Company:	TRILOGY	Job Number:	PA-2529	Calculation Method	Minimum Curvature	8" Mud Mtr SN:	775-77259	8" Circ Hrs:
Field:	WATTENBERG	Magnetic Decl.:	8.64	Proposed Azimuth	**19.84**	Surface TD:	699'	8" Bit Hrs:
Cty/Blk/Par:	WELD	Grid Corr.:	TRUE	Depth Reference	RKB	6.5" Mud Mtr SN:	50-36B-051	6.5" Circ Hrs:
Well Name:	WIND 17-21	Total Survey Corr.:	8.64	Tie Into Drill SURFACE		Production TD:	7398	6.5" Bit Hrs:
Rig:	CADE 25	Target Info:	667' FNL & 1857 FWL			Spud Date:	24-Apr	Completion Date:

Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates N/S (ft)		Coordinates E/W (ft)		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')	Remarks
87	0.70	42.20	87	87.00	0.49	0.39	N	0.36	E	0.80	0.8	48.5	
179	0.70	26.60	92	178.99	1.57	1.31	N	0.99	E	0.21	0.0	-17.0	
270	0.80	33.20	91	269.98	2.74	2.34	N	1.58	E	0.15	0.1	7.3	
359	1.20	38.90	89	358.97	4.22	3.59	N	2.51	E	0.46	0.4	6.4	
449	1.80	41.30	90	448.94	6.43	5.38	N	4.03	E	0.67	0.7	2.7	
539	2.60	34.50	90	538.87	9.72	8.13	N	6.12	E	0.93	0.9	-7.6	
649	4.30	25.00	110	648.67	16.24	13.92	N	9.28	E	1.63	1.5	-8.6	**12.25" TD @ 699 MD**
722	4.70	22.90	73	721.44	21.95	19.16	N	11.60	E	0.59	0.5	-2.9	
816	6.70	24.60	94	814.97	31.27	27.69	N	15.38	E	2.13	2.1	1.8	
911	8.30	23.80	95	909.16	43.63	39.00	N	20.45	E	1.69	1.7	-0.8	
1005	9.80	21.30	94	1001.99	58.40	52.67	N	26.10	E	1.65	1.6	-2.7	
1100	11.00	19.90	95	1095.42	75.54	68.72	N	32.12	E	1.29	1.3	-1.5	
1194	11.30	18.30	94	1187.65	93.72	85.90	N	38.07	E	0.46	0.3	-1.7	
1289	11.00	13.40	95	1280.86	112.03	103.55	N	43.09	E	1.05	-0.3	-5.2	
1383	11.90	12.90	94	1372.99	130.56	121.72	N	47.33	E	0.96	1.0	-0.5	
1478	12.00	16.40	95	1465.93	150.14	140.74	N	52.31	E	0.77	0.1	3.7	
1573	12.20	19.90	95	1558.82	170.04	159.66	N	58.51	E	0.80	0.2	3.7	
1668	12.00	20.10	95	1651.71	189.95	178.37	N	65.32	E	0.22	-0.2	0.2	
1762	11.90	18.80	94	1743.67	209.41	196.72	N	71.80	E	0.31	-0.1	-1.4	
1856	12.40	20.90	94	1835.57	229.19	215.32	N	78.53	E	0.71	0.5	2.2	
1951	12.60	21.60	95	1928.31	249.75	234.49	N	85.98	E	0.26	0.2	0.7	
2046	12.30	20.90	95	2021.08	270.22	253.57	N	93.40	E	0.35	-0.3	-0.7	
2140	12.60	19.70	94	2112.87	290.49	272.58	N	100.43	E	0.42	0.3	-1.3	
2236	12.60	18.50	96	2206.56	311.43	292.37	N	107.28	E	0.27	0.0	-1.3	
2330	12.80	18.50	94	2298.26	332.09	311.97	N	113.84	E	0.21	0.2	0.0	
2424	13.80	22.20	94	2389.74	353.70	332.22	N	121.38	E	1.40	1.1	3.9	
2519	13.70	18.80	95	2482.02	376.27	353.36	N	129.29	E	0.86	-0.1	-3.6	
