

WELL NAME AND NUMBER Goodwin State No. 1

LOCATION 2160' FSL & 330' FWL, Sec. 31, T18S, R37E, Lea County, NM

OPERATOR Marathon Oil Company

DRILLING CONTRACTOR TMBR/Sharp

The undersigned hereby certifies that he is an authorized representative of the operator who surveyed two portions of the above described well (0'-4,202' & 7,394'-7,790' TD), and had conducted magnetic single shot surveys and obtained the following results:

*** * * N A U T I C A L (V e r s i o n 4 . 0) * * ***

Well: Goodwin State #1

Target Azimuth: 0

Closure Direction: 358

Calculation Method - Minimum Curvature

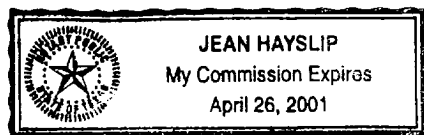
Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/ South (ft)	East/ West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	<==== Tie-in Data				
212.00	1.75	233.00	211.97	-1.95	-1.95	-2.59	3.24	0.008	1.099	0.83	
510.00	0.00	0.00	509.92	-4.69	-4.69	-6.22	7.79	-0.006	-0.782	0.59	
779.00	0.50	12.00	778.92	-3.54	-3.54	-5.98	6.94	0.002	0.045	0.19	
1,238.00	0.50	11.00	1,237.90	0.39	0.39	-5.18	5.19	0.000	-0.002	0.00	
1,626.00	0.50	350.00	1,625.89	3.72	3.72	-5.15	6.35	0.000	-0.054	0.05	
2,097.00	1.00	40.00	2,096.85	8.89	8.89	-2.86	9.34	0.001	0.106	0.17	
2,658.00	2.00	13.00	2,657.65	22.18	22.18	2.49	22.32	0.002	-0.048	0.21	
2,846.00	2.50	23.00	2,845.51	29.15	29.15	4.83	29.54	0.003	0.053	0.34	
3,097.00	2.00	44.00	3,096.32	37.34	37.34	10.01	38.66	-0.002	0.084	0.38	
3,345.00	2.00	40.00	3,344.17	43.77	43.77	15.80	46.53	0.000	-0.016	0.06	
3,595.00	2.00	65.00	3,594.02	48.95	48.95	22.55	53.90	0.000	0.100	0.35	
3,846.00	1.75	72.00	3,844.89	51.99	51.99	30.17	60.11	-0.001	0.028	0.13	
7,453.00	2.75	325.00	7,449.07	153.27	153.27	6.66	153.42	0.005	-0.395	1.85	
7,734.00	3.00	280.00	7,729.75	160.07	160.07	-4.45	160.13	0.001	-0.160	0.79	
7,790.00	3.00	280.00	7,785.67	160.58	160.58	-7.34	160.75	0.000	0.000	0.00	

Operator: Marathon Oil Company

By: *Willard J. Janke*

Title: Senior Drilling Engineer

Subscribed and sworn to before me this 30th day of May, 2000.



My Commission Expires: 4-26-01

Jean Hayslip
Notary Public
Midland, Texas
County State

Schlumberger

Anadrill

MDC Operations
9900 West Interstate 20
Midland, Texas 79706
Phone (915) 563-3057
Fax (915) 563-3059

Tuesday, May 30, 2000

Oil Conservation Division
District I
P.O. Box 1960
Hobbs, New Mexico 88241-1960

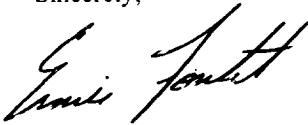
Re: Marathon Oil Company
Goodwin State #1
Section 31, T18S, R37E
Lea County, NM
API # 30-025-34760

Enclosed, please find the original and one copy of the survey performed on the referenced well by Anadrill, a division of Schlumberger Technology Corporation. Other information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Armando Aguilar	#01	3846' to 7394'	12/2/99 – 12/9/99	MWD/D&I

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,



Ernie Fontenot
Well Planner

Cc: Marathon Oil Company

Enclosures: 2

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Schlumberger**Anadrill**

MDC Operations
9900 West Interstate 20
Midland, Texas 79706
Phone (915) 563-3057
Fax (915) 563-3059

State of Texas
County of Midland

I, Armando Aguilar, certify that; I am employed by Anadrill, a division of Schlumberger Technology Corporation; that I did on the day's of 12/2/99 through 12/9/99 conduct or supervise the taking of MWD surveys from a depth of 3846 feet to a depth of 7394 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Anadrill, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Marathon Oil Company, for the Goodwin State #1, API # 30-025-34760, in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Anadrill, a division of Schlumberger Technology Corporation.

