

# **BAYSWATER EXPLORATION & PRODUCTION**

**WELD COUNTY  
SEC 5-T6N-R65W  
SAPPHIRE 3**

**OWB**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**30 December, 2022**

Project: WELD COUNTY  
Site: SEC 5-T6N-R65W  
Well: SAPPHIRE 3  
Wellbore: OWB  
Design: PROPOSAL 1

PROJECT DETAILS: WELD COUNTY  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level



Azimuths to True North  
Magnetic North: 7.66°

Magnetic Field  
Strength: 51860.5nT  
Dip Angle: 66.69°  
Date: 12/30/2022  
Model: IGRF2020

WELL DETAILS: SAPPHIRE 3

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1432808.62	3224679.16	40.518650°N	104.691857°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	1309.12	16.18	347.26	1298.41	110.71	-25.04	2.00	347.26	111.32	
4	6821.59	16.18	347.26	6592.47	1609.18	-363.90	0.00	0.00	1618.09	
5	7564.09	90.00	0.36	7009.00	2160.79	-387.82	10.00	13.63	2170.13	LP-SAPPHIRE 3
6	17833.40	90.00	0.36	7009.00	12429.90	-322.91	0.00	0.00	12434.09	PBHL-SAPPHIRE 3

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
1309.12	16.18	347.26	1298.41	110.71	-25.04	111.32	113.51	Start 5512.47 hold at 1309.12 MD
6821.59	16.18	347.26	6592.47	1609.18	-363.90	1618.09	1649.81	Start DLS 10.00 TFO 13.63
7564.09	90.00	0.36	7009.00	2160.79	-387.82	2170.13	2202.51	Start 10269.31 hold at 7564.09 MD
7833.40	90.00	0.36	7009.00	12429.90	-322.91	12434.09	12471.83	TD at 17833.40

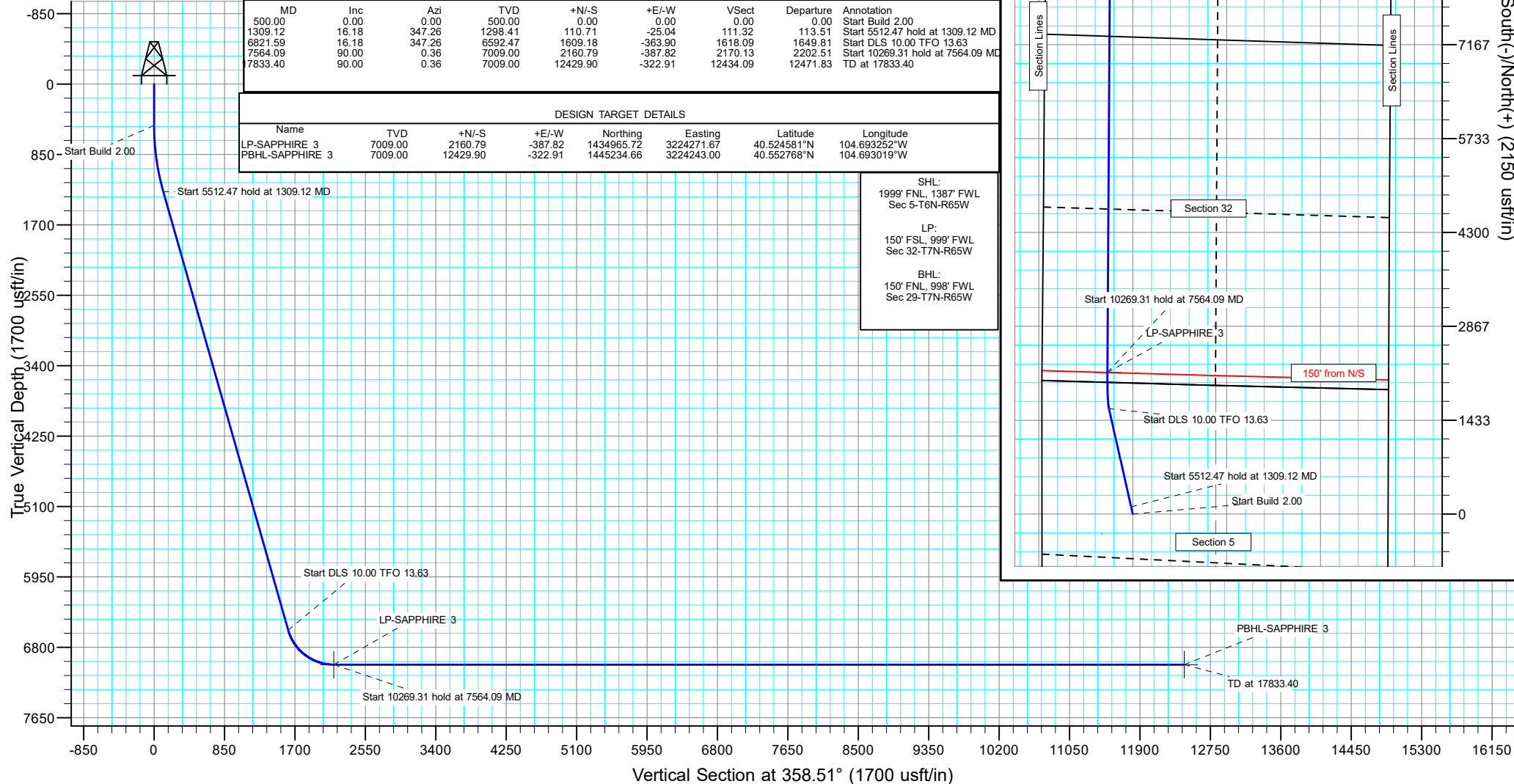
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP-SAPPHIRE 3	7009.00	2160.79	-387.82	1434965.72	3224271.67	40.524581°N	104.693252°W
PBHL-SAPPHIRE 3	7009.00	12429.90	-322.91	1445234.66	3224243.00	40.552768°N	104.693019°W

