



**Anglian Oil Company Ltd.
Northern Lights, AA Pad, AA16, Slot 09, Run #4**

**Job No. AB-CD-12345678
Survey Date: 23 September 2017**

**True North Directional Services Inc.
Anticollision Report**

30 August 2023

Minimum Distance Proximity Scan (North Reference)

Scan Range: 0.00ft to 5,371.72ft Measured Depth
Scan Radius is 2,000.00ft. Clearance Factor cutoff is Unlimited.



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Comparison Site, Well, Profile	Reference Well			Comparison Well			Separation (Ref. > Comp.)			Clearance Factor
	Measured Depth (ft)	Vertical Depth (ft)	Ellipse Major Axis/2	Measured Depth (ft)	Vertical Depth (ft)	Ellipse Major Axis/2	Between Centres (ft)	Between Ellipsoids (ft)	Relative North Direction	
AA Pad										
AA01, Run #1	5,371.72	1,598.41	52.84	4,612.36	1,597.07	147.73	1,815.74	1,617.87	334.33	9.18
AA02, Gyro Survey Data	981.26	979.53	5.26	787.53	787.45	3.42	292.76	266.07	331.28	10.97
AA02, MWD Run #1	600.00	600.00	1.92	787.53	787.45	3.42	277.90	253.70	335.52	11.48
AA02, MWD Run #2	5,371.72	1,598.41	52.84	4,605.91	1,601.89	128.83	1,561.14	1,381.84	335.16	8.71
AA02, MWD Run #3	5,371.72	1,598.41	52.84	4,615.53	1,602.02	128.81	1,561.17	1,381.82	335.51	8.70
AA02, Lateral #1, MWD Run #4	5,371.72	1,598.41	52.84	5,063.25	1,602.71	136.25	1,628.81	1,445.75	351.47	8.90
AA03, As Drilled Surveys	5,371.72	1,598.41	52.84	4,888.30	1,647.83	153.86	2,089.63	1,886.10	335.28	10.27
AA04, As Drilled Surveys	5,371.72	1,598.41	52.84	4,970.17	1,601.24	168.30	517.03	307.60	335.14	2.47
AA05, As Drilled Surveys	5,371.72	1,598.41	52.84	5,002.73	1,645.03	172.87	779.60	560.08	336.18	3.55
AA06, As Drilled Surveys	1,100.00	1,091.04	8.66	1,105.78	1,091.23	14.12	5.72	49%	38.94	0.51
AA07, As Drilled Surveys	5,371.72	1,598.41	52.84	5,492.13	1,641.97	179.69	44.47	17%	156.76	0.83
AA08, As Drilled Surveys	5,371.72	1,598.41	52.84	4,772.68	1,645.80	161.74	1,559.19	1,347.20	334.62	7.36
AA09, As Drilled Surveys	5,371.72	1,598.41	52.84	4,691.35	1,597.24	146.43	2,092.93	1,896.69	334.44	10.67
AA10, As Drilled Surveys	1,400.00	1,324.27	14.37	1,444.61	1,365.40	18.37	334.61	307.85	337.97	12.51
AA10, Sidetrack Surveys	5,371.72	1,598.41	52.84	4,768.76	1,641.51	165.06	1,302.85	1,088.35	333.99	6.07
AA11, As Drilled Surveys	5,371.72	1,598.41	52.84	5,310.06	1,642.55	177.74	251.98	63.44	335.88	1.34
AA12, As Drilled Surveys	5,371.72	1,598.41	52.84	4,780.50	1,645.03	157.13	1,808.27	1,600.99	334.52	8.72
AA13, SAGD Producer	5,371.72	1,598.41	52.84	4,864.82	1,644.59	169.37	1,038.57	820.59	335.32	4.76
AA14, SAGD Injector	5,371.72	1,598.41	52.84	4,690.65	1,607.75	162.91	1,042.64	830.79	335.38	4.92
AA15, As Drilled Surveys	5,371.72	1,598.41	52.84	4,824.26	1,601.27	165.80	775.87	563.94	335.23	3.66

BB Pad

BB02, Leg #5, Run #1	3,400.00	1,595.48	52.42	5,686.91	1,603.38	160.92	918.73	733.98	336.76	4.97
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Ellipse error terms are uncorrelated across survey tool tie-on points.
 Ellipse separations were reported only if both profiles contained survey tool information.
 Calculated ellipses incorporate combined structure and well surface errors where appropriate.
 The summary shows the data line where the minimum clearance factor is located.
 Distance between Ellipsoids is the actual separation distance between ellipsoids.
 Distance Between Centres is the straight line distance between ellipsoid centres.
 Probability is set at 2 sigma.
 Clearance Factor = Distance Between Profiles / (Distance Between Profiles - Ellipse Separation)