Armando Aguilar,
MWD I

Survey Report - Standard

Report Date: 30-May-2000 Client: Marathon Oil Company Field: Lea County, NM Structure / Slot: Goodwin State #1 / Slant Well Well: Goodwin State #1 Borehole: Goodwin State #1 UWI / AP#: Survey Name / Date: Survey / May 30, 2000 Tort / AHD / DDI / ERD ratio: 23.890° / 2064.33 ft / 4.693 / 0.279 Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Feet Location Lat / Long: N 30 59 24.512, W 105 55 44.137 Location Grid N/E Y/X: N 0.000 ftUS, E 0.000 ftUS Grid Convergence Angle: -0.82171463° Grid Scale Factor: 1.00019550	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 0.000° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: TVD Reference Elevation: 0.000 ft relative to Sea Bed / Ground Level Elevation: 0.000 ft relative to Magnetic Declination: +9.725° Total Field Strength: 48743.035 nT Magnetic Dip: 58.830° Declination Date: May 30, 2000 Magnetic Declination Model: BGGM 1999 North Reference: Grid North Total Corr Mag North -> Grid North: +10.547° Local Coordinates Referenced To: Structure Reference Point
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Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/S (ft)	E/W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	3846.00	1.75	72.0	3844.89	51.99	51.99	30.17	60.11	30.1	0.13	59.0 M
	4161.00	1.76	59.0	4159.74	55.97	55.97	38.89	68.15	34.8	0.13	48.5 M
	4223.00	1.40	48.5	4221.72	56.96	56.96	40.27	69.76	35.3	0.74	25.2 M
	4286.00	1.05	25.2	4284.71	57.99	57.99	41.10	71.08	35.3	0.95	-8.0 M
	4348.00	1.10	352.0	4346.70	59.10	59.10	41.25	72.07	34.9	0.99	2.7 M
	4411.00	1.10	2.7	4409.68	60.30	60.30	41.20	73.03	34.3	0.33	-3.1 M
	4474.00	0.90	356.9	4472.67	61.40	61.40	41.20	73.94	33.9	0.36	-23.9 M
	4537.00	1.18	336.1	4535.66	62.49	62.49	40.91	74.69	33.2	0.74	-40.5 M
	4631.00	2.15	319.5	4629.62	64.71	64.71	39.38	75.75	31.3	1.14	-38.8 M
	4694.00	2.17	321.2	4692.58	66.54	66.54	37.86	76.56	29.6	0.11	-33.8 M
	4757.00	2.23	326.2	4755.53	68.49	68.49	36.43	77.58	28.0	0.32	-32.9 M
	4819.00	2.18	327.1	4817.49	70.48	70.48	35.12	78.75	26.5	0.10	-32.6 M

