

ENSIGN

Directional

Well Name: NC Farms 10-32

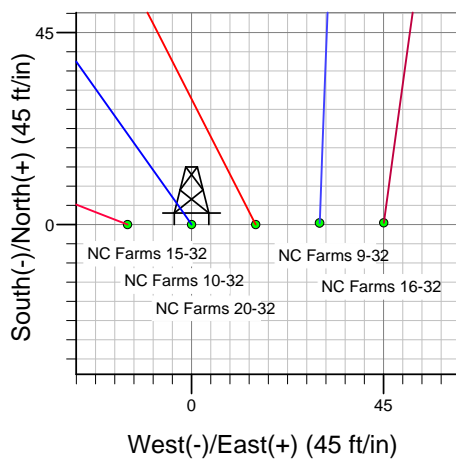
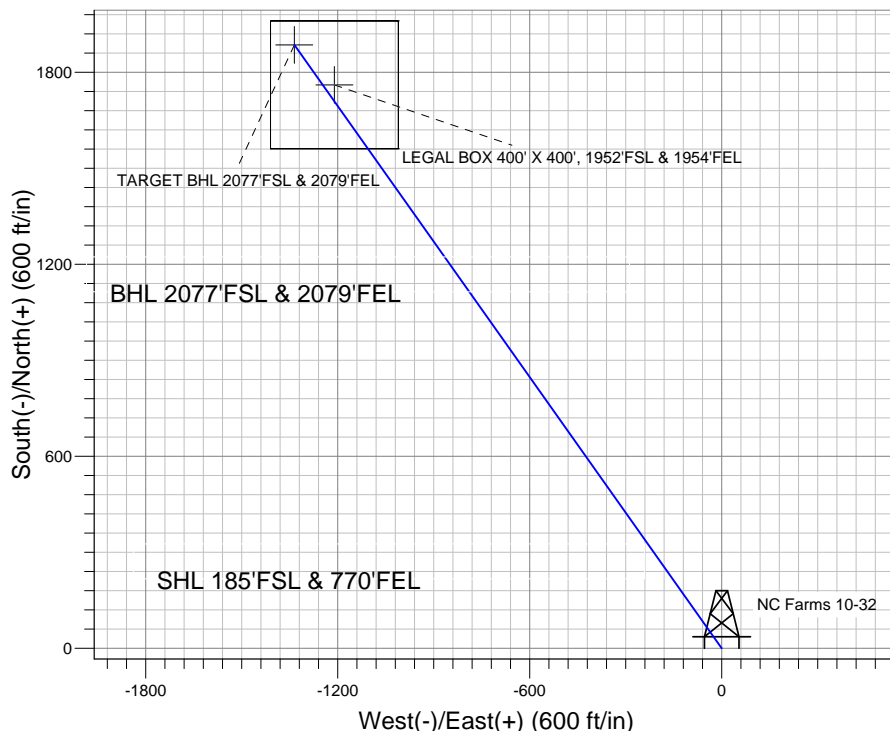
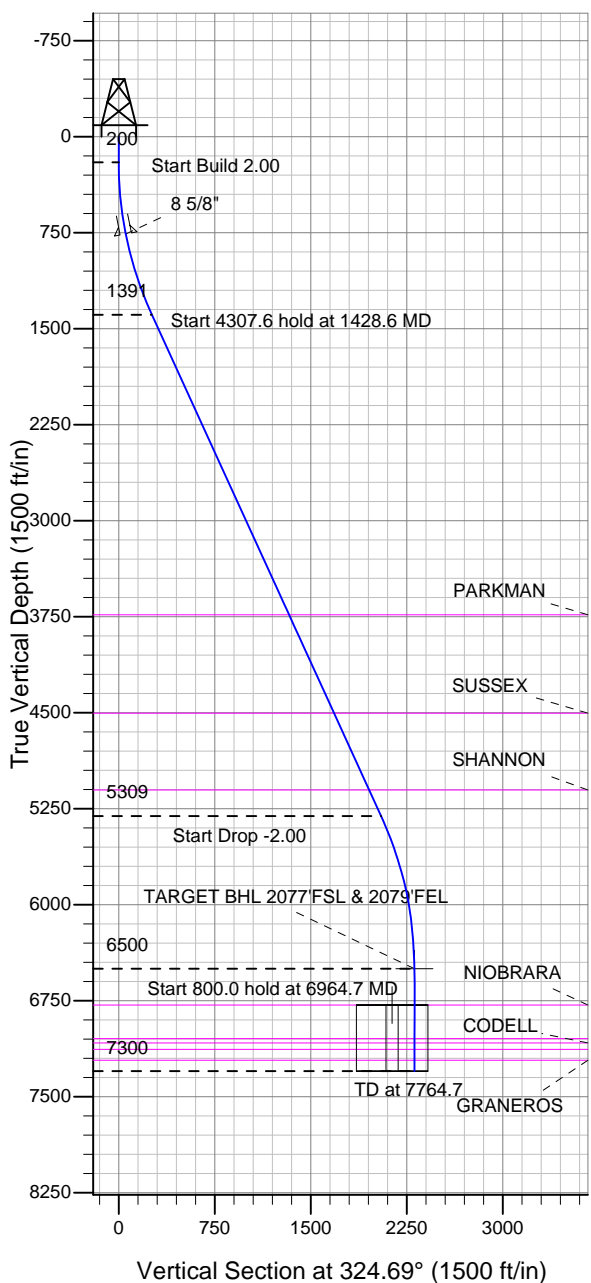
Surface Location: NC Farms 16-32 Pad Sec.32-T7N-R64W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4804.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	143486.08	3259247.64	40.522872	-104.567456	

Original Well Elev WELL @ 4815.0ft (Original Well Elev)

BAYSWATER EXPLORATION & PRODUCTION



NC Farms 16-32 Pad Sec.32-T7N-R64W
 NC Farms 10-32
 Plan #2 (11-10-11)
 8:48, November 10 2011



Azimuths to True North
 Magnetic North: 8.71°

Magnetic Field
 Strength: 53174.2snT
 Dip Angle: 67.17°
 Date: 11/10/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2077'FSL & 2079'FEL	6500.0	1885.1	-1335.2	40.528046	-104.572259	Point
LEGAL BOX 400' X 400', 1952'FSL & 1954'FEL	6784.0	1760.1	-1210.2	40.527703	-104.571809	Rectangle (Sides: L400.0 W400.0)

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1428.6	24.57	324.69	1391.2	211.7	-149.9	2.00	324.69	259.4	
4	5736.1	24.57	324.69	5308.8	1673.4	-1185.3	0.00	0.00	2050.6	
5	6964.7	0.00	0.00	6500.0	1885.1	-1335.2	2.00	180.00	2310.0	TARGET BHL 2077'FSL & 2079'FEL
6	7764.7	0.00	0.00	7300.0	1885.1	-1335.2	0.00	0.00	2310.0	



Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.32-T7N-R64W

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

NC Farms 10-32

Wellbore #1

Plan: Plan #2 (11-10-11)

Standard Planning Report

10 November, 2011

Database:	Landmark	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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 10-32					
Well Position	+N/-S	-0.4 ft	Northing:	1,434,686.08 ft	Latitude:	40.522872
	+E/-W	-45.0 ft	Easting:	3,259,247.64 ft	Longitude:	-104.567456
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	11/10/2011	8.71	67.17	53,174

Design	Plan #2 (11-10-11)			
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	324.69

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,428.6	24.57	324.69	1,391.2	211.7	-149.9	2.00	2.00	0.00	324.69	
5,736.1	24.57	324.69	5,308.8	1,673.4	-1,185.3	0.00	0.00	0.00	0.00	
6,964.7	0.00	0.00	6,500.0	1,885.1	-1,335.2	2.00	-2.00	0.00	180.00	TARGET BHL 2077
7,764.7	0.00	0.00	7,300.0	1,885.1	-1,335.2	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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	0.80	324.69	240.0	0.2	-0.2	0.3	2.00	2.00	0.00
280.0	1.60	324.69	280.0	0.9	-0.6	1.1	2.00	2.00	0.00
320.0	2.40	324.69	320.0	2.1	-1.5	2.5	2.00	2.00	0.00
360.0	3.20	324.69	359.9	3.6	-2.6	4.5	2.00	2.00	0.00
400.0	4.00	324.69	399.8	5.7	-4.0	7.0	2.00	2.00	0.00
440.0	4.80	324.69	439.7	8.2	-5.8	10.0	2.00	2.00	0.00
480.0	5.60	324.69	479.6	11.2	-7.9	13.7	2.00	2.00	0.00
520.0	6.40	324.69	519.3	14.6	-10.3	17.9	2.00	2.00	0.00
560.0	7.20	324.69	559.1	18.4	-13.1	22.6	2.00	2.00	0.00
600.0	8.00	324.69	598.7	22.8	-16.1	27.9	2.00	2.00	0.00
640.0	8.80	324.69	638.3	27.5	-19.5	33.7	2.00	2.00	0.00
680.0	9.60	324.69	677.8	32.7	-23.2	40.1	2.00	2.00	0.00
720.0	10.40	324.69	717.1	38.4	-27.2	47.1	2.00	2.00	0.00
760.0	11.20	324.69	756.4	44.5	-31.5	54.6	2.00	2.00	0.00
763.6	11.27	324.69	760.0	45.1	-31.9	55.3	2.00	2.00	0.00
8 5/8"									
800.0	12.00	324.69	795.6	51.1	-36.2	62.6	2.00	2.00	0.00
840.0	12.80	324.69	834.7	58.1	-41.1	71.2	2.00	2.00	0.00
880.0	13.60	324.69	873.6	65.5	-46.4	80.3	2.00	2.00	0.00
920.0	14.40	324.69	912.4	73.4	-52.0	90.0	2.00	2.00	0.00
960.0	15.20	324.69	951.1	81.8	-57.9	100.2	2.00	2.00	0.00
1,000.0	16.00	324.69	989.6	90.6	-64.1	111.0	2.00	2.00	0.00
1,040.0	16.80	324.69	1,028.0	99.8	-70.7	122.3	2.00	2.00	0.00
1,080.0	17.60	324.69	1,066.2	109.4	-77.5	134.1	2.00	2.00	0.00
1,120.0	18.40	324.69	1,104.3	119.5	-84.7	146.5	2.00	2.00	0.00
1,160.0	19.20	324.69	1,142.1	130.0	-92.1	159.3	2.00	2.00	0.00
1,200.0	20.00	324.69	1,179.8	141.0	-99.9	172.8	2.00	2.00	0.00
1,240.0	20.80	324.69	1,217.3	152.4	-107.9	186.7	2.00	2.00	0.00
1,280.0	21.60	324.69	1,254.6	164.2	-116.3	201.2	2.00	2.00	0.00
1,320.0	22.40	324.69	1,291.7	176.4	-124.9	216.2	2.00	2.00	0.00
1,360.0	23.20	324.69	1,328.6	189.0	-133.9	231.7	2.00	2.00	0.00
1,400.0	24.00	324.69	1,365.2	202.1	-143.2	247.7	2.00	2.00	0.00
1,428.6	24.57	324.69	1,391.2	211.7	-149.9	259.4	2.00	2.00	0.00
1,440.0	24.57	324.69	1,401.7	215.6	-152.7	264.2	0.00	0.00	0.00
1,480.0	24.57	324.69	1,438.0	229.2	-162.3	280.8	0.00	0.00	0.00
1,520.0	24.57	324.69	1,474.4	242.7	-171.9	297.4	0.00	0.00	0.00
1,560.0	24.57	324.69	1,510.8	256.3	-181.5	314.1	0.00	0.00	0.00
1,600.0	24.57	324.69	1,547.2	269.9	-191.2	330.7	0.00	0.00	0.00
1,640.0	24.57	324.69	1,583.5	283.4	-200.8	347.3	0.00	0.00	0.00
1,680.0	24.57	324.69	1,619.9	297.0	-210.4	364.0	0.00	0.00	0.00
1,720.0	24.57	324.69	1,656.3	310.6	-220.0	380.6	0.00	0.00	0.00
1,760.0	24.57	324.69	1,692.7	324.2	-229.6	397.2	0.00	0.00	0.00
1,800.0	24.57	324.69	1,729.1	337.7	-239.2	413.9	0.00	0.00	0.00
1,840.0	24.57	324.69	1,765.4	351.3	-248.8	430.5	0.00	0.00	0.00
1,880.0	24.57	324.69	1,801.8	364.9	-258.4	447.1	0.00	0.00	0.00
1,920.0	24.57	324.69	1,838.2	378.5	-268.1	463.8	0.00	0.00	0.00
1,960.0	24.57	324.69	1,874.6	392.0	-277.7	480.4	0.00	0.00	0.00

