

**SUB-SURFACE
DIRECTIONAL
SURVEY
REPORT**

TIPPERARY OIL & GAS CORP.

COMPANY

MONSANTO WELL 30 ST NO. 2

WELL NAME

LEA COUNTY, NEW MEXICO

STATE AND COUNTY

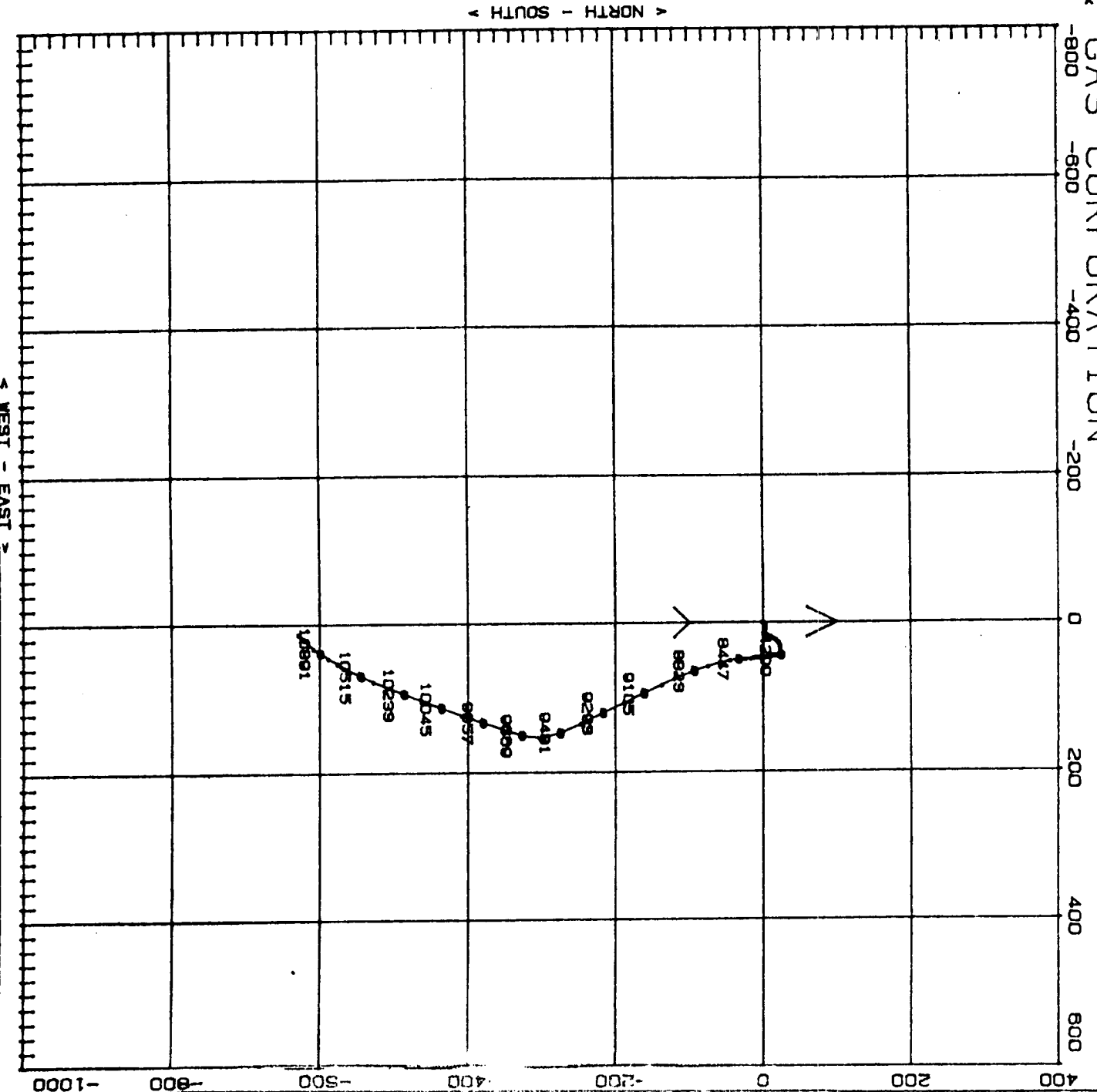
5-25-88

FIELD REPORT

TIPPERARY OIL & GAS CORPORATION

WELL # 1
 MONSANTO 90 ST WELL NO. 2
 LOCATION :
 LEA COUNTY, NEW MEXICO
 DATE :
 5/3/88, 5/2/88, 5/25/88
 JOB TYPE :
 CYRO. MULTISHOT, MULTISHOT
 JOB # :
 G3-2046, W3-2050, W3-2070
 SURVEYOR :
 MASSEY, MASSEY, EATON
 DEPTHS :
 0-4200, 4200-6161, 6161-11204
 DECL. :
 0 DEGREES EAST
 ELEV. :
 0'
 FILE # :
 WT-J39CS FROM WT-J378.D701

 FINAL STATION DATA:
 MD. 11285.00
 TVD. 11198.01
 N/S -628.23
 E/W 13.71
 CLOSURE DISTANCE
 828.38 FEET
 CLOSURE DIRECTION
 S 1.25 E
 1 IN. = 200 FT.



