

Job Number:

State/Country:

Company:

Declination:

Lease/Well:

Grid:

Location:

File name: C:\WINSERVE\072.SVY

Rig Name:

Date/Time: 15-Mar-18 / 17:06

RKB:

Curve Name: 904H - Working

G.L. or M.S.L.:

**Provide Signature Page for
Directional Survey**

XTO- Remulla North 2551. #904H
30.015-44234

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 2.49
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 03 2018

RECEIVED

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	3100.00	.00	.00	.00	.00	.00	.00
127.00	.20	40.10	127.00	2973.00	.17	.14	.18	.22	40.10	.16
225.00	.70	26.10	225.00	2875.00	.84	.52	.86	.98	31.64	.52
Surface Surveys F/ Invictus Above										
323.00	.60	350.00	322.99	2777.01	1.88	.69	1.91	2.00	20.16	.42
420.00	.90	26.20	419.98	2680.02	3.06	.94	3.10	3.21	17.03	.56
543.00	.30	18.50	542.98	2557.02	4.24	1.47	4.30	4.48	19.10	.49
634.00	.90	213.40	633.97	2466.03	3.87	1.15	3.91	4.03	16.56	1.31
725.00	.50	210.40	724.97	2375.03	2.93	.56	2.95	2.98	10.74	.44
853.00	.50	192.10	852.96	2247.04	1.90	.16	1.90	1.91	4.68	.12
978.00	1.10	205.50	977.95	2122.05	.28	-.48	.26	.55	300.75	.50
1165.00	.60	273.90	1164.93	1935.07	-1.27	-2.22	-1.37	2.56	240.27	.56
1259.00	.80	241.50	1258.92	1841.08	-1.55	-3.29	-1.69	3.64	244.79	.46
1352.00	.30	201.40	1351.92	1748.08	-2.09	-3.95	-2.26	4.47	242.16	.65
1414.00	1.00	80.80	1413.92	1686.08	-2.15	-3.48	-2.30	4.09	238.25	1.91
1476.00	.60	96.30	1475.91	1624.09	-2.10	-2.62	-2.21	3.36	231.28	.73
1539.00	.60	212.30	1538.91	1561.09	-2.42	-2.47	-2.52	3.45	225.63	1.62
1602.00	1.10	238.70	1601.90	1498.10	-3.01	-3.16	-3.14	4.36	226.42	.99
1664.00	.40	130.80	1663.90	1436.10	-3.46	-3.51	-3.61	4.93	225.39	2.07
1726.00	2.80	79.30	1725.87	1374.13	-3.32	-1.85	-3.40	3.80	209.19	4.15
1789.00	4.00	59.60	1788.76	1311.24	-1.92	1.55	-1.85	2.47	141.06	2.63
1851.00	3.30	39.50	1850.64	1249.36	.55	4.55	.75	4.59	83.12	2.33
1882.00	2.50	24.60	1881.60	1218.40	1.85	5.40	2.09	5.71	71.07	3.53
1944.00	1.10	342.40	1943.57	1156.43	3.65	5.79	3.90	6.84	57.75	2.97
2007.00	1.70	290.60	2006.55	1093.45	4.55	4.73	4.76	6.57	46.07	2.12
2070.00	1.60	303.60	2069.52	1030.48	5.37	3.12	5.50	6.21	30.16	.61

