

## **Wellpath Geographic Report**

Report Date:	30-Jan-04	Grid Convergence Angle:	1.05 deg
Client:	ChevronTexaco	Grid Scale Factor:	0.999664
Field:	Captain	Survey / DLS Computation Method:	Minimum Curvature
Structure / Slot:	Captain WPP / Slot #18	Vertical Section Azimuth:	136.14 deg
Well Name:	13/22a-C24	Vertical Section Origin:	2.74S, 8.75W
Wellbore Name:	13/22a-C24 (AWB)	TVD Reference Datum:	RKB
Wellpath Name:	13/22a-C24 Definitive Survey	TVD Reference Elevation:	Rig ( Datum #2 155.0ft above Mean Sea Level )
Grid Coordinate System:	European Datum 1950 / UTM Zone 30 N	Sea Bed / Ground Level Elevation:	-345.50 ft to Mean Sea Level
Slot Location Lat/Long:	N58 18 26.9046, W1 46 6.8638	North Reference:	Grid
Slot Location Grid N/E Y/X:	6463750.4050 m, 572164.7640 m	Local Coordinates Referenced To:	Installation

							Grid Cod	ordinates	Geographic Coordinates				
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS	VS	Comment
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(m)	(m)			(deg/100ft)	(ft)	
0.00	0.00	0.00	0.00	-155.00	-2.74	-8.75	6463750.410	572164.760	N58 18 26.9046	W1 46 6.8638	0.00	0.00	
500.50	0.00	0.00	500.50	345.50	-2.74	-8.75	6463750.410	572164.760	N58 18 26.9046	W1 46 6.8638	0.00	0.00	
525.00	0.14	115.53	525.00	370.00	-2.75	-8.72	6463750.400	572164.770	N58 18 26.9045	W1 46 6.8633	0.57	0.03	
550.00	0.15	179.40	550.00	395.00	-2.80	-8.70	6463750.390	572164.780	N58 18 26.9040	W1 46 6.8628	0.61	0.08	
575.00	0.27	194.97	575.00	420.00	-2.89	-8.71	6463750.360	572164.780	N58 18 26.9031	W1 46 6.8631	0.53	0.13	
600.00	0.40	215.63	600.00	445.00	-3.02	-8.78	6463750.320	572164.760	N58 18 26.9019	W1 46 6.8643	0.70	0.18	
625.00	0.51	159.20	625.00	470.00	-3.19	-8.79	6463750.270	572164.750	N58 18 26.9002	W1 46 6.8646	1.76	0.30	
650.00	0.69	151.99	650.00	495.00	-3.43	-8.68	6463750.200	572164.790	N58 18 26.8978	W1 46 6.8626	0.78	0.55	
700.00	2.01	137.82	699.98	544.98	-4.34	-7.95	6463749.920	572165.010	N58 18 26.8887	W1 46 6.8493	2.70	1.71	
750.00	2.37	127.98	749.95	594.95	-5.63	-6.54	6463749.520	572165.440	N58 18 26.8757	W1 46 6.8235	1.04	3.61	
800.00	3.70	107.64	799.88	644.88	-6.75	-4.19	6463749.180	572166.150	N58 18 26.8642	W1 46 6.7798	3.38	6.05	
850.00	5.40	107.31	849.72	694.72	-7.94	-0.41	6463748.820	572167.310	N58 18 26.8518	W1 46 6.7094	3.40	9.53	
900.00	6.14	112.73	899.46	744.46	-9.68	4.31	6463748.290	572168.740	N58 18 26.8339	W1 46 6.6218	1.84	14.05	
950.00	6.56	119.18	949.16	794.16	-12.10	9.27	6463747.550	572170.250	N58 18 26.8091	W1 46 6.5298	1.65	19.23	
1000.00	6.91	125.29	998.81	843.81	-15.23	14.22	6463746.600	572171.760	N58 18 26.7774	W1 46 6.4383	1.59	24.92	
1050.00	7.44	128.43	1048.42	893.42	-18.98	19.21	6463745.460	572173.280	N58 18 26.7396	W1 46 6.3462	1.32	31.08	
1100.00	8.17	130.43	1097.96	942.96	-23.30	24.45	6463744.140	572174.880	N58 18 26.6961	W1 46 6.2496	1.56	37.83	
1150.00	9.37	132.05	1147.37	992.37	-28.33	30.17	6463742.610	572176.620	N58 18 26.6456	W1 46 6.1442	2.45	45.42	
1200.00	11.91	132.74	1196.51	1041.51	-34.56	36.99	6463740.710	572178.700		W1 46 6.0188	5.09	54.63	
1250.00	14.53	132.78	1245.18	1090.18	-42.32	45.38	6463738.340	572181.260	N58 18 26.5050	W1 46 5.8644	5.24	66.05	
