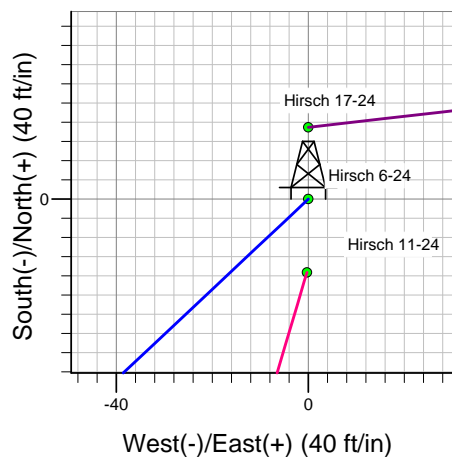
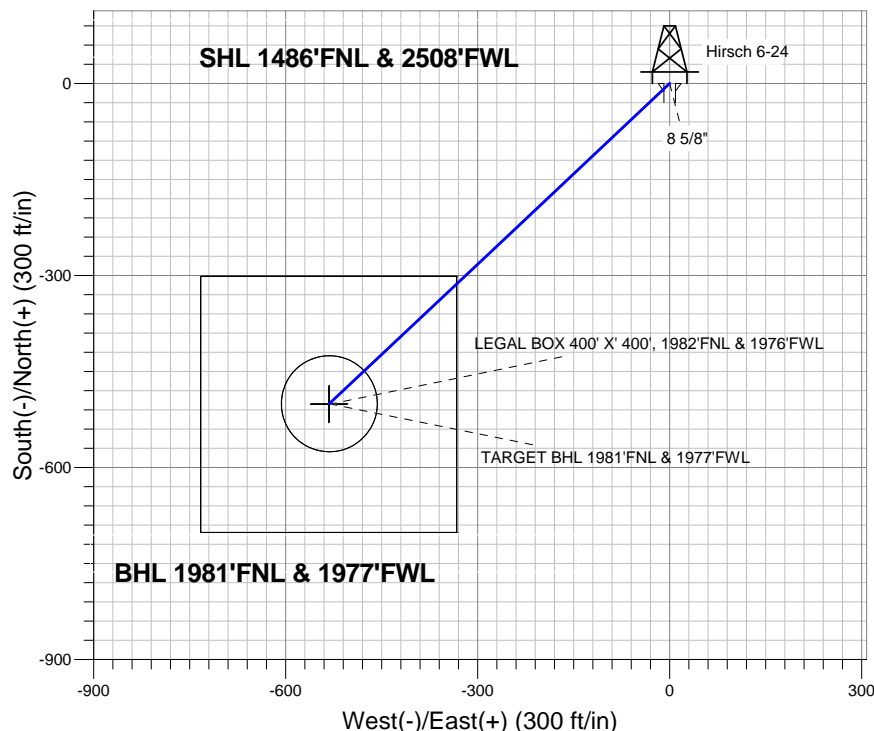
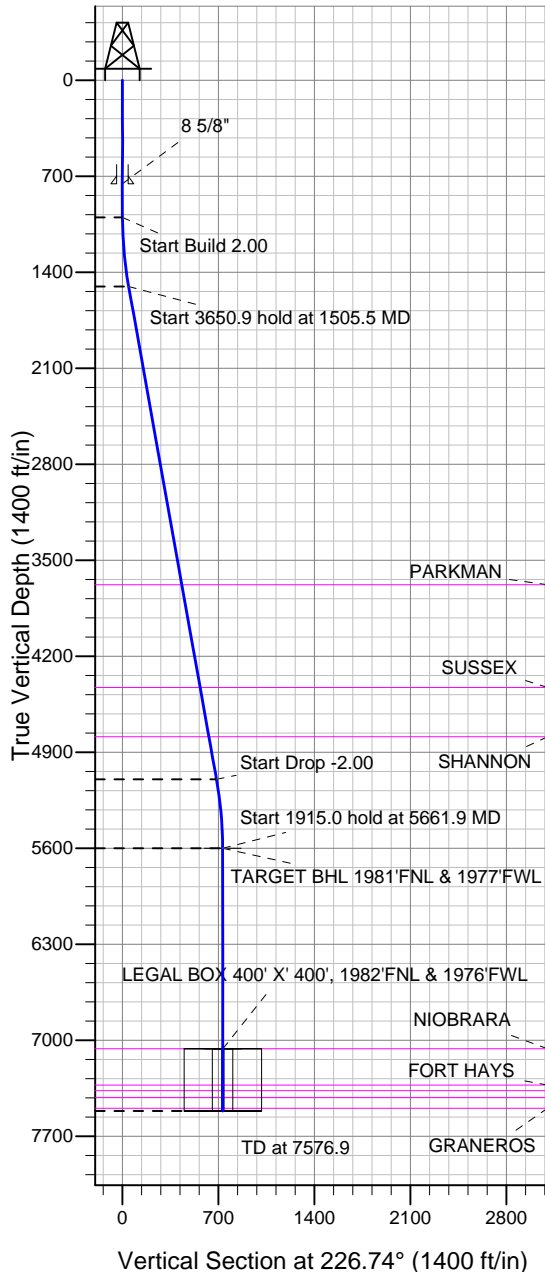


Well Name: **Hirsch 6-24**
 Surface Location: Hirsch 24-G Pad Sec. 24-T7N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 5035.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1448568.44 3182862.90 40.562857 -104.841838
 RKB-16' WELL @ 5051.0ft (RKB-16')

Bayswater Exploration & Production, LLC



Hirsch 6-24
 Plan #1 (06-10-13)
 14:28, June 11 2013



Azimuths to True North
 Magnetic North: 8.65°

Magnetic Field
 Strength: 52997.2snT
 Dip Angle: 67.10°
 Date: 6/10/2013
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1981'FNL & 1977'FWL	5600.0	-500.2	-531.5	40.561484	-104.843751	Point
LEGAL BOX 400' X' 400', 1982'FNL & 1976'FWL	7061.0	-501.2	-532.5	40.561481	-104.843754	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 1981'FNL & 1977'FWL	7061.0	-500.2	-531.5	40.561484	-104.843751	Circle (Radius: 75.0)

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1505.5	10.11	226.74	1502.9	-30.5	-32.4	2.00	226.74	44.5	
4	5156.4	10.11	226.74	5097.1	-469.7	-499.1	0.00	0.00	685.4	
5	5661.9	0.00	0.00	5600.0	-500.2	-531.5	2.00	180.00	729.9	TARGET BHL 1981'FNL & 1977'FWL
6	7576.9	0.00	0.00	7515.0	-500.2	-531.5	0.00	0.00	729.9	



Bayswater Exploration & Production, LLC

SEC.24-T7N-R67W

Hirsch 24-G Pad Sec. 24-T7N-R67W

Hirsch 6-24

Wellbore #1

Plan: Plan #1 (06-10-13)

Standard Planning Report

11 June, 2013



Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

Project	SEC.24-T7N-R67W		
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	Hirsch 24-G Pad Sec. 24-T7N-R67W				
Site Position:		Northing:	1,448,553.15 ft	Latitude:	40.562815
From:	Lat/Long	Easting:	3,182,862.74 ft	Longitude:	-104.841839
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.43 °