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
2132.00	1.30	322.90	2131.51	968.49	6.41	1.98	6.49	6.71	17.13	.92
2194.00	1.20	325.70	2193.49	906.51	7.51	1.19	7.55	7.60	8.97	.19
2257.00	1.40	325.90	2256.47	843.53	8.69	.38	8.70	8.70	2.52	.32
2319.00	1.70	351.10	2318.45	781.55	10.23	-.19	10.21	10.23	358.96	1.19
2382.00	1.60	359.80	2381.43	718.57	12.03	-.33	12.00	12.03	358.42	.43
2445.00	.20	38.10	2444.42	655.58	12.99	-.27	12.97	13.00	358.82	2.30
2507.00	1.50	156.10	2506.41	593.59	12.34	.13	12.33	12.34	.59	2.59
2569.00	2.00	144.70	2568.38	531.62	10.71	1.08	10.75	10.77	5.77	.98
2632.00	1.90	140.40	2631.35	468.65	9.01	2.38	9.11	9.32	14.81	.28
2694.00	1.70	125.80	2693.31	406.69	7.68	3.78	7.84	8.56	26.22	.80
2757.00	2.80	115.30	2756.27	343.73	6.48	5.93	6.73	8.78	42.49	1.86
2820.00	3.60	108.80	2819.17	280.83	5.18	9.20	5.58	10.56	60.60	1.39
2882.00	3.30	104.80	2881.05	218.95	4.10	12.76	4.65	13.41	72.20	.62
2944.00	2.60	119.20	2942.97	157.03	2.96	15.72	3.64	15.99	79.35	1.64
3006.00	2.50	151.30	3004.91	95.09	1.08	17.59	1.85	17.63	86.47	2.28
3069.00	2.60	175.40	3067.85	32.15	-1.55	18.37	-.75	18.43	94.81	1.70
3131.00	2.50	218.70	3129.80	-29.80	-4.00	17.64	-3.23	18.08	102.79	3.04
3162.00	2.30	239.40	3160.77	-60.77	-4.85	16.68	-4.12	17.37	106.20	2.85
Interpolated Casing Shoe @ 3190'										
3190.00	2.28	244.02	3188.75	-88.75	-5.38	15.69	-4.69	16.59	108.91	.66
3246.00	2.30	253.30	3244.70	-144.70	-6.19	13.61	-5.59	14.95	114.45	.66
3340.00	2.20	245.60	3338.63	-238.63	-7.48	10.16	-7.03	12.62	126.34	.34
3435.00	2.30	246.80	3433.56	-333.56	-8.98	6.75	-8.68	11.23	143.07	.12
3530.00	2.50	246.60	3528.48	-428.48	-10.55	3.10	-10.41	11.00	163.65	.21
3624.00	2.50	226.40	3622.39	-522.39	-12.78	-.27	-12.78	12.79	181.21	.93
3718.00	2.80	206.00	3716.29	-616.29	-16.26	-2.76	-16.36	16.49	189.64	1.05
3813.00	2.10	218.80	3811.20	-711.20	-19.70	-4.87	-19.89	20.29	193.88	.93
3907.00	.50	60.60	3905.19	-805.19	-20.84	-5.59	-21.07	21.58	195.01	2.74
4001.00	2.40	67.30	3999.15	-899.15	-19.88	-3.42	-20.01	20.17	189.75	2.03
4094.00	3.50	67.10	4092.03	-992.03	-18.03	.99	-17.97	18.05	176.84	1.18
4189.00	4.40	74.30	4186.80	-1086.80	-15.91	7.17	-15.58	17.45	155.73	1.08
4283.00	5.20	82.10	4280.47	-1180.47	-14.35	14.86	-13.69	20.66	133.99	1.10
4377.00	5.40	102.30	4374.08	-1274.08	-14.71	23.41	-13.68	27.64	122.14	1.99
4472.00	5.40	99.70	4468.66	-1368.66	-16.41	32.18	-15.00	36.12	117.02	.26
4568.00	5.40	97.70	4564.23	-1464.23	-17.78	41.11	-15.98	44.79	113.39	.20
4662.00	6.10	115.70	4657.76	-1557.76	-20.54	49.99	-18.35	54.05	112.33	2.05
4757.00	3.90	112.00	4752.40	-1652.40	-23.94	57.54	-21.41	62.32	112.59	2.34
4852.00	3.60	112.00	4847.19	-1747.19	-26.26	63.30	-23.49	68.53	112.54	.32
4946.00	3.40	111.80	4941.02	-1841.02	-28.41	68.62	-25.40	74.27	112.49	.21
5040.00	3.40	114.30	5034.85	-1934.85	-30.59	73.75	-27.35	79.84	112.53	.16
5135.00	3.60	113.60	5129.67	-2029.67	-32.94	79.05	-29.48	85.64	112.62	.22
5230.00	3.40	115.10	5224.50	-2124.50	-35.33	84.34	-31.63	91.44	112.73	.23
5323.00	3.40	115.80	5317.33	-2217.33	-37.70	89.32	-33.78	96.95	112.88	.04
5417.00	3.10	119.70	5411.18	-2311.18	-40.17	94.03	-36.05	102.26	113.13	.40
5510.00	2.50	109.50	5504.07	-2404.07	-42.10	98.13	-37.79	106.78	113.22	.84
5605.00	2.20	73.80	5599.00	-2499.00	-42.28	101.83	-37.81	110.26	112.55	1.55