4881.00	2.22	327.4	4879.44	72.48	72.48	33.83	79.99	25.0	0.07	-31.7 M
4944.00	2.30	328.3	4942.39	74.59	74.59	32.51	81.36	23.6	0.14	-30.3 M
5007.00	2.26	329.7	5005.34	76.73	76.73	31.22	82.84	22.1	0.11	-28.9 M
5068.00	2.29	331.1	5066.29	78.84	78.84	30.02	84.36	20.8	0.10	-25.3 M
5131.00	2.00	334.7	5129.25	80.93	80.93	28.94	85.95	19.7	0.51	-21.8 M
5194.00	1.99	338.2	5192.21	82.94	82.94	28.07	87.57	18.7	0.19	-20.9 M
5257.00	2.06	339.1	5255.17	85.02	85.02	27.26	89.28	17.8	0.12	-19.9 M
5320.00	2.04	340.1	5318.13	87.13	87.13	26.47	91.06	16.9	0.07	-32.7 M
5383.00	1.89	327.3	5381.10	89.06	89.06	25.53	92.65	16.0	0.73	-37.4 M
5445.00	1.75	322.6	5443.06	90.67	90.67	24.40	93.90	15.1	0.33	-41.7 M
5508.00	1.75	318.3	5506.03	92.15	92.15	23.18	95.02	14.1	0.21	-39.5 M
5570.00	1.70	320.5	5568.01	93.57	93.57	21.97	96.11	13.2	0.13	-45.7 M
5634.00	0.96	314.3	5631.99	94.68	94.68	20.98	96.97	12.5	1.18	-58.4 M
5665.00	0.40	301.6	5662.99	94.92	94.92	20.70	97.15	12.3	1.86	-166.1 M
5728.00	0.65	193.9	5725.99	94.68	94.68	20.43	96.86	12.2	1.37	-148.6 M
5790.00	0.88	211.4	5787.98	93.94	93.94	20.09	96.06	12.1	0.52	-118.9 M
5853.00	1.58	241.1	5850.97	93.10	93.10	19.08	95.04	11.6	1.47	-95.0 M
5916.00	2.90	265.0	5913.92	92.55	92.55	16.73	94.05	10.2	2.52	-87.9 M
5977.00	3.20	272.1	5974.83	92.47	92.47	13.50	93.45	8.3	0.79	-79.3 M
6040.00	2.40	280.7	6037.76	92.78	92.78	10.44	93.37	6.4	1.43	-83.6 M
6071.00	1.90	276.4	6068.73	92.96	92.96	9.29	93.42	5.7	1.69	-97.2 M
6102.00	1.50	262.8	6099.72	92.97	92.97	8.38	93.34	5.2	1.82	-79.5 M
6164.00	1.10	280.5	6161.70	92.97	92.97	6.99	93.24	4.3	0.91	-46.8 M
6227.00	1.10	313.2	6224.69	93.50	93.50	5.95	93.69	3.6	0.98	-10.9 M
6289.00	1.90	349.1	6286.67	94.91	94.91	5.33	95.06	3.2	1.93	14.4 M
6352.00	1.90	14.4	6349.64	96.95	96.95	5.39	97.10	3.2	1.32	18.1 M
6414.00	2.20	18.1	6411.60	99.08	99.08	6.01	99.26	3.5	0.53	8.8 M
6477.00	2.40	8.8	6474.55	101.53	101.53	6.59	101.74	3.7	0.67	2.7 M
6540.00	2.53	2.7	6537.49	104.22	104.22	6.86	104.45	3.8	0.47	-7.8 M
6603.00	2.02	352.2	6600.44	106.71	106.71	6.77	106.93	3.6	1.04	-3.8 M
6664.00	2.00	356.2	6661.40	108.84	108.84	6.55	109.04	3.4	0.23	1.3 M
6727.00	2.29	1.3	6724.36	111.19	111.19	6.51	111.38	3.4	0.55	10.5 M
6789.00	2.84	10.5	6786.30	113.94	113.94	6.82	114.15	3.4	1.10	8.1 M

6851.00	3.00	8.1	6848.22	117.06	117.06	7.33	117.29	3.6	0.33	6.3 M
6914.00	3.25	6.3	6911.12	120.47	120.47	7.75	120.72	3.7	0.43	14.0 M
6977.00	3.52	14.0	6974.01	124.12	124.12	8.42	124.40	3.9	0.84	9.7 M
7040.00	3.78	9.7	7036.89	128.04	128.04	9.23	128.38	4.1	0.60	1.2 M
7103.00	4.06	1.2	7099.74	132.32	132.32	9.63	132.67	4.2	1.02	-1.8 M
7134.00	4.19	358.2	7130.66	134.55	134.55	9.62	134.89	4.1	0.82	-5.0 M
7165.00	4.00	355.0	7161.58	136.76	136.76	9.49	137.09	4.0	0.95	-5.0 M
7228.00	3.96	355.0	7224.43	141.11	141.11	9.10	141.41	3.7	0.06	-6.9 M
7290.00	3.69	353.1	7286.29	145.23	145.23	8.68	145.49	3.4	0.48	-7.8 M
7322.00	3.52	352.2	7318.23	147.22	147.22	8.42	147.46	3.3	0.56	-11.7 M
7353.00	3.05	348.3	7349.17	148.97	148.97	8.12	149.19	3.1	1.68	-11.7 M
TD 7394.00	2.43	348.3	7390.13	150.89	150.89	7.73	151.09	2.9	1.51	---

