,300.0	1,299.1	1,253.8	1,230.2	2.8	4.5	-11.76	158.0	-123.4	192.4	186.5	5.84	32.962	
1,400.0	1,398.2	1,345.9	1,315.6	3.1	5.2	-11.63	186.4	-142.9	216.6	210.3	6.34	34.189	
1,500.0	1,496.6	1,443.5	1,405.8	3.4	5.9	-11.67	217.1	-164.0	238.5	231.6	6.86	34.762	
1,600.0	1,594.4	1,541.7	1,496.6	3.7	6.7	-11.87	248.1	-185.3	257.0	249.6	7.40	34.733	
1,700.0	1,691.5	1,640.6	1,587.9	4.1	7.4	-12.19	279.2	-206.7	272.1	264.1	7.95	34.215	
1,795.8	1,783.5	1,735.6	1,675.7	4.5	8.1	-12.63	309.2	-227.2	283.4	274.9	8.50	33.347	
1,800.0	1,787.6	1,739.8	1,679.6	4.5	8.2	-12.65	310.5	-228.1	283.9	275.3	8.53	33.295	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 10-32 - Wellbore #1 - Plan #1 (11-03-11)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,900.0	1,883.3	1,839.3	1,771.5	5.0	8.9	-13.18	341.9	-249.6	294.1	285.0	9.15	32.149	
2,000.0	1,978.9	1,938.7	1,863.4	5.5	9.7	-13.68	373.2	-271.1	304.4	294.6	9.78	31.109	
2,100.0	2,074.6	2,038.1	1,955.3	6.0	10.5	-14.15	404.5	-292.6	314.7	304.2	10.43	30.165	
2,200.0	2,170.3	2,137.6	2,047.2	6.6	11.2	-14.58	435.9	-314.2	325.0	313.9	11.09	29.304	
2,300.0	2,266.0	2,237.0	2,139.1	7.1	12.0	-14.99	467.2	-335.7	335.3	323.5	11.76	28.518	
2,400.0	2,361.6	2,336.4	2,231.0	7.7	12.8	-15.38	498.6	-357.2	345.6	333.2	12.43	27.799	
2,500.0	2,457.3	2,435.9	2,322.8	8.2	13.6	-15.74	529.9	-378.7	356.0	342.9	13.12	27.139	
2,600.0	2,553.0	2,535.3	2,414.7	8.8	14.3	-16.08	561.2	-400.2	366.4	352.6	13.81	26.532	
2,700.0	2,648.6	2,634.8	2,506.6	9.4	15.1	-16.41	592.6	-421.7	376.8	362.3	14.51	25.971	
2,800.0	2,744.3	2,734.2	2,598.5	9.9	15.9	-16.71	623.9	-443.2	387.2	371.9	15.21	25.453	
2,900.0	2,840.0	2,833.6	2,690.4	10.5	16.7	-17.00	655.2	-464.7	397.6	381.6	15.92	24.973	
3,000.0	2,935.7	2,933.1	2,782.3	11.1	17.4	-17.28	686.6	-486.2	408.0	391.3	16.63	24.527	
3,100.0	3,031.3	3,032.5	2,874.2	11.7	18.2	-17.54	717.9	-507.7	418.4	401.0	17.35	24.112	
3,200.0	3,127.0	3,131.9	2,966.0	12.3	19.0	-17.79	749.3	-529.2	428.8	410.8	18.08	23.724	
3,300.0	3,222.7	3,231.4	3,057.9	12.8	19.8	-18.03	780.6	-550.7	439.3	420.5	18.80	23.362	
3,400.0	3,318.4	3,330.8	3,149.8	13.4	20.6	-18.25	811.9	-572.2	449.7	430.2	19.53	23.022	
3,500.0	3,414.0	3,430.3	3,241.7	14.0	21.3	-18.47	843.3	-593.7	460.2	439.9	20.27	22.704	
3,600.0	3,509.7	3,529.7	3,333.6	14.6	22.1	-18.67	874.6	-615.3	470.6	449.6	21.01	22.405	
3,700.0	3,605.4	3,629.1	3,425.5	15.2	22.9	-18.87	906.0	-636.8	481.1	459.3	21.75	22.123	
