


Weatherford®

Job Number: D174
 Company: Manzano Oil Corp.
 Lease/Well: Rum Point State Well #1
 Location: Lea County
 Rig Name: JW #2
 RKB:
 G.L. or M.S.L.:

State/Country: New Mexico
 Declination:
 Grid: True North
 File name: C:\WINSERVE\SURVEY-1\MANZANO\RM1.SVY
 Date/Time: 30-Jan-02 / 14:04
 Curve Name: Composite Survey

30-025-35499

A-2-145-37e
 SUR: 330 N 91222/E
 BHL: 264 N 91187/E

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 27.18
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Begin SDI Gyro Survey									
100.00	.17	237.24	100.00	-.08	-.12	-.13	.15	237.24	.17
200.00	.52	289.70	200.00	-.01	-.68	-.32	.68	269.36	.44
300.00	.37	290.51	300.00	.26	-1.41	-.41	1.43	280.42	.15
400.00	.52	311.50	399.99	.67	-2.05	-.34	2.16	288.17	.22
500.00	.44	288.73	499.99	1.10	-2.75	-.28	2.96	291.72	.21
600.00	.26	289.88	599.99	1.30	-3.33	-.37	3.57	291.28	.18
700.00	.23	350.78	699.99	1.57	-3.57	-.23	3.91	293.74	.25
800.00	.31	67.82	799.99	1.87	-3.36	.13	3.84	299.15	.34
900.00	.38	66.29	899.98	2.11	-2.80	.60	3.51	306.95	.07
1000.00	.43	44.67	999.98	2.51	-2.23	1.21	3.36	318.30	.16
1100.00	.45	4.82	1099.98	3.17	-1.94	1.93	3.71	328.53	.30
1200.00	.16	344.15	1199.98	3.69	-1.94	2.40	4.17	332.24	.31
1300.00	.12	234.85	1299.98	3.77	-2.07	2.41	4.30	331.24	.23
1400.00	.21	225.28	1399.98	3.58	-2.28	2.14	4.24	327.45	.09
1500.00	.36	204.97	1499.97	3.16	-2.55	1.65	4.06	321.17	.18
1600.00	.36	209.56	1599.97	2.60	-2.83	1.02	3.85	312.59	.03
1700.00	.59	192.43	1699.97	1.83	-3.10	.21	3.60	300.54	.27
1800.00	.61	189.14	1799.96	.80	-3.29	-.79	3.39	283.65	.04
1900.00	.48	201.55	1899.96	-.11	-3.53	-1.72	3.53	268.14	.17
2000.00	.42	207.14	1999.96	-.83	-3.85	-2.50	3.94	257.84	.07