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
5698.00	2.10	79.30	5691.93	-2591.93	-41.46	105.22	-36.85	113.10	111.51	.25
5792.00	1.50	74.50	5785.88	-2685.88	-40.82	108.10	-36.08	115.55	110.68	.66
5885.00	1.20	71.40	5878.86	-2778.86	-40.18	110.20	-35.35	117.29	110.03	.33
5920.00	1.20	70.00	5913.85	-2813.85	-39.94	110.89	-35.08	117.86	109.81	.08
6015.00	1.80	93.70	6008.82	-2908.82	-39.69	113.31	-34.73	120.06	109.31	.90
6109.00	2.50	87.50	6102.75	-3002.75	-39.70	116.83	-34.59	123.39	108.77	.78
6204.00	3.20	94.60	6197.63	-3097.63	-39.82	121.55	-34.50	127.90	108.14	.82
6299.00	4.00	107.40	6292.45	-3192.45	-41.03	127.35	-35.45	133.80	107.86	1.19
6394.00	4.90	106.20	6387.16	-3287.16	-43.15	134.41	-37.27	141.17	107.80	.95
6488.00	4.70	106.70	6480.83	-3380.83	-45.37	141.95	-39.16	149.03	107.73	.22
6582.00	4.40	108.30	6574.53	-3474.53	-47.61	149.07	-41.09	156.49	107.71	.35
6677.00	4.10	109.20	6669.27	-3569.27	-49.87	155.73	-43.06	163.52	107.76	.32
6771.00	4.30	103.30	6763.02	-3663.02	-51.79	162.34	-44.69	170.40	107.69	.51
6869.00	4.00	103.20	6860.76	-3760.76	-53.42	169.24	-46.01	177.47	107.52	.31
6958.00	3.40	102.30	6949.58	-3849.58	-54.69	174.84	-47.04	183.19	107.37	.68
7052.00	3.50	82.40	7043.41	-3943.41	-54.90	180.41	-47.01	188.58	106.93	1.27
7146.00	3.90	80.00	7137.22	-4037.22	-53.97	186.40	-45.82	194.06	106.15	.46
7240.00	2.70	78.20	7231.06	-4131.06	-52.96	191.72	-44.58	198.90	105.44	1.28
7333.00	3.30	87.40	7323.93	-4223.93	-52.39	196.53	-43.80	203.40	104.93	.83
7427.00	2.00	93.00	7417.83	-4317.83	-52.35	200.87	-43.58	207.58	104.61	1.41
7520.00	3.30	78.20	7510.73	-4410.73	-51.89	205.12	-42.93	211.58	104.20	1.57
7613.00	5.70	91.80	7603.44	-4503.44	-51.49	212.35	-42.21	218.51	103.63	2.81
7707.00	5.60	105.30	7696.98	-4596.98	-52.84	221.44	-43.17	227.66	103.42	1.41
7801.00	3.60	92.10	7790.68	-4690.68	-54.16	228.82	-44.17	235.14	103.32	2.39
7895.00	3.10	99.80	7884.52	-4784.52	-54.70	234.27	-44.47	240.57	103.14	.71
7988.00	3.30	108.30	7977.37	-4877.37	-55.97	239.29	-45.52	245.75	103.17	.55
8090.00	3.50	94.40	8079.20	-4979.20	-57.13	245.18	-46.43	251.75	103.12	.83
8183.00	3.80	96.00	8172.01	-5072.01	-57.67	251.08	-46.71	257.62	102.94	.34
8277.00	3.10	107.40	8265.84	-5165.84	-58.76	256.60	-47.56	263.24	102.90	1.04
8371.00	2.70	115.30	8359.72	-5259.72	-60.47	261.03	-49.07	267.94	103.04	.60
8465.00	3.30	95.60	8453.59	-5353.59	-61.68	265.72	-50.07	272.79	103.07	1.26
8559.00	3.80	101.80	8547.41	-5447.41	-62.58	271.46	-50.72	278.58	102.98	.67
8652.00	2.80	97.00	8640.26	-5540.26	-63.48	276.74	-51.40	283.92	102.92	1.11
8746.00	2.50	121.10	8734.16	-5634.16	-64.82	280.77	-52.56	288.16	103.00	1.22
8839.00	6.00	104.40	8826.89	-5726.89	-67.08	287.22	-54.54	294.95	103.15	3.95
8932.00	4.50	105.80	8919.50	-5819.50	-69.28	295.44	-56.38	303.45	103.20	1.62
9026.00	6.00	103.20	9013.10	-5913.10	-71.41	303.77	-58.14	312.05	103.23	1.62
9120.00	7.00	96.00	9106.50	-6006.50	-73.13	314.25	-59.41	322.64	103.10	1.37
9214.00	6.20	99.70	9199.87	-6099.87	-74.58	324.95	-60.39	333.40	102.93	.96
9307.00	5.50	94.40	9292.39	-6192.39	-75.77	334.34	-61.17	342.82	102.77	.95
9400.00	6.20	100.00	9384.91	-6284.91	-76.98	343.73	-61.98	352.25	102.62	.97
9495.00	5.40	104.40	9479.42	-6379.42	-78.99	353.11	-63.57	361.84	102.61	.96
9588.00	7.80	96.80	9571.80	-6471.80	-80.82	363.62	-64.95	372.49	102.53	2.74
Interpolated K.O.P.										
9646.00	7.70	88.42	9629.27	-6529.27	-81.18	371.41	-64.97	380.18	102.33	1.95
9653.00	7.70	87.40	9636.21	-6536.21	-81.15	372.35	-64.89	381.09	102.29	1.95

