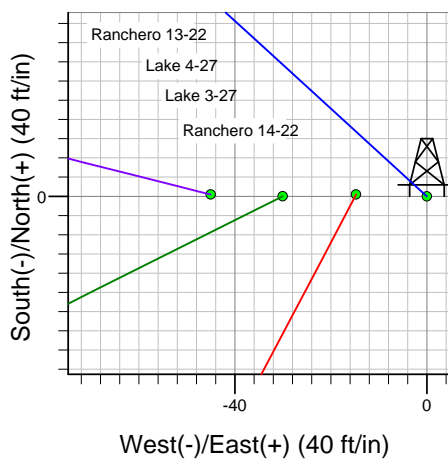
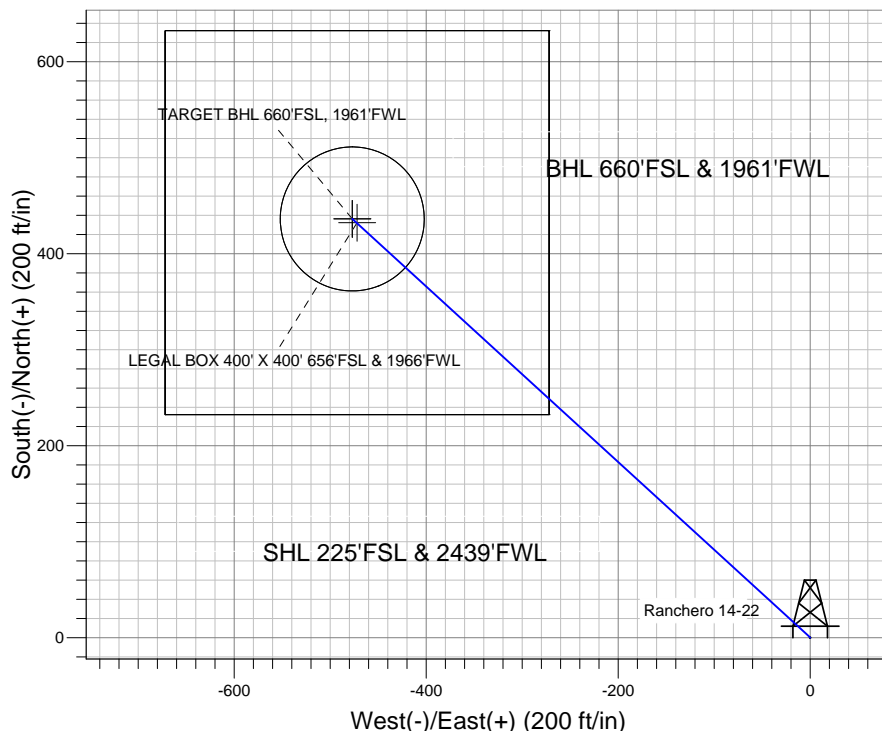
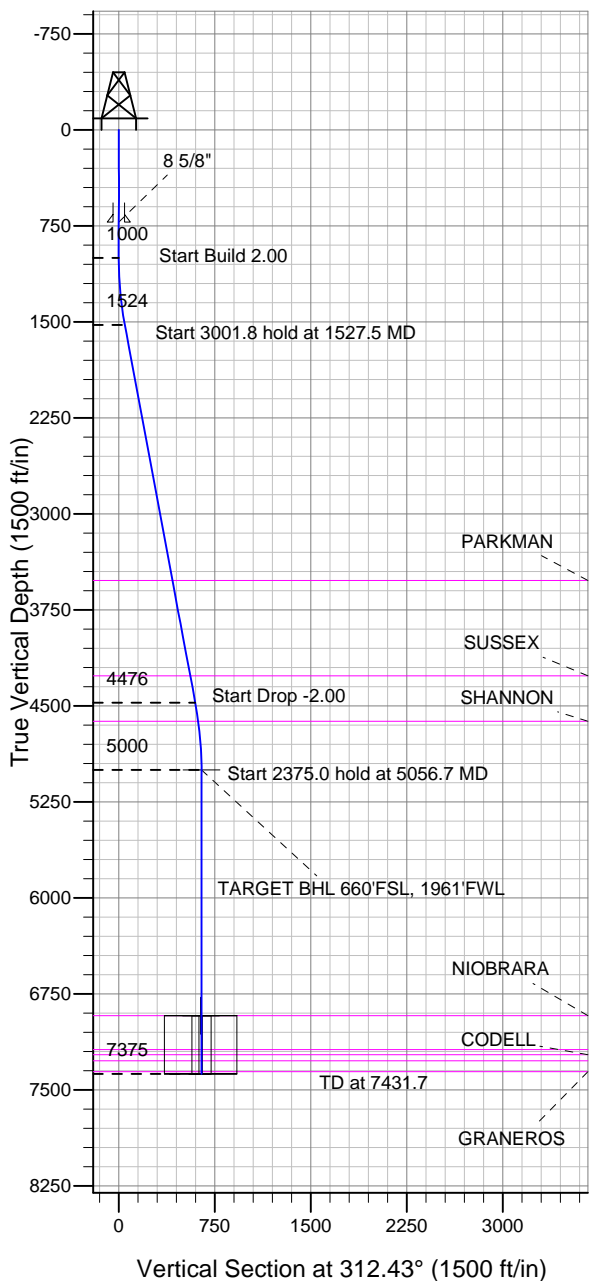