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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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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	24.57	324.69	1,910.9	405.6	-287.3	497.0	0.00	0.00	0.00
2,040.0	24.57	324.69	1,947.3	419.2	-296.9	513.7	0.00	0.00	0.00
2,080.0	24.57	324.69	1,983.7	432.7	-306.5	530.3	0.00	0.00	0.00
2,120.0	24.57	324.69	2,020.1	446.3	-316.1	546.9	0.00	0.00	0.00
2,160.0	24.57	324.69	2,056.5	459.9	-325.7	563.6	0.00	0.00	0.00
2,200.0	24.57	324.69	2,092.8	473.5	-335.4	580.2	0.00	0.00	0.00
2,240.0	24.57	324.69	2,129.2	487.0	-345.0	596.8	0.00	0.00	0.00
2,280.0	24.57	324.69	2,165.6	500.6	-354.6	613.5	0.00	0.00	0.00
2,320.0	24.57	324.69	2,202.0	514.2	-364.2	630.1	0.00	0.00	0.00
2,360.0	24.57	324.69	2,238.3	527.8	-373.8	646.7	0.00	0.00	0.00
2,400.0	24.57	324.69	2,274.7	541.3	-383.4	663.4	0.00	0.00	0.00
2,440.0	24.57	324.69	2,311.1	554.9	-393.0	680.0	0.00	0.00	0.00
2,480.0	24.57	324.69	2,347.5	568.5	-402.7	696.6	0.00	0.00	0.00
2,520.0	24.57	324.69	2,383.9	582.0	-412.3	713.3	0.00	0.00	0.00
2,560.0	24.57	324.69	2,420.2	595.6	-421.9	729.9	0.00	0.00	0.00
2,600.0	24.57	324.69	2,456.6	609.2	-431.5	746.5	0.00	0.00	0.00
2,640.0	24.57	324.69	2,493.0	622.8	-441.1	763.2	0.00	0.00	0.00
2,680.0	24.57	324.69	2,529.4	636.3	-450.7	779.8	0.00	0.00	0.00
2,720.0	24.57	324.69	2,565.7	649.9	-460.3	796.4	0.00	0.00	0.00
2,760.0	24.57	324.69	2,602.1	663.5	-470.0	813.1	0.00	0.00	0.00
2,800.0	24.57	324.69	2,638.5	677.1	-479.6	829.7	0.00	0.00	0.00
2,840.0	24.57	324.69	2,674.9	690.6	-489.2	846.3	0.00	0.00	0.00
2,880.0	24.57	324.69	2,711.3	704.2	-498.8	863.0	0.00	0.00	0.00
2,920.0	24.57	324.69	2,747.6	717.8	-508.4	879.6	0.00	0.00	0.00
2,960.0	24.57	324.69	2,784.0	731.4	-518.0	896.2	0.00	0.00	0.00
3,000.0	24.57	324.69	2,820.4	744.9	-527.6	912.9	0.00	0.00	0.00
3,040.0	24.57	324.69	2,856.8	758.5	-537.3	929.5	0.00	0.00	0.00
3,080.0	24.57	324.69	2,893.1	772.1	-546.9	946.1	0.00	0.00	0.00
3,120.0	24.57	324.69	2,929.5	785.6	-556.5	962.8	0.00	0.00	0.00
3,160.0	24.57	324.69	2,965.9	799.2	-566.1	979.4	0.00	0.00	0.00
3,200.0	24.57	324.69	3,002.3	812.8	-575.7	996.0	0.00	0.00	0.00
3,240.0	24.57	324.69	3,038.7	826.4	-585.3	1,012.7	0.00	0.00	0.00
3,280.0	24.57	324.69	3,075.0	839.9	-594.9	1,029.3	0.00	0.00	0.00
3,320.0	24.57	324.69	3,111.4	853.5	-604.5	1,045.9	0.00	0.00	0.00
3,360.0	24.57	324.69	3,147.8	867.1	-614.2	1,062.6	0.00	0.00	0.00
3,400.0	24.57	324.69	3,184.2	880.7	-623.8	1,079.2	0.00	0.00	0.00
3,440.0	24.57	324.69	3,220.5	894.2	-633.4	1,095.8	0.00	0.00	0.00
3,480.0	24.57	324.69	3,256.9	907.8	-643.0	1,112.5	0.00	0.00	0.00
3,520.0	24.57	324.69	3,293.3	921.4	-652.6	1,129.1	0.00	0.00	0.00
3,560.0	24.57	324.69	3,329.7	934.9	-662.2	1,145.7	0.00	0.00	0.00
3,600.0	24.57	324.69	3,366.1	948.5	-671.8	1,162.4	0.00	0.00	0.00
3,640.0	24.57	324.69	3,402.4	962.1	-681.5	1,179.0	0.00	0.00	0.00
3,680.0	24.57	324.69	3,438.8	975.7	-691.1	1,195.6	0.00	0.00	0.00
3,720.0	24.57	324.69	3,475.2	989.2	-700.7	1,212.3	0.00	0.00	0.00
3,760.0	24.57	324.69	3,511.6	1,002.8	-710.3	1,228.9	0.00	0.00	0.00
3,800.0	24.57	324.69	3,547.9	1,016.4	-719.9	1,245.5	0.00	0.00	0.00
3,840.0	24.57	324.69	3,584.3	1,030.0	-729.5	1,262.1	0.00	0.00	0.00
3,880.0	24.57	324.69	3,620.7	1,043.5	-739.1	1,278.8	0.00	0.00	0.00
3,920.0	24.57	324.69	3,657.1	1,057.1	-748.8	1,295.4	0.00	0.00	0.00
3,960.0	24.57	324.69	3,693.5	1,070.7	-758.4	1,312.0	0.00	0.00	0.00
4,000.0	24.57	324.69	3,729.8	1,084.2	-768.0	1,328.7	0.00	0.00	0.00
4,004.6	24.57	324.69	3,734.0	1,085.8	-769.1	1,330.6	0.00	0.00	0.00
PARKMAN									

