

Job Number: 23D0211041	State/Country: West Virginia
Company: Stone	Declination: []
Lease/Well: Nice Unit A #3H	Grid: []
Location: Mary/Brandy	File name: D:\WINSERVE\NICEA3H.SVY
Rig Name: Saxon 141	Date/Time: 25-Mar-11 / 22:36
RKB: []	Curve Name: Nice A 3H Work Curve
G.L. or M.S.L.: []	

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 350.83
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.19	121.14	100.00	-.09	.14	-.11	.17	121.14	.19
200.00	.06	181.58	200.00	-.22	.28	-.27	.36	128.40	.17
300.00	.10	211.19	300.00	-.35	.24	-.38	.42	146.10	.06
400.00	.05	196.00	400.00	-.47	.18	-.49	.50	159.09	.05
500.00	.12	237.25	500.00	-.57	.08	-.57	.57	172.11	.09
600.00	.05	194.60	600.00	-.66	-.02	-.65	.67	181.78	.09
700.00	.10	239.41	700.00	-.75	-.11	-.72	.76	188.09	.07
800.00	.20	244.31	800.00	-.87	-.34	-.81	.94	201.26	.10
900.00	.13	247.49	900.00	-.99	-.60	-.88	1.16	211.25	.07
1000.00	.12	151.37	1000.00	-1.13	-.66	-1.01	1.30	210.22	.19
1100.00	.04	181.45	1100.00	-1.25	-.61	-1.14	1.39	205.83	.09
1200.00	.52	347.34	1200.00	-.84	-.71	-.72	1.10	219.92	.56
1300.00	.56	1.71	1299.99	.09	-.79	.21	.80	276.22	.14
1400.00	.51	10.15	1399.99	1.01	-.70	1.11	1.23	325.40	.09
1500.00	.72	343.01	1499.98	2.05	-.80	2.15	2.20	338.60	.35
1600.00	.96	337.67	1599.97	3.43	-1.31	3.59	3.67	339.14	.25
1700.00	.90	333.93	1699.96	4.91	-1.97	5.16	5.29	338.14	.09
1800.00	1.09	341.10	1799.94	6.51	-2.62	6.85	7.02	338.07	.23
1900.00	.74	30.41	1899.93	7.97	-2.60	8.28	8.38	341.91	.83
2000.00	.71	39.80	1999.92	9.00	-1.88	9.19	9.20	348.20	.12
2100.00	.03	148.48	2099.92	9.46	-1.47	9.57	9.57	351.16	.72
2200.00	.13	179.00	2199.92	9.32	-1.45	9.43	9.43	351.13	.11
2300.00	.12	150.45	2299.92	9.12	-1.40	9.22	9.22	351.27	.06
2400.00	.19	104.37	2399.92	8.98	-1.19	9.06	9.06	352.46	.14

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2499.99	.18	106.23	2499.91	8.90	-.88	8.93	8.94	354.37	.01
2599.99	.23	75.43	2599.91	8.91	-.53	8.88	8.92	356.58	.12
2699.99	1.87	50.74	2699.89	9.99	.93	9.71	10.03	5.30	1.66
2799.99	3.19	51.68	2799.79	12.75	4.37	11.89	13.48	18.93	1.32
2899.99	3.83	56.89	2899.60	16.30	9.35	14.60	18.79	29.85	.71
2999.99	4.47	59.39	2999.34	20.10	15.50	17.38	25.39	37.64	.66
3099.99	4.41	64.81	3099.04	23.73	22.34	19.86	32.59	43.27	.42
3199.99	4.80	67.46	3198.72	26.97	29.68	21.89	40.10	47.74	.44
3299.99	5.54	67.28	3298.31	30.43	38.00	23.99	48.68	51.31	.74
3399.99	5.72	67.07	3397.83	34.24	47.04	26.31	58.18	53.95	.18
3499.99	5.74	66.94	3497.33	38.14	56.23	28.69	67.94	55.85	.02
3599.99	5.87	67.14	3596.81	42.09	65.54	31.10	77.89	57.30	.13