Well	Hirsch 6-24					
Well Position	+N-S	15.3 ft	Northing:	1,448,568.44 ft	Latitude:	40.562857
	+E-W	0.3 ft	Easting:	3,182,862.90 ft	Longitude:	-104.841838
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,035.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/10/2013	8.65	67.10	52,997

Design	Plan #1 (06-10-13)			
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	226.74

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,505.5	10.11	226.74	1,502.9	-30.5	-32.4	2.00	2.00	0.00	226.74	
5,156.4	10.11	226.74	5,097.1	-469.7	-499.1	0.00	0.00	0.00	0.00	
5,661.9	0.00	0.00	5,600.0	-500.2	-531.5	2.00	-2.00	0.00	180.00	TARGET BHL 1981
7,576.9	0.00	0.00	7,515.0	-500.2	-531.5	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

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
755.0	0.00	0.00	755.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
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
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.80	226.74	1,040.0	-0.2	-0.2	0.3	2.00	2.00	0.00
1,080.0	1.60	226.74	1,080.0	-0.8	-0.8	1.1	2.00	2.00	0.00
1,120.0	2.40	226.74	1,120.0	-1.7	-1.8	2.5	2.00	2.00	0.00
1,160.0	3.20	226.74	1,159.9	-3.1	-3.3	4.5	2.00	2.00	0.00
1,200.0	4.00	226.74	1,199.8	-4.8	-5.1	7.0	2.00	2.00	0.00
1,240.0	4.80	226.74	1,239.7	-6.9	-7.3	10.0	2.00	2.00	0.00
1,280.0	5.60	226.74	1,279.6	-9.4	-10.0	13.7	2.00	2.00	0.00
1,320.0	6.40	226.74	1,319.3	-12.2	-13.0	17.9	2.00	2.00	0.00
1,360.0	7.20	226.74	1,359.1	-15.5	-16.5	22.6	2.00	2.00	0.00
1,400.0	8.00	226.74	1,398.7	-19.1	-20.3	27.9	2.00	2.00	0.00
1,440.0	8.80	226.74	1,438.3	-23.1	-24.6	33.7	2.00	2.00	0.00
1,480.0	9.60	226.74	1,477.8	-27.5	-29.2	40.1	2.00	2.00	0.00
1,505.5	10.11	226.74	1,502.9	-30.5	-32.4	44.5	2.00	2.00	0.00
1,520.0	10.11	226.74	1,517.2	-32.2	-34.2	47.0	0.00	0.00	0.00
1,560.0	10.11	226.74	1,556.5	-37.0	-39.4	54.1	0.00	0.00	0.00
1,600.0	10.11	226.74	1,595.9	-41.9	-44.5	61.1	0.00	0.00	0.00
1,640.0	10.11	226.74	1,635.3	-46.7	-49.6	68.1	0.00	0.00	0.00
1,680.0	10.11	226.74	1,674.7	-51.5	-54.7	75.1	0.00	0.00	0.00
1,720.0	10.11	226.74	1,714.0	-56.3	-59.8	82.1	0.00	0.00	0.00
1,760.0	10.11	226.74	1,753.4	-61.1	-64.9	89.2	0.00	0.00	0.00
1,800.0	10.11	226.74	1,792.8	-65.9	-70.0	96.2	0.00	0.00	0.00
1,840.0	10.11	226.74	1,832.2	-70.7	-75.2	103.2	0.00	0.00	0.00
1,880.0	10.11	226.74	1,871.6	-75.5	-80.3	110.2	0.00	0.00	0.00
1,920.0	10.11	226.74	1,910.9	-80.4	-85.4	117.2	0.00	0.00	0.00
1,960.0	10.11	226.74	1,950.3	-85.2	-90.5	124.3	0.00	0.00	0.00
2,000.0	10.11	226.74	1,989.7	-90.0	-95.6	131.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

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)
2,040.0	10.11	226.74	2,029.1	-94.8	-100.7	138.3	0.00	0.00	0.00
2,080.0	10.11	226.74	2,068.5	-99.6	-105.8	145.3	0.00	0.00	0.00
2,120.0	10.11	226.74	2,107.8	-104.4	-111.0	152.4	0.00	0.00	0.00
2,160.0	10.11	226.74	2,147.2	-109.2	-116.1	159.4	0.00	0.00	0.00
2,200.0	10.11	226.74	2,186.6	-114.0	-121.2	166.4	0.00	0.00	0.00
2,240.0	10.11	226.74	2,226.0	-118.8	-126.3	173.4	0.00	0.00	0.00