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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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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	24.57	324.69	3,766.2	1,097.8	-777.6	1,345.3	0.00	0.00	0.00
4,080.0	24.57	324.69	3,802.6	1,111.4	-787.2	1,361.9	0.00	0.00	0.00
4,120.0	24.57	324.69	3,839.0	1,125.0	-796.8	1,378.6	0.00	0.00	0.00
4,160.0	24.57	324.69	3,875.3	1,138.5	-806.4	1,395.2	0.00	0.00	0.00
4,200.0	24.57	324.69	3,911.7	1,152.1	-816.1	1,411.8	0.00	0.00	0.00
4,240.0	24.57	324.69	3,948.1	1,165.7	-825.7	1,428.5	0.00	0.00	0.00
4,280.0	24.57	324.69	3,984.5	1,179.3	-835.3	1,445.1	0.00	0.00	0.00
4,320.0	24.57	324.69	4,020.9	1,192.8	-844.9	1,461.7	0.00	0.00	0.00
4,360.0	24.57	324.69	4,057.2	1,206.4	-854.5	1,478.4	0.00	0.00	0.00
4,400.0	24.57	324.69	4,093.6	1,220.0	-864.1	1,495.0	0.00	0.00	0.00
4,440.0	24.57	324.69	4,130.0	1,233.6	-873.7	1,511.6	0.00	0.00	0.00
4,480.0	24.57	324.69	4,166.4	1,247.1	-883.4	1,528.3	0.00	0.00	0.00
4,520.0	24.57	324.69	4,202.7	1,260.7	-893.0	1,544.9	0.00	0.00	0.00
4,560.0	24.57	324.69	4,239.1	1,274.3	-902.6	1,561.5	0.00	0.00	0.00
4,600.0	24.57	324.69	4,275.5	1,287.8	-912.2	1,578.2	0.00	0.00	0.00
4,640.0	24.57	324.69	4,311.9	1,301.4	-921.8	1,594.8	0.00	0.00	0.00
4,680.0	24.57	324.69	4,348.3	1,315.0	-931.4	1,611.4	0.00	0.00	0.00
4,720.0	24.57	324.69	4,384.6	1,328.6	-941.0	1,628.1	0.00	0.00	0.00
4,760.0	24.57	324.69	4,421.0	1,342.1	-950.6	1,644.7	0.00	0.00	0.00
4,800.0	24.57	324.69	4,457.4	1,355.7	-960.3	1,661.3	0.00	0.00	0.00
4,840.0	24.57	324.69	4,493.8	1,369.3	-969.9	1,678.0	0.00	0.00	0.00
4,851.3	24.57	324.69	4,504.0	1,373.1	-972.6	1,682.7	0.00	0.00	0.00
SUSSEX									
4,880.0	24.57	324.69	4,530.1	1,382.9	-979.5	1,694.6	0.00	0.00	0.00
4,920.0	24.57	324.69	4,566.5	1,396.4	-989.1	1,711.2	0.00	0.00	0.00
4,960.0	24.57	324.69	4,602.9	1,410.0	-998.7	1,727.9	0.00	0.00	0.00
5,000.0	24.57	324.69	4,639.3	1,423.6	-1,008.3	1,744.5	0.00	0.00	0.00
5,040.0	24.57	324.69	4,675.7	1,437.1	-1,017.9	1,761.1	0.00	0.00	0.00
5,080.0	24.57	324.69	4,712.0	1,450.7	-1,027.6	1,777.8	0.00	0.00	0.00
5,120.0	24.57	324.69	4,748.4	1,464.3	-1,037.2	1,794.4	0.00	0.00	0.00
5,160.0	24.57	324.69	4,784.8	1,477.9	-1,046.8	1,811.0	0.00	0.00	0.00
5,200.0	24.57	324.69	4,821.2	1,491.4	-1,056.4	1,827.7	0.00	0.00	0.00
5,240.0	24.57	324.69	4,857.5	1,505.0	-1,066.0	1,844.3	0.00	0.00	0.00
5,280.0	24.57	324.69	4,893.9	1,518.6	-1,075.6	1,860.9	0.00	0.00	0.00
5,320.0	24.57	324.69	4,930.3	1,532.2	-1,085.2	1,877.6	0.00	0.00	0.00
5,360.0	24.57	324.69	4,966.7	1,545.7	-1,094.9	1,894.2	0.00	0.00	0.00
5,400.0	24.57	324.69	5,003.1	1,559.3	-1,104.5	1,910.8	0.00	0.00	0.00
5,440.0	24.57	324.69	5,039.4	1,572.9	-1,114.1	1,927.5	0.00	0.00	0.00
5,480.0	24.57	324.69	5,075.8	1,586.4	-1,123.7	1,944.1	0.00	0.00	0.00
5,511.0	24.57	324.69	5,104.0	1,597.0	-1,131.1	1,957.0	0.00	0.00	0.00
SHANNON									
5,520.0	24.57	324.69	5,112.2	1,600.0	-1,133.3	1,960.7	0.00	0.00	0.00
5,560.0	24.57	324.69	5,148.6	1,613.6	-1,142.9	1,977.4	0.00	0.00	0.00
5,600.0	24.57	324.69	5,184.9	1,627.2	-1,152.5	1,994.0	0.00	0.00	0.00
5,640.0	24.57	324.69	5,221.3	1,640.7	-1,162.2	2,010.6	0.00	0.00	0.00
5,680.0	24.57	324.69	5,257.7	1,654.3	-1,171.8	2,027.3	0.00	0.00	0.00
5,720.0	24.57	324.69	5,294.1	1,667.9	-1,181.4	2,043.9	0.00	0.00	0.00
5,736.1	24.57	324.69	5,308.8	1,673.4	-1,185.3	2,050.6	0.00	0.00	0.00
5,760.0	24.09	324.69	5,330.5	1,681.4	-1,190.9	2,060.4	2.00	-2.00	0.00
5,800.0	23.29	324.69	5,367.1	1,694.5	-1,200.2	2,076.5	2.00	-2.00	0.00
5,840.0	22.49	324.69	5,404.0	1,707.2	-1,209.2	2,092.1	2.00	-2.00	0.00
5,880.0	21.69	324.69	5,441.0	1,719.5	-1,217.9	2,107.1	2.00	-2.00	0.00
5,920.0	20.89	324.69	5,478.3	1,731.3	-1,226.3	2,121.6	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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	20.09	324.69	5,515.8	1,742.8	-1,234.4	2,135.6	2.00	-2.00	0.00
6,000.0	19.29	324.69	5,553.4	1,753.8	-1,242.2	2,149.1	2.00	-2.00	0.00
6,040.0	18.49	324.69	5,591.3	1,764.3	-1,249.7	2,162.1	2.00	-2.00	0.00
6,080.0	17.69	324.69	5,629.3	1,774.5	-1,256.9	2,174.5	2.00	-2.00	0.00
6,120.0	16.89	324.69	5,667.5	1,784.2	-1,263.7	2,186.4	2.00	-2.00	0.00
6,160.0	16.09	324.69	5,705.8	1,793.4	-1,270.3	2,197.7	2.00	-2.00	0.00
6,200.0	15.29	324.69	5,744.4	1,802.3	-1,276.6	2,208.6	2.00	-2.00	0.00
6,240.0	14.49	324.69	5,783.0	1,810.7	-1,282.5	2,218.9	2.00	-2.00	0.00
6,280.0	13.69	324.69	5,821.8	1,818.6	-1,288.1	2,228.6	2.00	-2.00	0.00
6,320.0	12.89	324.69	5,860.7	1,826.1	-1,293.5	2,237.8	2.00	-2.00	0.00
6,360.0	12.09	324.69	5,899.8	1,833.2	-1,298.5	2,246.4	2.00	-2.00	0.00
6,400.0	11.29	324.69	5,939.0	1,839.8	-1,303.1	2,254.5	2.00	-2.00	0.00
6,440.0	10.49	324.69	5,978.2	1,846.0	-1,307.5	2,262.1	2.00	-2.00	0.00
6,480.0	9.69	324.69	6,017.6	1,851.7	-1,311.6	2,269.1	2.00	-2.00	0.00
6,520.0	8.89	324.69	6,057.1	1,856.9	-1,315.3	2,275.6	2.00	-2.00	0.00
6,560.0	8.09	324.69	6,096.7	1,861.8	-1,318.7	2,281.5	2.00	-2.00	0.00
6,600.0	7.29	324.69	6,136.3	1,866.1	-1,321.8	2,286.8	2.00	-2.00	0.00
6,640.0	6.49	324.69	6,176.0	1,870.1	-1,324.6	2,291.6	2.00	-2.00	0.00
6,680.0	5.69	324.69	6,215.8	1,873.5	-1,327.0	2,295.9	2.00	-2.00	0.00
6,720.0	4.89	324.69	6,255.6	1,876.5	-1,329.2	2,299.6	2.00	-2.00	0.00
6,760.0	4.09	324.69	6,295.5	1,879.1	-1,331.0	2,302.7	2.00	-2.00	0.00
6,800.0	3.29	324.69	6,335.4	1,881.2	-1,332.5	2,305.3	2.00	-2.00	0.00
6,840.0	2.49	324.69	6,375.3	1,882.8	-1,333.6	2,307.3	2.00	-2.00	0.00
6,880.0	1.69	324.69	6,415.3	1,884.0	-1,334.5	2,308.8	2.00	-2.00	0.00
6,920.0	0.89	324.69	6,455.3	1,884.8	-1,335.0	2,309.7	2.00	-2.00	0.00
6,960.0	0.09	324.69	6,495.3	1,885.1	-1,335.2	2,310.0	2.00	-2.00	0.00
6,964.7	0.00	0.00	6,500.0	1,885.1	-1,335.2	2,310.0	2.00	-2.00	752.35
TARGET BHL 2077'FSL & 2079'FEL									
7,000.0	0.00	0.00	6,535.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,040.0	0.00	0.00	6,575.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,080.0	0.00	0.00	6,615.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,120.0	0.00	0.00	6,655.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,160.0	0.00	0.00	6,695.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,200.0	0.00	0.00	6,735.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,240.0	0.00	0.00	6,775.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,248.7	0.00	0.00	6,784.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 400' X 400', 1952'FSL & 1954'FEL									
7,280.0	0.00	0.00	6,815.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,320.0	0.00	0.00	6,855.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,360.0	0.00	0.00	6,895.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,400.0	0.00	0.00	6,935.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,440.0	0.00	0.00	6,975.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,480.0	0.00	0.00	7,015.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,510.7	0.00	0.00	7,046.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
FT. HAYS									
7,520.0	0.00	0.00	7,055.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,544.7	0.00	0.00	7,080.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
CODELL									
7,560.0	0.00	0.00	7,095.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
7,594.7	0.00	0.00	7,130.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00
GREENHORN									
7,600.0	0.00	0.00	7,135.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-10-11)		

