

DIRECTIONAL SURVEY FOR WELL

RAW DATA

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

THE CONDUCTOR IS VERTICAL

No.	MEASURED DEPTH	DEVIATION ANGLE	ORIENTATION
1	520	0.50	S - 8.00 - E
2	735	0.25	N - 38.00 - E
3	987	2.00	N - 54.00 - W
4	1021	1.75	N - 25.00 - W
5	1041	2.25	N - 20.00 - W
6	1105	3.75	N - 42.00 - W
7	1135	5.75	N - 45.00 - W
8	1168	7.25	N - 53.00 - W
9	1200	8.75	N - 63.00 - W
10	1231	10.75	N - 62.00 - W
11	1262	12.50	N - 59.00 - W
12	1340	16.75	N - 57.00 - W
13	1463	20.25	N - 56.00 - W
14	1559	23.25	N - 57.00 - W
15	1653	26.25	N - 55.00 - W
16	1911	32.00	N - 54.00 - W
17	2011	33.25	N - 53.00 - W
18	2200	33.25	N - 51.00 - W
19	2425	32.75	N - 48.00 - W
20	2596	33.25	N - 49.00 - W
21	2785	33.75	N - 48.00 - W
22	2973	33.50	N - 47.00 - W
23	3200	33.25	N - 45.00 - W
24	3478	33.25	N - 42.50 - W
25	3700	33.50	N - 40.00 - W
26	3880	34.00	N - 38.00 - W
27	4004	34.00	N - 36.00 - W
28	4191	34.50	N - 35.00 - W
29	4381	34.50	N - 33.00 - W
30	4600	34.75	N - 33.00 - W
31	4785	35.00	N - 32.00 - W
32	4917	34.00	N - 32.00 - W
33	5041	32.00	N - 33.00 - W
34	5157	31.25	N - 30.50 - W
35	5285	30.75	N - 32.00 - W
36	5412	29.75	N - 30.00 - W
37	5535	28.75	N - 29.00 - W
38	5903	22.50	N - 27.00 - W
39	6206	22.00	N - 23.00 - W
40	6585	21.00	N - 19.00 - W
41	7657	20.50	N - 5.50 - E
42	8200	25.50	N - 18.00 - E
43	8210	25.60	N - 18.23 - E

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO.: Z29-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL CONDUCTOR DATA: 370' MD.

MEASURED	VERTICAL	TRUE	TOTAL CD - ORDINATES	HORIZONTAL	DISTANCE
----------	----------	------	----------------------	------------	----------

370	370.00	320.00	N	0.00	E	0.00	0.00	*
380	379.99	329.99	S	0.00	E	0.00	0.00	
390	389.99	339.99	S	0.01	E	0.00	0.00	
400	399.99	349.99	S	0.03	E	0.00	0.00	
410	409.99	359.99	S	0.05	E	0.00	0.00	
420	419.99	369.99	S	0.08	E	0.01	0.01	
430	429.99	379.99	S	0.12	E	0.01	0.01	
440	439.99	389.99	S	0.16	E	0.02	0.02	
450	449.99	399.99	S	0.20	E	0.02	0.02	
460	459.99	409.99	S	0.25	E	0.03	0.03	
470	469.99	419.99	S	0.31	E	0.04	0.04	
480	479.99	429.99	S	0.38	E	0.05	0.05	
490	489.99	439.99	S	0.44	E	0.06	0.06	
500	499.99	449.99	S	0.52	E	0.07	0.07	
510	509.99	459.99	S	0.60	E	0.08	0.08	
520	519.99	469.99	S	0.69	E	0.09	0.09	*
530	529.99	479.99	S	0.62	E	0.14	0.14	
540	539.99	489.99	S	0.55	E	0.20	0.20	
550	549.99	499.99	S	0.49	E	0.25	0.25	
560	559.99	509.99	S	0.43	E	0.29	0.29	
570	569.99	519.99	S	0.37	E	0.34	0.34	
580	579.99	529.99	S	0.31	E	0.39	0.39	
590	589.99	539.99	S	0.25	E	0.43	0.43	
600	599.99	549.99	S	0.19	E	0.48	0.48	
610	609.99	559.99	S	0.14	E	0.52	0.52	
620	619.99	569.99	S	0.09	E	0.56	0.56	
630	629.99	579.99	S	0.04	E	0.60	0.60	
640	639.99	589.99	N	0.00	E	0.64	0.64	
650	649.99	599.99	N	0.05	E	0.68	0.68	
660	659.99	609.99	N	0.10	E	0.71	0.72	
670	669.99	619.99	N	0.14	E	0.75	0.76	
680	679.99	629.99	N	0.19	E	0.78	0.80	
690	689.99	639.99	N	0.23	E	0.81	0.85	
700	699.99	649.99	N	0.27	E	0.85	0.89	
710	709.99	659.99	N	0.31	E	0.88	0.93	
720	719.99	669.99	N	0.34	E	0.90	0.97	
730	729.99	679.99	N	0.38	E	0.93	1.01	
735	734.99	684.99	N	0.40	E	0.95	1.03	*
740	739.99	689.99	N	0.41	E	0.93	1.01	
750	749.99	699.99	N	0.45	E	0.88	0.98	
760	759.99	709.99	N	0.49	E	0.82	0.95	
770	769.99	719.99	N	0.54	E	0.75	0.92	
780	779.99	729.99	N	0.60	E	0.67	0.90	
790	789.99	739.99	N	0.66	E	0.58	0.88	
800	799.99	749.99	N	0.73	E	0.48	0.88	

DIRECTIONAL SURVEY FOR WELL F016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z24-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

810	809.98	759.98	N	0.81	E	0.37	0.90
820	819.98	769.98	N	0.90	E	0.25	0.94
830	829.98	779.98	N	0.99	E	0.12	1.00
840	839.98	789.98	N	1.09	W	0.01	1.09
850	849.98	799.98	N	1.20	W	0.15	1.21
860	859.98	809.98	N	1.32	W	0.31	1.35
870	869.98	819.98	N	1.44	W	0.48	1.52
880	879.97	829.97	N	1.57	W	0.66	1.70
890	889.97	839.97	N	1.70	W	0.84	1.90
900	899.97	849.97	N	1.85	W	1.04	2.12
910	909.96	859.96	N	2.00	W	1.25	2.36
920	919.96	869.96	N	2.15	W	1.47	2.61
930	929.96	879.96	N	2.32	W	1.69	2.87
940	939.95	889.95	N	2.49	W	1.93	3.15
950	949.95	899.95	N	2.67	W	2.17	3.44
960	959.94	909.94	N	2.85	W	2.43	3.75
970	969.94	919.94	N	3.05	W	2.70	4.07
980	979.93	929.93	N	3.25	W	2.97	4.40
987	986.93	936.93	N	3.39	W	3.17	4.64
990	989.93	939.93	N	3.49	W	3.21	4.74
1000	999.92	949.92	N	3.79	W	3.35	5.06
1010	1,009.91	959.91	N	4.08	W	3.49	5.37
1020	1,019.91	969.91	N	4.35	W	3.62	5.66
1021	1,020.91	970.91	N	4.38	W	3.63	5.69
1030	1,029.90	979.90	N	4.67	W	3.74	5.99
1040	1,039.90	989.90	N	5.04	W	3.87	6.35
1041	1,040.90	990.90	N	5.08	W	3.88	6.39
1050	1,049.89	999.89	N	5.36	W	4.14	6.78
1060	1,059.88	1,009.88	N	5.71	W	4.46	7.25
1070	1,069.86	1,019.86	N	6.09	W	4.80	7.76
1080	1,079.85	1,029.85	N	6.50	W	5.17	8.31
1090	1,089.83	1,039.83	N	6.94	W	5.56	8.90
1100	1,099.81	1,049.81	N	7.41	W	5.99	9.53
1105	1,104.80	1,054.80	N	7.66	W	6.21	9.86
1110	1,109.79	1,059.79	N	7.91	W	6.46	10.21
1120	1,119.75	1,069.75	N	8.49	W	7.04	11.04
1130	1,129.71	1,079.71	N	9.16	W	7.71	11.98
1135	1,134.68	1,084.68	N	9.52	W	8.07	12.48
1140	1,139.66	1,089.66	N	9.83	W	8.48	12.98
1150	1,149.59	1,099.59	N	10.50	W	9.38	14.08
1160	1,159.52	1,109.52	N	11.22	W	10.33	15.26
1168	1,167.46	1,117.46	N	11.83	W	11.14	16.25
1170	1,169.44	1,119.44	N	11.95	W	11.37	16.49
1180	1,179.35	1,129.35	N	12.57	W	12.58	17.78
1190	1,189.24	1,139.24	N	13.22	W	13.86	19.16