2613	12.90	18.50	94	2573.49	397.89	373.85	N	136.21	E	0.85	-0.9	-0.3	
2708	12.10	16.70	95	2666.24	418.43	393.44	N	142.43	E	0.94	-0.8	-1.9	
2803	12.90	19.50	95	2758.99	438.98	412.98	N	148.83	E	1.06	0.8	2.9	
2896	13.00	20.90	93	2849.63	459.82	432.54	N	156.03	E	0.35	0.1	1.5	
2991	11.50	20.10	95	2942.46	479.97	451.41	N	163.10	E	1.59	-1.6	-0.8	
3086	11.20	19.70	95	3035.60	498.67	468.99	N	169.46	E	0.33	-0.3	-0.4	
3180	9.80	17.80	94	3128.03	515.79	485.20	N	174.98	E	1.53	-1.5	-2.0	
3275	9.80	20.10	95	3221.64	531.96	500.49	N	180.23	E	0.41	0.0	2.4	
3369	10.60	23.90	94	3314.15	548.58	515.91	N	186.49	E	1.11	0.9	4.0	
3464	10.60	22.50	95	3407.53	566.03	531.97	N	193.37	E	0.27	0.0	-1.5	
3559	10.50	19.40	95	3500.93	583.41	548.21	N	199.59	E	0.61	-0.1	-3.3	
3652	10.50	18.00	93	3592.37	600.35	564.26	N	205.02	E	0.27	0.0	-1.5	
3747	10.70	15.10	95	3685.75	617.79	581.01	N	209.99	E	0.60	0.2	-3.1	
3842	10.50	13.20	95	3779.13	635.18	597.95	N	214.27	E	0.42	-0.2	-2.0	
3937	9.90	12.50	95	3872.63	651.88	614.35	N	218.01	E	0.64	-0.6	-0.7	
4032	9.80	15.50	95	3966.23	668.04	630.12	N	221.94	E	0.55	-0.1	3.2	
4128	11.10	20.10	96	4060.64	685.43	646.67	N	227.30	E	1.61	1.4	4.8	
4223	11.70	18.00	95	4153.76	704.20	664.42	N	233.42	E	0.77	0.6	-2.2	
4317	11.30	19.40	94	4245.87	722.94	682.17	N	239.42	E	0.52	-0.4	1.5	
4412	10.00	26.00	95	4339.24	740.45	698.36	N	246.13	E	1.87	-1.4	6.9	
4506	8.50	26.00	94	4432.01	755.47	711.94	N	252.76	E	1.60	-1.6	0.0	
4601	7.60	24.30	95	4526.08	768.71	723.98	N	258.42	E	0.98	-0.9	-1.8	
4696	7.30	23.80	95	4620.28	781.00	735.23	N	263.44	E	0.32	-0.3	-0.5	
4791	6.50	21.80	95	4714.59	792.39	745.74	N	267.87	E	0.88	-0.8	-2.1	
4886	4.50	18.70	95	4809.15	801.49	754.27	N	271.06	E	2.13	-2.1	-3.3	
4979	3.10	31.80	93	4901.94	807.60	759.86	N	273.56	E	1.76	-1.5	14.1	
5073	1.80	44.10	94	4995.85	811.43	763.08	N	275.93	E	1.48	-1.4	13.1	
5168	1.50	45.40	95	5090.81	813.92	765.02	N	277.85	E	0.32	-0.3	1.4	
5263	0.40	45.70	95	5185.80	815.34	766.13	N	278.97	E	1.16	-1.2	0.3	
5454	1.00	23.90	191	5376.78	817.60	768.12	N	280.12	E	0.34	0.3	-11.4	
5643	1.10	352.10	189	5565.75	820.85	771.42	N	280.54	E	0.31	0.1	173.7	
5833	1.10	254.60	190	5755.73	821.41	772.75	N	278.53	E	0.87	0.0	-51.3	
6022	0.80	228.70	189	5944.71	819.21	771.39	N	275.79	E	0.27	-0.2	-13.7	
6211	0.60	232.80	189	6133.69	817.22	769.92	N	274.01	E	0.11	-0.1	2.2	
6400	0.70	260.20	189	6322.68	815.82	769.13	N	272.09	E	0.17	0.1	14.5	
