

COG

EIDER FED #202H

ENSIGN 155

6/30/2018

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

Kolton Cotton

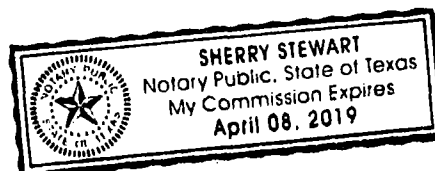
Notarized this date 1st of August, 2018.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling

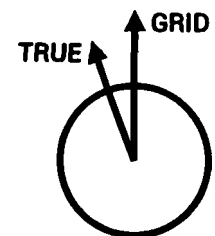
The

In Wellbore Placement

SURVEY REPORT

EIDER FED #202H

DEFINITIVE KEEPER GYRO SURVEY

CUSTOMER
PROJECT
FIELDCOG
Eider Fed #202H
Bone SpringSDI JOB NO.
SDI DISTRICT
SDI KIT/UNITOP.011263
Midland**SITE INFORMATION**Site Name Eider Fed #202H
Lat/Long 32° 10' 2.167" N, 103° 39' 0.069" W
Northing 425,244.5 ft
Easting 711,440.5 ftSection
Township
Range**MAP INFORMATION**North Reference Grid North
Grid Correction -0.36 deg
System US State Plane 1927
Datum North American Datum 1927 (Clarke 1866)
Map Zone New Mexico East: 3001**WELL INFORMATION**Lat/Long 32° 10' 2.167" N, 103° 39' 0.069" W
Northing 425,244.5 ft
Easting 711,440.5 ft
UWI 30-025-44627**DEPTH AND ELEVATION REFERENCE**Ground Level 3522.3 ft above Mean Sea
Level
Reference Datum RKB
Reference Height 24 ft above G.L.
Reference Elevation 3546.3 ft**VERTICAL SECTION REFERENCE**+N/-S 0 ft
+E/-W 0 ft
Proposal Direction 359.65°
Calculation Method Minimum Curvature**LOCAL GRAVITY REFERENCE INFORMATION**Local Gravity 998.485 mG [computed]
True to Grid subtract 0.36°**WELL NOTES****OPERATORS**

Brock Kennedy

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	0.06	341.14	100.00	0.05	0.05	-0.02	0.06	0.05	341.14
125.00	0.17	20.22	125.00	0.09	0.09	-0.01	0.52	0.09	355.64
150.00	0.04	48.29	150.00	0.13	0.13	0.01	0.52	0.13	5.50
175.00	0.19	43.09	175.00	0.17	0.17	0.05	0.59	0.18	15.93
200.00	0.20	32.40	200.00	0.24	0.24	0.10	0.15	0.26	22.91
225.00	0.14	0.24	225.00	0.30	0.30	0.12	0.44	0.33	22.14
250.00	0.20	334.72	250.00	0.37	0.37	0.10	0.39	0.39	15.66
275.00	0.14	235.59	275.00	0.39	0.39	0.06	1.05	0.40	8.74
300.00	0.09	24.04	300.00	0.40	0.40	0.04	0.89	0.40	6.36
325.00	0.08	49.41	325.00	0.42	0.43	0.07	0.16	0.43	8.71
350.00	0.10	127.88	350.00	0.42	0.42	0.10	0.46	0.43	12.77
375.00	0.08	75.92	375.00	0.41	0.41	0.13	0.33	0.43	17.53
400.00	0.22	227.94	400.00	0.38	0.38	0.11	1.17	0.40	16.19
425.00	0.22	218.21	425.00	0.31	0.32	0.05	0.15	0.32	8.40
450.00	0.40	195.73	450.00	0.19	0.19	-0.01	0.86	0.19	357.97
475.00	0.64	218.73	475.00	0.00	0.00	-0.12	1.24	0.12	270.33
500.00	0.73	203.49	500.00	-0.25	-0.25	-0.27	0.81	0.37	226.57
525.00	0.83	200.17	524.99	-0.57	-0.57	-0.39	0.43	0.69	214.67
550.00	0.84	205.07	549.99	-0.90	-0.90	-0.53	0.29	1.05	210.53
575.00	0.79	209.21	574.99	-1.21	-1.22	-0.69	0.30	1.40	209.66
600.00	0.93	209.43	599.99	-1.54	-1.55	-0.88	0.54	1.78	209.59
625.00	1.09	201.69	624.98	-1.94	-1.94	-1.06	0.86	2.22	208.73
650.00	1.12	201.80	649.98	-2.38	-2.39	-1.24	0.10	2.70	207.48
675.00	1.39	201.11	674.97	-2.89	-2.90	-1.44	1.09	3.24	206.46
700.00	1.22	201.30	699.96	-3.42	-3.43	-1.65	0.69	3.81	205.67
725.00	1.37	196.57	724.96	-3.96	-3.97	-1.83	0.73	4.37	204.79
750.00	1.30	195.40	749.95	-4.51	-4.53	-1.99	0.29	4.95	203.75
775.00	1.34	193.37	774.94	-5.07	-5.08	-2.14	0.24	5.51	202.78
800.00	1.36	193.76	799.94	-5.64	-5.66	-2.27	0.11	6.10	201.89
825.00	1.34	190.74	824.93	-6.22	-6.23	-2.40	0.30	6.68	201.04
850.00	1.56	188.74	849.92	-6.84	-6.86	-2.51	0.90	7.30	200.06

