

30-015-43047

NOV 26 2018

DISTRICT # ARTESIA C.C.D.

COG

SURVEY REPORT

CRAIG STATE #15H

PRECISION #106

6/26/2018

This survey is correct to the best of my knowledge and is supported by actual field data.

Kelton Cotton

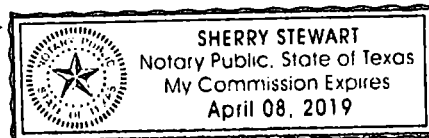
Notarized this date 1st of August, 2018.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling

The Ultimate Partner In Wellbore Placement

SURVEY REPORT

CRAIG STATE #15H

KEEPER GYRO SURVEY

CUSTOMER COG
PROJECT COG - Craig State #15H
FIELD N/A

SDI JOB NO.
SDI DISTRICT
SDI KIT/UNIT

OP011143
Midland

SITE INFORMATION

Site Name Craig State #15H
Lat/Long 32.092711° N, 104.24237° W
Northing 397,464 ft
Easting 528,080.9 ft

Section
Township
Range

MAP INFORMATION

North Reference Grid North
Grid Correction -0.05 deg
System US State Plane 1927
Datum North American Datum 1927 (Clarke 1866)
Map Zone New Mexico East: 3001

**WELL INFORMATION**

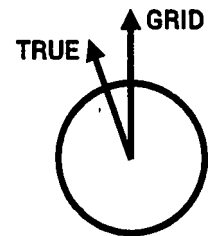
Lat/Long 32.092711° N, 104.24237° W
Northing
Easting
UWI 30-015-43047

DEPTH AND ELEVATION REFERENCE

Ground Level 3267.6 ft above Mean Sea
Level
Reference Datum RKB
Reference Height 31 ft above G.L.
Reference Elevation 3298.6 ft

VERTICAL SECTION REFERENCE

+N/-S 0 ft
+E/-W 0 ft
Proposal Direction 79.52°
Calculation Method Minimum Curvature

**LOCAL GRAVITY REFERENCE INFORMATION**

Local Gravity 998.502 mG [computed]
True to Grid subtract 0.05°

WELL NOTES

Keeper Gyro Survey

OPERATORS

Troy Morgan

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.83	210.75	100.00	-0.48	-0.63	-0.37	0.83	0.73	210.75
125.00	0.97	209.67	124.99	-0.74	-0.97	-0.57	0.54	1.12	210.55
150.00	0.68	212.30	149.99	-0.97	-1.28	-0.75	1.15	1.48	210.60
175.00	0.77	220.01	174.99	-1.20	-1.53	-0.94	0.52	1.80	211.62
200.00	0.82	231.39	199.99	-1.49	-1.77	-1.19	0.67	2.13	213.91
225.00	0.84	236.60	224.98	-1.82	-1.98	-1.48	0.31	2.48	216.80
250.00	0.91	223.69	249.98	-2.15	-2.23	-1.77	0.83	2.85	218.53
275.00	0.87	221.76	274.98	-2.46	-2.51	-2.04	0.21	3.24	219.03
300.00	0.83	215.53	299.98	-2.74	-2.80	-2.27	0.40	3.60	219.00
325.00	0.81	220.26	324.97	-3.01	-3.08	-2.49	0.28	3.96	218.90
350.00	0.78	233.04	349.97	-3.30	-3.32	-2.74	0.72	4.30	219.51
375.00	0.80	234.44	374.97	-3.61	-3.53	-3.02	0.12	4.64	220.56
400.00	0.82	236.10	399.97	-3.93	-3.73	-3.31	0.11	4.98	221.59
425.00	0.78	227.05	424.96	-4.24	-3.94	-3.58	0.52	5.32	222.24
450.00	0.77	226.19	449.96	-4.52	-4.17	-3.83	0.08	5.66	222.50
475.00	0.70	229.02	474.96	-4.79	-4.39	-4.06	0.29	5.98	222.77
500.00	0.72	233.56	499.96	-5.07	-4.58	-4.30	0.23	6.29	223.19
525.00	0.81	230.99	524.95	-5.36	-4.79	-4.57	0.38	6.62	223.64
550.00	0.80	232.53	549.95	-5.67	-5.01	-4.84	0.09	6.97	224.05
575.00	0.94	235.29	574.95	-6.02	-5.23	-5.15	0.58	7.34	224.57
600.00	0.97	234.75	599.95	-6.40	-5.47	-5.50	0.12	7.75	225.13
625.00	1.04	233.10	624.94	-6.79	-5.73	-5.85	0.29	8.19	225.60
650.00	0.97	234.85	649.94	-7.19	-5.99	-6.20	0.30	8.62	226.02
675.00	0.96	231.06	674.93	-7.57	-6.24	-6.54	0.26	9.04	226.34
700.00	0.95	232.76	699.93	-7.94	-6.50	-6.87	0.12	9.45	226.59
725.00	0.95	235.64	724.93	-8.31	-6.74	-7.20	0.19	9.87	226.91
750.00	0.92	236.02	749.92	-8.68	-6.97	-7.54	0.13	10.27	227.26
775.00	0.54	233.48	774.92	-8.98	-7.15	-7.80	1.52	10.59	227.50
800.00	0.10	249.47	799.92	-9.10	-7.23	-7.92	1.81	10.72	227.60
825.00	0.34	36.75	824.92	-9.07	-7.18	-7.89	1.69	10.67	227.72
850.00	0.48	34.88	849.92	-8.94	-7.03	-7.79	0.58	10.50	227.92