Survey Error Model: Wolff & deWardt 1.0000 sigma

Surveying Programme:

MD From (ft)
3846.00

MD To (ft) EOU Freq Survey Tool Type
7394.00 Act-Stns Anadrill MWD

MDC Operations

9900 West Interstate 20

Midland, Texas 79706

Phone (915) 563-3057

Fax (915) 563-3059

Dec 9, 1999

Oil Conservation Division

District I

P.O. Box 1960

Hobbs, New Mexico 88241-1960

Re: Marathon Oil Co.

Goodwin State # 1

Lea County, New Mexico

API #30-25-34760

Enclosed, please find the original and one copy of the survey performed on the referenced well by Anadrill, a division of Schlumberger Technology Corporation. Other information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Armando Aguilar MWD 2	#1	4161-7394	12/3/99-12/9/99	MWD/D&I

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,

Ernie Fontenot
Well Planner

Cc: Cross Timbers

Enclosures: 2

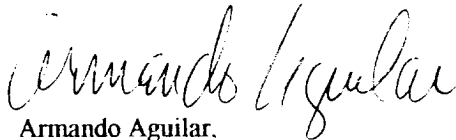
Schlumberger

Anadrill

MDC Operations
9900 West Interstate 20
Midland, Texas 79706
Phone (915) 563-3057
Fax (915) 563-3059

State of Texas
County of Midland

I, Armando Aguilar, certify that: I am employed by Anadrill, a division of Schlumberger Technology Corporation; that I did on the day's of 12/3/99 through 12/9/99 conduct or supervise the taking of MWD surveys from a depth of 4161 feet to a depth of 7394 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Anadrill, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Marathon Oil Co., Goodwin State # 1, API # 30-25-34760, in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Anadrill, a division of Schlumberger Technology Corporation.



Armando Aguilar,
MWD 2

Schlumberger

Anadrill

MDC Survey Sheet

Page ____ 1

Company	Marathon Oil Co.
Well	Goodwin State #1
Rig	Timbersharp #10
Job #	40004173

Local Declination	9.76
Target Direction	0
N/S Coordinate	151
E/W Coordinate	0
Cell Manager	Armando Aguilar

Run #	Survey #	Time	Survey Depth	Bit Depth	Incl.	Azimuth (C)	TFO	Temp.	Mag. Dip	TTL FLD	TTL G's	SBA Volts	SEA #
	1		4161	4201	1.76	58.98						ok	237
	2		4223	4264	1.4	48.5		90.97	61.76	1018	999	48	237
	3		4286	4327	1.1	25.23						ok	237
	4		4348	4389	1.1	352.3		91.8	61.55	1020	999	48	237
	5		4411	4452	1.1	2.7		95.5	62.46	1012	999	48	237
	6		4474	4515	0.9	356.9		94.14	61.69	1020	999	48	237
	7		4537	4578	1.18	336.12		94	61.82	1018	1000	48	237
	8		4631	4672	2.15	319.53		96.51	61.65	1020	999	48	237
	9		4694	4735	2.17	321.24		95.98	61.83	1020	1000	48	237
	10		4757	4798	2.23	326.18		97.57	61.8	1018	998.76	48	237
	11		4819	4860	2.18	327.06		98.09	61.95	1018	1000.7	48	237
	12		4881	4922	2.22	327.37		97.57	62.1	1017.4	999.8	48	237
	13		4944	4985	2.3	328.27						ok	237
	14		5007	5048	2.26	329.7		97.3	61.92	1019	999	48	237
	15		5068	5109	2.29	331.09						ok	237
	16		5131	5172	2	334.73		98.09	61.46	1021	1000	48	237
	17		5194	5235	1.99	338.24		97.04	61.67	1018	999	48	237
	18		5257	5298	2.06	339.08		98.62	61.78	1019	999.6	48	237
	19		5320	5361	2.04	340.08		100.73	61.84	1019	999.6	48	237
	20		5383	5424	1.89	327.29		99.15	61.79	1019	998.5	48	237
	21		5445	5489	1.75	322.63		100.47	61.61	1020	1000	48	237
	22		5508	5549	1.75	318.28		98.09	61.77	1018	998.4	48	237
	23		5570	5611	1.7	320.54						ok	237
	24		5634	5675	0.96	314.33		102.05	61.79	1019	999	48	237
	25		5665	5706	0.4	301.55						ok	237