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	1.89	189.62	874.91	-7.59	-7.60	-2.63	1.30	8.04	199.06
900.00	1.99	187.81	899.90	-8.42	-8.44	-2.75	0.47	8.88	198.07
925.00	1.98	188.44	924.88	-9.28	-9.29	-2.88	0.09	9.73	197.19
950.00	2.14	189.28	949.87	-10.16	-10.18	-3.01	0.64	10.62	196.49
975.00	2.24	185.87	974.85	-11.11	-11.13	-3.14	0.67	11.56	195.76
1000.00	2.07	184.02	999.83	-12.04	-12.06	-3.22	0.75	12.49	194.95
1025.00	2.04	185.42	1024.81	-12.94	-12.96	-3.29	0.24	13.37	194.27
1050.00	2.17	186.93	1049.80	-13.85	-13.87	-3.39	0.57	14.28	193.75
1075.00	2.23	189.10	1074.78	-14.80	-14.82	-3.53	0.41	15.23	193.39
1100.00	1.74	185.78	1099.76	-15.66	-15.68	-3.64	2.00	16.10	193.08
1125.00	1.18	174.69	1124.76	-16.29	-16.31	-3.66	2.53	16.72	192.64
1150.00	0.92	174.56	1149.75	-16.75	-16.77	-3.61	1.02	17.15	192.17
1175.00	0.80	161.86	1174.75	-17.11	-17.13	-3.54	0.90	17.50	191.68
1200.00	0.16	109.60	1199.75	-17.29	-17.31	-3.45	2.84	17.65	191.28
1225.00	1.09	354.66	1224.75	-17.07	-17.09	-3.44	4.68	17.43	191.39
1250.00	1.41	348.23	1249.74	-16.53	-16.55	-3.53	1.38	16.92	192.03
1275.00	1.38	352.72	1274.73	-15.93	-15.95	-3.63	0.45	16.36	192.81
1300.00	1.36	350.59	1299.73	-15.33	-15.36	-3.71	0.22	15.80	193.60
1325.00	1.27	352.44	1324.72	-14.77	-14.79	-3.80	0.42	15.27	194.41
1350.00	1.39	350.18	1349.71	-14.19	-14.22	-3.89	0.53	14.74	195.29
1375.00	1.34	347.74	1374.71	-13.61	-13.63	-4.00	0.29	14.21	196.36
1400.00	1.34	349.00	1399.70	-13.03	-13.06	-4.12	0.12	13.69	197.51
1425.00	1.38	348.34	1424.69	-12.45	-12.48	-4.24	0.18	13.18	198.75
1450.00	1.43	347.86	1449.68	-11.85	-11.88	-4.36	0.20	12.65	200.16
1475.00	1.52	349.71	1474.68	-11.22	-11.25	-4.49	0.43	12.11	201.75
1500.00	1.49	349.40	1499.67	-10.57	-10.60	-4.61	0.13	11.56	203.49
1525.00	1.51	349.60	1524.66	-9.93	-9.96	-4.73	0.05	11.02	205.39
1550.00	1.40	345.30	1549.65	-9.31	-9.34	-4.86	0.61	10.53	207.51
1575.00	1.44	347.84	1574.64	-8.70	-8.74	-5.01	0.30	10.07	209.81
1600.00	1.38	347.48	1599.63	-8.10	-8.14	-5.14	0.26	9.62	212.27
1625.00	1.48	344.70	1624.63	-7.50	-7.53	-5.29	0.49	9.20	215.07
1650.00	1.39	342.65	1649.62	-6.90	-6.93	-5.46	0.42	8.83	218.24