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	"/100ft	ft	deg
875.00	0.46	34.05	874.92	-8.79	-6.86	-7.67	0.11	10.30	228.19
900.00	0.32	48.99	899.92	-8.67	-6.74	-7.57	0.69	10.13	228.32
925.00	0.54	23.46	924.92	-8.54	-6.58	-7.47	1.16	9.95	228.60
950.00	0.46	21.42	949.92	-8.42	-6.38	-7.38	0.32	9.76	229.17
975.00	0.42	23.36	974.92	-8.32	-6.20	-7.31	0.18	9.59	229.69
1000.00	0.50	14.68	999.92	-8.22	-6.01	-7.25	0.43	9.41	230.32
1025.00	0.58	4.37	1024.91	-8.14	-5.78	-7.21	0.50	9.24	231.29
1050.00	0.68	358.38	1049.91	-8.08	-5.50	-7.20	0.48	9.06	232.63
1075.00	0.51	4.24	1074.91	-8.03	-5.24	-7.20	0.73	8.90	233.95
1100.00	0.59	3.46	1099.91	-7.97	-5.00	-7.18	0.30	8.75	235.16
1125.00	0.63	15.91	1124.91	-7.88	-4.74	-7.14	0.56	8.57	236.41
1150.00	1.02	39.15	1149.91	-7.65	-4.43	-6.96	2.04	8.25	237.49
1175.00	1.29	48.31	1174.90	-7.24	-4.07	-6.61	1.29	7.76	238.34
1200.00	1.49	57.52	1199.89	-6.70	-3.71	-6.12	1.20	7.16	238.77
1225.00	1.78	59.04	1224.88	-6.03	-3.34	-5.52	1.17	6.45	238.82
1250.00	2.04	64.11	1249.87	-5.24	-2.94	-4.78	1.25	5.62	238.39
1275.00	2.36	66.53	1274.85	-4.31	-2.54	-3.91	1.32	4.66	236.95
1300.00	2.47	66.95	1299.83	-3.28	-2.13	-2.94	0.43	3.63	234.12
1325.00	2.52	68.98	1324.81	-2.22	-1.72	-1.93	0.41	2.59	228.35
1350.00	2.61	66.81	1349.78	-1.12	-1.30	-0.90	0.53	1.58	214.67
1375.00	2.63	69.67	1374.75	0.00	-0.88	0.16	0.53	0.89	169.58
1400.00	2.68	68.26	1399.73	1.14	-0.46	1.24	0.34	1.32	110.39
1425.00	3.05	68.09	1424.70	2.36	0.00	2.40	1.49	2.40	89.92
1450.00	3.33	67.84	1449.66	3.73	0.53	3.69	1.09	3.73	81.90
1475.00	3.74	70.96	1474.61	5.24	1.07	5.13	1.84	5.24	78.28
1500.00	3.99	72.70	1499.55	6.91	1.59	6.74	1.10	6.92	76.72
1525.00	4.33	75.08	1524.49	8.72	2.09	8.48	1.50	8.73	76.14
1550.00	4.72	76.46	1549.41	10.69	2.58	10.39	1.63	10.70	76.08
1575.00	5.16	80.12	1574.32	12.84	3.01	12.50	2.18	12.86	76.46
1600.00	5.49	81.42	1599.21	15.16	3.38	14.79	1.40	15.17	77.12
1625.00	5.89	84.18	1624.09	17.63	3.69	17.25	1.95	17.64	77.93
1650.00	6.11	84.10	1648.95	20.24	3.96	19.85	0.85	20.24	78.73

