

Survey Record														
Survey Calculation														
Method :			Minimum Radius of Curvature				DLS Method :				Lubinski			
North Reference :			Grid North				Total Correction Formula :				Magnetic Dec - Grid Convergence			
Grid Convergence :			0.88 deg											
Rig Location														
Latitude :			40° 25' 20.785" N				Longitude :				104° 8' 39.357" W			
Tie In Point														
Measured Depth:		0.00 ft	Inclination:		0.00 deg		Azimuth:		0.00 deg					
True Vertical Depth:		0.00 ft	North Displacement:		0.00 ft		East Displacement:		0.00 ft					
N/-S VSec Origin:		0.00 ft	E/-W VSec Origin:		0.00 ft		Vertical Section Azimuth:		178.16 deg					
D&I Inits Computed and Values Used - Run001														
Geomagnetic Model :			BGGM 2011				Geomagnetic Date :			14-Jul-2011				
Computed Location B :			53165.59 nT +/- 300.00nT				Used Location B :			53165.59 nT +/- 300.00nT				
Computed Location G :			32.16 ft/s2 +/- 0.08ft/s2				Used Location G :			32.16 ft/s2 +/- 0.08ft/s2				
Computed Magnetic Dip :			67.16 deg +/- 0.45deg				Used Magnetic Dip :			67.16 deg +/- 0.45deg				
Computed Magnetic Dec :			8.49 deg				Used Magnetic Dec :			8.49 deg				
Computed Total Correction :			7.61 deg				Used Total Correction :			7.61 deg				
D&I Inits Computed and Values Used - Run002														
Geomagnetic Model :			BGGM 2011				Geomagnetic Date :			14-Jul-2011				
Computed Location B :			53165.59 nT +/- 300.00nT				Used Location B :			53165.59 nT +/- 300.00nT				
Computed Location G :			32.16 ft/s2 +/- 0.08ft/s2				Used Location G :			32.16 ft/s2 +/- 0.08ft/s2				
Computed Magnetic Dip :			67.16 deg +/- 0.45deg				Used Magnetic Dip :			67.16 deg +/- 0.45deg				
Computed Magnetic Dec :			8.49 deg				Used Magnetic Dec :			8.49 deg				
Computed Total Correction :			7.61 deg				Used Total Correction :			7.61 deg				
D&I Inits Computed and Values Used - Run003														
Geomagnetic Model :			BGGM 2011				Geomagnetic Date :			14-Jul-2011				
Computed Location B :			53165.59 nT +/- 300.00nT				Used Location B :			53165.59 nT +/- 300.00nT				
Computed Location G :			32.16 ft/s2 +/- 0.08ft/s2				Used Location G :			32.16 ft/s2 +/- 0.08ft/s2				
Computed Magnetic Dip :			67.16 deg +/- 0.45deg				Used Magnetic Dip :			67.16 deg +/- 0.45deg				
Computed Magnetic Dec :			8.49 deg				Used Magnetic Dec :			8.49 deg				
Computed Total Correction :			7.61 deg				Used Total Correction :			7.61 deg				
Survey Quality Index														
0 : Long, passed all criteria			9 : Manual						25 : Manual, Projection to Bit					
Survey Correction Index														
0 : No correction														
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP		