### Well Name: Ranchero 14-22

Surface Location: Lake - Ranchero Pad Sec.22-T7N-R67W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 5004.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1444921.72 3172264.04 40.553057 -104.880076  
 Original Well Elev WELL @ 5020.0ft (Original Well Elev)

## BAYSWATER EXPLORATION & PRODUCTION



Lake - Ranchero Pad Sec.22-T7N-R67W  
 Ranchero 14-22  
 Plan #1 (4-09-12)  
 14:37, April 11 2012



Azimuths to True North  
 Magnetic North: 8.83°

Magnetic Field  
 Strength: 53110.7snT  
 Dip Angle: 67.13°  
 Date: 4/11/2012  
 Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 660'FSL, 1961'FWL	5000.0	436.1	-477.1	40.554254	-104.881793	Point
LEGAL BOX 400' X 400' 656'FSL & 1966'FWL	6920.0	432.1	-472.1	40.554243	-104.881775	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 660'FSL & 1961'FWL	6920.0	436.1	-477.1	40.554254	-104.881793	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	1527.5	10.55	312.43	1524.5	32.7	-35.7	2.00	312.43	48.4	
4	4529.2	10.55	312.43	4475.5	403.4	-441.4	0.00	0.00	598.0	
5	5056.7	0.00	0.00	5000.0	436.1	-477.1	2.00	180.00	646.4	TARGET BHL 660'FSL, 1961'FWL
6	7431.7	0.00	0.00	7375.0	436.1	-477.1	0.00	0.00	646.4	



## **Directional**

# **BAYSWATER EXPLORATION & PRODUCTION**

**SEC.22-T7N-R67W**

**Lake - Rancho Pad Sec.22-T7N-R67W**

**Rancho 14-22**

**Wellbore #1**

**Plan: Plan #1 (4-09-12)**

## **Standard Planning Report**

**11 April, 2012**

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	
1,527.5	10.55	312.43	1,524.5	32.7	-35.7	2.00	2.00	0.00	312.43	
4,529.2	10.55	312.43	4,475.5	403.4	-441.4	0.00	0.00	0.00	0.00	
5,056.7	0.00	0.00	5,000.0	436.1	-477.1	2.00	-2.00	0.00	180.00	TARGET BHL 660°
7,431.7	0.00	0.00	7,375.0	436.1	-477.1	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Project:</b>	SEC.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-09-12)		

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
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	312.43	1,040.0	0.2	-0.2	0.3	2.00	2.00	0.00
1,080.0	1.60	312.43	1,080.0	0.8	-0.8	1.1	2.00	2.00	0.00
1,120.0	2.40	312.43	1,120.0	1.7	-1.9	2.5	2.00	2.00	0.00
1,160.0	3.20	312.43	1,159.9	3.0	-3.3	4.5	2.00	2.00	0.00
1,200.0	4.00	312.43	1,199.8	4.7	-5.2	7.0	2.00	2.00	0.00
1,240.0	4.80	312.43	1,239.7	6.8	-7.4	10.0	2.00	2.00	0.00
1,280.0	5.60	312.43	1,279.6	9.2	-10.1	13.7	2.00	2.00	0.00
1,320.0	6.40	312.43	1,319.3	12.0	-13.2	17.9	2.00	2.00	0.00
1,360.0	7.20	312.43	1,359.1	15.2	-16.7	22.6	2.00	2.00	0.00
1,400.0	8.00	312.43	1,398.7	18.8	-20.6	27.9	2.00	2.00	0.00
1,440.0	8.80	312.43	1,438.3	22.8	-24.9	33.7	2.00	2.00	0.00
1,480.0	9.60	312.43	1,477.8	27.1	-29.6	40.1	2.00	2.00	0.00
1,520.0	10.40	312.43	1,517.1	31.8	-34.7	47.1	2.00	2.00	0.00
1,527.5	10.55	312.43	1,524.5	32.7	-35.7	48.4	2.00	2.00	0.00
1,560.0	10.55	312.43	1,556.5	36.7	-40.1	54.4	0.00	0.00	0.00
1,600.0	10.55	312.43	1,595.8	41.6	-45.5	61.7	0.00	0.00	0.00
1,640.0	10.55	312.43	1,635.1	46.6	-50.9	69.0	0.00	0.00	0.00
1,680.0	10.55	312.43	1,674.4	51.5	-56.4	76.3	0.00	0.00	0.00
1,720.0	10.55	312.43	1,713.8	56.4	-61.8	83.7	0.00	0.00	0.00
1,760.0	10.55	312.43	1,753.1	61.4	-67.2	91.0	0.00	0.00	0.00
1,800.0	10.55	312.43	1,792.4	66.3	-72.6	98.3	0.00	0.00	0.00
1,840.0	10.55	312.43	1,831.7	71.3	-78.0	105.6	0.00	0.00	0.00
1,880.0	10.55	312.43	1,871.1	76.2	-83.4	113.0	0.00	0.00	0.00
1,920.0	10.55	312.43	1,910.4	81.2	-88.8	120.3	0.00	0.00	0.00
1,960.0	10.55	312.43	1,949.7	86.1	-94.2	127.6	0.00	0.00	0.00
2,000.0	10.55	312.43	1,989.0	91.0	-99.6	134.9	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Project:</b>	SEC.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-09-12)		

