

BAYSWATER EXPLORATION & PRODUCTION

**WELD COUNTY
SEC 6-T7N-R66W
OPAL 5**

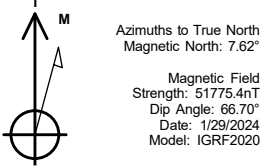
OWB

Plan: PROPOSAL 1

Standard Planning Report

13 February, 2024

Project: WELD COUNTY
Site: SEC 6-T7N-R66W
Well: OPAL 5
Wellbore: OWB
Design: PROPOSAL 1



WELL DETAILS: OPAL 5

+N/-S	+E/-W	Northing	Easting	5129.00 Latitude	Longitude	Slot
0.00	0.00	1463299.83	3190734.46	40.603128°N	104.813097°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	Start Build 2.00
1551.37	13.03	53.85	1545.77	43.50	59.54	-56.71	73.73	Start 5270.01 hold at 1551.37 MD
6821.38	13.03	53.85	6680.14	744.29	1018.77	-970.46	1261.69	Start DLS 10.00 TFO -143.86
7846.58	91.92	269.02	7352.00	827.03	435.11	-382.78	1887.10	Start 10751.42 hold at 7846.58 MD
18598.00	91.92	269.02	6992.00	643.01	-10308.70	10328.73	12632.48	TD at 18598.00

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
3	1551.37	13.03	53.85	1545.77	43.50	59.54	2.00	53.85	-56.71	
4	6821.38	13.03	53.85	6680.14	744.29	1018.77	0.00	0.00	-970.46	
5	7846.58	91.92	269.02	7352.00	827.03	435.11	10.00	-143.86	-382.78	LP-C
6	18598.00	91.92	269.02	6992.00	643.01	-10308.70	0.00	0.00	10328.73	PBH

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-OPAL 5	6992.00	643.01	-10308.70	1463862.96	3180421.34	40.604887°N	104.850222°W	Point
- plan hits target center								
LP-OPAL 5	7352.00	827.03	435.11	1464130.18	3191163.14	40.605398°N	104.811530°W	Point
- plan hits target center								