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				FT	FT	FT	Distance FT	Direction Deg	
2100.00	.58	188.61	2099.95	-1.66	-4.10	-3.35	4.42	247.98	.23
2200.00	.30	174.73	2199.95	-2.42	-4.15	-4.05	4.80	239.76	.30
2300.00	.82	188.28	2299.94	-3.39	-4.23	-4.94	5.42	231.30	.53
2400.00	.90	194.16	2399.93	-4.86	-4.52	-6.39	6.64	222.96	.12
2500.00	.75	217.97	2499.92	-6.13	-5.12	-7.79	7.99	219.84	.37
2600.00	.77	220.74	2599.91	-7.16	-5.96	-9.09	9.31	219.77	.04
2700.00	.79	205.14	2699.91	-8.29	-6.69	-10.43	10.65	218.90	.21
2800.00	.64	215.94	2799.90	-9.37	-7.31	-11.67	11.88	217.97	.20
2900.00	.54	216.57	2899.89	-10.20	-7.92	-12.69	12.91	217.83	.10
3000.00	.41	224.15	2999.89	-10.83	-8.45	-13.50	13.74	217.95	.14
3100.00	.51	262.81	3099.89	-11.15	-9.14	-14.09	14.42	219.35	.32
3200.00	.62	259.44	3199.88	-11.30	-10.11	-14.67	15.17	221.82	.11
3300.00	.50	235.26	3299.88	-11.65	-11.00	-15.39	16.02	223.37	.26
3400.00	.36	253.83	3399.87	-11.99	-11.66	-15.99	16.72	224.22	.20
3500.00	.75	301.43	3499.87	-11.73	-12.52	-16.16	17.16	226.87	.57
3600.00	.85	298.03	3599.86	-11.04	-13.74	-16.10	17.63	231.21	.11
3700.00	1.08	306.79	3699.84	-10.13	-15.15	-15.93	18.22	236.23	.27
3800.00	1.14	317.04	3799.83	-8.84	-16.58	-15.43	18.79	241.94	.21
3900.00	1.70	326.78	3899.80	-6.87	-18.07	-14.36	19.33	249.19	.61
4000.00	1.94	319.71	3999.74	-4.34	-19.98	-12.98	20.44	257.75	.33
4100.00	1.96	326.27	4099.69	-1.62	-22.02	-11.50	22.08	265.79	.22
4200.00	1.95	331.34	4199.63	1.29	-23.79	-9.72	23.82	273.11	.17
4300.00	2.49	341.08	4299.55	4.84	-25.31	-7.25	25.77	280.83	.66
4400.00	2.53	341.28	4399.46	8.99	-26.72	-4.21	28.19	288.59	.04
4500.00	2.53	342.85	4499.36	13.19	-28.08	-1.10	31.02	295.15	.07
4600.00	2.53	346.93	4599.26	17.44	-29.23	2.17	34.04	300.83	.18
4700.00	2.24	349.73	4699.18	21.52	-30.08	5.40	36.98	305.58	.31
4800.00	2.14	352.94	4799.10	25.29	-30.65	8.50	39.74	309.53	.16
4900.00	2.06	356.31	4899.04	28.94	-31.00	11.58	42.41	313.03	.15
5000.00	1.94	5.91	4998.98	32.42	-30.94	14.70	44.81	316.33	.36
5100.00	1.89	6.03	5098.92	35.74	-30.59	17.82	47.05	319.44	.05
5200.00	1.98	5.93	5198.86	39.10	-30.24	20.97	49.43	322.28	.09
5300.00	1.76	5.70	5298.81	42.34	-29.91	24.01	51.84	324.76	.22
5400.00	1.68	7.85	5398.76	45.32	-29.56	26.82	54.11	326.89	.10
5500.00	1.68	10.35	5498.72	48.22	-29.09	29.60	56.32	328.89	.07
5600.00	1.77	10.52	5598.68	51.18	-28.55	32.49	58.60	330.85	.09
5700.00	1.86	9.67	5698.63	54.30	-27.99	35.51	61.09	332.73	.09
5800.00	1.94	7.74	5798.57	57.57	-27.49	38.66	63.80	334.47	.10
5900.00	2.06	9.32	5898.51	61.03	-26.98	41.96	66.72	336.15	.13
6000.00	1.89	19.71	5998.45	64.35	-26.13	45.31	69.45	337.90	.40
6100.00	1.96	25.64	6098.39	67.45	-24.83	48.66	71.87	339.79	.21
6200.00	1.99	26.76	6198.34	70.54	-23.31	52.10	74.29	341.71	.05