1300.00	16.25	131.65	1293.39	1138.38	-51.23	55.21	6463735.630	572184.250	N58 18 26.4155	W1 46 5.6835	3.49	79.28	
1325.00	16.60	130.96	1317.37	1162.36	-55.90	60.52	6463734.210	572185.870	N58 18 26.3686	W1 46 5.5857	1.60	86.33	
1350.00	16.97	130.38	1341.30	1186.30	-60.60	66.00	6463732.770	572187.540	N58 18 26.3212	W1 46 5.4848	1.62	93.51	
1375.00	17.41	129.61	1365.18	1210.18	-65.35	71.66	6463731.330	572189.260	N58 18 26.2735	W1 46 5.3805	1.98	100.86	
1400.00	17.90	129.03	1389.01	1234.01	-70.15	77.53	6463729.860	572191.050	N58 18 26.2251	W1 46 5.2724	2.08	108.39	
1425.00	18.64	127.85	1412.74	1257.74	-75.03	83.66	6463728.380	572192.920	N58 18 26.1760	W1 46 5.1592	3.31	116.15	
1450.00	19.24	127.14	1436.39	1281.39	-79.96	90.10	6463726.880	572194.880	N58 18 26.1262	W1 46 5.0404	2.57	124.18	
1475.00	19.74	126.44	1459.96	1304.96	-84.96	96.78	6463725.350	572196.920	N58 18 26.0758	W1 46 4.9171	2.21	132.41	
							Page	e 1 of 6					

Page 1 of 6

							Grid Cod	ordinates	Geographic	Coordinates			
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS	VS	Comment
(ft)	(deg)	(deg)		(ft)	(ft)	(ft)	(m)	(m)			(deg/100ft)	(ft)	
1500.00	19.90	125.92	1483.48	1328.48	-89.96	103.63	6463723.830	572199.000	N58 18 26.0253	W1 46 4.7908	0.95	140.75	
1525.00	20.11	125.28	1506.97	1351.97			6463722.310		N58 18 25.9750	W1 46 4.6624	1.21	149.16	
1550.00	20.02	124.52	1530.45	1375.45			6463720.820	572203.270		W1 46 4.5324	1.10	157.57	
1575.00	20.20	124.22	1553.93	1398.93			6463719.340	572205.430		W1 46 4.4013	0.83	165.99	
1600.00	20.46	124.34	1577.37	1422.37	-109.59		6463717.850		N58 18 25.8268	W1 46 4.2687	1.05	174.49	
1625.00	20.71	123.99	1600.77	1445.77	-114.53		6463716.340		N58 18 25.7769	W1 46 4.1343	1.11	183.09	
1650.00	21.14	123.80	1624.13	1469.13			6463714.830		N58 18 25.7265	W1 46 3.9973	1.74	191.81	
1675.00	21.52	123.97	1647.41	1492.41	-124.58	154.12	6463713.280	572214.390	N58 18 25.6752	W1 46 3.8578	1.54	200.70	
1700.00	21.87	124.00	1670.64	1515.64		161.78	6463711.710		N58 18 25.6230	W1 46 3.7161	1.40	209.73	
1713.00	21.92	124.23	1682.70	1527.70			6463710.880	572217.950	N58 18 25.5955	W1 46 3.6420	0.76	214.48	
1725.00	21.97	124.45	1693.84	1538.83			6463710.110		N58 18 25.5699	W1 46 3.5735	0.80	218.87	
1750.00	22.33	125.04	1716.99	1561.99			6463708.470		N58 18 25.5156	W1 46 3.4305	1.69	228.11	
1775.00	22.89	125.47	1740.07	1585.07			6463706.780		N58 18 25.4595	W1 46 3.2855	2.34	237.54	
1800.00	23.51	125.64	1763.05	1608.05		193.10	6463705.040		N58 18 25.4017	W1 46 3.1375	2.49	247.23	
1825.00	24.33	125.91	1785.90	1630.90		201.33	6463703.230	572228.770	N58 18 25.3418	W1 46 2.9857	3.31	257.20	
1850.00	25.33	126.13	1808.59	1653.59			6463701.350		N58 18 25.2795	W1 46 2.8289	4.02	267.53	
1875.00	26.58	126.67	1831.07	1676.07	-170.23	218.62	6463699.370		N58 18 25.2139	W1 46 2.6664	5.09	278.32	
1900.00	27.70	126.93	1853.31	1698.31	-177.06		6463697.290		N58 18 25.1450	W1 46 2.4978	4.51	289.57	
1925.00	28.76	127.34	1875.34	1720.34			6463695.110		N58 18 25.0730	W1 46 2.3239	4.31	301.25	
1950.00	29.99	127.31	1897.12	1742.12			6463692.850		N58 18 24.9980	W1 46 2.1439	4.92	313.37	
1975.00	31.10	127.49	1918.66	1763.65			6463690.500		N58 18 24.9202	W1 46 1.9577	4.46	325.92	