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DIST ft	CLOSURE DIR deg
1675.00	6.27	84.43	1673.80	22.92	4.23	22.53	0.69	22.92	79.38
1700.00	6.53	84.26	1698.65	25.70	4.50	25.30	1.01	25.70	79.92
1725.00	6.66	85.68	1723.48	28.56	4.75	28.16	0.85	28.56	80.42
1750.00	6.76	84.87	1748.31	31.46	4.99	31.07	0.54	31.47	80.87
1775.00	6.79	84.98	1773.14	34.40	5.25	34.01	0.13	34.42	81.22
1800.00	6.85	85.76	1797.96	37.35	5.49	36.97	0.44	37.38	81.55
1825.00	6.86	86.38	1822.78	40.32	5.70	39.95	0.31	40.35	81.88
1850.00	6.82	84.76	1847.60	43.28	5.93	42.92	0.79	43.32	82.14
1875.00	6.74	85.87	1872.43	46.21	6.17	45.86	0.62	46.27	82.34
1900.00	6.75	85.15	1897.25	49.13	6.40	48.78	0.35	49.20	82.53
1925.00	6.73	86.74	1922.08	52.05	6.61	51.71	0.75	52.13	82.72
1950.00	6.61	85.97	1946.91	54.93	6.79	54.61	0.60	55.03	82.91
1975.00	6.35	86.07	1971.75	57.74	6.99	57.43	1.07	57.85	83.06
2000.00	6.40	85.46	1996.60	60.50	7.19	60.19	0.36	60.62	83.19
2025.00	6.40	85.92	2021.44	63.27	7.40	62.97	0.21	63.41	83.30
2050.00	6.35	85.73	2046.29	66.03	7.60	65.74	0.22	66.18	83.40
2075.00	6.44	86.19	2071.13	68.80	7.80	68.52	0.42	68.96	83.51
2100.00	6.50	86.58	2095.97	71.59	7.98	71.33	0.28	71.78	83.62
2125.00	6.51	85.75	2120.81	74.41	8.17	74.16	0.38	74.61	83.72
2150.00	6.59	85.64	2145.65	77.24	8.38	77.00	0.35	77.46	83.79
2175.00	6.64	86.66	2170.48	80.10	8.57	79.87	0.50	80.33	83.87
2200.00	6.57	85.99	2195.32	82.96	8.76	82.74	0.40	83.20	83.96
2225.00	6.71	85.12	2220.15	85.83	8.98	85.62	0.67	86.09	84.01
2250.00	6.67	84.79	2244.98	88.73	9.24	88.53	0.21	89.01	84.04
2275.00	6.70	85.05	2269.81	91.63	9.50	91.43	0.16	91.92	84.07
2300.00	6.78	85.09	2294.64	94.55	9.75	94.35	0.33	94.85	84.10
2325.00	6.75	86.23	2319.46	97.48	9.97	97.29	0.55	97.80	84.15
2350.00	6.68	83.88	2344.29	100.39	10.22	100.20	1.14	100.72	84.17
2375.00	6.66	83.76	2369.12	103.28	10.54	103.08	0.10	103.62	84.16
2400.00	6.70	84.31	2393.95	106.18	10.84	105.98	0.31	106.53	84.16
2425.00	6.77	84.50	2418.78	109.10	11.12	108.89	0.29	109.46	84.17
2450.00	6.80	85.04	2443.60	112.04	11.39	111.83	0.28	112.41	84.18