3,800.0	3,701.1	3,728.6	3,517.4	15.8	23.7	-19.06	937.3	-658.3	491.6	469.1	22.49	21.857	
3,900.0	3,796.7	3,828.0	3,609.3	16.4	24.4	-19.24	968.6	-679.8	502.0	478.8	23.24	21.606	
4,000.0	3,892.4	3,927.4	3,701.1	17.0	25.2	-19.41	1,000.0	-701.3	512.5	488.5	23.99	21.368	
4,100.0	3,988.1	4,026.9	3,793.0	17.5	26.0	-19.58	1,031.3	-722.8	523.0	498.3	24.74	21.144	
4,200.0	4,083.8	4,126.3	3,884.9	18.1	26.8	-19.74	1,062.6	-744.3	533.5	508.0	25.49	20.930	
4,300.0	4,179.4	4,225.8	3,976.8	18.7	27.6	-19.89	1,094.0	-765.8	544.0	517.7	26.24	20.728	
4,400.0	4,275.1	4,325.2	4,068.7	19.3	28.3	-20.04	1,125.3	-787.3	554.5	527.5	27.00	20.535	
4,500.0	4,370.8	4,424.6	4,160.6	19.9	29.1	-20.18	1,156.7	-808.8	565.0	537.2	27.76	20.352	
4,600.0	4,466.4	4,524.1	4,252.5	20.5	29.9	-20.32	1,188.0	-830.3	575.5	547.0	28.52	20.177	
4,700.0	4,562.1	4,623.5	4,344.3	21.1	30.7	-20.45	1,219.3	-851.8	586.0	556.7	29.28	20.011	
4,800.0	4,657.8	4,722.9	4,436.2	21.7	31.5	-20.58	1,250.7	-873.3	596.5	566.5	30.05	19.852	
4,900.0	4,753.5	4,822.4	4,528.1	22.3	32.2	-20.70	1,282.0	-894.8	607.0	576.2	30.81	19.700	
5,000.0	4,849.1	4,921.8	4,620.0	22.9	33.0	-20.82	1,313.4	-916.4	617.5	586.0	31.58	19.554	
5,100.0	4,944.8	5,021.3	4,711.9	23.5	33.8	-20.94	1,344.7	-937.9	628.1	595.7	32.35	19.415	
5,200.0	5,040.5	5,120.7	4,803.8	24.1	34.6	-21.05	1,376.0	-959.4	638.6	605.5	33.12	19.282	
5,227.2	5,066.5	5,147.7	4,828.7	24.2	34.8	-21.08	1,384.5	-965.2	641.4	608.1	33.33	19.246	
5,300.0	5,136.4	5,220.0	4,895.6	24.6	35.3	-21.19	1,407.3	-980.9	650.0	616.1	33.85	19.202	
5,400.0	5,233.3	5,319.0	4,987.0	25.0	36.1	-21.27	1,438.5	-1,002.3	664.4	630.0	34.47	19.275	
5,500.0	5,330.9	5,417.4	5,077.9	25.4	36.9	-21.26	1,469.5	-1,023.5	682.1	647.1	35.02	19.481	
5,600.0	5,429.2	5,515.1	5,168.3	25.7	37.7	-21.18	1,500.3	-1,044.7	703.0	667.6	35.48	19.815	
5,700.0	5,528.1	5,612.1	5,257.9	26.0	38.4	-21.04	1,530.9	-1,065.7	727.1	691.3	35.87	20.272	
5,800.0	5,627.5	5,708.2	5,346.7	26.2	39.2	-20.84	1,561.2	-1,086.4	754.4	718.2	36.18	20.852	
5,900.0	5,727.2	5,814.9	5,445.4	26.4	40.0	-20.55	1,594.6	-1,109.3	784.6	748.2	36.42	21.541	
6,000.0	5,827.1	5,945.8	5,568.1	26.6	40.7	-20.14	1,632.0	-1,135.0	814.6	778.1	36.59	22.262	
6,072.9	5,900.0	6,042.7	5,660.3	26.6	41.2	-46.92	1,656.7	-1,152.0	835.9	799.2	36.67	22.792	
6,100.0	5,927.1	6,079.1	5,695.1	26.7	41.4	-46.76	1,665.3	-1,157.9	843.5	806.7	36.75	22.951	