2,280.0	10.11	226.74	2,265.4	-123.7	-131.4	180.4	0.00	0.00	0.00
2,320.0	10.11	226.74	2,304.7	-128.5	-136.5	187.5	0.00	0.00	0.00
2,360.0	10.11	226.74	2,344.1	-133.3	-141.6	194.5	0.00	0.00	0.00
2,400.0	10.11	226.74	2,383.5	-138.1	-146.8	201.5	0.00	0.00	0.00
2,440.0	10.11	226.74	2,422.9	-142.9	-151.9	208.5	0.00	0.00	0.00
2,480.0	10.11	226.74	2,462.2	-147.7	-157.0	215.6	0.00	0.00	0.00
2,520.0	10.11	226.74	2,501.6	-152.5	-162.1	222.6	0.00	0.00	0.00
2,560.0	10.11	226.74	2,541.0	-157.3	-167.2	229.6	0.00	0.00	0.00
2,600.0	10.11	226.74	2,580.4	-162.2	-172.3	236.6	0.00	0.00	0.00
2,640.0	10.11	226.74	2,619.8	-167.0	-177.4	243.6	0.00	0.00	0.00
2,680.0	10.11	226.74	2,659.1	-171.8	-182.5	250.7	0.00	0.00	0.00
2,720.0	10.11	226.74	2,698.5	-176.6	-187.7	257.7	0.00	0.00	0.00
2,760.0	10.11	226.74	2,737.9	-181.4	-192.8	264.7	0.00	0.00	0.00
2,800.0	10.11	226.74	2,777.3	-186.2	-197.9	271.7	0.00	0.00	0.00
2,840.0	10.11	226.74	2,816.7	-191.0	-203.0	278.8	0.00	0.00	0.00
2,880.0	10.11	226.74	2,856.0	-195.8	-208.1	285.8	0.00	0.00	0.00
2,920.0	10.11	226.74	2,895.4	-200.7	-213.2	292.8	0.00	0.00	0.00
2,960.0	10.11	226.74	2,934.8	-205.5	-218.3	299.8	0.00	0.00	0.00
3,000.0	10.11	226.74	2,974.2	-210.3	-223.5	306.8	0.00	0.00	0.00
3,040.0	10.11	226.74	3,013.6	-215.1	-228.6	313.9	0.00	0.00	0.00
3,080.0	10.11	226.74	3,052.9	-219.9	-233.7	320.9	0.00	0.00	0.00
3,120.0	10.11	226.74	3,092.3	-224.7	-238.8	327.9	0.00	0.00	0.00
3,160.0	10.11	226.74	3,131.7	-229.5	-243.9	334.9	0.00	0.00	0.00
3,200.0	10.11	226.74	3,171.1	-234.3	-249.0	342.0	0.00	0.00	0.00
3,240.0	10.11	226.74	3,210.4	-239.2	-254.1	349.0	0.00	0.00	0.00
3,280.0	10.11	226.74	3,249.8	-244.0	-259.3	356.0	0.00	0.00	0.00
3,320.0	10.11	226.74	3,289.2	-248.8	-264.4	363.0	0.00	0.00	0.00
3,360.0	10.11	226.74	3,328.6	-253.6	-269.5	370.0	0.00	0.00	0.00
3,400.0	10.11	226.74	3,368.0	-258.4	-274.6	377.1	0.00	0.00	0.00
3,440.0	10.11	226.74	3,407.3	-263.2	-279.7	384.1	0.00	0.00	0.00
3,480.0	10.11	226.74	3,446.7	-268.0	-284.8	391.1	0.00	0.00	0.00
3,520.0	10.11	226.74	3,486.1	-272.8	-289.9	398.1	0.00	0.00	0.00
3,560.0	10.11	226.74	3,525.5	-277.7	-295.0	405.1	0.00	0.00	0.00
3,600.0	10.11	226.74	3,564.9	-282.5	-300.2	412.2	0.00	0.00	0.00
3,640.0	10.11	226.74	3,604.2	-287.3	-305.3	419.2	0.00	0.00	0.00
3,680.0	10.11	226.74	3,643.6	-292.1	-310.4	426.2	0.00	0.00	0.00
3,714.9	10.11	226.74	3,678.0	-296.3	-314.9	432.3	0.00	0.00	0.00
PARKMAN									
3,720.0	10.11	226.74	3,683.0	-296.9	-315.5	433.2	0.00	0.00	0.00
3,760.0	10.11	226.74	3,722.4	-301.7	-320.6	440.3	0.00	0.00	0.00
3,800.0	10.11	226.74	3,761.7	-306.5	-325.7	447.3	0.00	0.00	0.00
3,840.0	10.11	226.74	3,801.1	-311.3	-330.8	454.3	0.00	0.00	0.00
3,880.0	10.11	226.74	3,840.5	-316.2	-336.0	461.3	0.00	0.00	0.00
3,920.0	10.11	226.74	3,879.9	-321.0	-341.1	468.3	0.00	0.00	0.00
3,960.0	10.11	226.74	3,919.3	-325.8	-346.2	475.4	0.00	0.00	0.00
4,000.0	10.11	226.74	3,958.6	-330.6	-351.3	482.4	0.00	0.00	0.00
4,040.0	10.11	226.74	3,998.0	-335.4	-356.4	489.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