2000.00	31.82	127.68	1939.98	1784.98			6463688.070		N58 18 24.8399	W1 46 1.7670		338.83	
2025.00	32.89	127.87	1961.10	1806.10			6463685.570		N58 18 24.7573	W1 46 1.5719	4.30	352.06	
2050.00	33.81	128.04	1981.98	1826.98			6463683.000		N58 18 24.6721	W1 46 1.3720	3.70	365.67	
2075.00	34.72	128.25	2002.64	1847.64			6463680.350	572258.790		W1 46 1.1679	3.67	379.61	
2100.00	35.15	128.63	2023.14	1868.14			6463677.640	572262.210		W1 46 0.9611	1.93	393.79	
2125.00	35.98	128.55	2043.47	1888.47	-250.63		6463674.870	572265.670		W1 46 0.7515	3.33	408.21	
2150.00	36.74	128.69	2063.61	1908.61	-259.88		6463672.060	572269.200		W1 46 0.5380	3.06	422.90	
2175.00	37.66	128.98	2083.52	1928.52			6463669.170	572272.790		W1 46 0.3209	3.75	437.89	
2200.00	38.54	128.99	2103.19	1948.19			6463666.210	572276.440		W1 46 0.0999	3.52	453.20	
2225.00	39.44	129.39	2122.62	1967.62			6463663.180	572280.160		W1 45 59.8752	3.74	468.81	
2250.00	40.69	129.74	2141.76	1986.76			6463660.060	572283.940		W1 45 59.6466	5.08	484.80	
2275.00	41.60	129.88	2160.58	2005.58			6463656.850		N58 18 23.8077	W1 45 59.4138	3.66	501.15	
2300.00	42.31	130.02	2179.17	2024.17		407.81	6463653.580	572291.690	N58 18 23.6996	W1 45 59.1777	2.86	517.76	
2325.00	43.46	130.35	2197.49	2042.49		420.81	6463650.240		N58 18 23.5892	W1 45 58.9382	4.69	534.68	
2350.00	44.67	130.46	2215.45	2060.45	-342.76	434.05	6463646.800	572299.680	N58 18 23.4758	W1 45 58.6944	4.85	551.98	
2375.00	45.73	130.71	2233.07	2078.07		447.52	6463643.280		N58 18 23.3597	W1 45 58.4462	4.30	569.64	
2400.00	46.62	130.87	2250.38	2095.38			6463639.690		N58 18 23.2412	W1 45 58.1948	3.59	587.60	
2425.00	47.43	131.21	2267.42	2112.42			6463636.040		N58 18 23.1204	W1 45 57.9407	3.39	605.82	
2450.00	48.57	131.68	2284.15	2129.15			6463632.290	572316.400		W1 45 57.6844	4.77	624.33	
2475.00	49.41	131.94		2145.56			6463628.460	572320.680		W1 45 57.4256	3.45	643.14	
2500.00	50.09	132.22	2316.71	2161.71	-415.76		6463624.560	572324.990		W1 45 57.1650	2.85	662.18	
2522.00	50.89	132.43	2330.70	2175.71	-427.19		6463621.080	572328.820	N58 18 22.6270	W1 45 56.9341	3.71	679.11	
2525.00	51.00	132.46	2332.60	2177.60			6463620.600				3.75	681.44	
							Page	e 2 of 6					

							Grid Cod	ordinates	Geographic	Coordinates			
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS	<b>VS</b>	Comment
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(m)	(m)			(deg/100ft)	(ft)	
2550.00	51.89	132.74	2348.18	2193.18	-441.99	545.78	6463616.570	572333.730	N58 18 22.4783	W1 45 56.6377	3.67	700.95	
2575.00	52.31	133.16	2363.53	2208.53	-455.43		6463612.470	572338.130		W1 45 56.3721	2.14	720.65	
2582.00	52.56	133.24	2367.80	2212.80	-459.23		6463611.310	572339.360		W1 45 56.2977	3.68	726.19	
2600.00	53.19	133.45	2378.67	2223.67	-469.08		6463608.310	572342.540		W1 45 56.1058	3.62	740.52	
2625.00	54.23	133.80	2393.46	2238.46	-482.99		6463604.080	572346.980		W1 45 55.8377	4.31	760.65	
2650.00	55.09	134.03	2407.92	2252.92	-497.13		6463599.770	572351.460		W1 45 55.5676		781.03	
2675.00	55.74	134.11	2422.11	2267.11	-511.44		6463595.400	572355.970		W1 45 55.2958	2.61	801.60	
2700.00	56.46	134.46	2436.06	2281.06	-525.93		6463590.990		N58 18 21.6356	W1 45 55.0228	3.11	822.34	