6,200.0	6,027.1	6,215.7	5,827.1	26.8	41.9	-46.25	1,694.4	-1,177.8	868.8	831.7	37.07	23.435	
6,300.0	6,127.1	6,355.5	5,963.8	26.9	42.5	-45.86	1,718.7	-1,194.5	889.5	852.0	37.41	23.774	
6,400.0	6,227.1	6,498.0	6,104.3	27.0	42.9	-45.56	1,737.8	-1,207.6	905.4	867.7	37.77	23.973	
6,500.0	6,327.1	6,642.4	6,247.9	27.1	43.2	-45.37	1,751.3	-1,216.9	916.5	878.4	38.12	24.042	
6,600.0	6,427.1	6,788.2	6,393.3	27.2	43.4	-45.26	1,758.8	-1,222.1	922.7	884.2	38.47	23.982	
6,700.0	6,527.1	6,922.0	6,527.1	27.3	43.5	-45.23	1,760.4	-1,223.2	924.0	885.2	38.81	23.809	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 10-32 - Wellbore #1 - Plan #1 (11-03-11)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,800.0	6,627.1	7,022.0	6,627.1	27.4	43.6	-45.23	1,760.4	-1,223.2	924.0	884.9	39.12	23.622	
6,900.0	6,727.1	7,122.0	6,727.1	27.5	43.7	-45.23	1,760.4	-1,223.2	924.0	884.6	39.43	23.436	
7,000.0	6,827.1	7,222.0	6,827.1	27.6	43.7	-45.23	1,760.4	-1,223.2	924.0	884.3	39.74	23.251	
7,100.0	6,927.1	7,322.0	6,927.1	27.8	43.8	-45.23	1,760.4	-1,223.2	924.0	884.0	40.06	23.068	
7,200.0	7,027.1	7,422.0	7,027.1	27.9	43.9	-45.23	1,760.4	-1,223.2	924.0	883.6	40.37	22.887	
7,300.0	7,127.1	7,522.0	7,127.1	28.0	43.9	-45.23	1,760.4	-1,223.2	924.0	883.3	40.69	22.707	
7,400.0	7,227.1	7,622.0	7,227.1	28.1	44.0	-45.23	1,760.4	-1,223.2	924.0	883.0	41.02	22.528	
7,462.9	7,290.0	7,684.9	7,290.0	28.2	44.1	-45.23	1,760.4	-1,223.2	924.0	882.8	41.22	22.417	
7,463.3	7,290.4	7,685.3	7,290.4	28.2	44.1	-45.23	1,760.4	-1,223.2	924.0	882.8	41.22	22.416	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 9-32 - Wellbore #1 - Plan #1 (11-03-11)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	88.64	0.4	15.0	15.0	15.0	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	88.64	0.4	15.0	15.0	14.8	0.23	66.150	
166.3	166.3	167.3	167.3	0.3	0.3	88.64	0.4	15.0	15.0	14.5	0.53	28.594	CC
200.0	200.0	201.0	201.0	0.3	0.3	88.64	0.4	15.0	15.0	14.3	0.68	22.197	
300.0	300.0	300.9	300.9	0.6	0.6	81.95	2.1	15.1	15.2	14.1	1.13	13.526	ES
400.0	400.0	400.6	400.4	0.8	0.8	64.23	7.4	15.3	17.0	15.4	1.58	10.733	SF
500.0	500.0	500.0	499.5	1.0	1.0	44.18	16.0	15.6	22.4	20.4	2.05	10.914	
600.0	600.0	598.3	597.0	1.2	1.3	29.81	28.0	16.0	32.5	29.9	2.54	12.771	
700.0	700.0	695.8	693.4	1.5	1.6	21.03	43.1	16.6	46.8	43.8	3.04	15.382	
800.0	800.0	792.2	788.0	1.7	2.0	15.72	61.3	17.3	65.0	61.4	3.56	18.281	