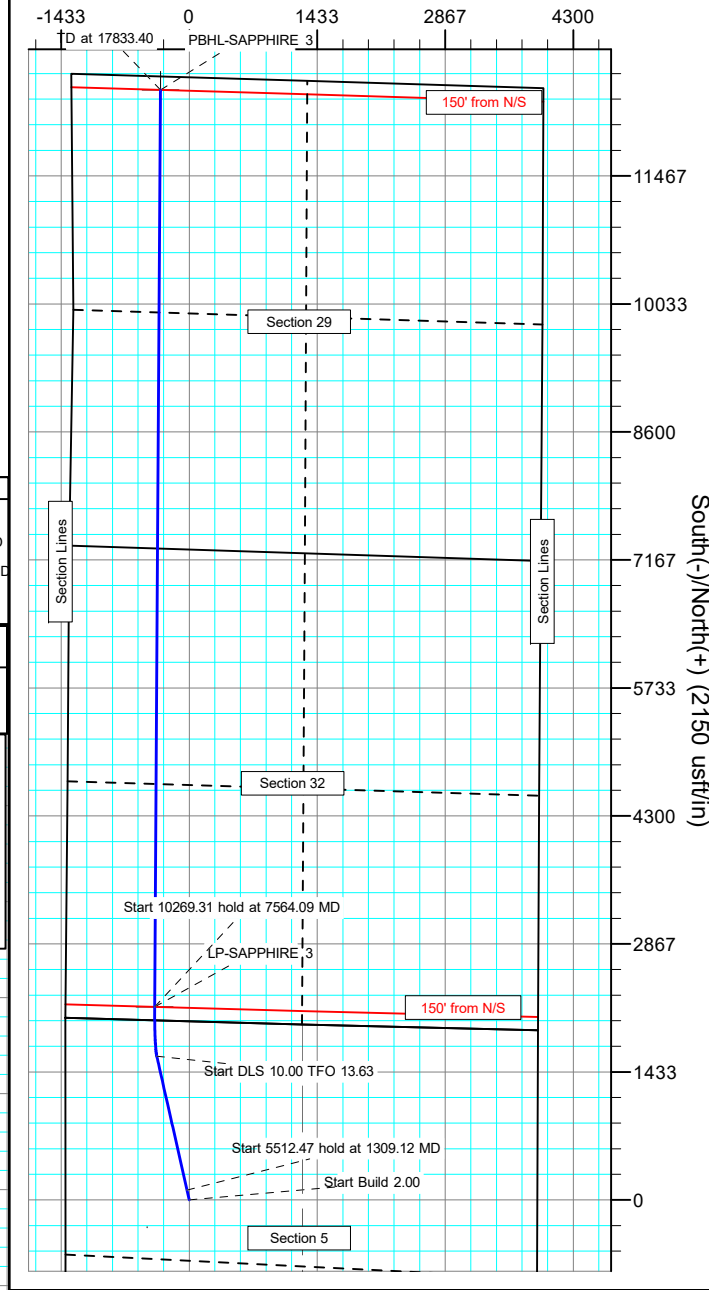
SHL:  
1999' FNL, 1387' FWL  
Sec 5-T6N-R65W