2725.00		134.71	2449.62	2294.62	-540.67		6463586.500	572365.050		W1 45 54.7480		843.33	
2750.00		135.25	2462.72	2307.72	-555.73		6463581.910	572369.640		W1 45 54.4714	4.95	864.62	
2760.00	59.19	135.46	2467.86	2312.86	-561.83		6463580.050	572371.470		W1 45 54.3607	2.84	873.19	
2775.00	59.51	135.78	2475.51	2320.51	-571.05		6463577.240	572374.220		W1 45 54.1950		886.10	
2800.00		136.13	2488.13	2333.13	-586.56		6463572.520	572378.800		W1 45 53.9195		907.68	
2825.00		136.19	2500.63	2345.63	-602.18		6463567.760	572383.360		W1 45 53.6443	1.14	929.33	
2850.00	60.49	136.32	2513.01	2358.01	-617.87		6463562.980	572387.940		W1 45 53.3687	1.47	951.05	
2875.00	60.39	136.32	2525.34	2370.34	-633.60		6463558.180	572392.520		W1 45 53.0931	0.40	972.80	
2900.00	60.44	136.57	2537.68	2382.68	-649.35		6463553.380	572397.080		W1 45 52.8182		994.54	
2925.00	60.60	136.71	2549.99	2394.99	-665.18		6463548.560	572401.630		W1 45 52.5440		1016.30	
2950.00	60.70	136.65	2562.24	2407.24	-681.03		6463543.730	572406.190		W1 45 52.2697		1038.09	
2975.00		136.68	2574.48	2419.48	-696.89		6463538.900	572410.750		W1 45 51.9952		1059.89	
3025.00	61.06	136.40	2598.81	2443.81	-728.59		6463529.240	572419.900		W1 45 51.4439		1103.56	
3050.00	61.00	136.39	2610.92	2455.92	-744.43		6463524.410	572424.500		W1 45 51.1671	0.24	1125.44	
3075.00		136.47	2623.04	2468.04	-760.27		6463519.590	572429.090		W1 45 50.8905		1147.30	
3100.00	61.16	136.34	2635.14	2480.14	-776.12	873.84	6463514.760	572433.690	N58 18 19.1281	W1 45 50.6137	0.82	1169.18	
3150.00	61.45	136.23	2659.14	2504.14	-807.82		6463505.100	572442.920		W1 45 50.0574	0.61	1213.04	
3175.00	61.66	136.13	2671.05	2516.05	-823.68	919.37	6463500.270	572447.560	N58 18 18.6514	W1 45 49.7780	0.91	1235.02	
3200.00	61.70	136.27	2682.91	2527.91	-839.56	934.61		572452.200		W1 45 49.4985		1257.03	
3225.00	62.31	136.34	2694.65	2539.65	-855.52	949.86	6463490.560	572456.850	N58 18 18.3322	W1 45 49.2186	2.45	1279.10	
3250.00	63.41	136.49	2706.05	2551.05	-871.64	965.19	6463485.650	572461.520	N58 18 18.1707	W1 45 48.9372	4.43	1301.35	
3275.00	65.03	136.68	2716.92	2561.92	-887.99	980.66	6463480.670	572466.240	N58 18 18.0069	W1 45 48.6533	6.52	1323.86	
3300.00	66.32	136.70	2727.22	2572.22	-904.57	996.29	6463475.620	572471.000	N58 18 17.8408	W1 45 48.3666	5.16	1346.64	
3325.00	66.87	136.66	2737.15	2582.15	-921.26	1012.03	6463470.540	572475.790	N58 18 17.6735	W1 45 48.0778	2.20	1369.58	
3350.00	67.25	136.31	2746.89	2591.89	-937.95	1027.88	6463465.450	572480.620	N58 18 17.5062	W1 45 47.7869	1.99	1392.61	
3375.00	67.87	135.97	2756.44	2601.44	-954.61	1043.89	6463460.370	572485.500	N58 18 17.3392	W1 45 47.4931	2.78	1415.71	
3400.00	68.31	135.89	2765.77	2610.77	-971.28	1060.03	6463455.290	572490.420	N58 18 17.1722	W1 45 47.1969	1.78	1438.91	
3425.00	68.75	135.81	2774.92	2619.92	-987.97	1076.23	6463450.210	572495.350	N58 18 17.0048	W1 45 46.8995	1.79	1462.17	
3450.00		135.62	2783.82	2628.82	-1004.70		6463445.110	572500.330	N58 18 16.8372	W1 45 46.6000	3.24	1485.53	
3475.00		135.45	2792.47	2637.47			6463440.010	572505.330		W1 45 46.2983	1.83	1508.99	
3500.00		135.48	2800.93	2645.93			6463434.900	572510.360		W1 45 45.9954	2.04	1532.51	
3525.00		135.41	2809.17	2654.17			6463429.780	572515.400		W1 45 45.6913	2.10	1556.11	
