

Hart 5H

MD (usft)	CL (usft)	Inc (°)	Azi (°)	TVD (usft)	NS (usft)	EW (usft)	Northing (usft)	Easting (usft)	V.Sec (usft)	Dogleg (°/100ft)
0		0	0	0	0	0	516935.6	1644567	0	0.00
100	100	0.2	349.72	100	0.17	-0.03	516935.8	1644567	-0.13	0.2
125	25	0.21	320.33	125	0.25	-0.07	516935.9	1644567	-0.21	0.42
150	25	0.16	298.76	150	0.3	-0.13	516935.9	1644567	-0.29	0.34
175	25	0.08	246.4	175	0.31	-0.17	516935.9	1644567	-0.33	0.51
200	25	0.07	280.95	200	0.31	-0.21	516935.9	1644567	-0.35	0.18
225	25	0.14	241.76	225	0.3	-0.25	516935.9	1644567	-0.38	0.39
250	25	0.11	216.95	250	0.26	-0.29	516935.9	1644567	-0.39	0.24
275	25	0.11	200.47	275	0.22	-0.31	516935.8	1644567	-0.38	0.13
300	25	0.08	24.42	300	0.21	-0.31	516935.8	1644567	-0.38	0.76
325	25	0.35	353.35	325	0.31	-0.31	516935.9	1644567	-0.44	1.14
350	25	0.55	347.44	350	0.5	-0.35	516936.1	1644567	-0.59	0.82
375	25	0.5	349.01	375	0.72	-0.4	516936.4	1644567	-0.76	0.21
400	25	0.39	7.3	400	0.91	-0.41	516936.5	1644567	-0.89	0.71
425	25	0.31	15.82	425	1.06	-0.38	516936.7	1644567	-0.96	0.38
450	25	0.27	2.06	450	1.19	-0.36	516936.8	1644567	-1.03	0.32
475	25	0.24	357.53	475	1.3	-0.36	516936.9	1644567	-1.1	0.14
500	25	0.25	347.7	500	1.4	-0.37	516937	1644567	-1.17	0.17
525	25	0.22	340.56	525	1.5	-0.4	516937.1	1644567	-1.26	0.17
550	25	0.13	327.69	549.99	1.57	-0.43	516937.2	1644567	-1.32	0.39
575	25	0.06	306.84	574.99	1.6	-0.45	516937.2	1644567	-1.36	0.31
600	25	0.09	316.62	599.99	1.63	-0.48	516937.3	1644567	-1.4	0.13
625	25	0.13	311.37	624.99	1.66	-0.51	516937.3	1644567	-1.45	0.16
650	25	0.18	333.81	649.99	1.71	-0.55	516937.3	1644567	-1.51	0.31
675	25	0.21	342.29	674.99	1.79	-0.58	516937.4	1644567	-1.58	0.17
700	25	0.14	350.15	699.99	1.87	-0.6	516937.5	1644567	-1.64	0.3
725	25	0.14	14.27	724.99	1.93	-0.6	516937.6	1644567	-1.68	0.23
750	25	0.14	357.38	749.99	1.99	-0.59	516937.6	1644567	-1.71	0.16
775	25	0.1	336.21	774.99	2.04	-0.6	516937.7	1644567	-1.75	0.24
800	25	0.07	55.76	799.99	2.06	-0.6	516937.7	1644567	-1.77	0.44
825	25	0.08	143.75	824.99	2.06	-0.58	516937.7	1644567	-1.75	0.42
845.01	20.01	0.16	160	845	2.02	-0.56	516937.7	1644567	-1.71	0.43
973	127.99	0.89	88.13	972.99	1.89	0.49	516937.5	1644568	-0.81	0.67

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1028	55	2.19	86.67	1027.97	1.96	1.97	516937.6	1644569	0.29	2.36
1067	39	2.97	85.06	1066.93	2.09	3.72	516937.7	1644571	1.57	2.01
1114	47	4.2	79.63	1113.83	2.51	6.63	516938	1644574	3.56	2.71
1162	48	5.24	78.04	1161.67	3.28	10.5	516938.8	1644578	6.08	2.18
1257	95	6.48	73.35	1256.17	5.71	19.88	516941.1	1644587	11.83	1.4
1351	94	5.42	76.11	1349.67	8.3	29.27	516943.5	1644597	17.49	1.17
1446	95	3.95	81.06	1444.35	9.88	36.86	516945	1644604	22.38	1.6
1541	95	3.24	78.64	1539.16	10.92	42.73	516946	1644610	26.28	0.76