LP:  
150' FSL, 999' FWL  
Sec 32-T7N-R65W

BHL:  
150' FNL, 998' FWL  
Sec 29-T7N-R65W



West(-)/East(+) (2150 usft/in)



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SAPPHIRE 3
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	KB 17' @ 4834.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 17' @ 4834.00usft
<b>Site:</b>	SEC 5-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SAPPHIRE 3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		SEC 5-T6N-R65W				
Site Position:		Northing:	1,434,834.96	usft	Latitude:	40.524247°N
From:	Lat/Long	Easting:	3,223,272.58	usft	Longitude:	104.696850°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well		SAPPHIRE 3				
Well Position	+N/-S	0.00 usft	Northing:	1,432,808.62 usft	Latitude:	40.518650°N
	+E/-W	0.00 usft	Easting:	3,224,679.16 usft	Longitude:	104.691857°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,817.00 usft
Grid Convergence:		0.52 °				

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	12/30/2022	7.66	66.69	51,860.52588270

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	358.51

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/30/2022		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	17,833.40 PROPOSAL 1 (OWB)	MWD	
			OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,309.12	16.18	347.26	1,298.41	110.71	-25.04	2.00	2.00	0.00	347.26	
6,821.59	16.18	347.26	6,592.47	1,609.18	-363.90	0.00	0.00	0.00	0.00	
7,564.09	90.00	0.36	7,009.00	2,160.79	-387.82	10.00	9.94	1.76	13.63	LP-SAPPHIRE 3
17,833.40	90.00	0.36	7,009.00	12,429.90	-322.91	0.00	0.00	0.00	0.00	PBHL-SAPPHIRE 3