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)	
7,640.0	0.00	0.00	7,175.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	
7,679.7	0.00	0.00	7,215.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	
GRANEROS										
7,680.0	0.00	0.00	7,215.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	
7,720.0	0.00	0.00	7,255.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	
7,760.0	0.00	0.00	7,295.3	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	
7,764.7	0.00	0.00	7,300.0	1,885.1	-1,335.2	2,310.0	0.00	0.00	0.00	

Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET BHL 2077'F:	- plan hits target center	0.00	0.00	6,500.0	1,885.1	-1,335.2	1,436,556.93	3,257,892.73	40.528046	-104.572259
LEGAL BOX 400' X 400'	- plan misses target center by 176.7ft at 7248.7ft MD (6784.0 TVD, 1885.1 N, -1335.2 E)	0.00	0.00	6,784.0	1,760.1	-1,210.2	1,436,433.30	3,258,019.04	40.527703	-104.571809
	- Rectangle (sides W400.0 H400.0 D516.0)									

Casing Points										
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")						
763.6	760.0	8 5/8"	8-5/8	12-1/4						

Formations										
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)					
4,004.6	3,734.0	PARKMAN		0.00						
4,851.3	4,504.0	SUSSEX		0.00						
5,511.0	5,104.0	SHANNON		0.00						
7,248.7	6,784.0	NIOBRARA		0.00						
7,510.7	7,046.0	FT. HAYS		0.00						
7,544.7	7,080.0	CODELL		0.00						
7,594.7	7,130.0	GREENHORN		0.00						
7,679.7	7,215.0	GRANEROS		0.00						



Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.32-T7N-R64W

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

NC Farms 10-32

Wellbore #1

Plan #2 (11-10-11)