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)
4,080.0	10.11	226.74	4,037.4	-340.2	-361.5	496.4	0.00	0.00	0.00
4,120.0	10.11	226.74	4,076.8	-345.0	-366.6	503.5	0.00	0.00	0.00
4,160.0	10.11	226.74	4,116.2	-349.8	-371.8	510.5	0.00	0.00	0.00
4,200.0	10.11	226.74	4,155.5	-354.7	-376.9	517.5	0.00	0.00	0.00
4,240.0	10.11	226.74	4,194.9	-359.5	-382.0	524.5	0.00	0.00	0.00
4,280.0	10.11	226.74	4,234.3	-364.3	-387.1	531.5	0.00	0.00	0.00
4,320.0	10.11	226.74	4,273.7	-369.1	-392.2	538.6	0.00	0.00	0.00
4,360.0	10.11	226.74	4,313.1	-373.9	-397.3	545.6	0.00	0.00	0.00
4,400.0	10.11	226.74	4,352.4	-378.7	-402.4	552.6	0.00	0.00	0.00
4,440.0	10.11	226.74	4,391.8	-383.5	-407.6	559.6	0.00	0.00	0.00
4,474.7	10.11	226.74	4,426.0	-387.7	-412.0	565.7	0.00	0.00	0.00
SUSSEX									
4,480.0	10.11	226.74	4,431.2	-388.3	-412.7	566.7	0.00	0.00	0.00
4,520.0	10.11	226.74	4,470.6	-393.1	-417.8	573.7	0.00	0.00	0.00
4,560.0	10.11	226.74	4,509.9	-398.0	-422.9	580.7	0.00	0.00	0.00
4,600.0	10.11	226.74	4,549.3	-402.8	-428.0	587.7	0.00	0.00	0.00
4,640.0	10.11	226.74	4,588.7	-407.6	-433.1	594.7	0.00	0.00	0.00
4,680.0	10.11	226.74	4,628.1	-412.4	-438.2	601.8	0.00	0.00	0.00
4,720.0	10.11	226.74	4,667.5	-417.2	-443.3	608.8	0.00	0.00	0.00
4,760.0	10.11	226.74	4,706.8	-422.0	-448.5	615.8	0.00	0.00	0.00
4,800.0	10.11	226.74	4,746.2	-426.8	-453.6	622.8	0.00	0.00	0.00
4,840.0	10.11	226.74	4,785.6	-431.6	-458.7	629.9	0.00	0.00	0.00
4,840.4	10.11	226.74	4,786.0	-431.7	-458.7	629.9	0.00	0.00	0.00
SHANNON									
4,880.0	10.11	226.74	4,825.0	-436.5	-463.8	636.9	0.00	0.00	0.00
4,920.0	10.11	226.74	4,864.4	-441.3	-468.9	643.9	0.00	0.00	0.00
4,960.0	10.11	226.74	4,903.7	-446.1	-474.0	650.9	0.00	0.00	0.00
5,000.0	10.11	226.74	4,943.1	-450.9	-479.1	657.9	0.00	0.00	0.00
5,040.0	10.11	226.74	4,982.5	-455.7	-484.3	665.0	0.00	0.00	0.00
5,080.0	10.11	226.74	5,021.9	-460.5	-489.4	672.0	0.00	0.00	0.00
5,120.0	10.11	226.74	5,061.2	-465.3	-494.5	679.0	0.00	0.00	0.00
5,156.4	10.11	226.74	5,097.1	-469.7	-499.1	685.4	0.00	0.00	0.00
5,160.0	10.04	226.74	5,100.6	-470.1	-499.6	686.0	2.00	-2.00	0.00
5,200.0	9.24	226.74	5,140.1	-474.7	-504.5	692.7	2.00	-2.00	0.00
5,240.0	8.44	226.74	5,179.6	-478.9	-509.0	698.9	2.00	-2.00	0.00
5,280.0	7.64	226.74	5,219.2	-482.8	-513.0	704.5	2.00	-2.00	0.00
5,320.0	6.84	226.74	5,258.9	-486.2	-516.7	709.5	2.00	-2.00	0.00
5,360.0	6.04	226.74	5,298.6	-489.3	-520.0	714.0	2.00	-2.00	0.00
5,400.0	5.24	226.74	5,338.4	-492.0	-522.8	717.9	2.00	-2.00	0.00
5,440.0	4.44	226.74	5,378.3	-494.3	-525.3	721.3	2.00	-2.00	0.00
5,480.0	3.64	226.74	5,418.2	-496.2	-527.3	724.1	2.00	-2.00	0.00
5,520.0	2.84	226.74	5,458.1	-497.8	-529.0	726.4	2.00	-2.00	0.00
5,560.0	2.04	226.74	5,498.1	-499.0	-530.2	728.1	2.00	-2.00	0.00
5,600.0	1.24	226.74	5,538.1	-499.7	-531.0	729.2	2.00	-2.00	0.00
5,640.0	0.44	226.74	5,578.1	-500.1	-531.5	729.8	2.00	-2.00	0.00
5,661.9	0.00	0.00	5,600.0	-500.2	-531.5	729.9	2.00	-2.00	0.00
TARGET BHL 1981'FNL & 1977'FWL									
5,680.0	0.00	0.00	5,618.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,720.0	0.00	0.00	5,658.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,760.0	0.00	0.00	5,698.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,738.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,840.0	0.00	0.00	5,778.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,880.0	0.00	0.00	5,818.1	-500.2	-531.5	729.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