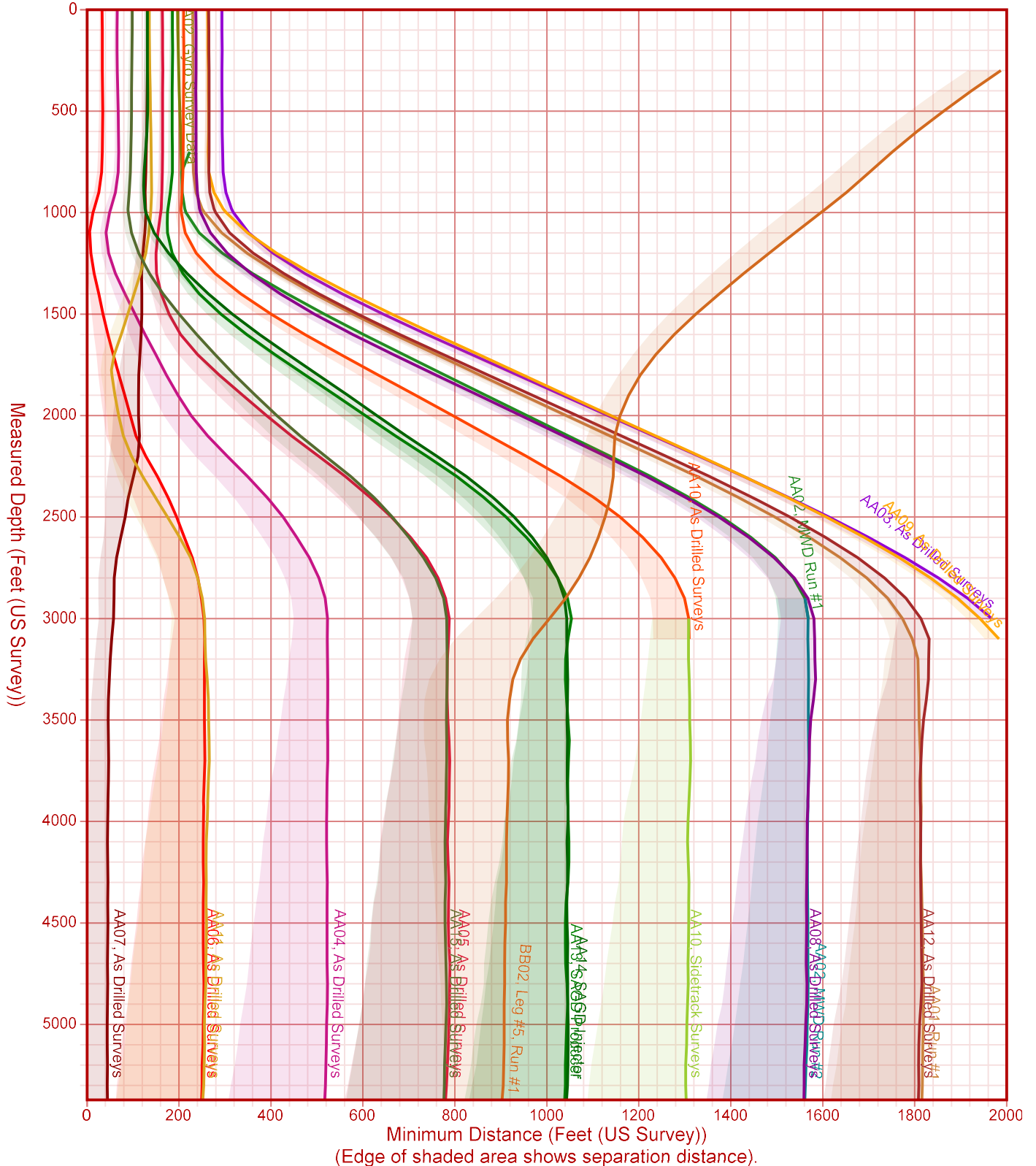
All station coordinates were calculated using the Minimum Curvature method.
 All data is in feet (us survey) unless otherwise stated. Directions and coordinates are relative to Grid North.
 Vertical depths are relative to RKB. Northings and Eastings are relative to Well AA16.