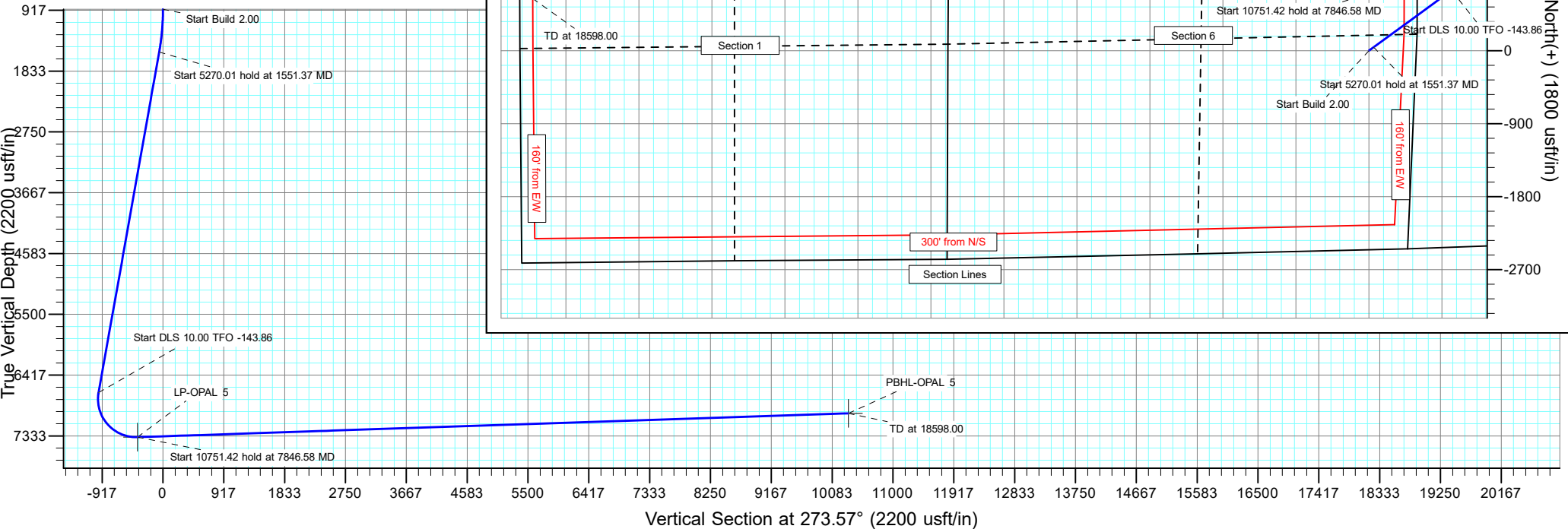
PROJECT DETAILS: WELD COUNTY

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

SHL:
2455' FSL, 584' FEL
Sec 6-T7N-R66W

LP:
2018' FNL, 160' FEL
Sec 6-T7N-R66W

BHL:
2010' FNL, 160' FWL
Sec 1-T7N-R67W



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well OPAL 5
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	KB 23' @ 5152.00usft
Project:	WELD COUNTY	MD Reference:	KB 23' @ 5152.00usft
Site:	SEC 6-T7N-R66W	North Reference:	True
Well:	OPAL 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

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

Site		SEC 6-T7N-R66W				
Site Position:		Northing:	1,460,687.83	usft	Latitude:	40.596067°N
From:	Lat/Long	Easting:	3,185,555.14	usft	Longitude:	104.831820°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well	OPAL 5					
Well Position	+N/-S	0.00 usft	Northing:	1,463,299.83 usft	Latitude:	40.603128°N
	+E/-W	0.00 usft	Easting:	3,190,734.46 usft	Longitude:	104.813097°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,129.00 usft
Grid Convergence:		0.44 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/29/2024	7.62	66.70	51,775.42946240

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	273.57

Plan Survey Tool Program	Date	2/13/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,598.00	PROPOSAL 1 (OWB)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,551.37	13.03	53.85	1,545.77	43.50	59.54	2.00	2.00	0.00	53.85	
6,821.38	13.03	53.85	6,680.14	744.29	1,018.77	0.00	0.00	0.00	0.00	
7,846.58	91.92	269.02	7,352.00	827.03	435.11	10.00	7.70	-14.13	-143.86	LP-OPAL 5
18,598.00	91.92	269.02	6,992.00	643.01	-10,308.70	0.00	0.00	0.00	0.00	PBHL-OPAL 5

