

AMF / SCIENTIFIC DRILLING
MIDLAND, TEXAS

JOB NUMBER: 132-D-1184-113

DATE: 11/13/84

INRUN SURVEY

BY

THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC. D M	BEARING	COORDINATE LATITUDE	COORDINATE DEPARTURE	D-LEG PER 100
98.00	98.00	-.43	.57	0-40 S	0 W	Scientific	.50 W	.68
159.00	158.99	-.92	.62	0-30 S	0 W	Drilling	1.07 W	.29
220.00	219.99	-1.39	.62	0-40 S	0 W	International	1.62 W	.34
281.00	280.99	-2.04	.75	0-45 N	0 W	International	2.33 W	.73
342.00	341.98	-2.72	.80	0-45 S	0 W	1.26 S	3.08 W	.80
403.00	402.98	-3.27	.80	0-45 S	0 W	1.69 S	3.75 W	.13
464.00	463.97	-3.95	.89	0-55 S	0 W	2.10 S	4.54 W	.30
525.00	524.96	-4.72	.98	0-55 S	0 W	2.51 S	5.42 W	.00
586.00	585.96	-5.30	.89	0-45 S	0 W	3.03 S	6.14 W	.57
647.00	646.95	-5.91	.93	1-0 S	0 W	3.56 S	6.89 W	.66
708.00	707.94	-6.52	.84	0-35 S	0 W	4.00 S	7.61 W	.73
769.00	768.94	-7.18	.80	0-55 S	0 W	4.26 S	8.36 W	.90
830.00	829.93	-8.19	1.02	1-0 N	0 W	4.14 S	9.37 W	.48
891.00	890.92	-8.96	.80	0-30 N	0 W	3.77 S	10.06 W	.97
952.00	951.92	-9.35	.48	0-25 N	0 W	3.41 S	10.39 W	.23

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1013.00	1012.92	-9.79	.48	0-30 N 45-00 E	0-30 N 45-00 E	Scientific	10.76 W	.45
1074.00	1073.91	-10.58	.60	1-00 N 45-00 E	1-00 N 45-00 E	Drilling	11.53 W	.84
1135.00	1134.91	-11.59	1.02	0-55 N 45-00 E	0-55 N 45-00 E	International	12.47 W	.56
1196.00	1195.90	-11.77	.71	0-25 S 49-00 E	0-25 S 49-00 E	International	12.75 W	2.18
1257.00	1256.90	-11.56	.48	0-30 N 27-00 W	0-30 N 27-00 W	2.67 S	12.48 W	1.48
1318.00	1317.90	-11.66	.53	0-30 N 30-00 E	0-30 N 30-00 E	2.16 S	12.46 W	.78
1379.00	1378.90	-11.88	.35	0-10 S 59-00 W	0-10 S 59-00 W	1.98 S	12.65 W	1.07
1440.00	1439.90	-11.84	.18	0-10 S 70-00 E	0-10 S 70-00 E	2.12 S	12.64 W	.49
1463.00	1462.90	-11.83	.07	0-10 N 55-00 W	0-10 N 55-00 W	2.08 S	12.61 W	1.44
1540.00	1539.89	-11.87	.62	0-45 N 70-00 E	0-45 N 70-00 E	1.58 S	12.55 W	1.11
1601.00	1600.89	-11.30	.80	0-45 N 48-00 E	0-45 N 48-00 E	1.17 S	11.87 W	.47
1662.00	1661.88	-10.78	.80	0-45 N 60-00 E	0-45 N 60-00 E	.70 S	11.22 W	.26
1723.00	1722.88	-10.22	.93	1-00 N 40-00 E	1-00 N 40-00 E	.11 S	10.51 W	.64
1784.00	1783.87	-9.74	1.06	1-00 N 40-00 E	1-00 N 40-00 E	.71 N	9.83 W	.00
1845.00	1844.86	-9.18	.80	0-30 N 77-00 E	0-30 N 77-00 E	1.12 N	9.16 W	1.10

