

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
JIC435

6. If Indian, Allottee or Tribe Name
Jicarilla Apache

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No.
Jicarilla 435 G No. 3

9. API Well No.
30-043-20942

10. Field and Pool, or Exploratory Area
Wildcat

11. County or Parish, State
Sandoval County, NM

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Mallon Oil Company

3. Address and Telephone No.

999 18th Street, Suite 1700, Denver, CO 80202

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL and 889' FWL (NW NW) Unit D
Section 8-T22N-R4W

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Multiple Complete

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Mallon Oil Company intends to drill and complete the well in all productive intervals from the Fruitland through the Dakota. An application has been made, copy attached, to the State of New Mexico Oil Conservation Division for approval to downhole comeingle the Fruitland though Dakota zones.

RECEIVED
JUL - 1 1997

OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed [Signature]

Title Vice President - Engineering

Date 6/19/97

(This space for Federal or State office use)

Approved by [Signature]
Conditions of approval, if any:

Title Chief, Lands and Mineral Resources

Date JUN 30 1997

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

May 27, 1997

Hand Delivered

David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Catanach:

Enclosed are two administrative applications for downhole commingling, filed by Mallon Oil Company ("Mallon") on the following wells:

Jicarilla 434G Well No. 4
Unit J - S6 - T22N - R4W
Sandoval County, New Mexico

Jicarilla 435G Well No. 3
Unit D - S8 - T22N - R4W
Sandoval County, New Mexico

The Jicarilla 434G Well No. 4 is on Jicarilla Apache Tribal Contract No. 434, and the Jicarilla 435G Well No. 3 is on Jicarilla Apache Tribal Contract No. 435. Interest ownership in each lease is common, and thus notice of this application has not been given to interest owners in the proposed wells. The two leases collectively cover Sections 4-9 - T22N - R4W, and are operated by Mallon. As a result, Mallon is the only offset operator entitled to receive notice of these applications.

Attached to each application are (i) Attachment A, describing pools in the area, (ii) Attachment B, describing production allocation and the method used for allocation, (iii) Attachment C, which contains production and economic data, and (iv) a Form C-102 for each zone.

Mallon plans to fracture stimulate all zones in one day while completing the well, thus saving approximately \$60,00-80,000 over and above the cost of fracing each zone on a different date if each

zone is produced separately. All zones are marginal. In fact, no wells have been drilled in Township 22 North, Range 4 West, and the adjoining townships, during the 1990s. Fracing and producing all zones, together with improved completion methods, could lead to improved recoveries. Thus, drilling and commingling production from these two wells will provide additional data which could support the drilling of more wells in this area.

If you need any additional data on these applications, call me or Ray Jones at Mallon (303-293-2333, ext. 1450).

Very truly yours,

A handwritten signature in cursive script, appearing to read "James Bruce".

James Bruce

Attorney for Mallon Oil Company

cc: Aztec District Office

EXHIBIT B" - CASE NO. 11353, ORDER NO. R-10470-A

DISTRICT I

J. Box 1980, Hobbs, NM 88240

DISTRICT II

811 South First St., Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☐ YES ☒ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Mallon Oil Company Address 999-18th Street, Suite 1700, Denver, CO 80202

Lease Jicarilla 435G No. 3 Well No. Unit D, Sec. 8-T22N-R4W County Sandoval

OGRID NO. 13925 Property Code 6249 API NO. 30-043-20942 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone Fruitland	Intermediate Zones PC, Mesaverde, Gallup	Lower Zone Dakota
1. Pool Name and Pool Code	SEE ATTACHMENT A		
2. Top and Bottom of Pay Section (Perforations)	1730 - 1855	1855-1930(PC), 3370-4180(MV), 4180-6080(G)	6080 - 6390
3. Type of production (Oil or Gas)	Gas	Oil & Gas	Oil & Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flow	Pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) Current pressures in all zones should be close to original. b. (Original) 590 est	a. b. 1260 est	a. b. 2050 est
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	1187 BTU est	1200 BTU 38-46 API	1270 BTU 41-46 API
7. Producing or Shut-In?			
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S). _____
16. ATTACHMENTS:
* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
* Production curve for each zone for at least one year. (If not available, attach explanation.)
* For zones with no production history, estimated production rates and supporting data.
* Data to support allocation method or formula.
* Notification list of all offset operators.
* Notification list of working, overriding, and royalty interests for uncommon interest cases.
* Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Ray E. Jones TITLE Vice President - Engineering DATE 5/21/97

