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District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-140
Originated 11/1/95

Submit Original
Plus 2 Copies
to appropriate
District Office

APPLICATION FOR
QUALIFICATION OF WELL WORKOVER PROJECT
AND CERTIFICATION OF APPROVAL

THREE COPIES OF THIS APPLICATION AND ALL ATTACHMENTS MUST BE FILED WITH THE APPROPRIATE DISTRICT OFFICE OF THE OIL CONSERVATION DIVISION.

- I. Operator: M&G DRILLING COMPANY OGRID #: 141852
Address: c/o KM PRODUCTION COMPANY, PO BOX 2406, FARMINGTON, NM 87499
Contact Party: KEVIN MCCORD Phone: (505) 325-6900
- II. Name of Well: GRAHAM #51-A API #: 30-045-21733
Location of Well: Unit Letter J, 1775 Feet from the SOUTH line and 1725 feet from the EAST line,
Section 10, Township 27N, Range 8W, NMPM, SAN JUAN County
- III. Date Workover Procedures Commenced: 10/24/95
Date Workover Procedures were Completed: 10/24/95
- IV. Attach a description of the Workover Procedures undertaken to increase the production from the Well.
- V. Attach an estimate of the production rate of the Well (a production decline curve or other acceptable method, and table showing monthly oil and/or gas Project Production) based on at least twelve (12) months of established production which shows the future rate of production based on well performance prior to performing Workover.
- VI. Pool(s) on which Production Projection is based:

Blanca MV

VII. AFFIDAVIT:

State of NEW MEXICO)
County of SAN JUAN) ss.

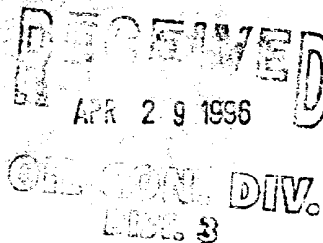
KEVIN MCCORD being first duly sworn, upon oath states:

- I am the Operator or authorized representative of the Operator of the above referenced Well.
- I have made, or caused to be made, a diligent search of the production records which are reasonably available and contain information relevant to the production history of this Well.
- To the best of my knowledge, the data used to prepare the Production Projection for this Well is complete and accurate and this projection was prepared using sound petroleum engineering principles.

Kevin A. McCord
(Name)

PETROLEUM ENGINEER

(Title)



SUBSCRIBED AND SWORN TO before me this 24th day of April, 1996

Karmela Westmouland

Notary Public

My Commission expires: April 8, 2000

FOR OIL CONSERVATION DIVISION USE ONLY:

VIII. CERTIFICATION OF APPROVAL:

This Application for Qualification of Well Workover Project is hereby approved and the above referenced Well is designated as a Well Workover Project pursuant to the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8). The Oil Conservation Division hereby verifies the Production Projection for the Well Workover Project attached to this application. By copy of this Application and Certification of Approval, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project has been completed as of 10/24, 1995

31.8
District Supervisor, District 3
Oil Conservation Division

Date: 5/10/96

IX. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT.

DATE: _____

M&G DRILLING COMPANY
GRAHAM #51-A
1775 FSL & 1725 FEL
NWSE, SECTION 10, T27N R8W
SAN JUAN COUNTY, NEW MEXICO

The workover performed on the Graham #51-A well involved installation of a compressor. Compression was added to help this well lift liquids by decreasing backpressure on the well and increasing it's flow rate. This workover started and completed on 10/24/95.

M&G DRILLING COMPANY

GRAHAM #51-A

HISTORICAL PRODUCTION

	YEAR	MONTH	GAS (MCF)	COND (BBLs)	PROD DAYS
1	1993	JAN	2909	102	31
2	1993	FEB	3322	7	28
3	1993	MAR	3943	8	31
4	1993	APR	2865	17	26
5	1993	MAY	3654	0	99
6	1993	JUN	3290	0	30
7	1993	JUL	2564	1	25
8	1993	AUG	3397	1	99
9	1993	SEP	2828	3	30
10	1993	OCT	2331	35	31
11	1993	NOV	2751	66	30
12	1993	DEC	2673	41	31
13	1994	JAN	2611	38	31
14	1994	FEB	2287	9	28
15	1994	MAR	2453	10	31
16	1994	APR	2272	0	30
17	1994	MAY	2093	9	31
18	1994	JUN	1555	0	21
19	1994	JUL	2334	0	31
20	1994	AUG	2828	44	31
21	1994	SEP	1679	67	13
22	1994	OCT	2667	7	29
23	1994	NOV	3240	34	30
24	1994	DEC	2810	4	31
25	1995	JAN	2447	5	31
26	1995	FEB	2610	60	28
27	1995	MAR	3063	41	31
28	1995	APR	2838	5	30
29	1995	MAY	2735	38	31
30	1995	JUN	2591	16	27
31	1995	JUL	2731	6	31
32	1995	AUG	2351	0	31
33	1995	SEP	2783	56	30
34	1995	OCT	2665	33	25