Anticollision Report

10 November, 2011

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	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 #2 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 15-32 - Wellbore #1 - Plan #1 (11-03-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.0	2,001.9	2,061.6	2,015.1	11.4	8.8	-130.88	139.1	-374.7	307.4	289.3	18.01	17.068		
2,200.0	2,092.8	2,158.4	2,108.6	12.3	9.3	-131.94	148.1	-398.1	331.7	312.6	19.09	17.376		
2,300.0	2,183.8	2,255.2	2,202.1	13.1	9.8	-132.86	157.2	-421.5	356.2	336.0	20.17	17.658		
2,400.0	2,274.7	2,352.1	2,295.6	14.0	10.4	-133.65	166.2	-444.9	380.7	359.4	21.25	17.915		
2,500.0	2,365.7	2,448.9	2,389.1	14.8	10.9	-134.35	175.3	-468.3	405.3	382.9	22.33	18.151		
2,600.0	2,456.6	2,545.7	2,482.6	15.7	11.4	-134.97	184.3	-491.7	429.9	406.5	23.41	18.368		
2,700.0	2,547.6	2,642.5	2,576.2	16.5	12.0	-135.53	193.4	-515.1	454.6	430.1	24.48	18.568		
2,800.0	2,638.5	2,739.3	2,669.7	17.4	12.5	-136.02	202.4	-538.5	479.3	453.7	25.56	18.753		
2,900.0	2,729.4	2,836.1	2,763.2	18.2	13.1	-136.47	211.5	-561.9	504.0	477.4	26.64	18.924		
3,000.0	2,820.4	2,933.0	2,856.7	19.1	13.6	-136.88	220.5	-585.4	528.8	501.1	27.71	19.082		
3,100.0	2,911.3	3,029.8	2,950.2	19.9	14.1	-137.25	229.6	-608.8	553.6	524.8	28.79	19.230		
3,200.0	3,002.3	3,126.6	3,043.7	20.8	14.7	-137.58	238.6	-632.2	578.4	548.6	29.87	19.368		
3,300.0	3,093.2	3,223.4	3,137.2	21.7	15.2	-137.89	247.7	-655.6	603.3	572.3	30.94	19.497		
3,400.0	3,184.2	3,320.2	3,230.7	22.5	15.7	-138.18	256.7	-679.0	628.1	596.1	32.02	19.617		
3,500.0	3,275.1	3,417.1	3,324.2	23.4	16.3	-138.44	265.8	-702.4	653.0	619.9	33.09	19.731		
3,600.0	3,366.1	3,513.9	3,417.8	24.2	16.8	-138.69	274.8	-725.8	677.8	643.7	34.17	19.837		
3,700.0	3,457.0	3,610.7	3,511.3	25.1	17.4	-138.92	283.9	-749.2	702.7	667.5	35.25	19.937		
3,800.0	3,547.9	3,707.5	3,604.8	25.9	17.9	-139.13	292.9	-772.6	727.6	691.3	36.32	20.032		
3,900.0	3,638.9	3,804.3	3,698.3	26.8	18.4	-139.33	302.0	-796.0	752.5	715.1	37.40	20.121		
4,000.0	3,729.8	3,901.1	3,791.8	27.6	19.0	-139.51	311.0	-819.4	777.4	739.0	38.48	20.206		
4,100.0	3,820.8	3,998.0	3,885.3	28.5	19.5	-139.68	320.0	-842.8	802.3	762.8	39.55	20.286		
4,200.0	3,911.7	4,094.8	3,978.8	29.3	20.0	-139.85	329.1	-866.2	827.3	786.6	40.63	20.362		
4,300.0	4,002.7	4,191.6	4,072.3	30.2	20.6	-140.00	338.1	-889.6	852.2	810.5	41.71	20.434		
4,400.0	4,093.6	4,288.4	4,165.8	31.1	21.1	-140.15	347.2	-913.0	877.1	834.3	42.78	20.502		
4,500.0	4,184.6	4,385.2	4,259.4	31.9	21.7	-140.28	356.2	-936.4	902.1	858.2	43.86	20.568		
4,600.0	4,275.5	4,482.1	4,352.9	32.8	22.2	-140.41	365.3	-959.8	927.0	882.1	44.94	20.630		
4,700.0	4,366.4	4,578.9	4,446.4	33.6	22.7	-140.54	374.3	-983.2	952.0	905.9	46.01	20.689		
4,800.0	4,457.4	4,675.7	4,539.9	34.5	23.3	-140.65	383.4	-1,006.6	976.9	929.8	47.09	20.746		
4,900.0	4,548.3	4,772.5	4,633.4	35.3	23.8	-140.76	392.4	-1,030.0	1,001.9	953.7	48.17	20.800		
5,000.0	4,639.3	4,869.3	4,726.9	36.2	24.4	-140.87	401.5	-1,053.4	1,026.8	977.6	49.24	20.852		
5,100.0	4,730.2	4,966.2	4,820.4	37.0	24.9	-140.97	410.5	-1,076.8	1,051.8	1,001.5	50.32	20.902		
5,200.0	4,821.2	5,063.0	4,913.9	37.9	25.4	-141.06	419.6	-1,100.2	1,076.8	1,025.4	51.40	20.950		
5,300.0	4,912.1	5,153.9	5,001.9	38.8	25.9	-141.17	428.0	-1,121.8	1,101.9	1,049.5	52.40	21.028		
5,400.0	5,003.1	5,239.2	5,084.9	39.6	26.3	-141.38	435.0	-1,140.1	1,127.8	1,074.6	53.25	21.181		
5,500.0	5,094.0	5,323.8	5,167.7	40.5	26.5	-141.69	441.1	-1,155.9	1,154.8	1,100.8	53.98	21.395		
5,600.0	5,184.9	5,407.5	5,250.2	41.3	26.8	-142.11	446.3	-1,169.2	1,182.8	1,128.2	54.62	21.657		
5,700.0	5,275.9	5,490.1	5,332.0	42.2	27.0	-142.62	450.5	-1,180.3	1,211.9	1,156.7	55.17	21.967		
5,736.1	5,308.8	5,519.7	5,361.4	42.5	27.1	-142.82	451.9	-1,183.7	1,222.6	1,167.3	55.35	22.091		
5,800.0	5,367.1	5,571.9	5,413.2	43.0	27.2	-143.43	453.9	-1,189.0	1,241.5	1,185.9	55.59	22.333		
5,900.0	5,459.6	5,653.4	5,494.4	43.6	27.4	-144.34	456.4	-1,195.5	1,269.8	1,213.9	55.85	22.735		
6,000.0	5,553.4	5,734.6	5,575.5	44.2	27.5	-145.21	458.1	-1,199.9	1,296.5	1,240.5	56.04	23.136		
6,100.0	5,648.4	5,815.6	5,656.4	44.7	27.6	-146.06	459.0	-1,202.1	1,321.7	1,265.5	56.15	23.538		
6,200.0	5,744.4	5,903.5	5,744.4	45.1	27.7	-146.91	459.1	-1,202.4	1,345.2	1,289.0	56.18	23.945		
6,300.0	5,841.3	6,000.4	5,841.3	45.6	27.8	-147.70	459.1	-1,202.4	1,366.2	1,310.0	56.19	24.313		
6,400.0	5,939.0	6,098.1	5,939.0	45.9	27.9	-148.36	459.1	-1,202.4	1,384.4	1,328.1	56.21	24.628		
6,500.0	6,037.3	6,196.5	6,037.3	46.2	28.0	-148.91	459.1	-1,202.4	1,399.7	1,343.4	56.24	24.889		
6,600.0	6,136.3	6,295.4	6,136.3	46.5	28.1	-149.34	459.1	-1,202.4	1,412.1	1,355.8	56.26	25.098		
6,700.0	6,235.7	6,394.8	6,235.7	46.7	28.2	-149.66	459.1	-1,202.4	1,421.6	1,365.3	56.29	25.254		
6,800.0	6,335.4	6,494.6	6,335.4	46.9	28.3	-149.87	459.1	-1,202.4	1,428.0	1,371.7	56.32	25.355		
6,900.0	6,435.3	6,594.5	6,435.3	47.0	28.4	-149.99	459.1	-1,202.4	1,431.5	1,375.1	56.35	25.403		
6,964.7	6,500.0	6,659.2	6,500.0	47.0	28.5	174.68	459.1	-1,202.4	1,432.1	1,375.8	56.37	25.404		

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

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	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 #2 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 15-32 - Wellbore #1 - Plan #1 (11-03-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	Offset Wellbore Centre +E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,000.0	6,535.3	6,694.5	6,535.3	47.0	28.5	174.68	459.1	-1,202.4	1,432.1	1,375.7	56.45	25.371		
7,100.0	6,635.3	6,794.5	6,635.3	47.1	28.6	174.68	459.1	-1,202.4	1,432.1	1,375.5	56.67	25.273		
7,200.0	6,735.3	6,894.5	6,735.3	47.2	28.7	174.68	459.1	-1,202.4	1,432.1	1,375.2	56.89	25.174		
7,300.0	6,835.3	6,994.5	6,835.3	47.2	28.8	174.68	459.1	-1,202.4	1,432.1	1,375.0	57.11	25.075		
7,400.0	6,935.3	7,094.5	6,935.3	47.3	28.9	174.68	459.1	-1,202.4	1,432.1	1,374.8	57.34	24.975		
7,500.0	7,035.3	7,194.5	7,035.3	47.4	29.1	174.68	459.1	-1,202.4	1,432.1	1,374.6	57.57	24.875		
7,600.0	7,135.3	7,294.5	7,135.3	47.5	29.2	174.68	459.1	-1,202.4	1,432.1	1,374.3	57.81	24.774		
7,700.0	7,235.3	7,394.5	7,235.3	47.5	29.3	174.68	459.1	-1,202.4	1,432.1	1,374.1	58.04	24.674		
7,741.3	7,276.6	7,435.8	7,276.6	47.6	29.3	174.68	459.1	-1,202.4	1,432.1	1,374.0	58.14	24.632		
7,764.7	7,300.0	7,454.2	7,295.0	47.6	29.4	174.68	459.1	-1,202.4	1,432.1	1,373.9	58.19	24.611		