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

1200	1,199.13	1,149.13	N	13.91	W	15.22	20.62	*
1210	1,208.99	1,158.99	N	14.68	W	16.66	22.20	
1220	1,218.84	1,168.84	N	15.49	W	18.20	23.90	
1230	1,228.67	1,178.67	N	16.36	W	19.84	25.72	
1231	1,229.65	1,179.65	N	16.45	W	20.00	25.90	*
1240	1,238.48	1,188.48	N	17.36	W	21.51	27.64	
1250	1,248.26	1,198.26	N	18.41	W	23.26	29.67	
1260	1,258.03	1,208.03	N	19.52	W	25.10	31.80	
1262	1,259.98	1,209.98	N	19.74	W	25.47	32.23	*
1270	1,267.78	1,217.78	N	20.72	W	26.97	34.01	
1280	1,277.50	1,227.50	N	21.99	W	28.93	36.34	
1290	1,287.21	1,237.21	N	23.31	W	30.96	38.75	
1300	1,296.88	1,246.88	N	24.68	W	33.07	41.26	
1310	1,306.54	1,256.54	N	26.10	W	35.26	43.87	
1320	1,316.17	1,266.17	N	27.57	W	37.52	46.56	
1330	1,325.77	1,275.77	N	29.09	W	39.86	49.35	
1340	1,335.35	1,285.35	N	30.66	W	42.28	52.23	*
1350	1,344.91	1,294.91	N	32.29	W	44.71	55.15	
1360	1,354.45	1,304.45	N	33.96	W	47.18	58.13	
1370	1,363.99	1,313.99	N	35.65	W	49.68	61.15	
1380	1,373.50	1,323.50	N	37.37	W	52.23	64.22	
1390	1,383.00	1,333.00	N	39.11	W	54.82	67.34	
1400	1,392.49	1,342.49	N	40.88	W	57.44	70.51	
1410	1,401.96	1,351.96	N	42.68	W	60.10	73.72	
1420	1,411.41	1,361.41	N	44.50	W	62.81	76.98	
1430	1,420.85	1,370.85	N	46.35	W	65.55	80.28	
1440	1,430.27	1,380.27	N	48.23	W	68.33	83.64	
1450	1,439.67	1,389.67	N	50.13	W	71.15	87.04	
1460	1,449.06	1,399.06	N	52.06	W	74.01	90.48	
1463	1,451.88	1,401.88	N	52.64	W	74.87	91.52	*
1470	1,458.43	1,408.43	N	53.97	W	76.92	93.97	
1480	1,467.78	1,417.78	N	55.90	W	79.90	97.51	
1490	1,477.11	1,427.11	N	57.86	W	82.91	101.11	
1500	1,486.42	1,436.42	N	59.85	W	85.98	104.76	
1510	1,495.71	1,445.71	N	61.86	W	89.08	108.46	
1520	1,504.98	1,454.98	N	63.91	W	92.22	112.21	
1530	1,514.23	1,464.23	N	65.98	W	95.41	116.01	
1540	1,523.46	1,473.46	N	68.08	W	98.64	119.86	
1550	1,532.67	1,482.67	N	70.20	W	101.92	123.76	
1559	1,540.94	1,490.94	N	72.14	W	104.90	127.31	*
1560	1,541.86	1,491.86	N	72.36	W	105.22	127.70	
1570	1,551.02	1,501.02	N	74.66	W	108.50	131.71	
1580	1,560.16	1,510.16	N	76.99	W	111.82	135.76	
1590	1,569.28	1,519.28	N	79.34	W	115.18	139.87	
1600	1,578.37	1,528.37	N	81.72	W	118.59	144.02	

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z29-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

1610	1,587.45	1,537.45	N 84.14 W	122.03
1620	1,596.50	1,546.50	N 86.58 W	125.52
1630	1,605.52	1,555.52	N 89.05 W	129.05
1640	1,614.52	1,564.52	N 91.55 W	132.62
1650	1,623.50	1,573.50	N 94.08 W	136.23
1653	1,626.19	1,576.19	N 94.84 W	137.32
1660	1,632.46	1,582.46	N 96.67 W	139.84
1670	1,641.40	1,591.40	N 99.30 W	143.46
1680	1,650.32	1,600.32	N 101.96 W	147.12
1690	1,659.22	1,609.22	N 104.63 W	150.80
1700	1,668.11	1,618.11	N 107.33 W	154.51
1710	1,676.98	1,626.98	N 110.04 W	158.25
1720	1,685.83	1,635.83	N 112.78 W	162.01
1730	1,694.66	1,644.66	N 115.54 W	165.81
1740	1,703.47	1,653.47	N 118.31 W	169.63
1750	1,712.27	1,662.27	N 121.11 W	173.48
1760	1,721.05	1,671.05	N 123.93 W	177.35
1770	1,729.80	1,679.80	N 126.76 W	181.26
1780	1,738.54	1,688.54	N 129.62 W	185.19
1790	1,747.26	1,697.26	N 132.50 W	189.15
1800	1,755.97	1,705.97	N 135.39 W	193.14
1810	1,764.65	1,714.65	N 138.31 W	197.15
1820	1,773.31	1,723.31	N 141.25 W	201.19
1830	1,781.95	1,731.95	N 144.20 W	205.26
1840	1,790.58	1,740.58	N 147.18 W	209.36
1850	1,799.18	1,749.18	N 150.18 W	213.48
1860	1,807.76	1,757.76	N 153.19 W	217.63
1870	1,816.33	1,766.33	N 156.23 W	221.81
1880	1,824.87	1,774.87	N 159.28 W	226.01
1890	1,833.40	1,783.40	N 162.35 W	230.24
1900	1,841.90	1,791.90	N 165.45 W	234.50
1910	1,850.38	1,800.38	N 168.56 W	238.79
1911	1,851.23	1,801.23	N 168.87 W	239.22
1920	1,858.85	1,808.85	N 171.75 W	243.04
1930	1,867.31	1,817.31	N 174.96 W	247.30
1940	1,875.76	1,825.76	N 178.18 W	251.57
1950	1,884.19	1,834.19	N 181.42 W	255.86
1960	1,892.62	1,842.62	N 184.66 W	260.17
1970	1,901.03	1,851.03	N 187.91 W	264.48
1980	1,909.43	1,859.43	N 191.18 W	268.82
1990	1,917.82	1,867.82	N 194.46 W	273.17
2000	1,926.19	1,876.19	N 197.74 W	277.53
2010	1,934.56	1,884.56	N 201.04 W	281.91
2011	1,935.39	1,885.39	N 201.37 W	282.34
2020	1,942.92	1,892.92	N 204.48 W	286.18
148.23				
152.49				
156.79				
161.15				
165.56				
166.89				
170.00				
174.48				
179.00				
183.55				
188.13				
192.75				
197.40				
202.09				
206.82				
211.67				
216.36				
221.19				
226.05				
230.94				
235.87				
240.83				
245.83				
250.86				
255.92				
261.01				
266.14				
271.31				
276.50				
281.73				
286.99				
292.29				
292.82				
297.60				
302.93				
308.28				
313.65				
319.04				
324.45				
329.87				
335.31				
340.77				
346.25				
346.80				
351.73				

*

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z20-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH VERTICAL TRUE SUB-SEA TOTAL CD - ORDINATES HORIZONTAL DISTANCE

