

Scientific Drilling International

Survey Report

Company: PALADIN
Field: State BTC
Site: Lea County, Texas
Well: State BTC #5
Wellpath: VH - Job #32K1002358/374

Date: 10/21/2002 Time: 11:48:43 Page: 2
Co-ordinate(NE) Reference: Site: Lea County, Texas, True North
Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
Section (VS) Reference: Well (0.0E, 0.0N, 136.9Azi)
Survey Calculation Method: Minimum Curvature

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
4800.0	0.74	138.57	4799.6	45.5	-36.0	27.8	45.5	142.27	0.02
4900.0	0.71	147.93	4899.6	46.7	-37.0	28.6	46.7	142.30	0.12
5000.0	0.54	143.82	4999.6	47.8	-37.9	29.2	47.8	142.38	0.17
5100.0	0.55	144.69	5099.6	48.8	-38.7	29.7	48.8	142.42	0.01
5200.0	0.57	122.13	5199.6	49.7	-39.3	30.4	49.7	142.24	0.22
5300.0	0.56	116.15	5299.6	50.6	-39.8	31.3	50.6	141.81	0.06
5400.0	0.60	115.86	5399.6	51.5	-40.2	32.2	51.5	141.32	0.04
5500.0	0.67	112.71	5499.6	52.5	-40.7	33.2	52.5	140.77	0.08
5600.0	0.64	118.29	5599.6	53.6	-41.2	34.3	53.6	140.25	0.07
5700.0	0.69	126.94	5699.6	54.7	-41.8	35.2	54.7	139.88	0.11
5800.0	0.68	129.16	5799.6	55.8	-42.5	36.2	55.8	139.63	0.03
5900.0	0.62	128.82	5899.6	56.9	-43.3	37.0	57.0	139.42	0.06
6000.0	0.55	134.54	5999.5	57.9	-43.9	37.8	58.0	139.28	0.09
6100.0	0.53	175.55	6099.5	58.8	-44.7	38.2	58.8	139.51	0.38
6200.0	0.63	187.82	6199.5	59.6	-45.7	38.2	59.6	140.16	0.16
6300.0	0.61	185.02	6299.5	60.3	-46.8	38.0	60.3	140.91	0.04
6400.0	0.56	177.34	6399.5	61.1	-47.8	38.0	61.1	141.53	0.09
6500.0	0.63	186.34	6499.5	61.9	-48.9	38.0	61.9	142.15	0.12
6600.0	0.60	193.85	6599.5	62.6	-49.9	37.8	62.6	142.88	0.09
6700.0	0.49	200.37	6699.5	63.1	-50.8	37.5	63.2	143.57	0.13
6800.0	0.38	200.10	6799.5	63.5	-51.5	37.2	63.6	144.15	0.11
6900.0	0.33	201.67	6899.5	63.8	-52.1	37.0	63.9	144.61	0.05
7000.0	0.32	186.89	6999.5	64.1	-52.7	36.9	64.3	144.99	0.08
7100.0	0.45	166.43	7099.5	64.7	-53.3	36.9	64.9	145.28	0.19
7200.0	0.49	165.92	7199.5	65.4	-54.1	37.1	65.6	145.54	0.04
7300.0	0.60	136.40	7299.5	66.3	-54.9	37.6	66.6	145.60	0.30
7400.0	0.71	130.60	7399.5	67.5	-55.7	38.4	67.7	145.39	0.13
7500.0	0.73	133.21	7499.5	68.7	-56.5	39.4	68.9	145.15	0.04
7600.0	0.57	130.64	7599.5	69.8	-57.3	40.2	70.0	144.94	0.16
7700.0	0.40	112.49	7699.5	70.6	-57.8	40.9	70.8	144.69	0.23
7800.0	0.26	100.25	7799.5	71.1	-57.9	41.5	71.2	144.41	0.16
7900.0	0.28	104.49	7899.5	71.5	-58.0	41.9	71.6	144.16	0.03
8000.0	0.33	102.44	7999.5	71.9	-58.2	42.4	72.0	143.88	0.05
8100.0	0.34	109.34	8099.5	72.4	-58.3	43.0	72.5	143.60	0.04
8200.0	0.47	113.01	8199.5	73.0	-58.6	43.7	73.1	143.30	0.13
8300.0	0.41	116.95	8299.5	73.7	-58.9	44.4	73.7	143.02	0.07
8400.0	0.42	114.79	8399.5	74.3	-59.2	45.0	74.4	142.76	0.02
8500.0	0.42	115.52	8499.5	75.0	-59.5	45.7	75.0	142.50	0.01
8600.0	0.43	112.04	8599.4	75.7	-59.8	46.3	75.7	142.23	0.03
8700.0	0.36	115.10	8699.4	76.3	-60.1	47.0	76.3	141.98	0.07
8800.0	0.37	112.55	8799.4	76.8	-60.4	47.6	76.8	141.76	0.02
8900.0	0.41	119.31	8899.4	77.4	-60.6	48.2	77.5	141.54	0.06
9000.0	0.50	126.12	8999.4	78.2	-61.1	48.8	78.2	141.36	0.10
9100.0	0.49	144.81	9099.4	79.0	-61.7	49.4	79.1	141.29	0.16
9200.0	0.46	144.58	9199.4	79.9	-62.4	49.9	79.9	141.33	0.03
9300.0	0.51	150.57	9299.4	80.7	-63.1	50.4	80.7	141.40	0.07
9400.0	0.44	150.05	9399.4	81.5	-63.8	50.8	81.5	141.49	0.07
9500.0	0.33	153.92	9499.4	82.2	-64.4	51.1	82.2	141.57	0.11
9600.0	0.28	159.41	9599.4	82.7	-64.9	51.3	82.7	141.66	0.06
9700.0	0.28	154.44	9699.4	83.2	-65.3	51.5	83.2	141.75	0.02
9800.0	0.37	139.91	9799.4	83.7	-65.8	51.8	83.7	141.78	0.12
9900.0	0.64	137.65	9899.4	84.6	-66.5	52.4	84.6	141.75	0.27