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	10.55	312.43	2,028.4	96.0	-105.0	142.3	0.00	0.00	0.00
2,080.0	10.55	312.43	2,067.7	100.9	-110.4	149.6	0.00	0.00	0.00
2,120.0	10.55	312.43	2,107.0	105.9	-115.8	156.9	0.00	0.00	0.00
2,160.0	10.55	312.43	2,146.3	110.8	-121.2	164.2	0.00	0.00	0.00
2,200.0	10.55	312.43	2,185.7	115.7	-126.6	171.5	0.00	0.00	0.00
2,240.0	10.55	312.43	2,225.0	120.7	-132.0	178.9	0.00	0.00	0.00
2,280.0	10.55	312.43	2,264.3	125.6	-137.4	186.2	0.00	0.00	0.00
2,320.0	10.55	312.43	2,303.6	130.6	-142.8	193.5	0.00	0.00	0.00
2,360.0	10.55	312.43	2,343.0	135.5	-148.2	200.8	0.00	0.00	0.00
2,400.0	10.55	312.43	2,382.3	140.4	-153.7	208.2	0.00	0.00	0.00
2,440.0	10.55	312.43	2,421.6	145.4	-159.1	215.5	0.00	0.00	0.00
2,480.0	10.55	312.43	2,460.9	150.3	-164.5	222.8	0.00	0.00	0.00
2,520.0	10.55	312.43	2,500.2	155.3	-169.9	230.1	0.00	0.00	0.00
2,560.0	10.55	312.43	2,539.6	160.2	-175.3	237.5	0.00	0.00	0.00
2,600.0	10.55	312.43	2,578.9	165.1	-180.7	244.8	0.00	0.00	0.00
2,640.0	10.55	312.43	2,618.2	170.1	-186.1	252.1	0.00	0.00	0.00
2,680.0	10.55	312.43	2,657.5	175.0	-191.5	259.4	0.00	0.00	0.00
2,720.0	10.55	312.43	2,696.9	180.0	-196.9	266.8	0.00	0.00	0.00
2,760.0	10.55	312.43	2,736.2	184.9	-202.3	274.1	0.00	0.00	0.00
2,800.0	10.55	312.43	2,775.5	189.8	-207.7	281.4	0.00	0.00	0.00
2,840.0	10.55	312.43	2,814.8	194.8	-213.1	288.7	0.00	0.00	0.00
2,880.0	10.55	312.43	2,854.2	199.7	-218.5	296.0	0.00	0.00	0.00
2,920.0	10.55	312.43	2,893.5	204.7	-223.9	303.4	0.00	0.00	0.00
2,960.0	10.55	312.43	2,932.8	209.6	-229.3	310.7	0.00	0.00	0.00
3,000.0	10.55	312.43	2,972.1	214.6	-234.7	318.0	0.00	0.00	0.00
3,040.0	10.55	312.43	3,011.5	219.5	-240.1	325.3	0.00	0.00	0.00
3,080.0	10.55	312.43	3,050.8	224.4	-245.5	332.7	0.00	0.00	0.00
3,120.0	10.55	312.43	3,090.1	229.4	-251.0	340.0	0.00	0.00	0.00
3,160.0	10.55	312.43	3,129.4	234.3	-256.4	347.3	0.00	0.00	0.00
3,200.0	10.55	312.43	3,168.8	239.3	-261.8	354.6	0.00	0.00	0.00
3,240.0	10.55	312.43	3,208.1	244.2	-267.2	362.0	0.00	0.00	0.00
3,280.0	10.55	312.43	3,247.4	249.1	-272.6	369.3	0.00	0.00	0.00
3,320.0	10.55	312.43	3,286.7	254.1	-278.0	376.6	0.00	0.00	0.00
3,360.0	10.55	312.43	3,326.1	259.0	-283.4	383.9	0.00	0.00	0.00
3,400.0	10.55	312.43	3,365.4	264.0	-288.8	391.2	0.00	0.00	0.00
3,440.0	10.55	312.43	3,404.7	268.9	-294.2	398.6	0.00	0.00	0.00
3,480.0	10.55	312.43	3,444.0	273.8	-299.6	405.9	0.00	0.00	0.00
3,520.0	10.55	312.43	3,483.3	278.8	-305.0	413.2	0.00	0.00	0.00
3,557.3	10.55	312.43	3,520.0	283.4	-310.0	420.0	0.00	0.00	0.00
PARKMAN									
3,560.0	10.55	312.43	3,522.7	283.7	-310.4	420.5	0.00	0.00	0.00
3,600.0	10.55	312.43	3,562.0	288.7	-315.8	427.9	0.00	0.00	0.00
3,640.0	10.55	312.43	3,601.3	293.6	-321.2	435.2	0.00	0.00	0.00
3,680.0	10.55	312.43	3,640.6	298.5	-326.6	442.5	0.00	0.00	0.00
3,720.0	10.55	312.43	3,680.0	303.5	-332.0	449.8	0.00	0.00	0.00
3,760.0	10.55	312.43	3,719.3	308.4	-337.4	457.2	0.00	0.00	0.00
3,800.0	10.55	312.43	3,758.6	313.4	-342.8	464.5	0.00	0.00	0.00
3,840.0	10.55	312.43	3,797.9	318.3	-348.2	471.8	0.00	0.00	0.00
3,880.0	10.55	312.43	3,837.3	323.2	-353.7	479.1	0.00	0.00	0.00
3,920.0	10.55	312.43	3,876.6	328.2	-359.1	486.4	0.00	0.00	0.00
3,960.0	10.55	312.43	3,915.9	333.1	-364.5	493.8	0.00	0.00	0.00
4,000.0	10.55	312.43	3,955.2	338.1	-369.9	501.1	0.00	0.00	0.00
4,040.0	10.55	312.43	3,994.6	343.0	-375.3	508.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Project:</b>	SEC.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-09-12)		