1636	95	2.58	83.1	1634.04	11.71	47.48	516946.7	1644615	29.47	0.73
1730	94	1.54	48.76	1727.98	12.79	50.53	516947.8	1644618	31.15	1.67
1825	95	0.81	0.66	1822.96	14.31	51.5	516949.3	1644619	30.95	1.23
1920	95	1.59	318.89	1917.94	15.97	50.64	516950.9	1644618	29.23	1.18
2013	93	1.28	331	2010.91	17.85	49.29	516952.8	1644617	27	0.46
2108	95	0.18	296.39	2105.9	18.85	48.64	516953.8	1644616	25.87	1.2
2154	46	0.29	224.59	2151.9	18.8	48.49	516953.8	1644616	25.79	0.63
2269	115	0.16	215.56	2266.9	18.46	48.2	516953.5	1644616	25.77	0.12
2363	94	0.32	281.01	2360.9	18.4	47.86	516953.4	1644615	25.55	0.31
2458	95	0.37	286.33	2455.9	18.54	47.31	516953.6	1644615	25.03	0.06
2553	95	0.62	282.34	2550.89	18.73	46.51	516953.8	1644614	24.29	0.27
2648	95	0.37	319.99	2645.89	19.08	45.81	516954.1	1644613	23.53	0.42
2743	95	0.4	321.8	2740.89	19.57	45.41	516954.6	1644613	22.9	0.03
2837	94	0.83	307.04	2834.88	20.24	44.66	516955.3	1644612	21.9	0.48
2932	95	0.84	316.04	2929.87	21.16	43.63	516956.2	1644611	20.52	0.14
3027	95	0.44	305.63	3024.87	21.87	42.85	516956.9	1644610	19.47	0.44
3121	94	0.59	307.36	3118.86	22.38	42.17	516957.5	1644610	18.62	0.16
3216	95	0.64	3.51	3213.86	23.2	41.82	516958.3	1644609	17.83	0.61
3310	94	0.62	352.97	3307.85	24.23	41.79	516959.3	1644609	17.15	0.12
3405	95	0.44	335.11	3402.85	25.07	41.57	516960.2	1644609	16.45	0.26
3499	94	0.89	324.44	3496.84	25.99	40.99	516961.1	1644608	15.43	0.49
3594	95	0.89	327.52	3591.83	27.22	40.17	516962.3	1644608	14.01	0.05
3689	95	1.25	302.61	3686.81	28.4	38.9	516963.5	1644606	12.29	0.61
3784	95	0.99	298.25	3781.8	29.34	37.3	516964.5	1644605	10.45	0.29
3879	95	0.9	317.99	3876.78	30.29	36.08	516965.4	1644604	8.91	0.35
3973	94	1.18	309.98	3970.77	31.46	34.84	516966.6	1644602	7.21	0.33
4068	95	1	330.12	4065.75	32.8	33.68	516968	1644601	5.46	0.44
4246	178	2.31	108.31	4243.71	33.02	36.31	516968.2	1644604	7.36	1.76
4340	94	0.04	159.05	4337.68	32.4	38.12	516967.5	1644606	9.16	2.43

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4435	95	0.12	222.17	4432.68	32.29	38.07	516967.4	1644606	9.19	0.12
4529	94	6.01	46.81	4526.51	35.59	41.59	516970.7	1644609	9.84	6.01
4624	95	11.82	41.46	4620.33	46.3	51.67	516981.3	1644619	10.91	6.47
4718	94	16.44	47.27	4711.46	62.55	67.83	516997.3	1644636	13.2	5.11
4813	95	20.28	49.46	4801.61	82.38	90.22	517016.8	1644658	18.08	4.11
4908	95	25	52.87	4889.27	105.21	118.76	517039.3	1644687	25.83	5.16
5002	94	31.41	51.02	4972.07	132.64	153.67	517066.3	1644723	35.64	6.88
5097	95	38.41	50	5049.92	167.22	195.57	517100.3	1644765	46.35	7.39
5191	94	40.67	51.53	5122.41	205.05	241.93	517137.5	1644812	58.48	2.62
5286	95	39.6	53.17	5195.04	242.46	290.4	517174.3	1644861	72.51	1.58