3699.99	5.72	67.41	3696.30	45.99	74.86	33.47	87.85	58.44	.15
3799.99	5.29	68.03	3795.84	49.63	83.73	35.65	97.33	59.35	.43
3899.99	4.79	72.83	3895.46	52.58	92.00	37.25	105.96	60.25	.65
3999.99	4.22	75.49	3995.15	54.74	99.55	38.17	113.60	61.20	.61
4099.99	3.48	73.05	4094.92	56.54	106.01	38.93	120.15	61.93	.76
4199.99	2.38	79.45	4194.79	57.81	110.96	39.39	125.11	62.48	1.15
4299.99	1.93	94.12	4294.72	58.07	114.68	39.05	128.54	63.14	.71
4399.99	1.84	95.28	4394.66	57.80	117.96	38.26	131.36	63.90	.10
4499.99	1.89	93.05	4494.61	57.56	121.20	37.51	134.18	64.60	.09
4599.99	3.60	86.12	4594.49	57.69	125.98	36.87	138.56	65.40	1.74
4699.99	5.68	77.25	4694.16	58.99	133.94	36.89	146.36	66.23	2.19
4799.99	6.11	74.03	4793.63	61.55	143.88	37.83	156.50	66.84	.54
4899.99	5.96	61.53	4893.08	65.49	153.57	40.18	166.95	66.90	1.32
4999.99	5.23	57.26	4992.61	70.43	161.96	43.72	176.61	66.50	.84
5099.99	3.65	67.39	5092.30	74.12	168.74	46.28	184.30	66.29	1.76
5199.99	2.66	89.28	5192.15	75.37	173.99	46.68	189.62	66.58	1.54
5299.99	1.38	120.48	5292.09	74.79	177.35	45.57	192.48	67.14	1.64
5399.99	1.28	111.10	5392.07	73.78	179.43	44.24	194.01	67.65	.24
5499.99	1.17	139.39	5492.04	72.60	181.14	42.80	195.15	68.16	.61
5541.99	1.12	162.62	5534.04	71.88	181.54	42.03	195.25	68.40	1.10
5581.00	1.00	158.58	5573.04	71.20	181.78	41.32	195.23	68.61	.36
5643.00	.89	142.25	5635.03	70.32	182.27	40.37	195.36	68.90	.47
5704.00	.45	157.92	5696.03	69.72	182.65	39.72	195.51	69.11	.77
5735.00	.54	139.51	5727.03	69.50	182.79	39.48	195.56	69.18	.59
5766.00	1.32	50.43	5758.02	69.61	183.16	39.53	195.94	69.19	4.57
5797.00	3.19	35.04	5789.00	70.55	183.93	40.33	197.00	69.02	6.29
5828.00	5.26	30.82	5819.91	72.47	185.16	42.04	198.83	68.62	6.75
5859.00	7.42	28.83	5850.72	75.45	186.85	44.71	201.51	68.01	7.00
5890.00	10.09	30.42	5881.36	79.54	189.19	48.38	205.23	67.20	8.65
5921.00	12.60	32.84	5911.75	84.73	192.40	52.98	210.23	66.23	8.24
5952.00	14.14	35.13	5941.91	90.66	196.41	58.20	216.33	65.22	5.25
5983.00	16.32	35.59	5971.82	97.30	201.13	64.01	223.43	64.18	7.04
6013.00	18.19	37.86	6000.47	104.43	206.45	70.19	231.36	63.17	6.62

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6044.00	20.06	39.61	6029.75	112.35	212.81	77.00	240.65	62.17	6.31
6074.00	21.72	40.00	6057.78	120.56	219.66	84.02	250.57	61.24	5.55
6105.00	23.47	40.51	6086.40	129.65	227.36	91.76	261.73	60.31	5.68
6136.00	25.25	42.02	6114.64	139.26	235.80	99.90	273.85	59.43	6.08
6167.00	27.22	43.91	6142.44	149.28	245.14	108.30	287.02	58.66	6.90
6198.00	29.67	43.67	6169.70	159.94	255.36	117.20	301.31	57.94	7.91
6229.00	31.92	43.60	6196.33	171.42	266.31	126.79	316.71	57.23	7.26