CUSTOMER : TIPPERARY OIL & GAS CORPORATION

WELL # : MONSANTO 30 ST WELL NO.2

LOCATION : LEA COUNTY, NEW MEXICO

DATE : 5/3/88, 5/2/88, 5/25/88

JOB TYPE : GYRO, MULTISHOT, MULTISHOT

JOB # : GS-2049, MS-2050, MS-2070

SURVEYOR : MASSEY, MASSEY, EATON

DEPTHS : 0-4200, 4200-8161, 8161-11204

DECL. : 9 DEGREES EAST

ELEV. : 0'

FILE # : WT-JJ9CS FROM WT-JJ7S:D701

DOIS

METHOD : RADIUS OF CURVATURE

SECTION : SOE

FINAL STATION DATA:

THIS SURVEY IS CORRECT TO THE
BEST OF MY KNOWLEDGE AND IS
SUPPORTED BY ACTUAL FIELD DATA.

DIG REPRESENTATIVE

MEASURED INCL. HOLE COURSE VERTICAL VERTICAL RECTANGULAR CLOSURE
DEPTH ANGLE DIRECTION LENGTH DEPTH SECTION CORDINATES DISTANCE DIRECTION
FEET DEGS. DEGS. FEET FEET FEET N/S feet E/W FEET DEGS.