Planning Report

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Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	KB 23' @ 5152.00usft
Project:	WELD COUNTY	MD Reference:	KB 23' @ 5152.00usft
Site:	SEC 6-T7N-R66W	North Reference:	True
Well:	OPAL 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	2.00	53.85	999.98	1.03	1.41	-1.34	2.00	2.00	0.00
1,100.00	4.00	53.85	1,099.84	4.12	5.63	-5.37	2.00	2.00	0.00
1,200.00	6.00	53.85	1,199.45	9.26	12.67	-12.07	2.00	2.00	0.00
1,300.00	8.00	53.85	1,298.70	16.45	22.51	-21.44	2.00	2.00	0.00
1,400.00	10.00	53.85	1,397.47	25.67	35.14	-33.48	2.00	2.00	0.00
1,500.00	12.00	53.85	1,495.62	36.93	50.55	-48.15	2.00	2.00	0.00
1,551.37	13.03	53.85	1,545.77	43.50	59.54	-56.71	2.00	2.00	0.00
Start 5270.01 hold at 1551.37 MD									
1,600.00	13.03	53.85	1,593.15	49.96	68.39	-65.15	0.00	0.00	0.00
1,700.00	13.03	53.85	1,690.58	63.26	86.59	-82.48	0.00	0.00	0.00
1,800.00	13.03	53.85	1,788.00	76.56	104.79	-99.82	0.00	0.00	0.00
1,900.00	13.03	53.85	1,885.43	89.86	122.99	-117.16	0.00	0.00	0.00
2,000.00	13.03	53.85	1,982.86	103.15	141.20	-134.50	0.00	0.00	0.00
2,100.00	13.03	53.85	2,080.28	116.45	159.40	-151.84	0.00	0.00	0.00
2,200.00	13.03	53.85	2,177.71	129.75	177.60	-169.18	0.00	0.00	0.00
2,300.00	13.03	53.85	2,275.13	143.05	195.80	-186.52	0.00	0.00	0.00
2,400.00	13.03	53.85	2,372.56	156.34	214.00	-203.85	0.00	0.00	0.00
2,500.00	13.03	53.85	2,469.99	169.64	232.20	-221.19	0.00	0.00	0.00
2,600.00	13.03	53.85	2,567.41	182.94	250.41	-238.53	0.00	0.00	0.00
2,700.00	13.03	53.85	2,664.84	196.24	268.61	-255.87	0.00	0.00	0.00
2,800.00	13.03	53.85	2,762.27	209.54	286.81	-273.21	0.00	0.00	0.00
2,900.00	13.03	53.85	2,859.69	222.83	305.01	-290.55	0.00	0.00	0.00
3,000.00	13.03	53.85	2,957.12	236.13	323.21	-307.89	0.00	0.00	0.00
3,100.00	13.03	53.85	3,054.54	249.43	341.41	-325.22	0.00	0.00	0.00
3,200.00	13.03	53.85	3,151.97	262.73	359.62	-342.56	0.00	0.00	0.00
3,300.00	13.03	53.85	3,249.40	276.02	377.82	-359.90	0.00	0.00	0.00
3,400.00	13.03	53.85	3,346.82	289.32	396.02	-377.24	0.00	0.00	0.00
3,500.00	13.03	53.85	3,444.25	302.62	414.22	-394.58	0.00	0.00	0.00
3,600.00	13.03	53.85	3,541.67	315.92	432.42	-411.92	0.00	0.00	0.00
3,700.00	13.03	53.85	3,639.10	329.21	450.63	-429.26	0.00	0.00	0.00
3,800.00	13.03	53.85	3,736.53	342.51	468.83	-446.59	0.00	0.00	0.00
3,900.00	13.03	53.85	3,833.95	355.81	487.03	-463.93	0.00	0.00	0.00
4,000.00	13.03	53.85	3,931.38	369.11	505.23	-481.27	0.00	0.00	0.00
4,100.00	13.03	53.85	4,028.81	382.41	523.43	-498.61	0.00	0.00	0.00
4,200.00	13.03	53.85	4,126.23	395.70	541.63	-515.95	0.00	0.00	0.00
4,300.00	13.03	53.85	4,223.66	409.00	559.84	-533.29	0.00	0.00	0.00
4,400.00	13.03	53.85	4,321.08	422.30	578.04	-550.63	0.00	0.00	0.00
4,500.00	13.03	53.85	4,418.51	435.60	596.24	-567.96	0.00	0.00	0.00
4,600.00	13.03	53.85	4,515.94	448.89	614.44	-585.30	0.00	0.00	0.00
4,700.00	13.03	53.85	4,613.36	462.19	632.64	-602.64	0.00	0.00	0.00
4,800.00	13.03	53.85	4,710.79	475.49	650.84	-619.98	0.00	0.00	0.00
4,900.00	13.03	53.85	4,808.22	488.79	669.05	-637.32	0.00	0.00	0.00
5,000.00	13.03	53.85	4,905.64	502.08	687.25	-654.66	0.00	0.00	0.00
5,100.00	13.03	53.85	5,003.07	515.38	705.45	-672.00	0.00	0.00	0.00
5,200.00	13.03	53.85	5,100.49	528.68	723.65	-689.33	0.00	0.00	0.00
5,300.00	13.03	53.85	5,197.92	541.98	741.85	-706.67	0.00	0.00	0.00
5,400.00	13.03	53.85	5,295.35	555.28	760.05	-724.01	0.00	0.00	0.00
5,500.00	13.03	53.85	5,392.77	568.57	778.26	-741.35	0.00	0.00	0.00
5,600.00	13.03	53.85	5,490.20	581.87	796.46	-758.69	0.00	0.00	0.00
5,700.00	13.03	53.85	5,587.63	595.17	814.66	-776.03	0.00	0.00	0.00