2030	1,951.28	1,901.28	N	207.93	W	290.44	357.20
2040	1,959.64	1,909.64	N	211.38	W	294.70	362.67
2050	1,968.01	1,918.01	N	214.83	W	298.96	368.15
2060	1,976.37	1,926.37	N	218.28	W	303.22	373.62
2070	1,984.73	1,934.73	N	221.73	W	307.48	379.09
2080	1,993.10	1,943.10	N	225.18	W	311.75	384.57
2090	2,001.46	1,951.46	N	228.63	W	316.01	390.04
2100	2,009.82	1,959.82	N	232.08	W	320.27	395.52
2110	2,018.18	1,968.18	N	235.53	W	324.53	400.99
2120	2,026.55	1,976.55	N	238.98	W	328.79	406.47
2130	2,034.91	1,984.91	N	242.43	W	333.05	411.94
2140	2,043.27	1,993.27	N	245.88	W	337.31	417.42
2150	2,051.64	2,001.64	N	249.33	W	341.57	422.90
2160	2,060.00	2,010.00	N	252.78	W	345.83	428.37
2170	2,068.36	2,018.36	N	256.23	W	350.09	433.85
2180	2,076.72	2,026.72	N	259.69	W	354.36	439.32
2190	2,085.09	2,035.09	N	263.14	W	358.62	444.80
2200	2,093.45	2,043.45	N	266.59	W	362.88	450.28
2210	2,101.81	2,051.81	N	270.05	W	366.95	455.73
2220	2,110.18	2,060.18	N	273.92	W	371.02	461.18
2230	2,118.55	2,068.55	N	277.58	W	375.09	466.63
2240	2,126.92	2,076.92	N	281.24	W	379.15	472.07
2250	2,135.30	2,085.30	N	284.90	W	383.21	477.52
2260	2,143.67	2,093.67	N	288.55	W	387.27	482.96
2270	2,152.05	2,102.05	N	292.21	W	391.33	488.39
2280	2,160.43	2,110.43	N	295.86	W	395.39	493.83
2290	2,168.81	2,118.81	N	299.51	W	399.44	499.26
2300	2,177.19	2,127.19	N	303.15	W	403.49	504.69
2310	2,185.58	2,135.58	N	306.80	W	407.54	510.11
2320	2,193.97	2,143.97	N	310.44	W	411.58	515.54
2330	2,202.36	2,152.36	N	314.08	W	415.63	520.96
2340	2,210.75	2,160.75	N	317.72	W	419.67	526.38
2350	2,219.15	2,169.15	N	321.36	W	423.71	531.79
2360	2,227.54	2,177.54	N	324.99	W	427.74	537.20
2370	2,235.94	2,185.94	N	328.62	W	431.78	542.61
2380	2,244.34	2,194.34	N	332.25	W	435.81	548.02
2390	2,252.75	2,202.75	N	335.88	W	439.84	553.42
2400	2,261.15	2,211.15	N	339.51	W	443.86	558.82
2410	2,269.56	2,219.56	N	343.13	W	447.89	564.22
2420	2,277.97	2,227.97	N	346.75	W	451.91	569.61
2425	2,282.17	2,232.17	N	348.56	W	453.92	572.31
2430	2,286.38	2,236.38	N	350.33	W	455.96	575.01
2440	2,294.78	2,244.78	N	353.89	W	460.05	580.42
2450	2,303.19	2,253.19	N	357.44	W	464.14	585.83
2460	2,311.59	2,261.59	N	361.00	W	468.23	591.24

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

2470	2,319.99	2,269.99	N 364.57	W 472.33	596.66
2480	2,328.38	2,278.38	N 368.13	W 476.43	602.09
2490	2,336.77	2,286.77	N 371.70	W 480.54	607.52
2500	2,345.16	2,295.16	N 375.27	W 484.64	612.95
2510	2,353.55	2,303.55	N 378.84	W 488.75	618.39
2520	2,361.93	2,311.93	N 382.42	W 492.87	623.83
2530	2,370.32	2,320.32	N 385.99	W 496.98	629.27
2540	2,378.69	2,328.69	N 389.58	W 501.10	634.73
2550	2,387.07	2,337.07	N 393.16	W 505.23	640.18
2560	2,395.44	2,345.44	N 396.75	W 509.35	645.64
2570	2,403.81	2,353.81	N 400.34	W 513.48	651.10
2580	2,412.18	2,362.18	N 403.93	W 517.61	656.57
2590	2,420.54	2,370.54	N 407.53	W 521.75	662.05
2595	2,425.56	2,375.56	N 409.68	W 524.23	665.33
2600	2,428.91	2,378.91	N 411.15	W 525.86	667.52
2610	2,437.27	2,387.27	N 414.82	W 529.94	672.99
2620	2,445.62	2,395.62	N 418.50	W 534.02	678.47
2630	2,453.98	2,403.98	N 422.18	W 538.11	683.96
2640	2,462.33	2,412.33	N 425.86	W 542.20	689.44
2650	2,470.68	2,420.68	N 429.54	W 546.29	694.94
2660	2,479.02	2,429.02	N 433.22	W 550.38	700.43
2670	2,487.37	2,437.37	N 436.91	W 554.47	705.93
2680	2,495.71	2,445.71	N 440.60	W 558.57	711.43
2690	2,504.05	2,454.05	N 444.30	W 562.67	716.94
2700	2,512.39	2,462.39	N 447.99	W 566.78	722.45
2710	2,520.72	2,470.72	N 451.69	W 570.89	727.97
2720	2,529.05	2,479.05	N 455.39	W 575.00	733.49
2730	2,537.38	2,487.38	N 459.09	W 579.11	739.01
2740	2,545.71	2,495.71	N 462.80	W 583.23	744.54
2750	2,554.03	2,504.03	N 466.51	W 587.34	750.07
2760	2,562.35	2,512.35	N 470.22	W 591.47	755.61
2770	2,570.67	2,520.67	N 473.93	W 595.59	761.15
2780	2,578.99	2,528.99	N 477.65	W 599.72	766.69
2785	2,583.14	2,533.14	N 479.51	W 601.78	769.46
2790	2,587.30	2,537.30	N 481.40	W 603.81	772.23
2800	2,595.62	2,545.62	N 485.19	W 607.87	777.77
2810	2,603.94	2,553.94	N 488.98	W 611.93	783.30
2820	2,612.25	2,562.25	N 492.76	W 615.99	788.84
2830	2,620.57	2,570.57	N 496.54	W 620.05	794.37
2840	2,628.90	2,578.90	N 500.32	W 624.10	799.90
2850	2,637.22	2,587.22	N 504.10	W 628.16	805.42
2860	2,645.54	2,595.54	N 507.88	W 632.21	810.95
2870	2,653.87	2,603.87	N 511.66	W 636.26	816.47
2880	2,662.20	2,612.20	N 515.44	W 640.31	822.00
2890	2,670.52	2,620.52	N 519.21	W 644.36	827.52

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

2900	2,678.85	2,628.85	N 522.99	W 648.41
2910	2,687.19	2,637.19	N 526.76	W 652.45
2920	2,695.52	2,645.52	N 530.53	W 656.50
2930	2,703.85	2,653.85	N 534.30	W 660.54
2940	2,712.19	2,662.19	N 538.07	W 664.58
2950	2,720.52	2,670.52	N 541.84	W 668.62
2960	2,728.86	2,678.86	N 545.60	W 672.66
2970	2,737.20	2,687.20	N 549.37	W 676.70
2973	2,739.70	2,689.70	N 550.50	W 677.91
2980	2,745.54	2,695.54	N 553.23	W 680.64
2990	2,753.88	2,703.88	N 557.13	W 684.54
3000	2,762.22	2,712.22	N 561.03	W 688.44
3010	2,770.56	2,720.56	N 564.93	W 692.34
3020	2,778.91	2,728.91	N 568.82	W 696.23
3030	2,787.25	2,737.25	N 572.72	W 700.13
3040	2,795.60	2,745.60	N 576.62	W 704.03
3050	2,803.94	2,753.94	N 580.51	W 707.92
3060	2,812.29	2,762.29	N 584.40	W 711.81
3070	2,820.64	2,770.64	N 588.29	W 715.71
3080	2,828.99	2,778.99	N 592.19	W 719.60
3090	2,837.34	2,787.34	N 596.07	W 723.49
3100	2,845.69	2,795.69	N 599.96	W 727.37
3110	2,854.05	2,804.05	N 603.85	W 731.26
3120	2,862.40	2,812.40	N 607.74	W 735.15
3130	2,870.76	2,820.76	N 611.62	W 739.03
3140	2,879.11	2,829.11	N 615.51	W 742.92
3150	2,887.47	2,837.47	N 619.39	W 746.80
3160	2,895.83	2,845.83	N 623.27	W 750.68
3170	2,904.19	2,854.19	N 627.15	W 754.56
3180	2,912.55	2,862.55	N 631.03	W 758.44
3190	2,920.91	2,870.91	N 634.91	W 762.32
3200	2,929.28	2,879.28	N 638.78	W 766.20
3210	2,937.64	2,887.64	N 642.63	W 769.90
3220	2,946.00	2,896.00	N 646.87	W 773.60
3230	2,954.36	2,904.36	N 650.91	W 777.31
3240	2,962.73	2,912.73	N 654.95	W 781.01
3250	2,971.09	2,921.09	N 659.00	W 784.72
3260	2,979.45	2,929.45	N 663.04	W 788.42
3270	2,987.82	2,937.82	N 667.08	W 792.12
3280	2,996.18	2,946.18	N 671.12	W 795.83
3290	3,004.54	2,954.54	N 675.17	W 799.53
3300	3,012.90	2,962.90	N 679.21	W 803.24
3310	3,021.27	2,971.27	N 683.25	W 806.94
3320	3,029.63	2,979.63	N 687.29	W 810.65
3330	3,037.99	2,987.99	N 691.34	W 814.35