11285.00 4.75 S 41.00 W 81.00 11198.01 628.23 628.23 S 13.71 E 628.38' S 01.25 E

TIFFERARY OIL & GAS CORPORATION
MONSANTO 30 ST WELL NO.2

T-J19CS FROM WT-JJ75:D701

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00/00/00

MEASURED DEPTH FEET	INCL. ANGLE DEGS.	HOLE DIRECTION DEGS.	COURSE LENGTH FEET	VERTICAL DEPTH FEET	VERTICAL SECTION FEET	REC C O R D I N A T E S N/S	A N G U L A R C O O R D I N A T E S	C L O S U R E	D I S T A N C E	D I R E C T I O N
0.00	0.00	S 43.00 W	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00	00.00 E
100.00	.20	S 43.00 W	100.00	100.00	.13	.13 S	.12 W	.17	S 43.00 W	
200.00	.30	M 10.00 W	100.00	200.00	.05	.05 S	.47 W	.40	S 84.04 W	
300.00	.10	N 33.00 E	100.00	300.00	-.29	.29 N	.43 W	.51	N 56.32 W	
400.00	.50	N 20.00 E	100.00	400.00	-.74	.74 N	.16 W	.75	N 12.46 W	
500.00	.40	N 62.00 E	100.00	500.00	-1.20	1.20 N	.39 E	1.34	N 16.91 E	
600.00	.40	N 55.00 E	100.00	600.00	-1.64	1.64 N	.97 E	1.91	N 31.07 E	
700.00	.50	N 27.00 E	100.00	700.00	-2.22	2.22 N	1.51 E	2.68	N 34.23 E	
800.00	.60	N 65.00 E	100.00	800.00	-2.86	2.86 N	2.20 E	3.61	N 37.54 E	
900.00	.30	N 79.00 E	100.00	900.00	-3.11	3.11 N	2.94 E	4.28	N 43.41 E	
1000.00	.50	N 41.00 E	100.00	1000.00	-3.44	3.44 N	3.54 E	4.94	N 45.83 E	
1100.00	.60	S 87.00 E	100.00	1100.00	-3.80	3.80 N	4.41 E	5.82	N 49.22 E	
1200.00	.69	N 84.00 E	100.00	1200.00	-3.95	3.95 N	5.45 E	6.67	N 54.80 E	
1300.00	.70	S 72.00 E	100.00	1300.00	-3.80	3.80 N	6.50 E	7.69	N 60.02 E	
1400.00	.90	S 84.00 E	100.00	1400.00	-3.57	3.57 N	7.96 E	8.73	N 65.73 E	
1500.00	1.00	S 74.00 E	100.00	1500.00	-3.27	3.27 N	9.59 E	10.15	N 71.14 E	
1600.00	.90	S 85.00 E	100.00	1600.00	-2.97	2.97 N	11.21 E	11.60	N 75.16 E	
1700.00	1.00	S 75.00 E	100.00	1700.00	-2.60	2.60 N	12.81 E	13.12	N 78.20 E	
1800.00	.80	S 66.00 E	100.00	1800.00	-2.16	2.16 N	14.32 E	14.48	N 81.42 E	
1900.00	.70	S 63.00 E	100.00	1900.00	-1.60	1.60 N	15.50 E	15.59	N 84.12 E	
2000.00	.50	N 76.00 E	100.00	2000.00	-1.42	1.42 N	16.52 E	16.59	N 84.80 E	
2100.00	0.00	S 43.00 W	100.00	2100.00	-1.57	1.57 N	16.95 E	17.02	N 84.65 E	
2200.00	.20	S 56.00 W	100.00	2200.00	-1.49	1.49 N	15.80 E	16.87	N 84.93 E	
2300.00	.40	S 20.00 W	100.00	2300.00	-1.11	1.11 N	16.43 E	16.49	N 86.15 E	
2400.00	.10	S 62.00 W	100.00	2400.00	-.81	.81 N	16.14 E	16.16	N 87.15 E	