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	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 #2 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 20-32 - Wellbore #1 - Plan #1 (11-03-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
				(ft)	(ft)			+N/-S (ft)	+E/-W (ft)					
0.0	0.0	0.0	0.0	0.0	0.0	89.94		0.0	15.0	15.0	15.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	89.94		0.0	15.0	15.0	14.8	0.22	66.793	
200.0	200.0	200.0	200.0	0.3	0.3	89.94		0.0	15.0	15.0	14.3	0.67	22.264 CC, ES	
300.0	300.0	300.0	300.0	0.6	0.6	130.32		0.0	15.0	16.1	15.0	1.12	14.299	
400.0	399.8	399.8	399.8	0.8	0.8	141.84		0.0	15.0	19.9	18.3	1.58	12.559 SF	
500.0	499.5	499.5	499.5	1.0	1.0	153.16		0.0	15.0	27.3	25.2	2.05	13.326	
600.0	598.7	598.7	598.7	1.3	1.2	161.28		0.0	15.0	38.5	36.0	2.51	15.353	
700.0	697.5	697.5	697.5	1.7	1.5	166.58		0.0	15.0	53.6	50.6	2.97	18.023	
800.0	795.6	795.6	795.6	2.0	1.7	170.02		0.0	15.0	72.3	68.9	3.44	21.030	
900.0	893.1	893.1	893.1	2.5	1.9	172.32		0.0	15.0	94.6	90.7	3.90	24.222	
1,000.0	989.6	991.3	991.3	3.0	2.1	173.90		0.3	14.9	120.0	115.6	4.37	27.456	
1,100.0	1,085.3	1,092.4	1,092.3	3.5	2.3	174.81		3.2	13.4	146.1	141.3	4.83	30.220	
1,200.0	1,179.8	1,194.4	1,194.1	4.2	2.6	175.25		9.3	10.3	172.3	167.0	5.31	32.472	
1,300.0	1,273.2	1,297.4	1,296.6	4.8	2.8	175.42		18.8	5.4	198.4	192.6	5.79	34.283	
1,400.0	1,365.2	1,401.5	1,399.6	5.6	3.1	175.41		31.6	-1.1	224.5	218.2	6.29	35.721	
1,428.6	1,391.2	1,431.4	1,429.1	5.8	3.2	175.38		35.9	-3.3	232.0	225.5	6.43	36.061	
1,500.0	1,456.2	1,506.8	1,503.3	6.4	3.4	175.27		48.0	-9.5	249.7	242.9	6.84	36.527	
1,600.0	1,547.2	1,613.9	1,607.9	7.2	3.8	174.99		68.2	-19.8	271.5	264.1	7.43	36.559	
1,700.0	1,638.1	1,722.5	1,713.2	8.1	4.2	174.56		92.2	-32.1	289.7	281.7	8.05	36.006	
1,800.0	1,729.1	1,828.7	1,815.1	8.9	4.7	174.02		118.9	-45.8	304.5	295.8	8.69	35.030	
1,900.0	1,820.0	1,927.7	1,909.8	9.8	5.2	173.53		144.6	-58.9	318.5	309.1	9.33	34.144	
2,000.0	1,910.9	2,026.7	2,004.5	10.6	5.7	173.08		170.2	-72.0	332.4	322.5	9.99	33.285	
2,100.0	2,001.9	2,125.7	2,099.2	11.4	6.2	172.67		195.9	-85.1	346.5	335.8	10.66	32.505	
2,200.0	2,092.8	2,224.7	2,193.9	12.3	6.7	172.29		221.5	-98.2	360.5	349.1	11.34	31.791	
2,300.0	2,183.8	2,323.7	2,288.6	13.1	7.3	171.93		247.1	-111.3	374.5	362.5	12.03	31.136	
2,400.0	2,274.7	2,422.6	2,383.3	14.0	7.8	171.60		272.8	-124.4	388.6	375.9	12.73	30.534	
2,500.0	2,365.7	2,521.6	2,478.0	14.8	8.4	171.30		298.4	-137.5	402.7	389.2	13.43	29.980	
2,600.0	2,456.6	2,620.6	2,572.7	15.7	8.9	171.02		324.1	-150.6	416.7	402.6	14.14	29.469	
2,700.0	2,547.6	2,719.6	2,667.4	16.5	9.5	170.75		349.7	-163.7	430.8	416.0	14.86	28.996	
2,800.0	2,638.5	2,818.6	2,762.1	17.4	10.0	170.50		375.4	-176.8	444.9	429.3	15.58	28.558	
2,900.0	2,729.4	2,917.6	2,856.8	18.2	10.6	170.27		401.0	-189.9	459.0	442.7	16.31	28.151	
3,000.0	2,820.4	3,016.5	2,951.5	19.1	11.2	170.05		426.7	-203.0	473.1	456.1	17.04	27.773	
3,100.0	2,911.3	3,115.5	3,046.2	19.9	11.8	169.84		452.3	-216.1	487.3	469.5	17.77	27.420	
3,200.0	3,002.3	3,214.5	3,140.9	20.8	12.3	169.65		478.0	-229.2	501.4	482.9	18.51	27.090	
3,300.0	3,093.2	3,313.5	3,235.6	21.7	12.9	169.46		503.6	-242.3	515.5	496.3	19.25	26.781	
3,400.0	3,184.2	3,412.5	3,330.3	22.5	13.5	169.29		529.2	-255.4	529.6	509.6	19.99	26.492	
3,500.0	3,275.1	3,511.5	3,425.0	23.4	14.1	169.12		554.9	-268.5	543.8	523.0	20.74	26.220	
3,600.0	3,366.1	3,610.4	3,519.7	24.2	14.7	168.97		580.5	-281.7	557.9	536.4	21.49	25.964	
3,700.0	3,457.0	3,709.4	3,614.4	25.1	15.2	168.82		606.2	-294.8	572.1	549.8	22.24	25.723	
3,800.0	3,547.9	3,808.4	3,709.1	25.9	15.8	168.67		631.8	-307.9	586.2	563.2	22.99	25.495	
3,900.0	3,638.9	3,907.4	3,803.8	26.8	16.4	168.54		657.5	-321.0	600.4	576.6	23.75	25.280	
4,000.0	3,729.8	4,006.4	3,898.5	27.6	17.0	168.41		683.1	-334.1	614.5	590.0	24.51	25.077	
4,100.0	3,820.8	4,105.4	3,993.2	28.5	17.6	168.29		708.8	-347.2	628.7	603.4	25.26	24.884	
4,200.0	3,911.7	4,204.3	4,087.9	29.3	18.2	168.17		734.4	-360.3	642.8	616.8	26.03	24.701	
4,300.0	4,002.7	4,303.3	4,182.6	30.2	18.7	168.06		760.0	-373.4	657.0	630.2	26.79	24.527	
4,400.0	4,093.6	4,402.3	4,277.3	31.1	19.3	167.95		785.7	-386.5	671.2	643.6	27.55	24.361	
4,500.0	4,184.6	4,501.3	4,372.0	31.9	19.9	167.84		811.3	-399.6	685.3	657.0	28.32	24.204	
4,600.0	4,275.5	4,600.3	4,466.7	32.8	20.5	167.74		837.0	-412.7	699.5	670.4	29.08	24.054	
4,700.0	4,366.4	4,699.3	4,561.4	33.6	21.1	167.65		862.6	-425.8	713.7	683.8	29.85	23.910	
4,800.0	4,457.4	4,798.2	4,656.1	34.5	21.7	167.56		888.3	-438.9	727.9	697.2	30.62	23.773	
4,900.0	4,548.3	4,897.2	4,750.8	35.3	22.3	167.47		913.9	-452.0	742.0	710.7	31.39	23.642	

