DIRECTIONAL SURVEY FOR WELL L016-12
RAW DATA

WELL No. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

No.	MEASURED DEPTH	DEVIATION ANGLE	ORIENTATION
1	583	11.00	N - 10.00 - W
2	772	10.75	N - 5.00 - W
3	850	10.75	N - 6.00 - W
4	976	12.75	N - 6.00 - W
5	1101	16.00	N - 4.00 - W
6	1228	19.00	N - 4.00 - W
7	1355	22.75	N - 5.00 - W
8	1457	23.25	N - 4.00 - W
9	1610	23.25	N - 4.00 - W
10	1763	23.25	N - 1.50 - W
11	1946	23.50	N - 1.00 - W
12	2132	23.50	N - 1.00 - W
13	2285	23.50	N - 0.00 - E
14	2438	23.00	N - 1.00 - W
15	2625	23.00	N - 1.00 - W
16	2813	23.25	N - 1.00 - E
17	2970	23.25	N - 2.00 - W
18	3123	22.75	N - 1.00 - W
19	3250	22.75	N - 1.00 - E
20	3377	23.00	N - 1.00 - W
21	3427	22.25	N - 9.00 - E
22	3521	21.00	N - 11.00 - E
23	3646	20.50	N - 12.00 - E
24	3771	19.00	N - 13.00 - E
25	3949	19.75	N - 17.00 - E
26	4108	19.00	N - 15.00 - E
27	4242	18.75	N - 15.00 - E
28	4366	17.50	N - 14.00 - E
29	4496	16.00	N - 17.00 - E
30	4587	15.75	N - 19.50 - E
31	4710	15.50	N - 21.50 - E
32	4897	16.75	N - 26.00 - E
33	5018	18.50	N - 25.50 - E
34	5143	20.00	N - 29.00 - E
35	5330	21.00	N - 31.00 - E
36	5487	20.75	N - 34.00 - E
37	5736	19.00	N - 38.00 - E
38	6141	16.75	N - 53.00 - E
39	6388	15.50	N - 60.00 - E
40	6904	13.25	N - 79.00 - E
41	7680	15.00	S - 59.00 - E
42	7729	15.25	S - 57.50 - E

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
*	370	357.39	307.39	N 92.61	E	24.36	95.76	*
	380	367.06	317.06	N 95.12	E	23.92	98.09	
	390	376.73	326.73	N 97.61	E	23.48	100.40	
	400	386.42	336.42	N 100.07	E	23.05	102.69	
	410	396.11	346.11	N 102.49	E	22.62	104.96	
	420	405.81	355.81	N 104.88	E	22.20	107.21	
	430	415.52	365.52	N 107.24	E	21.78	109.43	
	440	425.23	375.23	N 109.57	E	21.37	111.64	
	450	434.96	384.96	N 111.87	E	20.96	113.82	
	460	444.69	394.69	N 114.14	E	20.56	115.98	
	470	454.43	404.43	N 116.38	E	20.17	118.11	
	480	464.17	414.17	N 118.58	E	19.78	120.22	
	490	473.93	423.93	N 120.75	E	19.40	122.30	
	500	483.69	433.69	N 122.89	E	19.02	124.36	
	510	493.46	443.46	N 125.00	E	18.65	126.39	
	520	503.23	453.23	N 127.08	E	18.28	128.39	
	530	513.01	463.01	N 129.13	E	17.92	130.37	
	540	522.80	472.80	N 131.14	E	17.57	132.32	
	550	532.59	482.59	N 133.13	E	17.22	134.24	
	560	542.40	492.40	N 135.08	E	16.87	136.13	
	570	552.20	502.20	N 137.00	E	16.53	137.99	
	580	562.02	512.02	N 138.89	E	16.20	139.83	
*	583	564.96	514.96	N 139.45	E	16.10	140.38	*
	590	571.84	521.84	N 140.78	E	15.98	141.69	
	600	581.65	531.65	N 142.68	E	15.82	143.55	
	610	591.47	541.47	N 144.57	E	15.65	145.42	
	620	601.29	551.29	N 146.47	E	15.49	147.28	
	630	611.11	561.11	N 148.36	E	15.32	149.15	
	640	620.92	570.92	N 150.24	E	15.16	151.01	
	650	630.74	580.74	N 152.13	E	14.99	152.87	
	660	640.56	590.56	N 154.01	E	14.83	154.73	
	670	650.38	600.38	N 155.89	E	14.66	156.58	
	680	660.20	610.20	N 157.77	E	14.50	158.44	
	690	670.03	620.03	N 159.65	E	14.33	160.29	
	700	679.85	629.85	N 161.52	E	14.17	162.14	
	710	689.67	639.67	N 163.40	E	14.01	164.00	
	720	699.49	649.49	N 165.27	E	13.84	165.85	
	730	709.31	659.31	N 167.13	E	13.68	167.69	
	740	719.14	669.14	N 169.00	E	13.52	169.54	
	750	728.96	678.96	N 170.86	E	13.35	171.38	
	760	738.78	688.78	N 172.72	E	13.19	173.23	
	770	748.61	698.61	N 174.58	E	13.03	175.07	
*	772	750.57	700.57	N 174.95	E	12.99	175.44	*
	780	758.43	708.43	N 176.44	E	12.84	176.90	
	790	768.26	718.26	N 178.29	E	12.64	178.74	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	800	778.08	728.08	N 180.15	E	12.45	180.58	
	810	787.91	737.91	N 182.00	E	12.25	182.41	
	820	797.73	747.73	N 183.86	E	12.06	184.25	
	830	807.56	757.56	N 185.71	E	11.86	186.09	
	840	817.38	767.38	N 187.57	E	11.67	187.93	
*	850	827.20	777.20	N 189.42	E	11.47	189.77	*
	860	837.02	787.02	N 191.30	E	11.28	191.64	
	870	846.84	796.84	N 193.21	E	11.07	193.53	
	880	856.65	806.65	N 195.15	E	10.87	195.45	
	890	866.45	816.45	N 197.11	E	10.67	197.40	
	900	876.25	826.25	N 199.10	E	10.46	199.38	
	910	886.04	836.04	N 201.12	E	10.24	201.38	
	920	895.83	845.83	N 203.16	E	10.03	203.41	
	930	905.61	855.61	N 205.24	E	9.81	205.47	
	940	915.38	865.38	N 207.33	E	9.59	207.56	
	950	925.15	875.15	N 209.46	E	9.37	209.67	
	960	934.91	884.91	N 211.61	E	9.14	211.81	
	970	944.67	894.67	N 213.79	E	8.91	213.98	
*	976	950.52	900.52	N 215.11	E	8.77	215.29	*
	980	954.42	904.42	N 215.99	E	8.71	216.17	
	990	964.16	914.16	N 218.26	E	8.55	218.43	
	1000	973.89	923.89	N 220.56	E	8.39	220.72	
	1010	983.61	933.61	N 222.92	E	8.23	223.07	
	1020	993.32	943.32	N 225.31	E	8.06	225.46	
	1030	1,003.01	953.01	N 227.75	E	7.89	227.89	
	1040	1,012.70	962.70	N 230.23	E	7.72	230.36	
	1050	1,022.37	972.37	N 232.76	E	7.54	232.88	
	1060	1,032.03	982.03	N 235.33	E	7.36	235.45	
	1070	1,041.68	991.68	N 237.95	E	7.18	238.05	
	1080	1,051.32	1,001.32	N 240.60	E	6.99	240.71	
	1090	1,060.95	1,010.95	N 243.31	E	6.80	243.40	
	1100	1,070.56	1,020.56	N 246.05	E	6.61	246.14	
*	1101	1,071.52	1,021.52	N 246.33	E	6.59	246.41	*
	1110	1,080.17	1,030.17	N 248.83	E	6.42	248.92	
	1120	1,089.76	1,039.76	N 251.66	E	6.22	251.73	
	1130	1,099.34	1,049.34	N 254.52	E	6.02	254.59	
	1140	1,108.90	1,058.90	N 257.43	E	5.81	257.49	
	1150	1,118.46	1,068.46	N 260.37	E	5.61	260.43	
	1160	1,128.00	1,078.00	N 263.35	E	5.40	263.41	
	1170	1,137.53	1,087.53	N 266.37	E	5.19	266.42	
	1180	1,147.05	1,097.05	N 269.43	E	4.98	269.48	