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
1675.00	1.40	349.54	1674.61	-6.31	-6.34	-5.61	0.67	8.47	221.48
1700.00	1.43	346.58	1699.60	-5.70	-5.74	-5.74	0.32	8.11	224.98
1725.00	1.42	348.77	1724.60	-5.10	-5.13	-5.87	0.23	7.80	228.83
1750.00	1.43	3.93	1749.59	-4.48	-4.52	-5.91	1.50	7.44	232.59
1775.00	1.61	17.51	1774.58	-3.84	-3.87	-5.78	1.60	6.96	236.19
1800.00	1.70	26.49	1799.57	-3.17	-3.20	-5.51	1.10	6.37	239.82
1825.00	1.66	34.89	1824.56	-2.54	-2.57	-5.14	1.00	5.74	243.39
1850.00	2.21	51.42	1849.54	-1.95	-1.97	-4.55	3.12	4.96	246.55
1875.00	2.55	65.17	1874.52	-1.42	-1.44	-3.67	2.64	3.94	248.57
1900.00	2.74	72.29	1899.50	-1.01	-1.02	-2.59	1.52	2.79	248.46
1925.00	2.98	76.09	1924.47	-0.68	-0.69	-1.39	1.22	1.55	243.79
1950.00	2.98	84.46	1949.43	-0.47	-0.47	-0.12	1.74	0.48	193.90
1975.00	3.01	92.70	1974.40	-0.44	-0.44	1.19	1.72	1.26	110.15
2000.00	3.03	93.36	1999.36	-0.52	-0.50	2.50	0.16	2.55	101.41
2025.00	2.80	97.46	2024.33	-0.65	-0.62	3.77	1.22	3.82	99.39
2050.00	2.41	109.74	2049.31	-0.91	-0.88	4.87	2.73	4.94	100.25
2075.00	1.94	124.56	2074.29	-1.33	-1.30	5.71	2.90	5.85	102.80
2100.00	2.07	127.47	2099.27	-1.85	-1.81	6.42	0.64	6.67	105.77
2125.00	2.04	126.84	2124.26	-2.40	-2.35	7.13	0.13	7.51	108.27
2150.00	2.10	127.02	2149.24	-2.94	-2.90	7.85	0.23	8.37	110.25
2175.00	2.14	131.20	2174.22	-3.53	-3.48	8.57	0.64	9.25	112.10
2200.00	1.91	124.40	2199.21	-4.08	-4.02	9.26	1.34	10.10	113.47
2225.00	2.06	128.59	2224.19	-4.60	-4.54	9.96	0.84	10.94	114.50
2250.00	2.25	133.07	2249.17	-5.22	-5.15	10.67	1.00	11.85	115.78
2275.00	2.29	136.71	2274.15	-5.92	-5.85	11.37	0.61	12.79	117.23
2300.00	2.38	137.38	2299.13	-6.67	-6.60	12.06	0.37	13.75	118.67
2325.00	2.23	130.09	2324.11	-7.37	-7.29	12.79	1.32	14.72	119.70
2350.00	2.26	133.80	2349.09	-8.03	-7.95	13.51	0.60	15.68	120.46
2375.00	2.35	132.67	2374.07	-8.72	-8.64	14.25	0.39	16.66	121.22
2400.00	2.39	131.05	2399.05	-9.42	-9.32	15.02	0.31	17.68	121.84
2425.00	2.34	135.36	2424.03	-10.13	-10.03	15.77	0.74	18.69	122.46
2450.00	2.37	134.51	2449.01	-10.86	-10.75	16.49	0.19	19.69	123.10

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	2.34	135.92	2473.99	-11.59	-11.48	17.22	0.26	20.70	123.70
2500.00	2.32	140.06	2498.97	-12.35	-12.24	17.90	0.68	21.68	124.36
2525.00	2.09	145.98	2523.95	-13.12	-13.00	18.48	1.29	22.59	125.14
2550.00	1.86	156.45	2548.94	-13.87	-13.75	18.89	1.69	23.37	126.05
2575.00	1.84	154.50	2573.92	-14.60	-14.49	19.23	0.27	24.08	126.99
2600.00	1.82	158.47	2598.91	-15.34	-15.22	19.55	0.51	24.77	127.90
2625.00	1.77	159.39	2623.90	-16.07	-15.95	19.83	0.23	25.45	128.81
2650.00	1.75	160.98	2648.89	-16.79	-16.67	20.09	0.21	26.11	129.69
2675.00	1.63	166.67	2673.88	-17.50	-17.38	20.30	0.82	26.72	130.57
2700.00	1.77	168.44	2698.86	-18.23	-18.10	20.46	0.59	27.31	131.51
2725.00	1.18	178.26	2723.86	-18.86	-18.74	20.54	2.56	27.80	132.37
2750.00	1.11	187.12	2748.85	-19.36	-19.23	20.52	0.76	28.12	133.14
2775.00	0.94	195.12	2773.85	-19.79	-19.67	20.43	0.87	28.36	133.90
2800.00	0.69	213.99	2798.84	-20.11	-19.99	20.30	1.46	28.49	134.56
2825.00	0.44	277.06	2823.84	-20.23	-20.10	20.12	2.51	28.44	134.98
2850.00	0.60	295.68	2848.84	-20.16	-20.03	19.91	0.93	28.24	135.18
2875.00	0.67	310.60	2873.84	-20.00	-19.88	19.68	0.71	27.97	135.30
2900.00	0.45	348.67	2898.84	-19.81	-19.69	19.55	1.68	27.75	135.21
2925.00	0.19	70.17	2923.84	-19.70	-19.58	19.57	1.83	27.68	135.02
2950.00	0.32	93.09	2948.84	-19.69	-19.57	19.68	0.65	27.75	134.85
2975.00	0.30	101.03	2973.84	-19.71	-19.59	19.81	0.19	27.86	134.68
3000.00	0.34	93.23	2998.84	-19.73	-19.61	19.95	0.22	27.97	134.50
3025.00	0.28	97.66	3023.84	-19.74	-19.62	20.09	0.26	28.08	134.33
3050.00	0.35	106.75	3048.84	-19.77	-19.65	20.22	0.34	28.19	134.18
3075.00	0.41	106.59	3073.84	-19.82	-19.70	20.38	0.27	28.34	134.03
3100.00	0.26	134.13	3098.84	-19.89	-19.76	20.50	0.87	28.48	133.94
3125.00	0.16	150.78	3123.84	-19.96	-19.83	20.56	0.48	28.57	133.96
3150.00	0.40	93.78	3148.84	-19.99	-19.87	20.67	1.35	28.67	133.87
3175.00	0.45	101.92	3173.84	-20.02	-19.89	20.85	0.33	28.82	133.66
3200.00	0.38	122.75	3198.83	-20.09	-19.96	21.01	0.66	28.98	133.52
3225.00	0.40	122.23	3223.83	-20.18	-20.05	21.16	0.08	29.15	133.46
3250.00	0.29	107.55	3248.83	-20.25	-20.12	21.30	0.57	29.30	133.37

