



PDC Energy

Schlumberger

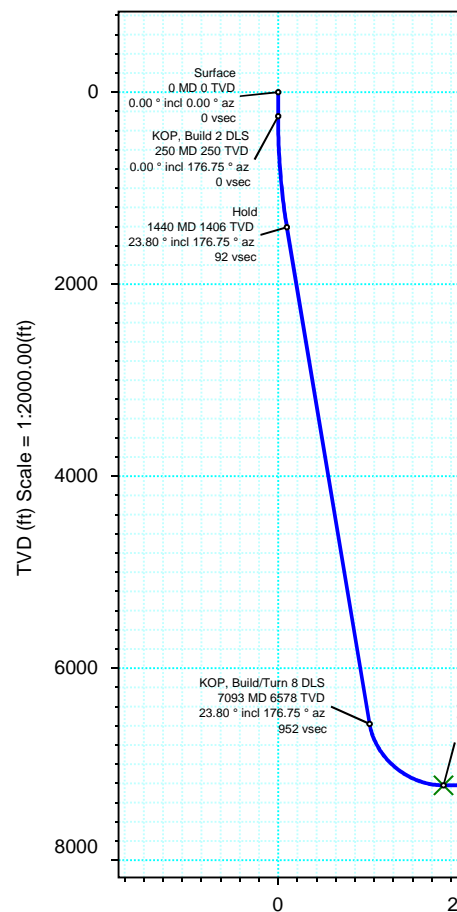
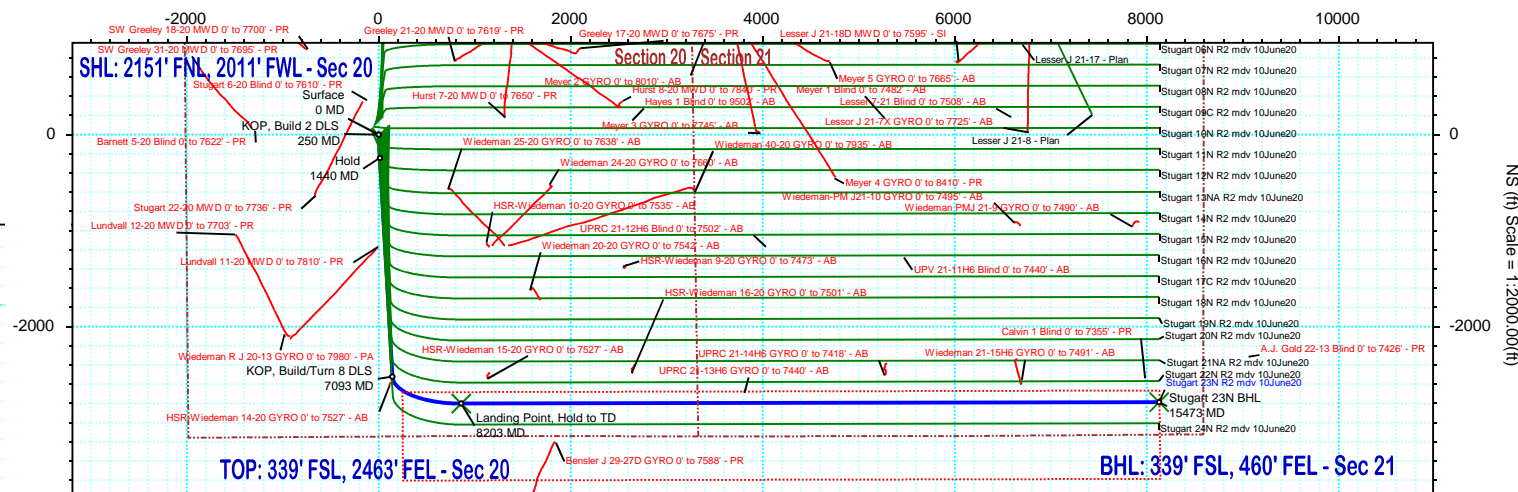
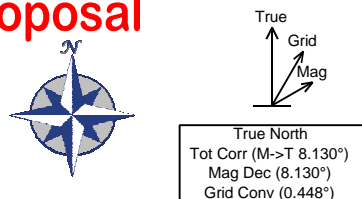
Rev 2

Borehole:	Well:	Field:	Structure:
Original Hole	Stugart 23N	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

Gravity & Magnetic Parameters		Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet			Miscellaneous	
Model:	HDGM 2020	Dip:	66.728°	Date:	17-Jun-2020	Lat: N 40 23 10.98
MagDec:	8.13°	FS:	52099.496nT	Gravity FS:	999.013mgn (9.80665 Based)	Northing: 1384356.12ftUS
		Lon: W 104 48 21.26		Easting: 3193349.5ftUS		Grid Conv: 0.4485°
				Scale Fact: 0.99995964		Slot: Stugart 23N
						TVD Ref: KB 4ft(4949ft above MSL)
						Plan: Stugart 23N R2 mdv 10June20

Proposal

EW (ft) Scale = 1:2000.00(ft)



Surface Location								
Northing: 1384356.12010546		Easting: 3193349.50280207		Latitude: N 40 23 10.98		Longitude: W 104 48 21.26		VSec Azimuth: 108.92
Target Description		Grid Coord					Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Stugart State 6-20 Pad Sec 20-21	N 40 23 12.30	W 104 48 21.28	1384490.53	3193346.78	4949.00	-45.17	134.43	-1.67
Stugart State 6-20 Pad HL - 29-30	N 40 23 10.24	W 104 48 22.31	1384280.81	3193269.03	4949.00	-52.47	-74.68	-81.07
Stugart 23N BHL	N 40 22 43.42	W 104 46 36.20	1381633.05	3201501.12	7203.00	8594.78	-2786.91	8130.40
Stugart 23N TOP	N 40 22 43.29	W 104 48 10.13	1381561.33	3194232.34	7219.00	1722.93	-2801.74	860.97

Critical Points							
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-) E(+)W(-) DLS	
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 2 DLS	250.00	0.00	176.75	250.00	0.00	0.00	0.00
Hold	1439.82	23.80	176.75	1405.91	91.89	-243.16	13.79 2.00
KOP, Build/Turn 8 DLS	7092.71	23.80	176.75	6578.22	952.45	-2520.37	142.92 0.00
Landing Point, Hold to TD	8203.38	90.13	89.88	7219.00	1722.93	-2801.74	860.97 8.00
Stugart 23N BHL	15472.85	90.13	89.88	7203.00	8594.78	-2786.91	8130.40 0.00

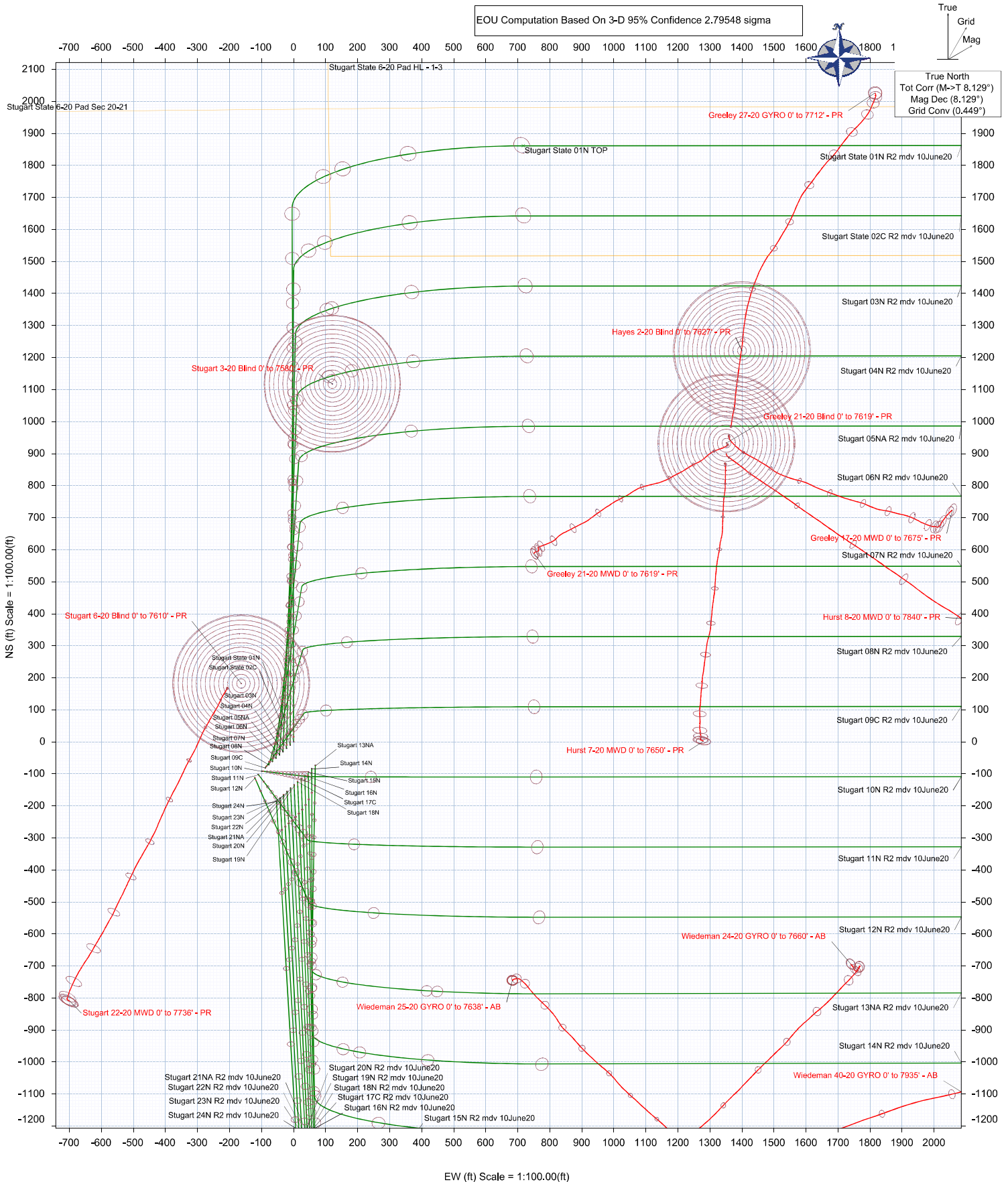
Vertical Section (ft) Azim = 108.92° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W



Borehole:	Well:	Field:	Structure:
Original Hole	Stugart State 01N	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

Gravity & Magnetic Parameters		Surface Location		Miscellaneous	
Model: HDGM 2020	Dip: 66.728°	Date: 17-Jun-2020	NAD83 Colorado State Plane, Northern Zone, US Feet	Stugart State	TVD Ref: KB 4ft(4948ft above MSL)
MagDec: 8.129°	FS: 52099.711nT	Gravity FS: 999.013mgm (9.80665 Based)	Lat: N 40 23 12.71	Slot: 01N	Plan: Stugart State 01N R2 mdv 10June20
			Lon: W 104 48 20.71		
			Northing: 1384531.67HUS		
			Easting: 3193390.47HUS		
			Scale Fact: 0.99995966		

EOU Computation Based On 3-D 95% Confidence 2.79548 sigma

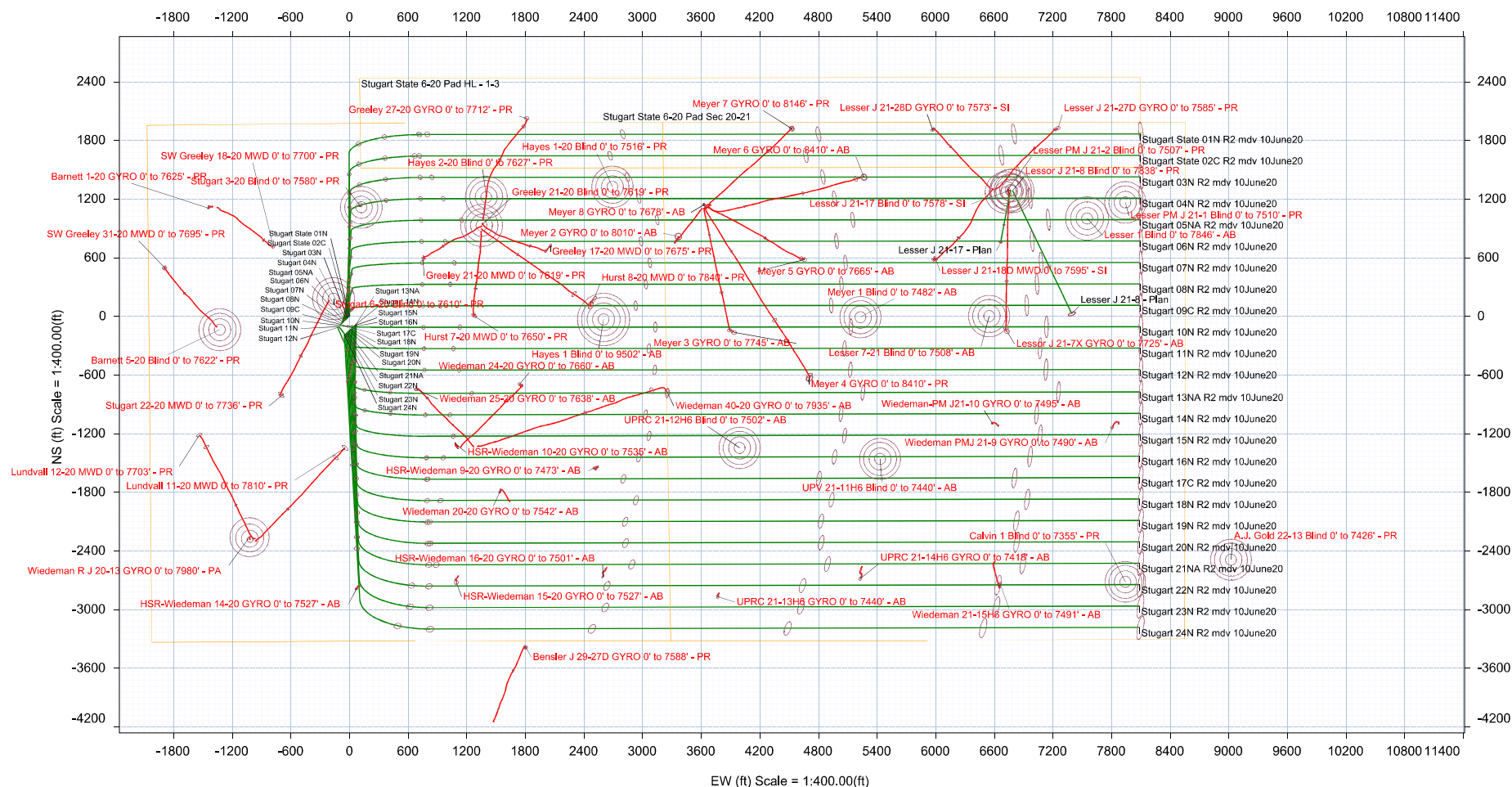




True North
Tot Corr (M->T 8.129°)
Mag Dec (8.129°)
Grid Conv (0.449°)

Borehole:	Well:	Field:	Structure:
Original Hole	Stugart State 01N	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)
Gravity & Magnetic Parameters		Surface Location	Miscellaneous
Mode: HDGM 2020	Dip: 66.728°	Date: 17-Jun-2020	Lat: N 40 23 12.71
MagDec: 8.129° FS:	52099.71mT Gravity FS:	999.013mag (8,0665 Based)	Northing: 1384531.67RUS
			Grid Conv: 0.4486°
			Scale Fact: 0.99995966
			Slot: Stugart State 01N TVD Ref: KB 4R(4948ft above MSL)
			Plan: Stugart State 01N R2 mdy 10June20

EOU Computation Based On 3-D 95% Confidence 2.79548 sigma



Stugart 23N R2 mdv 10June20 Proposal Geodetic Report

(Def Plan)