3530.00		135.40	2810.80	2655.80			6463428.750	572516.420	N58 18 16.2987	W1 45 45.6304	1.41	1560.84	
3550.00	71.34	135.38	2817.24	2662.24			6463424.640	572520.470		W1 45 45.3862		1579.77	
3575.00		135.21	2825.18	2670.18			6463419.510	572525.550	N58 18 15.9946	W1 45 45.0800		1603.47	
3600.00		135.23	2832.93		-1105.59		6463414.370			W1 45 44.7725		1627.24	
								e 3 of 6					

							Grid Coordinates Geographic Coordinates						
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS	VS	Comment
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(m)	(m)	•		(deg/100ft)	(ft)	
3625.00	72.89	135.23	2840.41	2685.41	-1122.52	1208.86	6463409.210	572535.770	N58 18 15.6556	W1 45 44.4640	2.52	1651.09	
3650.00	73.50	135.29	2847.64	2692.64			6463404.030	572540.900		W1 45 44.1546	2.45	1675.02	
3675.00	74.01	135.36	2854.64	2699.64			6463398.830	572546.040		W1 45 43.8448	2.06	1699.02	
3700.00	74.55	135.34	2861.41	2706.41			6463393.610		N58 18 15.1423	W1 45 43.5342	2.16	1723.08	
3725.00	75.25	135.51	2867.92	2712.92			6463388.370	572556.360		W1 45 43.2232	2.88	1747.21	
3750.00	76.29	135.52	2874.07	2719.07			6463383.110		N58 18 14.7965	W1 45 42.9114	4.16	1771.45	
3775.00	76.83	135.43	2879.88	2724.88			6463377.820		N58 18 14.6227	W1 45 42.5983	2.19	1795.76	
3800.00	77.12	135.74	2885.51	2730.51			6463372.520		N58 18 14.4482	W1 45 42.2854	1.67	1820.11	
3825.00	77.85	135.97	2890.93	2735.93			6463367.190		N58 18 14.2726	W1 45 41.9733	3.06	1844.52	
3850.00	78.36	136.18	2896.08	2741.08			6463361.820		N58 18 14.0960	W1 45 41.6619	2.20	1868.98	
3875.00	78.78	136.24	2901.04	2746.04			6463356.430		N58 18 13.9187	W1 45 41.3507	1.70	1893.49	
3900.00	79.31	136.22	2905.79	2750.79			6463351.030		N58 18 13.7411	W1 45 41.0391	2.12	1918.03	
3925.00	79.76	136.13	2910.33	2755.33			6463345.620	572597.800		W1 45 40.7267	1.83	1942.62	
3950.00	80.09	136.07	2914.70	2759.70			6463340.220	572603.000		W1 45 40.4134	1.34	1967.23	
3975.00	80.54	136.15	2918.91	2763.91			6463334.810		N58 18 13.2075	W1 45 40.0999	1.83	1991.87	
4000.00	81.26	136.12		2767.86			6463329.390	572613.420		W1 45 39.7859	2.88	2016.56	
4025.00	81.58	136.00	2926.59	2771.59			6463323.960		N58 18 12.8507	W1 45 39.4711	1.37	2041.28	
4050.00	81.67	136.01	2930.23	2775.23			6463318.540	572623.880		W1 45 39.1558	0.36	2066.01	
4075.00	82.03	135.88	2933.78	2778.78			6463313.120	572629.120		W1 45 38.8399	1.53	2090.76	
4100.00	82.54	135.91	2937.13	2782.13			6463307.700		N58 18 12.3157	W1 45 38.5235	2.04	2115.53	
4125.00	82.66	135.72	2940.35	2785.35			6463302.280		N58 18 12.1375	W1 45 38.2063	0.89	2140.32	
4150.00	83.21	135.65	2943.43	2788.43			6463296.880	572644.920		W1 45 37.8881	2.22	2165.13	
4175.00	83.94	135.66	2946.22	2791.22			6463291.460	572650.210		W1 45 37.5693	2.92	2189.98	
4200.00	84.26	135.68	2948.79	2793.79			6463286.040		N58 18 11.6030	W1 45 37.2503	1.28	2214.84	
4225.00	84.55	135.60	2951.23	2796.23			6463280.620	572660.810		W1 45 36.9309	1.20	2239.72	
4250.00	84.78	135.62	2953.56	2798.56			6463275.200	572666.110		W1 45 36.6113	0.92	2264.61	
4275.00	84.70	135.72	2955.85	2800.85			6463269.780	572671.410		W1 45 36.2919	0.51	2289.51	