	1190	1,156.55	1,106.55	N 272.53	E	4.76	272.57	
	1200	1,166.05	1,116.05	N 275.67	E	4.54	275.71	
	1210	1,175.53	1,125.53	N 278.85	E	4.32	278.88	
	1220	1,184.99	1,134.99	N 282.06	E	4.09	282.09	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
*	1228	1,192.56	1,142.56	N 284.66	E	3.91	284.69	*
	1230	1,194.45	1,144.45	N 285.31	E	3.85	285.34	
	1240	1,203.88	1,153.88	N 288.62	E	3.56	288.64	
	1250	1,213.30	1,163.30	N 291.96	E	3.27	291.98	
	1260	1,222.70	1,172.70	N 295.36	E	2.97	295.38	
	1270	1,232.08	1,182.08	N 298.81	E	2.67	298.82	
	1280	1,241.45	1,191.45	N 302.30	E	2.37	302.31	
	1290	1,250.79	1,200.79	N 305.85	E	2.06	305.85	
	1300	1,260.12	1,210.12	N 309.44	E	1.74	309.44	
	1310	1,269.43	1,219.43	N 313.08	E	1.42	313.08	
	1320	1,278.72	1,228.72	N 316.76	E	1.10	316.76	
	1330	1,287.99	1,237.99	N 320.50	E	0.78	320.50	
	1340	1,297.24	1,247.24	N 324.28	E	0.44	324.28	
	1350	1,306.47	1,256.47	N 328.11	E	0.11	328.11	
*	1355	1,311.09	1,261.09	N 330.03	W	0.05	330.03	*
	1360	1,315.70	1,265.70	N 331.96	W	0.18	331.96	
	1370	1,324.91	1,274.91	N 335.83	W	0.45	335.83	
	1380	1,334.13	1,284.13	N 339.71	W	0.73	339.71	
	1390	1,343.34	1,293.34	N 343.59	W	1.00	343.60	
	1400	1,352.54	1,302.54	N 347.49	W	1.27	347.49	
	1410	1,361.75	1,311.75	N 351.39	W	1.54	351.39	
	1420	1,370.95	1,320.95	N 355.30	W	1.82	355.30	
	1430	1,380.14	1,330.14	N 359.21	W	2.09	359.22	
	1440	1,389.34	1,339.34	N 363.14	W	2.36	363.15	
	1450	1,398.53	1,348.53	N 367.07	W	2.64	367.08	
*	1457	1,404.96	1,354.96	N 369.83	W	2.83	369.84	*
	1460	1,407.72	1,357.72	N 371.01	W	2.91	371.02	
	1470	1,416.90	1,366.90	N 374.95	W	3.19	374.96	
	1480	1,426.09	1,376.09	N 378.88	W	3.47	378.90	
	1490	1,435.28	1,385.28	N 382.82	W	3.74	382.84	
	1500	1,444.47	1,394.47	N 386.76	W	4.02	386.78	
	1510	1,453.66	1,403.66	N 390.70	W	4.29	390.72	
	1520	1,462.84	1,412.84	N 394.64	W	4.57	394.66	
	1530	1,472.03	1,422.03	N 398.57	W	4.84	398.60	
	1540	1,481.22	1,431.22	N 402.51	W	5.12	402.54	
	1550	1,490.41	1,440.41	N 406.45	W	5.39	406.48	
	1560	1,499.60	1,449.60	N 410.39	W	5.67	410.43	
	1570	1,508.78	1,458.78	N 414.32	W	5.94	414.37	
	1580	1,517.97	1,467.97	N 418.26	W	6.22	418.31	
	1590	1,527.16	1,477.16	N 422.20	W	6.49	422.25	
	1600	1,536.35	1,486.35	N 426.14	W	6.77	426.19	
*	1610	1,545.54	1,495.54	N 430.08	W	7.04	430.13	*
	1620	1,554.72	1,504.72	N 434.02	W	7.15	434.08	
	1630	1,563.91	1,513.91	N 437.97	W	7.25	438.03	
	1640	1,573.10	1,523.10	N 441.91	W	7.35	441.98	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	1650	1,582.29	1,532.29	N 445.86	W	7.46	445.92	
	1660	1,591.47	1,541.47	N 449.81	W	7.56	449.87	
	1670	1,600.66	1,550.66	N 453.75	W	7.66	453.82	
	1680	1,609.85	1,559.85	N 457.70	W	7.77	457.76	
	1690	1,619.04	1,569.04	N 461.64	W	7.87	461.71	
	1700	1,628.23	1,578.23	N 465.59	W	7.97	465.66	
	1710	1,637.41	1,587.41	N 469.54	W	8.08	469.61	
	1720	1,646.60	1,596.60	N 473.48	W	8.18	473.55	
	1730	1,655.79	1,605.79	N 477.43	W	8.28	477.50	
	1740	1,664.98	1,614.98	N 481.37	W	8.39	481.45	
	1750	1,674.17	1,624.17	N 485.32	W	8.49	485.40	
	1760	1,683.35	1,633.35	N 489.27	W	8.59	489.34	
*	1763	1,686.11	1,636.11	N 490.45	W	8.63	490.53	*
	1770	1,692.54	1,642.54	N 493.21	W	8.67	493.29	
	1780	1,701.73	1,651.73	N 497.17	W	8.74	497.24	
	1790	1,710.91	1,660.91	N 501.12	W	8.81	501.20	
	1800	1,720.10	1,670.10	N 505.07	W	8.88	505.15	
	1810	1,729.28	1,679.28	N 509.03	W	8.95	509.11	
	1820	1,738.46	1,688.46	N 512.99	W	9.02	513.07	
	1830	1,747.64	1,697.64	N 516.95	W	9.09	517.03	
	1840	1,756.83	1,706.83	N 520.91	W	9.16	521.00	
	1850	1,766.01	1,716.01	N 524.88	W	9.23	524.96	
	1860	1,775.18	1,725.18	N 528.85	W	9.30	528.93	
	1870	1,784.36	1,734.36	N 532.82	W	9.37	532.90	
	1880	1,793.54	1,743.54	N 536.79	W	9.43	536.87	
	1890	1,802.71	1,752.71	N 540.77	W	9.50	540.85	
	1900	1,811.89	1,761.89	N 544.74	W	9.57	544.83	
	1910	1,821.06	1,771.06	N 548.72	W	9.64	548.81	
	1920	1,830.24	1,780.24	N 552.70	W	9.71	552.79	
	1930	1,839.41	1,789.41	N 556.69	W	9.78	556.77	
	1940	1,848.58	1,798.58	N 560.67	W	9.85	560.76	
*	1946	1,854.08	1,804.08	N 563.06	W	9.89	563.15	*
	1950	1,857.75	1,807.75	N 564.66	W	9.92	564.75	
	1960	1,866.92	1,816.92	N 568.65	W	9.99	568.73	
	1970	1,876.09	1,826.09	N 572.63	W	10.06	572.72	
	1980	1,885.26	1,835.26	N 576.62	W	10.13	576.71	
	1990	1,894.43	1,844.43	N 580.61	W	10.20	580.70	
	2000	1,903.60	1,853.60	N 584.59	W	10.27	584.68	
	2010	1,912.77	1,862.77	N 588.58	W	10.34	588.67	
	2020	1,921.94	1,871.94	N 592.57	W	10.41	592.66	
	2030	1,931.12	1,881.12	N 596.55	W	10.48	596.65	
	2040	1,940.29	1,890.29	N 600.54	W	10.55	600.63	
	2050	1,949.46	1,899.46	N 604.53	W	10.62	604.62	
	2060	1,958.63	1,908.63	N 608.51	W	10.69	608.61	
	2070	1,967.80	1,917.80	N 612.50	W	10.76	612.60	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	2080	1,976.97	1,926.97	N 616.49	W	10.83	616.58	
	2090	1,986.14	1,936.14	N 620.48	W	10.90	620.57	
	2100	1,995.31	1,945.31	N 624.46	W	10.97	624.56	
	2110	2,004.48	1,954.48	N 628.45	W	11.03	628.55	
	2120	2,013.65	1,963.65	N 632.44	W	11.10	632.53	
	2130	2,022.82	1,972.82	N 636.42	W	11.17	636.52	
*	2132	2,024.66	1,974.66	N 637.22	W	11.19	637.32	*
	2140	2,031.99	1,981.99	N 640.41	W	11.19	640.51	
	2150	2,041.16	1,991.16	N 644.40	W	11.19	644.49	
	2160	2,050.33	2,000.33	N 648.38	W	11.19	648.48	
	2170	2,059.50	2,009.50	N 652.37	W	11.19	652.47	
	2180	2,068.67	2,018.67	N 656.36	W	11.19	656.46	