900.0	900.0	887.3	880.7	1.9	2.4	12.35	82.3	18.0	86.7	82.6	4.08	21.260	
950.0	950.0	934.3	926.2	2.0	2.6	11.12	93.9	18.4	98.8	94.5	4.35	22.740	
1,000.0	1,000.0	980.9	971.3	2.1	2.8	37.15	106.1	18.9	111.4	107.0	4.42	25.206	
1,100.0	1,099.9	1,073.6	1,060.1	2.4	3.3	36.09	132.4	19.9	137.0	132.1	4.90	27.973	
1,200.0	1,199.7	1,165.4	1,147.2	2.6	3.9	35.84	161.4	20.9	162.9	157.5	5.39	30.243	
1,300.0	1,299.1	1,259.4	1,235.6	2.8	4.5	36.11	193.5	22.1	188.7	182.8	5.90	31.986	
1,400.0	1,398.2	1,356.6	1,326.8	3.1	5.1	36.84	227.0	23.3	212.2	205.8	6.43	32.987	
1,500.0	1,496.6	1,454.2	1,418.4	3.4	5.7	37.93	260.7	24.6	233.1	226.1	7.01	33.260	
1,600.0	1,594.4	1,552.3	1,510.5	3.7	6.4	39.33	294.5	25.8	251.4	243.8	7.63	32.963	
1,700.0	1,691.5	1,650.7	1,602.8	4.1	7.0	41.02	328.4	27.1	267.3	259.0	8.31	32.179	
1,795.8	1,783.5	1,745.0	1,691.3	4.5	7.7	42.92	360.9	28.3	280.4	271.4	9.03	31.047	
1,800.0	1,787.6	1,749.2	1,695.3	4.5	7.7	43.01	362.3	28.3	280.9	271.9	9.07	30.987	
1,900.0	1,883.3	1,847.7	1,787.8	5.0	8.3	45.20	396.3	29.6	293.8	283.9	9.91	29.643	
2,000.0	1,978.9	1,946.3	1,880.3	5.5	9.0	47.20	430.3	30.8	307.1	296.3	10.81	28.417	
2,100.0	2,074.6	2,044.9	1,972.8	6.0	9.7	49.03	464.3	32.1	320.7	308.9	11.74	27.309	
2,200.0	2,170.3	2,143.4	2,065.3	6.6	10.3	50.72	498.3	33.3	334.6	321.9	12.71	26.314	
2,300.0	2,266.0	2,242.0	2,157.8	7.1	11.0	52.27	532.3	34.5	348.7	335.0	13.72	25.423	
2,400.0	2,361.6	2,340.6	2,250.3	7.7	11.7	53.70	566.3	35.8	363.1	348.4	14.75	24.626	
2,500.0	2,457.3	2,439.1	2,342.9	8.2	12.3	55.02	600.2	37.0	377.7	361.9	15.80	23.914	
2,600.0	2,553.0	2,537.7	2,435.4	8.8	13.0	56.24	634.2	38.3	392.5	375.7	16.86	23.275	
2,700.0	2,648.6	2,636.2	2,527.9	9.4	13.7	57.37	668.2	39.5	407.5	389.5	17.95	22.702	
2,800.0	2,744.3	2,734.8	2,620.4	9.9	14.3	58.43	702.2	40.8	422.6	403.5	19.05	22.187	
2,900.0	2,840.0	2,833.4	2,712.9	10.5	15.0	59.41	736.2	42.0	437.8	417.6	20.15	21.722	
3,000.0	2,935.7	2,931.9	2,805.4	11.1	15.7	60.32	770.2	43.3	453.1	431.9	21.27	21.302	
3,100.0	3,031.3	3,030.5	2,897.9	11.7	16.3	61.18	804.1	44.5	468.6	446.2	22.40	20.920	
3,200.0	3,127.0	3,129.1	2,990.4	12.3	17.0	61.98	838.1	45.8	484.1	460.6	23.53	20.573	
3,300.0	3,222.7	3,227.6	3,082.9	12.8	17.7	62.73	872.1	47.0	499.8	475.1	24.67	20.257	
3,400.0	3,318.4	3,326.2	3,175.5	13.4	18.3	63.44	906.1	48.3	515.5	489.7	25.82	19.968	
3,500.0	3,414.0	3,424.8	3,268.0	14.0	19.0	64.10	940.1	49.5	531.3	504.3	26.97	19.702	