e 2

Composite Survey File: C:\WINSERVE\ISURVEY~1\MANZANO\RUM1.SVY

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6300.00	2.03	31.46	6298.27	73.60	-21.60	55.60	76.70	343.64	.17
6400.00	2.08	44.18	6398.21	76.41	-19.42	59.10	78.84	345.74	.46
6500.00	2.37	48.70	6498.13	79.08	-16.60	62.76	80.80	348.15	.34
6600.00	2.22	48.96	6598.05	81.71	-13.58	66.49	82.83	350.56	.15
6700.00	2.29	47.76	6697.98	84.33	-10.64	70.15	85.00	352.81	.08
6800.00	2.29	46.91	6797.90	87.04	-7.70	73.91	87.38	354.94	.03
6900.00	2.31	49.18	6897.82	89.72	-4.72	77.65	89.84	356.99	.09
7000.00	2.28	48.30	6997.74	92.36	-1.71	81.38	92.37	358.94	.05
7100.00	2.03	49.45	7097.67	94.83	1.12	84.87	94.84	.68	.25
7200.00	2.21	44.53	7197.60	97.36	3.82	88.35	97.43	2.25	.26
7300.00	2.28	46.54	7297.52	100.10	6.61	92.07	100.32	3.78	.11
7400.00	2.18	46.81	7397.44	102.77	9.45	95.74	103.21	5.25	.10
7500.00	1.96	49.92	7497.38	105.18	12.14	99.11	105.87	6.58	.25
7600.00	2.12	42.08	7597.32	107.65	14.69	102.47	108.65	7.77	.32
7700.00	1.98	46.40	7697.25	110.21	17.18	105.89	111.54	8.86	.21
7800.00	2.17	41.14	7797.19	112.83	19.68	109.36	114.53	9.89	.27
7900.00	2.17	43.88	7897.11	115.62	22.23	113.01	117.74	10.88	.10
8000.00	2.23	45.39	7997.04	118.35	24.93	116.67	120.95	11.90	.08
8100.00	2.28	41.29	8096.96	121.21	27.63	120.45	124.32	12.84	.17
8200.00	2.78	41.29	8196.87	124.53	30.54	124.73	128.22	13.78	.50
8300.00	2.85	42.67	8296.75	128.18	33.83	129.48	132.57	14.78	.10
8400.00	2.73	40.26	8396.63	131.82	37.05	134.19	136.93	15.70	.17
8500.00	2.94	39.39	8496.50	135.62	40.22	139.02	141.46	16.52	.21
8600.00	2.80	42.70	8596.38	139.40	43.50	143.88	146.03	17.33	.22
8700.00	2.57	37.14	8696.27	142.98	46.51	148.44	150.36	18.02	.35
8800.00	2.69	40.97	8796.16	146.54	49.40	152.93	154.65	18.63	.21
8900.00	2.63	41.66	8896.06	150.03	52.47	157.43	158.94	19.28	.07
9000.00	2.40	39.56	8995.96	153.36	55.33	161.69	163.03	19.84	.25
9100.00	2.72	37.26	9095.86	156.86	58.10	166.08	167.27	20.32	.34
9200.00	2.54	45.21	9195.75	160.31	61.10	170.52	171.56	20.87	.41
9300.00	2.71	37.03	9295.65	163.76	64.10	174.95	175.86	21.38	.41
9400.00	2.39	38.71	9395.55	167.27	66.83	179.33	180.13	21.78	.33
9500.00	2.15	34.75	9495.47	170.44	69.20	183.23	183.95	22.10	.29
9600.00	2.33	38.78	9595.40	173.57	71.54	187.08	187.73	22.40	.24
9700.00	2.23	35.28	9695.32	176.74	73.94	191.00	191.58	22.70	.17
9800.00	2.26	45.89	9795.24	179.70	76.48	194.79	195.30	23.05	.42
9900.00	2.42	45.84	9895.16	182.54	79.41	198.66	199.07	23.51	.16
10000.00	2.39	42.09	9995.07	185.56	82.32	202.67	203.00	23.92	.16
10100.00	2.46	42.91	10094.98	188.68	85.18	206.75	207.02	24.30	.08
10200.00	2.48	49.83	10194.89	191.65	88.30	210.82	211.01	24.74	.30
10300.00	2.32	50.75	10294.80	194.32	91.52	214.67	214.79	25.22	.16
10400.00	2.07	51.50	10394.73	196.73	94.50	218.17	218.25	25.66	.25