	2190	2,077.85	2,027.85	N 660.35	W	11.19	660.44	
	2200	2,087.02	2,037.02	N 664.33	W	11.19	664.43	
	2210	2,096.19	2,046.19	N 668.32	W	11.19	668.42	
	2220	2,105.36	2,055.36	N 672.31	W	11.19	672.40	
	2230	2,114.53	2,064.53	N 676.30	W	11.19	676.39	
	2240	2,123.70	2,073.70	N 680.28	W	11.19	680.38	
	2250	2,132.87	2,082.87	N 684.27	W	11.19	684.36	
	2260	2,142.04	2,092.04	N 688.26	W	11.19	688.35	
	2270	2,151.21	2,101.21	N 692.25	W	11.19	692.34	
	2280	2,160.38	2,110.38	N 696.23	W	11.19	696.32	
*	2285	2,164.97	2,114.97	N 698.23	W	11.19	698.32	*
	2290	2,169.55	2,119.55	N 700.22	W	11.22	700.31	
	2300	2,178.73	2,128.73	N 704.20	W	11.29	704.29	
	2310	2,187.90	2,137.90	N 708.17	W	11.36	708.26	
	2320	2,197.08	2,147.08	N 712.14	W	11.43	712.23	
	2330	2,206.26	2,156.26	N 716.11	W	11.50	716.20	
	2340	2,215.44	2,165.44	N 720.06	W	11.57	720.16	
	2350	2,224.63	2,174.63	N 724.02	W	11.64	724.11	
	2360	2,233.82	2,183.82	N 727.96	W	11.71	728.06	
	2370	2,243.01	2,193.01	N 731.91	W	11.78	732.00	
	2380	2,252.20	2,202.20	N 735.84	W	11.84	735.94	
	2390	2,261.39	2,211.39	N 739.78	W	11.91	739.87	
	2400	2,270.59	2,220.59	N 743.70	W	11.98	743.80	
	2410	2,279.79	2,229.79	N 747.62	W	12.05	747.72	
	2420	2,288.99	2,238.99	N 751.54	W	12.12	751.64	
	2430	2,298.19	2,248.19	N 755.45	W	12.19	755.55	
*	2438	2,305.56	2,255.56	N 758.58	W	12.24	758.67	*
	2440	2,307.40	2,257.40	N 759.36	W	12.25	759.46	
	2450	2,316.60	2,266.60	N 763.26	W	12.32	763.36	
	2460	2,325.81	2,275.81	N 767.17	W	12.39	767.27	
	2470	2,335.01	2,285.01	N 771.08	W	12.46	771.18	
	2480	2,344.22	2,294.22	N 774.98	W	12.53	775.09	
	2490	2,353.42	2,303.42	N 778.89	W	12.60	778.99	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	2500	2,362.63	2,312.63	N 782.80	W	12.66	782.90	
	2510	2,371.83	2,321.83	N 786.70	W	12.73	786.81	
	2520	2,381.04	2,331.04	N 790.61	W	12.80	790.71	
	2530	2,390.24	2,340.24	N 794.52	W	12.87	794.62	
	2540	2,399.45	2,349.45	N 798.42	W	12.94	798.53	
	2550	2,408.65	2,358.65	N 802.33	W	13.00	802.44	
	2560	2,417.86	2,367.86	N 806.24	W	13.07	806.34	
	2570	2,427.06	2,377.06	N 810.14	W	13.14	810.25	
	2580	2,436.27	2,386.27	N 814.05	W	13.21	814.16	
	2590	2,445.47	2,395.47	N 817.96	W	13.28	818.07	
	2600	2,454.68	2,404.68	N 821.86	W	13.35	821.97	
	2610	2,463.88	2,413.88	N 825.77	W	13.41	825.88	
	2620	2,473.09	2,423.09	N 829.68	W	13.48	829.79	
*	2625	2,477.69	2,427.69	N 831.63	W	13.52	831.74	*
	2630	2,482.29	2,432.29	N 833.59	W	13.48	833.69	
	2640	2,491.50	2,441.50	N 837.50	W	13.41	837.60	
	2650	2,500.70	2,450.70	N 841.41	W	13.35	841.51	
	2660	2,509.90	2,459.90	N 845.32	W	13.28	845.43	
	2670	2,519.10	2,469.10	N 849.24	W	13.21	849.34	
	2680	2,528.30	2,478.30	N 853.16	W	13.14	853.26	
	2690	2,537.50	2,487.50	N 857.08	W	13.07	857.18	
	2700	2,546.70	2,496.70	N 861.00	W	13.00	861.10	
	2710	2,555.90	2,505.90	N 864.92	W	12.94	865.02	
	2720	2,565.09	2,515.09	N 868.85	W	12.87	868.95	
	2730	2,574.29	2,524.29	N 872.78	W	12.80	872.87	
	2740	2,583.48	2,533.48	N 876.71	W	12.73	876.80	
	2750	2,592.68	2,542.68	N 880.65	W	12.66	880.74	
	2760	2,601.87	2,551.87	N 884.58	W	12.59	884.67	
	2770	2,611.06	2,561.06	N 888.52	W	12.52	888.61	
	2780	2,620.25	2,570.25	N 892.46	W	12.45	892.55	
	2790	2,629.44	2,579.44	N 896.40	W	12.39	896.49	
	2800	2,638.63	2,588.63	N 900.34	W	12.32	900.43	
	2810	2,647.82	2,597.82	N 904.29	W	12.25	904.37	
*	2813	2,650.58	2,600.58	N 905.47	W	12.23	905.56	*
	2820	2,657.01	2,607.01	N 908.24	W	12.32	908.32	
	2830	2,666.20	2,616.20	N 912.18	W	12.46	912.27	
	2840	2,675.38	2,625.38	N 916.13	W	12.60	916.21	
	2850	2,684.57	2,634.57	N 920.07	W	12.74	920.16	
	2860	2,693.76	2,643.76	N 924.02	W	12.87	924.11	
	2870	2,702.95	2,652.95	N 927.96	W	13.01	928.05	
	2880	2,712.14	2,662.14	N 931.91	W	13.15	932.00	
	2890	2,721.32	2,671.32	N 935.85	W	13.29	935.95	
	2900	2,730.51	2,680.51	N 939.80	W	13.43	939.89	
	2910	2,739.70	2,689.70	N 943.74	W	13.56	943.84	
	2920	2,748.89	2,698.89	N 947.69	W	13.70	947.79	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	2930	2,758.08	2,708.08	N 951.63	W	13.84	951.73	
	2940	2,767.26	2,717.26	N 955.58	W	13.98	955.68	
	2950	2,776.45	2,726.45	N 959.52	W	14.11	959.63	
	2960	2,785.64	2,735.64	N 963.47	W	14.25	963.57	
*	2970	2,794.83	2,744.83	N 967.41	W	14.39	967.52	*
	2980	2,804.02	2,754.02	N 971.35	W	14.46	971.46	
	2990	2,813.21	2,763.21	N 975.29	W	14.53	975.40	
	3000	2,822.40	2,772.40	N 979.22	W	14.60	979.33	
	3010	2,831.60	2,781.60	N 983.15	W	14.66	983.26	
	3020	2,840.80	2,790.80	N 987.07	W	14.73	987.18	
	3030	2,850.00	2,800.00	N 990.98	W	14.80	991.09	
	3040	2,859.21	2,809.21	N 994.89	W	14.87	995.00	
	3050	2,868.41	2,818.41	N 998.80	W	14.94	998.91	
	3060	2,877.62	2,827.62	N 1,002.70	W	15.01	1,002.81	
	3070	2,886.83	2,836.83	N 1,006.59	W	15.07	1,006.70	
	3080	2,896.04	2,846.04	N 1,010.48	W	15.14	1,010.59	
	3090	2,905.26	2,855.26	N 1,014.36	W	15.21	1,014.48	
	3100	2,914.47	2,864.47	N 1,018.24	W	15.28	1,018.36	
	3110	2,923.69	2,873.69	N 1,022.12	W	15.35	1,022.23	
	3120	2,932.91	2,882.91	N 1,025.98	W	15.41	1,026.10	
*	3123	2,935.68	2,885.68	N 1,027.14	W	15.43	1,027.26	*
	3130	2,942.14	2,892.14	N 1,029.85	W	15.39	1,029.97	
	3140	2,951.36	2,901.36	N 1,033.72	W	15.32	1,033.83	
	3150	2,960.58	2,910.58	N 1,037.58	W	15.25	1,037.70	
	3160	2,969.80	2,919.80	N 1,041.45	W	15.18	1,041.56	
	3170	2,979.02	2,929.02	N 1,045.32	W	15.12	1,045.43	