Report Date: June 19, 2020 - 11:39 AM
Client: PDC Energy
Field: CO, Weld County (NAD 83 NZ) - SRC
Structure / Slot: PDC Energy 20-05N-66W (Stugart State 6-20 Pad) / Stugart 23N
Well: Stugart 23N
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Stugart 23N R2 mdv 10June20
Survey Date: September 25, 2019
Tort / AHD / DDI / ERD Ratio: 112.650 ° / 10614.445 ft / 6.409 / 1.470
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 23' 10.97520", W 104° 48' 21.25800"
Location Grid N/E Y/X: N 1384356.120 ftUS, E 3193349.503 ftUS
CRS Grid Convergence Angle: 0.4485 °
Grid Scale Factor: 0.99995964
Version / Patch: 2.10.811.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 108.920 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 4ft
TVD Reference Elevation: 4949.000 ft above MSL
Seabed / Ground Elevation: 4945.000 ft above MSL
Magnetic Declination: 8.130 °
Total Gravity Field Strength: 999.0131mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52099.496 nT
Magnetic Dip Angle: 66.728 °
Declination Date: June 17, 2020
Magnetic Declination Model: HDGM 2020
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 8.1298 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1384356.12	3193349.50	40.386382	-104.805905
	100.00	0.00	176.75	100.00	0.00	0.00	0.00	0.00	1384356.12	3193349.50	40.386382	-104.805905
	200.00	0.00	176.75	200.00	0.00	0.00	0.00	0.00	1384356.12	3193349.50	40.386382	-104.805905
KOP, Build 2 DLS	250.00	0.00	176.75	250.00	0.00	0.00	0.00	0.00	1384356.12	3193349.50	40.386382	-104.805905
	300.00	1.00	176.75	300.00	0.16	-0.44	0.02	2.00	1384355.68	3193349.53	40.386381	-104.805905
	400.00	3.00	176.75	399.93	1.48	-3.92	0.22	2.00	1384352.20	3193349.76	40.386371	-104.805904
	500.00	5.00	176.75	499.68	4.11	-10.88	0.62	2.00	1384345.24	3193350.21	40.386352	-104.805903
	600.00	7.00	176.75	599.13	8.06	-21.32	1.21	2.00	1384334.81	3193350.88	40.386323	-104.805901
	700.00	9.00	176.75	698.15	13.31	-35.21	2.00	2.00	1384320.92	3193351.78	40.386285	-104.805898
	800.00	11.00	176.75	796.63	19.86	-52.55	2.98	2.00	1384303.60	3193352.89	40.386238	-104.805894
	900.00	13.00	176.75	894.44	27.70	-73.31	4.16	2.00	1384282.85	3193354.23	40.386181	-104.805890
	1000.00	15.00	176.75	991.46	36.83	-97.46	5.53	2.00	1384258.71	3193355.79	40.386114	-104.805885
	1100.00	17.00	176.75	1087.58	47.23	-124.98	7.09	2.00	1384231.21	3193357.57	40.386039	-104.805880
	1200.00	19.00	176.75	1182.68	58.89	-155.83	8.84	2.00	1384200.37	3193359.56	40.385954	-104.805873
	1300.00	21.00	176.75	1276.65	71.79	-189.97	10.77	2.00	1384166.25	3193361.76	40.385861	-104.805866
	1400.00	23.00	176.75	1369.36	85.92	-227.37	12.89	2.00	1384128.87	3193364.18	40.385758	-104.805859
Hold	1439.82	23.80	176.75	1405.91	91.89	-243.16	13.79	2.00	1384113.09	3193365.19	40.385715	-104.805856
	1500.00	23.80	176.75	1460.97	101.05	-267.40	15.16	0.00	1384088.86	3193366.76	40.385648	-104.805851
	1600.00	23.80	176.75	1552.47	116.27	-307.69	17.45	0.00	1384048.59	3193369.36	40.385537	-104.805842
	1700.00	23.80	176.75	1643.97	131.50	-347.97	19.73	0.00	1384008.33	3193371.96	40.385427	-104.805834
	1800.00	23.80	176.75	1735.47	146.72	-388.25	22.02	0.00	1383968.07	3193374.56	40.385316	-104.805826
	1900.00	23.80	176.75	1826.97	161.94	-428.54	24.30	0.00	1383927.80	3193377.16	40.385206	-104.805818
	2000.00	23.80	176.75	1918.46	177.17	-468.82	26.59	0.00	1383887.54	3193379.76	40.385095	-104.805810
	2100.00	23.80	176.75	2009.96	192.39	-509.11	28.87	0.00	1383847.28	3193382.36	40.384985	-104.805801
	2200.00	23.80	176.75	2101.46	207.61	-549.39	31.15	0.00	1383807.01	3193384.96	40.384874	-104.805793
	2300.00	23.80	176.75	2192.96	222.84	-589.67	33.44	0.00	1383766.75	3193387.55	40.384763	-104.805785
	2400.00	23.80	176.75	2284.46	238.06	-629.96	35.72	0.00	1383726.49	3193390.15	40.384653	-104.805777
	2500.00	23.80	176.75	2375.96	253.28	-670.24	38.01	0.00	1383686.22	3193392.75	40.384542	-104.805769
	2600.00	23.80	176.75	2467.45	268.51	-710.53	40.29	0.00	1383645.96	3193395.35	40.384432	-104.805760
	2700.00	23.80	176.75	2558.95	283.73	-750.81	42.58	0.00	1383605.70	3193397.95	40.384321	-104.805752
	2800.00	23.80	176.75	2650.45	298.95	-791.10	44.86	0.00	1383565.43	3193400.55	40.384211	-104.805744
	2900.00	23.80	176.75	2741.95	314.18	-831.38	47.15	0.00	1383525.17	3193403.15	40.384100	-104.805736
	3000.00	23.80	176.75	2833.45	329.40	-871.66	49.43	0.00	1383484.91	3193405.75	40.383989	-104.805728
	3100.00	23.80	176.75	2924.95	344.62	-911.95	51.71	0.00	1383444.64	3193408.35	40.383879	-104.805719
	3200.00	23.80	176.75	3016.45	359.85	-952.23	54.00	0.00	1383404.38	3193410.95	40.383768	-104.805711
	3300.00	23.80	176.75	3107.94	375.07	-992.52	56.28	0.00	1383364.12	3193413.55	40.383658	-104.805703
	3400.00	23.80	176.75	3199.44	390.29	-1032.80	58.57	0.00	1383323.85	3193416.15	40.383547	-104.805695
	3500.00	23.80	176.75	3290.94	405.52	-1073.08	60.85	0.00	1383283.59	3193418.75	40.383436	-104.805687
	3600.00	23.80	176.75	3382.44	420.74	-1113.37	63.14	0.00	1383243.33	3193421.35	40.383326	-104.805678
	3700.00	23.80	176.75	3473.94	435.96	-1153.65	65.42	0.00	1383203.06	3193423.95	40.383215	-104.805670
	3800.00	23.80	176.75	3565.44	451.19	-1193.94	67.71	0.00	1383162.80	3193426.55	40.383105	-104.805662
	3900.00	23.80	176.75	3656.94	466.41	-1234.22	69.99	0.00	1383122.54	3193429.15	40.382994	-104.805654
	4000.00	23.80	176.75	3748.43	481.63	-1274.50	72.27	0.00	1383082.28	3193431.75	40.382884	-104.805646
	4100.00	23.80	176.75	3839.93	496.86	-1314.79	74.56	0.00	1383042.01	3193434.35	40.382773	-104.805637
	4200.00	23.80	176.75	3931.43	512.08	-1355.07	76.84	0.00	1383001.75	3193436.95	40.382662	-104.805629
	4300.00	23.80	176.75	4022.93	527.30	-1395.36	79.13	0.00	1382961.49	3193439.55	40.382552	-104.805621
	4400.00	23.80	176.75	4114.43	542.53	-1435.64	81.41	0.00	1382921.22	3193442.15	40.382441	-104.805613
	4500.00	23.80	176.75	4205.93	557.75	-1475.92	83.70	0.00	1382880.96	3193444.74	40.382331	-104.805605
	4600.00	23.80	176.75	4297.42	572.97	-1516.21	85.98	0.00	1382840.70	3193447.34	40.382220	-104.805596
	4700.00	23.80	176.75	4388.92	588.20	-1556.49	88.26	0.00	1382800.43	3193449.94	40.382110	-104.805588
	4800.00	23.80	176.75	4480.42	603.42	-1596.78	90.55	0.00	1382760.17	3193452.54	40.381999	-104.805580
	4900.00	23.80	176.75	4571.92	618.64	-1637.06	92.83	0.00	1382719.91	3193455.14	40.381888	-104.805572
	5000.00	23.80	176.75	4663.42	633.87	-1677.34	95.12	0.00	1382679.64	3193457.74	40.381778	-104.805564
	5100.00	23.80	176.75	4754.92	649.09	-1717.63	97.40	0.00	1382639.38	3193460.34	40.381667	-104.805555
	5200.00	23.80	176.75	4846.42	664.31	-1757.91	99.69	0.00	1382599.12	3193462.94	40.381557	-104.805547
	5300.00	23.80	176.75	4937.91	679.54	-1798.20	101.97	0.00	1382558.85	3193465.54	40.381446	-104.805539
	5400.00	23.80	176.75	5029.41	694.76	-1838.48	104.26	0.00	1382518.59	3193468.14	40.381336	-104.805531
	5500.00	23.80	176.75	5120.91	709.98	-1878.76	106.54	0.00	1382478.33	3193470.74	40.381225	-104.805523
	5600.00	23.80	176.75	5212.41	725.21	-1919.05	108.82	0.00	1382438.06	3193473.34	40.381114	-104.805514
	5700.00	23.80	176.75	5303.91	740.43	-1959.33	111.11	0.00	1382397.80	3193475.94	40.381004	-104.805506
	5800.00	23.80	176.75	5395.41	755.65	-1999.62	113.39	0.00	1382357.54	3193478.54	40.380893	-104.805498
	5900.00	23.80	176.75	5486.91	770.88	-2039.90	115.68	0.00	1382317.27	3193481.14	40.380783	-104.805490
	6000.00	23.80	176.75	5578.40	786.10	-2080.18	117.96	0.00	1382277.01	3193483.74	40.380672	-104.805482
	6100.00	23.80	176.75	5669.90	801.32	-2120.47	120.25	0.00	1382236.75	3193486.34	40.380562	-104.805473
	6200.00	23.80	176.75	5761.40	816.55	-2160.75	122.53	0.00	1382196.48	3193488.94	40.380451	-104.805465
	6300.00	23.80	176.75	5852.90	831.77	-2201.04	124.82	0.00	1382156.22	3193491.54	40.380340	-104.805457
	6400.00	23.80	176.75	5944.40	846.99	-2241.32	127.10	0.00	1382115.96	3193494.14	40.380230	-104.805449
	6500.00	23.80	176.75	6035.90	862.22	-2281.61	129.38	0.00	1382075.69	3193496.74	40.380119	-104.805441
	6600.00	23.80	176.75	6127.39	877.44	-2321.89	131.67	0.00	1382035.43	3193499.34	40.380009	-104.805433
	6700.00	23.80	176.75	6218.89	892.66	-2362.17	133.95	0.00	1381995.17	3193501.93	40.379898	-104.805424
	6800.00	23.80	176.75	6310.39	907.89	-2402.46	136.24	0.00	1381954.90	3193504.53	40.379787	-104.805416
	6900.00	23.80	176.75	6401.89	923.11	-2442.74	138.52	0.00	1381914.64	3193507.13	40.379677	-104.805408
	7000.00	23.80	176.75	6493.39	938.33	-2483.03	140.81	0.00	1381874.38	3193509.73	40.379566	-104.805400
KOP, Build/Turn 8 DLS	7092.71	23.80	176.75	6578.22	952.45	-2520.37	142.92	0.00	1381837.05	3193512.14</		