2	1442.00	0.40	109.40	1442.00	1441.99	1.82	-1.67	4.75	5.02	109.40	0.03	Other	9	
3	1472.00	0.40	132.60	30.00	1471.99	1.93	-1.78	4.92	5.25	109.85	0.54	Other	9	
4	1563.00	4.10	174.10	91.00	1562.90	5.40	-5.23	5.49	7.58	133.60	4.19	Other	9	
5	1656.00	4.70	166.70	93.00	1655.63	12.45	-12.24	6.71	13.98	151.28	0.89	Other	9	
6	1717.00	3.80	172.20	61.00	1716.46	16.91	-16.68	7.56	18.31	155.62	1.62	Other	9	
7	1812.00	3.30	177.80	95.00	1811.28	22.78	-22.53	8.09	23.95	160.24	0.64	Other	9	
8	1907.00	3.30	182.40	95.00	1906.12	28.24	-28.00	8.08	29.13	163.90	0.28	Other	9	
9	2002.00	3.00	175.00	95.00	2000.98	33.45	-33.20	8.18	34.19	166.15	0.53	Other	9	
10	2098.00	2.60	178.90	96.00	2096.86	38.13	-37.88	8.45	38.81	167.43	0.46	Other	9	

11	2193.00	3.30	187.50	95.00	2191.74	42.99	-42.75	8.13	43.50	169.23	0.87	Other	9	
12	2288.00	3.30	192.00	95.00	2286.58	48.34	-48.13	7.20	48.65	171.49	0.27	Other	9	
13	2383.00	3.50	183.40	95.00	2381.41	53.88	-53.70	6.46	54.10	173.14	0.58	Other	9	
14	2478.00	5.50	185.40	95.00	2476.12	61.29	-61.13	5.86	61.42	174.52	2.11	Other	9	
15	2573.00	6.80	180.10	95.00	2570.57	71.43	-71.29	5.42	71.49	175.65	1.49	Other	9	
16	2669.00	7.20	181.50	96.00	2665.85	83.11	-82.99	5.26	83.14	176.37	0.45	Other	9	
17	2764.00	6.90	179.90	95.00	2760.13	94.76	-94.64	5.11	94.78	176.91	0.38	Other	9	
18	2859.00	6.90	179.90	95.00	2854.45	106.17	-106.06	5.13	106.17	177.23	0.00	Other	9	
19	2954.00	6.40	178.10	95.00	2948.81	117.17	-117.05	5.32	117.19	177.40	0.57	Other	9	
20	3049.00	6.10	179.20	95.00	3043.24	127.51	-127.39	5.56	127.53	177.50	0.34	Other	9	
21	3144.00	6.20	183.20	95.00	3137.70	137.66	-137.56	5.35	137.66	177.77	0.46	Other	9	
22	3239.00	6.90	185.90	95.00	3232.08	148.43	-148.36	4.47	148.43	178.27	0.80	Other	9	
23	3335.00	6.60	187.30	96.00	3327.41	159.59	-159.57	3.18	159.61	178.86	0.36	Other	9	
24	3430.00	6.60	184.80	95.00	3421.78	170.40	-170.43	2.03	170.44	179.32	0.30	Other	9	
25	3524.00	6.60	185.40	94.00	3515.16	181.13	-181.19	1.07	181.20	179.66	0.07	Other	9	
26	3620.00	6.50	183.80	96.00	3610.53	192.01	-192.10	0.19	192.09	179.94	0.22	Other	9	
27	3715.00	6.00	182.00	95.00	3704.97	202.31	-202.43	-0.34	202.43	180.10	0.57	Other	9	
28	3810.00	6.20	181.70	95.00	3799.43	212.39	-212.52	-0.66	212.53	180.18	0.21	Other	9	
29	3905.00	6.50	181.30	95.00	3893.85	222.88	-223.02	-0.94	223.03	180.24	0.32	Other	9	
30	4000.00	6.30	178.10	95.00	3988.25	233.46	-233.61	-0.89	233.60	180.22	0.43	Other	9	
31	4096.00	6.00	179.70	96.00	4083.70	243.74	-243.89	-0.69	243.90	180.16	0.36	Other	9	
32	4191.00	6.90	180.80	95.00	4178.10	254.40	-254.56	-0.74	254.56	180.17	0.96	Other	9	
33	4286.00	6.90	183.20	95.00	4272.41	265.79	-265.96	-1.14	265.98	180.25	0.30	Other	9	
34	4381.00	6.20	184.50	95.00	4366.79	276.57	-276.78	-1.86	276.77	180.39	0.75	Other	9	