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	0.37	108.28	3273.83	-20.29	-20.16	21.43	0.33	29.43	133.25
3300.00	0.71	110.70	3298.83	-20.38	-20.24	21.66	1.35	29.64	133.07
3325.00	0.43	113.66	3323.83	-20.47	-20.34	21.89	1.14	29.88	132.90
3350.00	0.12	120.88	3348.83	-20.52	-20.39	21.99	1.23	29.99	132.83
3375.00	0.35	109.62	3373.83	-20.56	-20.43	22.09	0.94	30.09	132.76
3400.00	0.48	96.38	3398.83	-20.60	-20.46	22.27	0.65	30.24	132.58
3425.00	0.54	97.95	3423.83	-20.63	-20.49	22.49	0.24	30.42	132.34
3450.00	0.48	115.18	3448.83	-20.69	-20.55	22.70	0.66	30.62	132.16
3475.00	0.47	118.05	3473.83	-20.79	-20.65	22.89	0.10	30.82	132.05
3500.00	0.47	106.63	3498.83	-20.87	-20.72	23.08	0.38	31.02	131.92
3525.00	0.64	106.17	3523.82	-20.94	-20.79	23.31	0.67	31.24	131.73
3550.00	0.62	112.87	3548.82	-21.03	-20.88	23.57	0.31	31.49	131.54
3575.00	0.73	108.01	3573.82	-21.13	-20.99	23.85	0.49	31.77	131.35
3600.00	0.77	106.76	3598.82	-21.23	-21.08	24.16	0.17	32.06	131.11
3625.00	0.93	101.15	3623.82	-21.32	-21.17	24.52	0.74	32.39	130.81
3650.00	0.96	105.91	3648.81	-21.42	-21.27	24.92	0.34	32.76	130.48
3675.00	1.01	102.19	3673.81	-21.53	-21.37	25.34	0.31	33.15	130.15
3700.00	1.10	104.83	3698.81	-21.64	-21.48	25.78	0.41	33.56	129.80
3725.00	1.22	105.66	3723.80	-21.77	-21.61	26.27	0.51	34.02	129.44
3750.00	1.72	104.86	3748.79	-21.95	-21.78	26.89	2.00	34.61	129.01
3775.00	1.09	93.99	3773.78	-22.06	-21.90	27.49	2.74	35.15	128.53
3800.00	1.21	106.48	3798.78	-22.16	-21.99	27.98	1.10	35.59	128.16
3825.00	1.09	108.32	3823.77	-22.31	-22.14	28.46	0.51	36.06	127.87
3850.00	1.03	111.19	3848.77	-22.47	-22.29	28.89	0.32	36.49	127.65
3875.00	1.14	108.12	3873.77	-22.63	-22.45	29.34	0.52	36.94	127.42
3900.00	1.18	109.34	3898.76	-22.79	-22.61	29.82	0.19	37.42	127.17
3925.00	1.20	118.55	3923.76	-23.01	-22.82	30.29	0.77	37.93	126.99
3950.00	1.15	117.01	3948.75	-23.25	-23.06	30.74	0.24	38.43	126.87
3975.00	1.23	115.99	3973.74	-23.48	-23.29	31.21	0.33	38.94	126.74
4000.00	1.26	113.84	3998.74	-23.71	-23.52	31.70	0.23	39.47	126.57
4025.00	1.46	115.86	4023.73	-23.97	-23.77	32.24	0.81	40.05	126.40
4050.00	1.51	120.97	4048.72	-24.28	-24.08	32.81	0.58	40.69	126.28