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7300.00	29.42	141.28	6764.64	1011.64	-2602.42	177.37	8.00	1381755.28	3193547.23	40.379239	-104.805268
	7400.00	34.56	129.67	6849.50	1058.99	-2639.74	214.63	8.00	1381718.25	3193584.78	40.379136	-104.805135
	7500.00	40.54	120.92	6928.81	1117.40	-2674.61	264.43	8.00	1381683.78	3193634.84	40.379040	-104.804956
	7600.00	47.03	114.15	7001.00	1185.73	-2706.33	325.79	8.00	1381652.54	3193696.46	40.378953	-104.804736
	7700.00	53.85	108.70	7064.67	1262.67	-2734.29	397.54	8.00	1381625.15	3193768.41	40.378877	-104.804478
	7800.00	60.87	104.14	7118.60	1346.70	-2757.94	478.26	8.00	1381602.12	3193849.32	40.378812	-104.804188
	7900.00	68.03	100.17	7161.71	1436.20	-2776.83	566.40	8.00	1381583.92	3193937.59	40.378760	-104.803872
	8000.00	75.27	96.59	7193.19	1529.42	-2790.59	660.23	8.00	1381570.90	3194031.52	40.378722	-104.803535
	8100.00	82.56	93.23	7212.41	1624.55	-2798.95	757.92	8.00	1381563.31	3194129.28	40.378699	-104.803185
	8200.00	89.88	89.99	7219.00	1719.73	-2801.74	857.59	8.00	1381561.29	3194228.95	40.378691	-104.802827
Landing Point, Hold to TD	8203.38	90.13	89.88	7219.00	1722.93	-2801.74	860.97	8.00	1381561.33	3194232.34	40.378691	-104.802815
	8300.00	90.13	89.88	7218.79	1814.26	-2801.54	957.58	0.00	1381562.28	3194328.95	40.378692	-104.802468
	8400.00	90.13	89.88	7218.57	1908.79	-2801.34	1057.58	0.00	1381563.27	3194428.94	40.378693	-104.802109
	8500.00	90.13	89.88	7218.35	2003.32	-2801.13	1157.58	0.00	1381564.25	3194528.93	40.378693	-104.801750
	8600.00	90.13	89.88	7218.13	2097.85	-2800.93	1257.58	0.00	1381565.24	3194628.92	40.378694	-104.801391
	8700.00	90.13	89.88	7217.91	2192.38	-2800.73	1357.58	0.00	1381566.23	3194728.91	40.378694	-104.801032
	8800.00	90.13	89.88	7217.69	2286.91	-2800.52	1457.58	0.00	1381567.21	3194828.90	40.378695	-104.800673
	8900.00	90.13	89.88	7217.47	2381.44	-2800.32	1557.58	0.00	1381568.20	3194928.89	40.378695	-104.800314
	9000.00	90.13	89.88	7217.25	2475.97	-2800.11	1657.58	0.00	1381569.19	3195028.88	40.378696	-104.799956
	9100.00	90.13	89.88	7217.03	2570.50	-2799.91	1757.58	0.00	1381570.17	3195128.87	40.378696	-104.799597
	9200.00	90.13	89.88	7216.81	2665.03	-2799.70	1857.58	0.00	1381571.16	3195228.86	40.378697	-104.799238
	9300.00	90.13	89.88	7216.59	2759.57	-2799.50	1957.58	0.00	1381572.15	3195328.85	40.378697	-104.798879
	9400.00	90.13	89.88	7216.37	2854.10	-2799.30	2057.58	0.00	1381573.13	3195428.84	40.378698	-104.798520
	9500.00	90.13	89.88	7216.15	2948.63	-2799.09	2157.58	0.00	1381574.12	3195528.83	40.378698	-104.798161
	9600.00	90.13	89.88	7215.93	3043.16	-2798.89	2257.58	0.00	1381575.11	3195628.82	40.378699	-104.797802
	9700.00	90.13	89.88	7215.71	3137.69	-2798.68	2357.58	0.00	1381576.09	3195728.81	40.378700	-104.797443
	9800.00	90.13	89.88	7215.49	3232.22	-2798.48	2457.58	0.00	1381577.08	3195828.81	40.378700	-104.797084
	9900.00	90.13	89.88	7215.27	3326.75	-2798.28	2557.58	0.00	1381578.07	3195928.80	40.378701	-104.796725
	10000.00	90.13	89.88	7215.05	3421.28	-2798.07	2657.58	0.00	1381579.05	3196028.79	40.378701	-104.796366
	10100.00	90.13	89.88	7214.83	3515.81	-2797.87	2757.58	0.00	1381580.04	3196128.78	40.378702	-104.796007
	10200.00	90.13	89.88	7214.61	3610.34	-2797.66	2857.58	0.00	1381581.03	3196228.77	40.378702	-104.795648
	10300.00	90.13	89.88	7214.39	3704.87	-2797.46	2957.58	0.00	1381582.01	3196328.76	40.378703	-104.795289
	10400.00	90.13	89.88	7214.17	3799.40	-2797.26	3057.58	0.00	1381583.00	3196428.75	40.378703	-104.794931
	10500.00	90.13	89.88	7213.95	3893.93	-2797.05	3157.57	0.00	1381583.99	3196528.74	40.378704	-104.794572
	10600.00	90.13	89.88	7213.73	3988.46	-2796.85	3257.57	0.00	1381584.97	3196628.73	40.378704	-104.794213
	10700.00	90.13	89.88	7213.50	4082.99	-2796.64	3357.57	0.00	1381585.96	3196728.72	40.378705	-104.793854
	10800.00	90.13	89.88	7213.28	4177.52	-2796.44	3457.57	0.00	1381586.95	3196828.71	40.378705	-104.793495
	10900.00	90.13	89.88	7213.06	4272.05	-2796.24	3557.57	0.00	1381587.93	3196928.70	40.378706	-104.793136
	11000.00	90.13	89.88	7212.84	4366.58	-2796.03	3657.57	0.00	1381588.92	3197028.69	40.378706	-104.792777
	11100.00	90.13	89.88	7212.62	4461.11	-2795.83	3757.57	0.00	1381589.91	3197128.68	40.378707	-104.792418
	11200.00	90.13	89.88	7212.40	4555.64	-2795.62	3857.57	0.00	1381590.89	3197228.67	40.378707	-104.792059
	11300.00	90.13	89.88	7212.18	4650.17	-2795.42	3957.57	0.00	1381591.88	3197328.67	40.378708	-104.791700
	11400.00	90.13	89.88	7211.96	4744.70	-2795.22	4057.57	0.00	1381592.87	3197428.66	40.378708	-104.791341
	11500.00	90.13	89.88	7211.74	4839.23	-2795.01	4157.57	0.00	1381593.85	3197528.65	40.378709	-104.790982
	11600.00	90.13	89.88	7211.52	4933.76	-2794.81	4257.57	0.00	1381594.84	3197628.64	40.378710	-104.790624
	11700.00	90.13	89.88	7211.30	5028.29	-2794.60	4357.57	0.00	1381595.83	3197728.63	40.378710	-104.790265
	11800.00	90.13	89.88	7211.08	5122.82	-2794.40	4457.57	0.00	1381596.81	3197828.62	40.378711	-104.789906
	11900.00	90.13	89.88	7210.86	5217.35	-2794.20	4557.57	0.00	1381597.80	3197928.61	40.378711	-104.789547
	12000.00	90.13	89.88	7210.64	5311.89	-2793.99	4657.57	0.00	1381598.79	3198028.60	40.378712	-104.789188
	12100.00	90.13	89.88	7210.42	5406.42	-2793.79	4757.57	0.00	1381599.77	3198128.59	40.378712	-104.788829
	12200.00	90.13	89.88	7210.20	5500.95	-2793.58	4857.57	0.00	1381600.76	3198228.58	40.378713	-104.788470
	12300.00	90.13	89.88	7209.98	5595.48	-2793.38	4957.57	0.00	1381601.75	3198328.57	40.378713	-104.788111
	12400.00	90.13	89.88	7209.76	5690.01	-2793.18	5057.57	0.00	1381602.73	3198428.56	40.378714	-104.787752
	12500.00	90.13	89.88	7209.54	5784.54	-2792.97	5157.57	0.00	1381603.72	3198528.55	40.378714	-104.787393
	12600.00	90.13	89.88	7209.32	5879.07	-2792.77	5257.57	0.00	1381604.71	3198628.54	40.378715	-104.787034
	12700.00	90.13	89.88	7209.10	5973.60	-2792.56	5357.57	0.00	1381605.69	3198728.53	40.378715	-104.786675
	12800.00	90.13	89.88	7208.88	6068.13	-2792.36	5457.56	0.00	1381606.68	3198828.52	40.378716	-104.786316
	12900.00	90.13	89.88	7208.66	6162.66	-2792.16	5557.56	0.00	1381607.67	3198928.52	40.378716	-104.785958
	13000.00	90.13	89.88	7208.44	6257.19	-2791.95	5657.56	0.00	1381608.65	3199028.51	40.378717	-104.785599
	13100.00	90.13	89.88	7208.22	6351.72	-2791.75	5757.56	0.00	1381609.64	3199128.50	40.378717	-104.785240
	13200.00	90.13	89.88	7208.00	6446.25	-2791.54	5857.56	0.00	1381610.63	3199228.49	40.378718	-104.784881
	13300.00	90.13	89.88	7207.78	6540.78	-2791.34	5957.56	0.00	1381611.61	3199328.48	40.378718	-104.784522
	13400.00	90.13	89.88	7207.56	6635.31	-2791.14	6057.56	0.00	1381612.60	3199428.47	40.378719	-104.784163
	13500.00	90.13	89.88	7207.34	6729.84	-2790.93	6157.56	0.00	1381613.59	3199528.46	40.378719	-104.783804
	13600.00	90.13	89.88	7207.12	6824.37	-2790.73	6257.56	0.00	1381614.57	3199628.45	40.378720	-104.783445
	13700.00	90.13	89.88	7206.90	6918.90	-2790.52	6357.56	0.00	1381615.56	3199728.44	40.378720	-104.783086
	13800.00	90.13	89.88	7206.68	7013.43	-2790.32	6457.56	0.00	1381616.55	3199828.43	40.378721	-104.782727
	13900.00	90.13	89.88	7206.46	7107.96	-2790.12	6557.56	0.00	1381617.53	3199928.42	40.378721	-104.782368
	14000.00	90.13	89.88	7206.24	7202.49	-2789.91	6657.56	0.00	1381618.52	3200028.41	40.378721	-104.782009
	14100.00	90.13	89.88	7206.02	7297.02	-2789.71	6757.56	0.00	1381619.51	3200128.40	40.378722	-104.781650
	14200.00	90.13	89.88	7205.80	7391.55	-2789.50	6857.56	0.00	1381620.49	3200228.39	40.378722	-104.781291
	14300.00	90.13	89.88	7205.58	7486.08	-2789.30	6957.56	0.00	1381621.48	3200328.38	40.378723	-104.780933
	14400.00	90.13	89.88	7205.36	7580.61	-2789.10	7057.56	0.00	1381622.47	3200428.37	40.378723	-104.780574
	14500.00	90.13	89.88	7205.14	7675.14	-2788.89	7157.56	0.00	1381623.45	3200528.37	40.378724	-104.780215
	14600.00	90.13	89.88	7204.92	7769.67	-2788.69	7257.56	0.00	1381624.44	3200628.36	40.378724	-104.779856
	14700.00	90.13	89.88	7204.70	7864.20	-2788.48	7357.56	0.00	1381625.43	3200728.35	40.378725	-104.779497
	14800.00	90.13	89.88	7204.48	7958.74	-2788.28	7457.56	0.00	1381626.41	3200828.34	40.378725	-104.779138
	14900.00	90.13	89.88	7204.26								

Stugart 23N R2 mdv 10June20 Anti-Collision Summary Report

Analysis Date-24hr Time: June 19, 2020 - 11:42

Client: PDC Energy

Field: CO, Weld County (NAD 83 NZ) - SRC

Structure: PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

Slot: Stugart 23N

Well: Stugart 23N

Borehole: Original Hole

Scan MD Range: 0.00ft ~ 15472.85ft

Analysis Method: 3D Least Distance

Reference Trajectory: Stugart 23N R2 mdv 10June20 (Def Plan)

Depth Interval: Every 10.00 Measured Depth (ft)

Rule Set: D&M AntiCollision Standard S002 v5.1/5.2

Min Pts: All local minima indicated.

Version / Patch: 2.10.811.0

Database \ Project: localhost\drilling-project1

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan: Not performed!

Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Calvin 1 Blind 0' to 7355' - PR

(Def Survey)

Fail Major

8378.78	32.81	8376.97	8345.97	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
8378.71	32.81	8376.82	8345.90	104268.41	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
1418.37	431.76	1127.98	986.61	4.99	OSF1.50	13930.00	7206.40	OSF<5.00				Enter Alert
442.76	446.68	142.87	-3.92	1.49	OSF1.50	14960.00	7204.13			OSF<1.50		Enter Minor
304.78	461.24	-3.97	-156.46	0.99	OSF1.50	15150.00	7203.71					Enter Major
248.60	472.09	-66.66	-223.49	0.79	OSF1.50	15320.00	7203.34					MinPts
248.54	471.86	-66.57	-223.32	0.79	OSF1.50	15330.00	7203.31					MinPt-CtCt
288.44	457.01	-16.76	-168.57	0.94	OSF1.50	15472.85	7203.00					TD

Stugart 22N R2 mdv 10June20

(Def Plan)

Fail Minor

14.90	12.11	13.92	2.79	N/A	MAS = 3.69 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
14.90	12.11	13.92	2.79	N/A	MAS = 3.69 (m)	4.00	4.00					WRP
14.90	12.11	12.67	2.79	11.18	MAS = 3.69 (m)	290.00	290.00					MinPt-O-SF
14.90	12.11	12.67	2.79	11.18	MAS = 3.69 (m)	300.00	300.00					MINPT-O-EQU
14.08	12.79	5.22	1.29	1.66	OSF1.50	1340.00	1313.89					MinPt-CtCt
14.30	13.61	4.90	0.69	1.58	OSF1.50	1390.00	1360.15					MINPT-O-EQU
14.56	13.91	4.96	0.65	1.58	OSF1.50	1410.00	1378.56					MinPts
203.22	80.70	149.09	122.52	3.81	OSF1.50	7070.00	6557.44					MinPt-O-SF
226.55	226.86	74.98	-0.31	1.50	OSF1.50	12870.00	7208.73	OSF<1.50				Enter Minor
225.58	317.75	13.43	-92.15	1.06	OSF1.50	15472.85	7203.00					MinPts

Stugart 24N R2 mdv 10June20

(Def Plan)

Fail Minor

15.11	12.28	14.12	2.83	N/A	MAS = 3.74 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
15.11	12.28	14.12	2.83	N/A	MAS = 3.74 (m)	4.00	4.00					WRP
15.11	12.28	12.88	2.83	11.34	MAS = 3.74 (m)	290.00	290.00					MinPt-O-SF
15.11	12.28	12.88	2.83	11.34	MAS = 3.74 (m)	300.00	300.00					MINPT-O-EQU
14.24	14.25	4.41	-0.01	1.50	OSF1.50	1420.00	1387.74	OSF<1.50				Enter Minor
14.21	14.81	4.00	-0.61	1.43	OSF1.50	1450.00	1415.22					MinPt-CtCt
14.41	15.48	3.76	-1.07	1.39	OSF1.50	1490.00	1451.82					MINPT-O-EQU
14.65	15.78	3.79	-1.14	1.39	OSF1.50	1510.00	1470.12					MinPts
18.54	18.58	5.82	-0.05	1.50	OSF1.50	1720.00	1662.27	OSF>1.50				Exit Minor
154.76	84.26	98.26	70.50	2.77	OSF1.50	7092.71	6578.22					MinPt-O-SF
229.52	229.58	76.13	-0.07	1.50	OSF1.50	13900.00	7206.46	OSF<1.50				Enter Minor
230.24	285.38	39.65	-55.15	1.21	OSF1.50	15472.85	7203.00					MinPts

HSR-Wiedeman 14-20 GYRO

0' to 7527' - AB (Def Survey)

Fail Minor

2589.78	32.81	2587.97	2556.98	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
2589.75	32.81	2587.90	2556.94	72977.78	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
2588.95	32.81	2586.03	2556.15	2329.19	MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
1944.60	32.81	1932.87	1911.80	196.90	MAS = 10.00 (m)	2460.00	2339.36					MinPt-O-SF
175.46	55.94	136.89	119.53	4.94	OSF1.50	6870.00	6374.44	OSF<5.00				Enter Alert
59.00	59.16	16.61	-0.17	1.50	OSF1.50	7230.00	6702.80	OSF<1.50				Enter Minor
58.92	59.11	16.62	-0.20	1.49	OSF1.50	7240.00	6711.73	OSF>1.50				Exit Minor
187.35	59.11	147.41	128.24	4.84	OSF1.50	7530.00	6951.28	OSF>5.00				Exit Alert
8020.37	60.65	7979.41	7959.73	203.72	OSF1.50	15472.85	7203.00					TD

UPRC 21-13H6 GYRO 0' to

7440' - AB (Def Survey)

Fail Minor

4653.03	32.81	4651.22	4620.22	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
4652.94	32.81	4651.03	4620.13	46283.16	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
4651.88	32.81	4649.73	4618.99	18038.54	MAS = 10.00 (m)	110.00	110.00					MinPts
4652.00	32.81	4649.25	4619.19	4998.99	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EQU
4651.88	32.81	4649.09	4619.07	4764.79	MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
257.17	82.15	201.12	175.02	4.85	OSF1.50	10920.00	7213.02	OSF<5.00				Enter Alert
111.71	114.91	34.57	-3.20	1.46	OSF1.50	11120.00	7212.58	OSF<1.50				Enter Minor
106.44	115.02	29.23	-8.58	1.39	OSF1.50	11150.00	7212.51					MinPts
107.54	111.36	32.76	-3.83	1.45	OSF1.50	11170.00	7212.47	OSF>1.50				Exit Minor
214.13	65.86	169.69	148.27	4.96	OSF1.50	11340.00	7212.10	OSF>5.00				Exit Alert
4319.96	58.53	4280.41	4261.44	113.80	OSF1.50	15472.85	7203.00					TD

Stugart 21NA R2 mdv

10June20 (Def Plan)

Warning Alert

30.01	24.20	29.03	5.81	N/A	MAS = 7.38 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
30.01	24.20	29.03	5.81	N/A	MAS = 7.38 (m)	4.00	4.00					WRP
30.01	24.20	27.78	5.81	23.31	MAS = 7.38 (m)	290.00	290.00					MinPt-O-SF
30.01	24.20	27.78	5.81	23.33	MAS = 7.38 (m)	300.00	300.00					MINPT-O-EQU
28.67	24.20	20.37	4.47	3.78	MAS = 7.38 (m)	1290.00	1267.31					MinPts
28.94	24.20	20.07	4.74	3.55	MAS = 7.38 (m)	1340.00	1313.89					MINPT-O-EQU
30.60	24.20	20.94	6.40	3.41	MAS = 7.38 (m)	1420.00	1387.74					MinPt-O-SF
62.29	24.20	48.96	38.09	4.97	MAS = 7.38 (m)	2120.00	2028.26	OSF>5.00				Exit Alert
311.27	76.03	260.26	235.24	6.20	OSF1.50	6820.00	6328.69					MinPt-O-SF
455.65	137.57	363.61	318.09	4.99	OSF1.50	11200.00	7212.40	OSF<5.00				Enter Alert
453.91	289.02	250.90	164.89	2.38	OSF1.50	15472.85	7203.00					MinPts

Stugart 20N R2 mdv 10June20

(Def Plan)