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)
5,920.0	0.00	0.00	5,858.1	-500.2	-531.5	729.9	0.00	0.00	0.00
5,960.0	0.00	0.00	5,898.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,938.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,040.0	0.00	0.00	5,978.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,080.0	0.00	0.00	6,018.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,120.0	0.00	0.00	6,058.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,160.0	0.00	0.00	6,098.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,200.0	0.00	0.00	6,138.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,240.0	0.00	0.00	6,178.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,280.0	0.00	0.00	6,218.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,320.0	0.00	0.00	6,258.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,360.0	0.00	0.00	6,298.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,338.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,440.0	0.00	0.00	6,378.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,480.0	0.00	0.00	6,418.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,520.0	0.00	0.00	6,458.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,560.0	0.00	0.00	6,498.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,538.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,640.0	0.00	0.00	6,578.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,680.0	0.00	0.00	6,618.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,720.0	0.00	0.00	6,658.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,760.0	0.00	0.00	6,698.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,738.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,840.0	0.00	0.00	6,778.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,880.0	0.00	0.00	6,818.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,920.0	0.00	0.00	6,858.1	-500.2	-531.5	729.9	0.00	0.00	0.00
6,960.0	0.00	0.00	6,898.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,000.0	0.00	0.00	6,938.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,040.0	0.00	0.00	6,978.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,080.0	0.00	0.00	7,018.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,120.0	0.00	0.00	7,058.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,122.9	0.00	0.00	7,061.0	-500.2	-531.5	729.9	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 400' X' 400', 1982'FNL & 1976'FWL - TARGET CIRCLE 1981'FNL & 1977'FWL									
7,160.0	0.00	0.00	7,098.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,138.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,240.0	0.00	0.00	7,178.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,280.0	0.00	0.00	7,218.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,320.0	0.00	0.00	7,258.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,360.0	0.00	0.00	7,298.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,387.9	0.00	0.00	7,326.0	-500.2	-531.5	729.9	0.00	0.00	0.00
FORT HAYS									
7,400.0	0.00	0.00	7,338.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,427.9	0.00	0.00	7,366.0	-500.2	-531.5	729.9	0.00	0.00	0.00
CODELL									
7,440.0	0.00	0.00	7,378.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,477.9	0.00	0.00	7,416.0	-500.2	-531.5	729.9	0.00	0.00	0.00
GREENHORN									
7,480.0	0.00	0.00	7,418.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,520.0	0.00	0.00	7,458.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,557.9	0.00	0.00	7,496.0	-500.2	-531.5	729.9	0.00	0.00	0.00
GRANEROS									
7,560.0	0.00	0.00	7,498.1	-500.2	-531.5	729.9	0.00	0.00	0.00
7,576.9	0.00	0.00	7,515.0	-500.2	-531.5	729.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hirsch 6-24
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Project:	SEC.24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	North Reference:	True
Well:	Hirsch 6-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (06-10-13)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
755.0	755.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,714.9	3,678.0	PARKMAN		0.00	
4,474.7	4,426.0	SUSSEX		0.00	
4,840.4	4,786.0	SHANNON		0.00	
7,122.9	7,061.0	NIOBRARA		0.00	
7,387.9	7,326.0	FORT HAYS		0.00	
7,427.9	7,366.0	CODELL		0.00	
7,477.9	7,416.0	GREENHORN		0.00	
7,557.9	7,496.0	GRANEROS		0.00	



Directional

Bayswater Exploration & Production, LLC

SEC.24-T7N-R67W

Hirsch 24-G Pad Sec. 24-T7N-R67W

Hirsch 6-24

Wellbore #1

Plan #1 (06-10-13)

Anticollision Report

13 June, 2013



Directional

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (06-10-13)		
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 6/11/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,576.9	Plan #1 (06-10-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Hirsch 24-G Pad Sec. 24-T7N-R67W						
Hirsch 11-24 - Wellbore #1 - Plan #1 (06-10-13)	200.0	200.0	15.3	14.6	22.696	CC, ES
Hirsch 11-24 - Wellbore #1 - Plan #1 (06-10-13)	400.0	398.7	22.1	20.5	14.404	SF
Hirsch 17-24 - Wellbore #1 - Plan #1 (06-10-13)	400.0	400.0	14.9	13.4	9.494	CC
Hirsch 17-24 - Wellbore #1 - Plan #1 (06-10-13)	500.0	499.9	15.2	13.2	7.570	ES
Hirsch 17-24 - Wellbore #1 - Plan #1 (06-10-13)	600.0	599.6	17.2	14.7	7.007	SF

Offset Design												
Hirsch 24-G Pad Sec. 24-T7N-R67W - Hirsch 11-24 - Wellbore #1 - Plan #1 (06-10-13)												
Survey Program: 0-MWD												
Reference	Offset	Semi Major Axis			Distance							
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
0.0	0.0	0.0	0.0	0.0	0.0	-178.96	-15.3	-0.3	15.3	15.3	0.00	N/A
100.0	100.0	100.0	100.0	0.1	0.1	-178.96	-15.3	-0.3	15.3	15.1	0.22	68.089
200.0	200.0	200.0	200.0	0.3	0.3	-178.96	-15.3	-0.3	15.3	14.6	0.67	22.696 CC, ES
300.0	300.0	299.4	299.4	0.6	0.5	-177.41	-17.0	-0.8	17.0	15.9	1.10	15.438
400.0	400.0	398.7	398.5	0.8	0.7	-174.18	-21.9	-2.2	22.1	20.5	1.53	14.404 SF
500.0	500.0	497.4	496.9	1.0	1.0	-171.21	-30.1	-4.7	30.6	28.6	1.99	15.364
600.0	600.0	595.4	594.2	1.2	1.3	-169.06	-41.4	-8.0	42.6	40.1	2.48	17.183
700.0	700.0	692.5	690.1	1.5	1.6	-167.61	-55.8	-12.3	58.0	55.0	2.99	19.376
800.0	800.0	788.5	784.4	1.7	2.0	-166.63	-73.1	-17.4	76.7	73.2	3.53	21.705
900.0	900.0	883.2	876.7	1.9	2.4	-165.95	-93.0	-23.3	98.7	94.6	4.10	24.047
1,000.0	1,000.0	976.3	966.9	2.1	2.8	-165.47	-115.6	-29.9	123.9	119.2	4.70	26.340
1,100.0	1,100.0	1,068.2	1,055.0	2.3	3.3	-31.92	-140.5	-37.3	150.8	146.0	4.77	31.625
1,200.0	1,199.8	1,159.3	1,141.4	2.5	3.9	-32.17	-167.9	-45.4	177.9	172.7	5.21	34.149
1,300.0	1,299.5	1,249.4	1,226.1	2.7	4.5	-32.74	-197.6	-54.2	205.2	199.5	5.67	36.190
1,400.0	1,398.7	1,340.0	1,310.2	3.0	5.1	-33.53	-229.9	-63.8	232.7	226.6	6.16	37.797
1,505.5	1,502.9	1,441.8	1,404.3	3.2	5.9	-34.64	-267.1	-74.8	259.9	253.1	6.71	38.705
1,600.0	1,595.9	1,533.3	1,488.8	3.5	6.5	-35.90	-300.6	-84.7	282.9	275.6	7.25	38.993
1,700.0	1,694.4	1,630.1	1,578.3	3.8	7.3	-37.03	-336.0	-95.2	307.4	299.5	7.85	39.159
1,800.0	1,792.8	1,726.9	1,667.8	4.2	8.0	-38.00	-371.4	-105.6	332.0	323.5	8.46	39.221
1,900.0	1,891.3	1,823.6	1,757.3	4.5	8.7	-38.82	-406.8	-116.1	356.6	347.6	9.10	39.210
2,000.0	1,989.7	1,920.4	1,846.7	4.9	9.4	-39.55	-442.2	-126.6	381.4	371.6	9.74	39.150
2,100.0	2,088.1	2,017.2	1,936.2	5.2	10.2	-40.18	-477.6	-137.1	406.2	395.8	10.40	39.057