### 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	10.55	312.43	4,033.9	348.0	-380.7	515.7	0.00	0.00	0.00
4,120.0	10.55	312.43	4,073.2	352.9	-386.1	523.1	0.00	0.00	0.00
4,160.0	10.55	312.43	4,112.5	357.8	-391.5	530.4	0.00	0.00	0.00
4,200.0	10.55	312.43	4,151.9	362.8	-396.9	537.7	0.00	0.00	0.00
4,240.0	10.55	312.43	4,191.2	367.7	-402.3	545.0	0.00	0.00	0.00
4,280.0	10.55	312.43	4,230.5	372.7	-407.7	552.4	0.00	0.00	0.00
4,315.1	10.55	312.43	4,265.0	377.0	-412.5	558.8	0.00	0.00	0.00
<b>SUSSEX</b>									
4,320.0	10.55	312.43	4,269.8	377.6	-413.1	559.7	0.00	0.00	0.00
4,360.0	10.55	312.43	4,309.1	382.5	-418.5	567.0	0.00	0.00	0.00
4,400.0	10.55	312.43	4,348.5	387.5	-423.9	574.3	0.00	0.00	0.00
4,440.0	10.55	312.43	4,387.8	392.4	-429.3	581.6	0.00	0.00	0.00
4,480.0	10.55	312.43	4,427.1	397.4	-434.7	589.0	0.00	0.00	0.00
4,520.0	10.55	312.43	4,466.4	402.3	-440.1	596.3	0.00	0.00	0.00
4,529.2	10.55	312.43	4,475.5	403.4	-441.4	598.0	0.00	0.00	0.00
4,560.0	9.93	312.43	4,505.8	407.1	-445.4	603.5	2.00	-2.00	0.00
4,600.0	9.13	312.43	4,545.2	411.6	-450.3	610.1	2.00	-2.00	0.00
4,640.0	8.33	312.43	4,584.8	415.7	-454.8	616.2	2.00	-2.00	0.00
4,675.6	7.62	312.43	4,620.0	419.0	-458.4	621.1	2.00	-2.00	0.00
<b>SHANNON</b>									
4,680.0	7.53	312.43	4,624.4	419.4	-458.9	621.7	2.00	-2.00	0.00
4,720.0	6.73	312.43	4,664.1	422.8	-462.5	626.6	2.00	-2.00	0.00
4,760.0	5.93	312.43	4,703.8	425.8	-465.8	631.1	2.00	-2.00	0.00
4,800.0	5.13	312.43	4,743.7	428.4	-468.6	634.9	2.00	-2.00	0.00
4,840.0	4.33	312.43	4,783.5	430.6	-471.1	638.2	2.00	-2.00	0.00
4,880.0	3.53	312.43	4,823.4	432.4	-473.1	641.0	2.00	-2.00	0.00
4,920.0	2.73	312.43	4,863.4	433.9	-474.7	643.1	2.00	-2.00	0.00
4,960.0	1.93	312.43	4,903.3	435.0	-475.9	644.8	2.00	-2.00	0.00
5,000.0	1.13	312.43	4,943.3	435.7	-476.7	645.8	2.00	-2.00	0.00
5,040.0	0.33	312.43	4,983.3	436.1	-477.1	646.4	2.00	-2.00	0.00
5,056.7	0.00	0.00	5,000.0	436.1	-477.1	646.4	2.00	-2.00	0.00
<b>TARGET BHL 660'FSL, 1961'FWL</b>									
5,080.0	0.00	0.00	5,023.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,120.0	0.00	0.00	5,063.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,160.0	0.00	0.00	5,103.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,200.0	0.00	0.00	5,143.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,240.0	0.00	0.00	5,183.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,280.0	0.00	0.00	5,223.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,320.0	0.00	0.00	5,263.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,360.0	0.00	0.00	5,303.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,343.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,440.0	0.00	0.00	5,383.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,480.0	0.00	0.00	5,423.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,520.0	0.00	0.00	5,463.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,560.0	0.00	0.00	5,503.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,543.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,640.0	0.00	0.00	5,583.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,680.0	0.00	0.00	5,623.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,720.0	0.00	0.00	5,663.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,760.0	0.00	0.00	5,703.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,743.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,840.0	0.00	0.00	5,783.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,880.0	0.00	0.00	5,823.3	436.1	-477.1	646.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Project:</b>	SEC.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-09-12)		