5381	95	40	53.38	5268.03	278.82	339.14	517210.1	1644910	87.41	0.44
5475	94	39.8	53.46	5340.14	314.76	387.56	517245.4	1644959	102.34	0.22
5570	95	39.96	53.43	5413.05	351.04	436.49	517281	1645008	117.44	0.17
5664	94	39.9	53.99	5485.13	386.75	485.12	517316.1	1645057	132.66	0.39
5759	95	39.95	53.96	5557.98	422.6	534.43	517351.3	1645107	148.33	0.06
5854	95	39.94	53.5	5630.82	458.69	583.61	517386.8	1645157	163.74	0.31
5948	94	39.89	52.71	5702.91	494.9	631.85	517422.4	1645205	178.35	0.54
6043	95	39.9	52.91	5775.8	531.73	680.39	517458.6	1645254	192.8	0.14
6138	95	39.95	53.77	5848.65	568.13	729.29	517494.3	1645304	207.8	0.58
6232	94	39.9	52.58	5920.74	604.29	777.58	517529.9	1645352	222.48	0.81
6326	94	39.92	52.19	5992.85	641.1	825.35	517566.1	1645401	236.35	0.27
6420	94	39.83	53.79	6064.99	677.37	873.47	517601.7	1645449	250.83	1.1
6515	95	37.72	65	6139.14	707.67	924.43	517631.4	1645501	271.27	7.71
6610	95	39.59	78.45	6213.46	726.04	980.53	517649	1645557	303.23	9.05
6704	94	43.85	88.3	6283.68	733.02	1042.52	517655.2	1645619	346.94	8.31
6798	94	49.31	93.06	6348.28	732.08	1110.72	517653.4	1645687	400.47	6.87
6893	95	53.4	101.91	6407.67	722.27	1184.12	517642.6	1645760	463.62	8.45
6988	95	59.96	109.52	6459.88	700.62	1260.35	517620	1645836	536.44	9.61
7083	95	65.2	117.03	6503.66	667.22	1337.66	517585.6	1645913	617.5	8.92
7177	94	71.63	121.86	6538.24	624.22	1413.67	517541.6	1645989	703.61	8.34
7272	95	75.38	129.16	6565.24	571.32	1487.71	517487.8	1646062	794.44	8.36
7366	94	84.2	134.68	6581.9	509.55	1556.41	517425.1	1646130	886.71	11.02
7461	95	89.88	135.71	6586.81	442.26	1623.24	517357	1646196	981	6.08
7555	94	89.88	137.51	6587	373.96	1687.81	517287.9	1646260	1074.19	1.91
7650	95	88.92	137.9	6588	303.69	1751.74	517216.8	1646323	1168.11	1.09
7744	94	88.86	136.74	6589.82	234.6	1815.45	517146.9	1646385	1261.13	1.24
7839	95	88.89	136.1	6591.68	165.8	1880.92	517077.2	1646450	1355.33	0.67

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7933	94	88.83	135.18	6593.55	98.6	1946.63	517009.2	1646515	1448.7	0.98
8028	95	88.98	134.38	6595.37	31.7	2014.05	516941.4	1646581	1543.21	0.86
8122	94	88.92	135.39	6597.09	-34.62	2080.64	516874.3	1646647	1636.71	1.08
8217	95	89.11	137.7	6598.73	-103.57	2145.96	516804.5	1646712	1730.89	2.44
8312	95	89.51	139.99	6599.87	-175.09	2208.47	516732.2	1646773	1824.5	2.45
8407	95	89.51	140.88	6600.68	-248.32	2268.98	516658.2	1646833	1917.64	0.94
8501	94	89.32	140.26	6601.64	-320.92	2328.68	516584.8	1646892	2009.76	0.69
8596	95	89.05	139.51	6602.99	-393.57	2389.89	516511.4	1646952	2103.07	0.84
8690	94	88.98	138.92	6604.61	-464.73	2451.28	516439.4	1647012	2195.59	0.63
8785	95	89.11	140.32	6606.19	-537.08	2512.82	516366.3	1647073	2288.97	1.48