35	4476.00	6.40	181.00	95.00	4461.22	286.96	-287.18	-2.36	287.20	180.47	0.46	Other	9	
36	4571.00	6.30	179.20	95.00	4555.63	297.46	-297.69	-2.37	297.70	180.46	0.23	Other	9	
37	4667.00	5.80	178.30	96.00	4651.10	307.58	-307.80	-2.16	307.81	180.40	0.53	Other	9	
38	4762.00	6.80	175.70	95.00	4745.52	318.00	-318.21	-1.59	318.21	180.29	1.09	Other	9	
39	4857.00	6.20	173.10	95.00	4839.91	328.73	-328.91	-0.56	328.90	180.10	0.70	Other	9	
40	4952.00	7.00	176.00	95.00	4934.28	339.62	-339.78	0.46	339.80	179.92	0.91	Other	9	
41	5047.00	6.80	175.30	95.00	5028.60	351.02	-351.16	1.33	351.15	179.78	0.23	Other	9	
42	5086.00	10.20	183.90	39.00	5067.16	356.77	-356.91	1.28	356.92	179.79	9.28	Other	9	
43	5118.00	11.10	184.40	32.00	5098.61	362.65	-362.81	0.85	362.80	179.87	2.83	Other	9	
44	5150.00	10.90	186.40	32.00	5130.02	368.70	-368.88	0.28	368.90	179.96	1.35	Other	9	
45	5181.00	10.90	187.40	31.00	5160.46	374.50	-374.70	-0.42	374.70	180.06	0.61	Other	9	
46	5213.00	10.80	186.00	32.00	5191.89	380.45	-380.69	-1.13	380.68	180.17	0.88	Other	9	
47	5245.00	9.90	182.70	32.00	5223.37	386.17	-386.42	-1.57	386.42	180.23	3.37	Other	9	
48	5276.00	10.00	182.00	31.00	5253.91	391.51	-391.77	-1.79	391.77	180.26	0.51	Other	9	
49	5308.00	9.80	181.80	32.00	5285.43	397.00	-397.27	-1.97	397.28	180.28	0.63	Other	9	
50	5340.00	9.20	182.70	32.00	5316.99	402.27	-402.54	-2.18	402.56	180.31	1.93	Other	9	
51	5372.00	9.70	183.00	32.00	5348.56	407.50	-407.79	-2.44	407.81	180.34	1.57	Other	9	
52	5404.00	9.10	181.10	32.00	5380.13	412.72	-413.01	-2.63	413.02	180.36	2.11	Other	9	
53	5435.00	9.30	180.40	31.00	5410.73	417.67	-417.97	-2.69	417.98	180.37	0.74	Other	9	
54	5467.00	9.20	181.10	32.00	5442.31	422.81	-423.11	-2.76	423.13	180.37	0.47	Other	9	
55	5499.00	9.00	181.80	32.00	5473.91	427.86	-428.17	-2.89	428.18	180.39	0.71	Other	9	
56	5531.00	10.20	181.80	32.00	5505.46	433.18	-433.51	-3.06	433.53	180.40	3.75	Other	9	
57	5562.00	12.90	182.10	31.00	5535.83	439.38	-439.71	-3.27	439.73	180.43	8.71	Other	9	
58	5594.00	15.70	182.80	32.00	5566.83	447.26	-447.60	-3.61	447.60	180.46	8.77	Other	9	
59	5625.00	18.60	183.10	31.00	5596.45	456.37	-456.73	-4.08	456.76	180.51	9.36	Other	9	
60	5657.00	21.80	181.80	32.00	5626.48	467.38	-467.77	-4.55	467.78	180.56	10.10	Other	9	
61	5689.00	25.20	180.80	32.00	5655.82	480.12	-480.52	-4.83	480.54	180.58	10.70	Other	9	
62	5720.00	29.00	179.60	31.00	5683.41	494.23	-494.64	-4.87	494.65	180.56	12.38	Other	9	
63	5752.00	32.90	178.90	32.00	5710.85	510.68	-511.09	-4.65	511.12	180.52	12.24	Other	9	
64	5784.00	37.00	179.70	32.00	5737.08	529.01	-529.42	-4.43	529.43	180.48	12.89	Other	9	

65	5816.00	41.30	180.70	32.00	5761.89	549.19	-549.62	-4.51	549.64	180.47	13.58	Other	9	