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

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
2,200.0	2,186.6	2,114.0	2,025.7	5.6	10.9	-40.74	-513.0	-147.5	431.0	419.9	11.07	38.943	
2,300.0	2,285.0	2,210.8	2,115.1	6.0	11.6	-41.24	-548.4	-158.0	455.8	444.1	11.74	38.816	
2,400.0	2,383.5	2,307.6	2,204.6	6.3	12.4	-41.69	-583.8	-168.5	480.7	468.3	12.43	38.682	
2,500.0	2,481.9	2,404.4	2,294.1	6.7	13.1	-42.10	-619.2	-179.0	505.6	492.5	13.12	38.544	
2,600.0	2,580.4	2,501.2	2,383.6	7.1	13.8	-42.46	-654.6	-189.4	530.6	516.8	13.81	38.407	
2,700.0	2,678.8	2,597.9	2,473.0	7.5	14.6	-42.80	-690.0	-199.9	555.5	541.0	14.52	38.271	
2,800.0	2,777.3	2,694.7	2,562.5	7.9	15.3	-43.10	-725.4	-210.4	580.5	565.3	15.22	38.138	
2,900.0	2,875.7	2,791.5	2,652.0	8.3	16.0	-43.38	-760.8	-220.9	605.5	589.6	15.93	38.009	
3,000.0	2,974.2	2,888.3	2,741.4	8.7	16.8	-43.64	-796.2	-231.3	630.5	613.8	16.64	37.884	
3,100.0	3,072.6	2,985.1	2,830.9	9.1	17.5	-43.88	-831.6	-241.8	655.5	638.1	17.36	37.763	
3,200.0	3,171.1	3,081.9	2,920.4	9.5	18.2	-44.10	-867.0	-252.3	680.5	662.4	18.08	37.647	
3,300.0	3,269.5	3,178.7	3,009.8	9.9	19.0	-44.30	-902.4	-262.7	705.5	686.7	18.80	37.536	
3,400.0	3,368.0	3,275.5	3,099.3	10.3	19.7	-44.49	-937.8	-273.2	730.6	711.0	19.52	37.429	
3,500.0	3,466.4	3,372.3	3,188.8	10.7	20.4	-44.67	-973.2	-283.7	755.6	735.4	20.24	37.327	
3,600.0	3,564.9	3,469.0	3,278.3	11.1	21.2	-44.84	-1,008.6	-294.2	780.6	759.7	20.97	37.229	
3,700.0	3,663.3	3,565.8	3,367.7	11.5	21.9	-45.00	-1,044.0	-304.6	805.7	784.0	21.70	37.135	
3,800.0	3,761.7	3,662.6	3,457.2	11.9	22.6	-45.14	-1,079.4	-315.1	830.8	808.3	22.43	37.045	
3,900.0	3,860.2	3,759.4	3,546.7	12.3	23.4	-45.28	-1,114.8	-325.6	855.8	832.7	23.16	36.959	
4,000.0	3,958.6	3,856.2	3,636.1	12.7	24.1	-45.41	-1,150.2	-336.1	880.9	857.0	23.89	36.877	
4,100.0	4,057.1	3,953.0	3,725.6	13.1	24.9	-45.53	-1,185.6	-346.5	906.0	881.3	24.62	36.798	
4,200.0	4,155.5	4,049.8	3,815.1	13.5	25.6	-45.65	-1,221.0	-357.0	931.0	905.7	25.35	36.722	
4,300.0	4,254.0	4,146.6	3,904.6	13.9	26.3	-45.76	-1,256.4	-367.5	956.1	930.0	26.09	36.650	
4,400.0	4,352.4	4,243.3	3,994.0	14.3	27.1	-45.87	-1,291.8	-378.0	981.2	954.4	26.82	36.580	
4,500.0	4,450.9	4,340.1	4,083.5	14.7	27.8	-45.97	-1,327.2	-388.4	1,006.3	978.7	27.56	36.513	
4,600.0	4,549.3	4,436.9	4,173.0	15.1	28.5	-46.06	-1,362.6	-398.9	1,031.4	1,003.1	28.30	36.449	
4,700.0	4,647.8	4,533.7	4,262.4	15.5	29.3	-46.15	-1,398.0	-409.4	1,056.5	1,027.4	29.03	36.387	
4,800.0	4,746.2	4,630.5	4,351.9	15.9	30.0	-46.24	-1,433.4	-419.9	1,081.5	1,051.8	29.77	36.328	
4,900.0	4,844.7	4,727.3	4,441.4	16.3	30.7	-46.32	-1,468.8	-430.3	1,106.6	1,076.1	30.51	36.270	
5,000.0	4,943.1	4,824.1	4,530.9	16.7	31.5	-46.40	-1,504.2	-440.8	1,131.7	1,100.5	31.25	36.215	
5,100.0	5,041.6	4,920.9	4,620.3	17.1	32.2	-46.47	-1,539.6	-451.3	1,156.8	1,124.8	31.99	36.162	
5,156.4	5,097.1	4,975.5	4,670.8	17.4	32.6	-46.51	-1,559.5	-457.2	1,171.0	1,138.6	32.41	36.133	
5,200.0	5,140.1	5,017.6	4,709.8	17.5	33.0	-46.70	-1,575.0	-461.8	1,182.2	1,149.4	32.72	36.129	
5,300.0	5,239.0	5,113.8	4,798.7	17.8	33.7	-47.07	-1,610.1	-472.2	1,209.4	1,176.1	33.36	36.255	
5,400.0	5,338.4	5,269.8	4,944.3	18.0	34.6	-47.26	-1,663.8	-488.1	1,236.9	1,202.8	34.06	36.317	
5,500.0	5,438.2	5,435.9	5,102.4	18.2	35.3	-47.34	-1,712.6	-502.5	1,261.3	1,226.7	34.64	36.412	
5,600.0	5,538.1	5,605.6	5,266.7	18.4	36.0	-47.31	-1,753.3	-514.5	1,282.7	1,247.6	35.11	36.530	
5,661.9	5,600.0	5,712.3	5,371.1	18.4	36.3	179.51	-1,774.0	-520.7	1,294.3	1,258.9	35.35	36.615	
5,700.0	5,638.1	5,778.5	5,436.4	18.5	36.5	179.66	-1,785.0	-523.9	1,300.6	1,265.1	35.49	36.642	
5,800.0	5,738.1	5,954.8	5,611.0	18.6	36.9	179.95	-1,807.2	-530.5	1,313.2	1,277.3	35.87	36.607	
5,900.0	5,838.1	6,133.2	5,789.0	18.7	37.2	-179.89	-1,819.2	-534.0	1,319.9	1,283.6	36.24	36.417	
6,000.0	5,938.1	6,282.3	5,938.1	18.9	37.3	-179.87	-1,821.2	-534.6	1,321.0	1,284.5	36.58	36.117	
6,100.0	6,038.1	6,382.3	6,038.1	19.0	37.4	-179.87	-1,821.2	-534.6	1,321.0	1,284.2	36.85	35.853	
6,200.0	6,138.1	6,482.3	6,138.1	19.1	37.4	-179.87	-1,821.2	-534.6	1,321.0	1,283.9	37.12	35.590	
6,300.0	6,238.1	6,582.3	6,238.1	19.3	37.5	-179.87	-1,821.2	-534.6	1,321.0	1,283.6	37.39	35.329	
6,400.0	6,338.1	6,682.3	6,338.1	19.4	37.5	-179.87	-1,821.2	-534.6	1,321.0	1,283.4	37.67	35.068	
6,500.0	6,438.1	6,782.3	6,438.1	19.6	37.6	-179.87	-1,821.2	-534.6	1,321.0	1,283.1	37.95	34.808	
6,600.0	6,538.1	6,882.3	6,538.1	19.7	37.7	-179.87	-1,821.2	-534.6	1,321.0	1,282.8	38.24	34.549	
6,700.0	6,638.1	6,982.3	6,638.1	19.8	37.7	-179.87	-1,821.2	-534.6	1,321.0	1,282.5	38.52	34.291	
6,800.0	6,738.1	7,082.3	6,738.1	20.0	37.8	-179.87	-1,821.2	-534.6	1,321.0	1,282.2	38.81	34.034	
6,900.0	6,838.1	7,182.3	6,838.1	20.1	37.9	-179.87	-1,821.2	-534.6	1,321.0	1,281.9	39.11	33.779	
7,000.0	6,938.1	7,282.3	6,938.1	20.3	37.9	-179.87	-1,821.2	-534.6	1,321.0	1,281.6	39.40	33.525	
7,100.0	7,038.1	7,382.3	7,038.1	20.4	38.0	-179.87	-1,821.2	-534.6	1,321.0	1,281.3	39.70	33.272	