4295.00	84.64	135.66	2957.71	2802.71	-1594.39		6463265.430	572675.650		W1 45 36.0366	0.42	2309.42	
4300.00	84.63	135.65	2958.17	2803.17			6463264.350	572676.710	N58 18 10.8892	W1 45 35.9727	0.28	2314.40	
4325.00	84.69	135.64	2960.50	2805.50			6463258.930	572682.010	N58 18 10.7107	W1 45 35.6532	0.24	2339.29	
4350.00	84.55	135.56	2962.84	2807.84			6463253.510	572687.320	N58 18 10.5324	W1 45 35.3335	0.64	2364.18	
4375.00	84.63	135.53	2965.20	2810.20			6463248.100	572692.630		W1 45 35.0135	0.34	2389.06	
4400.00	84.74	135.36	2967.52	2812.52			6463242.690	572697.950		W1 45 34.6928	0.81	2413.96	
4425.00	84.64	135.39	2969.83	2814.83			6463237.290	572703.280	N58 18 9.9987	W1 45 34.3718	0.42	2438.85	
4450.00	83.79	135.33	2972.35	2817.35			6463231.900	572708.610	N58 18 9.8212	W1 45 34.0509	3.41	2463.72	
4475.00	83.19	135.09			-1722.07		6463226.530	572713.940	N58 18 9.6444	W1 45 33.7296	2.58	2488.55	
4500.00	82.93	135.04	2978.21	2823.21			6463221.180	572719.280	N58 18 9.4682	W1 45 33.4077	1.06	2513.36	
4525.00	83.18	135.24		2826.23			6463215.820	572724.610	N58 18 9.2918	W1 45 33.0862	1.28	2538.18	
4550.00	83.41	135.72		2829.15			6463210.420	572729.920	N58 18 9.1143	W1 45 32.7666	2.12	2563.00	
4575.00	83.09	135.91	2987.09	2832.09			6463205.000	572735.190	N58 18 8.9358	W1 45 32.4490	1.49	2587.83	
4600.00	82.85	136.01	2990.15	2835.15			6463199.560	572740.440	N58 18 8.7570	W1 45 32.1324	1.04	2612.64	
4625.00	82.68	136.16	2993.29	2838.29			6463194.120	572745.690	N58 18 8.5779	W1 45 31.8167	0.90	2637.44	
4650.00	82.93	136.24	2996.43	2841.43			6463188.660	572750.920	N58 18 8.3984	W1 45 31.5017	1.05	2662.25	
4660.00	83.16	136.38		2842.64			6463186.480		N58 18 8.3265	W1 45 31.3759	2.69	2672.17	
3.22.30		22.20				30		e 4 of 6					

							Grid Coordinates Geographic Coordinates						
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS	VS	Comment
(ft)	(deg)	(deg)		(ft)	(ft)	(ft)	(m)	(m)	•		(deg/100ft)	(ft)	
4675.00	83.50	136.59	2999.38	2844.38	-1864.32	1932.08	6463183.190	572756.130	N58 18 8.2182	W1 45 31.1877	2.66	2687.07	
4700.00	84.06	136.63	3002.09	2847.09	-1882.39	1949.16	6463177.680	572761.330	N58 18 8.0372	W1 45 30.8745	2.25	2711.92	
4725.00	84.19	136.58	3004.65	2849.65		1966.24	6463172.180	572766.540	N58 18 7.8561	W1 45 30.5610	0.56	2736.79	
4750.00	84.01	136.60	3007.22	2852.22			6463166.670	572771.750	N58 18 7.6751	W1 45 30.2475	0.72	2761.66	
4775.00	83.68	136.51	3009.90	2854.90	-1936.57	2000.42	6463161.170	572776.950	N58 18 7.4943	W1 45 29.9340	1.37	2786.51	
4800.00	84.20	136.39	3012.54	2857.54	-1954.58	2017.55	6463155.680	572782.170	N58 18 7.3137	W1 45 29.6197	2.13	2811.37	
4825.00	84.88	136.40	3014.91	2859.91	-1972.61		6463150.190	572787.400	N58 18 7.1331	W1 45 29.3048	2.72	2836.26	
4850.00	85.36	136.28	3017.04	2862.04	-1990.63	2051.91	6463144.700	572792.640	N58 18 6.9525	W1 45 28.9893	1.98	2861.17	
4875.00	85.59	136.28	3019.01	2864.01	-2008.64	2069.14	6463139.210	572797.890	N58 18 6.7719	W1 45 28.6732	0.92	2886.09	
4900.00	85.70	136.40	3020.91	2865.91	-2026.67	2086.35	6463133.720	572803.130	N58 18 6.5912	W1 45 28.3574	0.65	2911.02	
4925.00	85.71	136.35	3022.78	2867.78	-2044.72	2103.55	6463128.220	572808.380	N58 18 6.4103	W1 45 28.0419	0.20	2935.95	