66	5847.00	45.70	180.80	31.00	5784.37	570.50	-570.95	-4.79	570.96	180.48	14.20	Other	9	
67	5879.00	50.50	180.30	32.00	5805.73	594.29	-594.76	-5.01	594.78	180.48	15.04	Other	9	
68	5911.00	55.10	179.40	32.00	5825.07	619.76	-620.24	-4.94	620.28	180.46	14.55	Other	9	
69	5942.00	59.20	178.10	31.00	5841.89	645.80	-646.27	-4.36	646.29	180.39	13.69	Other	9	
70	5974.00	60.90	176.80	32.00	5857.86	673.52	-673.97	-3.13	673.98	180.27	6.37	Other	9	
71	6006.00	62.20	177.20	32.00	5873.11	701.65	-702.07	-1.66	702.07	180.14	4.21	Other	9	
72	6038.00	63.20	176.70	32.00	5887.78	730.08	-730.46	-0.14	730.45	180.01	3.42	Other	9	
73	6069.00	66.20	177.20	31.00	5901.03	758.10	-758.44	1.35	758.43	179.90	9.79	Other	9	
74	6101.00	69.80	178.00	32.00	5913.02	787.76	-788.08	2.59	788.09	179.81	11.49	Other	9	
75	6133.00	73.30	179.00	32.00	5923.14	818.11	-818.42	3.38	818.44	179.76	11.33	Other	9	
76	6165.00	75.40	179.10	32.00	5931.77	848.92	-849.23	3.89	849.25	179.74	6.57	Other	9	
77	6197.00	76.70	179.70	32.00	5939.49	879.97	-880.28	4.21	880.28	179.73	4.45	Other	9	
78	6228.00	78.30	180.10	31.00	5946.20	910.22	-910.55	4.27	910.56	179.73	5.31	Other	9	
79	6260.00	81.40	180.30	32.00	5951.84	941.69	-942.04	4.16	942.06	179.75	9.71	Other	9	
80	6292.00	84.90	180.40	32.00	5955.65	973.43	-973.81	3.96	973.82	179.77	10.94	Other	9	
81	6367.00	92.17	181.63	75.00	5957.57	1048.27	-1048.72	2.63	1048.72	179.86	9.83	ShortPulse	0	0
82	6399.00	93.20	181.26	32.00	5956.07	1080.18	-1080.68	1.83	1080.68	179.90	3.44	ShortPulse	0	0
83	6494.00	91.48	180.93	95.00	5952.19	1174.97	-1175.58	0.02	1175.59	180.00	1.84	ShortPulse	0	0
84	6589.00	89.24	179.00	95.00	5951.59	1269.91	-1270.56	0.07	1270.57	180.00	3.11	ShortPulse	0	0
85	6685.00	90.31	178.66	96.00	5951.97	1365.90	-1366.54	2.04	1366.54	179.91	1.17	ShortPulse	0	0
86	6748.00	89.62	178.46	63.00	5952.01	1428.90	-1429.52	3.63	1429.53	179.85	1.14	ShortPulse	0	0
87	6780.00	89.79	178.85	32.00	5952.17	1460.90	-1461.51	4.38	1461.52	179.83	1.34	ShortPulse	0	0
88	6812.00	89.00	178.90	32.00	5952.51	1492.89	-1493.50	5.00	1493.50	179.81	2.48	ShortPulse	0	0
89	6844.00	88.69	179.21	32.00	5953.15	1524.88	-1525.49	5.53	1525.49	179.79	1.35	ShortPulse	0	0
90	6875.00	88.35	179.41	31.00	5953.95	1555.87	-1556.48	5.91	1556.50	179.78	1.29	ShortPulse	0	0
91	6907.00	88.18	180.02	32.00	5954.92	1587.84	-1588.46	6.07	1588.48	179.78	1.99	ShortPulse	0	0
92	6939.00	88.52	180.57	32.00	5955.84	1619.80	-1620.45	5.90	1620.47	179.79	2.03	ShortPulse	0	0
93	6971.00	88.14	180.55	32.00	5956.77	1651.76	-1652.43	5.59	1652.46	179.81	1.19	ShortPulse	0	0
94	7002.00	88.52	180.93	31.00	5957.68	1682.72	-1683.42	5.19	1683.43	179.82	1.73	ShortPulse	0	0