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

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch 24-G Pad Sec. 24-T7N-R67W - Hirsch 11-24 - Wellbore #1 - Plan #1 (06-10-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
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	Warning
7,200.0	7,138.1	7,482.3	7,138.1	20.6	38.1	-179.87	-1,821.2	-534.6	1,321.0	1,281.0	40.01	33.021	
7,300.0	7,238.1	7,582.3	7,238.1	20.7	38.2	-179.87	-1,821.2	-534.6	1,321.0	1,280.7	40.31	32.771	
7,400.0	7,338.1	7,682.3	7,338.1	20.9	38.2	-179.87	-1,821.2	-534.6	1,321.0	1,280.4	40.62	32.523	
7,500.0	7,438.1	7,782.3	7,438.1	21.0	38.3	-179.87	-1,821.2	-534.6	1,321.0	1,280.1	40.93	32.277	
7,549.5	7,487.6	7,831.8	7,487.6	21.1	38.3	-179.87	-1,821.2	-534.6	1,321.0	1,280.0	41.08	32.156	
7,576.9	7,515.0	7,854.2	7,510.0	21.2	38.4	-179.87	-1,821.2	-534.6	1,321.0	1,279.9	41.16	32.094	

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch 24-G Pad Sec. 24-T7N-R67W - Hirsch 17-24 - Wellbore #1 - Plan #1 (06-10-13)													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		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	14.9	0.0	14.9	14.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	14.9	0.0	14.9	14.7	0.22	66.457		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	14.9	0.0	14.9	14.3	0.67	22.152		
300.0	300.0	300.0	300.0	0.6	0.6	0.00	14.9	0.0	14.9	13.8	1.12	13.291		
400.0	400.0	400.0	400.0	0.8	0.8	0.00	14.9	0.0	14.9	13.4	1.57	9.494 CC		
500.0	500.0	499.9	499.9	1.0	1.0	6.52	15.1	1.7	15.2	13.2	2.01	7.570 ES		
600.0	600.0	599.6	599.4	1.2	1.2	23.71	15.7	6.9	17.2	14.7	2.45	7.007 SF		
700.0	700.0	698.7	698.2	1.5	1.5	42.81	16.7	15.5	22.8	19.9	2.91	7.834		
800.0	800.0	797.2	795.9	1.7	1.7	56.57	18.0	27.3	33.0	29.6	3.40	9.695		
900.0	900.0	894.7	892.3	1.9	2.0	65.01	19.7	42.3	47.4	43.4	3.92	12.087		
1,000.0	1,000.0	991.1	986.9	2.1	2.4	70.16	21.8	60.4	65.5	61.0	4.46	14.692		
1,100.0	1,100.0	1,085.8	1,079.3	2.3	2.8	-153.60	24.1	81.2	88.7	84.0	4.74	18.707		
1,200.0	1,199.8	1,178.1	1,168.6	2.5	3.2	-152.25	26.8	104.4	118.1	112.9	5.17	22.838		
1,300.0	1,299.5	1,267.5	1,254.3	2.7	3.7	-151.72	29.6	129.5	153.4	147.8	5.60	27.374		
1,400.0	1,398.7	1,357.3	1,339.8	3.0	4.2	-151.60	32.7	156.9	193.8	187.7	6.04	32.059		
1,505.5	1,502.9	1,452.4	1,430.2	3.2	4.8	-151.79	36.0	186.0	239.5	233.0	6.50	36.844		
1,600.0	1,595.9	1,536.8	1,510.5	3.5	5.3	-152.39	39.0	211.8	281.9	275.0	6.94	40.604		
1,700.0	1,694.4	1,626.1	1,595.5	3.8	5.8	-152.85	42.1	239.1	326.8	319.4	7.42	44.021		
1,800.0	1,792.8	1,715.4	1,680.5	4.2	6.4	-153.21	45.2	266.5	371.7	363.8	7.92	46.951		
1,900.0	1,891.3	1,804.8	1,765.5	4.5	7.0	-153.48	48.3	293.8	416.6	408.2	8.42	49.480		
2,000.0	1,989.7	1,894.1	1,850.5	4.9	7.5	-153.70	51.4	321.1	461.6	452.6	8.93	51.678		
2,100.0	2,088.1	1,983.4	1,935.5	5.2	8.1	-153.89	54.5	348.5	506.5	497.0	9.45	53.599		
2,200.0	2,186.6	2,072.8	2,020.5	5.6	8.7	-154.04	57.6	375.8	551.4	541.4	9.97	55.291		
2,300.0	2,285.0	2,162.1	2,105.4	6.0	9.3	-154.17	60.7	403.2	596.3	585.8	10.50	56.788		
2,400.0	2,383.5	2,251.4	2,190.4	6.3	9.8	-154.28	63.8	430.5	641.3	630.2	11.03	58.121		
2,500.0	2,481.9	2,340.7	2,275.4	6.7	10.4	-154.38	66.9	457.8	686.2	674.6	11.57	59.313		
2,600.0	2,580.4	2,430.1	2,360.4	7.1	11.0	-154.47	70.0	485.2	731.1	719.0	12.11	60.385		
2,700.0	2,678.8	2,519.4	2,445.4	7.5	11.6	-154.54	73.1	512.5	776.1	763.4	12.65	61.353		
2,800.0	2,777.3	2,608.7	2,530.4	7.9	12.2	-154.61	76.2	539.9	821.0	807.8	13.19	62.230		
2,900.0	2,875.7	2,698.1	2,615.4	8.3	12.7	-154.67	79.3	567.2	866.0	852.2	13.74	63.028		
3,000.0	2,974.2	2,787.4	2,700.4	8.7	13.3	-154.72	82.4	594.5	910.9	896.6	14.29	63.756		
3,100.0	3,072.6	2,876.7	2,785.3	9.1	13.9	-154.77	85.5	621.9	955.8	941.0	14.84	64.424		
3,200.0	3,171.1	2,966.1	2,870.3	9.5	14.5	-154.82	88.6	649.2	1,000.8	985.4	15.39	65.038		
3,300.0	3,269.5	3,055.4	2,955.3	9.9	15.1	-154.86	91.7	676.6	1,045.7	1,029.8	15.94	65.604		
3,400.0	3,368.0	3,144.7	3,040.3	10.3	15.6	-154.89	94.8	703.9	1,090.7	1,074.2	16.49	66.127		
3,500.0	3,466.4	3,234.1	3,125.3	10.7	16.2	-154.93	97.9	731.2	1,135.6	1,118.5	17.05	66.612		
3,600.0	3,564.9	3,323.4	3,210.3	11.1	16.8	-154.96	101.0	758.6	1,180.5	1,162.9	17.60	67.062		
3,700.0	3,663.3	3,412.7	3,295.3	11.5	17.4	-154.99	104.1	785.9	1,225.5	1,207.3	18.16	67.482		
3,800.0	3,761.7	3,502.0	3,380.3	11.9	18.0	-155.02	107.2	813.3	1,270.4	1,251.7	18.72	67.874		
3,900.0	3,860.2	3,591.4	3,465.2	12.3	18.6	-155.04	110.3	840.6	1,315.4	1,296.1	19.28	68.240		
4,000.0	3,958.6	3,680.7	3,550.2	12.7	19.1	-155.07	113.4	867.9	1,360.3	1,340.5	19.83	68.583		
4,100.0	4,057.1	3,770.0	3,635.2	13.1	19.7	-155.09	116.5	895.3	1,405.2	1,384.8	20.39	68.904		
4,200.0	4,155.5	3,859.4	3,720.2	13.5	20.3	-155.11	119.6	922.6	1,450.2	1,429.2	20.95	69.207		
4,300.0	4,254.0	3,948.7	3,805.2	13.9	20.9	-155.13	122.7	950.0	1,495.1	1,473.6	21.52	69.492		
4,400.0	4,352.4	4,038.0	3,890.2	14.3	21.5	-155.15	125.8	977.3	1,540.1	1,518.0	22.08	69.760		
4,500.0	4,450.9	4,127.4	3,975.2	14.7	22.1	-155.17	128.9	1,004.6	1,585.0	1,562.4	22.64	70.014		
4,600.0	4,549.3	4,216.7	4,060.2	15.1	22.6	-155.18	132.0	1,032.0	1,630.0	1,606.8	23.20	70.254		
4,700.0	4,647.8	4,306.0	4,145.1	15.5	23.2	-155.20	135.1	1,059.3	1,674.9	1,651.1	23.76	70.481		
4,800.0	4,746.2	4,395.4	4,230.1	15.9	23.8	-155.21	138.2	1,086.7	1,719.8	1,695.5	24.33	70.696		
4,900.0	4,844.7	4,484.7	4,315.1	16.3	24.4	-155.23	141.3	1,114.0	1,764.8	1,739.9	24.89	70.901		
5,000.0	4,943.1	4,574.0	4,400.1	16.7	25.0	-155.24	144.4	1,141.3	1,809.7	1,784.3	25.46	71.095		
5,100.0	5,041.6	4,663.3	4,485.1	17.1	25.6	-155.25	147.5	1,168.7	1,854.7	1,828.7	26.02	71.279		