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1906.00	1905.86	-8.71	.67	0-45	N 79-00 E	8.60 W	.76
1967.00	1966.85	-8.24	.93	1-00	N 79-00 E	7.96 W	.44
2028.00	2027.84	-7.34	1.33	1-30	N 79-00 E	6.86 W	1.03
2089.00	2088.80	-5.63	2.00	2-15	N 79-00 E	4.97 W	1.43
2150.00	2149.74	-3.09	2.79	3-00	N 79-00 E	2.23 W	1.23
2211.00	2210.62	.23	3.72	4-00	N 74-00 E	1.38 E	1.69
2272.00	2271.42	4.44	4.92	5-15	N 70-00 E	6.06 E	2.12
2333.00	2332.10	9.65	6.24	6-30	N 69-00 E	11.91 E	2.06
2394.00	2392.63	15.96	7.57	7-45	N 70-00 E	18.99 E	2.06
2455.00	2453.00	23.25	8.75	8-45	N 69-00 E	27.19 E	1.66
2516.00	2513.18	31.49	9.94	10-00	N 69-00 E	36.47 E	2.05
2577.00	2573.16	40.70	11.12	11-00	N 69-00 E	46.85 E	1.64
2638.00	2633.11	51.02	11.25	10-15	S 88-00 E	57.86 E	7.01
2699.00	2693.09	62.08	11.12	10-45	S 76-00 E	68.85 E	3.67
2760.00	2753.00	73.59	11.51	11-00	S 76-00 E	80.02 E	.41

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2821.00	2812.88	85.22	11.64	11- 0 S 77- 0 E	Scientific	91.34 E	.31
2882.00	2872.75	96.86	11.64	11- 0 S 77- 0 E	Drilling N	102.68 E	.00
2943.00	2932.66	108.37	11.51	10-45 S 77- 0 E	International	113.89 E	.41
3004.00	2992.61	119.62	11.25	10-30 S 77- 0 E	International	124.85 E	.41
3039.00	3027.04	125.94	6.33	10-20 S 80- 0 E	7.72 N	131.05 E	1.62
3101.00	3088.06	136.87	10.94	10- 0 S 80- 0 E	5.81 N	141.83 E	.54
3164.00	3150.11	147.80	10.94	10- 0 S 80- 0 E	3.92 N	152.60 E	.00
3227.00	3212.18	158.54	10.76	9-40 S 80- 0 E	2.05 N	163.20 E	.53
3289.00	3273.33	168.74	10.23	9-20 S 67- 0 E	.85 S	172.99 E	3.49
3352.00	3335.53	178.57	10.04	9- 0 S 64- 0 E	5.02 S	182.12 E	.92
3415.00	3397.77	187.96	9.72	8-45 S 60- 0 E	9.58 S	190.70 E	1.06
3478.00	3460.06	196.99	9.45	8-30 S 60- 0 E	14.30 S	198.88 E	.40
3540.00	3521.38	205.82	9.16	8-30 S 63- 0 E	18.67 S	206.94 E	.72
3603.00	3583.69	214.84	9.31	8-30 S 62- 0 E	22.97 S	215.20 E	.23
3666.00	3645.98	223.90	9.40	8-40 S 61- 0 E	27.46 S	223.46 E	.36

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4330.00	4302.49	319.52	2.48	7-30 S 59-0 E	74.62 S 310.70 E		.00

THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF

4330.00 FEET EQUALS 319.53 FEET AT S 76-30 E.

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3728.00	3707.29	232.86	9.25	8-30 S	49-00 E	231.67 E	.77
3791.00	3769.59	241.93	9.31	8-30 S	49-00 E	240.04 E	.00
3854.00	3831.86	251.19	9.58	9-0 S	49-00 E	248.50 E	1.25
3916.00	3893.10	260.51	9.70	9-0 S	49-00 E	256.98 E	.50
3979.00	3955.28	270.25	10.13	9-30 S	49-00 E	265.84 E	.94
4042.00	4017.46	280.05	10.13	9-0 S	49-00 E	274.81 E	1.50
4105.00	4079.68	289.63	9.86	9-0 S	49-00 E	283.63 E	.74
4167.00	4140.98	298.57	9.30	8-15 S	49-00 E	291.77 E	1.30
4230.00	4203.37	306.96	8.77	7-45 S	49-00 E	299.36 E	.79
4293.00	4265.81	314.93	8.36	7-30 S	49-00 E	306.56 E	.45
4311.00	4283.66	317.16	2.35	7-30 S	49-00 E	308.57 E	.00