1. 10
 2. 20
 3. 30
 4. 40
 5. 50
 6. 60
 7. 70
 8. 80
 9. 90
 10. 100

5050

MEASURED	INCL.	HOLE	COURSE	VERTICAL	RED	ANGULAR	C	S	U	R
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	S	SECTION	C	O	R	D
FEET	DEGS.	DEGS.	FEET	FEET	N/S	FEET	FEET	FEET	FEET	DEGS.
2500.00	20	S 28.00 W	100.00	2479.38	-37	15.92	15.93	N	87.57	E
2600.00	20	S 74.00 W	100.00	2599.36	-53	15.61	15.61	N	80.04	E
2700.00	30	N 10.00 E	100.00	2699.81	-78	15.30	15.30	N	87.10	E
2800.00	1.00	N 26.00 E	100.00	2799.87	-1.85	15.28	15.77	N	83.26	E
2900.00	1.50	N 26.00 E	100.00	2899.85	-3.20	15.67	17.00	N	77.17	E
3000.00	1.90	N 27.00 E	100.00	2999.83	-5.40	18.08	19.18	N	70.50	E
3100.00	2.00	N 27.00 E	100.00	3099.74	-7.41	19.66	21.81	N	64.45	E
3200.00	2.00	N 25.00 E	100.00	3199.68	-12.54	21.21	24.64	N	59.40	E
3300.00	2.00	N 30.00 E	100.00	3299.62	-15.64	22.82	27.57	N	55.50	E
3400.00	1.80	N 36.00 E	100.00	3399.57	-18.42	24.63	30.75	N	53.21	E
3500.00	1.80	N 43.00 E	100.00	3499.52	-20.73	26.74	33.84	N	52.22	E
3600.00	1.80	N 68.00 E	100.00	3599.47	-23.35	29.41	35.95	N	52.75	E
3700.00	1.60	N 81.00 E	100.00	3699.42	-24.15	32.26	37.71	N	54.53	E
3800.00	1.30	N 84.00 E	100.00	3799.37	-23.40	34.77	41.90	N	55.97	E
3900.00	1.50	N 90.00 E	100.00	3899.36	-23.61	37.21	44.07	N	57.50	E
4000.00	1.80	N 89.00 E	100.00	3999.32	-23.64	40.30	46.54	N	59.40	E
4100.00	1.50	N 89.00 E	100.00	4099.28	-23.91	42.93	49.16	N	60.89	E
4200.00	1.20	N 81.00 E	100.00	4199.25	-24.30	45.28	51.39	N	61.78	E
4300.00	.50	N 60.00 E	100.00	4308.24	-24.84	46.79	52.98	N	62.04	E
4400.00	.30	N 83.00 E	94.00	4402.24	-25.05	47.41	53.62	N	62.15	E
4497.00	.10	S 51.00 E	94.00	4496.24	-21.96	47.72	53.82	N	62.39	E
4591.00	.10	S 05.00 E	94.00	4590.24	-24.32	47.79	53.85	N	62.56	E
4685.00	.20	S 11.00 W	94.00	4684.24	-24.57	47.70	53.73	N	62.78	E
4779.00	.40	S 39.00 W	94.00	4778.23	-24.15	47.57	53.34	N	63.11	E
4873.00	.50	S 39.00 W	94.00	4872.23	-23.56	47.11	52.67	N	63.43	E

TEMPERARY OIL & GAS CORPORATION
MORGANTOWN 30 ST WELL NO.2

7-JJ9CS FROM WT-JJ7S:D/01

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MEASURED	INCL.	HOLE	COURSE	VERTICAL	VERTICAL	RECTANGULAR	C L U S U R E
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	SLOPE	C O U R D I N A T E S	DISTANCE
FEET	DEGS.	DEGS.	FEET	FEET	FEET	N/S	FEET
						feet	DEGS.
4967.00	.60	S 57.00 W	94.00	4766.23	-22.75	22.75 N	46.44 E
5061.00	.40	S 56.00 W	94.00	5068.22	-22.50	22.50 N	45.76 E
5155.00	.30	S 72.00 W	94.00	5151.22	-22.25	22.25 N	45.24 E
5248.00	.30	S 15.00 E	93.00	5247.22	-21.86	21.86 N	45.03 E
5342.00	.90	S 14.00 E	94.00	5341.21	-20.91	20.91 N	45.20 E
5436.00	.90	S 12.00 W	94.00	5430.20	-19.45	19.45 N	45.30 E
5530.00	.80	S 24.00 W	94.00	5527.19	-18.12	18.12 N	44.87 E
5624.00	.80	S 49.00 W	94.00	5623.18	-17.08	17.08 N	44.10 E
5718.00	1.00	S 31.00 E	94.00	5717.17	-15.73	15.73 N	43.89 E
5812.00	1.00	S 00.00 E	94.00	5811.16	-14.20	14.20 N	44.43 E
5906.00	.70	S 06.00 E	94.00	5905.15	-12.81	12.81 N	44.50 E
6000.00	.50	S 46.00 E	94.00	6009.14	-11.75	11.75 N	45.02 E
6094.00	.70	S 31.00 E	94.00	6093.14	-11.18	11.18 N	45.63 E
6188.00	.80	S 37.00 E	94.00	6187.13	-10.17	10.17 N	46.34 E
6282.00	.80	S 16.00 E	94.00	6281.12	-9.01	9.01 N	46.94 E
6376.00	.50	S 18.00 W	94.00	6370.11	-7.90	7.90 N	46.92 E
6470.00	.20	S 03.00 W	94.00	6467.11	-7.40	7.40 N	46.82 E
6564.00	.70	S 20.00 E	94.00	6563.11	-6.68	6.68 N	46.73 E
6658.00	.60	S 07.00 E	94.00	6657.10	-5.64	5.64 N	47.10 E
6752.00	.80	S 11.00 E	94.00	6751.10	-4.51	4.51 N	47.35 E
6846.00	.70	S 18.00 W	94.00	6845.09	-3.29	3.29 N	47.20 E
6940.00	.70	S 32.00 E	94.00	6937.08	-2.19	2.19 N	47.42 E
7034.00	.70	S 22.00 W	94.00	7033.07	-1.09	1.09 N	47.51 E
7127.00	.80	S 31.00 E	94.00	7126.07	.08	.08 S	47.60 E
7221.00	.90	S 05.00 E	94.00	7220.05	1.40	1.40 S	48.03 E