4950.00	85.55	136.28	3024.69	2869.69	-2062.74	2120.76	6463122.730	572813.620	N58 18 6.2296	W1 45 27.7260	0.70	2960.87	
4975.00	85.53	136.33	3026.63	2871.63	-2080.76	2137.98	6463117.240	572818.870	N58 18 6.0490	W1 45 27.4100	0.21	2985.80	
5000.00	85.55	136.38	3028.58	2873.58	-2098.80	2155.18	6463111.740	572824.110	N58 18 5.8682	W1 45 27.0944	0.21	3010.72	
5020.00	86.14	136.33	3030.03	2875.03	-2113.24	2168.95	6463107.340	572828.300	N58 18 5.7236	W1 45 26.8418	2.96	3030.67	
5025.00	86.29	136.32	3030.36	2875.36	-2116.84	2172.40	6463106.240	572829.350	N58 18 5.6874	W1 45 26.7786	3.01	3035.66	
5050.00	87.15	136.19	3031.79	2876.79	-2134.87	2189.65	6463100.750	572834.610	N58 18 5.5067	W1 45 26.4619	3.48	3060.62	
5075.00	87.46	135.98	3032.96	2877.96	-2152.86	2206.97	6463095.270	572839.890	N58 18 5.3263	W1 45 26.1441	1.50	3085.59	
5100.00	87.99	136.03	3033.95	2878.95			6463089.790	572845.180	N58 18 5.1462	W1 45 25.8257	2.13	3110.57	
5125.00	89.00	135.96	3034.61	2879.61	-2188.81	2241.69	6463084.320	572850.470	N58 18 4.9660	W1 45 25.5070	4.05	3135.56	
5168.00	89.51	135.35	3035.17	2880.17	-2219.56	2271.74	6463074.950	572859.620	N58 18 4.6577	W1 45 24.9554	1.85	3178.56	
5332.00	90.37	132.20	3035.34	2880.34		2390.14	6463040.380	572895.700	N58 18 3.5188	W1 45 22.7793	1.99	3342.39	
5416.00	90.71	130.45	3034.55	2879.55	-2388.47	2453.22	6463023.480	572914.920	N58 18 2.9610	W1 45 21.6184	2.12	3426.09	
5511.00	89.14	131.04	3034.68	2879.67	-2450.47	2525.19	6463004.590	572936.850	N58 18 2.3373	W1 45 20.2933	1.77	3520.67	
5605.00	89.77	130.91	3035.57	2880.57	-2512.11	2596.16	6462985.810	572958.470	N58 18 1.7173	W1 45 18.9869	0.68	3614.28	
5698.00	89.74	130.25	3035.97	2880.97	-2572.60	2666.79	6462967.370	572979.990	N58 18 1.1086	W1 45 17.6864	0.71	3706.84	
5794.00	90.46	129.09	3035.80	2880.80		2740.68	6462948.700	573002.510	N58 18 0.4915	W1 45 16.3251	1.42	3802.23	
5887.00	90.20	129.25	3035.26	2880.26			6462930.800	573024.480		W1 45 14.9966	0.33	3894.54	
5980.00	90.26	130.38	3034.89	2879.89		2884.21	6462912.660	573046.240	N58 17 59.3003	W1 45 13.6808	1.22	3986.97	
6072.00	89.89	130.37	3034.77	2879.77	-2811.77	2954.30	6462894.500	573067.600	N58 17 58.7005	W1 45 12.3902	0.40	4078.51	
6162.00	89.51	130.97	3035.24	2880.24	-2870.42	3022.56	6462876.630	573088.400	N58 17 58.1104	W1 45 11.1334	0.79	4168.09	
6250.00	91.00	131.03	3034.85	2879.85	-2928.15	3088.97	6462859.040	573108.630	N58 17 57.5297	W1 45 9.9109	1.69	4255.74	
6344.00	89.86	129.19	3034.14	2879.14	-2988.70	3160.86	6462840.590	573130.540	N58 17 56.9202	W1 45 8.5871	2.30	4349.21	
6436.00	89.83	130.13	3034.39	2879.39	-3047.42	3231.69	6462822.700	573152.120	N58 17 56.3289	W1 45 7.2824	1.02	4440.62	
6525.00	90.09	130.09	3034.45	2879.45		3299.75	6462805.230	573172.860	N58 17 55.7517	W1 45 6.0289	0.30	4529.13	
6618.00	89.80	129.55	3034.54	2879.54	-3164.31	3371.18	6462787.080	573194.620	N58 17 55.1521	W1 45 4.7132	0.66	4621.56	
6709.00	89.63	130.18	3035.00	2880.00			6462769.310		N58 17 54.5649	W1 45 3.4268	0.72	4712.02	
6800.00	90.86	129.80	3034.61	2879.61			6462751.490		N58 17 53.9761	W1 45 2.1428	1.41	4802.49	
6891.00	89.83	129.73	3034.06	2879.06			6462733.760		N58 17 53.3901	W1 45 0.8544	1.13	4892.93	