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

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch 24-G Pad Sec. 24-T7N-R67W - Hirsch 17-24 - Wellbore #1 - Plan #1 (06-10-13)												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	
5,156.4	5,097.1	4,713.7	4,533.0	17.4	25.9	-155.26	149.2	1,184.1	1,880.0	1,853.7	26.34	71.379	
5,200.0	5,140.1	4,752.8	4,570.2	17.5	26.1	-155.44	150.6	1,196.1	1,899.3	1,872.7	26.66	71.245	
5,300.0	5,239.0	4,843.4	4,656.4	17.8	26.7	-155.79	153.7	1,223.8	1,941.6	1,914.3	27.35	71.003	
5,400.0	5,338.4	4,935.3	4,743.8	18.0	27.3	-156.07	156.9	1,251.9	1,981.0	1,953.0	28.00	70.746	
5,500.0	5,438.2	5,028.4	4,832.4	18.2	27.9	-156.27	160.1	1,280.4	2,017.4	1,988.8	28.62	70.482	
5,600.0	5,538.1	5,132.9	4,931.8	18.4	28.6	-156.38	163.8	1,312.3	2,050.8	2,021.6	29.23	70.151	
5,661.9	5,600.0	5,332.1	5,123.6	18.4	29.6	70.55	169.8	1,365.7	2,067.7	2,037.8	29.90	69.165	
5,700.0	5,638.1	5,458.4	5,247.0	18.5	30.0	70.72	172.9	1,392.7	2,075.7	2,045.5	30.24	68.650	
5,800.0	5,738.1	5,799.8	5,585.1	18.6	30.9	71.00	178.0	1,438.2	2,088.8	2,057.8	31.03	67.312	
5,900.0	5,838.1	6,053.0	5,838.1	18.7	31.2	71.05	178.9	1,446.2	2,091.1	2,059.5	31.56	66.256	
6,000.0	5,938.1	6,153.0	5,938.1	18.9	31.3	71.05	178.9	1,446.2	2,091.1	2,059.2	31.87	65.607	
6,100.0	6,038.1	6,253.0	6,038.1	19.0	31.4	71.05	178.9	1,446.2	2,091.1	2,058.9	32.19	64.959	
6,200.0	6,138.1	6,353.0	6,138.1	19.1	31.5	71.05	178.9	1,446.2	2,091.1	2,058.6	32.51	64.318	
6,300.0	6,238.1	6,453.0	6,238.1	19.3	31.5	71.05	178.9	1,446.2	2,091.1	2,058.3	32.84	63.684	
6,400.0	6,338.1	6,553.0	6,338.1	19.4	31.6	71.05	178.9	1,446.2	2,091.1	2,057.9	33.16	63.057	
6,500.0	6,438.1	6,653.0	6,438.1	19.6	31.7	71.05	178.9	1,446.2	2,091.1	2,057.6	33.49	62.436	
6,600.0	6,538.1	6,753.0	6,538.1	19.7	31.8	71.05	178.9	1,446.2	2,091.1	2,057.3	33.82	61.823	
6,700.0	6,638.1	6,853.0	6,638.1	19.8	31.9	71.05	178.9	1,446.2	2,091.1	2,056.9	34.16	61.217	
6,800.0	6,738.1	6,953.0	6,738.1	20.0	32.0	71.05	178.9	1,446.2	2,091.1	2,056.6	34.50	60.618	
6,900.0	6,838.1	7,053.0	6,838.1	20.1	32.1	71.05	178.9	1,446.2	2,091.1	2,056.3	34.84	60.026	
7,000.0	6,938.1	7,153.0	6,938.1	20.3	32.2	71.05	178.9	1,446.2	2,091.1	2,055.9	35.18	59.442	
7,100.0	7,038.1	7,253.0	7,038.1	20.4	32.3	71.05	178.9	1,446.2	2,091.1	2,055.6	35.52	58.865	
7,200.0	7,138.1	7,353.0	7,138.1	20.6	32.4	71.05	178.9	1,446.2	2,091.1	2,055.2	35.87	58.295	
7,300.0	7,238.1	7,453.0	7,238.1	20.7	32.6	71.05	178.9	1,446.2	2,091.1	2,054.9	36.22	57.733	
7,400.0	7,338.1	7,553.0	7,338.1	20.9	32.7	71.05	178.9	1,446.2	2,091.1	2,054.5	36.57	57.178	
7,500.0	7,438.1	7,653.0	7,438.1	21.0	32.8	71.05	178.9	1,446.2	2,091.1	2,054.2	36.93	56.631	
7,576.9	7,515.0	7,729.9	7,515.0	21.2	32.9	71.05	178.9	1,446.2	2,091.1	2,053.9	37.20	56.214	

Company: Bayswater Exploration & Production, LLC
Project: SEC.24-T7N-R67W
Reference Site: Hirsch 24-G Pad Sec. 24-T7N-R67W
Site Error: 0.0ft
Reference Well: Hirsch 6-24
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1 (06-10-13)

Local Co-ordinate Reference: Well Hirsch 6-24
TVD Reference: WELL @ 5051.0ft (RKB-16')
MD Reference: WELL @ 5051.0ft (RKB-16')
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Landmark
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5051.0ft (RKB-16')

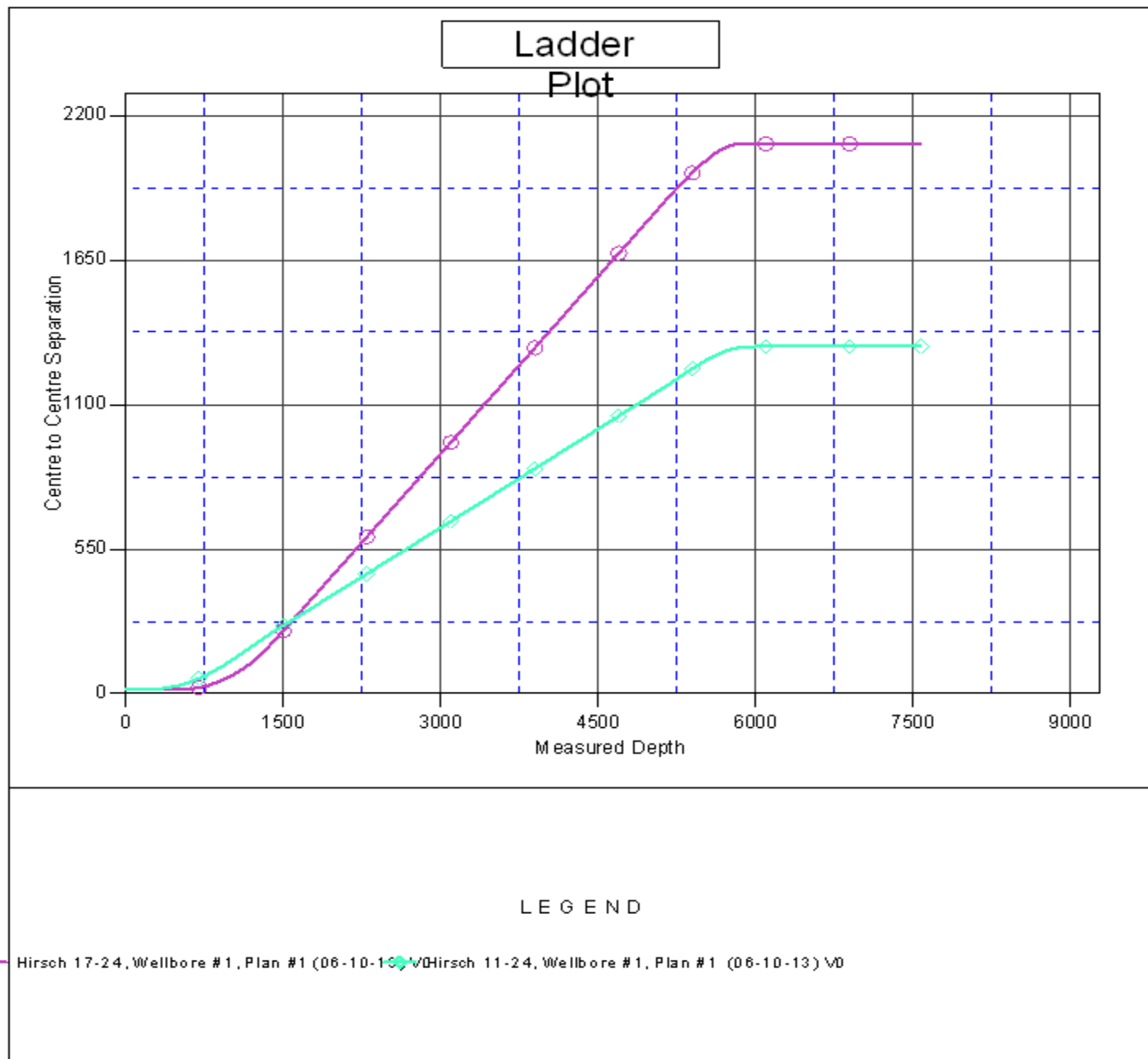
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Hirsch 6-24

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.43°



Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Hirsch 6-24
Project:	SEC.24-T7N-R67W	TVD Reference:	WELL @ 5051.0ft (RKB-16')
Reference Site:	Hirsch 24-G Pad Sec. 24-T7N-R67W	MD Reference:	WELL @ 5051.0ft (RKB-16')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hirsch 6-24	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 (06-10-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5051.0ft (RKB-16')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Hirsch 6-24
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.43°