95	7034.00	88.25	180.95	32.00	5958.58	1714.67	-1715.40	4.67	1715.42	179.84	0.87	ShortPulse	0	0
96	7066.00	88.56	180.58	32.00	5959.47	1746.62	-1747.39	4.24	1747.38	179.86	1.51	ShortPulse	0	0
97	7098.00	88.45	180.01	32.00	5960.31	1778.59	-1779.38	4.08	1779.36	179.87	1.80	ShortPulse	0	0
98	7132.00	88.52	180.33	34.00	5961.21	1812.56	-1813.36	3.98	1813.35	179.87	0.97	ShortPulse	0	0
99	7164.00	85.59	177.81	32.00	5962.85	1844.50	-1845.31	4.49	1845.31	179.86	12.07	ShortPulse	0	0
100	7195.00	85.28	174.88	31.00	5965.32	1875.39	-1876.15	6.46	1876.15	179.80	9.47	ShortPulse	0	0
101	7227.00	85.21	174.69	32.00	5967.97	1907.22	-1907.90	9.36	1907.94	179.72	0.66	ShortPulse	0	0
102	7259.00	86.49	175.06	32.00	5970.29	1939.08	-1939.69	12.21	1939.73	179.64	4.16	ShortPulse	0	0
103	7291.00	88.45	175.46	32.00	5971.70	1971.01	-1971.55	14.85	1971.62	179.57	6.27	ShortPulse	0	0
104	7322.00	89.76	175.76	31.00	5972.18	2001.97	-2002.45	17.22	2002.53	179.51	4.32	ShortPulse	0	0
105	7354.00	90.38	175.81	32.00	5972.14	2033.95	-2034.37	19.57	2034.45	179.45	1.94	ShortPulse	0	0
106	7386.00	91.69	175.55	32.00	5971.57	2065.91	-2066.27	21.98	2066.37	179.39	4.17	ShortPulse	0	0
107	7417.00	92.58	175.16	31.00	5970.41	2096.85	-2097.15	24.49	2097.28	179.33	3.14	ShortPulse	0	0
108	7447.00	92.86	175.06	30.00	5968.99	2126.78	-2127.00	27.05	2127.17	179.27	0.98	ShortPulse	0	0
109	7478.00	92.51	174.75	31.00	5967.54	2157.69	-2157.85	29.79	2158.04	179.21	1.50	ShortPulse	0	0
110	7510.00	91.10	173.31	32.00	5966.53	2189.59	-2189.66	33.12	2189.90	179.13	6.31	ShortPulse	0	0
111	7542.00	91.86	172.65	32.00	5965.70	2221.45	-2221.41	37.03	2221.72	179.04	3.13	ShortPulse	0	0
112	7574.00	92.41	172.68	32.00	5964.51	2253.28	-2253.12	41.11	2253.51	178.95	1.72	ShortPulse	0	0
113	7606.00	92.68	172.81	32.00	5963.09	2285.11	-2284.83	45.15	2285.27	178.87	0.96	ShortPulse	0	0
114	7638.00	92.37	173.19	32.00	5961.68	2316.95	-2316.57	49.04	2317.09	178.79	1.53	ShortPulse	0	0
115	7669.00	92.27	173.55	31.00	5960.42	2347.81	-2347.33	52.62	2347.93	178.72	1.21	ShortPulse	0	0
116	7701.00	91.82	174.07	32.00	5959.28	2379.70	-2379.13	56.06	2379.79	178.65	2.14	ShortPulse	0	0
117	7733.00	92.13	174.40	32.00	5958.17	2411.61	-2410.95	59.28	2411.68	178.59	1.42	ShortPulse	0	0
118	7765.00	92.20	175.04	32.00	5956.96	2443.52	-2442.79	62.22	2443.57	178.54	2.01	ShortPulse	0	0

119	7797.00	91.55	175.60	32.00	5955.92	2475.47	-2474.66	64.82	2475.52	178.50	2.68	ShortPulse	0	0
120	7828.00	90.38	175.85	31.00	5955.39	2506.44	-2505.57	67.14	2506.46	178.47	3.86	ShortPulse	0	0
121	7860.00	90.00	175.81	32.00	5955.29	2538.41	-2537.49	69.46	2538.45	178.43	1.19	ShortPulse	0	0
122	7892.00	90.24	176.60	32.00	5955.22	2570.39	-2569.42	71.58	2570.41	178.40	2.60	ShortPulse	0	0