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Project:	WELD COUNTY	MD Reference:	KB 23' @ 5152.00usft
Site:	SEC 6-T7N-R66W	North Reference:	True
Well:	OPAL 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)	
5,800.00	13.03	53.85	5,685.05	608.47	832.86	-793.37	0.00	0.00	0.00	
5,900.00	13.03	53.85	5,782.48	621.76	851.06	-810.70	0.00	0.00	0.00	
6,000.00	13.03	53.85	5,879.90	635.06	869.27	-828.04	0.00	0.00	0.00	
6,100.00	13.03	53.85	5,977.33	648.36	887.47	-845.38	0.00	0.00	0.00	
6,200.00	13.03	53.85	6,074.76	661.66	905.67	-862.72	0.00	0.00	0.00	
6,300.00	13.03	53.85	6,172.18	674.95	923.87	-880.06	0.00	0.00	0.00	
6,400.00	13.03	53.85	6,269.61	688.25	942.07	-897.40	0.00	0.00	0.00	
6,500.00	13.03	53.85	6,367.04	701.55	960.27	-914.74	0.00	0.00	0.00	
6,600.00	13.03	53.85	6,464.46	714.85	978.48	-932.07	0.00	0.00	0.00	
6,700.00	13.03	53.85	6,561.89	728.14	996.68	-949.41	0.00	0.00	0.00	
6,800.00	13.03	53.85	6,659.31	741.44	1,014.88	-966.75	0.00	0.00	0.00	
6,821.38	13.03	53.85	6,680.14	744.29	1,018.77	-970.46	0.00	0.00	0.00	
Start DLS 10.00 TFO -143.86										
6,900.00	8.11	18.96	6,757.48	754.77	1,027.74	-978.76	10.00	-6.26	-44.38	
7,000.00	10.54	315.42	6,856.39	767.99	1,023.60	-973.81	10.00	2.43	-63.53	
7,100.00	18.84	292.42	6,953.11	780.69	1,002.20	-951.66	10.00	8.31	-23.01	
7,200.00	28.25	283.73	7,044.71	792.50	964.19	-912.98	10.00	9.40	-8.68	
7,300.00	37.94	279.18	7,128.40	803.05	910.72	-858.96	10.00	9.69	-4.55	
7,400.00	47.75	276.27	7,201.64	812.02	843.41	-791.22	10.00	9.80	-2.91	
7,500.00	57.60	274.16	7,262.20	819.14	764.32	-711.84	10.00	9.86	-2.12	
7,600.00	67.49	272.46	7,308.25	824.20	675.84	-623.22	10.00	9.89	-1.70	
7,700.00	77.39	271.00	7,338.38	827.04	580.66	-528.05	10.00	9.90	-1.47	
7,800.00	87.30	269.64	7,351.68	827.57	481.68	-429.22	10.00	9.91	-1.36	
7,846.58	91.92	269.02	7,352.00	827.03	435.11	-382.78	10.00	9.91	-1.33	
Start 10751.42 hold at 7846.58 MD										
7,900.00	91.92	269.02	7,350.21	826.11	381.73	-329.56	0.00	0.00	0.00	
8,000.00	91.92	269.02	7,346.86	824.40	281.80	-229.94	0.00	0.00	0.00	
8,100.00	91.92	269.02	7,343.51	822.69	181.88	-130.31	0.00	0.00	0.00	
8,200.00	91.92	269.02	7,340.17	820.98	81.95	-30.68	0.00	0.00	0.00	
8,300.00	91.92	269.02	7,336.82	819.27	-17.98	68.95	0.00	0.00	0.00	
8,400.00	91.92	269.02	7,333.47	817.56	-117.91	168.58	0.00	0.00	0.00	
8,500.00	91.92	269.02	7,330.12	815.84	-217.84	268.21	0.00	0.00	0.00	
8,600.00	91.92	269.02	7,326.77	814.13	-317.77	367.84	0.00	0.00	0.00	
8,700.00	91.92	269.02	7,323.42	812.42	-417.70	467.47	0.00	0.00	0.00	
8,800.00	91.92	269.02	7,320.08	810.71	-517.63	567.10	0.00	0.00	0.00	
8,900.00	91.92	269.02	7,316.73	809.00	-617.56	666.72	0.00	0.00	0.00	
9,000.00	91.92	269.02	7,313.38	807.29	-717.49	766.35	0.00	0.00	0.00	
9,100.00	91.92	269.02	7,310.03	805.58	-817.42	865.98	0.00	0.00	0.00	
9,200.00	91.92	269.02	7,306.68	803.86	-917.35	965.61	0.00	0.00	0.00	
9,300.00	91.92	269.02	7,303.33	802.15	-1,017.28	1,065.24	0.00	0.00	0.00	
9,400.00	91.92	269.02	7,299.99	800.44	-1,117.21	1,164.87	0.00	0.00	0.00	
9,500.00	91.92	269.02	7,296.64	798.73	-1,217.13	1,264.50	0.00	0.00	0.00	
9,600.00	91.92	269.02	7,293.29	797.02	-1,317.06	1,364.13	0.00	0.00	0.00	
9,700.00	91.92	269.02	7,289.94	795.31	-1,416.99	1,463.76	0.00	0.00	0.00	
9,800.00	91.92	269.02	7,286.59	793.59	-1,516.92	1,563.38	0.00	0.00	0.00	
9,900.00	91.92	269.02	7,283.24	791.88	-1,616.85	1,663.01	0.00	0.00	0.00	
10,000.00	91.92	269.02	7,279.90	790.17	-1,716.78	1,762.64	0.00	0.00	0.00	
10,100.00	91.92	269.02	7,276.55	788.46	-1,816.71	1,862.27	0.00	0.00	0.00	
10,200.00	91.92	269.02	7,273.20	786.75	-1,916.64	1,961.90	0.00	0.00	0.00	
10,300.00	91.92	269.02	7,269.85	785.04	-2,016.57	2,061.53	0.00	0.00	0.00	
10,400.00	91.92	269.02	7,266.50	783.33	-2,116.50	2,161.16	0.00	0.00	0.00	
10,500.00	91.92	269.02	7,263.15	781.61	-2,216.43	2,260.79	0.00	0.00	0.00	
10,600.00	91.92	269.02	7,259.80	779.90	-2,316.36	2,360.42	0.00	0.00	0.00	