Warning Alert

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
Stugart 19N R2 mdv 10June20 (Def Plan)	44.91	32.81	43.93	12.10	N/A	MAS = 10.00 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert		
	44.91	32.81	43.93	12.10	N/A	MAS = 10.00 (m)	4.00	4.00				WRP		
	44.91	32.81	42.68	12.10	35.28	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF		
	44.91	32.81	42.68	12.10	35.32	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU		
	43.05	32.81	35.98	10.25	6.91	MAS = 10.00 (m)	1180.00	1163.75				MinPts		
	43.29	32.81	35.69	10.48	6.39	MAS = 10.00 (m)	1230.00	1211.00	CtCt<=15m>15.00			MINPT-O-EOU		
	47.66	32.81	38.61	14.85	5.79	MAS = 10.00 (m)	1380.00	1350.93				MinPt-O-SF		
	48.72	32.81	39.50	15.91	5.80	MAS = 10.00 (m)	1400.00	1369.36				Exit Alert		
	543.88	75.24	493.39	468.64	10.97	OSF1.50	6910.00	6411.04				MinPt-O-SF		
	657.06	163.72	547.58	493.34	6.05	OSF1.50	11460.00	7211.83				MinPt-CtCt		
	657.06	198.06	524.69	459.00	4.99	OSF1.50	12470.00	7209.61	OSF<5.00			Enter Alert		
	657.10	304.86	453.53	352.23	3.24	OSF1.50	15472.85	7203.00				MinPts		
	Warning Alert													
	Wiedeman 21-15H6 GYRO 0' to 7491' - AB (Def Survey)	60.02	32.81	59.03	27.21	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
60.02		32.81	59.03	27.21	N/A	MAS = 10.00 (m)	4.00	4.00				WRP		
60.01		32.81	57.78	27.21	47.41	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF		
60.01		32.81	57.78	27.20	47.49	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU		
57.93		32.81	51.78	25.12	11.04	MAS = 10.00 (m)	1090.00	1078.02				MinPts		
58.11		32.81	51.57	25.30	10.28	MAS = 10.00 (m)	1130.00	1116.23				MINPT-O-EOU		
66.97		32.81	58.28	34.16	8.57	MAS = 10.00 (m)	1360.00	1332.43				MinPt-O-SF		
751.55		73.72	702.08	677.83	15.48	OSF1.50	6930.00	6429.34				MinPt-O-SF		
878.12		264.44	701.50	613.68	4.99	OSF1.50	14250.00	7205.69	OSF<5.00			Enter Alert		
877.98		308.46	672.01	569.52	4.28	OSF1.50	15472.85	7203.00				MinPts		
Warning Alert														
UPRC 21-14H6 GYRO 0' to 7418' - AB (Def Survey)		7046.69	32.81	7044.87	7013.88	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		7046.61	32.81	7044.71	7013.80	79239.93	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
		7044.89	32.81	7042.14	7012.09	7489.94	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	6618.01	34.61	6594.39	6583.40	300.93	OSF1.50	4700.00	4388.92				MinPt-CtCt		
	6618.11	34.95	6594.28	6583.17	297.83	OSF1.50	4740.00	4425.52				MINPT-O-EOU		
	6618.32	35.19	6594.32	6583.12	295.54	OSF1.50	4770.00	4452.97	OSF<5.00			MinPt-O-ADP		
	396.53	124.59	311.73	271.94	4.92	OSF1.50	13710.00	7206.88				Enter Alert		
	219.73	180.36	98.96	39.38	1.83	OSF1.50	14030.00	7206.18				MinPts		
	219.48	179.90	99.03	39.60	1.83	OSF1.50	14040.00	7206.15				MinPt-CtCt		
	355.57	109.71	281.90	245.87	4.91	OSF1.50	14320.00	7205.54	OSF>5.00			Exit Alert		
	1449.27	57.86	1410.17	1391.42	38.60	OSF1.50	15472.85	7203.00				TD		
	Warning Alert													
	A.J. Gold 22-13 Blind 0' to 7426' - PR (Def Survey)	5803.70	32.81	5801.88	5770.89	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		5803.61	32.81	5801.70	5770.80	59815.52	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
5801.97		32.81	5799.19	5769.16	5971.01	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF		
5577.93		32.81	5565.14	5545.12	501.81	MAS = 10.00 (m)	2140.00	2046.56				MinPt-O-SF		
405.05		125.01	320.65	280.04	4.95	OSF1.50	12340.00	7209.90	OSF<5.00			Enter Alert		
293.56		150.84	192.46	142.72	2.93	OSF1.50	12610.00	7209.30				MinPts		
293.41		150.49	192.55	142.92	2.94	OSF1.50	12620.00	7209.28				MinPt-CtCt		
373.16		116.11	295.22	257.06	4.87	OSF1.50	12850.00	7208.77	OSF>5.00			Exit Alert		
2867.59		55.19	2830.26	2812.40	80.23	OSF1.50	15472.85	7203.00				TD		
Warning Alert														
Stugart 18N R2 mdv 10June20 (Def Plan)		74.92	32.81	73.94	42.11	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		74.92	32.81	73.94	42.11	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
		74.91	32.81	72.69	42.11	59.37	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
		74.91	32.81	72.68	42.10	59.50	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	72.65	32.81	67.29	39.84	16.39	MAS = 10.00 (m)	1010.00	1001.12				MinPts		
Stugart 17C R2 mdv 10June20 (Def Plan)	72.82	32.81	67.09	40.01	15.12	MAS = 10.00 (m)	1050.00	1039.64				MINPT-O-EOU		
	88.21	32.81	79.69	55.41	11.56	MAS = 10.00 (m)	1360.00	1332.43				MinPt-O-SF		
	915.75	71.16	867.98	844.59	19.55	OSF1.50	6850.00	6356.14				MinPt-O-SF		
	1095.08	305.05	891.39	790.03	5.40	OSF1.50	15472.85	7203.00				MinPts		
	Pass													
	89.78	32.81	88.80	56.97	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	89.78	32.81	88.80	56.97	N/A	MAS = 10.00 (m)	4.00	4.00				WRP		
89.77	32.81	87.54	56.96	71.31	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF			
89.77	32.81	87.54	56.96	71.49	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU			
87.64	32.81	83.21	54.83	25.15	MAS = 10.00 (m)	910.00	904.18				MinPts			
87.78	32.81	83.08	54.97	23.38	MAS = 10.00 (m)	940.00	933.35				MINPT-O-EOU			
113.56	32.81	105.33	80.76	15.55	MAS = 10.00 (m)	1350.00	1323.17				MinPt-O-SF			
1170.63	71.14	1122.88	1099.50	25.01	OSF1.50	6990.00	6484.24				MinPt-O-SF			
1327.62	310.64	1120.20	1016.98	6.43	OSF1.50	15472.85	7203.00				MinPts			
Pass														
Stugart 12N R2 mdv 10June20 (Def Plan)	101.16	32.81	100.18	68.35	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	101.16	32.81	100.18	68.35	N/A	MAS = 10.00 (m)	4.00	4.00				WRP		
	101.09	32.81	98.86	68.29	79.97	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF		
	101.06	32.81	98.82	68.25	80.10	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU		
	99.09	32.81	97.52	66.28	167.00	MAS = 10.00 (m)	510.00	509.64				MinPts		
	99.11	32.81	97.50	66.30	155.84	MAS = 10.00 (m)	520.00	519.60				MINPT-O-EOU		
	188.06	32.81	181.53	155.25	33.76	MAS = 10.00 (m)	1240.00	1220.41				MinPt-O-SF		
	2135.24	63.93	2092.29	2071.31	50.86	OSF1.50	6950.00	6447.64				MinPt-O-SF		
	2419.98	306.18	2215.54	2113.80	11.89	OSF1.50	15472.85	7203.00				MinPts		
	Pass													
	Stugart 11N R2 mdv 10June20 (Def Plan)	100.18	32.81	99.20	67.37	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
100.18		32.81	99.20	67.37	N/A	MAS = 10.00 (m)	4.00	4.00				WRP		
100.07		32.81	97.82	67.26	78.60	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF		
99.48		32.81	97.62	66.67	112.52	MAS = 10.00 (m)	380.00	379.96				MINPT-O-EOU		
99.44		32.81	97.66	66.63	123.91	MAS = 10.00 (m)	400.00	399.93				MinPts		
219.83		32.81	213.29	187.02	39.42	MAS = 10.00 (m)	1240.00	1220.41				MinPt-O-SF		
2388.80		64.58	2345.42	2324.22	56.32	OSF1.50	7092.71	6578.22				MinPt-O-SF		
2639.33		308.14	2433.58	2331.19	12.88	OSF1.50	15472.85	7203.00				MinPts		
Pass														