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z26-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CO - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

3340	3,046.36	2,996.36	N 695.38	M 818.05	1,073.67
3350	3,054.72	3,004.72	N 699.42	M 821.76	1,079.11
3360	3,063.08	3,013.08	N 703.46	M 825.46	1,084.55
3370	3,071.44	3,021.44	N 707.51	M 829.17	1,089.99
3380	3,079.81	3,029.81	N 711.55	M 832.87	1,095.44
3390	3,088.17	3,038.17	N 715.59	M 836.58	1,100.88
3400	3,096.53	3,046.53	N 719.63	M 840.28	1,106.32
3410	3,104.90	3,054.90	N 723.68	M 843.98	1,111.76
3420	3,113.26	3,063.26	N 727.72	M 847.69	1,117.21
3430	3,121.62	3,071.62	N 731.76	M 851.39	1,122.65
3440	3,129.98	3,079.98	N 735.80	M 855.10	1,128.10
3450	3,138.35	3,088.35	N 739.85	M 858.80	1,133.54
3460	3,146.71	3,096.71	N 743.89	M 862.50	1,138.99
3470	3,155.07	3,105.07	N 747.93	M 866.21	1,144.43
3478	3,161.76	3,111.76	N 751.16	M 869.17	1,148.79
3480	3,163.44	3,113.44	N 752.00	M 869.88	1,149.87
3490	3,171.80	3,121.80	N 756.21	M 873.40	1,155.29
3500	3,180.16	3,130.16	N 760.41	M 876.93	1,160.70
3510	3,188.52	3,138.52	N 764.61	M 880.46	1,166.12
3520	3,196.87	3,146.87	N 768.82	M 883.99	1,171.55
3530	3,205.23	3,155.23	N 773.03	M 887.52	1,176.97
3540	3,213.59	3,163.59	N 777.23	M 891.05	1,182.40
3550	3,221.94	3,171.94	N 781.44	M 894.58	1,187.83
3560	3,230.30	3,180.30	N 785.65	M 898.11	1,193.26
3570	3,238.65	3,188.65	N 789.86	M 901.65	1,198.69
3580	3,247.00	3,197.00	N 794.08	M 905.18	1,204.13
3590	3,255.35	3,205.35	N 798.29	M 908.72	1,209.56
3600	3,263.70	3,213.70	N 802.51	M 912.25	1,215.00
3610	3,272.05	3,222.05	N 806.72	M 915.79	1,220.44
3620	3,280.40	3,230.40	N 810.94	M 919.33	1,225.89
3630	3,288.75	3,238.75	N 815.16	M 922.87	1,231.34
3640	3,297.09	3,247.09	N 819.38	M 926.41	1,236.78
3650	3,305.43	3,255.43	N 823.60	M 929.96	1,242.23
3660	3,313.78	3,263.78	N 827.83	M 933.50	1,247.69
3670	3,322.12	3,272.12	N 832.05	M 937.04	1,253.14
3680	3,330.46	3,280.46	N 836.28	M 940.59	1,258.60
3690	3,338.80	3,288.80	N 840.50	M 944.14	1,264.06
3700	3,347.14	3,297.14	N 844.73	M 947.68	1,269.52
3710	3,355.48	3,305.48	N 849.08	M 951.09	1,274.96
3720	3,363.81	3,313.81	N 853.44	M 954.49	1,280.40
3730	3,372.14	3,322.14	N 857.80	M 957.89	1,285.84
3740	3,380.47	3,330.47	N 862.16	M 961.30	1,291.29
3750	3,388.79	3,338.79	N 866.53	M 964.71	1,296.74
3760	3,397.12	3,347.12	N 870.89	M 968.13	1,302.20
3770	3,405.44	3,355.44	N 875.27	M 971.54	1,307.67

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

3780	3,413.75	3,363.75	N 879.64	W 974.96	1,313.13
3790	3,422.07	3,372.07	N 884.02	W 978.38	1,318.61
3800	3,430.38	3,380.38	N 888.40	W 981.80	1,324.08
3810	3,438.69	3,388.69	N 892.78	W 985.23	1,329.56
3820	3,447.00	3,397.00	N 897.17	W 988.66	1,335.05
3830	3,455.30	3,405.30	N 901.56	W 992.09	1,340.54
3840	3,463.60	3,413.60	N 905.96	W 995.52	1,346.04
3850	3,471.90	3,421.90	N 910.35	W 998.95	1,351.54
3860	3,480.20	3,430.20	N 914.75	W 1,002.39	1,357.04
3870	3,488.49	3,438.49	N 919.16	W 1,005.83	1,362.55
3880	3,496.78	3,446.78	N 923.56	W 1,009.27	1,368.07
3890	3,505.07	3,455.07	N 928.09	W 1,012.56	1,373.55
3900	3,513.36	3,463.36	N 932.61	W 1,015.85	1,379.03
3910	3,521.65	3,471.65	N 937.14	W 1,019.14	1,384.51
3920	3,529.94	3,479.94	N 941.66	W 1,022.42	1,389.99
3930	3,538.23	3,488.23	N 946.18	W 1,025.71	1,395.47
3940	3,546.52	3,496.52	N 950.71	W 1,029.00	1,400.96
3950	3,554.81	3,504.81	N 955.23	W 1,032.28	1,406.44
3960	3,563.10	3,513.10	N 959.76	W 1,035.57	1,411.93
3970	3,571.39	3,521.39	N 964.28	W 1,038.86	1,417.41
3980	3,579.68	3,529.68	N 968.80	W 1,042.14	1,422.90
3990	3,587.97	3,537.97	N 973.33	W 1,045.43	1,428.39
4000	3,596.26	3,546.26	N 977.85	W 1,048.72	1,433.88
4004	3,599.58	3,549.58	N 979.66	W 1,050.03	1,436.07
4010	3,604.55	3,554.55	N 982.41	W 1,051.96	1,439.36
4020	3,612.84	3,562.84	N 987.00	W 1,055.17	1,444.83
4030	3,621.12	3,571.12	N 991.58	W 1,058.38	1,450.32
4040	3,629.40	3,579.40	N 996.18	W 1,061.60	1,455.80
4050	3,637.68	3,587.68	N 1,000.77	W 1,064.81	1,461.29
4060	3,645.96	3,595.96	N 1,005.37	W 1,068.03	1,466.79
4070	3,654.23	3,604.23	N 1,009.97	W 1,071.26	1,472.29
4080	3,662.50	3,612.50	N 1,014.58	W 1,074.48	1,477.80
4090	3,670.77	3,620.77	N 1,019.18	W 1,077.71	1,483.31
4100	3,679.04	3,629.04	N 1,023.80	W 1,080.94	1,488.82
4110	3,687.30	3,637.30	N 1,028.41	W 1,084.17	1,494.34
4120	3,695.56	3,645.56	N 1,033.03	W 1,087.40	1,499.86
4130	3,703.82	3,653.82	N 1,037.65	W 1,090.63	1,505.39
4140	3,712.07	3,662.07	N 1,042.27	W 1,093.87	1,510.92
4150	3,720.32	3,670.32	N 1,046.90	W 1,097.11	1,516.46
4160	3,728.57	3,678.57	N 1,051.53	W 1,100.35	1,522.00
4170	3,736.82	3,686.82	N 1,056.16	W 1,103.60	1,527.55
4180	3,745.06	3,695.06	N 1,060.80	W 1,106.84	1,533.10
4190	3,753.30	3,703.30	N 1,065.44	W 1,110.09	1,538.66
4191	3,754.13	3,704.13	N 1,065.90	W 1,110.42	1,539.21
4200	3,761.55	3,711.55	N 1,070.18	W 1,113.19	1,544.18

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z20-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