TOTAL

92,170

763

HISTORICAL PRODUCTION DECLINE FIT CHECK

Initial Rate (January 1993):

2955 MCFM

24.5 BCPD

Final Rate (October 1995):

2479 MCFM

20.5 BCPD

Effective Decline Rate:

6.0%

Gas Reserves:

92,156 MCF

764 BC

M&G DRILLING COMPANY
GRAHAM #51-A
1775 FSL & 1725 FEL
NWSE, SECTION 10, T27N R8W
SAN JUAN COUNTY, NEW MEXICO

DECLINE CURVE ANALYSIS

The Graham #51-A well produces from the Blanco Mesaverde pool. It is apparent from the gas production decline curve from this well that a 6% annual decline existed between January of 1993 and October of 1995 (34 months). The total gas production calculated from a 6% decline fit through the monthly production during this period compares very nicely to the actual total gas production from the well during this period (92,156 MCF calculated vs 92,170 MCF actual). The condensate production from this well also exhibits a 6% annual decline during the same January of 1993 to October of 1995 time period. The total condensate production calculated from a 6% decline fit through the monthly production during this period (764 barrels) is very close to the actual condensate production for the period (763 barrels).

The future production projection before the workover on the Graham #51-A was performed by extending the historical production decline trend for both the gas and condensate. The gas projection has a starting rate of 2475 MCF per month and the condensate a starting rate of 20.5 BC per month. These projections start in October of 1995 and continue at a 6% annual decline. The monthly tabular production projection of both gas and condensate is presented for a 10 year period of time.

KHM

Multiphase Curve Analysis

Rate vs Time

(a) 1991, 1999 Diggins, A Software Co.