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Stugart 10N R2 mdv 10June20 (Def Plan)													Pass
	101.25	32.81	100.26	68.44	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	101.25	32.81	100.26	68.44	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	101.25	32.81	99.02	68.44	80.58	MAS = 10.00 (m)	250.00	250.00				MinPts	
	101.26	32.81	99.00	68.45	78.62	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	101.33	32.81	99.02	68.52	76.99	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	226.14	32.81	219.79	193.33	42.01	MAS = 10.00 (m)	1150.00	1135.27				MinPt-O-SF	
	2590.62	64.04	2547.60	2526.59	61.61	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	2867.95	309.43	2651.34	2548.52	13.85	OSF1.50	15472.85	7203.00				MinPts	
Stugart 16N R2 mdv 10June20 (Def Plan)													Pass
	104.89	32.81	103.91	72.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	104.89	32.81	103.90	72.08	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	104.89	32.81	102.66	72.08	83.72	MAS = 10.00 (m)	250.00	250.00				MinPts	
	104.89	32.81	102.66	72.08	83.50	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	104.89	32.81	102.66	72.08	83.45	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	104.88	32.81	102.65	72.07	83.49	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	102.93	32.81	99.20	70.13	37.10	MAS = 10.00 (m)	830.00	826.05				MinPts	
	103.11	32.81	99.05	70.30	33.15	MAS = 10.00 (m)	870.00	865.17				MINPT-O-EOU	
	140.52	32.81	132.36	107.71	19.45	MAS = 10.00 (m)	1360.00	1332.43				MinPt-O-SF	
	1327.58	68.84	1281.36	1258.74	29.32	OSF1.50	6920.00	6420.19				MinPt-O-SF	
	1535.10	306.63	1330.35	1228.47	7.53	OSF1.50	15472.85	7203.00				MinPts	
Stugart 09C R2 mdv 10June20 (Def Plan)													Pass
	104.63	32.81	103.65	71.82	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	104.63	32.81	103.65	71.82	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	104.63	32.81	102.40	71.82	83.30	MAS = 10.00 (m)	250.00	250.00				MinPts	
	104.65	32.81	102.40	71.85	81.43	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	224.83	32.81	218.62	192.09	42.89	MAS = 10.00 (m)	1040.00	1030.03				MinPt-O-SF	
	2765.04	63.44	2742.42	2721.60	66.87	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3061.10	309.05	2874.74	2772.06	15.00	OSF1.50	15472.85	7203.00				MinPts	
Stugart 08N R2 mdv 10June20 (Def Plan)													Pass
	109.51	32.81	108.53	76.70	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	109.51	32.81	108.53	76.70	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	109.51	32.81	107.28	76.70	87.23	MAS = 10.00 (m)	250.00	250.00				MinPts	
	109.54	32.81	107.28	76.73	85.15	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	246.59	32.81	240.42	213.78	47.35	MAS = 10.00 (m)	1020.00	1010.76				MinPt-O-SF	
	2981.44	62.76	2939.27	2918.68	72.37	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3193.14	66.39	3148.55	3126.75	73.21	OSF1.50	7600.00	7001.00				MinPt-O-SF	
	3296.21	306.80	3091.35	2989.41	16.16	OSF1.50	15472.85	7203.00				MinPts	
Stugart 07N R2 mdv 10June20 (Def Plan)													Pass
	116.46	32.81	115.48	83.65	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	116.46	32.81	115.48	83.65	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	116.46	32.81	114.23	83.65	92.82	MAS = 10.00 (m)	250.00	250.00				MinPts	
	272.47	32.81	266.26	239.66	51.98	MAS = 10.00 (m)	1020.00	1010.76				MinPt-O-SF	
	3175.97	62.13	3134.22	3113.84	77.89	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3401.44	65.56	3357.40	3335.88	78.98	OSF1.50	7600.00	7001.00				MinPt-O-SF	
	3514.97	306.04	3310.62	3208.93	17.28	OSF1.50	15472.85	7203.00				MinPts	
Stugart 15N R2 mdv 10June20 (Def Plan)													Pass
	119.79	32.81	118.81	86.99	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	119.79	32.81	118.81	86.98	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	119.79	32.81	117.56	86.98	95.73	MAS = 10.00 (m)	250.00	250.00				MinPts	
	119.79	32.81	117.56	86.98	95.41	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	119.78	32.81	117.55	86.97	95.51	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	118.00	32.81	114.93	85.19	56.04	MAS = 10.00 (m)	750.00	747.47				MinPts	
	118.11	32.81	114.81	85.30	50.48	MAS = 10.00 (m)	780.00	776.98				MINPT-O-EOU	
	172.76	32.81	164.61	139.95	23.95	MAS = 10.00 (m)	1380.00	1350.93				MinPt-O-SF	
	1473.84	65.64	1429.75	1408.20	34.17	OSF1.50	6760.00	6273.79				MinPt-O-SF	
	1752.17	120.60	1671.44	1631.57	21.96	OSF1.50	10220.00	7214.56				MinPt-CICt	
	1752.21	304.63	1548.80	1447.58	8.65	OSF1.50	15472.85	7203.00				MinPts	
Stugart 06N R2 mdv 10June20 (Def Plan)													Pass
	124.89	32.81	123.91	92.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	124.89	32.81	123.91	92.08	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	124.89	32.81	122.66	92.08	99.59	MAS = 10.00 (m)	250.00	250.00				MinPts	
	291.42	32.81	285.25	258.61	56.08	MAS = 10.00 (m)	1010.00	1001.12				MinPt-O-SF	
	3356.65	61.58	3315.27	3295.07	83.06	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3628.94	65.22	3585.13	3563.72	84.71	OSF1.50	7680.00	7052.68				MinPt-O-SF	
	3734.38	306.26	3529.87	3428.11	18.34	OSF1.50	15472.85	7203.00				MinPts	
Stugart 14N R2 mdv 10June20 (Def Plan)													Pass
	134.90	32.81	133.92	102.09	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	134.90	32.81	133.91	102.09	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	134.90	32.81	132.67	102.09	107.90	MAS = 10.00 (m)	250.00	250.00				MinPts	
	134.89	32.81	132.66	102.08	107.54	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	134.88	32.81	132.65	102.07	107.70	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	133.28	32.81	130.91	100.47	95.18	MAS = 10.00 (m)	660.00	658.60				MinPts	
	133.38	32.81	130.80	100.58	82.60	MAS = 10.00 (m)	690.00	688.27				MINPT-O-EOU	
	215.29	32.81	206.99	182.48	29.29	MAS = 10.00 (m)	1420.00	1387.74				MinPt-O-SF	
	1717.14	66.01	1672.80	1651.12	39.56	OSF1.50	6910.00	6411.04				MinPt-O-SF	
	1971.57	304.94	1767.95	1666.63	9.72	OSF1.50	15472.85	7203.00				MinPts	
Stugart 05NA R2 mdv 10June20 (Def Plan)													Pass
	134.44	32.81	133.46	101.63	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	134.44	32.81	133.46	101.63	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	134.44	32.81	132.21	101.63	107.27	MAS = 10.00 (m)	250.00	250.00				MinPts	
	296.82	32.81	290.90	264.01	59.99	MAS = 10.00 (m)	970.00	962.44				MinPt-O-SF	
	3562.02	60.99	3521.03	3501.03	89.02	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3955.53	305.41	3751.58	3650.12	19.48	OSF1.50	15472.85	7203.00				MinPts	
Stugart 04N R2 mdv 10June20 (Def Plan)													Pass
	144.93	32.81	143.94	112.12	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	144.92	32.81	143.94	112.12	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	144.92	32.81	142.70	112.12	115.98	MAS = 10.00 (m)	250.00	250.00				MinPts	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Stugart 13NA R2 mdv 10June20 (Def Plan)	144.95	32.81	142.70	112.15	113.19	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	Pass
	295.50	32.81	289.85	262.69	63.07	MAS = 10.00 (m)	930.00	923.63				MinPt-O-SF	
	3719.27	60.54	3678.59	3658.74	93.65	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4171.99	306.22	3967.52	3865.77	20.50	OSF1.50	15472.85	7203.00				MinPts	
Stugart 13NA R2 mdv 10June20 (Def Plan)	149.80	32.81	148.82	116.99	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	149.80	32.81	148.81	116.99	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	149.80	32.81	147.57	116.99	119.91	MAS = 10.00 (m)	250.00	250.00				MinPts	
	149.79	32.81	147.56	116.96	119.50	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	149.78	32.81	147.55	116.97	119.74	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	148.49	32.81	146.68	115.68	178.67	MAS = 10.00 (m)	580.00	579.27				MinPts	
	148.58	32.81	146.58	115.77	145.36	MAS = 10.00 (m)	610.00	609.05				MINPT-O-EOU	
	254.38	32.81	246.04	221.57	34.47	MAS = 10.00 (m)	1440.00	1406.07				MinPt-O-SF	
	270.84	32.81	262.03	238.03	34.49	MAS = 10.00 (m)	1500.00	1460.97				MinPt-O-SF	
	1815.87	61.91	1774.27	1753.96	44.68	OSF1.50	6650.00	6173.14				MinPt-O-SF	
	2193.56	301.51	1992.22	1892.04	10.94	OSF1.50	15472.85	7203.00				MinPts	
Stugart 03N R2 mdv 10June20 (Def Plan)	156.17	32.81	155.18	123.36	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	156.16	32.81	155.18	123.35	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	156.16	32.81	153.94	123.35	125.04	MAS = 10.00 (m)	250.00	250.00				MinPts	
	156.19	32.81	153.94	123.38	122.03	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	294.86	32.81	289.41	262.06	66.73	MAS = 10.00 (m)	900.00	894.44				MinPt-O-SF	
	3877.15	60.08	3836.77	3817.08	98.39	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4377.95	64.21	4334.82	4313.74	103.85	OSF1.50	8310.00	7218.77				MinPt-O-SF	
	4391.54	306.66	4186.78	4084.89	21.55	OSF1.50	15472.85	7203.00				MinPts	
Stugart State 02C R2 mdv 10June20 (Def Plan)	168.01	32.81	167.03	135.20	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	168.01	32.81	167.02	135.20	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	168.01	32.81	165.78	135.20	134.58	MAS = 10.00 (m)	250.00	250.00				MinPts	
	168.04	32.81	165.78	135.23	131.36	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	318.32	32.81	312.68	285.51	68.15	MAS = 10.00 (m)	930.00	923.63				MinPt-O-SF	
	4017.38	59.65	3977.29	3957.74	102.70	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4556.36	63.86	4513.45	4492.50	108.67	OSF1.50	8430.00	7218.50				MinPt-O-SF	
	4587.65	64.28	4544.46	4523.36	108.69	OSF1.50	8560.00	7218.22				MinPt-O-SF	
	4613.76	307.14	4406.67	4306.62	22.60	OSF1.50	15472.85	7203.00				MinPts	
Stugart State 01N R2 mdv 10June20 (Def Plan)	180.28	32.81	179.30	147.47	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	180.28	32.81	179.29	147.47	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	180.28	32.81	178.37	147.47	193.44	MAS = 10.00 (m)	200.00	200.00				MinPts	
	180.33	32.81	178.30	147.53	170.74	MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
	353.67	32.81	347.82	320.86	72.47	MAS = 10.00 (m)	960.00	952.75				MinPt-O-SF	
	4210.29	59.05	4170.60	4151.24	108.74	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4763.97	62.96	4721.67	4701.02	115.28	OSF1.50	8430.00	7218.50				MinPt-O-SF	
	4796.41	63.38	4753.83	4733.03	115.29	OSF1.50	8570.00	7218.19				MinPt-O-SF	
	4829.02	307.10	4623.95	4521.92	23.65	OSF1.50	15472.85	7203.00				MinPts	
HSR-Wiedeman 15-20 GYRO 0' to 7527' - AB (Def Survey)	2734.68	32.81	2732.87	2701.87	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2734.61	32.81	2732.72	2701.80	37034.44	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2734.25	32.81	2732.33	2701.44	26725.63	MAS = 10.00 (m)	50.00	50.00				MinPts	
	2734.30	32.81	2732.31	2701.49	15185.37	MAS = 10.00 (m)	80.00	80.00				MINPT-O-EOU	
	2734.94	32.81	2731.85	2702.19	2135.69	MAS = 10.00 (m)	390.00	389.94				MinPt-O-SF	
	2731.53	32.81	2728.38	2698.72	2039.70	MAS = 10.00 (m)	460.00	459.81				MinPt-O-SF	
	266.63	66.52	221.75	200.11	6.12	OSF1.50	8470.00	7218.41				MinPt-O-SF	
	266.59	66.44	221.67	200.06	6.13	OSF1.50	8480.00	7218.39				MinPts	
	6999.28	59.02	6959.39	6940.25	182.81	OSF1.50	15472.85	7203.00				TD	
HSR-Wiedeman 16-20 GYRO 0' to 7501' - AB (Def Survey)	3590.38	32.81	3588.56	3557.57	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3590.35	32.81	3588.51	3557.54	141905.52	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3589.39	32.81	3586.39	3556.58	3016.78	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	315.14	89.43	254.98	225.71	5.36	OSF1.50	9960.00	7215.13				MinPt-O-SF	
	314.63	89.17	254.65	225.46	5.36	OSF1.50	9970.00	7215.11				MinPts	
	314.44	88.85	254.67	225.59	5.38	OSF1.50	9980.00	7215.09				MinPt-CtCt	
	5500.33	57.96	5461.15	5442.37	146.35	OSF1.50	15472.85	7203.00				TD	
Stugart 6-20 Blind 0' to 7610' - PR (Def Survey)	377.72	32.81	375.90	344.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	377.59	32.81	375.66	344.78	3182.88	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	377.46	32.81	367.12	344.66	44.01	MAS = 10.00 (m)	250.00	250.00				MinPts	
	379.89	32.81	364.70	347.08	28.27	MAS = 10.00 (m)	370.00	369.96				MINPT-O-EOU	
	755.32	103.73	685.56	651.59	11.09	OSF1.50	1790.00	1726.32				MinPt-O-SF	
	2892.82	396.28	2628.10	2496.54	10.93	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	8830.62	434.62	8540.34	8396.00	30.58	OSF1.50	15472.85	7203.00				TD	
Stugart 22-20 MWD 0' to 7736' - PR (Def Survey)	380.51	32.81	378.70	347.70	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	380.51	32.81	378.70	347.70	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	380.51	32.81	377.60	347.70	345.69	MAS = 10.00 (m)	250.00	250.00				MinPts	
	380.53	32.81	377.59	347.72	337.30	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	464.81	32.81	458.45	432.00	101.99	MAS = 10.00 (m)	970.00	962.44				MinPt-O-SF	
	715.26	32.81	704.57	682.46	78.55	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	818.47	32.81	806.62	785.66	79.79	MAS = 10.00 (m)	2340.00	2229.56				MinPt-O-SF	
	1601.07	51.07	1566.49	1550.00	48.50	OSF1.50	5740.00	5340.51				MinPt-O-SF	
	9050.78	71.10	9002.85	8979.68	195.31	OSF1.50	15472.85	7203.00				TD	
Bensler J 29-27D GYRO 0' to 7588' - PR (Def Survey)	4253.15	32.81	4251.34	4220.34	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	4253.09	32.81	4251.21	4220.28	65293.34	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	4249.18	32.81	4246.14	4216.37	3464.05	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	413.97	80.37	358.82	333.60	8.12	OSF1.50	9190.00	7216.83				MinPt-CtCt	
	414.02	80.72	358.65	333.31	8.07	OSF1.50	9200.00	7216.81				MINPT-O-EOU	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	414.32	81.06	358.74	333.28	8.04	OSF1.50	9210.00	7216.78				MinPt-O-ADP	
	419.37	82.53	362.90	336.83	7.96	OSF1.50	9260.00	7216.67				MinPt-O-SF	
	6293.54	73.46	6244.03	6220.08	131.34	OSF1.50	15472.85	7203.00				TD	
Lundvall 11-20 MWD 0' to 7810' - PR (Def Survey)													Pass
	2313.46	32.81	2311.64	2280.65	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2313.44	32.81	2311.60	2280.63	120451.04	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2219.33	32.81	2212.51	2186.52	444.22	MAS = 10.00 (m)	1020.00	1010.76				MinPt-O-SF	
	1155.89	32.81	1139.11	1123.08	78.77	MAS = 10.00 (m)	3490.00	3281.79				MinPt-O-SF	
	487.25	44.15	457.28	443.10	17.12	OSF1.50	5050.00	4709.17				MinPt-CiCt	
	487.37	44.50	457.17	442.87	16.99	OSF1.50	5070.00	4727.47				MINPT-O-EQU	
	487.54	44.67	457.23	442.87	16.93	OSF1.50	5080.00	4736.62				MinPt-O-ADP	
	497.17	46.68	465.52	450.49	16.49	OSF1.50	5210.00	4855.57				MinPt-O-SF	
	8294.00	70.24	8246.64	8223.76	181.23	OSF1.50	15472.85	7203.00				TD	
Wiedeman 25-20 GYRO 0' to 7638' - AB (Def Survey)													Pass
	1753.86	32.81	1752.04	1721.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1753.76	32.81	1751.85	1720.96	17354.14	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	904.12	32.81	883.07	871.31	46.44	MAS = 10.00 (m)	3280.00	3089.64				MinPts	
	945.63	34.42	922.15	911.21	43.19	OSF1.50	3790.00	3556.29				MinPt-O-SF	
	956.63	34.82	932.88	921.81	43.19	OSF1.50	3850.00	3611.19				MinPt-O-SF	
	981.94	35.65	957.64	946.29	43.19	OSF1.50	3970.00	3720.98				MinPt-O-SF	
	1076.74	39.26	1050.03	1037.48	42.83	OSF1.50	4350.00	4068.68				MinPt-O-SF	
	1262.33	44.15	1232.36	1218.18	44.45	OSF1.50	4910.00	4581.07				MinPt-O-SF	
	1332.39	46.00	1301.19	1286.39	44.96	OSF1.50	5110.00	4764.07				MinPt-O-SF	
	2292.76	67.99	2246.89	2224.76	51.77	OSF1.50	8580.00	7218.17				MinPt-O-SF	
	2301.87	68.26	2255.83	2233.61	51.77	OSF1.50	8620.00	7218.08				MinPt-O-SF	
	7727.03	76.75	7675.33	7650.28	154.20	OSF1.50	15472.85	7203.00				TD	
HSR-Wiedeman 10-20 GYRO 0' to 7535' - AB (Def Survey)													Pass
	1632.25	32.81	1630.44	1599.44	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1632.14	32.81	1630.22	1599.34	14296.39	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1630.59	32.81	1627.70	1597.76	1509.92	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1083.38	32.81	1063.18	1050.57	58.19	MAS = 10.00 (m)	3970.00	3720.98				MinPts	
	1083.40	32.81	1063.13	1050.59	57.97	MAS = 10.00 (m)	3990.00	3739.28				MINPT-O-EQU	
	1414.31	46.39	1382.85	1367.92	47.31	OSF1.50	6120.00	5688.20				MinPt-O-SF	
	1469.86	48.27	1437.14	1421.59	47.19	OSF1.50	6340.00	5889.50				MinPt-O-SF	
	1506.54	49.53	1472.99	1457.01	47.10	OSF1.50	6480.00	6017.60				MinPt-O-SF	
	1750.17	55.68	1712.51	1694.49	48.51	OSF1.50	7400.00	6849.50				MinPt-O-SF	
	1751.88	55.73	1714.19	1696.15	48.51	OSF1.50	7420.00	6865.86				MinPt-O-SF	
	1666.72	60.29	1625.99	1606.43	42.56	OSF1.50	8480.00	7218.39				MinPts	
	1666.77	60.36	1626.00	1606.42	42.51	OSF1.50	8490.00	7218.37				MinPt-O-ADP	
	1690.87	62.19	1648.87	1628.68	41.82	OSF1.50	8760.00	7217.77				MinPt-O-SF	
	7193.25	61.83	7151.49	7131.42	179.12	OSF1.50	15472.85	7203.00				TD	
Wiedeman R J 20-13 GYRO 0' to 7980' - PA (Def Survey)													Pass
	2325.12	32.81	2323.31	2292.32	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2325.10	32.81	2323.26	2292.29	99160.40	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2324.14	32.81	2321.28	2291.33	2214.07	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1095.73	273.63	912.77	822.09	6.03	OSF1.50	5870.00	5459.46				MinPt-CiCt	
	1100.32	287.56	908.08	812.76	5.76	OSF1.50	6120.00	5688.20				MINPT-O-EQU	
	1105.85	294.24	909.16	811.61	5.66	OSF1.50	6240.00	5798.00				MinPt-O-ADP	
	1206.08	342.44	977.25	863.63	5.30	OSF1.50	7110.00	6594.03				MinPt-O-SF	
	9137.34	378.85	8884.24	8758.49	36.33	OSF1.50	15472.85	7203.00				TD	
Wiedeman 20-20 GYRO 0' to 7542' - AB (Def Survey)													Pass