Planning Report

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Project:	WELD COUNTY	MD Reference:	KB 23' @ 5152.00usft
Site:	SEC 6-T7N-R66W	North Reference:	True
Well:	OPAL 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)	
10,700.00	91.92	269.02	7,256.46	778.19	-2,416.29	2,460.04	0.00	0.00	0.00	
10,800.00	91.92	269.02	7,253.11	776.48	-2,516.21	2,559.67	0.00	0.00	0.00	
10,900.00	91.92	269.02	7,249.76	774.77	-2,616.14	2,659.30	0.00	0.00	0.00	
11,000.00	91.92	269.02	7,246.41	773.06	-2,716.07	2,758.93	0.00	0.00	0.00	
11,100.00	91.92	269.02	7,243.06	771.34	-2,816.00	2,858.56	0.00	0.00	0.00	
11,200.00	91.92	269.02	7,239.71	769.63	-2,915.93	2,958.19	0.00	0.00	0.00	
11,300.00	91.92	269.02	7,236.37	767.92	-3,015.86	3,057.82	0.00	0.00	0.00	
11,400.00	91.92	269.02	7,233.02	766.21	-3,115.79	3,157.45	0.00	0.00	0.00	
11,500.00	91.92	269.02	7,229.67	764.50	-3,215.72	3,257.08	0.00	0.00	0.00	
11,600.00	91.92	269.02	7,226.32	762.79	-3,315.65	3,356.70	0.00	0.00	0.00	
11,700.00	91.92	269.02	7,222.97	761.08	-3,415.58	3,456.33	0.00	0.00	0.00	
11,800.00	91.92	269.02	7,219.62	759.36	-3,515.51	3,555.96	0.00	0.00	0.00	
11,900.00	91.92	269.02	7,216.28	757.65	-3,615.44	3,655.59	0.00	0.00	0.00	
12,000.00	91.92	269.02	7,212.93	755.94	-3,715.37	3,755.22	0.00	0.00	0.00	
12,100.00	91.92	269.02	7,209.58	754.23	-3,815.30	3,854.85	0.00	0.00	0.00	
12,200.00	91.92	269.02	7,206.23	752.52	-3,915.22	3,954.48	0.00	0.00	0.00	
12,300.00	91.92	269.02	7,202.88	750.81	-4,015.15	4,054.11	0.00	0.00	0.00	
12,400.00	91.92	269.02	7,199.53	749.09	-4,115.08	4,153.74	0.00	0.00	0.00	
12,500.00	91.92	269.02	7,196.19	747.38	-4,215.01	4,253.36	0.00	0.00	0.00	
12,600.00	91.92	269.02	7,192.84	745.67	-4,314.94	4,352.99	0.00	0.00	0.00	
12,700.00	91.92	269.02	7,189.49	743.96	-4,414.87	4,452.62	0.00	0.00	0.00	
12,800.00	91.92	269.02	7,186.14	742.25	-4,514.80	4,552.25	0.00	0.00	0.00	
12,900.00	91.92	269.02	7,182.79	740.54	-4,614.73	4,651.88	0.00	0.00	0.00	
13,000.00	91.92	269.02	7,179.44	738.82	-4,714.66	4,751.51	0.00	0.00	0.00	
13,100.00	91.92	269.02	7,176.09	737.11	-4,814.59	4,851.14	0.00	0.00	0.00	
13,200.00	91.92	269.02	7,172.75	735.40	-4,914.52	4,950.77	0.00	0.00	0.00	
13,300.00	91.92	269.02	7,169.40	733.69	-5,014.45	5,050.40	0.00	0.00	0.00	
13,400.00	91.92	269.02	7,166.05	731.98	-5,114.38	5,150.02	0.00	0.00	0.00	
13,500.00	91.92	269.02	7,162.70	730.27	-5,214.31	5,249.65	0.00	0.00	0.00	