# Planning Report

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<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	KB 17' @ 4834.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 17' @ 4834.00usft
<b>Site:</b>	SEC 5-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SAPPHIRE 3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	347.26	599.98	1.70	-0.38	1.71	2.00	2.00	0.00
700.00	4.00	347.26	699.84	6.81	-1.54	6.84	2.00	2.00	0.00
800.00	6.00	347.26	799.45	15.31	-3.46	15.39	2.00	2.00	0.00
900.00	8.00	347.26	898.70	27.19	-6.15	27.34	2.00	2.00	0.00
1,000.00	10.00	347.26	997.47	42.45	-9.60	42.69	2.00	2.00	0.00
1,100.00	12.00	347.26	1,095.62	61.06	-13.81	61.40	2.00	2.00	0.00
1,200.00	14.00	347.26	1,193.06	83.00	-18.77	83.46	2.00	2.00	0.00
1,300.00	16.00	347.26	1,289.64	108.24	-24.48	108.84	2.00	2.00	0.00
1,309.12	16.18	347.26	1,298.41	110.71	-25.04	111.32	2.00	2.00	0.00
Start 5512.47 hold at 1309.12 MD									
1,400.00	16.18	347.26	1,385.68	135.41	-30.62	136.16	0.00	0.00	0.00
1,500.00	16.18	347.26	1,481.72	162.60	-36.77	163.50	0.00	0.00	0.00
1,600.00	16.18	347.26	1,577.76	189.78	-42.92	190.83	0.00	0.00	0.00
1,700.00	16.18	347.26	1,673.80	216.96	-49.06	218.16	0.00	0.00	0.00
1,800.00	16.18	347.26	1,769.84	244.15	-55.21	245.50	0.00	0.00	0.00
1,900.00	16.18	347.26	1,865.87	271.33	-61.36	272.83	0.00	0.00	0.00
2,000.00	16.18	347.26	1,961.91	298.51	-67.51	300.17	0.00	0.00	0.00
2,100.00	16.18	347.26	2,057.95	325.70	-73.65	327.50	0.00	0.00	0.00
2,200.00	16.18	347.26	2,153.99	352.88	-79.80	354.83	0.00	0.00	0.00
2,300.00	16.18	347.26	2,250.03	380.06	-85.95	382.17	0.00	0.00	0.00
2,400.00	16.18	347.26	2,346.06	407.25	-92.09	409.50	0.00	0.00	0.00
2,500.00	16.18	347.26	2,442.10	434.43	-98.24	436.83	0.00	0.00	0.00
2,600.00	16.18	347.26	2,538.14	461.61	-104.39	464.17	0.00	0.00	0.00
2,700.00	16.18	347.26	2,634.18	488.80	-110.54	491.50	0.00	0.00	0.00
2,800.00	16.18	347.26	2,730.22	515.98	-116.68	518.84	0.00	0.00	0.00
2,900.00	16.18	347.26	2,826.25	543.16	-122.83	546.17	0.00	0.00	0.00
3,000.00	16.18	347.26	2,922.29	570.35	-128.98	573.50	0.00	0.00	0.00
3,100.00	16.18	347.26	3,018.33	597.53	-135.13	600.84	0.00	0.00	0.00
3,200.00	16.18	347.26	3,114.37	624.71	-141.27	628.17	0.00	0.00	0.00
3,300.00	16.18	347.26	3,210.41	651.90	-147.42	655.50	0.00	0.00	0.00
3,400.00	16.18	347.26	3,306.44	679.08	-153.57	682.84	0.00	0.00	0.00
3,500.00	16.18	347.26	3,402.48	706.26	-159.71	710.17	0.00	0.00	0.00
3,600.00	16.18	347.26	3,498.52	733.45	-165.86	737.51	0.00	0.00	0.00
3,700.00	16.18	347.26	3,594.56	760.63	-172.01	764.84	0.00	0.00	0.00
3,800.00	16.18	347.26	3,690.59	787.81	-178.16	792.17	0.00	0.00	0.00
3,900.00	16.18	347.26	3,786.63	815.00	-184.30	819.51	0.00	0.00	0.00
4,000.00	16.18	347.26	3,882.67	842.18	-190.45	846.84	0.00	0.00	0.00
4,100.00	16.18	347.26	3,978.71	869.36	-196.60	874.18	0.00	0.00	0.00
4,200.00	16.18	347.26	4,074.75	896.55	-202.75	901.51	0.00	0.00	0.00
4,300.00	16.18	347.26	4,170.78	923.73	-208.89	928.84	0.00	0.00	0.00
4,400.00	16.18	347.26	4,266.82	950.91	-215.04	956.18	0.00	0.00	0.00
4,500.00	16.18	347.26	4,362.86	978.10	-221.19	983.51	0.00	0.00	0.00
4,600.00	16.18	347.26	4,458.90	1,005.28	-227.33	1,010.84	0.00	0.00	0.00
4,700.00	16.18	347.26	4,554.94	1,032.46	-233.48	1,038.18	0.00	0.00	0.00
4,800.00	16.18	347.26	4,650.97	1,059.65	-239.63	1,065.51	0.00	0.00	0.00
4,900.00	16.18	347.26	4,747.01	1,086.83	-245.78	1,092.85	0.00	0.00	0.00
5,000.00	16.18	347.26	4,843.05	1,114.01	-251.92	1,120.18	0.00	0.00	0.00
5,100.00	16.18	347.26	4,939.09	1,141.20	-258.07	1,147.51	0.00	0.00	0.00
5,200.00	16.18	347.26	5,035.13	1,168.38	-264.22	1,174.85	0.00	0.00	0.00
5,300.00	16.18	347.26	5,131.16	1,195.56	-270.36	1,202.18	0.00	0.00	0.00