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	5,863.3	436.1	-477.1	646.4	0.00	0.00	0.00
5,960.0	0.00	0.00	5,903.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,943.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,040.0	0.00	0.00	5,983.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,080.0	0.00	0.00	6,023.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,120.0	0.00	0.00	6,063.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,160.0	0.00	0.00	6,103.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,143.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,240.0	0.00	0.00	6,183.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,280.0	0.00	0.00	6,223.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,263.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,303.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,343.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,383.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,423.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,463.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,503.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,543.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,583.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,623.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,663.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,703.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,743.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,783.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,823.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,863.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,903.3	436.1	-477.1	646.4	0.00	0.00	0.00
6,976.7	0.00	0.00	6,920.0	436.1	-477.1	646.4	0.00	0.00	0.00
<b>NIOBRARA - LEGAL BOX 400' X 400' 656'FSL &amp; 1966'FWL - TARGET CIRCLE 660'FSL &amp; 1961'FWL</b>									
7,000.0	0.00	0.00	6,943.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,040.0	0.00	0.00	6,983.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,080.0	0.00	0.00	7,023.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,120.0	0.00	0.00	7,063.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,160.0	0.00	0.00	7,103.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,143.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,240.0	0.00	0.00	7,183.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,241.7	0.00	0.00	7,185.0	436.1	-477.1	646.4	0.00	0.00	0.00
<b>FT. HAYS</b>									
7,280.0	0.00	0.00	7,223.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,281.7	0.00	0.00	7,225.0	436.1	-477.1	646.4	0.00	0.00	0.00
<b>CODELL</b>									
7,320.0	0.00	0.00	7,263.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,329.7	0.00	0.00	7,273.0	436.1	-477.1	646.4	0.00	0.00	0.00
<b>GREENHORN</b>									
7,360.0	0.00	0.00	7,303.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,343.3	436.1	-477.1	646.4	0.00	0.00	0.00
7,413.7	0.00	0.00	7,357.0	436.1	-477.1	646.4	0.00	0.00	0.00
<b>GRANEROS</b>									
7,431.7	0.00	0.00	7,375.0	436.1	-477.1	646.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Project:</b>	SEC.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-09-12)		

#### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
720.0	720.0	8 5/8"	8-5/8	12-1/4

#### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,557.3	3,520.0	PARKMAN		0.00	
4,315.1	4,265.0	SUSSEX		0.00	
4,675.6	4,620.0	SHANNON		0.00	
6,976.7	6,920.0	NIOBRARA		0.00	
7,241.7	7,185.0	FT. HAYS		0.00	
7,281.7	7,225.0	CODELL		0.00	
7,329.7	7,273.0	GREENHORN		0.00	
7,413.7	7,357.0	GRANEROS		0.00	