	2411.99	32.81	2410.18	2379.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2411.90	32.81	2409.98	2379.09	23281.07	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1498.48	39.68	1471.41	1458.71	58.97	OSF1.50	5070.00	4727.47				MinPt-CiCt	
	1498.48	39.90	1471.34	1458.58	58.63	OSF1.50	5100.00	4754.92				MINPT-O-EQU	
	1498.54	39.97	1471.36	1458.57	58.53	OSF1.50	5110.00	4764.07				MinPt-O-ADP	
	1692.60	57.64	1653.65	1634.97	45.27	OSF1.50	7092.71	6578.22				MinPt-O-SF	
	1171.13	67.56	1125.56	1103.57	26.60	OSF1.50	8930.00	7217.40				MinPts	
	1171.20	67.63	1125.57	1103.57	26.57	OSF1.50	8940.00	7217.38				MinPt-O-ADP	
	1176.50	68.24	1130.47	1108.26	26.45	OSF1.50	9040.00	7217.16				MinPt-O-SF	
	6649.07	60.46	6608.23	6588.61	169.43	OSF1.50	15472.85	7203.00				TD	
Lundvall 12-20 MWD 0' to 7703' - PR (Def Survey)													Pass
	2295.26	32.81	2293.45	2262.46	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2295.24	32.81	2293.41	2262.44	120535.39	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1251.17	35.86	1226.70	1215.30	54.83	OSF1.50	4390.00	4105.28				MinPt-CiCt	
	1251.24	36.06	1226.64	1215.17	54.50	OSF1.50	4410.00	4123.58				MinPts	
	1347.53	41.81	1319.12	1305.72	50.22	OSF1.50	5130.00	4782.37				MinPt-O-SF	
	1456.92	44.20	1426.92	1412.72	51.29	OSF1.50	5490.00	5111.76				MinPt-O-SF	
	1559.83	45.80	1528.77	1514.04	52.89	OSF1.50	5760.00	5358.81				MinPt-O-SF	
	1711.19	48.20	1678.52	1662.98	55.03	OSF1.50	6100.00	5669.90				MinPt-O-SF	
	1958.12	53.33	1922.03	1904.79	56.74	OSF1.50	6610.00	6136.54				MinPt-O-SF	
	2058.63	55.18	2021.30	2003.44	57.59	OSF1.50	6820.00	6328.69				MinPt-O-SF	
	2164.88	58.82	2125.13	2106.06	56.71	OSF1.50	7050.00	6539.14				MinPt-O-SF	
	2225.72	60.62	2184.77	2165.09	56.53	OSF1.50	7190.00	6666.83				MinPt-O-SF	
	9775.24	64.46	9731.73	9710.78	233.22	OSF1.50	15472.85	7203.00				TD	
Barnett 5-20 Blind 0' to 7622' - PR (Def Survey)													Pass
	1286.26	32.81	1283.77	1253.45	1891.17	MAS = 10.00 (m)	0.00	0.00				Surface	
	1286.26	32.81	1283.69	1253.45	1692.93	MAS = 10.00 (m)	4.00	4.00				WRP	
	1286.26	32.81	1275.07	1253.45	136.91	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1297.26	58.50	1257.65	1238.76	34.28	OSF1.50	970.00	962.44				MINPT-O-EQU	
	1304.88	67.81	1259.07	1237.07	29.62	OSF1.50	1130.00	1116.23				MinPt-O-ADP	
	2953.91	401.40	2685.78	2552.52	11.08	OSF1.50	7150.00	6630.53				MinPt-O-SF	
	9831.26	435.70	9540.27	9395.57	33.97	OSF1.50	15472.85	7203.00				TD	
Stugart 3-20 Blind 0' to 7580' - PR (Def Survey)													Pass
	1303.53	32.81	1301.69	1270.72	49138.60	MAS = 10.00 (m)	0.00	0.00				Surface	
	1303.53	32.81	1301.59	1270.72	9906.19	MAS = 10.00 (m)	4.00	4.00				WRP	
	1303.53	32.81	1292.48	1270.72	140.94	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1306.00	32.81	1290.11	1273.20	92.65	MAS = 10.00 (m)	370.00	369.96				MINPT-O-EQU	
	4060.70	428.80	3774.30	3631.90	14.25	OSF1.50	7790.00	7113.67				MinPt-O-SF	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	8951.44	438.98	8658.25	8512.45	30.69	OSF1.50	15472.85	7203.00				TD	
SW Greeley 31-20 MWD 0' to 7695' - PR (Def Survey)													
	1317.58	32.81	1315.69	1284.77	16702.83	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1317.58	32.81	1315.68	1284.77	14994.96	MAS = 10.00 (m)	4.00	4.00				WRP	
	1317.28	32.81	1314.07	1284.47	943.31	MAS = 10.00 (m)	300.00	300.00				MinPts	
	1317.38	32.81	1314.03	1284.57	857.08	MAS = 10.00 (m)	380.00	379.96				MINPT-O-EOU	
	1317.47	32.81	1314.03	1284.66	806.66	MAS = 10.00 (m)	410.00	409.92				MINPT-O-EOU	
	1470.23	32.81	1457.67	1437.42	134.09	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	1734.11	32.81	1720.92	1701.30	149.57	MAS = 10.00 (m)	2690.00	2549.80				MinPt-O-SF	
	1945.87	32.81	1931.22	1913.07	149.03	MAS = 10.00 (m)	3190.00	3007.30				MinPt-O-SF	
	1991.98	32.81	1977.01	1959.17	148.95	MAS = 10.00 (m)	3290.00	3098.79				MinPt-O-SF	
	2058.62	32.81	2043.07	2025.81	147.54	MAS = 10.00 (m)	3430.00	3226.89				MinPt-O-SF	
	2707.04	32.25	2684.33	2673.78	126.23	OSF1.50	4780.00	4462.12				MinPt-O-SF	
	3869.44	59.85	3829.00	3809.59	99.60	OSF1.50	7310.00	6773.33				MinPt-O-SF	
	10571.93	77.82	10519.52	10494.11	208.04	OSF1.50	15472.85	7203.00				TD	
Wiedeman 24-20 GYRO 0' to 7660' - AB (Def Survey)													
	1659.06	32.81	1657.25	1626.25	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1658.96	32.81	1657.04	1626.15	15139.46	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1340.39	32.81	1325.17	1307.59	98.36	MAS = 10.00 (m)	2490.00	2366.81				MinPts	
	1340.41	32.81	1325.11	1307.61	97.72	MAS = 10.00 (m)	2510.00	2385.11				MINPT-O-EOU	
	1739.65	36.78	1714.59	1702.87	74.11	OSF1.50	4430.00	4141.88				MinPt-O-SF	
	2060.37	43.06	2031.13	2017.31	74.49	OSF1.50	5170.00	4818.97				MinPt-O-SF	
	2205.55	49.85	2171.78	2155.70	68.53	OSF1.50	5620.00	5230.71				MinPt-O-SF	
	2516.46	57.27	2477.75	2459.19	67.77	OSF1.50	6860.00	6365.29				MinPt-O-SF	
	2580.82	58.70	2541.15	2522.12	67.76	OSF1.50	7092.71	6578.22				MinPt-O-SF	
	2264.19	75.04	2213.63	2189.15	46.21	OSF1.50	9140.00	7216.94				MinPt-CiCt	
	2264.26	75.29	2213.53	2188.97	46.06	OSF1.50	9160.00	7216.89				MINPT-O-EOU	
	2264.36	75.41	2213.55	2188.95	45.99	OSF1.50	9170.00	7216.87				MinPt-O-ADP	
	2339.06	81.26	2284.35	2257.80	44.01	OSF1.50	9730.00	7215.64				MinPt-O-SF	
	6722.48	80.06	6668.57	6642.42	128.50	OSF1.50	15472.85	7203.00				TD	
HSR-Wiedeman 9-20 GYRO 0' to 7473' - AB (Def Survey)													
	2926.51	32.81	2924.69	2893.70	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2926.40	32.81	2924.47	2893.59	25476.63	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2923.44	32.81	2920.56	2890.63	2742.96	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	2491.83	33.44	2469.00	2458.39	117.35	OSF1.50	4410.00	4123.58				MinPt-CiCt	
	2491.99	33.95	2468.82	2458.04	115.49	OSF1.50	4490.00	4196.78				MINPT-O-EOU	
	2492.26	34.29	2468.87	2457.97	114.31	OSF1.50	4540.00	4242.53				MinPt-O-ADP	
	2493.75	35.54	2469.52	2458.21	110.16	OSF1.50	4710.00	4398.07				MinPt-O-ADP	
	1410.67	84.07	1354.09	1326.60	25.63	OSF1.50	9900.00	7215.27				MinPt-CiCt	
	1410.68	84.15	1354.05	1326.54	25.61	OSF1.50	9910.00	7215.24				MinPts	
	1415.52	84.82	1358.43	1330.69	25.49	OSF1.50	10020.00	7215.00				MinPt-O-SF	
	5743.99	63.69	5700.99	5680.30	138.73	OSF1.50	15472.85	7203.00				TD	
UPV 21-11H6 Blind 0' to 7440' - AB (Def Survey)													
	5621.49	32.81	5619.68	5588.68	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	5621.41	32.81	5619.51	5588.60	63260.51	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	5391.09	259.49	5217.56	5131.59	31.35	OSF1.50	4770.00	4452.97				MinPt-CiCt	
	5413.74	327.45	5194.91	5086.29	24.91	OSF1.50	6000.00	5578.40				MINPT-O-EOU	
	5442.30	361.74	5200.61	5080.56	22.66	OSF1.50	6620.00	6145.69				MinPt-O-ADP	
	1511.29	449.52	1211.07	1061.77	5.06	OSF1.50	12820.00	7208.84				MinPts	
	1511.45	449.59	1211.18	1061.85	5.04	OSF1.50	12840.00	7208.79				MinPt-O-SF	
	3054.94	433.91	2765.13	2621.03	10.59	OSF1.50	15472.85	7203.00				TD	
UPRC 21-12H6 Blind 0' to 7502' - AB (Def Survey)													
	4201.58	32.81	4199.77	4168.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	4201.50	32.81	4199.59	4168.69	44676.25	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3962.22	234.39	3805.42	3727.83	25.52	OSF1.50	4290.00	4013.78				MinPt-CiCt	
	3978.70	284.07	3788.78	3694.63	21.12	OSF1.50	5190.00	4837.27				MINPT-O-EOU	
	3999.84	309.50	3792.98	3690.35	19.48	OSF1.50	5650.00	5258.16				MinPt-O-ADP	
	1626.88	440.74	1332.62	1186.14	5.55	OSF1.50	11380.00	7212.01				MinPts	
	1626.91	440.77	1332.52	1186.13	5.55	OSF1.50	11390.00	7211.99				MinPt-O-ADP	
	1626.99	440.80	1332.59	1186.19	5.55	OSF1.50	11400.00	7211.96				MinPt-O-SF	
	4403.78	430.44	4116.28	3973.34	15.40	OSF1.50	15472.85	7203.00				TD	
Wiedeman 40-20 GYRO 0' to 7935' - AB (Def Survey)													
	1775.63	32.81	1773.82	1742.82	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1775.53	32.81	1773.61	1742.72	16920.19	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1772.06	32.81	1768.87	1739.25	1287.19	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1667.60	32.81	1654.38	1634.79	143.37	MAS = 10.00 (m)	1880.00	1808.67				MinPts	
	1667.66	32.81	1654.32	1634.85	141.92	MAS = 10.00 (m)	1900.00	1826.97				MINPT-O-EOU	
	2063.27	32.81	2042.46	2030.46	107.32	MAS = 10.00 (m)	3770.00	3537.99				MinPt-O-SF	
	2168.78	32.81	2147.07	2135.98	107.78	MAS = 10.00 (m)	4030.00	3775.88				MinPt-O-SF	
	2323.59	34.30	2300.19	2289.29	106.53	OSF1.50	4370.00	4086.98				MinPt-O-SF	
	2498.83	36.54	2473.93	2462.29	107.23	OSF1.50	4730.00	4416.37				MinPt-O-SF	
	2770.11	41.87	2741.66	2728.24	103.14	OSF1.50	5270.00	4910.46				MinPt-O-SF	
	3212.05	50.42	3177.90	3161.63	98.66	OSF1.50	6110.00	5679.05				MinPt-O-SF	
	3374.11	53.77	3337.73	3320.34	96.98	OSF1.50	6440.00	5981.00				MinPt-O-SF	
	3670.42	64.42	3626.94	3606.00	87.61	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	3689.49	68.04	3643.60	3621.45	83.26	OSF1.50	7160.00	6639.63				MinPts	
	2202.51	122.90	2120.04	2079.61	27.22	OSF1.50	10640.00	7213.64				MinPt-CiCt	
	2202.62	123.23	2119.93	2079.39	27.14	OSF1.50	10660.00	7213.59				MINPT-O-EOU	
	2202.75	123.40	2119.94	2079.35	27.11	OSF1.50	10670.00	7213.57				MinPt-O-ADP	
	2237.20	128.19	2151.21	2109.01	26.49	OSF1.50	11030.00	7212.78				MinPt-O-SF	
	5311.50	109.24	5238.13	5202.26	74.00	OSF1.50	15472.85	7203.00				TD	
Hurst 7-20 MWD 0' to 7650' - PR (Def Survey)													
	1738.18	32.81	1736.37	1705.37	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1738.14	32.81	1736.29	1705.33	45503.24	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1738.08	32.81	1735.07	1705.27	1452.35	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1738.12	32.81	1735.05	1705.31	1380.76	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	1789.47	32.81	1783.25	1756.67	406.49	MAS = 10.00 (m)	970.00	962.44				MinPt-O-SF	
	1798.56	32.81	1792.39	1765.76	411.41	MAS = 10.00 (m)	1040.00	1030.03				MinPt-O-SF	
	2928.66	58.11	2889.39	2870.55	77.70	OSF1.50	7050.00	6539.14				MinPt-O-SF	
	3028.17	59.40	2988.04	2968.76	78.55	OSF1.50	7400.00	6849.50				MinPt-O-SF	
	2961.12	67.26	2935.74	2913.86	68.07	OSF1.50	8660.00	7217.99				MinPt-CiCt	
	2961.22	67.57	2935.64	2913.65	67.75	OSF1.50	8690.00	7217.93				MINPT-O-EOU	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status		
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major				
Hurst 8-20 MWD 0' to 7840' - PR (Def Survey)	2981.33	67.68	2935.67	2913.65	67.65	OSF1.50	8700.00	7217.91				MinPt-O-ADP	Pass		
	3186.38	78.98	3133.18	3107.39	61.74	OSF1.50	9790.00	7215.51				MinPt-O-SF			
	3197.09	79.24	3143.73	3117.85	61.74	OSF1.50	9820.00	7215.44				MinPt-O-SF			
	7431.52	90.74	7370.49	7340.78	125.04	OSF1.50	15472.85	7203.00				TD			
Greeley 21-20 MWD 0' to 7619' - PR (Def Survey)	1759.82	32.81	1758.01	1727.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass		
	1759.78	32.81	1757.93	1726.98	48058.45	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF			
	1757.90	32.81	1754.93	1725.09	1515.89	MAS = 10.00 (m)	280.00	280.00				MinPts			
	1757.91	32.81	1754.92	1725.10	1498.21	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU			
	1757.93	32.81	1754.94	1725.13	1480.71	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF			
	1758.15	32.81	1755.15	1725.34	1479.39	MAS = 10.00 (m)	330.00	329.99				MinPt-O-SF			
	2101.39	32.81	2086.25	2068.59	155.11	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF			
	3633.18	69.99	3585.99	3563.19	79.66	OSF1.50	6930.00	6429.34				MinPt-O-SF			
	3685.54	71.09	3637.61	3614.45	79.52	OSF1.50	7100.00	6584.89				MinPt-O-SF			
	3736.40	71.53	3688.18	3664.87	80.12	OSF1.50	7370.00	6824.55				MinPt-O-SF			
	3126.89	91.56	3065.31	3035.33	52.12	OSF1.50	9860.00	7215.35				MinPt-CiCt			
	3127.02	91.92	3065.20	3035.09	51.91	OSF1.50	9890.00	7215.29				MINPT-O-EOU			
	3127.12	92.05	3065.23	3035.08	51.84	OSF1.50	9900.00	7215.27				MinPt-O-ADP			
	3250.54	100.97	3182.69	3149.57	49.05	OSF1.50	10750.00	7213.39				MinPt-O-SF			
	6418.47	108.52	6345.59	6309.95	90.03	OSF1.50	15472.85	7203.00				TD			
	Greeley 21-20 Blind 0' to 7619' - PR (Def Survey)	1780.49	32.81	1778.68	1747.68	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	Pass
1780.45		32.81	1778.60	1747.65	46505.38	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF			
1780.39		32.81	1770.83	1747.58	229.54	MAS = 10.00 (m)	250.00	250.00				MinPts			
1784.43		32.81	1766.91	1751.62	113.52	MAS = 10.00 (m)	450.00	449.84				MINPT-O-EOU			
3908.92		434.76	3618.55	3474.16	13.53	OSF1.50	8740.00	7217.82				MinPt-CiCt			
3908.92		434.77	3618.54	3474.15	13.53	OSF1.50	8750.00	7217.80				MinPts			
3909.32		434.85	3618.89	3474.47	13.53	OSF1.50	8800.00	7217.69				MinPt-O-SF			
7782.02		439.77	7488.31	7342.25	26.64	OSF1.50	15472.85	7203.00				TD			
Greeley 21-20 MWD 0' to 7619' - PR (Def Survey)		1780.97	32.81	1779.15	1748.16	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass	
		1780.96	32.81	1779.14	1748.15	697975.60	MAS = 10.00 (m)	4.00	4.00				WRP		
		1780.96	32.81	1778.07	1748.15	1651.02	MAS = 10.00 (m)	250.00	250.00				MinPts		
	1780.97	32.81	1778.05	1748.16	1611.63	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU			
	1835.57	32.81	1829.63	1802.76	444.10	MAS = 10.00 (m)	990.00	981.80				MinPt-O-SF			
	1943.76	32.81	1931.79	1910.95	187.42	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF			
	3360.98	57.85	3321.88	3303.13	89.59	OSF1.50	7100.00	6584.89				MinPt-O-SF			
	3430.79	58.91	3390.99	3371.89	89.77	OSF1.50	7300.00	6764.64				MinPt-O-SF			
	3459.94	59.36	3419.83	3400.57	89.81	OSF1.50	7400.00	6849.50				MinPt-O-SF			
	3480.20	59.93	3439.70	3420.26	89.45	OSF1.50	7480.00	6913.47				MinPt-O-SF			
	3949.59	77.12	3897.64	3872.47	78.42	OSF1.50	9840.00	7215.40				MinPt-O-SF			
	8151.18	93.69	8088.19	8057.49	132.75	OSF1.50	15472.85	7203.00				TD			
	Greeley 17-20 MWD 0' to 7675' - PR (Def Survey)	1801.74	32.81	1799.93	1768.93	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		Pass
		1801.73	32.81	1799.92	1768.93	714363.03	MAS = 10.00 (m)	4.00	4.00				WRP		
		1801.73	32.81	1798.84	1768.93	1669.92	MAS = 10.00 (m)	250.00	250.00				MinPts		
1801.74		32.81	1798.83	1768.94	1630.06	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU			
1842.77		32.81	1837.00	1809.96	465.62	MAS = 10.00 (m)	880.00	874.93				MinPt-O-SF			
2087.33		32.81	2075.07	2054.52	195.70	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF			
2143.37		32.81	2130.96	2110.56	198.31	MAS = 10.00 (m)	2080.00	1991.66				MinPt-O-SF			
3877.79		59.12	3837.84	3818.67	101.10	OSF1.50	7100.00	6584.89				MinPt-O-SF			
3903.00		59.53	3862.78	3843.47	101.02	OSF1.50	7180.00	6657.78				MinPt-O-SF			
3668.79		76.39	3617.33	3592.40	73.55	OSF1.50	9420.00	7216.32				MinPt-CiCt			
3668.92		76.80	3617.19	3592.12	73.15	OSF1.50	9450.00	7216.26				MINPT-O-EOU			
3669.15		77.08	3617.23	3592.07	72.89	OSF1.50	9470.00	7216.21				MinPt-O-ADP			
4006.72		96.31	3941.98	3910.41	63.43	OSF1.50	11030.00	7212.78				MinPt-O-SF			
7075.99		109.22	7002.65	6966.78	98.61	OSF1.50	15472.85	7203.00				TD			
Greeley 27-20 GYRO 0' to 7712' - PR (Def Survey)	1823.28	32.81	1821.47	1790.47	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass		
	1823.25	32.81	1821.40	1790.44	53749.56	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF			
	1822.85	32.81	1820.31	1790.04	2521.45	MAS = 10.00 (m)	190.00	190.00				MinPts			
	1822.90	32.81	1820.12	1790.09	1878.58	MAS = 10.00 (m)	250.00	250.00				MinPts			
	2176.23	32.81	2164.68	2143.43	218.46	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF			
	4306.34	43.03	4277.11	4263.30	155.86	OSF1.50	5830.00	5422.86				MinPt-O-SF			
	4992.11	78.44	4939.29	4913.68	97.43	OSF1.50	9210.00	7216.78				MinPt-CiCt			
	4992.34	79.09	4939.07	4913.24	96.61	OSF1.50	9260.00	7216.67				MINPT-O-EOU			
	4992.57	79.35	4939.13	4913.21	96.29	OSF1.50	9280.00	7216.63				MinPt-O-ADP			
	5722.53	114.09	5645.94	5608.44	76.29	OSF1.50	12010.00	7210.62				MinPt-O-SF			
	8007.09	132.80	7918.02	7874.29	91.53	OSF1.50	15472.85	7203.00				TD			
	Wiedeman PMJ 21-9 GYRO 0' to 7749' - AB (Def Survey)	7971.69	32.81	7969.87	7938.88	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	Pass
		7971.62	32.81	7969.74	7938.82	115660.29	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF	
7970.35		32.81	7967.52	7937.55	7776.65	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF			
7837.15		37.49	7811.63	7799.67	327.53	OSF1.50	4900.00	4571.92				MinPt-CiCt			
7837.34		38.18	7811.36	7799.17	321.37	OSF1.50	4980.00	4645.12				MINPT-O-EOU			
7837.55		38.42	7811.40	7799.12	319.22	OSF1.50	5010.00	4672.57				MinPt-O-ADP			
7869.48		50.99	7834.95	7818.49	238.96	OSF1.50	6400.00	5944.40				MINPT-O-EOU			
7869.88		51.47	7835.04	7818.42	236.71	OSF1.50	6450.00	5990.15				MinPt-O-ADP			
7870.14		51.98	7834.95	7818.16	234.28	OSF1.50	6490.00	6026.75				MinPt-CiCt			
7870.39		52.72	7834.71	7817.67	230.91	OSF1.50	6570.00	6099.95				MINPT-O-EOU			
7870.69		53.09	7834.76	7817.60	229.27	OSF1.50	6610.00	6136.54				MinPt-O-ADP			
1840.10		212.15	1698.14	1627.96	13.10	OSF1.50	15200.00	7203.60				MinPt-CiCt			
1840.20		212.42	1698.05	1627.78	13.08	OSF1.50	15220.00	7203.56				MinPts			
1843.93		213.45	1701.10	1630.48	13.04	OSF1.50	15320.00	7203.34				MinPt-O-SF			
1860.04		213.90	1716.90	1646.13	13.13	OSF1.50	15472.85	7203.00				TD			
SW Greeley 18-20 MWD 0' to 7700' - PR (Def Survey)	1846.53	32.81	1844.64	1813.72	26562.60	MAS = 10.00 (m)	0.00	0.00				Surface	Pass		
	1846.53	32.81	1844.64	1813.72	23549.26	MAS = 10.00 (m)	4.00	4.00				WRP			
	1846.53	32.81	1843.50	1813.72	1519.80	MAS = 10.00 (m)	250.00	250.00				MinPts			
	1846.54	32.81	1843.48	1813.73	1481.79	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU			
	2146.49	32.81	2135.18	2113.66	220.85	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF			
	2222.93	32.81	2211.26	2190.12	220.75	MAS = 10.00 (m)	2150.00	2055.71				MinPt-O-SF			