Coordinate system is Universal Transverse Mercator, Zone 12 North.
 Central meridian is -111.00°. Grid convergence at surface is 1.18°.

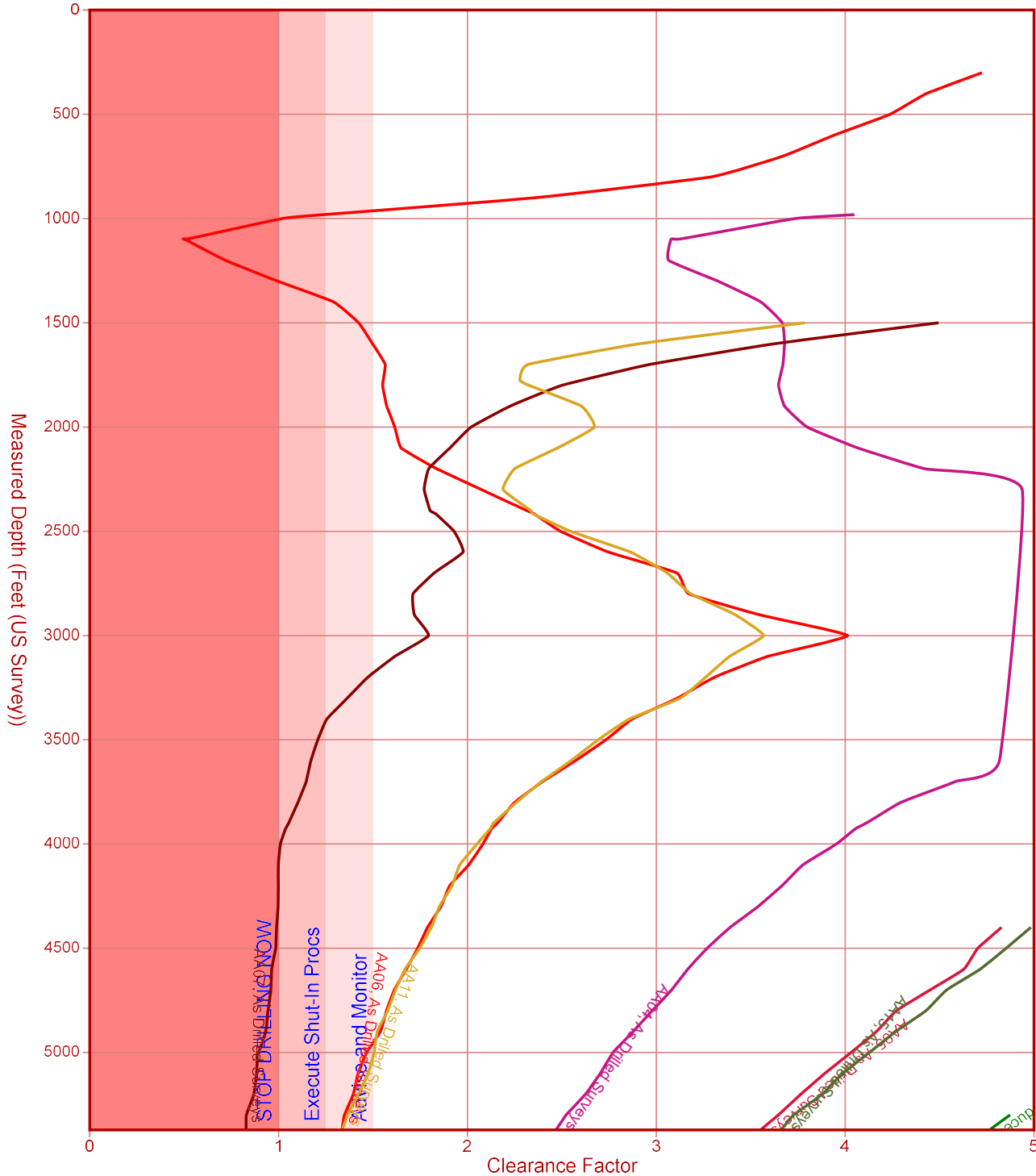
Profile Sections

- Survey: Run #1 from 0.00ft to 981.26ft
- Survey: Run #2 from 981.26ft to 2,417.32ft
- Survey: Run #3 from 2,417.32ft to 3,926.69ft
- Survey: Run #4 from 3,926.69ft to 5,371.72ft