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	1.70	118.57	4073.71	-24.63	-24.43	33.41	0.78	41.39	126.17
4100.00	2.01	121.38	4098.70	-25.04	-24.83	34.11	1.29	42.19	126.05
4125.00	2.27	120.13	4123.68	-25.52	-25.31	34.92	1.07	43.12	125.94
4150.00	2.33	118.84	4148.66	-26.02	-25.80	35.79	0.31	44.12	125.79
4175.00	2.62	119.98	4173.64	-26.56	-26.33	36.73	1.15	45.19	125.64
4200.00	2.73	118.91	4198.61	-27.14	-26.91	37.75	0.51	46.35	125.48
4225.00	2.67	117.61	4223.58	-27.70	-27.46	38.78	0.36	47.52	125.30
4250.00	2.70	119.50	4248.56	-28.27	-28.02	39.81	0.38	48.68	125.14
4275.00	2.76	120.10	4273.53	-28.86	-28.62	40.84	0.28	49.87	125.01
4300.00	2.49	127.64	4298.50	-29.50	-29.25	41.80	1.77	51.01	124.98
4325.00	2.32	134.36	4323.48	-30.19	-29.93	42.59	1.32	52.05	125.10
4350.00	2.04	144.28	4348.46	-30.91	-30.65	43.21	1.87	52.97	125.35
4375.00	2.16	149.22	4373.45	-31.68	-31.41	43.71	0.89	53.83	125.71
4400.00	2.26	145.97	4398.43	-32.50	-32.23	44.23	0.62	54.72	126.08
4425.00	2.40	146.85	4423.41	-33.35	-33.07	44.79	0.60	55.68	126.44
4450.00	2.62	145.12	4448.38	-34.26	-33.98	45.40	0.92	56.71	126.81
4475.00	2.73	144.81	4473.36	-35.22	-34.93	46.07	0.43	57.82	127.17
4500.00	2.87	144.80	4498.33	-36.22	-35.93	46.77	0.58	58.98	127.53
4525.00	2.88	145.08	4523.29	-37.25	-36.96	47.49	0.07	60.18	127.89
4550.00	2.81	144.10	4548.26	-38.27	-37.97	48.21	0.34	61.37	128.22
4575.00	2.78	143.06	4573.23	-39.25	-38.95	48.94	0.25	62.55	128.52
4600.00	2.23	136.64	4598.21	-40.09	-39.79	49.63	2.45	63.62	128.72
4625.00	1.34	112.18	4623.20	-40.56	-40.25	50.24	4.63	64.38	128.70
4650.00	1.15	81.36	4648.19	-40.64	-40.33	50.76	2.74	64.83	128.47
4675.00	1.14	69.29	4673.19	-40.51	-40.20	51.24	0.97	65.13	128.12
4700.00	1.29	67.84	4698.18	-40.32	-40.01	51.73	0.59	65.40	127.72
4725.00	1.23	71.58	4723.18	-40.13	-39.82	52.25	0.40	65.69	127.31
4750.00	1.29	70.28	4748.17	-39.96	-39.64	52.77	0.26	65.99	126.91
4775.00	1.14	68.59	4773.16	-39.78	-39.45	53.26	0.62	66.28	126.53
4800.00	1.01	64.23	4798.16	-39.59	-39.26	53.69	0.61	66.52	126.18
4825.00	1.07	66.61	4823.15	-39.41	-39.08	54.10	0.30	66.74	125.84
4850.00	1.09	62.80	4848.15	-39.21	-38.88	54.53	0.29	66.97	125.49