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
2475.00	6.81	83.62	2468.43	114.99	11.69	114.78	0.68	115.37	84.19
2500.00	6.77	84.23	2493.25	117.94	12.00	117.72	0.35	118.33	84.18
2525.00	6.82	84.03	2518.08	120.88	12.30	120.66	0.22	121.29	84.18
2550.00	6.81	83.95	2542.90	123.84	12.61	123.61	0.04	124.25	84.17
2575.00	6.92	82.69	2567.72	126.82	12.96	126.58	0.74	127.24	84.15
2600.00	7.00	75.99	2592.54	129.85	13.52	129.55	3.26	130.25	84.04
2625.00	7.21	71.83	2617.35	132.92	14.38	132.52	2.23	133.29	83.81
2650.00	7.18	70.57	2642.15	136.02	15.39	135.48	0.64	136.35	83.52
2675.00	7.10	70.32	2666.96	139.09	16.43	138.41	0.34	139.38	83.23
2700.00	7.11	69.40	2691.76	142.14	17.49	141.31	0.46	142.39	82.94
2725.00	7.03	71.22	2716.57	145.17	18.53	144.21	0.96	145.39	82.68
2750.00	7.08	69.62	2741.38	148.20	19.56	147.10	0.82	148.40	82.43
2775.00	6.98	70.55	2766.20	151.22	20.60	149.98	0.61	151.39	82.18
2800.00	6.86	69.56	2791.01	154.19	21.63	152.81	0.68	154.33	81.94
2825.00	6.72	68.35	2815.84	157.10	22.69	155.57	0.80	157.21	81.70
2850.00	6.65	68.96	2840.67	159.96	23.75	158.28	0.40	160.05	81.47
2875.00	6.05	74.28	2865.52	162.69	24.62	160.90	3.35	162.77	81.30
2900.00	5.55	79.18	2890.39	165.21	25.21	163.35	2.82	165.28	81.23
2925.00	5.45	79.67	2915.27	167.60	25.65	165.70	0.44	167.68	81.20
2950.00	5.42	83.74	2940.16	169.97	25.99	168.04	1.54	170.04	81.21
2975.00	5.44	79.95	2965.05	172.33	26.32	170.38	1.44	172.41	81.22
3000.00	5.40	82.86	2989.94	174.69	26.68	172.72	1.11	174.77	81.22
3025.00	5.39	81.74	3014.83	177.03	26.99	175.04	0.42	177.11	81.23
3050.00	5.36	82.68	3039.72	179.37	27.31	177.36	0.36	179.45	81.25
3075.00	5.37	79.05	3064.61	181.71	27.68	179.67	1.36	181.79	81.24
3100.00	5.41	81.95	3089.50	184.06	28.07	181.99	1.10	184.14	81.23
3125.00	5.35	83.09	3114.39	186.40	28.37	184.32	0.49	186.49	81.25
3150.00	5.36	82.06	3139.28	188.73	28.67	186.63	0.39	188.82	81.27
3175.00	5.35	82.13	3164.17	191.07	28.99	188.94	0.04	191.16	81.28
3200.00	5.38	81.88	3189.06	193.40	29.32	191.26	0.15	193.49	81.28
3225.00	5.35	82.99	3213.95	195.74	29.63	193.58	0.43	195.83	81.30
3250.00	5.26	81.32	3238.84	198.05	29.94	195.87	0.72	198.14	81.31

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
3275.00	5.15	84.13	3263.74	200.31	30.23	198.12	1.11	200.41	81.32
3300.00	5.04	82.96	3288.64	202.53	30.48	200.32	0.60	202.63	81.35
3325.00	4.94	82.81	3313.54	204.70	30.75	202.48	0.42	204.80	81.36
3350.00	4.78	83.03	3338.45	206.81	31.01	204.59	0.64	206.92	81.38
3375.00	4.77	84.00	3363.37	208.89	31.25	206.65	0.32	209.00	81.40
3400.00	4.73	81.99	3388.28	210.96	31.50	208.71	0.69	211.07	81.42
3425.00	4.61	83.57	3413.20	212.99	31.75	210.73	0.70	213.11	81.43
3450.00	4.54	82.53	3438.12	214.98	32.00	212.71	0.46	215.10	81.45
3475.00	4.49	83.27	3463.04	216.94	32.24	214.66	0.29	217.07	81.46
3500.00	4.65	81.67	3487.96	218.93	32.50	216.63	0.81	219.06	81.47
3525.00	5.45	79.21	3512.86	221.13	32.87	218.80	3.32	221.26	81.46
3550.00	6.24	77.62	3537.73	223.67	33.38	221.29	3.22	223.80	81.42
3575.00	6.40	78.09	3562.58	226.42	33.96	223.98	0.68	226.54	81.38
3600.00	6.51	77.38	3587.42	229.23	34.56	226.73	0.55	229.35	81.33
3625.00	6.58	77.42	3612.26	232.08	35.18	229.51	0.30	232.19	81.29
3650.00	6.43	77.55	3637.10	234.91	35.79	232.27	0.63	235.02	81.24
3675.00	6.34	78.12	3661.95	237.69	36.38	234.99	0.42	237.79	81.20
3700.00	6.43	77.86	3686.79	240.47	36.96	237.71	0.35	240.57	81.16
3725.00	6.32	77.38	3711.64	243.24	37.55	240.42	0.49	243.34	81.12
3750.00	6.26	79.03	3736.49	245.98	38.11	243.10	0.76	246.07	81.09
3775.00	6.19	78.28	3761.34	248.69	38.65	245.76	0.42	248.78	81.06
3800.00	6.22	77.35	3786.19	251.39	39.22	248.40	0.41	251.48	81.03
3825.00	6.09	77.34	3811.05	254.07	39.80	251.02	0.52	254.15	80.99
3850.00	6.01	77.48	3835.91	256.70	40.38°	253.59	0.32	256.78	80.95
3875.00	5.88	76.96	3860.77	259.29	40.95	256.11	0.55	259.37	80.92
3900.00	5.68	76.36	3885.65	261.81	41.53	258.57	0.82	261.88	80.87
3925.00	5.59	75.30	3910.53	264.26	42.13	260.95	0.57	264.33	80.83
3950.00	5.48	76.90	3935.41	266.66	42.71	263.29	0.76	266.73	80.79
3975.00	5.61	75.11	3960.29	269.07	43.30	265.63	0.87	269.13	80.74
4000.00	6.25	72.28	3985.16	271.64	44.02	268.11	2.81	271.70	80.67
4025.00	6.56	71.31	4010.00	274.40	44.90	270.75	1.31	274.45	80.58
4050.00	6.64	71.76	4034.84	277.25	45.81	273.48	0.40	277.29	80.49