TEMPERARY OIL & GAS CORPORATION
MUNSAWITO 30 SI WELL NO.2

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4T-JJ9CS FROM WT-JJ7S:D701

00/00/00

MEASURED	INCL.	HOLE	COURSE	VERTICAL	VERTICAL	REC	ANGULAR	C	L	D	S	U	R	E			
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	SELECTION	C	O	U	R	D	I	N	A	T	E	S	DIRECTION
FEET	DEGS.	DEGS.	FEET	FEET	FEET	N/S	FEET	E/W	FEET	DEGS.							
7315.00	1.50	S 23.00 W	94.00	7314.05	2.32	2.32	S	47.85	E	47.92	S	85.98	E				
7409.00	1.00	S 16.00 E	94.00	7408.04	3.73	3.73	S	47.78	E	47.93	S	85.54	E				
7503.00	.80	S 07.00 W	94.00	7502.03	5.19	5.19	S	47.90	E	48.18	S	83.82	E				
7597.00	1.10	S 06.00 W	94.00	7596.01	5.74	6.74	S	47.72	E	48.19	S	81.96	E				
7691.00	.50	S 04.00 W	94.00	7690.00	8.05	8.05	S	47.60	E	48.28	S	80.41	E				
7785.00	1.00	S 09.00 W	94.00	7784.00	9.27	9.27	S	47.47	E	48.36	S	78.95	E				
7879.00	.50	S 03.00 W	94.00	7877.99	10.49	10.49	S	47.34	E	48.47	S	77.50	E				
7973.00	1.00	S 30.00 E	94.00	7971.98	11.67	11.67	S	47.62	E	49.03	S	76.23	E				
8067.00	.30	S 23.00 E	94.00	8066.97	12.62	12.62	S	48.10	E	49.72	S	75.29	E				
8161.00	.70	S 30.00 E	94.00	8159.97	13.36	13.36	S	48.46	E	50.27	S	74.59	E				
8259.00	3.50	S 05.00 E	98.00	8257.89	16.75	16.75	S	49.56	E	52.32	S	71.33	E				
8353.00	5.25	S 03.00 W	94.00	8351.62	23.91	23.91	S	49.75	E	55.20	S	64.33	E				
8447.00	6.75	S 07.00 E	94.00	8445.10	33.72	33.72	S	50.09	E	60.30	S	56.06	E				
8541.00	7.75	S 11.00 E	94.00	8539.35	45.43	45.43	S	51.95	E	67.01	S	48.23	E				
8635.00	9.50	S 13.00 E	94.00	8631.28	59.22	59.22	S	54.88	E	80.74	S	42.82	E				
8729.00	11.00	S 18.00 E	94.00	8727.28	75.33	75.33	S	59.35	E	95.98	S	38.23	E				
8823.00	13.00	S 20.00 E	94.00	8821.72	93.81	93.81	S	65.71	E	114.53	S	35.01	E				
8917.00	15.00	S 23.00 E	94.00	8916.92	114.96	114.96	S	74.04	E	136.74	S	32.78	E				
9011.00	16.00	S 25.00 E	94.00	8997.50	137.91	137.91	S	84.26	E	161.51	S	31.42	E				
9105.00	16.75	S 25.00 E	94.00	9087.69	161.93	161.93	S	95.46	E	187.97	S	30.52	E				
9199.00	19.75	S 25.00 E	94.00	9197.95	188.60	188.60	S	102.90	E	217.29	S	29.77	E				
9293.00	20.00	S 25.00 E	94.00	9292.35	217.57	217.57	S	121.40	E	249.15	S	29.16	E				
9387.00	20.25	S 26.00 E	94.00	9385.61	246.76	246.76	S	135.33	E	281.43	S	28.74	E				
9481.00	18.75	S 21.00 E	94.00	9479.22	275.52	275.52	S	142.84	E	312.68	S	28.22	E				
9575.00	15.25	S 03.00 E	94.00	9573.10	302.29	302.29	S	153.52	E	339.04	S	26.92	E				