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4875.00	1.01	73.29	4873.15	-39.04	-38.70	54.95	0.82	67.21	125.16
4900.00	1.12	71.11	4898.14	-38.90	-38.56	55.39	0.47	67.49	124.84
4925.00	0.98	66.46	4923.14	-38.74	-38.40	55.82	0.65	67.75	124.52
4950.00	1.05	60.52	4948.13	-38.54	-38.20	56.22	0.50	67.97	124.19
4975.00	1.18	72.29	4973.13	-38.35	-38.01	56.66	1.06	68.23	123.85
5000.00	0.97	71.18	4998.12	-38.21	-37.86	57.11	0.84	68.52	123.54
5025.00	1.19	96.99	5023.12	-38.17	-37.82	57.57	2.11	68.88	123.30
5050.00	1.30	119.05	5048.11	-38.35	-37.99	58.07	1.95	69.40	123.19
5075.00	1.64	138.91	5073.11	-38.76	-38.40	58.56	2.45	70.02	123.25
5100.00	2.09	139.74	5098.09	-39.38	-39.02	59.09	1.80	70.81	123.44
5125.00	2.16	140.16	5123.08	-40.09	-39.73	59.69	0.28	71.70	123.65
5150.00	2.03	141.31	5148.06	-40.80	-40.44	60.27	0.54	72.57	123.86
5175.00	2.17	139.32	5173.04	-41.51	-41.14	60.85	0.62	73.45	124.06
5200.00	2.16	141.28	5198.02	-42.24	-41.87	61.46	0.30	74.36	124.27
5225.00	2.23	137.59	5223.01	-42.98	-42.60	62.08	0.62	75.29	124.46
5250.00	2.35	139.56	5247.99	-43.73	-43.35	62.74	0.58	76.26	124.64
5275.00	2.19	139.72	5272.97	-44.49	-44.10	63.38	0.63	77.21	124.83
5300.00	2.43	137.35	5297.95	-45.25	-44.86	64.05	1.04	78.20	125.01
5325.00	2.73	135.74	5322.92	-46.07	-45.67	64.83	1.21	79.30	125.17
5350.00	3.32	135.83	5347.89	-47.02	-46.62	65.75	2.38	80.60	125.34
5375.00	4.01	133.99	5372.83	-48.15	-47.75	66.88	2.79	82.17	125.52
5400.00	4.32	134.66	5397.77	-49.43	-49.02	68.18	1.24	83.97	125.71
5425.00	4.32	134.84	5422.70	-50.76	-50.34	69.51	0.05	85.83	125.91
5450.00	4.37	132.77	5447.63	-52.08	-51.65	70.88	0.66	87.70	126.08
5475.00	4.52	134.59	5472.55	-53.43	-52.99	72.28	0.82	89.62	126.24
5500.00	4.53	135.22	5497.47	-54.83	-54.38	73.68	0.20	91.57	126.43
5525.00	4.53	133.66	5522.39	-56.22	-55.76	75.09	0.49	93.53	126.60
5550.00	4.45	133.83	5547.32	-57.58	-57.11	76.50	0.36	95.47	126.75
5575.00	4.77	135.03	5572.24	-59.00	-58.52	77.93	1.35	97.46	126.90
5600.00	4.73	134.43	5597.15	-60.46	-59.98	79.40	0.24	99.51	127.07
5625.00	4.73	133.46	5622.07	-61.90	-61.41	80.89	0.32	101.56	127.21
5650.00	4.73	134.93	5646.98	-63.35	-62.85	82.37	0.49	103.61	127.34

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	4.89	135.51	5671.89	-64.85	-64.33	83.84	0.65	105.68	127.50
5700.00	4.78	135.33	5696.80	-66.35	-65.83	85.32	0.45	107.77	127.65
5725.00	4.49	134.42	5721.72	-67.79	-67.26	86.75	1.18	109.77	127.79
5750.00	4.56	135.80	5746.64	-69.19	-68.66	88.14	0.52	111.73	127.92
5775.00	4.50	136.01	5771.57	-70.62	-70.07	89.52	0.25	113.68	128.05
5800.00	4.57	135.26	5796.49	-72.04	-71.49	90.90	0.38	115.64	128.18
5825.00	4.48	133.97	5821.41	-73.44	-72.87	92.30	0.55	117.60	128.29
5850.00	4.56	135.20	5846.33	-74.83	-74.26	93.71	0.51	119.56	128.39
5875.00	4.62	134.80	5871.25	-76.25	-75.67	95.12	0.25	121.55	128.50
5900.00	4.57	134.21	5896.17	-77.66	-77.08	96.55	0.26	123.54	128.60
5925.00	4.70	134.22	5921.09	-79.08	-78.49	98.00	0.51	125.55	128.69
5950.00	4.69	133.63	5946.01	-80.51	-79.90	99.47	0.20	127.59	128.77
5975.00	4.61	134.26	5970.92	-81.93	-81.31	100.93	0.38	129.61	128.85
6000.00	4.72	133.92	5995.84	-83.35	-82.72	102.39	0.47	131.63	128.94
6025.00	4.63	134.28	6020.76	-84.77	-84.14	103.85	0.39	133.66	129.01
6050.00	4.80	132.36	6045.67	-86.19	-85.55	105.35	0.93	135.71	129.08
6075.00	4.46	127.93	6070.59	-87.50	-86.85	106.89	1.96	137.73	129.10
6100.00	4.31	125.95	6095.52	-88.66	-88.00	108.42	0.88	139.64	129.07
6125.00	4.31	127.21	6120.45	-89.79	-89.12	109.92	0.38	141.51	129.03
6150.00	4.23	125.84	6145.38	-90.91	-90.23	111.42	0.52	143.37	129.00
6175.00	4.41	125.83	6170.31	-92.02	-91.33	112.94	0.74	145.25	128.96
6200.00	4.42	125.69	6195.23	-93.15	-92.46	114.51	0.05	147.17	128.92
6225.00	4.34	125.65	6220.16	-94.28	-93.57	116.06	0.30	149.08	128.88
6250.00	4.16	127.96	6245.09	-95.39	-94.68	117.54	1.01	150.93	128.85
6275.00	3.58	133.08	6270.03	-96.49	-95.77	118.83	2.68	152.61	128.87
6300.00	2.90	140.52	6294.99	-97.52	-96.79	119.80	3.21	154.01	128.94
6325.00	2.51	144.33	6319.97	-98.46	-97.72	120.52	1.71	155.16	129.04
6350.00	2.45	143.51	6344.94	-99.33	-98.59	121.16	0.29	156.20	129.14
6375.00	2.50	145.67	6369.92	-100.22	-99.47	121.78	0.43	157.24	129.24
6400.00	2.44	145.73	6394.90	-101.11	-100.36	122.39	0.24	158.28	129.35
6425.00	2.58	144.13	6419.87	-102.01	-101.26	123.02	0.64	159.33	129.46
6450.00	2.57	135.65	6444.85	-102.87	-102.12	123.74	1.52	160.43	129.53