123	7923.00	89.97	176.96	31.00	5955.17	2601.38	-2600.37	73.32	2601.41	178.38	1.46	ShortPulse	0	0
124	7955.00	90.21	177.57	32.00	5955.12	2633.38	-2632.33	74.85	2633.40	178.37	2.05	ShortPulse	0	0
125	7987.00	90.17	178.54	32.00	5955.01	2665.38	-2664.31	75.93	2665.39	178.37	3.04	ShortPulse	0	0
126	8019.00	89.86	179.45	32.00	5955.00	2697.37	-2696.31	76.49	2697.38	178.37	3.01	ShortPulse	0	0
127	8050.00	89.90	180.12	31.00	5955.07	2728.36	-2727.31	76.61	2728.38	178.39	2.14	ShortPulse	0	0
128	8082.00	89.97	180.38	32.00	5955.11	2760.34	-2759.31	76.47	2760.37	178.41	0.84	ShortPulse	0	0
129	8114.00	89.97	180.29	32.00	5955.13	2792.32	-2791.30	76.28	2792.36	178.43	0.28	ShortPulse	0	0
130	8146.00	90.07	179.93	32.00	5955.12	2824.30	-2823.30	76.22	2824.34	178.45	1.16	ShortPulse	0	0
131	8177.00	89.93	179.84	31.00	5955.12	2855.28	-2854.30	76.29	2855.31	178.47	0.54	ShortPulse	0	0
132	8209.00	89.90	179.45	32.00	5955.16	2887.27	-2886.30	76.49	2887.30	178.48	1.22	ShortPulse	0	0
133	8241.00	89.93	179.38	32.00	5955.21	2919.26	-2918.30	76.81	2919.32	178.49	0.23	ShortPulse	0	0
134	8272.00	89.76	179.13	31.00	5955.30	2950.26	-2949.30	77.22	2950.30	178.50	0.99	ShortPulse	0	0
135	8304.00	90.03	178.85	32.00	5955.35	2982.25	-2981.29	77.78	2982.32	178.51	1.21	ShortPulse	0	0
136	8336.00	89.93	178.64	32.00	5955.36	3014.25	-3013.29	78.48	3014.30	178.51	0.73	ShortPulse	0	0
137	8368.00	89.97	178.42	32.00	5955.39	3046.25	-3045.28	79.30	3046.29	178.51	0.69	ShortPulse	0	0
138	8399.00	90.03	178.11	31.00	5955.39	3077.25	-3076.26	80.23	3077.30	178.51	1.04	ShortPulse	0	0
139	8431.00	90.34	178.22	32.00	5955.29	3109.25	-3108.25	81.26	3109.32	178.50	1.03	ShortPulse	0	0
140	8463.00	90.45	178.45	32.00	5955.07	3141.25	-3140.23	82.19	3141.31	178.50	0.78	ShortPulse	0	0
141	8495.00	90.14	178.09	32.00	5954.90	3173.25	-3172.22	83.15	3173.29	178.50	1.48	ShortPulse	0	0
142	8526.00	90.65	178.37	31.00	5954.69	3204.25	-3203.20	84.11	3204.30	178.50	1.89	ShortPulse	0	0
143	8558.00	90.03	178.50	32.00	5954.50	3236.25	-3235.19	84.99	3236.32	178.50	1.98	ShortPulse	0	0
144	8590.00	89.48	178.41	32.00	5954.63	3268.25	-3267.18	85.85	3268.31	178.49	1.74	ShortPulse	0	0
145	8622.00	89.83	179.81	32.00	5954.82	3300.24	-3299.17	86.35	3300.30	178.50	4.48	ShortPulse	0	0
146	8653.00	89.35	181.16	31.00	5955.05	3331.21	-3330.17	86.08	3331.27	178.52	4.64	ShortPulse	0	0
147	8685.00	89.38	181.88	32.00	5955.40	3363.16	-3362.15	85.23	3363.22	178.55	2.23	ShortPulse	0	0
148	8717.00	90.14	181.74	32.00	5955.54	3395.09	-3394.14	84.22	3395.18	178.58	2.40	ShortPulse	0	0
149	8749.00	90.58	181.44	32.00	5955.33	3427.03	-3426.12	83.34	3427.13	178.61	1.69	ShortPulse	0	0
150	8780.00	89.11	179.57	31.00	5955.42	3458.01	-3457.12	83.06	3458.10	178.62	7.70	ShortPulse	0	0