	3180	2,988.25	2,938.25	N 1,049.18	W	15.05	1,049.29	
	3190	2,997.47	2,947.47	N 1,053.05	W	14.98	1,053.16	
	3200	3,006.69	2,956.69	N 1,056.92	W	14.91	1,057.02	
	3210	3,015.91	2,965.91	N 1,060.78	W	14.85	1,060.89	
	3220	3,025.13	2,975.13	N 1,064.65	W	14.78	1,064.75	
	3230	3,034.36	2,984.36	N 1,068.52	W	14.71	1,068.62	
	3240	3,043.58	2,993.58	N 1,072.38	W	14.64	1,072.48	
*	3250	3,052.80	3,002.80	N 1,076.25	W	14.58	1,076.35	*
	3260	3,062.02	3,012.02	N 1,080.12	W	14.64	1,080.22	
	3270	3,071.24	3,021.24	N 1,083.99	W	14.71	1,084.09	
	3280	3,080.46	3,030.46	N 1,087.87	W	14.78	1,087.97	
	3290	3,089.68	3,039.68	N 1,091.75	W	14.85	1,091.85	
	3300	3,098.89	3,048.89	N 1,095.63	W	14.91	1,095.73	
	3310	3,108.10	3,058.10	N 1,099.52	W	14.98	1,099.62	
	3320	3,117.32	3,067.32	N 1,103.40	W	15.05	1,103.51	
	3330	3,126.53	3,076.53	N 1,107.30	W	15.12	1,107.40	
	3340	3,135.74	3,085.74	N 1,111.19	W	15.19	1,111.29	
	3350	3,144.95	3,094.95	N 1,115.09	W	15.25	1,115.19	
	3360	3,154.15	3,104.15	N 1,118.99	W	15.32	1,119.10	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	3370	3,163.36	3,113.36	N 1,122.89	W	15.39	1,123.00	
*	3377	3,169.80	3,119.80	N 1,125.63	W	15.44	1,125.74	*
	3380	3,172.57	3,122.57	N 1,126.79	W	15.25	1,126.89	
	3390	3,181.78	3,131.78	N 1,130.61	W	14.65	1,130.71	
	3400	3,191.01	3,141.01	N 1,134.42	W	14.05	1,134.50	
	3410	3,200.25	3,150.25	N 1,138.20	W	13.45	1,138.28	
	3420	3,209.50	3,159.50	N 1,141.95	W	12.85	1,142.03	
*	3427	3,215.98	3,165.98	N 1,144.57	W	12.44	1,144.64	*
	3430	3,218.76	3,168.76	N 1,145.69	W	12.22	1,145.75	
	3440	3,228.02	3,178.02	N 1,149.38	W	11.50	1,149.43	
	3450	3,237.30	3,187.30	N 1,153.04	W	10.79	1,153.09	
	3460	3,246.58	3,196.58	N 1,156.69	W	10.08	1,156.73	
	3470	3,255.88	3,205.88	N 1,160.32	W	9.38	1,160.35	
	3480	3,265.18	3,215.18	N 1,163.92	W	8.68	1,163.95	
	3490	3,274.49	3,224.49	N 1,167.51	W	7.98	1,167.53	
	3500	3,283.80	3,233.80	N 1,171.07	W	7.29	1,171.09	
	3510	3,293.13	3,243.13	N 1,174.61	W	6.60	1,174.63	
	3520	3,302.47	3,252.47	N 1,178.13	W	5.91	1,178.14	
*	3521	3,303.40	3,253.40	N 1,178.48	W	5.85	1,178.50	*
	3530	3,311.80	3,261.80	N 1,181.63	W	5.18	1,181.64	
	3540	3,321.14	3,271.14	N 1,185.12	W	4.43	1,185.13	
	3550	3,330.49	3,280.49	N 1,188.61	W	3.69	1,188.62	
	3560	3,339.83	3,289.83	N 1,192.09	W	2.95	1,192.09	
	3570	3,349.18	3,299.18	N 1,195.57	W	2.21	1,195.57	
	3580	3,358.53	3,308.53	N 1,199.03	W	1.48	1,199.03	
	3590	3,367.88	3,317.88	N 1,202.49	W	0.74	1,202.49	
	3600	3,377.24	3,327.24	N 1,205.95	W	0.01	1,205.95	
	3610	3,386.60	3,336.60	N 1,209.40	E	0.72	1,209.40	
	3620	3,395.96	3,345.96	N 1,212.84	E	1.45	1,212.84	
	3630	3,405.32	3,355.32	N 1,216.28	E	2.18	1,216.28	
	3640	3,414.69	3,364.69	N 1,219.71	E	2.91	1,219.71	
*	3646	3,420.31	3,370.31	N 1,221.76	E	3.34	1,221.77	*
	3650	3,424.05	3,374.05	N 1,223.12	E	3.66	1,223.13	
	3660	3,433.43	3,383.43	N 1,226.51	E	4.44	1,226.52	
	3670	3,442.82	3,392.82	N 1,229.87	E	5.22	1,229.89	
	3680	3,452.21	3,402.21	N 1,233.22	E	5.99	1,233.24	
	3690	3,461.61	3,411.61	N 1,236.55	E	6.76	1,236.57	
	3700	3,471.01	3,421.01	N 1,239.86	E	7.52	1,239.88	
	3710	3,480.42	3,430.42	N 1,243.15	E	8.28	1,243.18	
	3720	3,489.84	3,439.84	N 1,246.42	E	9.04	1,246.45	
	3730	3,499.27	3,449.27	N 1,249.67	E	9.79	1,249.71	
	3740	3,508.70	3,458.70	N 1,252.90	E	10.53	1,252.95	
	3750	3,518.15	3,468.15	N 1,256.11	E	11.27	1,256.17	
	3760	3,527.59	3,477.59	N 1,259.31	E	12.01	1,259.37	
	3770	3,537.05	3,487.05	N 1,262.48	E	12.74	1,262.55	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
*	3771	3,537.99	3,487.99	N 1,262.80	E	12.82	1,262.86	*
	3780	3,546.50	3,496.50	N 1,265.61	E	13.68	1,265.68	
	3790	3,555.95	3,505.95	N 1,268.73	E	14.63	1,268.82	
	3800	3,565.40	3,515.40	N 1,271.87	E	15.59	1,271.96	
	3810	3,574.85	3,524.85	N 1,275.01	E	16.55	1,275.11	
	3820	3,584.29	3,534.29	N 1,278.15	E	17.51	1,278.27	
	3830	3,593.73	3,543.73	N 1,281.30	E	18.47	1,281.44	
	3840	3,603.17	3,553.17	N 1,284.46	E	19.44	1,284.61	
	3850	3,612.60	3,562.60	N 1,287.63	E	20.41	1,287.79	
	3860	3,622.04	3,572.04	N 1,290.80	E	21.38	1,290.98	
	3870	3,631.47	3,581.47	N 1,293.98	E	22.35	1,294.17	
	3880	3,640.90	3,590.90	N 1,297.17	E	23.32	1,297.38	
	3890	3,650.32	3,600.32	N 1,300.36	E	24.30	1,300.59	
	3900	3,659.75	3,609.75	N 1,303.56	E	25.28	1,303.80	
	3910	3,669.17	3,619.17	N 1,306.76	E	26.26	1,307.03	
	3920	3,678.59	3,628.59	N 1,309.98	E	27.24	1,310.26	
	3930	3,688.01	3,638.01	N 1,313.19	E	28.23	1,313.50	
	3940	3,697.42	3,647.42	N 1,316.42	E	29.21	1,316.74	
*	3949	3,705.89	3,655.89	N 1,319.33	E	30.10	1,319.67	*
	3950	3,706.83	3,656.83	N 1,319.66	E	30.19	1,320.00	
	3960	3,716.25	3,666.25	N 1,322.91	E	31.06	1,323.28	
	3970	3,725.66	3,675.66	N 1,326.16	E	31.93	1,326.54	
	3980	3,735.08	3,685.08	N 1,329.40	E	32.80	1,329.80	
	3990	3,744.51	3,694.51	N 1,332.63	E	33.67	1,333.06	
	4000	3,753.93	3,703.93	N 1,335.86	E	34.53	1,336.31	
	4010	3,763.36	3,713.36	N 1,339.08	E	35.39	1,339.55	
	4020	3,772.79	3,722.79	N 1,342.29	E	36.25	1,342.78	
	4030	3,782.23	3,732.23	N 1,345.49	E	37.11	1,346.00	
	4040	3,791.66	3,741.66	N 1,348.69	E	37.97	1,349.22	
	4050	3,801.10	3,751.10	N 1,351.88	E	38.82	1,352.43	
	4060	3,810.55	3,760.55	N 1,355.06	E	39.67	1,355.64	
	4070	3,819.99	3,769.99	N 1,358.23	E	40.52	1,358.83	
	4080	3,829.44	3,779.44	N 1,361.40	E	41.37	1,362.02	