4210	3,769.79	3,719.79	N 1,074.93	W 1,116.28	1,549.69
4220	3,778.03	3,728.03	N 1,079.68	W 1,119.36	1,555.21
4230	3,786.27	3,736.27	N 1,084.43	W 1,122.45	1,560.73
4240	3,794.51	3,744.51	N 1,089.18	W 1,125.53	1,566.25
4250	3,802.75	3,752.75	N 1,093.93	W 1,128.62	1,571.77
4260	3,810.99	3,760.99	N 1,098.68	W 1,131.70	1,577.29
4270	3,819.23	3,769.23	N 1,103.43	W 1,134.79	1,582.82
4280	3,827.48	3,777.48	N 1,108.18	W 1,137.87	1,588.34
4290	3,835.72	3,785.72	N 1,112.93	W 1,140.96	1,593.86
4300	3,843.96	3,793.96	N 1,117.68	W 1,144.04	1,599.39
4310	3,852.20	3,802.20	N 1,122.43	W 1,147.13	1,604.92
4320	3,860.44	3,810.44	N 1,127.18	W 1,150.21	1,610.44
4330	3,868.68	3,818.68	N 1,131.93	W 1,153.30	1,615.97
4340	3,876.92	3,826.92	N 1,136.68	W 1,156.38	1,621.50
4350	3,885.16	3,835.16	N 1,141.43	W 1,159.47	1,627.03
4360	3,893.41	3,843.41	N 1,146.18	W 1,162.55	1,632.56
4370	3,901.65	3,851.65	N 1,150.93	W 1,165.64	1,638.10
4380	3,909.89	3,859.89	N 1,155.68	W 1,168.72	1,643.63
4381	3,910.71	3,860.71	N 1,156.16	W 1,169.03	1,644.18
4390	3,918.13	3,868.13	N 1,160.43	W 1,171.81	1,649.16
4400	3,926.37	3,876.37	N 1,165.19	W 1,174.89	1,654.70
4410	3,934.61	3,884.61	N 1,169.94	W 1,177.98	1,660.24
4420	3,942.84	3,892.84	N 1,174.70	W 1,181.07	1,665.79
4430	3,951.08	3,901.08	N 1,179.45	W 1,184.16	1,671.33
4440	3,959.31	3,909.31	N 1,184.21	W 1,187.25	1,676.88
4450	3,967.55	3,917.55	N 1,188.97	W 1,190.34	1,682.43
4460	3,975.78	3,925.78	N 1,193.73	W 1,193.43	1,687.98
4470	3,984.01	3,934.01	N 1,198.49	W 1,196.52	1,693.54
4480	3,992.24	3,942.24	N 1,203.26	W 1,199.62	1,699.09
4490	4,000.47	3,950.47	N 1,208.02	W 1,202.71	1,704.65
4500	4,008.70	3,958.70	N 1,212.79	W 1,205.81	1,710.22
4510	4,016.92	3,966.92	N 1,217.56	W 1,208.91	1,715.78
4520	4,025.15	3,975.15	N 1,222.33	W 1,212.00	1,721.35
4530	4,033.37	3,983.37	N 1,227.10	W 1,215.10	1,726.92
4540	4,041.60	3,991.60	N 1,231.87	W 1,218.20	1,732.49
4550	4,049.82	3,999.82	N 1,236.64	W 1,221.30	1,738.06
4560	4,058.04	4,008.04	N 1,241.42	W 1,224.40	1,743.64
4570	4,066.26	4,016.26	N 1,246.19	W 1,227.50	1,749.22
4580	4,074.48	4,024.48	N 1,250.97	W 1,230.60	1,754.80
4590	4,082.70	4,032.70	N 1,255.75	W 1,233.71	1,760.39
4600	4,090.91	4,040.91	N 1,260.53	W 1,236.81	1,765.97
4610	4,099.13	4,049.13	N 1,265.37	W 1,239.83	1,771.54
4620	4,107.34	4,057.34	N 1,270.20	W 1,242.86	1,777.11
4630	4,115.55	4,065.55	N 1,275.04	W 1,245.88	1,782.68
4640	4,123.76	4,073.76	N 1,279.88	W 1,248.91	1,788.26

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z20-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 49

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

4650	4,131.97	4,081.97	N 1,284.73	W 1,251.93
4660	4,140.18	4,090.18	N 1,289.57	W 1,254.96
4670	4,148.39	4,098.39	N 1,294.41	W 1,257.99
4680	4,156.60	4,106.60	N 1,299.26	W 1,261.01
4690	4,164.80	4,114.80	N 1,304.11	W 1,264.04
4700	4,173.00	4,123.00	N 1,308.96	W 1,267.07
4710	4,181.20	4,131.20	N 1,313.81	W 1,270.11
4720	4,189.40	4,139.40	N 1,318.67	W 1,273.14
4730	4,197.60	4,147.60	N 1,323.52	W 1,276.17
4740	4,205.80	4,155.80	N 1,328.38	W 1,279.21
4750	4,214.00	4,164.00	N 1,333.24	W 1,282.24
4760	4,222.19	4,172.19	N 1,338.10	W 1,285.28
4770	4,230.39	4,180.39	N 1,342.96	W 1,288.32
4780	4,238.58	4,188.58	N 1,347.82	W 1,291.36
4785	4,242.67	4,192.67	N 1,350.25	W 1,292.88
4790	4,246.77	4,196.77	N 1,352.68	W 1,294.40
4800	4,254.97	4,204.97	N 1,357.53	W 1,297.43
4810	4,263.19	4,213.19	N 1,362.38	W 1,300.45
4820	4,271.40	4,221.40	N 1,367.21	W 1,303.47
4830	4,279.63	4,229.63	N 1,372.03	W 1,306.48
4840	4,287.86	4,237.86	N 1,376.84	W 1,309.49
4850	4,296.10	4,246.10	N 1,381.65	W 1,312.49
4860	4,304.35	4,254.35	N 1,386.44	W 1,315.49
4870	4,312.61	4,262.61	N 1,391.23	W 1,318.48
4880	4,320.87	4,270.87	N 1,396.01	W 1,321.47
4890	4,329.14	4,279.14	N 1,400.77	W 1,324.44
4900	4,337.42	4,287.42	N 1,405.53	W 1,327.42
4910	4,345.70	4,295.70	N 1,410.28	W 1,330.39
4917	4,351.51	4,301.51	N 1,413.60	W 1,332.46
4920	4,353.99	4,303.99	N 1,415.00	W 1,333.37
4930	4,362.30	4,312.30	N 1,419.67	W 1,336.40
4940	4,370.63	4,320.63	N 1,424.31	W 1,339.42
4950	4,378.97	4,328.97	N 1,428.94	W 1,342.42
4960	4,387.33	4,337.33	N 1,433.54	W 1,345.41
4970	4,395.70	4,345.70	N 1,438.13	W 1,348.39
4980	4,404.09	4,354.09	N 1,442.69	W 1,351.35
4990	4,412.49	4,362.49	N 1,447.24	W 1,354.31
5000	4,420.91	4,370.91	N 1,451.77	W 1,357.25
5010	4,429.35	4,379.35	N 1,456.27	W 1,360.17
5020	4,437.80	4,387.80	N 1,460.76	W 1,363.09
5030	4,446.26	4,396.26	N 1,465.23	W 1,365.99
5040	4,454.74	4,404.74	N 1,469.67	W 1,368.87
5041	4,455.59	4,405.59	N 1,470.12	W 1,369.16
5050	4,463.22	4,413.22	N 1,474.22	W 1,371.58
5060	4,471.72	4,421.72	N 1,478.77	W 1,374.26

*

*

*

*

*

*

1,793.84
1,799.42
1,805.01
1,810.59
1,816.18
1,821.77
1,827.37
1,832.97
1,838.57
1,844.17
1,849.78
1,855.39
1,861.00
1,866.61
1,869.42
1,872.22
1,877.82
1,883.41
1,888.99
1,894.57
1,900.13
1,905.68
1,911.22
1,916.75
1,922.27
1,927.78
1,933.28
1,938.77
1,942.61
1,944.25
1,949.73
1,955.18
1,960.60
1,966.01
1,971.39
1,976.75
1,982.09
1,987.40
1,992.69
1,997.96
2,003.20
2,008.42
2,008.94
2,013.59
2,018.75