6259.00	33.82	42.06	6221.52	183.37	277.37	136.82	332.50	56.53	6.92
6289.00	36.38	40.52	6246.07	196.33	288.75	147.81	349.17	55.79	9.03
6320.00	38.98	40.46	6270.60	210.74	301.05	160.07	367.48	55.01	8.39
6351.00	41.80	40.77	6294.21	225.99	314.13	173.04	386.97	54.27	9.12
6382.00	44.68	39.66	6316.79	242.21	327.83	186.86	407.60	53.54	9.61
6413.00	47.24	38.43	6338.34	259.51	341.86	201.72	429.21	52.80	8.74
6444.00	48.93	36.78	6359.05	277.79	355.94	217.52	451.51	52.03	6.74
6475.00	51.59	35.78	6378.86	297.01	370.04	234.24	474.49	51.25	8.93
6506.00	54.33	35.71	6397.54	317.09	384.49	251.76	498.37	50.49	8.84
6537.00	57.47	35.56	6414.91	337.95	399.44	269.97	523.22	49.77	10.14
6567.00	61.09	35.77	6430.24	358.90	414.48	288.26	548.27	49.11	12.08
6599.00	63.03	33.22	6445.23	382.20	430.48	308.71	575.66	48.40	9.29
6631.00	65.32	32.72	6459.17	406.36	446.15	330.07	603.48	47.67	7.29
6662.00	67.69	31.05	6471.53	430.50	461.17	351.50	630.88	46.97	9.10
6694.00	70.24	31.09	6483.01	456.08	476.58	374.30	659.65	46.26	7.97
6726.00	73.47	30.27	6492.98	482.23	492.09	397.65	688.98	45.58	10.38
6758.00	76.09	29.93	6501.38	508.94	507.57	421.55	718.79	44.92	8.25
6790.00	79.47	30.61	6508.15	535.95	523.34	445.70	749.08	44.32	10.76
6822.00	81.07	30.81	6513.56	563.06	539.45	469.90	779.77	43.77	5.04
6853.00	82.78	29.35	6517.91	589.62	554.83	493.67	809.62	43.26	7.22
6885.00	83.22	28.21	6521.81	617.46	570.12	518.71	840.41	42.72	3.79
6917.00	82.31	25.09	6525.84	645.83	584.36	544.45	870.96	42.14	10.08
6949.00	81.36	21.98	6530.39	674.86	597.00	571.10	901.03	41.50	10.07
6980.00	79.96	18.51	6535.42	703.56	607.59	597.74	929.60	40.81	11.93
7012.00	78.79	15.78	6541.32	733.61	616.86	625.93	958.49	40.06	9.15
7039.00	78.32	11.62	6546.68	759.31	623.13	650.30	982.26	39.37	15.20
7070.00	78.72	9.12	6552.85	789.19	628.59	678.93	1008.94	38.54	8.01
7102.00	80.42	5.84	6558.65	820.39	632.69	709.08	1036.02	37.64	11.39
7134.00	81.98	3.31	6563.54	851.91	635.21	739.79	1062.66	36.71	9.21
7166.00	82.42	359.35	6567.89	883.60	635.94	770.96	1088.65	35.74	12.34
7198.00	82.39	355.98	6572.12	915.29	634.65	802.45	1113.79	34.74	10.44
7230.00	82.62	352.29	6576.29	946.84	631.41	834.12	1138.06	33.70	11.46
7261.00	82.62	349.10	6580.28	977.18	626.44	864.86	1160.73	32.66	10.21
7293.00	83.04	345.61	6584.27	1008.15	619.49	896.54	1183.27	31.57	10.90
7325.00	83.20	342.19	6588.11	1038.67	610.68	928.07	1204.89	30.45	10.62
7357.00	83.55	338.80	6591.80	1068.63	600.07	959.34	1225.58	29.32	10.58
7389.00	83.68	337.89	6595.36	1098.18	588.33	990.39	1245.85	28.18	2.86