13,600.00	91.92	269.02	7,159.35	728.56	-5,314.23	5,349.28	0.00	0.00	0.00	
13,700.00	91.92	269.02	7,156.00	726.84	-5,414.16	5,448.91	0.00	0.00	0.00	
13,800.00	91.92	269.02	7,152.66	725.13	-5,514.09	5,548.54	0.00	0.00	0.00	
13,900.00	91.92	269.02	7,149.31	723.42	-5,614.02	5,648.17	0.00	0.00	0.00	
14,000.00	91.92	269.02	7,145.96	721.71	-5,713.95	5,747.80	0.00	0.00	0.00	
14,100.00	91.92	269.02	7,142.61	720.00	-5,813.88	5,847.43	0.00	0.00	0.00	
14,200.00	91.92	269.02	7,139.26	718.29	-5,913.81	5,947.06	0.00	0.00	0.00	
14,300.00	91.92	269.02	7,135.91	716.57	-6,013.74	6,046.68	0.00	0.00	0.00	
14,400.00	91.92	269.02	7,132.57	714.86	-6,113.67	6,146.31	0.00	0.00	0.00	
14,500.00	91.92	269.02	7,129.22	713.15	-6,213.60	6,245.94	0.00	0.00	0.00	
14,600.00	91.92	269.02	7,125.87	711.44	-6,313.53	6,345.57	0.00	0.00	0.00	
14,700.00	91.92	269.02	7,122.52	709.73	-6,413.46	6,445.20	0.00	0.00	0.00	
14,800.00	91.92	269.02	7,119.17	708.02	-6,513.39	6,544.83	0.00	0.00	0.00	
14,900.00	91.92	269.02	7,115.82	706.31	-6,613.32	6,644.46	0.00	0.00	0.00	
15,000.00	91.92	269.02	7,112.48	704.59	-6,713.24	6,744.09	0.00	0.00	0.00	
15,100.00	91.92	269.02	7,109.13	702.88	-6,813.17	6,843.72	0.00	0.00	0.00	
15,200.00	91.92	269.02	7,105.78	701.17	-6,913.10	6,943.34	0.00	0.00	0.00	
15,300.00	91.92	269.02	7,102.43	699.46	-7,013.03	7,042.97	0.00	0.00	0.00	
15,400.00	91.92	269.02	7,099.08	697.75	-7,112.96	7,142.60	0.00	0.00	0.00	
15,500.00	91.92	269.02	7,095.73	696.04	-7,212.89	7,242.23	0.00	0.00	0.00	
15,600.00	91.92	269.02	7,092.39	694.32	-7,312.82	7,341.86	0.00	0.00	0.00	
15,700.00	91.92	269.02	7,089.04	692.61	-7,412.75	7,441.49	0.00	0.00	0.00	
15,800.00	91.92	269.02	7,085.69	690.90	-7,512.68	7,541.12	0.00	0.00	0.00	
15,900.00	91.92	269.02	7,082.34	689.19	-7,612.61	7,640.75	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well OPAL 5
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	KB 23' @ 5152.00usft
Project:	WELD COUNTY	MD Reference:	KB 23' @ 5152.00usft
Site:	SEC 6-T7N-R66W	North Reference:	True
Well:	OPAL 5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)	
16,000.00	91.92	269.02	7,078.99	687.48	-7,712.54	7,740.38	0.00	0.00	0.00	
16,100.00	91.92	269.02	7,075.64	685.77	-7,812.47	7,840.00	0.00	0.00	0.00	
16,200.00	91.92	269.02	7,072.29	684.06	-7,912.40	7,939.63	0.00	0.00	0.00	
16,300.00	91.92	269.02	7,068.95	682.34	-8,012.32	8,039.26	0.00	0.00	0.00	