6588	1.00	260.40	188	6510.66	814.45	768.66	N	269.34	E	0.16	0.2	0.1	
6778	1.00	260.90	190	6700.63	812.83	768.12	N	266.07	E	0.00	0.0	0.3	
6968	0.70	264.40	190	6890.61	811.53	767.75	N	263.28	E	0.16	-0.2	1.8	
7159	0.30	284.60	191	7081.60	810.98	767.76	N	261.63	E	0.23	-0.2	10.6	
7348	0.30	339.50	189	7270.60	811.31	768.35	N	260.98	E	0.15	0.0	29.0	**TD SURVEY**
7398	0.30	339.50	50	7320.60	811.51	768.59	N	260.89	E	0.00	0.0	0.0	**BIT PROJECTION**

Surveys

N/S	E/W	VS	TVD
0.39	0.36	0.49	87.00
1.31	0.99	1.57	178.99
2.34	1.58	2.74	269.98
3.59	2.51	4.22	358.97
5.38	4.03	6.43	448.94
8.13	6.12	9.72	538.87
13.92	9.28	16.24	648.67
19.16	11.60	21.95	721.44
27.69	15.38	31.27	814.97
39.00	20.45	43.63	909.16
52.67	26.10	58.40	1001.99
68.72	32.12	75.54	1095.42
85.90	38.07	93.72	1187.65
103.55	43.09	112.03	1280.86
121.72	47.33	130.56	1372.99
140.74	52.31	150.14	1465.93
159.66	58.51	170.04	1558.82
178.37	65.32	189.95	1651.71
196.72	71.80	209.41	1743.67
215.32	78.53	229.19	1835.57
234.49	85.98	249.75	1928.31
253.57	93.40	270.22	2021.08
272.58	100.43	290.49	2112.87
292.37	107.28	311.43	2206.56
311.97	113.84	332.09	2298.26
332.22	121.38	353.70	2389.74
353.36	129.29	376.27	2482.02
373.85	136.21	397.89	2573.49
393.44	142.43	418.43	2666.24
412.98	148.83	438.98	2758.99
432.54	156.03	459.82	2849.63
451.41	163.10	479.97	2942.46
468.99	169.46	498.67	3035.60
485.20	174.98	515.79	3128.03
500.49	180.23	531.96	3221.64
515.91	186.49	548.58	3314.15
531.97	193.37	566.03	3407.53
548.21	199.59	583.41	3500.93
564.26	205.02	600.35	3592.37
581.01	209.99	617.79	3685.75
597.95	214.27	635.18	3779.13
614.35	218.01	651.88	3872.63
630.12	221.94	668.04	3966.23
646.67	227.30	685.43	4060.64
664.42	233.42	704.20	4153.76
682.17	239.42	722.94	4245.87
698.36	246.13	740.45	4339.24
711.94	252.76	755.47	4432.01
723.98	258.42	768.71	4526.08
735.23	263.44	781.00	4620.28
745.74	267.87	792.39	4714.59
754.27	271.06	801.49	4809.15
759.86	273.56	807.60	4901.94
763.08	275.93	811.43	4995.85
765.02	277.85	813.92	5090.81
766.13	278.97	815.34	5185.80
768.12	280.12	817.60	5376.78
771.42	280.54	820.85	5565.75
772.75	278.53	821.41	5755.73
771.39	275.79	819.21	5944.71
769.92	274.01	817.22	6133.69
769.13	272.09	815.82	6322.68
768.66	269.34	814.45	6510.66
768.12	266.07	812.83	6700.63
767.75	263.28	811.53	6890.61
767.76	261.63	810.98	7081.60
768.35	260.98	811.31	7270.60
768.59	260.89	811.51	7320.60
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