## **Directional**

# **BAYSWATER EXPLORATION & PRODUCTION**

**SEC.22-T7N-R67W**

**Lake - Rancho Pad Sec.22-T7N-R67W**

**Rancho 14-22**

**Wellbore #1**

**Plan #1 (4-09-12)**

## **Anticollision Report**

**11 April, 2012**



<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Project:</b>	SEC.22-T7N-R67W	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Reference Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Lake - Ranchero Pad Sec.22-T7N-R67W - Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		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		
2,300.0	2,284.0	2,236.0	2,206.4	6.2	7.3	-128.87	-256.2	-149.6	392.1	380.9	11.20	34.998		
2,400.0	2,382.3	2,330.9	2,299.0	6.5	7.7	-129.53	-274.6	-159.3	423.4	411.5	11.83	35.791		
2,500.0	2,480.6	2,425.8	2,391.6	6.9	8.2	-130.09	-293.1	-169.0	454.6	442.2	12.46	36.496		
2,600.0	2,578.9	2,520.7	2,484.2	7.3	8.6	-130.58	-311.5	-178.7	486.0	472.9	13.09	37.128		
2,700.0	2,677.2	2,615.6	2,576.8	7.7	9.0	-131.01	-329.9	-188.4	517.3	503.6	13.72	37.697		
2,800.0	2,775.5	2,710.5	2,669.3	8.1	9.5	-131.40	-348.4	-198.1	548.7	534.3	14.36	38.210		
2,900.0	2,873.8	2,805.4	2,761.9	8.5	9.9	-131.74	-366.8	-207.8	580.1	565.1	15.00	38.677		
3,000.0	2,972.1	2,900.3	2,854.5	8.9	10.4	-132.05	-385.2	-217.5	611.5	595.8	15.64	39.102		
3,100.0	3,070.4	2,995.2	2,947.1	9.3	10.8	-132.32	-403.7	-227.2	642.9	626.6	16.28	39.490		
3,200.0	3,168.8	3,090.1	3,039.6	9.7	11.3	-132.57	-422.1	-236.9	674.3	657.4	16.92	39.847		
3,300.0	3,267.1	3,185.0	3,132.2	10.1	11.7	-132.80	-440.6	-246.6	705.8	688.2	17.57	40.175		
3,400.0	3,365.4	3,279.9	3,224.8	10.5	12.2	-133.01	-459.0	-256.3	737.2	719.0	18.21	40.478		
3,500.0	3,463.7	3,374.8	3,317.4	10.9	12.6	-133.20	-477.4	-266.0	768.7	749.8	18.86	40.759		
3,600.0	3,562.0	3,469.6	3,409.9	11.3	13.1	-133.38	-495.9	-275.7	800.1	780.6	19.51	41.020		
3,700.0	3,660.3	3,564.5	3,502.5	11.7	13.5	-133.54	-514.3	-285.4	831.6	811.5	20.15	41.262		
3,800.0	3,758.6	3,659.4	3,595.1	12.1	14.0	-133.70	-532.7	-295.1	863.1	842.3	20.80	41.488		
3,900.0	3,856.9	3,754.3	3,687.7	12.5	14.5	-133.84	-551.2	-304.8	894.6	873.1	21.45	41.700		
4,000.0	3,955.2	3,849.2	3,780.3	12.9	14.9	-133.97	-569.6	-314.4	926.1	904.0	22.10	41.898		
4,100.0	4,053.5	3,944.1	3,872.8	13.3	15.4	-134.09	-588.1	-324.1	957.6	934.8	22.75	42.084		
4,200.0	4,151.9	4,039.0	3,965.4	13.8	15.8	-134.21	-606.5	-333.8	989.1	965.7	23.40	42.259		
4,300.0	4,250.2	4,133.9	4,058.0	14.2	16.3	-134.31	-624.9	-343.5	1,020.6	996.5	24.06	42.423		
4,400.0	4,348.5	4,228.8	4,150.6	14.6	16.7	-134.42	-643.4	-353.2	1,052.1	1,027.3	24.71	42.578		
4,500.0	4,446.8	4,323.7	4,243.1	15.0	17.2	-134.51	-661.8	-362.9	1,083.6	1,058.2	25.36	42.725		