1 IPPEKARY OIL & GAS CORPORATION
MUNSAMTO 30 ST WELL NO.2

IT-JJ9C5 FROM WT-JJ75:D/01

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00/00/00

MEASURED	INCL.	HOLE	COURSE	IRUL	VERTICAL	RECTANGULAR	CLOSURE	
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	SECTION	COORDINATES	DISTANCE	DIRECTION
FEET	DEGS.	DEGS.	FEET	FEET	FEET	N/S	FEET	DEGS.
9669.00	16.75	S 17.00 W	94.00	9662.45	327.08	327.08 S	150.38 E	360.72 S 24.64 E
9763.00	16.75	S 10.00 W	94.00	9712.46	353.71	353.71 S	142.24 E	381.24 S 21.91 E
9857.00	19.00	S 19.00 W	94.00	9800.17	380.33	380.33 S	133.33 E	403.03 S 19.32 E
9951.00	19.25	S 19.00 W	94.00	9891.20	408.72	408.72 S	123.50 E	425.98 S 16.82 E
10045.00	18.00	S 20.00 W	94.00	9980.30	437.01	437.01 S	113.54 E	451.52 S 14.56 E
10139.00	16.75	S 21.00 W	94.00	10070.03	463.31	463.31 S	103.71 E	474.77 S 12.62 E
10233.00	15.00	S 21.00 W	94.00	10160.44	487.31	487.31 S	94.49 E	496.39 S 10.97 E
10327.00	13.50	S 22.00 W	94.00	10251.50	508.84	508.84 S	86.01 E	516.06 S 09.59 E
10421.00	12.00	S 23.00 W	94.00	10343.23	528.00	528.00 S	70.07 E	533.75 S 08.41 E
10515.00	11.50	S 26.00 W	94.00	10435.26	545.42	545.42 S	70.14 E	549.91 S 07.33 E
10609.00	11.25	S 20.00 W	94.00	10527.41	561.94	561.94 S	61.72 E	565.32 S 06.27 E
10703.00	9.00	S 32.00 W	94.00	10619.94	576.25	576.25 S	53.45 E	578.72 S 05.30 E
10797.00	8.75	S 29.00 W	94.00	10712.82	588.74	588.74 S	46.10 E	590.54 S 04.48 E
10891.00	7.25	S 20.00 W	94.00	10805.70	597.83	597.83 S	37.17 E	601.11 S 03.74 E
10985.00	5.00	S 40.00 W	94.00	10897.27	608.43	608.43 S	32.57 E	609.38 S 03.06 E
11079.00	5.50	S 43.00 W	94.00	10992.08	615.48	615.48 S	26.34 E	616.00 S 02.45 E
11173.00	5.00	S 47.00 W	94.00	11086.41	621.56	621.56 S	20.20 E	621.87 S 01.87 E
11267.00	4.75	S 44.00 W	94.00	11181.29	623.41	623.41 S	18.37 E	623.68 S 01.69 E
11361.00	4.75	S 44.00 W	94.00	11276.01	625.23	625.23 S	13.71 E	625.30 S 01.25 E

CLOSURE DISTANCE = 625.30 FEET.
CLOSURE DIRECTION = S 01.25 E