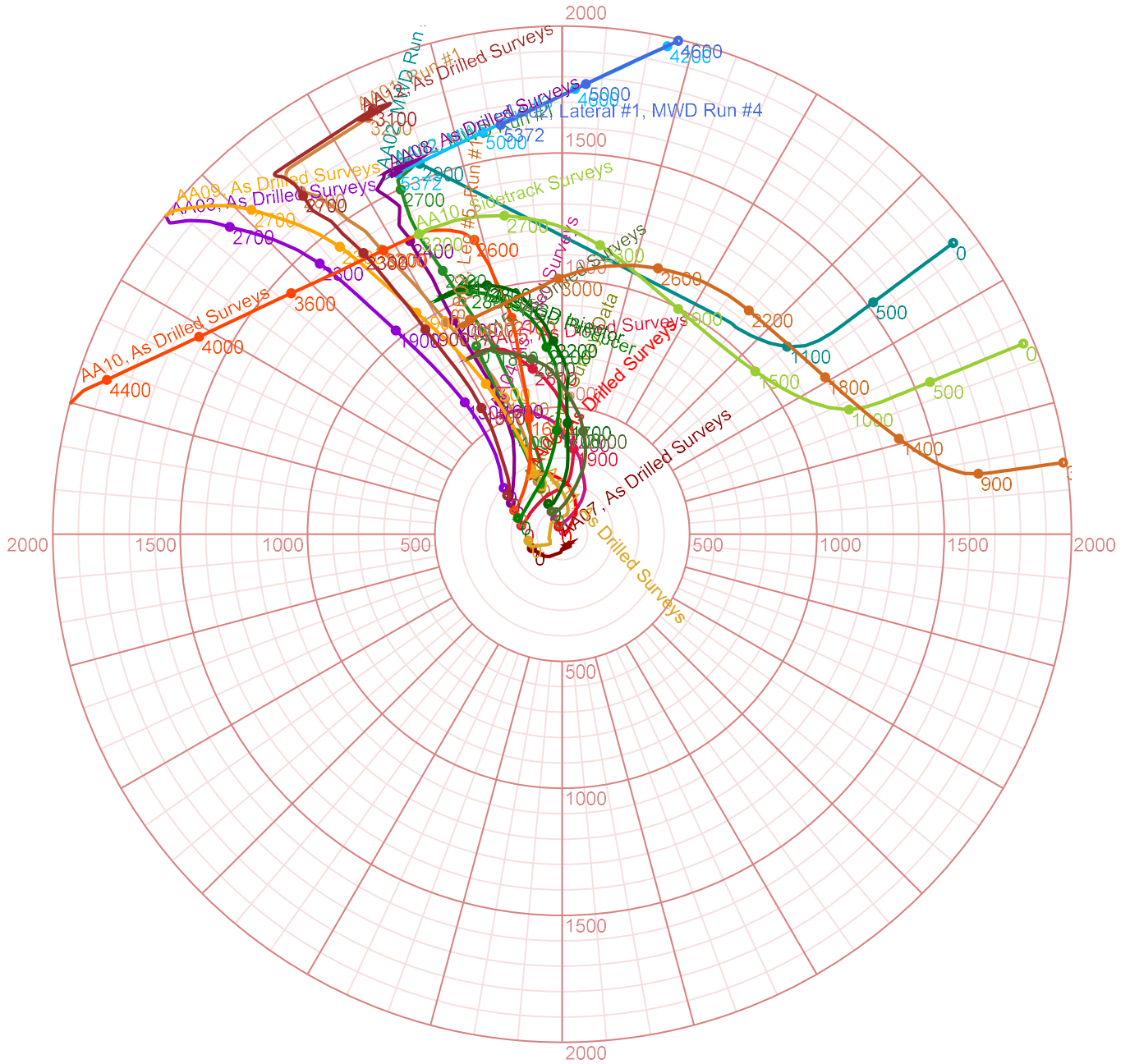
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Survey Tool Program for AA16, Run #4

Measured Depth (ft)	From Vertical Depth (ft)	To Measured Depth (ft)	Vertical Depth (ft)	Survey Tool Description
0.00	0.00	981.26	979.53	OWSG Gyrocompass Gyro (GYRO-NS)
981.26	979.53	2,508.28	1,561.98	OWSG MWD + IFR1 + Multi-Station Analysis (MWD+IFR1+MS)
2,508.28	1,561.98	3,926.69	1,596.51	OWSG MWD + IFR1 + Multi-Station Analysis (MWD+IFR1+MS)
3,926.69	1,596.51	5,371.72	1,598.41	OWSG MWD + IFR1 + Multi-Station Analysis (MWD+IFR1+MS)

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