3,600.0	3,509.7	3,523.3	3,360.5	14.6	19.7	64.73	974.1	50.8	547.1	519.0	28.12	19.458	
3,700.0	3,605.4	3,621.9	3,453.0	15.2	20.4	65.32	1,008.0	52.0	563.0	533.8	29.27	19.233	
3,800.0	3,701.1	3,720.5	3,545.5	15.8	21.0	65.87	1,042.0	53.3	579.0	548.6	30.43	19.025	
3,900.0	3,796.7	3,819.0	3,638.0	16.4	21.7	66.40	1,076.0	54.5	595.0	563.4	31.60	18.832	
4,000.0	3,892.4	3,917.6	3,730.5	17.0	22.4	66.90	1,110.0	55.8	611.1	578.3	32.76	18.653	
4,100.0	3,988.1	4,016.1	3,823.0	17.5	23.0	67.38	1,144.0	57.0	627.2	593.3	33.93	18.487	
4,200.0	4,083.8	4,114.7	3,915.5	18.1	23.7	67.83	1,178.0	58.3	643.3	608.2	35.09	18.332	
4,300.0	4,179.4	4,213.3	4,008.1	18.7	24.4	68.26	1,212.0	59.5	659.5	623.3	36.26	18.187	
4,400.0	4,275.1	4,311.8	4,100.6	19.3	25.0	68.67	1,245.9	60.8	675.7	638.3	37.43	18.051	
4,500.0	4,370.8	4,410.4	4,193.1	19.9	25.7	69.06	1,279.9	62.0	692.0	653.4	38.61	17.924	
4,600.0	4,466.4	4,509.0	4,285.6	20.5	26.4	69.43	1,313.9	63.3	708.3	668.5	39.78	17.805	
4,700.0	4,562.1	4,607.5	4,378.1	21.1	27.1	69.78	1,347.9	64.5	724.6	683.6	40.95	17.692	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 9-32 - Wellbore #1 - Plan #1 (11-03-11)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,800.0	4,657.8	4,706.1	4,470.6	21.7	27.7	70.12	1,381.9	65.8	740.9	698.8	42.13	17.587	
4,900.0	4,753.5	4,804.7	4,563.1	22.3	28.4	70.45	1,415.9	67.0	757.3	714.0	43.31	17.487	
5,000.0	4,849.1	4,903.2	4,655.6	22.9	29.1	70.76	1,449.8	68.2	773.6	729.2	44.48	17.393	
5,100.0	4,944.8	5,001.8	4,748.1	23.5	29.7	71.06	1,483.8	69.5	790.1	744.4	45.66	17.303	
5,200.0	5,040.5	5,100.3	4,840.7	24.1	30.4	71.34	1,517.8	70.7	806.5	759.6	46.84	17.219	
5,227.2	5,066.5	5,127.1	4,865.8	24.2	30.6	71.42	1,527.0	71.1	810.9	763.8	47.16	17.197	
5,300.0	5,136.4	5,198.9	4,933.2	24.6	31.1	71.79	1,551.8	72.0	823.2	775.2	47.98	17.156	
5,400.0	5,233.3	5,301.3	5,029.3	25.0	31.8	72.11	1,587.0	73.3	840.9	792.0	48.97	17.173	
5,500.0	5,330.9	5,426.6	5,148.1	25.4	32.4	72.30	1,626.9	74.8	857.7	807.9	49.83	17.214	
5,600.0	5,429.2	5,553.0	5,269.6	25.7	32.9	72.42	1,661.8	76.0	872.5	821.9	50.59	17.246	
5,700.0	5,528.1	5,680.5	5,393.5	26.0	33.4	72.48	1,691.5	77.1	885.1	833.9	51.25	17.271	
5,800.0	5,627.5	5,808.8	5,519.5	26.2	33.8	72.49	1,715.8	78.0	895.6	843.8	51.79	17.292	
5,900.0	5,727.2	5,937.9	5,647.2	26.4	34.2	72.43	1,734.6	78.7	903.8	851.6	52.21	17.310	