7421.00	85.36	338.46	6598.42	1127.75	576.49	1021.47	1266.56	27.08	5.54

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7453.00	87.38	338.86	6600.44	1157.50	564.87	1052.68	1287.98	26.01	6.43
7484.00	88.05	339.18	6601.68	1186.42	553.78	1083.00	1309.30	25.02	2.39
7516.00	88.25	338.91	6602.71	1216.29	542.34	1114.31	1331.72	24.03	1.05
7547.00	89.80	339.09	6603.24	1245.22	531.24	1144.65	1353.81	23.10	5.03
7579.00	90.17	339.48	6603.25	1275.15	519.92	1176.00	1377.07	22.18	1.68
7643.00	90.91	339.07	6602.64	1335.01	497.27	1238.70	1424.61	20.43	1.32
7706.00	90.47	338.81	6601.88	1393.80	474.63	1300.34	1472.39	18.81	.81
7770.00	90.37	337.90	6601.41	1453.28	451.03	1362.83	1521.66	17.24	1.43
7834.00	90.07	337.91	6601.17	1512.58	426.95	1425.21	1571.68	15.76	.47
7897.00	90.17	337.84	6601.04	1570.94	403.23	1486.61	1621.87	14.40	.19
7960.00	89.83	338.33	6601.04	1629.39	379.71	1548.05	1673.05	13.12	.95
8023.00	90.00	338.93	6601.13	1688.06	356.76	1609.63	1725.34	11.93	.99
8087.00	89.63	338.24	6601.34	1747.64	333.39	1672.17	1779.15	10.80	1.22
8151.00	88.56	339.00	6602.35	1807.23	310.06	1734.72	1833.63	9.74	2.05
8214.00	88.52	339.16	6603.95	1866.05	287.57	1796.38	1888.08	8.76	.26
8278.00	89.19	339.47	6605.23	1925.92	264.97	1859.07	1944.06	7.83	1.15
8341.00	91.11	339.64	6605.07	1984.94	242.97	1920.86	1999.76	6.98	3.06
8404.00	90.34	339.08	6604.27	2043.89	220.76	1982.59	2055.78	6.16	1.51
8468.00	89.70	338.41	6604.25	2103.54	197.56	2045.17	2112.80	5.37	1.45
8531.00	90.81	338.56	6603.97	2162.15	174.45	2106.71	2169.18	4.61	1.78
8595.00	90.27	337.28	6603.36	2221.45	150.40	2169.09	2226.54	3.87	2.17
8659.00	90.03	335.83	6603.20	2280.17	124.94	2231.11	2283.59	3.14	2.30
8722.00	91.24	337.10	6602.50	2337.92	99.78	2292.14	2340.05	2.44	2.78
8786.00	91.07	339.12	6601.21	2397.29	75.93	2354.55	2398.49	1.81	3.17
8849.00	91.41	341.27	6599.84	2456.55	54.59	2416.45	2457.15	1.27	3.45
8913.00	91.41	341.14	6598.27	2517.11	33.97	2479.53	2517.34	.77	.20
8977.00	91.85	340.20	6596.45	2577.48	12.80	2542.50	2577.51	.28	1.62
9040.00	91.34	340.81	6594.70	2636.85	-8.22	2604.46	2636.86	359.82	1.26
9104.00	91.31	340.89	6593.22	2697.29	-29.21	2667.47	2697.45	359.38	.13
9168.00	91.14	341.42	6591.85	2757.84	-49.87	2730.55	2758.30	358.96	.87
9232.00	91.41	341.80	6590.42	2818.56	-70.06	2793.70	2819.43	358.58	.73
9295.00	90.54	341.81	6589.35	2878.40	-89.73	2855.91	2879.80	358.21	1.38
9359.00	90.47	341.79	6588.79	2939.20	-109.72	2919.12	2941.24	357.86	.11
9423.00	90.07	341.58	6588.49	2999.95	-129.83	2982.30	3002.76	357.52	.71
9486.00	90.07	341.50	6588.41	3059.71	-149.78	3044.48	3063.38	357.20	.13