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z20-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
5070	4,480.21	4,430.21	N 1,376.93	2,023.90
5080	4,488.72	4,438.72	N 1,487.85	2,029.04
5090	4,497.23	4,447.23	N 1,492.37	2,034.17
5100	4,505.74	4,455.74	N 1,496.89	2,039.29
5110	4,514.26	4,464.26	N 1,501.40	2,044.41
5120	4,522.79	4,472.79	N 1,505.90	2,049.51
5130	4,531.33	4,481.33	N 1,510.39	2,054.61
5140	4,539.86	4,489.86	N 1,514.87	2,059.70
5150	4,548.41	4,498.41	N 1,519.35	2,064.77
5157	4,554.39	4,504.39	N 1,522.48	2,068.32
5160	4,556.96	4,506.96	N 1,523.80	2,069.85
5170	4,565.51	4,515.51	N 1,528.19	2,074.95
5180	4,574.07	4,524.07	N 1,532.58	2,080.03
5190	4,582.63	4,532.63	N 1,536.96	2,085.11
5200	4,591.20	4,541.20	N 1,541.34	2,090.19
5210	4,599.76	4,549.76	N 1,545.71	2,095.26
5220	4,608.33	4,558.33	N 1,550.08	2,100.33
5230	4,616.91	4,566.91	N 1,554.44	2,105.39
5240	4,625.49	4,575.49	N 1,558.80	2,110.44
5250	4,634.07	4,584.07	N 1,563.16	2,115.49
5260	4,642.65	4,592.65	N 1,567.50	2,120.54
5270	4,651.24	4,601.24	N 1,571.85	2,125.57
5280	4,659.84	4,609.84	N 1,576.19	2,130.61
5285	4,664.13	4,614.13	N 1,578.35	2,133.12
5290	4,668.43	4,618.43	N 1,580.57	2,135.62
5300	4,677.04	4,627.04	N 1,584.98	2,140.60
5310	4,685.65	4,635.65	N 1,589.38	2,145.57
5320	4,694.27	4,644.27	N 1,593.77	2,150.52
5330	4,702.89	4,652.89	N 1,598.16	2,155.47
5340	4,711.52	4,661.52	N 1,602.53	2,160.40
5350	4,720.16	4,670.16	N 1,606.89	2,165.33
5360	4,728.81	4,678.81	N 1,611.24	2,170.24
5370	4,737.46	4,687.46	N 1,615.58	2,175.14
5380	4,746.12	4,696.12	N 1,619.91	2,180.03
5390	4,754.79	4,704.79	N 1,624.23	2,184.91
5400	4,763.46	4,713.46	N 1,628.54	2,189.78
5410	4,772.14	4,722.14	N 1,632.84	2,194.64
5412	4,773.88	4,723.88	N 1,633.70	2,195.61
5420	4,780.83	4,730.83	N 1,637.16	2,199.47
5430	4,789.53	4,739.53	N 1,641.48	2,204.29
5440	4,798.23	4,748.23	N 1,645.79	2,209.09
5450	4,806.94	4,756.94	N 1,650.09	2,213.88
5460	4,815.65	4,765.65	N 1,654.38	2,218.66
5470	4,824.37	4,774.37	N 1,658.66	2,223.43
5480	4,833.10	4,783.10	N 1,662.93	2,228.19

*

*

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 49

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

5490	4,841.84	4,791.84	N 1,667.18	W 1,485.43
5500	4,850.58	4,800.58	N 1,671.43	W 1,487.79
5510	4,859.33	4,809.33	N 1,675.66	W 1,490.13
5520	4,868.09	4,818.09	N 1,679.88	W 1,492.47
5530	4,876.85	4,826.85	N 1,684.10	W 1,494.81
5535	4,881.24	4,831.24	N 1,686.20	W 1,495.98
5540	4,885.63	4,835.63	N 1,688.34	W 1,497.06
5550	4,894.41	4,844.41	N 1,692.59	W 1,499.23
5560	4,903.22	4,853.22	N 1,696.81	W 1,501.38
5570	4,912.03	4,862.03	N 1,701.02	W 1,503.53
5580	4,920.86	4,870.86	N 1,705.20	W 1,505.66
5590	4,929.71	4,879.71	N 1,709.36	W 1,507.78
5600	4,938.57	4,888.57	N 1,713.49	W 1,509.88
5610	4,947.44	4,897.44	N 1,717.60	W 1,511.98
5620	4,956.32	4,906.32	N 1,721.69	W 1,514.06
5630	4,965.22	4,915.22	N 1,725.75	W 1,516.13
5640	4,974.14	4,924.14	N 1,729.79	W 1,518.19
5650	4,983.06	4,933.06	N 1,733.81	W 1,520.24
5660	4,992.00	4,942.00	N 1,737.80	W 1,522.27
5670	5,000.95	4,950.95	N 1,741.77	W 1,524.29
5680	5,009.92	4,959.92	N 1,745.72	W 1,526.30
5690	5,018.90	4,968.90	N 1,749.64	W 1,528.30
5700	5,027.89	4,977.89	N 1,753.54	W 1,530.29
5710	5,036.90	4,986.90	N 1,757.42	W 1,532.26
5720	5,045.91	4,995.91	N 1,761.27	W 1,534.22
5730	5,054.94	5,004.94	N 1,765.09	W 1,536.17
5740	5,063.99	5,013.99	N 1,768.90	W 1,538.11
5750	5,073.04	5,023.04	N 1,772.68	W 1,540.04
5760	5,082.11	5,032.11	N 1,776.43	W 1,541.95
5770	5,091.19	5,041.19	N 1,780.16	W 1,543.85
5780	5,100.29	5,050.29	N 1,783.87	W 1,545.74
5790	5,109.39	5,059.39	N 1,787.56	W 1,547.62
5800	5,118.51	5,068.51	N 1,791.21	W 1,549.48
5810	5,127.64	5,077.64	N 1,794.85	W 1,551.34
5820	5,136.78	5,086.78	N 1,798.46	W 1,553.18
5830	5,145.93	5,095.93	N 1,802.05	W 1,555.00
5840	5,155.10	5,105.10	N 1,805.61	W 1,556.82
5850	5,164.28	5,114.28	N 1,809.15	W 1,558.62
5860	5,173.47	5,123.47	N 1,812.66	W 1,560.41
5870	5,182.67	5,132.67	N 1,816.15	W 1,562.19
5880	5,191.88	5,141.88	N 1,819.62	W 1,563.96
5890	5,201.10	5,151.10	N 1,823.06	W 1,565.71
5900	5,210.34	5,160.34	N 1,826.48	W 1,567.45
5903	5,213.11	5,163.11	N 1,827.50	W 1,567.97
5910	5,219.58	5,169.58	N 1,829.97	W 1,569.02

*

*

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z20-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
-------------------	-------------------	-----------------	----------------------	------------------------

5920	5,228.82	5,178.82	N 1,833.48	W 1,570.51
5930	5,238.06	5,188.06	N 1,837.00	W 1,572.01
5940	5,247.30	5,197.30	N 1,840.51	W 1,573.50
5950	5,256.55	5,206.55	N 1,844.03	W 1,574.99
5960	5,265.79	5,215.79	N 1,847.53	W 1,576.48
5970	5,275.04	5,225.04	N 1,851.04	W 1,577.96
5980	5,284.29	5,234.29	N 1,854.54	W 1,579.45
5990	5,293.53	5,243.53	N 1,858.05	W 1,580.94
6000	5,302.78	5,252.78	N 1,861.54	W 1,582.42
6010	5,312.03	5,262.03	N 1,865.04	W 1,583.91
6020	5,321.29	5,271.29	N 1,868.53	W 1,585.39
6030	5,330.54	5,280.54	N 1,872.03	W 1,586.87
6040	5,339.79	5,289.79	N 1,875.51	W 1,588.35
6050	5,349.05	5,299.05	N 1,879.00	W 1,589.83
6060	5,358.30	5,308.30	N 1,882.49	W 1,591.31
6070	5,367.56	5,317.56	N 1,885.97	W 1,592.79
6080	5,376.82	5,326.82	N 1,889.45	W 1,594.27
6090	5,386.08	5,336.08	N 1,892.92	W 1,595.74
6100	5,395.34	5,345.34	N 1,896.40	W 1,597.22
6110	5,404.60	5,354.60	N 1,899.87	W 1,598.69
6120	5,413.86	5,363.86	N 1,903.34	W 1,600.16
6130	5,423.13	5,373.13	N 1,906.81	W 1,601.64
6140	5,432.39	5,382.39	N 1,910.27	W 1,603.11
6150	5,441.66	5,391.66	N 1,913.73	W 1,604.58
6160	5,450.92	5,400.92	N 1,917.19	W 1,606.04
6170	5,460.19	5,410.19	N 1,920.65	W 1,607.51
6180	5,469.46	5,419.46	N 1,924.10	W 1,608.98
6190	5,478.73	5,428.73	N 1,927.56	W 1,610.44
6200	5,488.00	5,438.00	N 1,931.01	W 1,611.91
6206	5,493.57	5,443.57	N 1,933.07	W 1,612.79
6210	5,497.27	5,447.27	N 1,934.49	W 1,613.27
6220	5,506.55	5,456.55	N 1,938.03	W 1,614.49
6230	5,515.82	5,465.82	N 1,941.56	W 1,615.71
6240	5,525.10	5,475.10	N 1,945.09	W 1,616.92
6250	5,534.38	5,484.38	N 1,948.61	W 1,618.14
6260	5,543.66	5,493.66	N 1,952.13	W 1,619.35
6270	5,552.95	5,502.95	N 1,955.65	W 1,620.56
6280	5,562.23	5,512.23	N 1,959.16	W 1,621.77
6290	5,571.52	5,521.52	N 1,962.67	W 1,622.98
6300	5,580.80	5,530.80	N 1,966.17	W 1,624.18
6310	5,590.09	5,540.09	N 1,969.67	W 1,625.39
6320	5,599.39	5,549.39	N 1,973.17	W 1,626.59
6330	5,608.68	5,558.68	N 1,976.66	W 1,627.79
6340	5,617.97	5,567.97	N 1,980.15	W 1,628.99
6350	5,627.27	5,577.27	N 1,983.63	W 1,630.19