e 3

Composite Survey File: C:\WINSERVE\SURVEY~1\MANZANO\RUM1.SVY

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
Distance FT	Direction Deg								
10500.00	2.18	49.27	10494.66	199.09	97.35	221.58	221.62	26.06	.14
10600.00	2.68	53.57	10594.57	201.72	100.67	225.43	225.45	26.52	.53
10700.00	2.89	53.15	10694.45	204.62	104.57	229.80	229.80	27.07	.21
End of Gyro									
10713.00	2.88	53.11	10707.43	205.02	105.10	230.38	230.38	27.14	.08
Begin MWD Surveys									
10786.00	2.80	51.20	10780.34	207.23	107.95	233.66	233.67	27.52	.17
10818.00	2.60	50.90	10812.31	208.18	109.12	235.04	235.05	27.66	.63
10850.00	1.40	58.00	10844.29	208.85	110.02	236.04	236.05	27.78	3.82
10882.00	.80	103.50	10876.28	209.00	110.57	236.43	236.45	27.88	3.17
10946.00	1.50	201.90	10940.27	208.12	110.69	235.70	235.72	28.01	2.81
11010.00	3.30	211.20	11004.21	205.77	109.42	233.03	233.05	28.00	2.87
11042.00	4.50	213.90	11036.14	203.94	108.25	230.86	230.88	27.96	3.79
11106.00	5.80	218.90	11099.88	199.34	104.81	225.20	225.21	27.74	2.15
11138.00	7.10	221.50	11131.68	196.60	102.49	221.70	221.71	27.53	4.16
11202.00	9.10	216.00	11195.04	189.54	96.89	212.87	212.87	27.08	3.35
11266.00	8.80	211.40	11258.26	181.27	91.37	202.98	202.99	26.75	1.21
11393.00	7.90	209.60	11383.91	165.38	81.99	184.58	184.59	26.37	.74
11457.00	8.70	205.00	11447.24	157.17	77.78	175.34	175.36	26.33	1.62
11521.00	8.80	204.80	11510.50	148.34	73.68	165.62	165.63	26.41	.16
11584.00	8.10	205.70	11572.81	139.97	69.73	156.36	156.38	26.48	1.13
11712.00	6.70	204.90	11699.74	125.07	62.68	139.89	139.89	26.62	1.10
11776.00	7.10	202.60	11763.28	118.03	59.58	132.21	132.22	26.79	.76
11967.00	5.10	206.30	11953.19	99.52	51.29	111.96	111.96	27.26	1.07
12062.00	4.40	207.60	12047.86	92.51	47.73	104.09	104.09	27.29	.75
End of MWD Survey									
12142.00	3.90	205.80	12127.65	87.34	45.12	98.30	98.30	27.32	.65
Projection to Bit									
12182.00	3.90	205.80	12167.56	84.89	43.94	95.58	95.58	27.37	.00
Projection to TD									
12453.00	2.19	205.80	12438.17	71.93	37.67	81.19	81.20	27.64	.63