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<b>Well:</b>	SAPPHIRE 3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,400.00	16.18	347.26	5,227.20	1,222.75	-276.51	1,229.51	0.00	0.00	0.00	
5,500.00	16.18	347.26	5,323.24	1,249.93	-282.66	1,256.85	0.00	0.00	0.00	
5,600.00	16.18	347.26	5,419.28	1,277.11	-288.81	1,284.18	0.00	0.00	0.00	
5,700.00	16.18	347.26	5,515.32	1,304.30	-294.95	1,311.52	0.00	0.00	0.00	
5,800.00	16.18	347.26	5,611.35	1,331.48	-301.10	1,338.85	0.00	0.00	0.00	
5,900.00	16.18	347.26	5,707.39	1,358.66	-307.25	1,366.18	0.00	0.00	0.00	
6,000.00	16.18	347.26	5,803.43	1,385.85	-313.40	1,393.52	0.00	0.00	0.00	
6,100.00	16.18	347.26	5,899.47	1,413.03	-319.54	1,420.85	0.00	0.00	0.00	
6,200.00	16.18	347.26	5,995.50	1,440.21	-325.69	1,448.18	0.00	0.00	0.00	
6,300.00	16.18	347.26	6,091.54	1,467.40	-331.84	1,475.52	0.00	0.00	0.00	
6,400.00	16.18	347.26	6,187.58	1,494.58	-337.98	1,502.85	0.00	0.00	0.00	
6,500.00	16.18	347.26	6,283.62	1,521.76	-344.13	1,530.19	0.00	0.00	0.00	
6,600.00	16.18	347.26	6,379.66	1,548.94	-350.28	1,557.52	0.00	0.00	0.00	
6,700.00	16.18	347.26	6,475.69	1,576.13	-356.43	1,584.85	0.00	0.00	0.00	
6,800.00	16.18	347.26	6,571.73	1,603.31	-362.57	1,612.19	0.00	0.00	0.00	
6,821.59	16.18	347.26	6,592.47	1,609.18	-363.90	1,618.09	0.00	0.00	0.00	
Start DLS 10.00 TFO 13.63										
6,900.00	23.87	351.81	6,666.08	1,635.58	-368.58	1,644.60	10.00	9.81	5.81	
7,000.00	33.78	354.72	6,753.59	1,683.41	-374.03	1,692.56	10.00	9.90	2.90	
7,100.00	43.72	356.42	6,831.48	1,745.74	-378.76	1,754.99	10.00	9.94	1.70	
7,200.00	53.68	357.59	6,897.40	1,820.67	-382.63	1,830.00	10.00	9.96	1.17	
7,300.00	63.65	358.49	6,949.34	1,905.93	-385.51	1,915.30	10.00	9.97	0.90	
7,400.00	73.63	359.25	6,985.71	1,998.93	-387.31	2,008.31	10.00	9.98	0.76	
7,500.00	83.60	359.94	7,005.43	2,096.83	-387.99	2,106.20	10.00	9.98	0.69	
7,564.09	90.00	0.36	7,009.00	2,160.79	-387.82	2,170.13	10.00	9.98	0.66	
Start 10269.31 hold at 7564.09 MD										
7,600.00	90.00	0.36	7,009.00	2,196.70	-387.59	2,206.02	0.00	0.00	0.00	
7,700.00	90.00	0.36	7,009.00	2,296.70	-386.96	2,305.97	0.00	0.00	0.00	
7,800.00	90.00	0.36	7,009.00	2,396.69	-386.33	2,405.92	0.00	0.00	0.00	
7,900.00	90.00	0.36	7,009.00	2,496.69	-385.70	2,505.87	0.00	0.00	0.00	
8,000.00	90.00	0.36	7,009.00	2,596.69	-385.07	2,605.81	0.00	0.00	0.00	
8,100.00	90.00	0.36	7,009.00	2,696.69	-384.43	2,705.76	0.00	0.00	0.00	
8,200.00	90.00	0.36	7,009.00	2,796.69	-383.80	2,805.71	0.00	0.00	0.00	
8,300.00	90.00	0.36	7,009.00	2,896.68	-383.17	2,905.66	0.00	0.00	0.00	
8,400.00	90.00	0.36	7,009.00	2,996.68	-382.54	3,005.61	0.00	0.00	0.00	
8,500.00	90.00	0.36	7,009.00	3,096.68	-381.90	3,105.55	0.00	0.00	0.00	
8,600.00	90.00	0.36	7,009.00	3,196.68	-381.27	3,205.50	0.00	0.00	0.00	
8,700.00	90.00	0.36	7,009.00	3,296.68	-380.64	3,305.45	0.00	0.00	0.00	
8,800.00	90.00	0.36	7,009.00	3,396.67	-380.01	3,405.40	0.00	0.00	0.00	
8,900.00	90.00	0.36	7,009.00	3,496.67	-379.38	3,505.34	0.00	0.00	0.00	
9,000.00	90.00	0.36	7,009.00	3,596.67	-378.74	3,605.29	0.00	0.00	0.00	
9,100.00	90.00	0.36	7,009.00	3,696.67	-378.11	3,705.24	0.00	0.00	0.00	
9,200.00	90.00	0.36	7,009.00	3,796.67	-377.48	3,805.19	0.00	0.00	0.00	
9,300.00	90.00	0.36	7,009.00	3,896.66	-376.85	3,905.14	0.00	0.00	0.00	
9,400.00	90.00	0.36	7,009.00	3,996.66	-376.22	4,005.08	0.00	0.00	0.00	
9,500.00	90.00	0.36	7,009.00	4,096.66	-375.58	4,105.03	0.00	0.00	0.00	
9,600.00	90.00	0.36	7,009.00	4,196.66	-374.95	4,204.98	0.00	0.00	0.00	
9,700.00	90.00	0.36	7,009.00	4,296.66	-374.32	4,304.93	0.00	0.00	0.00	
9,800.00	90.00	0.36	7,009.00	4,396.65	-373.69	4,404.88	0.00	0.00	0.00	
9,900.00	90.00	0.36	7,009.00	4,496.65	-373.06	4,504.82	0.00	0.00	0.00	
10,000.00	90.00	0.36	7,009.00	4,596.65	-372.42	4,604.77	0.00	0.00	0.00	
10,100.00	90.00	0.36	7,009.00	4,696.65	-371.79	4,704.72	0.00	0.00	0.00	
10,200.00	90.00	0.36	7,009.00	4,796.65	-371.16	4,804.67	0.00	0.00	0.00	