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
6475.00	3.22	126.50	6469.82	-103.70	-102.94	124.70	3.17	161.69	129.54
6500.00	3.38	124.21	6494.77	-104.54	-103.77	125.87	0.82	163.13	129.50
6525.00	3.35	123.14	6519.73	-105.36	-104.58	127.09	0.28	164.59	129.45
6550.00	3.40	120.71	6544.69	-106.14	-105.36	128.34	0.60	166.04	129.38
6575.00	3.39	121.76	6569.64	-106.91	-106.13	129.60	0.25	167.51	129.31
6600.00	3.32	120.37	6594.60	-107.68	-106.88	130.86	0.41	168.96	129.24
6625.00	3.59	124.13	6619.56	-108.49	-107.69	132.13	1.41	170.45	129.18
6650.00	3.27	119.84	6644.51	-109.29	-108.48	133.40	1.67	171.94	129.12
6675.00	3.19	120.32	6669.47	-110.01	-109.19	134.61	0.30	173.33	129.05
6700.00	3.15	120.95	6694.43	-110.72	-109.89	135.80	0.24	174.70	128.98
6725.00	3.10	119.40	6719.40	-111.41	-110.58	136.98	0.39	176.04	128.91
6750.00	3.02	119.54	6744.36	-112.07	-111.23	138.14	0.30	177.36	128.84
6775.00	3.04	121.10	6769.33	-112.75	-111.90	139.28	0.34	178.67	128.78
6800.00	3.10	119.96	6794.29	-113.44	-112.58	140.44	0.34	179.99	128.72
6825.00	3.01	123.63	6819.25	-114.14	-113.28	141.57	0.87	181.31	128.67
6850.00	2.94	125.52	6844.22	-114.89	-114.02	142.64	0.47	182.61	128.64
6875.00	3.05	122.27	6869.19	-115.62	-114.75	143.72	0.81	183.91	128.60
6900.00	2.95	127.21	6894.15	-116.37	-115.49	144.80	1.11	185.22	128.58
6925.00	3.02	124.10	6919.12	-117.14	-116.25	145.86	0.70	186.52	128.55
6950.00	3.10	125.85	6944.08	-117.91	-117.01	146.95	0.48	187.85	128.53
6975.00	3.07	127.42	6969.05	-118.72	-117.82	148.03	0.35	189.19	128.52
7000.00	3.16	126.21	6994.01	-119.54	-118.63	149.12	0.43	190.55	128.50
7025.00	3.11	125.78	7018.97	-120.35	-119.43	150.23	0.24	191.92	128.49
7050.00	3.21	124.48	7043.93	-121.15	-120.23	151.35	0.51	193.29	128.46
7075.00	3.27	125.60	7068.89	-121.97	-121.04	152.51	0.36	194.70	128.44
7100.00	3.25	127.43	7093.85	-122.82	-121.88	153.65	0.43	196.12	128.42
7125.00	3.80	120.50	7118.81	-123.68	-122.73	154.93	2.79	197.65	128.39
7150.00	4.10	120.00	7143.75	-124.56	-123.60	156.41	1.20	199.36	128.32
7175.00	4.43	119.02	7168.68	-125.48	-124.52	158.03	1.37	201.19	128.24
7200.00	4.77	119.91	7193.60	-126.48	-125.50	159.78	1.39	203.18	128.15
7225.00	5.06	120.78	7218.50	-127.57	-126.59	161.63	1.20	205.30	128.07
7250.00	5.16	121.46	7243.41	-128.74	-127.74	163.54	0.46	207.51	127.99