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	3538.98	59.10	3499.05	3479.88	92.29	OSF1.50	7082.71	6578.22				MinPt-O-SF	
	3579.93	59.65	3539.63	3520.28	92.47	OSF1.50	7200.00	6675.85				MinPt-O-SF	
	9604.72	86.71	9546.38	9518.01	169.26	OSF1.50	15472.85	7203.00				TD	
Wiedeman-PM J21-10 GYRO 0' to 7495' - AB (Def Survey)													
	6745.59	32.81	6743.78	6712.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6745.52	32.81	6743.63	6712.71	85645.17	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6744.59	32.81	6742.39	6711.69	22316.38	MAS = 10.00 (m)	120.00	120.00				MinPts	
	6744.64	32.81	6741.99	6711.83	7232.14	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	6744.70	32.81	6741.85	6711.89	6672.17	MAS = 10.00 (m)	300.00	300.00				MinPts	
	6666.49	32.81	6652.99	6633.68	561.05	MAS = 10.00 (m)	2150.00	2055.71				MinPt-O-SF	
	6636.16	32.81	6621.65	6603.35	515.36	MAS = 10.00 (m)	2740.00	2595.55				MinPt-O-SF	
	6600.42	32.81	6580.93	6567.62	369.03	MAS = 10.00 (m)	3990.00	3739.28				MinPts	
	6600.55	32.81	6580.81	6567.74	363.88	MAS = 10.00 (m)	4040.00	3785.03				MINPT-O-EOU	
	6604.71	32.81	6583.61	6571.90	338.72	MAS = 10.00 (m)	4310.00	4032.08				MINPT-O-EOU	
	6585.85	37.88	6560.06	6547.97	272.24	OSF1.50	5160.00	4809.82				MinPt-CtCt	
	6586.16	38.57	6559.91	6547.59	267.15	OSF1.50	5240.00	4883.02				MINPT-O-EOU	
	6586.65	39.19	6559.98	6547.45	262.79	OSF1.50	5310.00	4947.06				MinPt-O-ADP	
	1864.67	179.44	1744.51	1685.24	15.71	OSF1.50	13970.00	7206.31				MinPt-CtCt	
	1864.72	179.58	1744.47	1685.14	15.70	OSF1.50	13980.00	7206.29				MINPT-O-EOU	
	1864.82	179.72	1744.48	1685.11	15.69	OSF1.50	13990.00	7206.26				MinPt-O-ADP	
	1871.02	181.09	1749.76	1689.94	15.62	OSF1.50	14120.00	7205.98				MinPt-O-SF	
	2397.42	160.73	2289.73	2236.68	22.58	OSF1.50	15472.85	7203.00				TD	
Barnett 1-20 GYRO 0' to 7625' - PR (Def Survey)													
	1879.61	32.81	1877.71	1846.80	22534.74	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1879.61	32.81	1877.71	1846.80	19948.18	MAS = 10.00 (m)	4.00	4.00				MinPts	
	1879.72	32.81	1877.67	1846.91	7855.37	MAS = 10.00 (m)	50.00	50.00				WRP	
	1880.48	32.81	1877.40	1847.67	1488.13	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	1880.56	32.81	1877.45	1847.75	1446.87	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	2219.25	32.81	2207.99	2186.45	229.45	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	4192.70	56.67	4154.38	4136.03	114.16	OSF1.50	7300.00	6764.64				MinPt-O-SF	
	10363.48	86.01	10305.60	10277.46	184.13	OSF1.50	15472.85	7203.00				TD	
Hayes 2-20 Blind 0' to 7627' - PR (Def Survey)													
	2007.50	32.81	2005.69	1974.69	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2007.49	32.81	2005.66	1974.68	184009.89	MAS = 10.00 (m)	4.00	4.00				WRP	
	2007.48	32.81	1997.40	1974.67	242.56	MAS = 10.00 (m)	250.00	250.00				MinPts	
	2010.78	32.81	1993.93	1977.97	133.55	MAS = 10.00 (m)	420.00	419.90				MINPT-O-EOU	
	4197.36	435.45	3906.53	3761.91	14.51	OSF1.50	8790.00	7217.71				MinPt-CtCt	
	4197.36	435.46	3906.52	3761.90	14.51	OSF1.50	8800.00	7217.69				MinPts	
	4197.89	435.56	3906.99	3762.33	14.50	OSF1.50	8860.00	7217.55				MinPt-O-SF	
	7889.26	441.78	7594.20	7447.48	26.88	OSF1.50	15472.85	7203.00				TD	
Meyer 4 GYRO 0' to 8410' - PR (Def Survey)													
	3903.87	32.81	3902.06	3871.06	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3903.84	32.81	3902.01	3871.04	162809.69	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3900.97	32.81	3897.67	3868.16	2618.80	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3900.84	32.81	3897.53	3868.03	2610.84	MAS = 10.00 (m)	340.00	339.99				MinPts	
	2343.41	143.77	2247.03	2199.64	24.71	OSF1.50	12100.00	7210.42				MinPt-CtCt	
	2343.50	143.98	2246.98	2199.52	24.67	OSF1.50	12120.00	7210.38				MinPts	
	2356.77	145.93	2258.95	2210.84	24.48	OSF1.50	12350.00	7209.87				MinPt-O-SF	
	4107.41	126.01	4022.87	3981.40	49.51	OSF1.50	15472.85	7203.00				TD	
Hayes 1 Blind 0' to 9502' - AB (Def Survey)													
	2647.33	32.81	2645.52	2614.52	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2647.24	32.81	2645.32	2614.43	26146.33	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2646.59	32.81	2632.92	2613.77	223.27	MAS = 10.00 (m)	410.00	409.92				MinPts	
	2658.11	80.85	2603.61	2577.26	50.41	OSF1.50	1460.00	1424.37				MINPT-O-EOU	
	2672.65	98.30	2606.51	2574.35	41.52	OSF1.50	1770.00	1708.02				MinPt-O-ADP	
	2943.60	435.62	2652.65	2507.98	10.17	OSF1.50	9990.00	7215.07				MinPt-CtCt	
	2943.61	435.64	2652.65	2507.97	10.17	OSF1.50	10000.00	7215.05				MinPts	
	2944.19	435.79	2653.13	2508.40	10.17	OSF1.50	10050.00	7214.94				MinPt-O-SF	
	6222.16	435.91	5931.02	5786.25	21.48	OSF1.50	15472.85	7203.00				TD	
Meyer 3 GYRO 0' to 7745' - AB (Def Survey)													
	3890.59	32.81	3888.78	3857.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3890.57	32.81	3888.73	3857.76	166635.66	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3890.19	32.81	3887.77	3857.38	6415.02	MAS = 10.00 (m)	170.00	170.00				MinPts	
	3890.34	32.81	3887.65	3857.53	4464.58	MAS = 10.00 (m)	230.00	230.00				MINPT-O-EOU	
	3890.76	32.81	3887.95	3857.95	3874.62	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	4578.41	69.11	4531.80	4509.30	101.69	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4593.95	69.29	4547.22	4524.66	101.78	OSF1.50	7200.00	6675.85				MinPt-O-SF	
	2820.71	122.29	2738.65	2698.42	35.04	OSF1.50	11310.00	7212.16				MinPt-CtCt	
	2820.93	122.99	2738.40	2697.94	34.84	OSF1.50	11350.00	7212.07				MINPT-O-EOU	
	2821.08	123.16	2738.43	2697.91	34.79	OSF1.50	11360.00	7212.05				MinPt-O-ADP	
	2898.12	131.75	2809.75	2766.37	33.38	OSF1.50	11980.00	7210.69				MinPt-O-SF	
	5022.11	128.36	4936.00	4893.75	59.41	OSF1.50	15472.85	7203.00				TD	
Lessor J 21-7X GYRO 0' to 7725' - AB (Def Survey)													
	6944.30	32.81	6942.49	6911.49	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6944.26	32.81	6942.41	6911.45	156172.60	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6943.93	32.81	6941.97	6911.12	47343.59	MAS = 10.00 (m)	70.00	70.00				MinPts	
	6944.06	32.81	6941.89	6911.25	19531.75	MAS = 10.00 (m)	130.00	130.00				MINPT-O-EOU	
	6946.24	32.81	6943.42	6913.43	6881.31	MAS = 10.00 (m)	320.00	319.99				MinPt-O-SF	
	6919.42	38.89	6892.96	6880.54	278.39	OSF1.50	3340.00	3144.54				MinPt-CtCt	
	6919.56	39.29	6892.83	6880.27	275.39	OSF1.50	3400.00	3199.44				MINPT-O-EOU	
	6904.40	53.99	6867.86	6850.40	197.69	OSF1.50	4470.00	4178.48				MinPt-CtCt	
	6904.65	54.75	6867.62	6849.91	194.86	OSF1.50	4560.00	4260.83				MINPT-O-EOU	
	6904.94	55.08	6867.68	6849.86	193.64	OSF1.50	4600.00	4297.42				MinPt-O-ADP	
	2823.54	188.74	2697.18	2634.80	22.62	OSF1.50	14100.00	7206.02				MinPt-CtCt	
	2823.71	189.28	2696.98	2634.42	22.56	OSF1.50	14130.00	7205.96				MINPT-O-EOU	
	2824.00	189.64	2697.04	2634.38	22.52	OSF1.50	14150.00	7205.91				MinPt-O-ADP	
	2854.74	194.70	2724.40	2660.04	22.16	OSF1.50	14520.00	7205.10				MinPt-O-SF	
	3139.83	195.64	3008.87	2944.20	24.26	OSF1.50	15472.85	7203.00				TD	
Meyer 1 Blind 0' to 7482' - AB (Def Survey)													
	5274.85	32.81	5273.04	5242.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Lesser 7-21 Blind 0' to 7505' - AB (Def Survey)	5274.79	32.81	5272.91	5241.98	77554.93	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	5272.69	60.25	5231.83	5212.35	135.28	OSF1.50	1120.00	1106.69				MinPt-CtCt	
	5278.77	98.21	5212.69	5180.56	82.12	OSF1.50	1790.00	1726.32				MINPT-O-EOU	
	5294.13	127.92	5208.31	5166.21	62.85	OSF1.50	2340.00	2229.56				MINPT-O-EOU	
	5321.95	161.26	5213.91	5160.69	49.99	OSF1.50	2950.00	2787.70				MinPt-O-ADP	
	2961.61	449.69	2661.28	2511.92	9.91	OSF1.50	12620.00	7209.28				MinPt-CtCt	
	2961.62	449.75	2661.26	2511.87	9.91	OSF1.50	12630.00	7209.26				MINPT-O-EOU	
	2961.68	449.81	2661.27	2511.87	9.91	OSF1.50	12640.00	7209.24				MinPt-O-ADP	
	2963.30	450.25	2662.60	2513.05	9.90	OSF1.50	12720.00	7209.06				MinPt-O-SF	
	4112.17	449.07	3812.26	3663.10	13.78	OSF1.50	15472.85	7203.00				TD	
	6592.41	32.81	6590.60	6559.60	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
Lesser J 21-8 - Plan (Def Plan)	6592.35	32.81	6590.47	6559.54	97658.48	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6588.79	70.04	6541.49	6518.75	144.82	OSF1.50	1310.00	1285.98				MinPt-CtCt	
	6615.97	151.89	6514.18	6464.08	66.02	OSF1.50	2800.00	2650.45				MINPT-O-EOU	
	6650.76	193.61	6521.15	6457.15	51.94	OSF1.50	3560.00	3345.84				MinPt-O-ADP	
	2970.17	460.09	2662.90	2510.07	9.71	OSF1.50	13940.00	7206.37				MinPt-CtCt	
	2970.19	460.16	2662.88	2510.03	9.71	OSF1.50	13950.00	7206.35				MINPT-O-EOU	
	2970.25	460.23	2662.89	2510.02	9.71	OSF1.50	13960.00	7206.33				MinPt-O-ADP	
	2972.68	460.89	2664.89	2511.79	9.70	OSF1.50	14060.00	7206.11				MinPt-O-SF	
	3343.45	462.35	3034.68	2881.10	10.88	OSF1.50	15472.85	7203.00				TD	
	6985.52	32.81	6983.71	6952.72	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6985.49	32.81	6983.64	6952.68	199004.29	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
Hayes 1-20 Blind 0' to 7516' - PR (Def Survey)	6985.29	32.81	6982.40	6952.47	6521.35	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6985.35	32.81	6982.33	6952.54	5765.93	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	7065.97	32.81	7051.67	7033.16	556.12	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	2991.99	202.91	2856.18	2789.08	22.28	OSF1.50	14780.00	7204.52				MinPt-CtCt	
	2992.20	203.60	2855.94	2788.60	22.21	OSF1.50	14820.00	7204.44				MINPT-O-EOU	
	2992.34	203.77	2855.96	2788.57	22.19	OSF1.50	14830.00	7204.41				MinPt-O-ADP	
	3019.41	208.47	2879.89	2810.94	21.88	OSF1.50	15190.00	7203.62				MinPt-O-SF	
	3070.26	210.31	2929.51	2859.94	22.05	OSF1.50	15472.85	7203.00				TD	
	3119.04	32.81	3117.23	3086.23	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3119.03	32.81	3117.21	3086.22	496917.60	MAS = 10.00 (m)	4.00	4.00				WRP	
	3119.03	32.81	3109.23	3086.22	390.20	MAS = 10.00 (m)	250.00	250.00				MinPts	
Meyer 5 GYRO 0' to 7665' - AB (Def Survey)	3124.13	32.81	3104.02	3091.32	170.63	MAS = 10.00 (m)	510.00	509.64				MINPT-O-EOU	
	3130.55	37.00	3105.28	3093.55	133.38	OSF1.50	640.00	638.80				MinPt-O-ADP	
	4300.48	439.16	4007.18	3861.32	14.74	OSF1.50	10080.00	7214.87				MinPt-CtCt	
	4300.48	439.19	4007.18	3861.29	14.74	OSF1.50	10090.00	7214.85				MINPT-O-EOU	
	4300.51	439.22	4007.16	3861.29	14.74	OSF1.50	10100.00	7214.83				MinPt-O-ADP	
	4302.62	439.62	4009.00	3863.00	14.73	OSF1.50	10220.00	7214.56				MinPt-O-SF	
	6894.12	446.86	6595.68	6447.26	23.22	OSF1.50	15472.85	7203.00				TD	
	3921.29	32.81	3919.47	3888.48	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3921.26	32.81	3919.43	3888.45	161215.42	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3921.21	32.81	3919.34	3888.46	66513.82	MAS = 10.00 (m)	30.00	30.00				MinPts	
	3921.65	32.81	3918.80	3888.84	3784.48	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
Lesser J 21-18D MWD 0' to 7595' - SI (Def Survey)	3921.86	32.81	3918.95	3889.05	3592.77	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3558.07	138.40	3465.28	3419.68	39.00	OSF1.50	12050.00	7210.53				MinPt-CtCt	
	3558.34	139.12	3465.06	3419.22	38.80	OSF1.50	12090.00	7210.45				MINPT-O-EOU	
	3558.65	139.48	3465.13	3419.17	38.70	OSF1.50	12110.00	7210.40				MinPt-O-ADP	
	3671.12	151.29	3569.72	3519.83	36.77	OSF1.50	12950.00	7208.55				MinPt-O-SF	
	4939.84	154.36	4836.39	4785.47	48.49	OSF1.50	15472.85	7203.00				TD	
	6788.20	32.81	6786.39	6755.39	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6788.16	32.81	6786.31	6755.36	181207.19	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6787.93	32.81	6786.00	6755.12	54546.13	MAS = 10.00 (m)	60.00	60.00				MinPts	
	6788.10	32.81	6785.33	6755.29	7089.85	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	6788.28	32.81	6785.43	6755.47	6564.63	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
Lesser J 21-17 - Plan (Def Plan)	6457.48	40.90	6429.60	6416.58	247.93	OSF1.50	4700.00	4388.92				MinPt-CtCt	
	6457.57	41.18	6429.50	6416.39	246.18	OSF1.50	4740.00	4425.52				MINPT-O-EOU	
	6457.68	41.32	6429.52	6416.35	245.31	OSF1.50	4760.00	4443.82				MinPt-O-ADP	
	3560.93	166.27	3449.55	3394.66	32.42	OSF1.50	13380.00	7207.61				MinPt-CtCt	
	3561.25	167.26	3449.21	3393.99	32.23	OSF1.50	13430.00	7207.50				MINPT-O-EOU	
	3561.58	167.65	3449.28	3393.93	32.16	OSF1.50	13450.00	7207.45				MinPt-O-ADP	
	3644.85	178.23	3525.50	3466.62	30.94	OSF1.50	14160.00	7205.89				MinPt-O-SF	
	4128.96	182.48	4006.77	3946.47	34.23	OSF1.50	15472.85	7203.00				TD	
	6963.55	32.81	6961.74	6930.75	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6963.52	32.81	6961.67	6930.71	197754.30	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6963.31	32.81	6960.43	6930.50	6500.38	MAS = 10.00 (m)	250.00	250.00				MinPts	
Meyer 2 GYRO 0' to 8010' - AB (Def Survey)	6963.38	32.81	6960.36	6930.57	5747.35	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	6963.46	32.81	6960.26	6930.65	946.23	MAS = 10.00 (m)	1270.00	1248.59				MinPt-O-SF	
	3726.66	182.29	3604.60	3544.37	30.92	OSF1.50	14060.00	7206.11				MinPt-CtCt	
	3727.03	183.28	3604.31	3543.75	30.76	OSF1.50	14110.00	7206.00				MINPT-O-EOU	
	3727.36	183.66	3604.30	3543.70	30.70	OSF1.50	14130.00	7205.96				MinPt-O-ADP	
	3805.82	193.97	3675.97	3611.85	29.66	OSF1.50	14830.00	7204.41				MinPt-O-SF	
	3986.27	198.04	3853.71	3788.23	30.43	OSF1.50	15472.85	7203.00				TD	
	3874.71	32.81	3872.89	3841.90	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3874.68	32.81	3872.85	3841.87	165277.59	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3873.78	32.81	3870.79	3840.97	3280.24	MAS = 10.00 (m)	280.00	280.00				MinPts	
	3873.80	32.81	3870.78	3840.99	3161.59	MAS = 10.00 (m)	300.00	300.00				MinPts	
	3875.00	32.81	3871.54	3842.20	2353.31	MAS = 10.00 (m)	460.00	459.81				MINPT-O-EOU	
Drilling Office 2.10.811.0 ...PDC Energy 20-05N-66W (Stugart State 6-20 Pad)\Stugart 23N\Original Hole\Stugart 23N R2 mdv 10June20	3964.60	32.81	3943.41	3931.79	202.40	MAS = 10.00 (m)	3130.00	2952.40				MinPts	
	3964.65	32.81	3943.34	3931.84	201.13	MAS = 10.00 (m)	3160.00	2979.85				MINPT-O-EOU	
	4745.75	58.43	4706.26	4687.32	125.23	OSF1.50	7100.00	6584.89				MinPt-O-SF	
	4790.73	58.68	4751.08	4732.06	125.87	OSF1.50	7340.00	6799.15				MinPt-O-SF	
	3758.68	102.01	3690.14	3656.67	56.13	OSF1.50	10740.00	7213.42				MinPt-CtCt	
	3758.90	102.71	3689.89	3656.18	55.74	OSF1.50	10780.00	7213.33				MINPT-O-EOU	
	3759.34	103.24	3689.98	3656.10	55.46	OSF1.50	10810.00	7213.26				MinPt-O-ADP	
	3980.53	120.47	3899.68	3860.06	50.21	OSF1.50	12050.00	7210.53				MinPt-O-SF	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	6043.80	128.47	5957.61	5915.32	71.44	OSF1.50	15472.85	7203.00				TD	
Meyer 6 GYRO 0' to 8410' - AB (Def Survey)													Pass
	3936.78	32.81	3934.97	3903.98	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3936.76	32.81	3934.92	3903.95	162492.67	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3936.46	32.81	3934.11	3903.65	7353.26	MAS = 10.00 (m)	150.00	150.00				MinPts	
	3936.60	32.81	3933.95	3903.79	4752.26	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
	3937.55	32.81	3934.67	3904.74	3677.20	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	4204.31	32.81	4191.40	4171.50	371.84	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	4285.56	32.81	4272.48	4252.76	373.31	MAS = 10.00 (m)	2150.00	2055.71				MinPt-O-SF	
	6536.39	58.08	6497.13	6478.30	173.55	OSF1.50	7100.00	684.89				MinPt-O-SF	
	4396.83	157.20	4291.50	4239.63	42.37	OSF1.50	12660.00	7209.19				MinPt-CiCt	
	4397.14	158.17	4291.16	4238.97	42.11	OSF1.50	12710.00	7209.08				MINPT-O-EOU	
	4397.60	158.75	4291.23	4238.85	41.96	OSF1.50	12740.00	7209.01				MinPt-O-ADP	
	4571.64	176.19	4453.64	4395.44	39.26	OSF1.50	13910.00	7206.44				MinPt-O-SF	
	5220.73	184.15	5097.43	5036.58	42.89	OSF1.50	15472.85	7203.00				TD	
Meyer 7 GYRO 0' to 8146' - PR (Def Survey)													Pass
	3953.15	32.81	3951.34	3920.34	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3953.12	32.81	3951.29	3920.32	166060.74	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3950.90	32.81	3947.77	3918.09	3000.98	MAS = 10.00 (m)	290.00	290.00				MinPts	
	3950.90	32.81	3947.76	3918.10	2964.98	MAS = 10.00 (m)	300.00	300.00				MinPts	
	4224.11	32.81	4211.60	4191.30	387.31	MAS = 10.00 (m)	1900.00	1826.97				MinPt-O-SF	
	6270.17	60.44	6229.34	6209.73	159.80	OSF1.50	6590.00	6118.25				MinPts	
	6405.16	63.60	6362.22	6341.56	154.94	OSF1.50	7092.71	6578.22				MinPt-O-SF	
	4897.00	134.51	4806.79	4762.49	55.25	OSF1.50	11920.00	7210.82				MinPt-CiCt	
	4897.47	135.96	4806.33	4761.56	54.68	OSF1.50	11990.00	7210.67				MINPT-O-EOU	
	4897.98	136.50	4806.44	4761.45	54.45	OSF1.50	12020.00	7210.60				MinPt-O-ADP	
	5206.34	162.12	5097.73	5044.22	48.64	OSF1.50	13690.00	7206.92				MinPt-O-SF	
	6048.81	172.88	5933.03	5875.94	52.96	OSF1.50	15472.85	7203.00				TD	
Meyer 8 GYRO 0' to 7678' - AB (Def Survey)													Pass
	3968.12	32.81	3966.31	3935.31	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3968.10	32.81	3966.26	3935.29	165090.57	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3966.15	32.81	3962.96	3933.34	2865.86	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3966.11	32.81	3962.92	3933.30	2881.47	MAS = 10.00 (m)	330.00	329.99				MinPts	
	5224.55	57.17	5185.90	5167.38	140.99	OSF1.50	7110.00	6594.03				MinPt-O-SF	
	4118.72	108.82	4045.64	4009.90	57.60	OSF1.50	11020.00	7212.80				MinPt-CiCt	
	4119.07	109.75	4045.37	4009.32	57.11	OSF1.50	11070.00	7212.69				MINPT-O-EOU	
	4119.38	110.12	4045.43	4009.26	56.92	OSF1.50	11090.00	7212.65				MinPt-O-ADP	
	4388.15	131.15	4300.18	4257.00	50.79	OSF1.50	12530.00	7209.48				MinPt-O-SF	
	6068.49	141.44	5973.66	5927.05	65.08	OSF1.50	15472.85	7203.00				TD	
Lesser 1 Blind 0' to 7846' - AB (Def Survey)													Pass
	7683.08	32.81	7681.27	7650.27	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	7683.04	32.81	7681.18	7650.23	173331.38	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	7682.67	32.81	7675.91	7649.86	1553.05	MAS = 10.00 (m)	250.00	250.00				MinPts	
	7699.41	65.16	7655.37	7634.25	182.27	OSF1.50	1200.00	1182.68				MINPT-O-EOU	
	7721.51	90.61	7660.50	7630.91	130.41	OSF1.50	1650.00	1598.22				MinPt-O-ADP	
	3966.62	471.59	3851.69	3495.03	12.65	OSF1.50	14940.00	7204.17				MinPt-CiCt	
	3966.66	471.76	3851.62	3494.90	12.65	OSF1.50	14960.00	7204.13				MINPT-O-EOU	
	3966.80	471.93	3851.64	3494.87	12.65	OSF1.50	14980.00	7204.08				MinPt-O-ADP	
	3974.35	473.61	3858.07	3500.74	12.63	OSF1.50	15190.00	7203.62				MinPt-O-SF	
	4001.95	475.50	3884.41	3526.44	12.66	OSF1.50	15472.85	7203.00				TD	
Lesser PM J 21-1 Blind 0' to 7510' - PR (Def Survey)													Pass
	8095.31	32.81	8093.49	8062.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	8095.27	32.81	8093.42	8062.46	206857.66	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	8094.97	32.81	8088.00	8062.16	1569.85	MAS = 10.00 (m)	250.00	250.00				MinPts	
	8111.18	62.02	8069.22	8049.15	202.03	OSF1.50	1140.00	1125.75				MINPT-O-EOU	
	8125.32	79.11	8071.98	8046.21	157.64	OSF1.50	1439.82	1405.91				MinPt-O-ADP	
	4130.25	476.19	3812.25	3654.06	13.05	OSF1.50	15330.00	7203.31				MinPt-CiCt	
	4130.33	476.47	3812.16	3653.87	13.04	OSF1.50	15360.00	7203.25				MINPT-O-EOU	
	4130.41	476.56	3812.17	3653.85	13.04	OSF1.50	15370.00	7203.23				MinPt-O-ADP	
	4132.59	477.45	3813.75	3655.14	13.02	OSF1.50	15472.85	7203.00				MinPt-O-SF	
Lesser PM J 21-2 Blind 0' to 7507' - PR (Def Survey)													Pass
	6912.30	32.81	6910.49	6879.49	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6912.26	32.81	6910.41	6879.45	165078.02	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6911.97	32.81	6904.74	6879.15	1277.11	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6925.13	50.77	6890.69	6874.36	212.12	OSF1.50	940.00	933.35				MINPT-O-EOU	
	6938.19	66.45	6893.28	6871.74	160.97	OSF1.50	1210.00	1192.13				MinPt-O-ADP	
	4234.39	463.63	3924.77	3770.76	13.74	OSF1.50	14110.00	7206.00				MinPt-CiCt	
	4234.43	463.79	3924.71	3770.64	13.74	OSF1.50	14130.00	7205.96				MINPT-O-EOU	
	4234.49	463.87	3924.71	3770.62	13.74	OSF1.50	14140.00	7205.93				MinPt-O-ADP	
	4242.96	465.66	3931.98	3777.30	13.71	OSF1.50	14380.00	7205.41				MinPt-O-SF	
	4448.18	470.98	4133.66	3977.20	14.21	OSF1.50	15472.85	7203.00				TD	
Lesser J 21-8 Blind 0' to 7838' - PR (Def Survey)													Pass
	6981.61	32.81	6979.80	6948.80	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6981.57	32.81	6979.72	6948.76	157855.47	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6981.24	32.81	6974.19	6948.43	1331.20	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6994.42	50.52	6960.13	6943.90	215.35	OSF1.50	940.00	933.35				MINPT-O-EOU	
	7007.48	66.20	6962.74	6941.28	163.21	OSF1.50	1210.00	1192.13				MinPt-O-ADP	
	4250.30	464.08	3940.38	3786.22	13.78	OSF1.50	14180.00	7205.85				MinPt-CiCt	
	4250.35	464.24	3940.33	3786.12	13.78	OSF1.50	14200.00	7205.80				MINPT-O-EOU	
	4250.42	464.32	3940.34	3786.10	13.77	OSF1.50	14210.00	7205.78				MinPt-O-ADP	
	4259.65	466.20	3948.32	3793.45	13.75	OSF1.50	14460.00	7205.23				MinPt-O-SF	
	4443.21	471.30	4128.48	3971.91	14.18	OSF1.50	15472.85	7203.00				TD	
Lesser J 21-17 Blind 0' to 7578' - SI (Def Survey)													Pass
	6965.79	32.81	6963.97	6932.98	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6965.75	32.81	6963.89	6932.94	157140.53	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6965.41	32.81	6958.36	6932.61	1328.00	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6978.33	49.93	6944.43	6928.39	217.47	OSF1.50	930.00	923.63				MINPT-O-EOU	
	6991.33	65.62	6946.97	6925.70	164.30	OSF1.50	1200.00	1182.68				MinPt-O-ADP	
	4257.98	463.88	3948.19	3794.09	13.81	OSF1.50	14160.00	7205.89				MinPt-CiCt	
	4258.03	464.04	3948.13	3793.98	13.81	OSF1.50	14180.00	7205.85				MINPT-O-EOU	
	4258.08	464.12	3948.13	3793.96	13.80	OSF1.50	14190.00	7205.82				MinPt-O-ADP	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	4267.17	466.01	3955.97	3801.17	13.78	OSF1.50	14440.00	7206.27				MinPt-O-SF	
	4455.77	471.18	4141.12	3984.59	14.23	OSF1.50	15472.85	7203.00				TD	