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SAPPHIRE 3
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	KB 17' @ 4834.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 17' @ 4834.00usft
<b>Site:</b>	SEC 5-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SAPPHIRE 3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,300.00	90.00	0.36	7,009.00	4,896.64	-370.53	4,904.61	0.00	0.00	0.00	
10,400.00	90.00	0.36	7,009.00	4,996.64	-369.90	5,004.56	0.00	0.00	0.00	
10,500.00	90.00	0.36	7,009.00	5,096.64	-369.26	5,104.51	0.00	0.00	0.00	
10,600.00	90.00	0.36	7,009.00	5,196.64	-368.63	5,204.46	0.00	0.00	0.00	
10,700.00	90.00	0.36	7,009.00	5,296.64	-368.00	5,304.41	0.00	0.00	0.00	
10,800.00	90.00	0.36	7,009.00	5,396.63	-367.37	5,404.35	0.00	0.00	0.00	
10,900.00	90.00	0.36	7,009.00	5,496.63	-366.73	5,504.30	0.00	0.00	0.00	
11,000.00	90.00	0.36	7,009.00	5,596.63	-366.10	5,604.25	0.00	0.00	0.00	
11,100.00	90.00	0.36	7,009.00	5,696.63	-365.47	5,704.20	0.00	0.00	0.00	
11,200.00	90.00	0.36	7,009.00	5,796.63	-364.84	5,804.15	0.00	0.00	0.00	
11,300.00	90.00	0.36	7,009.00	5,896.62	-364.21	5,904.09	0.00	0.00	0.00	
11,400.00	90.00	0.36	7,009.00	5,996.62	-363.57	6,004.04	0.00	0.00	0.00	
11,500.00	90.00	0.36	7,009.00	6,096.62	-362.94	6,103.99	0.00	0.00	0.00	
11,600.00	90.00	0.36	7,009.00	6,196.62	-362.31	6,203.94	0.00	0.00	0.00	
11,700.00	90.00	0.36	7,009.00	6,296.62	-361.68	6,303.88	0.00	0.00	0.00	
11,800.00	90.00	0.36	7,009.00	6,396.61	-361.05	6,403.83	0.00	0.00	0.00	
11,900.00	90.00	0.36	7,009.00	6,496.61	-360.41	6,503.78	0.00	0.00	0.00	
12,000.00	90.00	0.36	7,009.00	6,596.61	-359.78	6,603.73	0.00	0.00	0.00	
12,100.00	90.00	0.36	7,009.00	6,696.61	-359.15	6,703.68	0.00	0.00	0.00	
12,200.00	90.00	0.36	7,009.00	6,796.61	-358.52	6,803.62	0.00	0.00	0.00	
12,300.00	90.00	0.36	7,009.00	6,896.60	-357.89	6,903.57	0.00	0.00	0.00	
12,400.00	90.00	0.36	7,009.00	6,996.60	-357.25	7,003.52	0.00	0.00	0.00	
12,500.00	90.00	0.36	7,009.00	7,096.60	-356.62	7,103.47	0.00	0.00	0.00	
12,600.00	90.00	0.36	7,009.00	7,196.60	-355.99	7,203.42	0.00	0.00	0.00	
12,700.00	90.00	0.36	7,009.00	7,296.60	-355.36	7,303.36	0.00	0.00	0.00	
12,800.00	90.00	0.36	7,009.00	7,396.59	-354.73	7,403.31	0.00	0.00	0.00	
12,900.00	90.00	0.36	7,009.00	7,496.59	-354.09	7,503.26	0.00	0.00	0.00	
13,000.00	90.00	0.36	7,009.00	7,596.59	-353.46	7,603.21	0.00	0.00	0.00	