4,529.2	4,475.5	4,351.4	4,270.2	15.1	17.3	-134.54	-667.2	-365.8	1,092.8	1,067.2	25.55	42.766		
4,600.0	4,545.2	4,418.8	4,335.9	15.3	17.6	-134.89	-680.3	-372.6	1,114.5	1,088.4	26.05	42.851		
4,700.0	4,644.2	4,514.6	4,429.4	15.6	18.1	-135.24	-698.9	-382.4	1,143.2	1,116.5	26.68	42.845		
4,800.0	4,743.7	4,611.0	4,523.4	15.8	18.5	-135.43	-717.6	-392.3	1,169.5	1,142.2	27.27	42.878		
4,900.0	4,843.4	4,707.9	4,618.0	16.0	19.0	-135.47	-736.5	-402.2	1,193.4	1,165.5	27.83	42.887		
5,000.0	4,943.3	4,805.1	4,712.9	16.2	19.5	-135.37	-755.4	-412.1	1,214.9	1,186.6	28.33	42.879		
5,056.7	5,000.0	4,860.4	4,766.8	16.3	19.7	-177.17	-766.1	-417.8	1,226.1	1,197.5	28.60	42.868		
5,100.0	5,043.3	4,902.7	4,808.0	16.3	19.9	-177.40	-774.3	-422.1	1,234.3	1,205.5	28.79	42.866		
5,200.0	5,143.3	5,000.2	4,903.2	16.5	20.4	-177.90	-793.3	-432.0	1,253.4	1,224.2	29.26	42.839		
5,300.0	5,243.3	5,097.8	4,998.4	16.6	20.9	-178.39	-812.2	-442.0	1,272.6	1,242.9	29.72	42.818		
5,400.0	5,343.3	5,210.5	5,108.4	16.8	21.4	-178.93	-833.9	-453.4	1,291.8	1,261.6	30.21	42.761		
5,500.0	5,443.3	5,374.6	5,269.8	16.9	21.8	-179.55	-859.8	-467.0	1,307.5	1,276.8	30.73	42.553		
5,600.0	5,543.3	5,541.6	5,435.5	17.1	22.2	-179.97	-877.7	-476.5	1,318.3	1,287.0	31.21	42.234		
5,700.0	5,643.3	5,710.3	5,604.0	17.3	22.5	-179.81	-887.1	-481.4	1,323.8	1,292.2	31.67	41.806		
5,800.0	5,743.3	5,849.7	5,743.3	17.4	22.7	-179.78	-888.6	-482.2	1,324.7	1,292.6	32.06	41.321		
5,900.0	5,843.3	5,949.7	5,843.3	17.6	22.8	-179.78	-888.6	-482.2	1,324.7	1,292.3	32.38	40.907		
6,000.0	5,943.3	6,049.7	5,943.3	17.7	22.9	-179.78	-888.6	-482.2	1,324.7	1,292.0	32.70	40.505		
6,100.0	6,043.3	6,149.7	6,043.3	17.9	23.0	-179.78	-888.6	-482.2	1,324.7	1,291.7	33.03	40.107		
6,200.0	6,143.3	6,249.7	6,143.3	18.1	23.1	-179.78	-888.6	-482.2	1,324.7	1,291.3	33.36	39.713		
6,300.0	6,243.3	6,349.7	6,243.3	18.2	23.2	-179.78	-888.6	-482.2	1,324.7	1,291.0	33.69	39.324		
6,400.0	6,343.3	6,449.7	6,343.3	18.4	23.3	-179.78	-888.6	-482.2	1,324.7	1,290.7	34.02	38.939		
6,500.0	6,443.3	6,549.7	6,443.3	18.6	23.4	-179.78	-888.6	-482.2	1,324.7	1,290.3	34.36	38.558		
6,600.0	6,543.3	6,649.7	6,543.3	18.7	23.5	-179.78	-888.6	-482.2	1,324.7	1,290.0	34.69	38.182		
6,700.0	6,643.3	6,749.7	6,643.3	18.9	23.6	-179.78	-888.6	-482.2	1,324.7	1,289.6	35.03	37.811		
6,800.0	6,743.3	6,849.7	6,743.3	19.1	23.8	-179.78	-888.6	-482.2	1,324.7	1,289.3	35.38	37.445		
6,900.0	6,843.3	6,949.7	6,843.3	19.2	23.9	-179.78	-888.6	-482.2	1,324.7	1,289.0	35.72	37.082		
7,000.0	6,943.3	7,049.7	6,943.3	19.4	24.0	-179.78	-888.6	-482.2	1,324.7	1,288.6	36.07	36.725		
7,100.0	7,043.3	7,149.7	7,043.3	19.6	24.1	-179.78	-888.6	-482.2	1,324.7	1,288.3	36.42	36.372		