	4090	3,838.89	3,788.89	N 1,364.55	E	42.22	1,365.21	
	4100	3,848.34	3,798.34	N 1,367.70	E	43.06	1,368.38	
*	4108	3,855.91	3,805.91	N 1,370.22	E	43.74	1,370.92	*
	4110	3,857.80	3,807.80	N 1,370.85	E	43.91	1,371.55	
	4120	3,867.25	3,817.25	N 1,373.99	E	44.75	1,374.72	
	4130	3,876.71	3,826.71	N 1,377.13	E	45.59	1,377.88	
	4140	3,886.17	3,836.17	N 1,380.26	E	46.43	1,381.04	
	4150	3,895.63	3,845.63	N 1,383.40	E	47.27	1,384.20	
	4160	3,905.09	3,855.09	N 1,386.53	E	48.11	1,387.36	
	4170	3,914.55	3,864.55	N 1,389.65	E	48.94	1,390.51	
	4180	3,924.01	3,874.01	N 1,392.78	E	49.78	1,393.66	
	4190	3,933.48	3,883.48	N 1,395.90	E	50.62	1,396.81	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	4200	3,942.94	3,892.94	N 1,399.01	E	51.45	1,399.96	
	4210	3,952.41	3,902.41	N 1,402.13	E	52.29	1,403.10	
	4220	3,961.88	3,911.88	N 1,405.24	E	53.12	1,406.24	
	4230	3,971.34	3,921.34	N 1,408.35	E	53.95	1,409.38	
	4240	3,980.81	3,930.81	N 1,411.45	E	54.78	1,412.52	
*	4242	3,982.71	3,932.71	N 1,412.07	E	54.95	1,413.14	*
	4250	3,990.29	3,940.29	N 1,414.56	E	55.57	1,415.65	
	4260	3,999.77	3,949.77	N 1,417.65	E	56.34	1,418.77	
	4270	4,009.25	3,959.25	N 1,420.72	E	57.11	1,421.87	
	4280	4,018.74	3,968.74	N 1,423.78	E	57.87	1,424.95	
	4290	4,028.24	3,978.24	N 1,426.82	E	58.63	1,428.02	
	4300	4,037.74	3,987.74	N 1,429.85	E	59.38	1,431.08	
	4310	4,047.25	3,997.25	N 1,432.85	E	60.13	1,434.12	
	4320	4,056.76	4,006.76	N 1,435.85	E	60.88	1,437.14	
	4330	4,066.28	4,016.28	N 1,438.82	E	61.62	1,440.14	
	4340	4,075.80	4,025.80	N 1,441.78	E	62.36	1,443.13	
	4350	4,085.33	4,035.33	N 1,444.73	E	63.09	1,446.10	
	4360	4,094.86	4,044.86	N 1,447.65	E	63.82	1,449.06	
*	4366	4,100.58	4,050.58	N 1,449.40	E	64.26	1,450.83	*
	4370	4,104.40	4,054.40	N 1,450.55	E	64.61	1,451.99	
	4380	4,113.95	4,063.95	N 1,453.40	E	65.48	1,454.88	
	4390	4,123.50	4,073.50	N 1,456.23	E	66.35	1,457.74	
	4400	4,133.06	4,083.06	N 1,459.05	E	67.21	1,460.59	
	4410	4,142.62	4,092.62	N 1,461.84	E	68.06	1,463.43	
	4420	4,152.19	4,102.19	N 1,464.62	E	68.91	1,466.24	
	4430	4,161.76	4,111.76	N 1,467.38	E	69.75	1,469.03	
	4440	4,171.34	4,121.34	N 1,470.12	E	70.59	1,471.81	
	4450	4,180.93	4,130.93	N 1,472.84	E	71.42	1,474.57	
	4460	4,190.52	4,140.52	N 1,475.54	E	72.25	1,477.31	
	4470	4,200.12	4,150.12	N 1,478.22	E	73.07	1,480.03	
	4480	4,209.72	4,159.72	N 1,480.89	E	73.88	1,482.73	
	4490	4,219.33	4,169.33	N 1,483.54	E	74.69	1,485.41	
*	4496	4,225.10	4,175.10	N 1,485.12	E	75.18	1,487.02	*
	4500	4,228.95	4,178.95	N 1,486.16	E	75.55	1,488.07	
	4510	4,238.56	4,188.56	N 1,488.75	E	76.46	1,490.71	
	4520	4,248.18	4,198.18	N 1,491.34	E	77.38	1,493.34	
	4530	4,257.79	4,207.79	N 1,493.92	E	78.29	1,495.97	
	4540	4,267.41	4,217.41	N 1,496.50	E	79.21	1,498.59	
	4550	4,277.03	4,227.03	N 1,499.07	E	80.12	1,501.21	
	4560	4,286.65	4,236.65	N 1,501.64	E	81.03	1,503.83	
	4570	4,296.28	4,246.28	N 1,504.21	E	81.94	1,506.44	
	4580	4,305.90	4,255.90	N 1,506.77	E	82.85	1,509.05	
*	4587	4,312.64	4,262.64	N 1,508.56	E	83.48	1,510.87	*
	4590	4,315.52	4,265.52	N 1,509.32	E	83.78	1,511.64	
	4600	4,325.15	4,275.15	N 1,511.84	E	84.77	1,514.22	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	4610	4,334.78	4,284.78	N 1,514.36	E	85.76	1,516.79	
	4620	4,344.40	4,294.40	N 1,516.87	E	86.75	1,519.35	
	4630	4,354.03	4,304.03	N 1,519.39	E	87.74	1,521.92	
	4640	4,363.66	4,313.66	N 1,521.89	E	88.73	1,524.48	
	4650	4,373.29	4,323.29	N 1,524.40	E	89.72	1,527.04	
	4660	4,382.92	4,332.92	N 1,526.90	E	90.70	1,529.59	
	4670	4,392.56	4,342.56	N 1,529.40	E	91.69	1,532.15	
	4680	4,402.19	4,352.19	N 1,531.90	E	92.67	1,534.70	
	4690	4,411.83	4,361.83	N 1,534.39	E	93.65	1,537.25	
	4700	4,421.46	4,371.46	N 1,536.88	E	94.63	1,539.79	
*	4710	4,431.10	4,381.10	N 1,539.37	E	95.61	1,542.33	*
	4720	4,440.73	4,390.73	N 1,541.78	E	96.79	1,544.81	
	4730	4,450.36	4,400.36	N 1,544.20	E	97.97	1,547.31	
	4740	4,459.99	4,409.99	N 1,546.63	E	99.16	1,549.81	
	4750	4,469.61	4,419.61	N 1,549.08	E	100.35	1,552.32	
	4760	4,479.23	4,429.23	N 1,551.53	E	101.55	1,554.85	
	4770	4,488.85	4,438.85	N 1,553.99	E	102.75	1,557.38	
	4780	4,498.46	4,448.46	N 1,556.46	E	103.95	1,559.93	
	4790	4,508.07	4,458.07	N 1,558.95	E	105.16	1,562.49	
	4800	4,517.68	4,467.68	N 1,561.44	E	106.38	1,565.06	
	4810	4,527.29	4,477.29	N 1,563.94	E	107.60	1,567.64	
	4820	4,536.89	4,486.89	N 1,566.45	E	108.83	1,570.23	
	4830	4,546.48	4,496.48	N 1,568.98	E	110.06	1,572.83	
	4840	4,556.08	4,506.08	N 1,571.51	E	111.29	1,575.45	
	4850	4,565.67	4,515.67	N 1,574.05	E	112.53	1,578.07	
	4860	4,575.26	4,525.26	N 1,576.61	E	113.78	1,580.71	
	4870	4,584.84	4,534.84	N 1,579.17	E	115.03	1,583.35	
	4880	4,594.43	4,544.43	N 1,581.74	E	116.28	1,586.01	
	4890	4,604.00	4,554.00	N 1,584.33	E	117.54	1,588.68	
*	4897	4,610.71	4,560.71	N 1,586.14	E	118.43	1,590.55	*
	4900	4,613.58	4,563.58	N 1,586.92	E	118.80	1,591.36	
	4910	4,623.14	4,573.14	N 1,589.55	E	120.05	1,594.08	
	4920	4,632.70	4,582.70	N 1,592.20	E	121.32	1,596.82	
	4930	4,642.25	4,592.25	N 1,594.88	E	122.59	1,599.58	
	4940	4,651.80	4,601.80	N 1,597.57	E	123.88	1,602.37	
	4950	4,661.33	4,611.33	N 1,600.29	E	125.17	1,605.18	
	4960	4,670.86	4,620.86	N 1,603.03	E	126.48	1,608.01	
	4970	4,680.38	4,630.38	N 1,605.79	E	127.80	1,610.86	
	4980	4,689.90	4,639.90	N 1,608.57	E	129.12	1,613.74	
	4990	4,699.40	4,649.40	N 1,611.37	E	130.46	1,616.64	