13,100.00	90.00	0.36	7,009.00	7,696.59	-352.83	7,703.16	0.00	0.00	0.00	
13,200.00	90.00	0.36	7,009.00	7,796.59	-352.20	7,803.10	0.00	0.00	0.00	
13,300.00	90.00	0.36	7,009.00	7,896.58	-351.56	7,903.05	0.00	0.00	0.00	
13,400.00	90.00	0.36	7,009.00	7,996.58	-350.93	8,003.00	0.00	0.00	0.00	
13,500.00	90.00	0.36	7,009.00	8,096.58	-350.30	8,102.95	0.00	0.00	0.00	
13,600.00	90.00	0.36	7,009.00	8,196.58	-349.67	8,202.89	0.00	0.00	0.00	
13,700.00	90.00	0.36	7,009.00	8,296.58	-349.04	8,302.84	0.00	0.00	0.00	
13,800.00	90.00	0.36	7,009.00	8,396.57	-348.40	8,402.79	0.00	0.00	0.00	
13,900.00	90.00	0.36	7,009.00	8,496.57	-347.77	8,502.74	0.00	0.00	0.00	
14,000.00	90.00	0.36	7,009.00	8,596.57	-347.14	8,602.69	0.00	0.00	0.00	
14,100.00	90.00	0.36	7,009.00	8,696.57	-346.51	8,702.63	0.00	0.00	0.00	
14,200.00	90.00	0.36	7,009.00	8,796.57	-345.88	8,802.58	0.00	0.00	0.00	
14,300.00	90.00	0.36	7,009.00	8,896.56	-345.24	8,902.53	0.00	0.00	0.00	
14,400.00	90.00	0.36	7,009.00	8,996.56	-344.61	9,002.48	0.00	0.00	0.00	
14,500.00	90.00	0.36	7,009.00	9,096.56	-343.98	9,102.43	0.00	0.00	0.00	
14,600.00	90.00	0.36	7,009.00	9,196.56	-343.35	9,202.37	0.00	0.00	0.00	
14,700.00	90.00	0.36	7,009.00	9,296.56	-342.72	9,302.32	0.00	0.00	0.00	
14,800.00	90.00	0.36	7,009.00	9,396.55	-342.08	9,402.27	0.00	0.00	0.00	
14,900.00	90.00	0.36	7,009.00	9,496.55	-341.45	9,502.22	0.00	0.00	0.00	
15,000.00	90.00	0.36	7,009.00	9,596.55	-340.82	9,602.16	0.00	0.00	0.00	
15,100.00	90.00	0.36	7,009.00	9,696.55	-340.19	9,702.11	0.00	0.00	0.00	
15,200.00	90.00	0.36	7,009.00	9,796.55	-339.56	9,802.06	0.00	0.00	0.00	
15,300.00	90.00	0.36	7,009.00	9,896.54	-338.92	9,902.01	0.00	0.00	0.00	
15,400.00	90.00	0.36	7,009.00	9,996.54	-338.29	10,001.96	0.00	0.00	0.00	
15,500.00	90.00	0.36	7,009.00	10,096.54	-337.66	10,101.90	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SAPPHIRE 3
<b>Company:</b>	BAYSWATER EXPLORATION & PRODUCTION	<b>TVD Reference:</b>	KB 17' @ 4834.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 17' @ 4834.00usft
<b>Site:</b>	SEC 5-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SAPPHIRE 3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
15,600.00	90.00	0.36	7,009.00	10,196.54	-337.03	10,201.85	0.00	0.00	0.00	
15,700.00	90.00	0.36	7,009.00	10,296.54	-336.39	10,301.80	0.00	0.00	0.00	