Lesser J 21-28D GYRO 0' to 7573' - SI (Def Survey)

Pass

6765.64	32.81	6763.83	6732.84	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
6765.61	32.81	6763.75	6732.80	156234.68	MAS = 10.00 (m)	4.00	4.00	MinPt-O-SF
6764.99	32.81	6762.10	6732.18	6250.45	MAS = 10.00 (m)	260.00	260.00	MinPt-O-SF
6764.95	32.81	6762.09	6732.17	6258.72	MAS = 10.00 (m)	270.00	270.00	MinPts
6768.68	32.81	6754.13	6735.87	531.62	MAS = 10.00 (m)	1790.00	1726.32	MINPT-O-EOU
6768.63	32.81	6754.04	6735.83	521.30	MAS = 10.00 (m)	1830.00	1762.92	MinPts
6768.77	32.81	6753.83	6735.96	507.56	MAS = 10.00 (m)	1900.00	1826.97	MINPT-O-EOU
6776.26	32.81	6760.17	6743.46	467.52	MAS = 10.00 (m)	2240.00	2138.06	MINPT-O-EOU
6783.63	32.81	6766.22	6750.82	429.18	MAS = 10.00 (m)	2530.00	2403.41	MINPT-O-EOU
4874.63	166.08	4763.37	4708.54	44.44	OSF1.50	13360.00	7207.65	MinPt-CtCt
4875.09	167.52	4762.88	4707.57	44.06	OSF1.50	13430.00	7207.50	MINPT-O-EOU
4875.60	168.12	4762.98	4707.47	43.90	OSF1.50	13460.00	7207.43	MinPt-O-ADP
5090.67	189.37	4963.89	4901.31	40.66	OSF1.50	14830.00	7204.41	MinPt-O-SF
5311.75	194.79	5181.36	5116.96	41.23	OSF1.50	15472.85	7203.00	TD

Lesser J 21-27D GYRO 0' to 7585' - PR (Def Survey)

Pass

6810.93	32.81	6809.11	6778.12	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
6810.89	32.81	6809.03	6778.08	159321.04	MAS = 10.00 (m)	4.00	4.00	MinPt-O-SF
6810.59	32.81	6808.63	6777.78	46408.22	MAS = 10.00 (m)	70.00	70.00	MinPts
6810.62	32.81	6807.76	6777.81	6513.15	MAS = 10.00 (m)	270.00	270.00	MinPts
8401.89	59.86	8361.45	8342.03	216.31	OSF1.50	6670.00	6191.44	MinPts
4884.04	197.51	4751.83	4686.53	37.38	OSF1.50	14630.00	7204.86	MinPt-CtCt
4884.50	198.97	4751.32	4685.53	37.11	OSF1.50	14700.00	7204.70	MINPT-O-EOU
4885.01	199.59	4751.41	4685.41	37.00	OSF1.50	14730.00	7204.64	MinPt-O-ADP
4955.75	212.65	4813.44	4743.09	35.21	OSF1.50	15472.85	7203.00	MinPt-O-SF