151	8812.00	89.31	179.70	32.00	5955.86	3489.99	-3489.12	83.27	3490.12	178.63	0.78	ShortPulse	0	0
152	8844.00	90.58	180.56	32.00	5955.89	3521.97	-3521.12	83.19	3522.11	178.65	4.80	ShortPulse	0	0
153	8876.00	89.62	179.28	32.00	5955.83	3553.96	-3553.12	83.24	3554.10	178.66	5.01	ShortPulse	0	0
154	8908.00	89.17	178.04	32.00	5956.17	3585.95	-3585.10	83.98	3586.09	178.66	4.12	ShortPulse	0	0
155	8939.00	89.83	179.00	31.00	5956.44	3616.95	-3616.09	84.79	3617.09	178.66	3.74	ShortPulse	0	0
156	8971.00	89.72	179.76	32.00	5956.56	3648.94	-3648.09	85.13	3649.08	178.66	2.40	ShortPulse	0	0
157	9003.00	89.66	180.38	32.00	5956.74	3680.92	-3680.09	85.09	3681.07	178.68	1.95	ShortPulse	0	0
158	9035.00	89.83	181.04	32.00	5956.88	3712.89	-3712.09	84.69	3713.06	178.69	2.12	ShortPulse	0	0
159	9066.00	89.79	181.65	31.00	5956.98	3743.84	-3743.08	83.97	3744.03	178.71	1.99	ShortPulse	0	0
160	9098.00	89.93	181.75	32.00	5957.06	3775.78	-3775.06	83.01	3775.98	178.74	0.53	ShortPulse	0	0
161	9130.00	89.90	182.24	32.00	5957.11	3807.71	-3807.04	81.90	3807.94	178.77	1.51	ShortPulse	0	0
162	9162.00	90.00	182.39	32.00	5957.14	3839.63	-3839.02	80.61	3839.86	178.80	0.58	ShortPulse	0	0
163	9193.00	89.69	182.71	31.00	5957.22	3870.53	-3869.99	79.23	3870.80	178.83	1.44	ShortPulse	0	0
164	9225.00	90.00	182.89	32.00	5957.31	3902.43	-3901.95	77.67	3902.72	178.86	1.12	ShortPulse	0	0
165	9257.00	89.79	183.34	32.00	5957.36	3934.31	-3933.90	75.93	3934.65	178.89	1.55	ShortPulse	0	0
166	9289.00	89.31	183.20	32.00	5957.61	3966.18	-3965.85	74.10	3966.54	178.93	1.57	ShortPulse	0	0
167	9320.00	89.93	183.79	31.00	5957.82	3997.05	-3996.79	72.21	3997.44	178.96	2.76	ShortPulse	0	0
168	9352.00	89.55	182.50	32.00	5957.96	4028.92	-4028.74	70.45	4029.36	179.00	4.21	ShortPulse	0	0
169	9384.00	88.52	179.38	32.00	5958.50	4060.88	-4060.73	69.92	4061.32	179.01	10.28	ShortPulse	0	0
170	9416.00	88.83	178.65	32.00	5959.24	4092.86	-4092.71	70.47	4093.31	179.01	2.46	ShortPulse	0	0
171	9448.00	89.24	178.61	32.00	5959.78	4124.86	-4124.70	71.24	4125.33	179.01	1.30	ShortPulse	0	0
172	9479.00	90.21	178.78	31.00	5959.93	4155.86	-4155.69	71.94	4156.30	179.01	3.15	ShortPulse	0	0

172	9479.00	90.21	178.78	31.00	5959.93	4133.80	-4133.69	71.94	4130.30	179.01	3.13	ShortPulse	0	0
173	9511.00	90.83	178.69	32.00	5959.64	4187.85	-4187.68	72.65	4188.32	179.01	1.95	ShortPulse	0	0
174	9543.00	90.48	178.05	32.00	5959.27	4219.85	-4219.67	73.56	4220.31	179.00	2.28	ShortPulse	0	0
175	9575.00	90.00	177.35	32.00	5959.14	4251.85	-4251.64	74.85	4252.30	178.99	2.66	ShortPulse	0	0
176	9606.00	89.97	177.14	31.00	5959.15	4282.85	-4282.60	76.34	4283.27	178.98	0.66	ShortPulse	0	0
177	9665.00	89.97	177.14	59.00	5959.18	4341.84	-4341.53	79.28	4342.26	178.95	0.01	Other	25	