8879	94	89.05	144.2	6607.7	-611.4	2570.33	516291.2	1647129	2380.47	4.13
8973	94	88.95	145.83	6609.34	-688.4	2624.22	516213.6	1647182	2470.85	1.74
9068	95	88.98	145.67	6611.06	-766.91	2677.68	516134.4	1647235	2561.85	0.17
9162	94	88.92	144.96	6612.78	-844.19	2731.16	516056.4	1647287	2652.09	0.76
9257	95	88.89	143.23	6614.6	-921.12	2786.86	515978.8	1647342	2743.83	1.82
9352	95	88.86	141.13	6616.46	-996.15	2845.1	515903	1647399	2836.34	2.21
9446	94	88.95	139.68	6618.26	-1068.57	2905	515829.8	1647458	2928.49	1.55
9540	94	88.89	138.29	6620.03	-1139.48	2966.67	515758.1	1647519	3021.07	1.48
9635	95	89.26	138.64	6621.57	-1210.58	3029.66	515686.2	1647581	3114.79	0.54
9729	94	89.23	139.74	6622.8	-1281.72	3091.08	515614.3	1647642	3207.33	1.17
9824	95	89.26	138.75	6624.06	-1353.68	3153.1	515541.5	1647703	3300.83	1.04
9919	95	89.29	137.45	6625.26	-1424.38	3216.53	515470	1647765	3394.65	1.37
10014	95	89.29	134.65	6626.44	-1492.76	3282.45	515400.8	1647830	3488.93	2.95
10108	94	89.23	132.63	6627.65	-1557.63	3350.47	515335.1	1647897	3582.62	2.15
10203	95	89.26	132.05	6628.9	-1621.61	3420.69	515270.2	1647967	3677.46	0.61
10298	95	89.17	132.59	6630.2	-1685.56	3490.92	515205.3	1648036	3772.3	0.58
10392	94	89.38	135.2	6631.39	-1750.72	3558.65	515139.3	1648103	3865.96	2.79
10487	95	89.23	136.75	6632.54	-1819.02	3624.66	515070.2	1648168	3960.26	1.64
10582	95	89.29	138.61	6633.77	-1889.26	3688.62	514999.1	1648231	4054.18	1.96
10676	94	89.32	139.04	6634.91	-1960.01	3750.5	514927.6	1648292	4146.82	0.46
10770	94	89.23	140.63	6636.1	-2031.83	3811.12	514855	1648352	4239.17	1.69
10865	95	89.29	142.15	6637.33	-2106.06	3870.39	514780	1648410	4331.97	1.6
10959	94	89.29	143.15	6638.49	-2180.78	3927.42	514704.5	1648466	4423.35	1.06
11054	95	89.29	143.02	6639.67	-2256.73	3984.47	514627.9	1648522	4515.52	0.14
11149	95	89.32	144.16	6640.82	-2333.17	4040.86	514550.7	1648578	4607.49	1.2
11243	94	89.38	143.39	6641.89	-2409	4096.4	514474.2	1648632	4698.41	0.82
11338	95	89.51	140.29	6642.81	-2483.68	4155.09	514398.7	1648690	4791.05	3.27

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11432	94	89.42	139.83	6643.69	-2555.75	4215.43	514325.9	1648749	4883.33	0.5
11527	95	89.2	139.75	6644.83	-2628.3	4276.76	514252.6	1648810	4976.67	0.25
11621	94	89.23	137.94	6646.12	-2699.06	4338.61	514181	1648871	5069.3	1.93
11716	95	89.02	131.04	6647.57	-2765.59	4406.33	514113.6	1648938	5163.81	7.27
11810	94	88.58	130.96	6649.54	-2827.24	4477.26	514051.1	1649008	5257.74	0.48
11905	95	88.49	130.76	6651.97	-2889.37	4549.09	513988	1649079	5352.66	0.23
11999	94	88.49	131.4	6654.45	-2951.12	4619.92	513925.4	1649149	5446.57	0.68
12094	95	88.28	136.61	6657.13	-3017.07	4688.2	513858.5	1649216	5541.15	5.49
12188	94	88.62	137.14	6659.67	-3085.65	4752.43	513789.1	1649280	5634.25	0.67