M&G DRILLING COMPANY

GRAHAM #51-A

GAS PRODUCTION

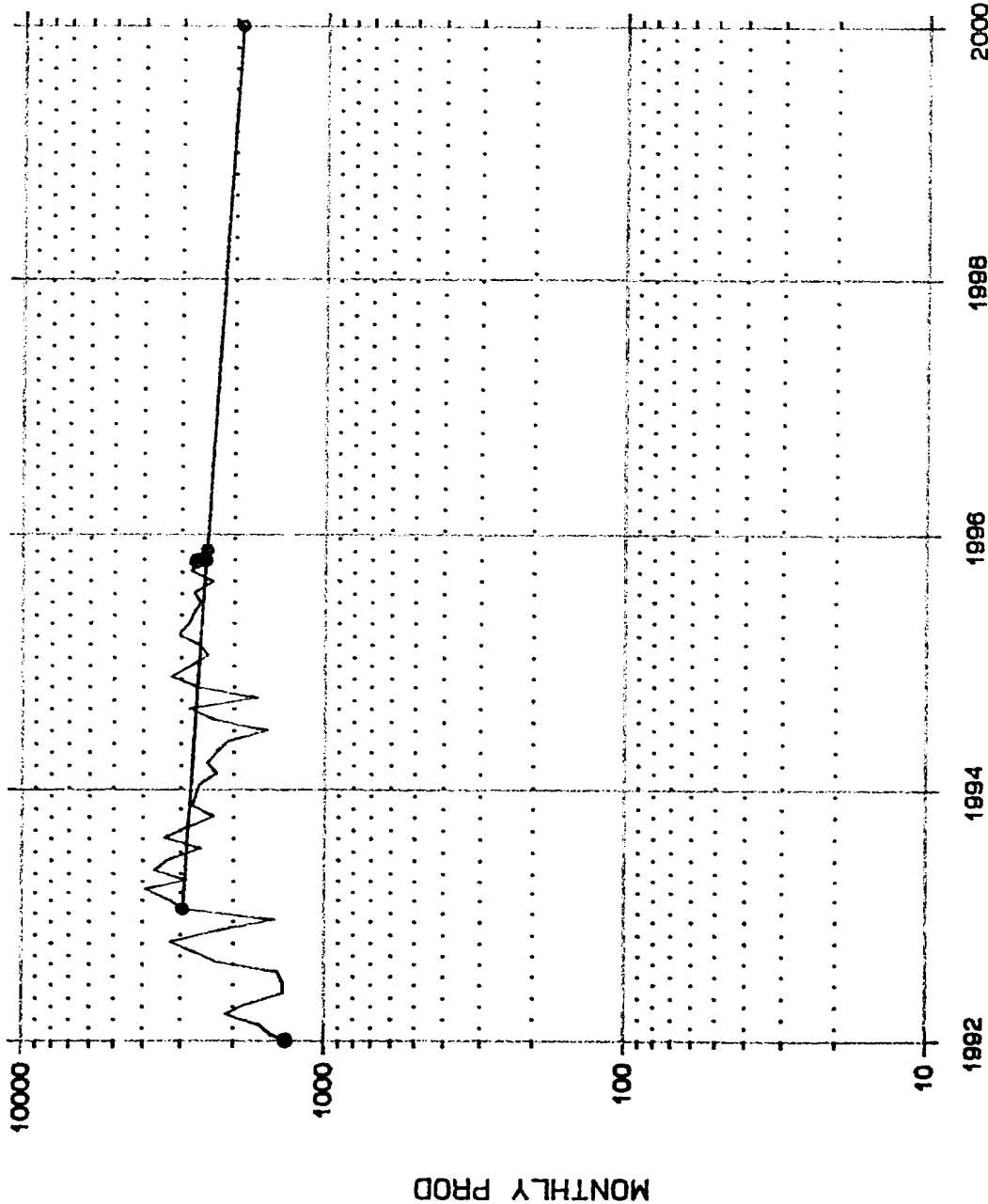
4/25/1996

Project:

MG GRAHAM 51A

Production Curves

GAS: • GAS DATA 8/75 - 10/95
 O History
 • HISTORICAL DECLINE FIT
 1/93 - 10/95
 CPO 2855.000 MCF/M
 Q1 : 8.000 %
 Q2 : 2479.818 MCF/M
 Q3 : 82.156 MCF
 NP : • FUTURE PROD HIST TREND
 11/95 - 12/08
 CPO 2475.000 MCF/M
 Q1 : 8.000 %
 Q2 : 1240.232 MCF/M
 NP : 239.468 MCF



KHM

Multiphase Curve Analysis

Rate vs Time

(c) 1991, 1999 Dights, A Software Co.

M&G DRILLING COMPANY

GRAHAM #51-A

COND PRODUCTION

4/25/1996

Project:

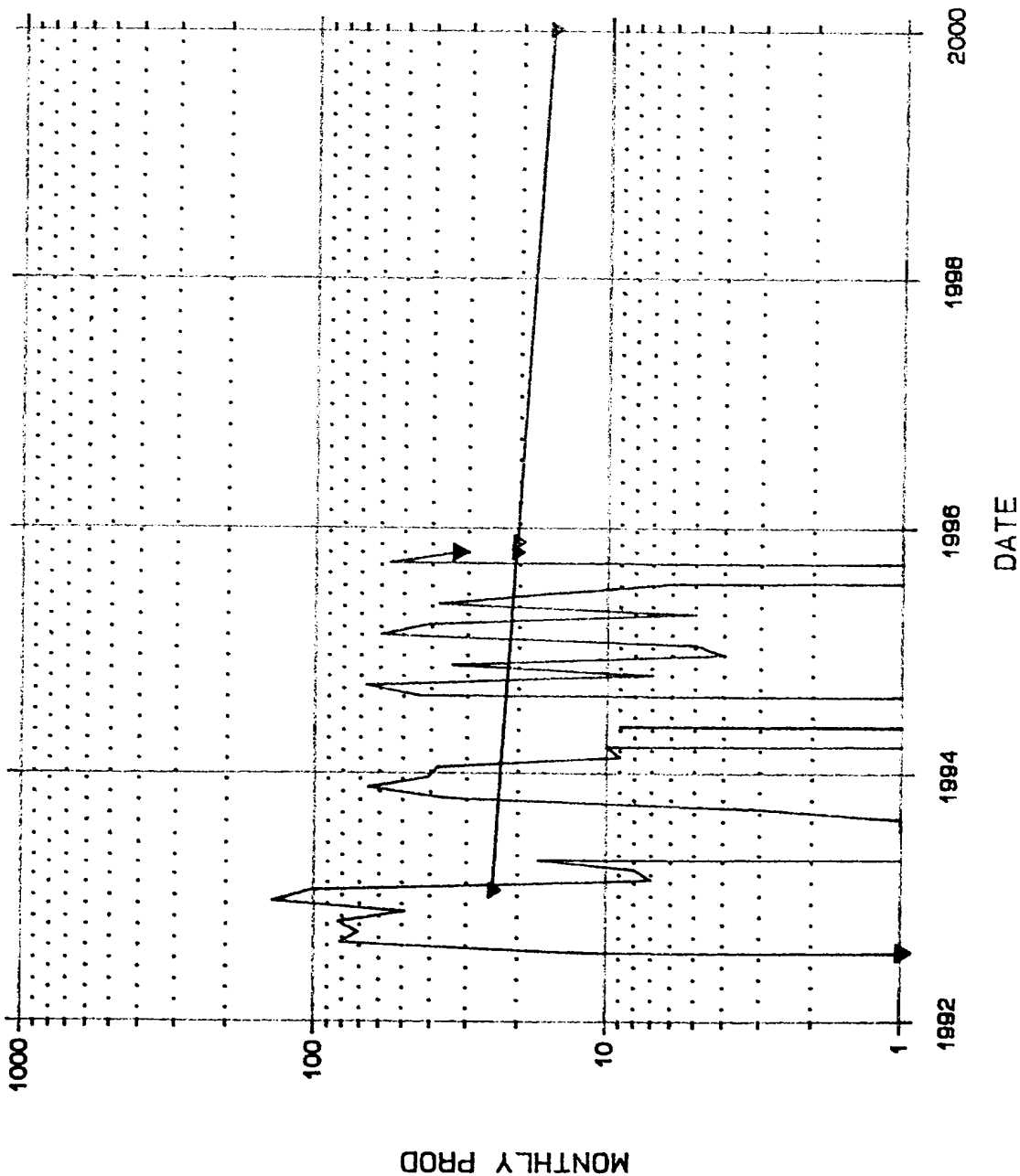
MG GRAHAM 51A

Production Curves

CND: ▽ CONDENSATE DATA
 O History 8/75 - 10/95
 ▽ HISTORICAL DECLINE FIT

1/93 - 10/95
 CPD 24,500 BBL/M
 G1 : 6,000 %
 D1 : 20,560 BBL/M
 G6 : 0.784 MBBL
 Np : ▽ FUTURE PROD HIST TREND

11/95 - 12/08
 CPD 20,500 BBL/M
 G1 : 6,000 %
 D1 : 10,273 BBL/M
 G6 : 1.983 MBBL
 Np :



M&G DRILLING COMPANY

GRAHAM #51-A

FUTURE PRODUCTION PROJECTION BEFORE WORKOVER USING HISTORICAL TREND

Initial Rate (November 1995): 2475 MCFM 20.5 BCPM

Effective Decline Rate: 6.0%

	YEAR	MONTH	GAS (MCF)	COND (BBLs)
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1	1995	NOV	2,469	20
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2	1995	DEC	2,456	20
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3	1996	JAN	2,443	20
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4	1996	FEB	2,431	20
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5	1996	MAR	2,418	20
---	------	-----	-------	----

6	1996	APR	2,406	20
---	------	-----	-------	----

7	1996	MAY	2,393	20
---	------	-----	-------	----

8	1996	JUN	2,381	20
---	------	-----	-------	----

9	1996	JUL	2,369	20
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10	1996	AUG	2,357	20
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11	1996	SEP	2,345	19
----	------	-----	-------	----

12	1996	OCT	2,333	19
----	------	-----	-------	----

13	1996	NOV	2,321	19
----	------	-----	-------	----

14	1996	DEC	2,309	19
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15	1997	JAN	2,297	19
----	------	-----	-------	----

16	1997	FEB	2,285	19
----	------	-----	-------	----

17	1997	MAR	2,273	19
----	------	-----	-------	----

18	1997	APR	2,261	19
----	------	-----	-------	----

19	1997	MAY	2,250	19
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20	1997	JUN	2,238	19
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21	1997	JUL	2,227	18
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22	1997	AUG	2,215	18
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23	1997	SEP	2,204	18
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24	1997	OCT	2,193	18
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25	1997	NOV	2,181	18
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26	1997	DEC	2,170	18
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27	1998	JAN	2,159	18
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28	1998	FEB	2,148	18
----	------	-----	-------	----

29	1998	MAR	2,137	18
----	------	-----	-------	----

30	1998	APR	2,126	18
----	------	-----	-------	----

31	1998	MAY	2,115	18
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32	1998	JUN	2,104	17
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33	1998	JUL	2,093	17
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34	1998	AUG	2,082	17
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35	1998	SEP	2,072	17
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36	1998	OCT	2,061	17
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37	1998	NOV	2,050	17
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M&G DRILLING COMPANY