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
9684.00	10.10	80.30	9666.83	-6566.83	-80.60	377.10	-64.14	385.62	102.06	8.50
9716.00	13.40	77.00	9698.16	-6598.16	-79.29	383.48	-62.55	391.60	101.68	10.52
9747.00	15.60	75.10	9728.17	-6628.17	-77.41	391.01	-60.35	398.60	101.20	7.26
9778.00	15.90	64.00	9758.01	-6658.01	-74.47	398.86	-57.08	405.75	100.58	9.75
9809.00	17.10	46.40	9787.75	-6687.75	-69.47	405.98	-51.76	411.88	99.71	16.52
9841.00	19.20	35.80	9818.17	-6718.17	-61.95	412.47	-43.97	417.10	98.54	12.20
9872.00	20.20	27.20	9847.36	-6747.36	-53.05	417.90	-34.85	421.25	97.24	9.88
9903.00	20.10	17.60	9876.47	-6776.47	-43.21	421.96	-24.84	424.16	95.85	10.66
9934.00	18.90	5.40	9905.70	-6805.70	-33.13	424.04	-14.68	425.33	94.47	13.67
9965.00	19.30	354.90	9935.00	-6835.00	-23.03	424.06	-4.58	424.68	93.11	11.14
9996.00	22.20	349.60	9963.99	-6863.99	-12.16	422.55	6.21	422.72	91.65	11.14
10027.00	25.30	350.70	9992.36	-6892.36	.14	420.42	18.40	420.42	89.98	10.10
10058.00	28.80	351.70	10019.97	-6919.97	14.07	418.27	32.23	418.50	88.07	11.38
10089.00	33.30	353.70	10046.52	-6946.52	29.92	416.26	47.98	417.33	85.89	14.89
10121.00	37.40	354.70	10072.62	-6972.62	48.34	414.39	66.30	417.20	83.35	12.94
10152.00	41.10	355.40	10096.62	-6996.62	67.88	412.71	85.74	418.25	80.66	12.02
10184.00	45.80	356.00	10119.84	-7019.84	89.82	411.06	107.59	420.76	77.67	14.74
10216.00	49.20	356.50	10141.46	-7041.46	113.35	409.52	131.04	424.92	74.53	10.69
10248.00	52.90	357.40	10161.57	-7061.57	138.20	408.20	155.81	430.96	71.30	11.77
10280.00	57.40	358.20	10179.85	-7079.85	164.44	407.20	181.97	439.15	68.01	14.21
10312.00	62.50	359.10	10195.87	-7095.87	192.12	406.55	209.60	449.66	64.71	16.12
10344.00	66.20	358.60	10209.72	-7109.72	220.95	405.97	238.38	462.21	61.44	11.65
10376.00	70.50	357.70	10221.53	-7121.53	250.67	405.01	268.03	476.31	58.25	13.69
10407.00	73.30	357.70	10231.16	-7131.16	280.11	403.83	297.39	491.47	55.25	9.03
10439.00	77.10	358.10	10239.33	-7139.33	311.02	402.69	328.23	508.82	52.32	11.94
10470.00	78.30	358.40	10245.93	-7145.93	341.30	401.77	358.43	527.16	49.65	3.98
10502.00	78.70	358.40	10252.31	-7152.31	372.64	400.89	389.71	547.34	47.09	1.25
10533.00	79.40	358.10	10258.20	-7158.20	403.06	399.96	420.06	567.83	44.78	2.45
10564.00	80.20	357.90	10263.69	-7163.69	433.56	398.90	450.48	589.14	42.62	2.66
10596.00	82.80	358.20	10268.42	-7168.42	465.18	397.82	482.03	612.09	40.54	8.18
10628.00	84.10	358.60	10272.07	-7172.07	496.96	396.93	513.74	636.02	38.62	4.25
Land Heel										
10659.00	86.60	358.90	10274.58	-7174.58	527.85	396.26	544.57	660.04	36.90	8.12
10752.00	89.70	358.80	10277.58	-7177.58	620.77	394.40	637.32	735.46	32.43	3.34
10846.00	92.10	.30	10276.11	-7176.11	714.75	393.66	731.17	815.98	28.84	3.01
10910.00	93.70	3.00	10272.87	-7172.87	778.63	395.50	795.08	873.32	26.93	4.90
11004.00	91.40	358.40	10268.69	-7168.69	872.50	396.64	888.91	958.42	24.45	5.47
11098.00	88.70	359.10	10268.60	-7168.60	966.47	394.59	982.70	1043.91	22.21	2.97
11192.00	90.80	358.90	10269.01	-7169.01	1060.45	392.95	1076.52	1130.91	20.33	2.24
11285.00	90.80	358.40	10267.72	-7167.72	1153.41	390.76	1169.30	1217.80	18.72	.54
11378.00	89.20	357.70	10267.72	-7167.72	1246.35	387.59	1262.02	1305.23	17.27	1.88
11472.00	92.20	357.50	10266.57	-7166.57	1340.25	383.66	1355.66	1394.08	15.97	3.20
11566.00	92.50	358.80	10262.71	-7162.71	1434.12	380.63	1449.31	1483.77	14.86	1.42
11660.00	90.20	1.20	10260.50	-7160.50	1528.08	380.63	1543.18	1574.78	13.99	3.54
11760.00	89.80	1.60	10260.50	-7160.50	1628.05	383.07	1643.16	1672.51	13.24	.57
11823.00	90.90	1.20	10260.11	-7160.11	1691.03	384.61	1706.15	1734.22	12.81	1.86