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 49

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

6360	5,636.57	5,586.57	N 1,987.11	W 1,631.39
6370	5,645.87	5,595.87	N 1,990.59	W 1,632.59
6380	5,655.17	5,605.17	N 1,994.06	W 1,633.78
6390	5,664.47	5,614.47	N 1,997.53	W 1,634.98
6400	5,673.78	5,623.78	N 2,000.99	W 1,636.17
6410	5,683.08	5,633.08	N 2,004.45	W 1,637.36
6420	5,692.39	5,642.39	N 2,007.90	W 1,638.55
6430	5,701.70	5,651.70	N 2,011.36	W 1,639.74
6440	5,711.01	5,661.01	N 2,014.80	W 1,640.93
6450	5,720.33	5,670.33	N 2,018.25	W 1,642.11
6460	5,729.64	5,679.64	N 2,021.69	W 1,643.30
6470	5,738.96	5,688.96	N 2,025.12	W 1,644.48
6480	5,748.28	5,698.28	N 2,028.55	W 1,645.66
6490	5,757.60	5,707.60	N 2,031.98	W 1,646.84
6500	5,766.92	5,716.92	N 2,035.40	W 1,648.02
6510	5,776.24	5,726.24	N 2,038.82	W 1,649.20
6520	5,785.57	5,735.57	N 2,042.24	W 1,650.37
6530	5,794.89	5,744.89	N 2,045.65	W 1,651.55
6540	5,804.22	5,754.22	N 2,049.05	W 1,652.72
6550	5,813.55	5,763.55	N 2,052.46	W 1,653.89
6560	5,822.88	5,772.88	N 2,055.85	W 1,655.06
6570	5,832.22	5,782.22	N 2,059.25	W 1,656.23
6580	5,841.55	5,791.55	N 2,062.64	W 1,657.40
6585	5,846.22	5,796.22	N 2,064.33	W 1,657.98
6590	5,850.89	5,800.89	N 2,066.12	W 1,657.81
6600	5,860.22	5,810.22	N 2,069.68	W 1,657.47
6610	5,869.56	5,819.56	N 2,073.25	W 1,657.12
6620	5,878.90	5,828.90	N 2,076.81	W 1,656.78
6630	5,888.24	5,838.24	N 2,080.38	W 1,656.44
6640	5,897.57	5,847.57	N 2,083.94	W 1,656.09
6650	5,906.91	5,856.91	N 2,087.50	W 1,655.75
6660	5,916.25	5,866.25	N 2,091.06	W 1,655.41
6670	5,925.59	5,875.59	N 2,094.62	W 1,655.07
6680	5,934.93	5,884.93	N 2,098.18	W 1,654.72
6690	5,944.26	5,894.26	N 2,101.74	W 1,654.38
6700	5,953.60	5,903.60	N 2,105.30	W 1,654.04
6710	5,962.94	5,912.94	N 2,108.86	W 1,653.69
6720	5,972.28	5,922.28	N 2,112.42	W 1,653.35
6730	5,981.62	5,931.62	N 2,115.97	W 1,653.01
6740	5,990.96	5,940.96	N 2,119.53	W 1,652.67
6750	6,000.30	5,950.30	N 2,123.08	W 1,652.33
6760	6,009.64	5,959.64	N 2,126.64	W 1,651.98
6770	6,018.99	5,968.99	N 2,130.19	W 1,651.64
6780	6,028.33	5,978.33	N 2,133.74	W 1,651.30
6790	6,037.67	5,987.67	N 2,137.29	W 1,650.96

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

6800	6,047.01	5,997.01	N 2,140.84	W 1,650.61
6810	6,056.35	6,006.35	N 2,144.40	W 1,650.27
6820	6,065.70	6,015.70	N 2,147.94	W 1,649.93
6830	6,075.04	6,025.04	N 2,151.49	W 1,649.59
6840	6,084.38	6,034.38	N 2,155.04	W 1,649.25
6850	6,093.73	6,043.73	N 2,158.59	W 1,648.91
6860	6,103.07	6,053.07	N 2,162.13	W 1,648.56
6870	6,112.41	6,062.41	N 2,165.68	W 1,648.22
6880	6,121.76	6,071.76	N 2,169.22	W 1,647.88
6890	6,131.10	6,081.10	N 2,172.77	W 1,647.54
6900	6,140.45	6,090.45	N 2,176.31	W 1,647.20
6910	6,149.79	6,099.79	N 2,179.85	W 1,646.86
6920	6,159.14	6,109.14	N 2,183.40	W 1,646.52
6930	6,168.48	6,118.48	N 2,186.94	W 1,646.18
6940	6,177.83	6,127.83	N 2,190.48	W 1,645.84
6950	6,187.18	6,137.18	N 2,194.02	W 1,645.49
6960	6,196.52	6,146.52	N 2,197.56	W 1,645.15
6970	6,205.87	6,155.87	N 2,201.09	W 1,644.81
6980	6,215.22	6,165.22	N 2,204.63	W 1,644.47
6990	6,224.56	6,174.56	N 2,208.17	W 1,644.13
7000	6,233.91	6,183.91	N 2,211.70	W 1,643.79
7010	6,243.26	6,193.26	N 2,215.24	W 1,643.45
7020	6,252.61	6,202.61	N 2,218.77	W 1,643.11
7030	6,261.96	6,211.96	N 2,222.31	W 1,642.77
7040	6,271.31	6,221.31	N 2,225.84	W 1,642.43
7050	6,280.66	6,230.66	N 2,229.37	W 1,642.09
7060	6,290.01	6,240.01	N 2,232.90	W 1,641.75
7070	6,299.36	6,249.36	N 2,236.43	W 1,641.41
7080	6,308.71	6,258.71	N 2,239.96	W 1,641.07
7090	6,318.06	6,268.06	N 2,243.49	W 1,640.73
7100	6,327.41	6,277.41	N 2,247.02	W 1,640.39
7110	6,336.76	6,286.76	N 2,250.55	W 1,640.05
7120	6,346.11	6,296.11	N 2,254.07	W 1,639.71
7130	6,355.46	6,305.46	N 2,257.60	W 1,639.37
7140	6,364.81	6,314.81	N 2,261.13	W 1,639.03
7150	6,374.17	6,324.17	N 2,264.65	W 1,638.69
7160	6,383.52	6,333.52	N 2,268.17	W 1,638.35
7170	6,392.87	6,342.87	N 2,271.70	W 1,638.02
7180	6,402.22	6,352.22	N 2,275.22	W 1,637.68
7190	6,411.58	6,361.58	N 2,278.74	W 1,637.34
7200	6,420.93	6,370.93	N 2,282.26	W 1,637.00
7210	6,430.28	6,380.28	N 2,285.78	W 1,636.66
7220	6,439.64	6,389.64	N 2,289.30	W 1,636.32
7230	6,448.99	6,398.99	N 2,292.82	W 1,635.98
7240	6,458.35	6,408.35	N 2,296.34	W 1,635.64

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z2A-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