MDC Survey Sheet

Company	Marathon Oil Co.
Well	Goodwin State #1
Rig	Timbersharp #10
Job #	40004173

Local Declination	9.76
Target Direction	0
N/S Coordinate	151
E/W Coordinate	0
Cell Manager	Armando Aguilar

Run #	Survey #	Time	Survey Depth	Bit Depth	Incl.	Azimuth (C)	TFO	Temp.	Mag. Dip	TTL FLD	TTL G's	SBA Volts	SEA #
1	26		5728	5769	0.65	193.94		100.99	61.61	1019.7	999	48	237
1	27		5790	5831	0.88	211.43		102.05	61.85	1019	1001	48	237
1	28		5822	5863	1.1	229.13						ok	237
1	29		5853	5894	1.74	238.76		102.3				ok	237
1	30		5916	5957	2.9	265						ok	237
1	31		5977	6018	3.2	272.1		103.89	61.61	1020	1000	48	237
1	32		6008	6049	2.8	275.6		103.1	61.91	1019	999	48	237
1	33		6040	6081	2.4	280.7		104.95	61.83	1020	1000	48	237
1	34		6071	6112	1.9	276.4		104.42	61.77	1020	1000	48	237
1	35		6102	6143	1.5	262.8							237
2	36		6164	6205	1.1	280.46							237
2	37		6227	6268	1.1	313.6		104.95	62.3	1019	1000	50	237
2	38		6289	6330	1.9	349.1		103.63	61.91	1023	999	50	237
2	39		6352	6393	1.9	14.4		106.53	61.81	1024	1000	50	237
2	40		6414	6455	2.2	18.1		106.27	62.04	1021	1000	50	237
2	41		6477	6518	2.4	8.8		106.27	62.04	1021	1000	50	237
2	42		6540	6581	2.5	2.5		107.85	62.46	1017	998	50	237
2	43		6603	6644	2	352.18						ok	237
2	44		6635	6676	2	356.2		109.17	61.97	1021	1001	48	237
2	45		6727	6768	2.29	1.32						ok	237
2	46		6789	6830	2.84	10.51		108.38	61.9	1022	1000	48	237
2	47		6851	6892	3	8.1		110.49	62.06	1021	999	48	237
2	48		6914	6955	3.25	6.25						ok	237
2	49		6977	7018	3.52	13.97						ok	237
2	50		7040	7081	3.78	9.7		111.01	62.05	1019	1000	48	237

Schlumberger

Anadrill

MDC Survey Sheet

Page 3

Company	Marathon Oil Co.
Well	Goodwin State #1
Rig	Timbersharp #10
Job #	40004173

Local Declination	9.76
Target Direction	0
N/S Coordinate	151
E/W Coordinate	0
Cell Manager	Armando Aguilar

Run #	Survey #	Time	Survey Depth	Bit Depth	Incl.	Azimuth (C)	TFO	Temp.	Mag. Dip	TTL FLD	TTL G's	SBA Volts	SEA #
2	51		7103	7144	4.1	1.2		113.39	61.66	1024	1001	48	237
2	52		7134	7175	4.2	358.17		113.65	61.8	1021	999.68	48	237
2	53		7165	7206	4	355						ok	237
2	54		7228	7269	3.96	355							237
2	55		7290	7331	3.69	353.1		113.12	62.11	1020	1000	48	237
2	56		7322	7363	3.52	352.18							237
2	57		7353	7394	3.05	348.29		113.39	62.08	1019	999	48	237
2	58												237
2	59												237
2	60												237
2	61												237
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