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
11918.00	87.40	.50	10261.52	-7161.52	1786.00	386.02	1801.08	1827.24	12.20	3.76
12011.00	87.90	359.80	10265.34	-7165.34	1878.92	386.26	1893.92	1918.21	11.62	.92
12105.00	88.80	357.70	10268.04	-7168.04	1972.85	384.21	1987.68	2009.91	11.02	2.43
12199.00	87.10	356.50	10271.41	-7171.41	2066.66	379.46	2081.20	2101.21	10.40	2.21
12291.00	87.20	355.40	10275.98	-7175.98	2158.32	372.97	2172.48	2190.31	9.80	1.20
12385.00	87.20	354.20	10280.57	-7180.57	2251.82	364.46	2265.53	2281.12	9.19	1.28
12479.00	89.10	354.40	10283.61	-7183.61	2345.30	355.13	2358.51	2372.04	8.61	2.03
12573.00	90.70	356.30	10283.77	-7183.77	2438.98	347.51	2451.78	2463.62	8.11	2.64
12667.00	90.60	359.50	10282.70	-7182.70	2532.90	344.07	2545.46	2556.16	7.74	3.41
12761.00	91.70	359.60	10280.82	-7180.82	2626.88	343.33	2639.31	2649.22	7.45	1.18
12854.00	89.20	.00	10280.09	-7180.09	2719.87	343.00	2732.20	2741.41	7.19	2.72
12948.00	89.20	.20	10281.40	-7181.40	2813.86	343.17	2826.11	2834.71	6.95	.21
13041.00	90.80	359.80	10281.40	-7181.40	2906.86	343.17	2919.02	2927.04	6.73	1.77
13135.00	89.30	359.30	10281.32	-7181.32	3000.85	342.43	3012.89	3020.32	6.51	1.68
13229.00	90.30	.90	10281.65	-7181.65	3094.84	342.59	3106.81	3113.75	6.32	2.01
13324.00	92.20	.90	10279.57	-7179.57	3189.81	344.09	3201.74	3208.31	6.16	2.00
13418.00	89.50	.50	10278.18	-7178.18	3283.78	345.23	3295.68	3301.88	6.00	2.90
13512.00	91.60	.90	10277.28	-7177.28	3377.76	346.38	3389.62	3395.48	5.86	2.27
13606.00	89.10	359.50	10276.70	-7176.70	3471.75	346.71	3483.54	3489.02	5.70	3.05
13700.00	90.50	359.50	10277.03	-7177.03	3565.74	345.89	3577.40	3582.48	5.54	1.49
13795.00	92.60	359.30	10274.46	-7174.46	3660.70	344.90	3672.23	3676.91	5.38	2.22
13891.00	91.80	.30	10270.78	-7170.78	3756.63	344.56	3768.05	3772.39	5.24	1.33