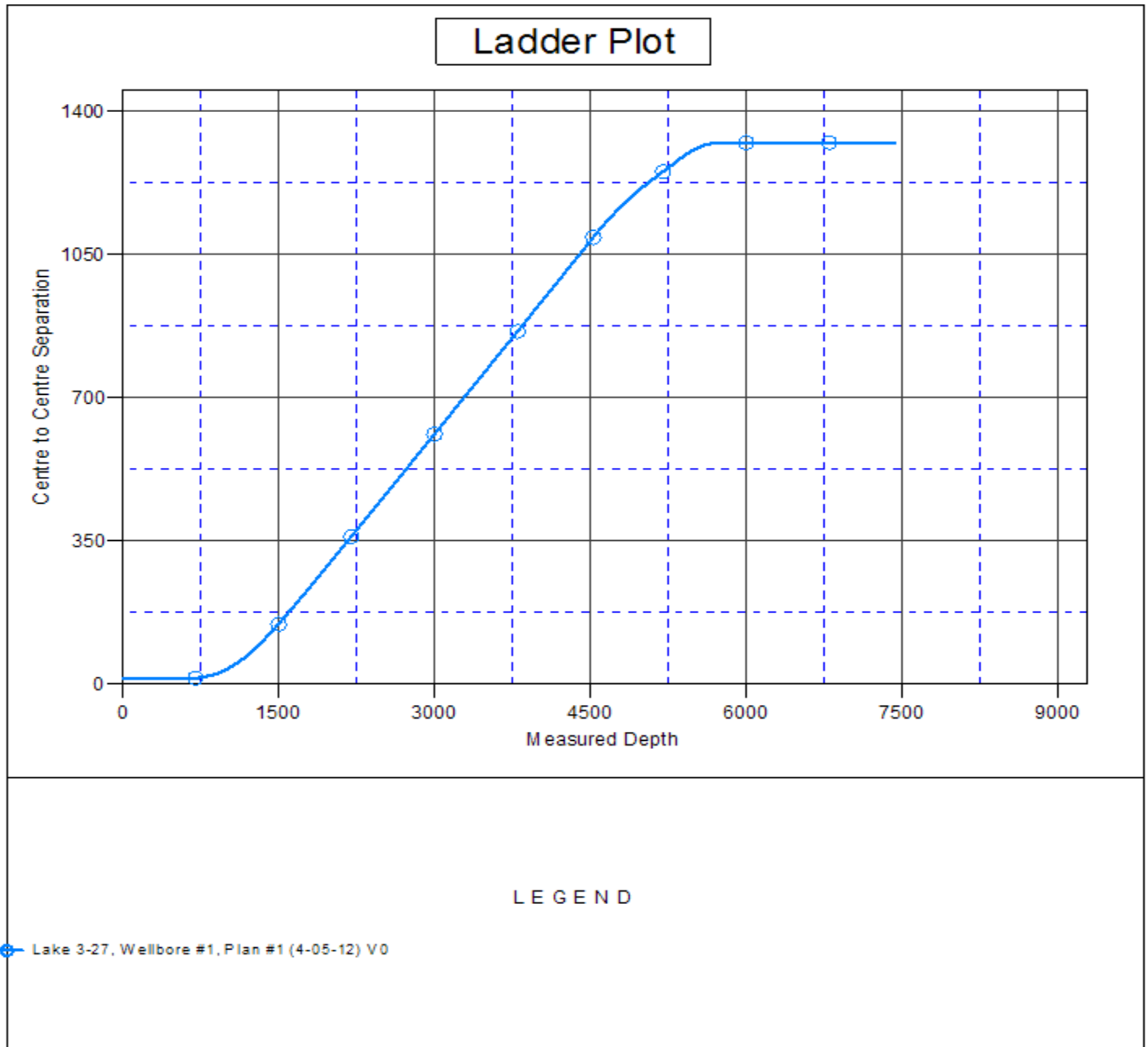
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Project:</b>	SEC.22-T7N-R67W	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Reference Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Lake - Ranchero Pad Sec.22-T7N-R67W - Lake 3-27 - Wellbore #1 - Plan #1 (4-05-12)												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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation		Separation Factor
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
7,200.0	7,143.3	7,249.7	7,143.3	19.8	24.2	-179.78	-888.6	-482.2	1,324.7	1,287.9	36.77		36.024
7,300.0	7,243.3	7,349.7	7,243.3	19.9	24.3	-179.78	-888.6	-482.2	1,324.7	1,287.6	37.13		35.681
7,400.0	7,343.3	7,449.7	7,343.3	20.1	24.5	-179.78	-888.6	-482.2	1,324.7	1,287.2	37.48	35.342	
7,431.7	7,375.0	7,481.4	7,375.0	20.2	24.5	-179.78	-888.6	-482.2	1,324.7	1,287.1	37.60	35.235	

<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Project:</b>	SEC.22-T7N-R67W	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Reference Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5020.0ft (Original Well Elev) Coordinates are relative to: Ranchero 14-22  
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: 0.40°



<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>Local Co-ordinate Reference:</b>	Well Ranchero 14-22
<b>Project:</b>	SEC.22-T7N-R67W	<b>TVD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Reference Site:</b>	Lake - Ranchero Pad Sec.22-T7N-R67W	<b>MD Reference:</b>	WELL @ 5020.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Ranchero 14-22	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5020.0ft (Original Well Elev) Coordinates are relative to: Ranchero 14-22  
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: 0.40°