6,000.0	5,827.1	6,067.6	5,776.2	26.6	34.5	72.31	1,747.7	79.2	909.9	857.3	52.52	17.324	
6,072.9	5,900.0	6,162.5	5,870.9	26.6	34.6	45.12	1,753.5	79.4	912.9	860.2	52.67	17.332	
6,100.0	5,927.1	6,197.8	5,906.2	26.7	34.7	45.06	1,754.9	79.5	913.6	860.9	52.72	17.330	
6,200.0	6,027.1	6,319.7	6,028.1	26.8	34.8	45.00	1,756.4	79.5	914.5	861.6	52.93	17.277	
6,300.0	6,127.1	6,419.7	6,128.1	26.9	34.8	45.00	1,756.4	79.5	914.5	861.4	53.14	17.208	
6,400.0	6,227.1	6,519.7	6,228.1	27.0	34.9	45.00	1,756.4	79.5	914.5	861.1	53.36	17.139	
6,500.0	6,327.1	6,619.7	6,328.1	27.1	35.0	45.00	1,756.4	79.5	914.5	860.9	53.58	17.069	
6,600.0	6,427.1	6,719.7	6,428.1	27.2	35.1	45.00	1,756.4	79.5	914.5	860.7	53.80	16.999	
6,700.0	6,527.1	6,819.7	6,528.1	27.3	35.2	45.00	1,756.4	79.5	914.5	860.5	54.02	16.929	
6,800.0	6,627.1	6,919.7	6,628.1	27.4	35.3	45.00	1,756.4	79.5	914.5	860.3	54.25	16.858	
6,900.0	6,727.1	7,019.7	6,728.1	27.5	35.3	45.00	1,756.4	79.5	914.5	860.0	54.48	16.787	
7,000.0	6,827.1	7,119.7	6,828.1	27.6	35.4	45.00	1,756.4	79.5	914.5	859.8	54.71	16.716	
7,100.0	6,927.1	7,219.7	6,928.1	27.8	35.5	45.00	1,756.4	79.5	914.5	859.6	54.94	16.644	
7,200.0	7,027.1	7,319.7	7,028.1	27.9	35.6	45.00	1,756.4	79.5	914.5	859.3	55.18	16.573	
7,300.0	7,127.1	7,419.7	7,128.1	28.0	35.7	45.00	1,756.4	79.5	914.5	859.1	55.42	16.501	
7,400.0	7,227.1	7,519.7	7,228.1	28.1	35.8	45.00	1,756.4	79.5	914.5	858.8	55.66	16.429	
7,441.6	7,268.7	7,561.3	7,269.7	28.2	35.8	45.00	1,756.4	79.5	914.5	858.7	55.77	16.399	
7,462.9	7,290.0	7,581.6	7,290.0	28.2	35.8	45.00	1,756.4	79.5	914.5	858.7	55.82	16.384	
7,463.3	7,290.4	7,581.6	7,290.0	28.2	35.8	45.00	1,756.4	79.5	914.5	858.7	55.82	16.384	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4815.0ft (Original Well Elev) Coordinates are relative to: NC Farms 20-32
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.60°

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well NC Farms 20-32
Project:	SEC.32-T7N-R64W	**TVD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Reference Site:	NC Farms 16-32 Pad Sec.32-T7N-R64W	**MD Reference:**	WELL @ 4815.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	NC Farms 20-32	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-03-11)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4815.0ft (Original Well Elev) Coordinates are relative to: NC Farms 20-32
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.60°