13984.00	88.00	359.30	10270.94	-7170.94	3849.61	344.24	3860.93	3864.97	5.11	4.23
14078.00	91.40	359.50	10271.43	-7171.43	3943.59	343.25	3954.78	3958.50	4.97	3.62
14172.00	92.00	.20	10268.64	-7168.64	4037.54	343.01	4048.63	4052.09	4.86	.98
14267.00	88.70	358.90	10268.06	-7168.06	4132.52	342.26	4143.49	4146.67	4.73	3.73
14361.00	89.40	358.60	10269.62	-7169.62	4226.49	340.21	4237.28	4240.16	4.60	.81
14454.00	90.60	359.50	10269.62	-7169.62	4319.47	338.67	4330.11	4332.73	4.48	1.61
14548.00	88.90	359.10	10270.03	-7170.03	4413.46	337.52	4423.96	4426.35	4.37	1.86
14643.00	89.90	358.80	10271.02	-7171.02	4508.44	335.78	4518.77	4520.93	4.26	1.10
14738.00	90.30	.00	10270.86	-7170.86	4603.43	334.78	4613.63	4615.59	4.16	1.33
14831.00	91.70	359.60	10269.24	-7169.24	4696.41	334.46	4706.51	4708.31	4.07	1.57
14925.00	89.00	358.80	10268.66	-7168.66	4790.39	333.15	4800.34	4801.96	3.98	3.00
15019.00	88.60	.20	10270.63	-7170.63	4884.37	332.33	4894.19	4895.66	3.89	1.55
15114.00	91.80	1.00	10270.30	-7170.30	4979.35	333.32	4989.13	4990.49	3.83	3.47
15208.00	91.20	1.40	10267.84	-7167.84	5073.29	335.29	5083.07	5084.36	3.78	.77
15302.00	89.40	1.40	10267.35	-7167.35	5167.26	337.59	5177.05	5178.28	3.74	1.91
15395.00	89.20	1.00	10268.48	-7168.48	5260.23	339.53	5270.02	5271.18	3.69	.48
15489.00	90.80	.50	10268.48	-7168.48	5354.22	340.76	5363.97	5365.06	3.64	1.78
15582.00	90.60	.00	10267.35	-7167.35	5447.21	341.17	5456.89	5457.89	3.58	.58
15675.00	89.70	359.50	10267.10	-7167.10	5540.21	340.76	5549.79	5550.68	3.52	1.11
15770.00	89.30	.50	10267.93	-7167.93	5635.21	340.76	5644.69	5645.50	3.46	1.13
15864.00	90.60	.00	10268.01	-7168.01	5729.20	341.17	5738.62	5739.35	3.41	1.48
15957.00	90.50	359.80	10267.12	-7167.12	5822.20	341.01	5831.52	5832.18	3.35	.24
16050.00	86.60	359.50	10269.47	-7169.47	5915.15	340.44	5924.35	5924.94	3.29	4.21