7250	6,467.70	6,417.70	N 2,299.85	W 1,635.30
7260	6,477.06	6,427.06	N 2,303.37	W 1,634.97
7270	6,486.41	6,436.41	N 2,306.88	W 1,634.63
7280	6,495.77	6,445.77	N 2,310.40	W 1,634.29
7290	6,505.13	6,455.13	N 2,313.91	W 1,633.95
7300	6,514.48	6,464.48	N 2,317.42	W 1,633.61
7310	6,523.84	6,473.84	N 2,320.94	W 1,633.27
7320	6,533.20	6,483.20	N 2,324.45	W 1,632.94
7330	6,542.55	6,492.55	N 2,327.96	W 1,632.60
7340	6,551.91	6,501.91	N 2,331.47	W 1,632.26
7350	6,561.27	6,511.27	N 2,334.98	W 1,631.92
7360	6,570.63	6,520.63	N 2,338.49	W 1,631.58
7370	6,579.99	6,529.99	N 2,341.99	W 1,631.25
7380	6,589.35	6,539.35	N 2,345.50	W 1,630.91
7390	6,598.70	6,548.70	N 2,349.01	W 1,630.57
7400	6,608.06	6,558.06	N 2,352.51	W 1,630.23
7410	6,617.42	6,567.42	N 2,356.02	W 1,629.90
7420	6,626.78	6,576.78	N 2,359.52	W 1,629.56
7430	6,636.14	6,586.14	N 2,363.03	W 1,629.22
7440	6,645.50	6,595.50	N 2,366.53	W 1,628.88
7450	6,654.86	6,604.86	N 2,370.03	W 1,628.55
7460	6,664.23	6,614.23	N 2,373.53	W 1,628.21
7470	6,673.59	6,623.59	N 2,377.03	W 1,627.87
7480	6,682.95	6,632.95	N 2,380.53	W 1,627.54
7490	6,692.31	6,642.31	N 2,384.03	W 1,627.20
7500	6,701.67	6,651.67	N 2,387.53	W 1,626.86
7510	6,711.04	6,661.04	N 2,391.02	W 1,626.53
7520	6,720.40	6,670.40	N 2,394.52	W 1,626.19
7530	6,729.76	6,679.76	N 2,398.02	W 1,625.85
7540	6,739.12	6,689.12	N 2,401.51	W 1,625.52
7550	6,748.49	6,698.49	N 2,405.00	W 1,625.18
7560	6,757.85	6,707.85	N 2,408.50	W 1,624.84
7570	6,767.22	6,717.22	N 2,411.99	W 1,624.51
7580	6,776.58	6,726.58	N 2,415.48	W 1,624.17
7590	6,785.95	6,735.95	N 2,418.97	W 1,623.83
7600	6,795.31	6,745.31	N 2,422.46	W 1,623.50
7610	6,804.68	6,754.68	N 2,425.95	W 1,623.16
7620	6,814.04	6,764.04	N 2,429.44	W 1,622.83
7630	6,823.41	6,773.41	N 2,432.93	W 1,622.49
7640	6,832.77	6,782.77	N 2,436.42	W 1,622.15
7650	6,842.14	6,792.14	N 2,439.90	W 1,621.82
7657	6,848.70	6,798.70	N 2,442.34	W 1,621.58
7660	6,851.51	6,801.51	N 2,443.34	W 1,621.26
7670	6,860.87	6,810.87	N 2,446.69	W 1,620.17
7680	6,870.22	6,820.22	N 2,450.06	W 1,619.08

*

*

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z24-21-764-CD-L016(17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	SUB-SEA TRUE	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

7690	6,879.57	6,829.57	N 2,453.43	W 1,617.98	2,938.91
7700	6,888.91	6,838.91	N 2,456.83	W 1,616.88	2,941.14
7710	6,898.25	6,848.25	N 2,460.23	W 1,615.77	2,943.38
7720	6,907.58	6,857.58	N 2,463.65	W 1,614.66	2,945.63
7730	6,916.90	6,866.90	N 2,467.09	W 1,613.54	2,947.89
7740	6,926.22	6,876.22	N 2,470.54	W 1,612.42	2,950.17
7750	6,935.54	6,885.54	N 2,474.00	W 1,611.30	2,952.45
7760	6,944.84	6,894.84	N 2,477.48	W 1,610.17	2,954.75
7770	6,954.14	6,904.14	N 2,480.97	W 1,609.03	2,957.06
7780	6,963.44	6,913.44	N 2,484.48	W 1,607.89	2,959.39
7790	6,972.73	6,922.73	N 2,488.00	W 1,606.75	2,961.72
7800	6,982.01	6,932.01	N 2,491.53	W 1,605.60	2,964.07
7810	6,991.29	6,941.29	N 2,495.08	W 1,604.45	2,966.43
7820	7,000.56	6,950.56	N 2,498.64	W 1,603.29	2,968.80
7830	7,009.83	6,959.83	N 2,502.22	W 1,602.13	2,971.18
7840	7,019.09	6,969.09	N 2,505.81	W 1,600.96	2,973.58
7850	7,028.34	6,978.34	N 2,509.42	W 1,599.79	2,975.99
7860	7,037.59	6,987.59	N 2,513.04	W 1,598.61	2,978.41
7870	7,046.83	6,996.83	N 2,516.67	W 1,597.43	2,980.84
7880	7,056.07	7,006.07	N 2,520.32	W 1,596.25	2,983.29
7890	7,065.30	7,015.30	N 2,523.98	W 1,595.06	2,985.75
7900	7,074.52	7,024.52	N 2,527.66	W 1,593.86	2,988.22
7910	7,083.73	7,033.73	N 2,531.35	W 1,592.67	2,990.70
7920	7,092.95	7,042.95	N 2,535.05	W 1,591.46	2,993.20
7930	7,102.15	7,052.15	N 2,538.77	W 1,590.25	2,995.71
7940	7,111.35	7,061.35	N 2,542.50	W 1,589.04	2,998.23
7950	7,120.54	7,070.54	N 2,546.25	W 1,587.82	3,000.76
7960	7,129.72	7,079.72	N 2,550.01	W 1,586.60	3,003.31
7970	7,138.90	7,088.90	N 2,553.78	W 1,585.38	3,005.87
7980	7,148.07	7,098.07	N 2,557.57	W 1,584.14	3,008.44
7990	7,157.24	7,107.24	N 2,561.37	W 1,582.91	3,011.02
8000	7,166.40	7,116.40	N 2,565.19	W 1,581.67	3,013.62
8010	7,175.55	7,125.55	N 2,569.02	W 1,580.42	3,016.22
8020	7,184.70	7,134.70	N 2,572.86	W 1,579.18	3,018.85
8030	7,193.84	7,143.84	N 2,576.72	W 1,577.92	3,021.48
8040	7,202.97	7,152.97	N 2,580.59	W 1,576.66	3,024.13
8050	7,212.10	7,162.10	N 2,584.48	W 1,575.40	3,026.79
8060	7,221.22	7,171.22	N 2,588.38	W 1,574.13	3,029.46
8070	7,230.34	7,180.34	N 2,592.29	W 1,572.86	3,032.14
8080	7,239.44	7,189.44	N 2,596.22	W 1,571.59	3,034.84
8090	7,248.54	7,198.54	N 2,600.16	W 1,570.30	3,037.55
8100	7,257.64	7,207.64	N 2,604.12	W 1,569.02	3,040.28
8110	7,266.72	7,216.72	N 2,608.09	W 1,567.73	3,043.01
8120	7,275.80	7,225.80	N 2,612.07	W 1,566.43	3,045.76
8130	7,284.88	7,234.88	N 2,616.07	W 1,565.14	3,048.52

DIRECTIONAL SURVEY FOR WELL L016-17

COMPUTATIONS AT 10 FEET INCREMENTS

WELL NO. Z29-21-764-CD-L016(L016-17) ELEVATION: 50 FEET NUMBER OF DATA POINTS: 43

CONDUCTOR IS VERTICAL

CONDUCTOR DATA: 370' MD.

MEASURED DEPTH	VERTICAL DEPTH	TRUE SUB-SEA	TOTAL CD - ORDINATES	HORIZONTAL DISTANCE
----------------	----------------	--------------	----------------------	---------------------

8140	7,293.94	7,243.94	N 2,620.08	W 1,563.83	3,051.30
8150	7,303.01	7,253.01	N 2,624.11	W 1,562.52	3,054.09
8160	7,312.06	7,262.06	N 2,628.15	W 1,561.21	3,056.89
8170	7,321.10	7,271.10	N 2,632.20	W 1,559.90	3,059.70
8180	7,330.14	7,280.14	N 2,636.27	W 1,558.57	3,062.53
8190	7,339.18	7,289.18	N 2,640.35	W 1,557.25	3,065.37
8200	7,348.20	7,298.20	N 2,644.44	W 1,555.92	3,068.22
8210	7,357.22	7,307.22	N 2,648.55	W 1,554.57	3,071.07