15,800.00	90.00	0.36	7,009.00	10,396.53	-335.76	10,401.75	0.00	0.00	0.00	
15,900.00	90.00	0.36	7,009.00	10,496.53	-335.13	10,501.70	0.00	0.00	0.00	
16,000.00	90.00	0.36	7,009.00	10,596.53	-334.50	10,601.64	0.00	0.00	0.00	
16,100.00	90.00	0.36	7,009.00	10,696.53	-333.87	10,701.59	0.00	0.00	0.00	
16,200.00	90.00	0.36	7,009.00	10,796.53	-333.23	10,801.54	0.00	0.00	0.00	
16,300.00	90.00	0.36	7,009.00	10,896.52	-332.60	10,901.49	0.00	0.00	0.00	
16,400.00	90.00	0.36	7,009.00	10,996.52	-331.97	11,001.43	0.00	0.00	0.00	
16,500.00	90.00	0.36	7,009.00	11,096.52	-331.34	11,101.38	0.00	0.00	0.00	
16,600.00	90.00	0.36	7,009.00	11,196.52	-330.71	11,201.33	0.00	0.00	0.00	
16,700.00	90.00	0.36	7,009.00	11,296.52	-330.07	11,301.28	0.00	0.00	0.00	
16,800.00	90.00	0.36	7,009.00	11,396.51	-329.44	11,401.23	0.00	0.00	0.00	
16,900.00	90.00	0.36	7,009.00	11,496.51	-328.81	11,501.17	0.00	0.00	0.00	
17,000.00	90.00	0.36	7,009.00	11,596.51	-328.18	11,601.12	0.00	0.00	0.00	
17,100.00	90.00	0.36	7,009.00	11,696.51	-327.55	11,701.07	0.00	0.00	0.00	
17,200.00	90.00	0.36	7,009.00	11,796.51	-326.91	11,801.02	0.00	0.00	0.00	
17,300.00	90.00	0.36	7,009.00	11,896.50	-326.28	11,900.97	0.00	0.00	0.00	
17,400.00	90.00	0.36	7,009.00	11,996.50	-325.65	12,000.91	0.00	0.00	0.00	
17,500.00	90.00	0.36	7,009.00	12,096.50	-325.02	12,100.86	0.00	0.00	0.00	
17,600.00	90.00	0.36	7,009.00	12,196.50	-324.39	12,200.81	0.00	0.00	0.00	
17,700.00	90.00	0.36	7,009.00	12,296.50	-323.75	12,300.76	0.00	0.00	0.00	
17,800.00	90.00	0.36	7,009.00	12,396.49	-323.12	12,400.70	0.00	0.00	0.00	
17,833.40	90.00	0.36	7,009.00	12,429.90	-322.91	12,434.09	0.00	0.00	0.00	
TD at 17833.40										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LP-SAPPHIRE 3 - hit/miss target - Shape - Point	0.00	0.00	7,009.00	2,160.79	-387.82	1,434,965.72	3,224,271.68	40.524581°N	104.693252°W
PBHL-SAPPHIRE 3 - plan hits target center - Point	0.00	0.00	7,009.00	12,429.90	-322.91	1,445,234.66	3,224,243.00	40.552768°N	104.693019°W

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
500.00	500.00	0.00	0.00	Start Build 2.00	
1,309.12	1,298.41	110.71	-25.04	Start 5512.47 hold at 1309.12 MD	
6,821.59	6,592.47	1,609.18	-363.90	Start DLS 10.00 TFO 13.63	
7,564.09	7,009.00	2,160.79	-387.82	Start 10269.31 hold at 7564.09 MD	
17,833.40	7,009.00	12,429.90	-322.91	TD at 17833.40	