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
7275.00	5.26	121.48	7268.30	-129.93	-128.92	165.47	0.39	209.77	127.92
7300.00	5.45	123.47	7293.19	-131.20	-130.18	167.44	1.08	212.09	127.86
7325.00	5.42	123.64	7318.08	-132.52	-131.49	169.41	0.15	214.45	127.82
7350.00	5.58	124.42	7342.97	-133.87	-132.83	171.40	0.70	216.84	127.77
7375.00	5.51	124.92	7367.85	-135.26	-134.20	173.38	0.34	219.25	127.74
7400.00	5.09	122.81	7392.74	-136.56	-135.49	175.30	1.86	221.56	127.70
7425.00	4.33	118.71	7417.66	-137.62	-136.54	177.06	3.31	223.59	127.64
7450.00	4.20	116.50	7442.59	-138.49	-137.40	178.71	0.83	225.42	127.56
7475.00	4.11	116.37	7467.52	-139.31	-138.21	180.33	0.36	227.20	127.47
7500.00	4.11	116.90	7492.46	-140.12	-139.01	181.93	0.15	228.96	127.38
7525.00	4.10	115.89	7517.39	-140.93	-139.81	183.53	0.29	230.72	127.30
7550.00	4.03	118.97	7542.33	-141.75	-140.62	185.10	0.91	232.46	127.22
7575.00	3.93	121.39	7567.27	-142.63	-141.50	186.60	0.78	234.18	127.17
7600.00	4.00	122.78	7592.21	-143.56	-142.41	188.07	0.47	235.90	127.13
7625.00	4.05	124.99	7617.15	-144.55	-143.39	189.52	0.66	237.66	127.11
7650.00	4.04	127.65	7642.09	-145.60	-144.44	190.94	0.75	239.42	127.11
7675.00	4.17	129.76	7667.02	-146.73	-145.56	192.34	0.80	241.21	127.12
7700.00	4.07	129.66	7691.96	-147.89	-146.71	193.72	0.44	243.01	127.14
7725.00	4.11	131.94	7716.89	-149.06	-147.87	195.07	0.68	244.78	127.16
7750.00	4.17	132.81	7741.83	-150.28	-149.09	196.41	0.33	246.58	127.20
7775.00	4.11	133.33	7766.76	-151.52	-150.32	197.72	0.28	248.38	127.24
7800.00	4.12	134.10	7791.70	-152.77	-151.56	199.02	0.23	250.16	127.29
7825.00	4.06	133.72	7816.64	-154.02	-152.79	200.30	0.28	251.93	127.34
7850.00	4.23	134.57	7841.57	-155.28	-154.05	201.60	0.73	253.72	127.39
7875.00	4.28	134.12	7866.50	-156.58	-155.35	202.93	0.26	255.56	127.44
7900.00	4.23	133.56	7891.43	-157.88	-156.63	204.26	0.26	257.41	127.48
7925.00	4.07	134.37	7916.37	-159.14	-157.89	205.57	0.69	259.21	127.53
7950.00	4.12	133.61	7941.30	-160.39	-159.13	206.85	0.30	260.98	127.57
7975.00	3.53	127.66	7966.25	-161.49	-160.22	208.11	2.86	262.64	127.59
8000.00	2.99	120.64	7991.21	-162.30	-161.02	209.28	2.67	264.06	127.57
8025.00	2.74	122.72	8016.18	-162.96	-161.68	210.34	1.08	265.30	127.55
8050.00	2.23	120.45	8041.15	-163.53	-162.25	211.26	2.09	266.38	127.52

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8075.00	0.91	115.53	8066.14	-163.87	-162.58	211.86	5.30	267.05	127.50
8100.00	0.35	70.23	8091.14	-163.93	-162.64	212.11	2.83	267.29	127.48
8125.00	0.18	25.54	8116.14	-163.87	-162.58	212.20	1.02	267.32	127.46
8150.00	0.21	22.37	8141.14	-163.79	-162.50	212.23	0.13	267.30	127.44
8175.00	0.21	40.62	8166.14	-163.72	-162.42	212.28	0.27	267.29	127.42
8200.00	0.25	41.20	8191.14	-163.64	-162.35	212.35	0.14	267.30	127.40
8225.00	0.31	71.38	8216.14	-163.58	-162.29	212.45	0.64	267.34	127.38
8250.00	0.35	50.71	8241.14	-163.51	-162.22	212.57	0.50	267.40	127.35
8275.00	0.26	66.37	8266.14	-163.44	-162.14	212.68	0.49	267.44	127.32
8300.00	0.22	105.90	8291.14	-163.43	-162.13	212.78	0.67	267.51	127.31
8325.00	0.35	133.05	8316.14	-163.50	-162.20	212.88	0.74	267.63	127.30
8350.00	0.43	151.86	8341.14	-163.63	-162.33	212.98	0.60	267.80	127.31
8375.00	0.45	165.07	8366.14	-163.81	-162.51	213.05	0.42	267.96	127.34
8400.00	0.55	165.76	8391.14	-164.02	-162.72	213.11	0.37	268.13	127.36
8425.00	0.52	172.33	8416.14	-164.25	-162.95	213.15	0.27	268.30	127.40
8450.00	0.59	194.56	8441.13	-164.49	-163.19	213.13	0.89	268.43	127.44
8475.00	0.77	179.72	8466.13	-164.78	-163.48	213.10	1.00	268.59	127.49
8500.00	0.78	166.21	8491.13	-165.11	-163.81	213.14	0.73	268.82	127.54
8525.00	0.79	184.69	8516.13	-165.45	-164.15	213.17	1.01	269.05	127.60
8550.00	0.95	182.83	8541.13	-165.83	-164.53	213.15	0.66	269.26	127.66
8575.00	1.21	185.63	8566.12	-166.30	-165.00	213.11	1.07	269.52	127.75
8600.00	1.07	196.13	8591.12	-166.78	-165.49	213.02	1.01	269.75	127.84