12283	95	88.52	139.7	6662.04	-3156.69	4815.46	513717.3	1649342	5727.96	2.7
12378	95	88.52	141.07	6664.49	-3229.84	4876.01	513643.4	1649401	5821.08	1.44
12472	94	88.68	141.16	6666.79	-3302.99	4935	513569.5	1649459	5912.99	0.2
12567	95	89.02	144.06	6668.7	-3378.45	4992.67	513493.3	1649516	6005.33	3.07
12661	94	89.23	147.32	6670.13	-3456.07	5045.64	513415	1649568	6095.39	3.47
12756	95	89.72	149.01	6671	-3536.78	5095.75	513333.6	1649617	6185.17	1.85
12851	95	89.78	146.51	6671.42	-3617.12	5146.42	513252.6	1649667	6275.16	2.63
12945	94	89.57	145.48	6671.95	-3695.04	5198.99	513174.1	1649718	6365.1	1.12
13039	94	89.66	142.96	6672.58	-3771.3	5253.95	513097.1	1649772	6455.83	2.68
13134	95	89.38	138.49	6673.38	-3844.82	5314.07	513022.8	1649831	6548.85	4.71
13228	94	89.38	136.9	6674.4	-3914.33	5377.33	512952.5	1649894	6641.79	1.69
13323	95	89.42	136.9	6675.39	-3983.69	5442.24	512882.3	1649958	6735.9	0.04
13417	94	89.48	133.83	6676.29	-4050.57	5508.27	512814.6	1650023	6829.32	3.27
13512	95	89.38	131.15	6677.24	-4114.73	5578.31	512749.5	1650092	6924.14	2.82
13607	95	88.71	128.23	6678.82	-4175.38	5651.4	512687.9	1650164	7019.11	3.15
13701	94	87.75	129.26	6681.73	-4234.18	5724.68	512628.2	1650237	7113.06	1.5
13796	95	88.22	134.72	6685.07	-4297.68	5795.21	512563.8	1650307	7207.85	5.77
13890	94	88.43	137.36	6687.82	-4365.31	5860.43	512495.3	1650371	7301.11	2.82
13985	95	88.58	139.65	6690.3	-4436.43	5923.35	512423.4	1650433	7394.79	2.41
14080	95	89.05	142.24	6692.26	-4510.18	5983.19	512348.9	1650492	7487.74	2.77
14175	95	89.32	143.59	6693.61	-4585.96	6040.46	512272.4	1650548	7579.97	1.45
14270	95	89.17	143.49	6694.86	-4662.36	6096.91	512195.3	1650604	7671.96	0.19
14459	189	89.26	143.31	6697.45	-4814.08	6209.59	512042.1	1650714	7855.08	0.11
14553	94	89.08	141.88	6698.82	-4888.74	6266.68	511966.7	1650770	7946.47	1.53
14742	189	89.17	138.44	6701.7	-5033.82	6387.73	511820.1	1650890	8131.9	1.82
14837	95	89.14	137.6	6703.1	-5104.43	6451.27	511748.7	1650952	8225.74	0.88
14932	95	89.11	137.15	6704.55	-5174.32	6515.59	511678	1651016	8319.74	0.47
15026	94	89.26	139.69	6705.89	-5244.63	6577.97	511606.9	1651077	8412.48	2.71

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MD (usft)	CL (usft)	Inc (°)	Azi (°)	TVD (usft)	NS (usft)	EW (usft)	Northing (usft)	Easting (usft)	V.Sec (usft)	Dogleg (°/100usft)
15121	95	89.2	140.21	6707.17	-5317.34	6639.09	511533.4	1651137	8505.77	0.55
15215	94	89.23	140.61	6708.46	-5389.77	6698.99	511460.2	1651196	8597.93	0.43
15404	189	89.23	138.84	6711	-5533.95	6821.15	511314.4	1651317	8783.66	0.94
15439	35	89.23	138.84	6711.47	-5560.3	6844.19	511287.8	1651339	8818.15	0

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