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
16144.00	87.40	359.10	10274.39	-7174.39	6009.01	339.30	6018.08	6018.58	3.23	.95
16237.00	90.20	359.10	10276.34	-7176.34	6101.97	337.84	6110.89	6111.32	3.17	3.01
16331.00	91.40	359.10	10275.03	-7175.03	6195.95	336.36	6204.71	6205.07	3.11	1.28
16425.00	93.20	358.80	10271.26	-7171.26	6289.85	334.64	6298.45	6298.75	3.05	1.94
16519.00	92.20	359.10	10266.83	-7166.83	6383.73	332.92	6392.17	6392.41	2.99	1.11
16612.00	88.80	359.80	10266.02	-7166.02	6476.71	332.03	6485.02	6485.22	2.93	3.73
16706.00	92.50	.30	10264.95	-7164.95	6570.69	332.11	6578.91	6579.08	2.89	3.97
16800.00	92.60	.20	10260.77	-7160.77	6664.59	332.52	6672.75	6672.88	2.86	.15
16894.00	89.50	.20	10259.05	-7159.05	6758.57	332.85	6766.64	6766.76	2.82	3.30
16990.00	88.40	359.10	10260.80	-7160.80	6854.54	332.26	6862.51	6862.59	2.78	1.62
17084.00	89.00	358.20	10262.94	-7162.94	6948.49	330.05	6956.27	6956.33	2.72	1.15
17178.00	88.90	359.50	10264.66	-7164.66	7042.46	328.16	7050.06	7050.10	2.67	1.39
17272.00	89.50	358.10	10265.97	-7165.97	7136.42	326.19	7143.86	7143.87	2.62	1.62
17364.00	89.00	358.80	10267.18	-7167.18	7228.38	323.70	7235.62	7235.63	2.56	.93
17458.00	89.50	358.90	10268.41	-7168.41	7322.35	321.82	7329.42	7329.42	2.52	.54
17552.00	88.60	.00	10269.97	-7169.97	7416.33	320.91	7423.27	7423.27	2.48	1.51
17646.00	89.00	359.50	10271.93	-7171.93	7510.31	320.50	7517.15	7517.15	2.44	.68
17740.00	92.10	.30	10271.03	-7171.03	7604.30	320.34	7611.03	7611.04	2.41	3.41
17834.00	90.00	358.80	10269.31	-7169.31	7698.27	319.60	7704.89	7704.90	2.38	2.75
17927.00	90.10	358.40	10269.23	-7169.23	7791.24	317.33	7797.67	7797.70	2.33	.44
18021.00	92.00	358.10	10267.51	-7167.51	7885.18	314.46	7891.39	7891.44	2.28	2.05
18116.00	90.60	357.50	10265.35	-7165.35	7980.08	310.81	7986.05	7986.13	2.23	1.60
18219.00	90.00	357.00	10264.81	-7164.81	8082.96	305.87	8088.62	8088.74	2.17	.76
Straightline interpolation to TD										
18260.00	90.00	357.00	10264.81	-7164.81	8123.90	303.73	8129.43	8129.58	2.14	.00
18311.00	90.00	357.00	10264.81	-7164.81	8174.83	301.06	8180.19	8180.37	2.11	.00