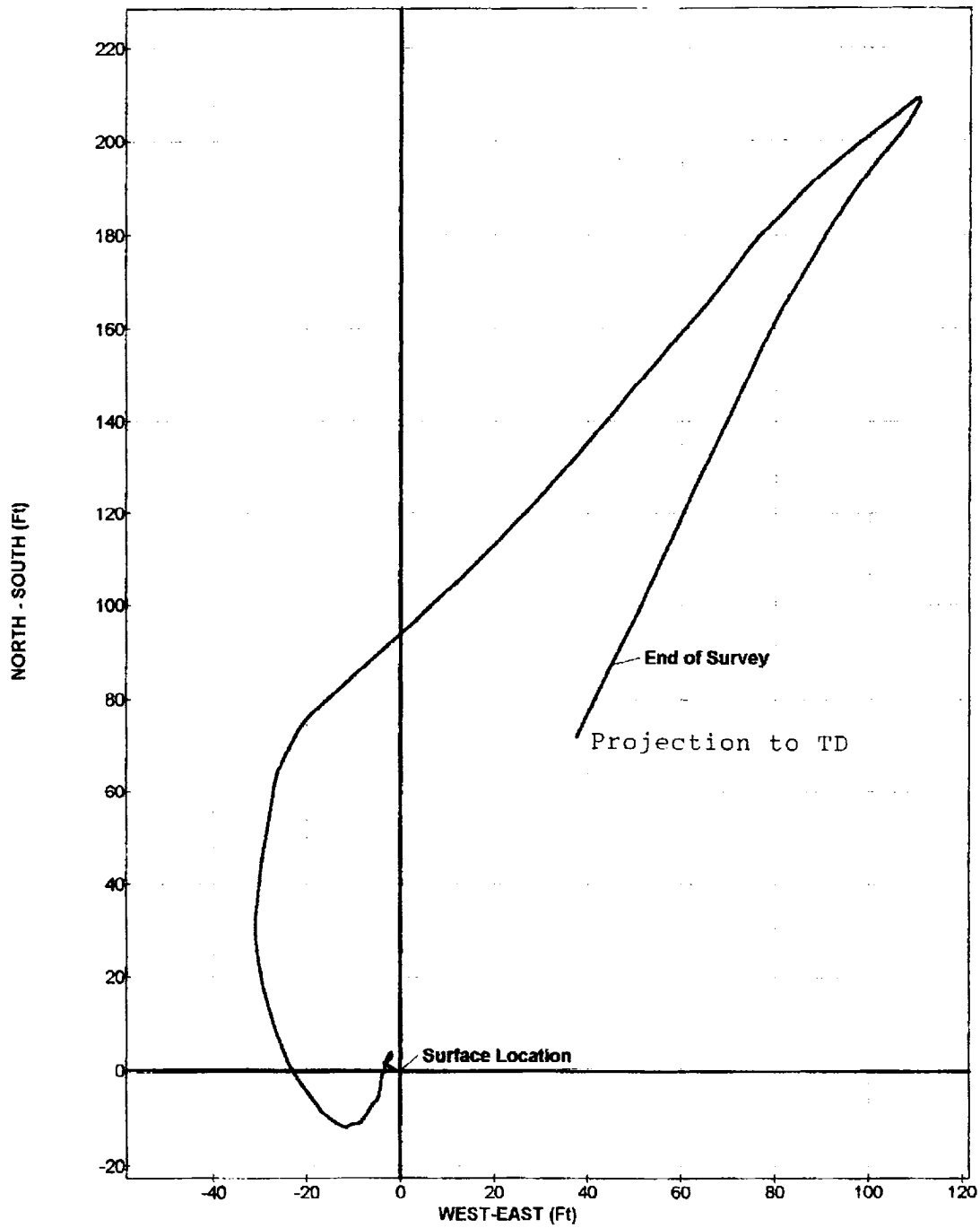
Job Number: D174

Company: Manzano Oil Corp.

Lease/Well: Rum Point State Well #1

Location: Lea County

State/Country: New Mexico



— Composite Survey

Survey Certification

State of Texas

County of Midland

I, TIM KILPATRICK CETIFY THAT; I AM EMPLOYED BY WEATHERFORD
US, LP: THAT I DID ON THE DAY(S) OF 11/7/01 THROUGH
11/16/01 CONDUCT OR SUPERVISE THE TAKING OF A
MWD SURVEY FROM A DEPTH OF 10,786 FEET TO
A DEPTH OF 12,142 FEET; THE DATA IS TRUE, CORRECT,
COMPLETE, AND WITHIN THE LIMITATIONS OF THE TOOL AS SET
FORTH BY WEATHERFORD US, LP; THAT I AM AUTHORIZED AND
QUALIFIED TO MAKE THIS REPORT; THAT THIS SURVEY WAS CONDUCTED
AT THE REQUEST MANZANO Oil FOR THE Run Point State #,
WELL API NO. 30 125 35499 IN LEA COUNTY;
TEXAS / (NEW MEXICO) AND THAT I HAVE REVIEWED THIS REPORT AND
FIND THAT IT CONFORMS TO THE PRINCIPLES AND PROCEDURES AS SET
FORTH BY WEATHERFORD US, LP.

Tim Kilpatrick 11/16/01