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 10-32
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 10-32	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 #2 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design NC Farms 16-32 Pad Sec.32-T7N-R64W - NC Farms 20-32 - Wellbore #1 - Plan #1 (11-03-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.0	4,639.3	4,996.2	4,845.5	36.2	22.9	167.38	939.6	-465.1	756.2	724.1	32.16	23.517		
5,100.0	4,730.2	5,095.2	4,940.2	37.0	23.4	167.30	965.2	-478.2	770.4	737.5	32.93	23.397		
5,200.0	4,821.2	5,194.2	5,034.9	37.9	24.0	167.22	990.8	-491.3	784.6	750.9	33.70	23.282		
5,300.0	4,912.1	5,279.5	5,116.7	38.8	24.5	167.17	1,012.5	-502.4	799.3	764.9	34.40	23.236		
5,400.0	5,003.1	5,357.4	5,191.9	39.6	24.8	167.17	1,030.6	-511.7	816.5	781.4	35.02	23.311		
5,500.0	5,094.0	5,434.7	5,267.0	40.5	25.1	167.23	1,046.7	-519.9	836.1	800.5	35.61	23.478		
5,600.0	5,184.9	5,511.0	5,341.7	41.3	25.4	167.33	1,060.8	-527.1	858.2	822.0	36.17	23.728		
5,700.0	5,275.9	5,586.4	5,415.9	42.2	25.7	167.47	1,073.1	-533.4	882.7	846.0	36.69	24.057		
5,736.1	5,308.8	5,613.5	5,442.5	42.5	25.7	167.54	1,077.0	-535.4	892.1	855.2	36.87	24.194		
5,800.0	5,367.1	5,661.0	5,489.5	43.0	25.9	167.72	1,083.4	-538.7	908.9	871.7	37.21	24.427		
5,900.0	5,459.6	5,735.2	5,563.1	43.6	26.1	168.00	1,092.0	-543.1	934.4	896.7	37.67	24.806		
6,000.0	5,553.4	5,800.0	5,627.5	44.2	26.2	168.25	1,098.2	-546.2	959.0	920.9	38.06	25.198		
6,100.0	5,648.4	5,882.7	5,709.9	44.7	26.4	168.54	1,104.1	-549.2	982.6	944.2	38.40	25.586		
6,200.0	5,744.4	5,956.0	5,783.1	45.1	26.5	168.79	1,107.6	-551.0	1,005.2	966.5	38.67	25.992		
6,300.0	5,841.3	6,029.0	5,856.1	45.6	26.6	169.04	1,109.5	-552.0	1,026.9	988.0	38.88	26.409		
6,400.0	5,939.0	6,111.9	5,939.0	45.9	26.7	169.30	1,109.8	-552.1	1,047.4	1,008.3	39.04	26.826		
6,500.0	6,037.3	6,210.3	6,037.3	46.2	26.8	169.54	1,109.8	-552.1	1,064.9	1,025.8	39.19	27.175		
6,600.0	6,136.3	6,309.2	6,136.3	46.5	26.9	169.73	1,109.8	-552.1	1,079.1	1,039.8	39.30	27.459		
6,700.0	6,235.7	6,408.6	6,235.7	46.7	27.0	169.87	1,109.8	-552.1	1,089.9	1,050.6	39.38	27.680		
6,800.0	6,335.4	6,508.3	6,335.4	46.9	27.1	169.96	1,109.8	-552.1	1,097.3	1,057.9	39.41	27.840		
6,900.0	6,435.3	6,608.2	6,435.3	47.0	27.2	170.01	1,109.8	-552.1	1,101.2	1,061.8	39.42	27.939		
6,964.7	6,500.0	6,672.9	6,500.0	47.0	27.3	134.71	1,109.8	-552.1	1,102.0	1,062.6	39.40	27.970		
7,000.0	6,535.3	6,708.2	6,535.3	47.0	27.3	134.71	1,109.8	-552.1	1,102.0	1,062.5	39.50	27.897		
7,100.0	6,635.3	6,808.2	6,635.3	47.1	27.4	134.71	1,109.8	-552.1	1,102.0	1,062.2	39.80	27.686		
7,200.0	6,735.3	6,908.2	6,735.3	47.2	27.5	134.71	1,109.8	-552.1	1,102.0	1,061.9	40.11	27.475		
7,300.0	6,835.3	7,008.2	6,835.3	47.2	27.7	134.71	1,109.8	-552.1	1,102.0	1,061.6	40.41	27.267		
7,400.0	6,935.3	7,108.2	6,935.3	47.3	27.8	134.71	1,109.8	-552.1	1,102.0	1,061.2	40.72	27.059		
7,500.0	7,035.3	7,208.2	7,035.3	47.4	27.9	134.71	1,109.8	-552.1	1,102.0	1,060.9	41.04	26.854		
7,600.0	7,135.3	7,308.2	7,135.3	47.5	28.0	134.71	1,109.8	-552.1	1,102.0	1,060.6	41.35	26.649		
7,700.0	7,235.3	7,408.2	7,235.3	47.5	28.1	134.71	1,109.8	-552.1	1,102.0	1,060.3	41.67	26.447		
7,739.4	7,274.7	7,447.6	7,274.7	47.5	28.2	134.71	1,109.8	-552.1	1,102.0	1,060.2	41.79	26.367		
7,764.7	7,300.0	7,463.3	7,290.4	47.6	28.2	134.71	1,109.8	-552.1	1,102.0	1,060.2	41.86	26.328		

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well NC Farms 10-32
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 10-32	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 #2 (11-10-11)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4815.0ft (Original Well Elev) Coordinates are relative to: NC Farms 10-32
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 10-32
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Site Error:	0.0ft	North Reference:	True
Reference Well:	NC Farms 10-32	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
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