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	"/100ft	ft	deg
4075.00	6.65	72.17	4059.67	280.12	46.70	276.23	0.19	280.15	80.40
4100.00	6.68	71.25	4084.50	283.00	47.61	278.99	0.44	283.02	80.31
4125.00	6.67	71.98	4109.33	285.87	48.53	281.75	0.34	285.90	80.23
4150.00	6.63	72.00	4134.16	288.75	49.43	284.50	0.15	288.76	80.14
4175.00	6.46	72.99	4159.00	291.58	50.28	287.22	0.82	291.59	80.07
4200.00	6.30	71.11	4183.84	294.33	51.14	289.86	1.06	294.34	79.99
4225.00	6.07	72.03	4208.70	297.00	51.99	292.42	1.01	297.00	79.92
4250.00	6.05	72.13	4233.56	299.62	52.80	294.93	0.07	299.62	79.85
4275.00	5.95	71.42	4258.42	302.21	53.62	297.41	0.52	302.21	79.78
4300.00	5.77	71.51	4283.29	304.73	54.43	299.83	0.70	304.73	79.71
4325.00	5.63	71.15	4308.17	307.19	55.23	302.19	0.59	307.19	79.64
4350.00	5.72	72.43	4333.04	309.64	56.00	304.54	0.61	309.64	79.58
4375.00	6.10	71.26	4357.91	312.19	56.80	306.98	1.61	312.19	79.52
4400.00	6.94	73.00	4382.75	315.01	57.67	309.68	3.45	315.01	79.45
4425.00	7.21	72.92	4407.56	318.07	58.57	312.63	1.07	318.07	79.39
4450.00	7.42	72.96	4432.36	321.23	59.51	315.67	0.86	321.23	79.32
4475.00	8.00	74.27	4457.13	324.56	60.45	318.89	2.41	324.57	79.27
4500.00	8.40	76.10	4481.87	328.12	61.36	322.34	1.92	328.12	79.22
4525.00	8.64	75.78	4506.60	331.82	62.26	325.93	0.97	331.82	79.19
4550.00	8.64	75.49	4531.31	335.56	63.19	329.57	0.17	335.57	79.15
4575.00	8.57	75.37	4556.03	339.29	64.13	333.18	0.27	339.30	79.10
4600.00	8.36	76.05	4580.76	342.96	65.04	336.75	0.93	342.98	79.07
4625.00	8.17	75.99	4605.50	346.55	65.91	340.24	0.78	346.56	79.04
4650.00	8.04	75.66	4630.25	350.07	66.77	343.65	0.54	350.08	79.00
4675.00	7.74	75.76	4655.01	353.49	67.62	346.98	1.19	353.51	78.97
4700.00	7.64	75.78	4679.79	356.83	68.44	350.22	0.41	356.85	78.94
4725.00	7.42	76.04	4704.57	360.10	69.24	353.40	0.88	360.12	78.91
4750.00	7.17	75.22	4729.37	363.27	70.03	356.48	1.07	363.29	78.89
4775.00	7.01	75.46	4754.18	366.35	70.81	359.46	0.68	366.37	78.86
4800.00	7.02	76.21	4778.99	369.39	71.56	362.42	0.37	369.42	78.83
4825.00	7.09	78.21	4803.80	372.46	72.24	365.41	1.02	372.49	78.82
4850.00	7.13	82.27	4828.61	375.55	72.76	368.46	2.02	375.58	78.83