	5000	4,708.90	4,658.90	N 1,614.20	E	131.81	1,619.57	
	5010	4,718.39	4,668.39	N 1,617.04	E	133.17	1,622.52	
*	5018	4,725.98	4,675.98	N 1,619.33	E	134.26	1,624.89	*
	5020	4,727.87	4,677.87	N 1,619.89	E	134.57	1,625.47	
	5030	4,737.35	4,687.35	N 1,622.68	E	136.12	1,628.38	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	5040	4,746.82	4,696.82	N 1,625.50	E	137.68	1,631.32	
	5050	4,756.28	4,706.28	N 1,628.33	E	139.25	1,634.27	
	5060	4,765.73	4,715.73	N 1,631.18	E	140.82	1,637.25	
	5070	4,775.18	4,725.18	N 1,634.04	E	142.41	1,640.24	
	5080	4,784.62	4,734.62	N 1,636.93	E	144.01	1,643.25	
	5090	4,794.06	4,744.06	N 1,639.83	E	145.62	1,646.28	
	5100	4,803.48	4,753.48	N 1,642.74	E	147.23	1,649.33	
	5110	4,812.91	4,762.91	N 1,645.68	E	148.86	1,652.40	
	5120	4,822.32	4,772.32	N 1,648.63	E	150.50	1,655.48	
	5130	4,831.72	4,781.72	N 1,651.60	E	152.14	1,658.59	
	5140	4,841.12	4,791.12	N 1,654.58	E	153.80	1,661.72	
*	5143	4,843.94	4,793.94	N 1,655.48	E	154.30	1,662.66	*
	5150	4,850.52	4,800.52	N 1,657.54	E	155.53	1,664.82	
	5160	4,859.91	4,809.91	N 1,660.48	E	157.30	1,667.92	
	5170	4,869.30	4,819.30	N 1,663.43	E	159.07	1,671.02	
	5180	4,878.68	4,828.68	N 1,666.39	E	160.85	1,674.14	
	5190	4,888.07	4,838.07	N 1,669.36	E	162.64	1,677.26	
	5200	4,897.44	4,847.44	N 1,672.33	E	164.42	1,680.40	
	5210	4,906.82	4,856.82	N 1,675.32	E	166.21	1,683.54	
	5220	4,916.19	4,866.19	N 1,678.31	E	168.01	1,686.69	
	5230	4,925.56	4,875.56	N 1,681.30	E	169.81	1,689.86	
	5240	4,934.93	4,884.93	N 1,684.31	E	171.62	1,693.03	
	5250	4,944.29	4,894.29	N 1,687.32	E	173.43	1,696.21	
	5260	4,953.65	4,903.65	N 1,690.34	E	175.24	1,699.40	
	5270	4,963.00	4,913.00	N 1,693.37	E	177.06	1,702.60	
	5280	4,972.36	4,922.36	N 1,696.40	E	178.88	1,705.81	
	5290	4,981.70	4,931.70	N 1,699.44	E	180.71	1,709.02	
	5300	4,991.05	4,941.05	N 1,702.49	E	182.54	1,712.25	
	5310	5,000.39	4,950.39	N 1,705.55	E	184.38	1,715.49	
	5320	5,009.73	4,959.73	N 1,708.61	E	186.22	1,718.73	
*	5330	5,019.07	4,969.07	N 1,711.68	E	188.07	1,721.99	*
	5340	5,028.40	4,978.40	N 1,714.65	E	190.07	1,725.16	
	5350	5,037.74	4,987.74	N 1,717.62	E	192.07	1,728.33	
	5360	5,047.08	4,997.08	N 1,720.58	E	194.07	1,731.50	
	5370	5,056.42	5,006.42	N 1,723.55	E	196.07	1,734.66	
	5380	5,065.76	5,015.76	N 1,726.51	E	198.06	1,737.83	
	5390	5,075.10	5,025.10	N 1,729.47	E	200.06	1,741.00	
	5400	5,084.45	5,034.45	N 1,732.42	E	202.05	1,744.16	
	5410	5,093.79	5,043.79	N 1,735.38	E	204.05	1,747.33	
	5420	5,103.13	5,053.13	N 1,738.33	E	206.04	1,750.50	
	5430	5,112.48	5,062.48	N 1,741.28	E	208.03	1,753.66	
	5440	5,121.83	5,071.83	N 1,744.22	E	210.01	1,756.82	
	5450	5,131.18	5,081.18	N 1,747.17	E	212.00	1,759.98	
	5460	5,140.52	5,090.52	N 1,750.11	E	213.99	1,763.15	
	5470	5,149.87	5,099.87	N 1,753.05	E	215.97	1,766.31	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	5480	5,159.22	5,109.22	N 1,755.99	E	217.95	1,769.47	
*	5487	5,165.77	5,115.77	N 1,758.05	E	219.34	1,771.68	*
	5490	5,168.58	5,118.58	N 1,758.88	E	219.99	1,772.59	
	5500	5,177.93	5,127.93	N 1,761.66	E	222.16	1,775.62	
	5510	5,187.29	5,137.29	N 1,764.44	E	224.33	1,778.64	
	5520	5,196.66	5,146.66	N 1,767.20	E	226.49	1,781.65	
	5530	5,206.03	5,156.03	N 1,769.95	E	228.64	1,784.66	
	5540	5,215.40	5,165.40	N 1,772.69	E	230.78	1,787.65	
	5550	5,224.78	5,174.78	N 1,775.43	E	232.92	1,790.64	
	5560	5,234.17	5,184.17	N 1,778.15	E	235.05	1,793.62	
	5570	5,243.55	5,193.55	N 1,780.87	E	237.17	1,796.60	
	5580	5,252.94	5,202.94	N 1,783.58	E	239.29	1,799.56	
	5590	5,262.34	5,212.34	N 1,786.28	E	241.39	1,802.52	
	5600	5,271.74	5,221.74	N 1,788.97	E	243.50	1,805.46	
	5610	5,281.14	5,231.14	N 1,791.65	E	245.59	1,808.40	
	5620	5,290.55	5,240.55	N 1,794.32	E	247.68	1,811.33	
	5630	5,299.96	5,249.96	N 1,796.98	E	249.76	1,814.25	
	5640	5,309.38	5,259.38	N 1,799.63	E	251.83	1,817.17	
	5650	5,318.80	5,268.80	N 1,802.28	E	253.90	1,820.07	
	5660	5,328.22	5,278.22	N 1,804.91	E	255.95	1,822.97	
	5670	5,337.65	5,287.65	N 1,807.54	E	258.01	1,825.86	
	5680	5,347.08	5,297.08	N 1,810.16	E	260.05	1,828.74	
	5690	5,356.52	5,306.52	N 1,812.76	E	262.09	1,831.61	
	5700	5,365.96	5,315.96	N 1,815.36	E	264.12	1,834.47	
	5710	5,375.41	5,325.41	N 1,817.95	E	266.14	1,837.33	
	5720	5,384.85	5,334.85	N 1,820.53	E	268.16	1,840.17	
	5730	5,394.31	5,344.31	N 1,823.10	E	270.16	1,843.01	
*	5736	5,399.98	5,349.98	N 1,824.64	E	271.37	1,844.71	*
	5740	5,403.76	5,353.76	N 1,825.42	E	272.41	1,845.64	
	5750	5,413.22	5,363.22	N 1,827.38	E	275.00	1,847.95	
	5760	5,422.69	5,372.69	N 1,829.32	E	277.58	1,850.26	
	5770	5,432.15	5,382.15	N 1,831.26	E	280.15	1,852.57	
	5780	5,441.62	5,391.62	N 1,833.20	E	282.72	1,854.87	
	5790	5,451.09	5,401.09	N 1,835.13	E	285.28	1,857.17	
	5800	5,460.57	5,410.57	N 1,837.05	E	287.84	1,859.46	
	5810	5,470.05	5,420.05	N 1,838.97	E	290.38	1,861.75	
	5820	5,479.53	5,429.53	N 1,840.88	E	292.92	1,864.04	
	5830	5,489.01	5,439.01	N 1,842.79	E	295.45	1,866.32	
	5840	5,498.50	5,448.50	N 1,844.69	E	297.97	1,868.60	
	5850	5,507.99	5,457.99	N 1,846.59	E	300.49	1,870.88	
	5860	5,517.48	5,467.48	N 1,848.48	E	303.00	1,873.15	
	5870	5,526.98	5,476.98	N 1,850.36	E	305.50	1,875.41	
	5880	5,536.48	5,486.48	N 1,852.24	E	308.00	1,877.68	
	5890	5,545.98	5,495.98	N 1,854.12	E	310.48	1,879.93	