9550.00	90.77	341.50	6587.94	3120.40	-170.08	3107.63	3125.04	356.88	1.09
9614.00	90.40	342.19	6587.29	3181.21	-190.02	3170.84	3186.88	356.58	1.22
9677.00	90.97	342.39	6586.53	3241.22	-209.19	3233.14	3247.97	356.31	.96
9741.00	90.70	341.65	6585.60	3302.09	-228.94	3296.37	3310.02	356.03	1.23
9804.00	91.21	341.13	6584.55	3361.79	-249.04	3358.51	3371.00	355.76	1.16
9868.00	90.97	341.26	6583.33	3422.36	-269.67	3421.60	3432.97	355.49	.43
9931.00	89.73	341.84	6582.95	3482.12	-289.61	3483.77	3494.14	355.25	2.17
9995.00	89.75	342.17	6583.24	3542.99	-309.38	3547.01	3556.47	355.01	.52
10058.00	90.47	341.76	6583.12	3602.89	-328.88	3609.26	3617.87	354.78	1.32
10122.00	91.14	341.87	6582.22	3663.69	-348.85	3672.46	3680.26	354.56	1.06

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
10186.00	91.98	341.42	6580.48	3724.41	-369.00	3735.62	3742.65	354.34	1.49
10249.00	91.28	341.86	6578.68	3784.18	-388.84	3797.78	3804.10	354.13	1.31
10313.00	90.03	342.69	6577.95	3845.13	-408.32	3861.07	3866.75	353.94	2.34
10377.00	89.97	343.31	6577.95	3906.34	-427.03	3924.47	3929.61	353.76	.97
10441.00	90.74	342.55	6577.56	3967.52	-445.82	3987.86	3992.49	353.59	1.69
10505.00	91.41	342.62	6576.36	4028.57	-464.97	4051.19	4055.32	353.42	1.05
10568.00	90.00	342.49	6575.58	4088.67	-483.85	4113.52	4117.20	353.25	2.25
10632.00	90.60	342.55	6575.25	4149.71	-503.08	4176.85	4180.09	353.09	.94
10695.00	91.51	342.08	6574.09	4209.72	-522.21	4239.14	4241.99	352.93	1.63
10759.00	90.87	341.70	6572.76	4270.54	-542.10	4302.35	4304.81	352.77	1.16
10823.00	90.77	342.61	6571.84	4331.45	-561.71	4365.61	4367.72	352.61	1.43
10886.00	89.70	341.86	6571.58	4391.45	-580.93	4427.90	4429.71	352.46	2.07
10950.00	89.50	341.20	6572.03	4452.15	-601.21	4491.06	4492.56	352.31	1.08
11014.00	90.13	341.62	6572.24	4512.81	-621.61	4554.20	4555.42	352.16	1.18
11078.00	90.00	341.90	6572.16	4573.59	-641.64	4617.40	4618.38	352.01	.48
11141.00	89.97	342.90	6572.18	4633.64	-660.69	4679.72	4680.51	351.89	1.59
11204.00	90.44	343.24	6571.95	4693.91	-679.04	4742.14	4742.77	351.77	.92
11268.00	89.80	343.20	6571.82	4755.19	-697.51	4805.57	4806.07	351.66	1.00
11332.00	89.80	343.10	6572.04	4816.44	-716.06	4869.00	4869.38	351.54	.16
11395.00	90.37	343.25	6571.95	4876.74	-734.30	4931.44	4931.71	351.44	.94
11459.00	90.84	343.37	6571.27	4938.04	-752.68	4994.88	4995.08	351.33	.76
11523.00	91.31	342.92	6570.07	4999.28	-771.23	5058.30	5058.42	351.23	1.02
11554.00	91.07	342.31	6569.43	5028.86	-780.49	5088.97	5089.07	351.18	2.11
Projection to TD									
11611.00	91.07	342.31	6568.36	5083.15	-797.81	5145.33	5145.38	351.08	.00