16,400.00	91.92	269.02	7,065.60	680.63	-8,112.25	8,138.89	0.00	0.00	0.00	
16,500.00	91.92	269.02	7,062.25	678.92	-8,212.18	8,238.52	0.00	0.00	0.00	
16,600.00	91.92	269.02	7,058.90	677.21	-8,312.11	8,338.15	0.00	0.00	0.00	
16,700.00	91.92	269.02	7,055.55	675.50	-8,412.04	8,437.78	0.00	0.00	0.00	
16,800.00	91.92	269.02	7,052.20	673.79	-8,511.97	8,537.41	0.00	0.00	0.00	
16,900.00	91.92	269.02	7,048.86	672.07	-8,611.90	8,637.04	0.00	0.00	0.00	
17,000.00	91.92	269.02	7,045.51	670.36	-8,711.83	8,736.66	0.00	0.00	0.00	
17,100.00	91.92	269.02	7,042.16	668.65	-8,811.76	8,836.29	0.00	0.00	0.00	
17,200.00	91.92	269.02	7,038.81	666.94	-8,911.69	8,935.92	0.00	0.00	0.00	
17,300.00	91.92	269.02	7,035.46	665.23	-9,011.62	9,035.55	0.00	0.00	0.00	
17,400.00	91.92	269.02	7,032.11	663.52	-9,111.55	9,135.18	0.00	0.00	0.00	
17,500.00	91.92	269.02	7,028.77	661.81	-9,211.48	9,234.81	0.00	0.00	0.00	
17,600.00	91.92	269.02	7,025.42	660.09	-9,311.41	9,334.44	0.00	0.00	0.00	
17,700.00	91.92	269.02	7,022.07	658.38	-9,411.33	9,434.07	0.00	0.00	0.00	
17,800.00	91.92	269.02	7,018.72	656.67	-9,511.26	9,533.70	0.00	0.00	0.00	
17,900.00	91.92	269.02	7,015.37	654.96	-9,611.19	9,633.32	0.00	0.00	0.00	
18,000.00	91.92	269.02	7,012.02	653.25	-9,711.12	9,732.95	0.00	0.00	0.00	
18,100.00	91.92	269.02	7,008.68	651.54	-9,811.05	9,832.58	0.00	0.00	0.00	
18,200.00	91.92	269.02	7,005.33	649.82	-9,910.98	9,932.21	0.00	0.00	0.00	
18,300.00	91.92	269.02	7,001.98	648.11	-10,010.91	10,031.84	0.00	0.00	0.00	
18,400.00	91.92	269.02	6,998.63	646.40	-10,110.84	10,131.47	0.00	0.00	0.00	
18,500.00	91.92	269.02	6,995.28	644.69	-10,210.77	10,231.10	0.00	0.00	0.00	
18,598.00	91.92	269.02	6,992.00	643.01	-10,308.70	10,328.73	0.00	0.00	0.00	
TD at 18598.00										

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-OPAL 5 - plan hits target center - Point	0.00	0.00	6,992.00	643.01	-10,308.70	1,463,862.96	3,180,421.34	40.604887°N	104.850222°W
LP-OPAL 5 - plan hits target center - Point	0.00	0.00	7,352.00	827.03	435.11	1,464,130.19	3,191,163.15	40.605398°N	104.811530°W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
900.00	900.00	0.00	0.00	Start Build 2.00
1,551.37	1,545.77	43.50	59.54	Start 5270.01 hold at 1551.37 MD
6,821.38	6,680.14	744.29	1,018.77	Start DLS 10.00 TFO -143.86
7,846.58	7,352.00	827.03	435.11	Start 10751.42 hold at 7846.58 MD
18,598.00	6,992.00	643.01	-10,308.70	TD at 18598.00