GRAHAM #51-A

FUTURE PRODUCTION PROJECTION BEFORE WORKOVER USING HISTORICAL TREND

Initial Rate (November 1995): 2475 MCFM 20.5 BCPM

Effective Decline Rate: 6.0%

	YEAR	MONTH	GAS (MCF)	COND (BBLs)
38	1998	DEC	2,040	17
39	1999	JAN	2,029	17
40	1999	FEB	2,019	17
41	1999	MAR	2,009	17
42	1999	APR	1,998	17
43	1999	MAY	1,988	16
44	1999	JUN	1,978	16
45	1999	JUL	1,968	16
46	1999	AUG	1,957	16
47	1999	SEP	1,947	16
48	1999	OCT	1,937	16
49	1999	NOV	1,927	16
50	1999	DEC	1,917	16
51	2000	JAN	1,908	16
52	2000	FEB	1,898	16
53	2000	MAR	1,888	16
54	2000	APR	1,878	16
55	2000	MAY	1,869	15
56	2000	JUN	1,859	15
57	2000	JUL	1,849	15
58	2000	AUG	1,840	15
59	2000	SEP	1,831	15
60	2000	OCT	1,821	15
61	2000	NOV	1,812	15
62	2000	DEC	1,802	15
63	2001	JAN	1,793	15
64	2001	FEB	1,784	15
65	2001	MAR	1,775	15
66	2001	APR	1,766	15
67	2001	MAY	1,757	15
68	2001	JUN	1,748	14
69	2001	JUL	1,739	14
70	2001	AUG	1,730	14
71	2001	SEP	1,721	14
72	2001	OCT	1,712	14
73	2001	NOV	1,703	14
74	2001	DEC	1,694	14

M&G DRILLING COMPANY

GRAHAM #51-A

FUTURE PRODUCTION PROJECTION BEFORE WORKOVER USING HISTORICAL TREND

Initial Rate (November 1995): 2475 MCFM 20.5 BCPM

Effective Decline Rate: 6.0%

	YEAR	MONTH	GAS (MCF)	COND (BBLs)
75	2002	JAN	1,686	14
76	2002	FEB	1,677	14
77	2002	MAR	1,668	14
78	2002	APR	1,660	14
79	2002	MAY	1,651	14
80	2002	JUN	1,643	14
81	2002	JUL	1,634	14
82	2002	AUG	1,626	13
83	2002	SEP	1,617	13
84	2002	OCT	1,609	13
85	2002	NOV	1,601	13
86	2002	DEC	1,593	13
87	2003	JAN	1,584	13
88	2003	FEB	1,576	13
89	2003	MAR	1,568	13
90	2003	APR	1,560	13
91	2003	MAY	1,552	13
92	2003	JUN	1,544	13
93	2003	JUL	1,536	13
94	2003	AUG	1,528	13
95	2003	SEP	1,520	13
96	2003	OCT	1,513	13
97	2003	NOV	1,505	12
98	2003	DEC	1,497	12
99	2004	JAN	1,489	12
100	2004	FEB	1,482	12
101	2004	MAR	1,474	12
102	2004	APR	1,466	12
103	2004	MAY	1,459	12
104	2004	JUN	1,451	12
105	2004	JUL	1,444	12
106	2004	AUG	1,437	12
107	2004	SEP	1,429	12
108	2004	OCT	1,422	12
109	2004	NOV	1,415	12
110	2004	DEC	1,407	12

M&G DRILLING COMPANY				
GRAHAM #51-A				
FUTURE PRODUCTION PROJECTION BEFORE WORKOVER USING HISTORICAL TREND				
Initial Rate (November 1995):			2475 MCFM	20.5 BCPM
Effective Decline Rate:			6.0%	
			GAS	COND
	YEAR	MONTH	(MCF)	(BBLS)
111	2005	JAN	1,400	12
112	2005	FEB	1,393	12
113	2005	MAR	1,386	11
114	2005	APR	1,379	11
115	2005	MAY	1,371	11
116	2005	JUN	1,364	11
117	2005	JUL	1,357	11
118	2005	AUG	1,350	11
119	2005	SEP	1,343	11
120	2005	OCT	1,337	11
121	2005	NOV	1,330	11
122	2005	DEC	1,323	11
123	2006	JAN	1,316	11
124	2006	FEB	1,309	11
125	2006	MAR	1,302	11
126	2006	APR	1,296	11
127	2006	MAY	1,289	11
128	2006	JUN	1,283	11
129	2006	JUL	1,276	11
130	2006	AUG	1,269	11
131	2006	SEP	1,263	10
132	2006	OCT	1,256	10
133	2006	NOV	1,250	10
134	2006	DEC	1,243	10