	5900	5,555.49	5,505.49	N 1,855.99	E	312.96	1,882.19	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	5910	5,565.00	5,515.00	N 1,857.85	E	315.44	1,884.44	
	5920	5,574.51	5,524.51	N 1,859.71	E	317.90	1,886.68	
	5930	5,584.02	5,534.02	N 1,861.56	E	320.36	1,888.92	
	5940	5,593.54	5,543.54	N 1,863.40	E	322.81	1,891.16	
	5950	5,603.06	5,553.06	N 1,865.25	E	325.25	1,893.39	
	5960	5,612.59	5,562.59	N 1,867.08	E	327.69	1,895.62	
	5970	5,622.11	5,572.11	N 1,868.91	E	330.11	1,897.84	
	5980	5,631.64	5,581.64	N 1,870.73	E	332.54	1,900.06	
	5990	5,641.17	5,591.17	N 1,872.55	E	334.95	1,902.27	
	6000	5,650.71	5,600.71	N 1,874.37	E	337.35	1,904.48	
	6010	5,660.25	5,610.25	N 1,876.17	E	339.75	1,906.69	
	6020	5,669.79	5,619.79	N 1,877.98	E	342.14	1,908.89	
	6030	5,679.33	5,629.33	N 1,879.77	E	344.53	1,911.08	
	6040	5,688.88	5,638.88	N 1,881.56	E	346.90	1,913.28	
	6050	5,698.43	5,648.43	N 1,883.35	E	349.27	1,915.46	
	6060	5,707.98	5,657.98	N 1,885.13	E	351.64	1,917.64	
	6070	5,717.54	5,667.54	N 1,886.90	E	353.99	1,919.82	
	6080	5,727.10	5,677.10	N 1,888.67	E	356.34	1,921.99	
	6090	5,736.66	5,686.66	N 1,890.43	E	358.68	1,924.16	
	6100	5,746.22	5,696.22	N 1,892.19	E	361.01	1,926.32	
	6110	5,755.79	5,705.79	N 1,893.94	E	363.33	1,928.48	
	6120	5,765.36	5,715.36	N 1,895.69	E	365.65	1,930.63	
	6130	5,774.93	5,724.93	N 1,897.43	E	367.96	1,932.78	
	6140	5,784.51	5,734.51	N 1,899.16	E	370.26	1,934.92	
*	6141	5,785.47	5,735.47	N 1,899.34	E	370.49	1,935.14	*
	6150	5,794.09	5,744.09	N 1,900.63	E	372.73	1,936.83	
	6160	5,803.67	5,753.67	N 1,902.06	E	375.21	1,938.72	
	6170	5,813.25	5,763.25	N 1,903.49	E	377.69	1,940.60	
	6180	5,822.84	5,772.84	N 1,904.92	E	380.16	1,942.48	
	6190	5,832.42	5,782.42	N 1,906.34	E	382.62	1,944.36	
	6200	5,842.01	5,792.01	N 1,907.75	E	385.07	1,946.23	
	6210	5,851.61	5,801.61	N 1,909.16	E	387.51	1,948.10	
	6220	5,861.20	5,811.20	N 1,910.57	E	389.95	1,949.96	
	6230	5,870.80	5,820.80	N 1,911.98	E	392.38	1,951.82	
	6240	5,880.40	5,830.40	N 1,913.37	E	394.81	1,953.68	
	6250	5,890.00	5,840.00	N 1,914.77	E	397.22	1,955.54	
	6260	5,899.61	5,849.61	N 1,916.16	E	399.63	1,957.39	
	6270	5,909.22	5,859.22	N 1,917.55	E	402.03	1,959.24	
	6280	5,918.83	5,868.83	N 1,918.93	E	404.43	1,961.08	
	6290	5,928.44	5,878.44	N 1,920.31	E	406.81	1,962.92	
	6300	5,938.06	5,888.06	N 1,921.68	E	409.19	1,964.76	
	6310	5,947.67	5,897.67	N 1,923.05	E	411.56	1,966.60	
	6320	5,957.29	5,907.29	N 1,924.41	E	413.93	1,968.43	
	6330	5,966.92	5,916.92	N 1,925.77	E	416.28	1,970.26	
	6340	5,976.54	5,926.54	N 1,927.13	E	418.63	1,972.08	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	6350	5,986.17	5,936.17	N 1,928.48	E	420.98	1,973.90	
	6360	5,995.80	5,945.80	N 1,929.83	E	423.31	1,975.71	
	6370	6,005.43	5,955.43	N 1,931.18	E	425.64	1,977.53	
	6380	6,015.06	5,965.06	N 1,932.52	E	427.96	1,979.34	
*	6388	6,022.77	5,972.77	N 1,933.58	E	429.81	1,980.78	*
	6390	6,024.70	5,974.70	N 1,933.69	E	430.34	1,980.99	
	6400	6,034.34	5,984.34	N 1,934.19	E	432.95	1,982.06	
	6410	6,043.98	5,993.98	N 1,934.70	E	435.56	1,983.12	
	6420	6,053.62	6,003.62	N 1,935.21	E	438.16	1,984.19	
	6430	6,063.27	6,013.27	N 1,935.71	E	440.75	1,985.26	
	6440	6,072.91	6,022.91	N 1,936.21	E	443.34	1,986.32	
	6450	6,082.56	6,032.56	N 1,936.71	E	445.91	1,987.39	
	6460	6,092.21	6,042.21	N 1,937.21	E	448.49	1,988.45	
	6470	6,101.87	6,051.87	N 1,937.71	E	451.05	1,989.52	
	6480	6,111.52	6,061.52	N 1,938.21	E	453.61	1,990.58	
	6490	6,121.18	6,071.18	N 1,938.71	E	456.16	1,991.65	
	6500	6,130.84	6,080.84	N 1,939.20	E	458.70	1,992.71	
	6510	6,140.50	6,090.50	N 1,939.69	E	461.24	1,993.78	
	6520	6,150.16	6,100.16	N 1,940.18	E	463.76	1,994.84	
	6530	6,159.83	6,109.83	N 1,940.67	E	466.28	1,995.91	
	6540	6,169.49	6,119.49	N 1,941.16	E	468.80	1,996.97	
	6550	6,179.16	6,129.16	N 1,941.65	E	471.30	1,998.03	
	6560	6,188.83	6,138.83	N 1,942.14	E	473.80	1,999.10	
	6570	6,198.50	6,148.50	N 1,942.62	E	476.30	2,000.16	
	6580	6,208.18	6,158.18	N 1,943.10	E	478.78	2,001.22	
	6590	6,217.85	6,167.85	N 1,943.58	E	481.26	2,002.28	
	6600	6,227.53	6,177.53	N 1,944.06	E	483.73	2,003.34	
	6610	6,237.21	6,187.21	N 1,944.54	E	486.19	2,004.40	
	6620	6,246.89	6,196.89	N 1,945.02	E	488.65	2,005.46	
	6630	6,256.58	6,206.58	N 1,945.50	E	491.10	2,006.52	
	6640	6,266.26	6,216.26	N 1,945.97	E	493.54	2,007.58	
	6650	6,275.95	6,225.95	N 1,946.44	E	495.97	2,008.64	
	6660	6,285.64	6,235.64	N 1,946.92	E	498.40	2,009.70	
	6670	6,295.33	6,245.33	N 1,947.39	E	500.82	2,010.76	
	6680	6,305.03	6,255.03	N 1,947.86	E	503.23	2,011.81	
	6690	6,314.72	6,264.72	N 1,948.32	E	505.64	2,012.87	
	6700	6,324.42	6,274.42	N 1,948.79	E	508.03	2,013.92	
	6710	6,334.12	6,284.12	N 1,949.25	E	510.42	2,014.98	
	6720	6,343.82	6,293.82	N 1,949.72	E	512.81	2,016.03	
	6730	6,353.52	6,303.52	N 1,950.18	E	515.18	2,017.08	
	6740	6,363.22	6,313.22	N 1,950.64	E	517.55	2,018.13	
	6750	6,372.93	6,322.93	N 1,951.10	E	519.91	2,019.18	
	6760	6,382.64	6,332.64	N 1,951.56	E	522.27	2,020.23	
	6770	6,392.35	6,342.35	N 1,952.01	E	524.62	2,021.28	
	6780	6,402.06	6,352.06	N 1,952.47	E	526.96	2,022.33	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
	6790	6,411.77	6,361.77	N 1,952.92	E	529.29	2,023.38	
	6800	6,421.49	6,371.49	N 1,953.37	E	531.61	2,024.42	
	6810	6,431.21	6,381.21	N 1,953.82	E	533.93	2,025.47	
	6820	6,440.93	6,390.93	N 1,954.27	E	536.24	2,026.51	