6983.00	91.37	130.83	3033.10	2878.10			6462715.630		N58 17 52.7915	W1 44 59.5622	2.06	4984.44	
7075.00	93.20	131.19	3029.43	2874.43			6462697.250	573300.980		W1 44 58.2855	2.03	5075.99	
7166.00	93.32	131.90	3024.25	2869.25			6462678.900	573321.700		W1 44 57.0344	0.79	5166.55	
7256.00	92.00	131.35	3020.08	2865.08			6462660.700	573342.170		W1 44 55.7980	1.59	5256.17	
7348.00	93.95	131.61	3015.30	2860.30			6462642.160			W1 44 54.5315	2.14	5347.74	
30								e 5 of 6				_	

_							Grid Cod	ordinates	Geographic				
MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Northing	Easting	Latitude	Longitude	DLS '	<b>VS</b>	Comment
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(m)	(m)			(deg/100ft)	(ft)	
7441.00	93.06	132.10	3009.62	2854.62	-3701.88	3993.41	6462623.290	573384.210	N58 17 49.7437	W1 44 53.2596	1.09	5440.31	_
7532.00	92.11	133.45	3005.51	2850.51	-3763.61	4060.13	6462604.480	573404.540	N58 17 49.1234	W1 44 52.0329	1.81	5531.05	
7624.00	93.15	135.82	3001.29	2846.29	-3828.18	4125.52	6462584.800	573424.470	N58 17 48.4755	W1 44 50.8320	2.81	5622.92	
7716.00	92.66	136.73	2996.63	2841.63	-3894.58	4189.03	6462564.570	573443.820	N58 17 47.8099	W1 44 49.6671	1.12	5714.80	
7806.00	90.31	138.65	2994.30	2839.29	-3961.10	4249.59		573462.270	N58 17 47.1436	W1 44 48.5575	3.37	5804.72	
7898.00	89.37	142.39	2994.55	2839.55	-4032.10	4308.07	6462522.670	573480.090	N58 17 46.4336	W1 44 47.4881	4.19	5896.44	
7988.00	90.06	144.20	2995.00	2840.00	-4104.25	4361.86	6462500.680	573496.480	N58 17 45.7131	W1 44 46.5071	2.15	5985.73	
8081.00	89.51	147.38	2995.35	2840.35	-4181.15	4414.14	6462477.250	573512.410	N58 17 44.9461	W1 44 45.5559	3.47	6077.40	
8188.00	90.29	150.47	2995.53	2840.54	-4272.78	4469.36	6462449.330	573529.230	N58 17 44.0334	W1 44 44.5548	2.98	6181.73	
8264.00	90.57	151.98	2994.97	2839.97	-4339.39	4505.94	6462429.040	573540.380	N58 17 43.3707	W1 44 43.8937	2.02	6255.11	
8356.00	90.11	152.06	2994.42	2839.42	-4420.64	4549.10	6462404.280	573553.530	N58 17 42.5625	W1 44 43.1146	0.51	6343.60	
8451.00	88.37	151.36	2995.68	2840.68	-4504.28	4594.12	6462378.800	573567.250	N58 17 41.7305	W1 44 42.3016	1.97	6435.10	
8544.00	88.20	152.06	2998.46	2843.46	-4586.14	4638.18	6462353.860	573580.670	N58 17 40.9162	W1 44 41.5061	0.77	6524.64	
8635.00	87.86	152.17	3001.59	2846.59	-4666.52	4680.71	6462329.360	573593.630	N58 17 40.1166	W1 44 40.7384	0.39	6612.08	
8726.00	87.77	151.50	3005.06	2850.06	-4746.69	4723.64	6462304.940	573606.710	N58 17 39.3191	W1 44 39.9635	0.74	6699.62	
8816.00	88.71	150.58	3007.82	2852.82	-4825.40	4767.19	6462280.950	573619.980	N58 17 38.5359	W1 44 39.1762	1.46	6786.55	
8910.00	88.83	150.30	3009.84	2854.84	-4907.14	4813.56	6462256.050	573634.110	N58 17 37.7223	W1 44 38.3375	0.32	6877.62	
9001.00	88.86	149.42	3011.68	2856.68	-4985.82	4859.24	6462232.070	573648.030	N58 17 36.9389	W1 44 37.5104	0.97	6966.00	
9094.00	89.11	148.83	3013.32	2858.32	-5065.63	4906.95	6462207.760	573662.570	N58 17 36.1441	W1 44 36.6457	0.69	7056.61	
9185.00	88.40	148.77	3015.30	2860.30	-5143.45	4954.08	6462184.040	573676.930	N58 17 35.3690	W1 44 35.7914	0.78	7145.37	
9259.00	88.00	148.77	3017.63	2862.63	-5206.69	4992.43	6462164.770	573688.610	N58 17 34.7390	W1 44 35.0961	0.54	7217.54	