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DIST ft	CLOSURE DIR deg
4875.00	7.01	84.04	4853.42	378.62	73.13	371.52	0.99	378.65	78.86
4900.00	6.92	85.76	4878.24	381.64	73.40	374.54	0.91	381.66	78.91
4925.00	7.00	85.61	4903.05	384.65	73.63	377.56	0.32	384.67	78.97
4950.00	6.81	86.45	4927.87	387.64	73.83	380.56	0.86	387.66	79.02
4975.00	7.04	86.42	4952.69	390.63	74.02	383.57	0.93	390.65	79.08
5000.00	6.81	85.10	4977.51	393.63	74.24	386.57	1.14	393.64	79.13
5025.00	6.91	86.62	5002.33	396.60	74.46	389.55	0.83	396.60	79.18
5050.00	6.88	85.03	5027.15	399.58	74.68	392.54	0.77	399.58	79.23
5075.00	6.82	86.29	5051.97	402.55	74.90	395.52	0.65	402.55	79.28
5100.00	7.00	86.68	5076.79	405.53	75.09	398.52	0.73	405.54	79.33
5125.00	7.11	83.95	5101.60	408.59	75.34	401.58	1.41	408.59	79.37
5150.00	7.51	81.53	5126.39	411.76	75.74	404.74	2.00	411.77	79.40
5175.00	7.75	81.04	5151.17	415.08	76.25	408.02	0.98	415.08	79.42
5200.00	7.67	80.22	5175.95	418.43	76.79	411.33	0.54	418.43	79.42
5225.00	7.63	80.91	5200.72	421.76	77.34	414.61	0.39	421.76	79.43
5250.00	7.54	81.34	5225.51	425.06	77.85	417.87	0.45	425.06	79.45
5275.00	7.41	80.67	5250.29	428.31	78.36	421.08	0.64	428.31	79.46
5300.00	7.10	80.25	5275.09	431.47	78.88	424.20	1.24	431.47	79.47
5325.00	7.07	81.96	5299.90	434.55	79.36	427.24	0.86	434.55	79.48
5350.00	7.12	81.56	5324.71	437.63	79.80	430.30	0.29	437.63	79.49
5375.00	6.86	82.16	5349.53	440.67	80.23	433.31	1.09	440.67	79.51
5400.00	6.85	82.73	5374.35	443.65	80.62	436.27	0.27	443.65	79.53
5425.00	6.71	82.28	5399.17	446.60	81.01	439.19	0.62	446.60	79.55
5450.00	6.47	82.85	5424.01	449.46	81.38	442.04	1.00	449.46	79.57
5475.00	6.61	83.00	5448.84	452.31	81.73	444.86	0.59	452.31	79.59
5500.00	6.87	81.37	5473.67	455.24	82.13	447.77	1.28	455.24	79.61
5525.00	7.29	80.21	5498.48	458.32	82.62	450.81	1.76	458.32	79.61
5550.00	7.42	79.33	5523.27	461.52	83.19	453.96	0.69	461.52	79.62
5575.00	7.50	79.35	5548.06	464.76	83.79	457.15	0.32	464.76	79.61
5600.00	7.94	78.96	5572.84	468.12	84.42	460.44	1.78	468.12	79.61
5625.00	8.08	77.66	5597.59	471.60	85.13	463.85	0.92	471.60	79.60
5650.00	8.09	77.26	5622.34	475.11	85.89	467.29	0.23	475.12	79.58

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
5675.00	8.09	77.27	5647.10	478.63	86.67	470.72	0.01	478.63	79.57
5700.00	8.09	77.29	5671.85	482.15	87.44	474.15	0.01	482.15	79.55
5725.00	7.08	76.15	5696.63	485.44	88.20	477.36	4.09	485.44	79.53
5743.00	6.95	76.40	5714.49	487.64	88.72	479.50	0.72	487.64	79.52