

PETROLEUM DEVELOPMENT CORPORATION
 STRANGE FEDERAL #4, slot #1
 TOM TOM, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 2
 Your ref :
 Last revised : 21-Jun-93

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100Ft	Vert Sect
4045.00	25.70	301.80	4043.62	14.14 S	6.13 W	72.87	6.13
4050.00	30.00	304.80	4048.04	12.86 S	8.08 W	90.43	8.08
4055.00	34.80	307.80	4052.26	11.27 S	10.23 W	101.21	10.23
4060.00	39.10	309.60	4056.25	9.39 S	12.58 W	88.67	12.58
4065.00	43.70	310.30	4060.00	7.27 S	15.11 W	92.46	15.11
4070.00	47.90	309.60	4063.49	4.97 S	17.86 W	84.60	17.86
4075.00	52.30	308.10	4066.70	2.56 S	20.85 W	90.96	20.85
4080.00	56.80	306.60	4069.59	0.09 S	24.08 W	93.25	24.08
4085.00	60.30	305.10	4072.20	2.40 N	27.54 W	74.53	27.54
4090.00	65.10	303.50	4074.50	4.90 N	31.21 W	100.12	31.21
4095.00	69.60	302.00	4076.42	7.40 N	35.09 W	94.16	35.09
4100.00	73.50	301.40	4078.00	9.89 N	39.13 W	78.82	39.13
4105.00	80.10	300.50	4079.14	12.39 N	43.30 W	133.16	43.30
4115.00	86.90	303.40	4080.28	17.65 N	51.72 W	73.84	51.72
4125.00	90.10	304.90	4080.54	23.26 N	59.99 W	35.34	59.99
4135.00	90.60	306.10	4080.48	29.07 N	68.14 W	13.00	68.14
4145.00	90.00	307.60	4080.42	35.06 N	76.14 W	16.16	76.14
4155.00	88.90	309.60	4080.52	41.30 N	83.95 W	22.82	83.95
4165.00	89.90	311.60	4080.62	47.81 N	91.54 W	22.36	91.54
4175.00	91.40	313.60	4080.51	54.58 N	98.90 W	25.00	98.90
4185.00	92.50	315.30	4080.17	61.57 N	106.04 W	20.24	106.04
4195.00	91.80	317.30	4079.80	68.80 N	112.94 W	21.18	112.94
4205.00	90.10	319.50	4079.63	76.28 N	119.58 W	27.80	119.58
4215.00	89.20	321.30	4079.69	83.98 N	125.95 W	20.12	125.95
4225.00	89.20	322.60	4079.83	91.85 N	132.11 W	13.00	132.11
4235.00	89.70	324.00	4079.93	99.87 N	138.09 W	14.86	138.09
4245.00	90.30	326.50	4079.93	108.09 N	143.79 W	25.71	143.79
4255.00	91.00	329.10	4079.81	116.55 N	149.12 W	26.92	149.12
4265.00	91.60	331.20	4079.59	125.22 N	154.09 W	21.84	154.09
4275.00	91.20	332.80	4079.34	134.04 N	158.79 W	16.49	158.79
4285.00	90.00	333.60	4079.24	142.97 N	163.30 W	14.42	163.30
4290.00	89.50	333.70	4079.26	147.45 N	165.51 W	10.20	165.51
4295.00	88.70	331.10	4079.34	151.88 N	167.83 W	54.40	167.83
4300.00	87.70	332.10	4079.49	156.28 N	170.21 W	28.28	170.21
4305.00	86.90	331.10	4079.73	160.67 N	172.58 W	25.60	172.58
4310.00	86.10	330.20	4080.04	165.02 N	175.03 W	24.06	175.03
4315.00	85.10	329.10	4080.42	169.32 N	177.55 W	29.68	177.55
4320.00	84.10	328.00	4080.89	173.57 N	180.14 W	29.66	180.14
4325.00	83.40	327.20	4081.43	177.76 N	182.81 W	21.19	182.81
4330.00	82.50	326.00	4082.05	181.91 N	185.54 W	29.85	185.54
4335.00	81.70	325.20	4082.73	185.99 N	188.34 W	22.52	188.34
4340.00	80.60	324.50	4083.50	190.03 N	191.18 W	25.99	191.18
4345.00	79.90	323.60	4084.35	194.02 N	194.07 W	22.60	194.07
4350.00	79.30	323.60	4085.25	197.98 N	196.99 W	12.00	196.99
4355.00	79.30	321.70	4086.18	201.88 N	199.97 W	37.34	199.97
4360.00	79.30	320.70	4087.11	205.71 N	203.05 W	19.65	203.05
4365.00	79.00	319.70	4088.05	209.49 N	206.20 W	20.54	206.20
4370.00	78.90	318.90	4089.01	213.21 N	209.40 W	15.83	209.40
4375.00	79.00	317.60	4089.97	216.87 N	212.66 W	25.60	212.66
4380.00	79.40	317.40	4090.90	220.49 N	215.98 W	8.91	215.98

All data is in feet unless otherwise stated
 Coordinates from structure and TVD from wellhead.
 Vertical section is from wellhead on azimuth 270.00 degrees.
 Declination is 0.00 degrees, Convergence is 0.00 degrees.
 Calculation uses the minimum curvature method.
 Presented by Eastman Teleco