	6830	6,450.65	6,400.65	N 1,954.72	E	538.55	2,027.55	
	6840	6,460.37	6,410.37	N 1,955.17	E	540.84	2,028.59	
	6850	6,470.09	6,420.09	N 1,955.61	E	543.13	2,029.63	
	6860	6,479.82	6,429.82	N 1,956.06	E	545.41	2,030.67	
	6870	6,489.55	6,439.55	N 1,956.50	E	547.69	2,031.71	
	6880	6,499.28	6,449.28	N 1,956.94	E	549.96	2,032.75	
	6890	6,509.01	6,459.01	N 1,957.38	E	552.22	2,033.78	
	6900	6,518.74	6,468.74	N 1,957.82	E	554.47	2,034.82	
*	6904	6,522.63	6,472.63	N 1,957.99	E	555.37	2,035.23	*
	6910	6,528.47	6,478.47	N 1,957.28	E	556.55	2,034.87	
	6920	6,538.21	6,488.21	N 1,956.10	E	558.52	2,034.27	
	6930	6,547.94	6,497.94	N 1,954.91	E	560.49	2,033.68	
	6940	6,557.67	6,507.67	N 1,953.72	E	562.47	2,033.08	
	6950	6,567.40	6,517.40	N 1,952.54	E	564.45	2,032.49	
	6960	6,577.13	6,527.13	N 1,951.34	E	566.43	2,031.89	
	6970	6,586.85	6,536.85	N 1,950.15	E	568.42	2,031.30	
	6980	6,596.58	6,546.58	N 1,948.95	E	570.41	2,030.71	
	6990	6,606.31	6,556.31	N 1,947.76	E	572.40	2,030.12	
	7000	6,616.03	6,566.03	N 1,946.56	E	574.40	2,029.54	
	7010	6,625.76	6,575.76	N 1,945.36	E	576.40	2,028.95	
	7020	6,635.48	6,585.48	N 1,944.15	E	578.40	2,028.37	
	7030	6,645.20	6,595.20	N 1,942.95	E	580.40	2,027.79	
	7040	6,654.92	6,604.92	N 1,941.74	E	582.41	2,027.21	
	7050	6,664.64	6,614.64	N 1,940.53	E	584.43	2,026.63	
	7060	6,674.36	6,624.36	N 1,939.32	E	586.44	2,026.05	
	7070	6,684.08	6,634.08	N 1,938.11	E	588.46	2,025.48	
	7080	6,693.80	6,643.80	N 1,936.89	E	590.48	2,024.90	
	7090	6,703.52	6,653.52	N 1,935.67	E	592.51	2,024.33	
	7100	6,713.23	6,663.23	N 1,934.46	E	594.54	2,023.76	
	7110	6,722.95	6,672.95	N 1,933.23	E	596.57	2,023.19	
	7120	6,732.66	6,682.66	N 1,932.01	E	598.61	2,022.62	
	7130	6,742.37	6,692.37	N 1,930.79	E	600.64	2,022.06	
	7140	6,752.09	6,702.09	N 1,929.56	E	602.69	2,021.49	
	7150	6,761.80	6,711.80	N 1,928.33	E	604.73	2,020.93	
	7160	6,771.51	6,721.51	N 1,927.10	E	606.78	2,020.37	
	7170	6,781.22	6,731.22	N 1,925.87	E	608.83	2,019.81	
	7180	6,790.93	6,740.93	N 1,924.63	E	610.89	2,019.26	
	7190	6,800.63	6,750.63	N 1,923.39	E	612.95	2,018.70	
	7200	6,810.34	6,760.34	N 1,922.16	E	615.01	2,018.15	
	7210	6,820.04	6,770.04	N 1,920.92	E	617.07	2,017.60	
	7220	6,829.75	6,779.75	N 1,919.67	E	619.14	2,017.05	

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE
7230	6,839.45	6,789.45	N 1,918.43	E	621.21	2,016.50
7240	6,849.16	6,799.16	N 1,917.18	E	623.29	2,015.96
7250	6,858.86	6,808.86	N 1,915.93	E	625.37	2,015.41
7260	6,868.56	6,818.56	N 1,914.68	E	627.45	2,014.87
7270	6,878.26	6,828.26	N 1,913.43	E	629.53	2,014.33
7280	6,887.96	6,837.96	N 1,912.17	E	631.62	2,013.79
7290	6,897.65	6,847.65	N 1,910.92	E	633.71	2,013.26
7300	6,907.35	6,857.35	N 1,909.66	E	635.81	2,012.72
7310	6,917.05	6,867.05	N 1,908.40	E	637.90	2,012.19
7320	6,926.74	6,876.74	N 1,907.14	E	640.00	2,011.66
7330	6,936.44	6,886.44	N 1,905.87	E	642.11	2,011.13
7340	6,946.13	6,896.13	N 1,904.61	E	644.22	2,010.61
7350	6,955.82	6,905.82	N 1,903.34	E	646.33	2,010.08
7360	6,965.51	6,915.51	N 1,902.07	E	648.44	2,009.56
7370	6,975.20	6,925.20	N 1,900.80	E	650.56	2,009.04
7380	6,984.89	6,934.89	N 1,899.52	E	652.68	2,008.53
7390	6,994.58	6,944.58	N 1,898.25	E	654.80	2,008.01
7400	7,004.27	6,954.27	N 1,896.97	E	656.93	2,007.50
7410	7,013.95	6,963.95	N 1,895.69	E	659.06	2,006.99
7420	7,023.64	6,973.64	N 1,894.41	E	661.19	2,006.48
7430	7,033.32	6,983.32	N 1,893.12	E	663.33	2,005.97
7440	7,043.01	6,993.01	N 1,891.84	E	665.47	2,005.47
7450	7,052.69	7,002.69	N 1,890.55	E	667.61	2,004.96
7460	7,062.37	7,012.37	N 1,889.26	E	669.76	2,004.46
7470	7,072.05	7,022.05	N 1,887.97	E	671.91	2,003.97
7480	7,081.73	7,031.73	N 1,886.67	E	674.06	2,003.47
7490	7,091.41	7,041.41	N 1,885.38	E	676.22	2,002.98
7500	7,101.09	7,051.09	N 1,884.08	E	678.38	2,002.49
7510	7,110.76	7,060.76	N 1,882.78	E	680.54	2,002.00
7520	7,120.44	7,070.44	N 1,881.48	E	682.71	2,001.51
7530	7,130.11	7,080.11	N 1,880.17	E	684.88	2,001.03
7540	7,139.78	7,089.78	N 1,878.87	E	687.05	2,000.55
7550	7,149.46	7,099.46	N 1,877.56	E	689.23	2,000.07
7560	7,159.13	7,109.13	N 1,876.25	E	691.41	1,999.59
7570	7,168.80	7,118.80	N 1,874.94	E	693.59	1,999.12
7580	7,178.47	7,128.47	N 1,873.63	E	695.78	1,998.65
7590	7,188.14	7,138.14	N 1,872.31	E	697.97	1,998.18
7600	7,197.80	7,147.80	N 1,870.99	E	700.16	1,997.71
7610	7,207.47	7,157.47	N 1,869.67	E	702.35	1,997.24
7620	7,217.14	7,167.14	N 1,868.35	E	704.55	1,996.78
7630	7,226.80	7,176.80	N 1,867.03	E	706.75	1,996.32
7640	7,236.46	7,186.46	N 1,865.70	E	708.96	1,995.87
7650	7,246.13	7,196.13	N 1,864.38	E	711.17	1,995.41
7660	7,255.79	7,205.79	N 1,863.05	E	713.38	1,994.96
7670	7,265.45	7,215.45	N 1,861.72	E	715.60	1,994.51

DIRECTIONAL SURVEY FOR WELL L016-12

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-785-D-L016 (L016-12) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 42

CONDUCTOR DATA: 370' MD. DEVIATION: 15.00 DEGREES ORIENTATION: N - 14.74 - E

	MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES			HORIZONTAL DISTANCE	
*	7680	7,275.11	7,225.11	N 1,860.38	E	717.81	1,994.06	*
	7690	7,284.76	7,234.76	N 1,858.99	E	720.00	1,993.55	
	7700	7,294.42	7,244.42	N 1,857.59	E	722.20	1,993.04	
	7710	7,304.07	7,254.07	N 1,856.18	E	724.41	1,992.53	
	7720	7,313.72	7,263.72	N 1,854.77	E	726.62	1,992.03	
*	7729	7,322.40	7,272.40	N 1,853.50	E	728.62	1,991.57	*