TYPE OR PRINT NAME Ray E. Jones TELEPHONE NO. (303) 293-2333

ATTACHMENT A

Pools (shallowest to deepest):

Basin-Fruitland Coal Gas Pool

Undesignated Ballard-Pictured Cliffs Gas Pool

Mesaverde (Wildcat)

Undesignated Otero-Sanostee (Oil) Pool

Undesignated South Lindrith Gallup-Dakota (Oil) Pool

ATTACHMENT B

Proposed Allocation of Production

	<u>Fruitland</u>	<u>Pictured Cliffs</u>	<u>Mesaverde</u>	<u>Gallup</u>	<u>Dakota</u>
Gas:	5%	72%	1%	17%	5%
Oil:	0%	0%	23%	72%	5%

This proposed allocation is based upon the following factors: (1) although there has been no production from the Fruitland in the immediate area, Mallon believes it may be productive of gas in marginal amounts, and it was arbitrarily assigned 5% of gas production until production data is obtained; (2) there has been no single-zone production from the Dakota in the immediate area, but several wells have been completed as Gallup-Dakota wells, and it is estimated that the Gallup zones contribute the bulk of production in these wells, which have produced both oil and gas. As a result, the Dakota has been assigned 5% of oil and gas production; and (3) the remaining zones have been assigned production based upon average recoveries from 49 wells in the immediate area (see Attachment C for recovery figures).

Production Performance

All zones are tight formations that must be stimulated to produce. Hydraulic fracturing is the most common method of stimulation and is planned for this well and these zones. All zones will therefore behave in a similar manner as dictated by a hydraulic fracture completion. The initial rates will be on a steep hyperbolic decline represented by a Arp's n value of 2.0. The production will become exponential in 2 to 4 years with exponential declines in the range of 5 to 20 percent per year expected.

As each zone will have similarly shaped production decline curve, the relative production produced from each zone will be reasonably consistent throughout the well life and a set production allocation percentage for each zone is appropriate. The final well allocation for each zone

The cumulative production values for 49 area wells were reviewed for relative zone performance and for economic evaluation of the proposed commingling. The results are as follows:

Fruitland:	There are no known Fruitland completions in the immediate area.
Pictured Cliffs:	Cumulative production for 29 PC completions has ranged from 1 to 519 MMCF gas and has averaged 181 MMCF gas with no oil.
Mesaverde:	Average cumulative production for 3 Mesaverde completions has been 8 MBBLS oil and 2 MMCF gas.
Gallup:	Average cumulative production for 20 Dakota-Mancos completions has been 25 MBBLS oil and 44 MMCF gas.
Dakota:	There are no known Dakota completions in the immediate area.

Economic Performance

Example economic evaluations were performed for the average production recoveries detailed. Cases were run for each individual zone, a three zone commingled case and a case with individual zone production and recompletion from zone to zone as each becomes uneconomic. The results are summarized below and clearly show that single zones or consecutive re-completions are not economically viable for the average production streams used. Initial commingling is necessary for these marginally productive zones.

Case	Net Oil (MBBLS)	Net Gas (MMCF)	INV (M\$)	CF (M\$)
PC Only	0	188	250	-125
Gallup	25	45	419	-192
Mesaverde	8	2	335	-285
Commingling	33	229	454	86
3 Zones	33	234	519	-119

PF:COMMINGL
EVAL #: 1
ALTKEY:USA

MALLON OIL COMPANY

DATE: 05/21/97
TIME: 15:23:17

AS OF JAN 1, 1997

ID CODE : 1PDP-WM-39-NM003-0000-XXXXXXXXXX-

-GAS-NO-OM-SEC-TWNS-RANG-????

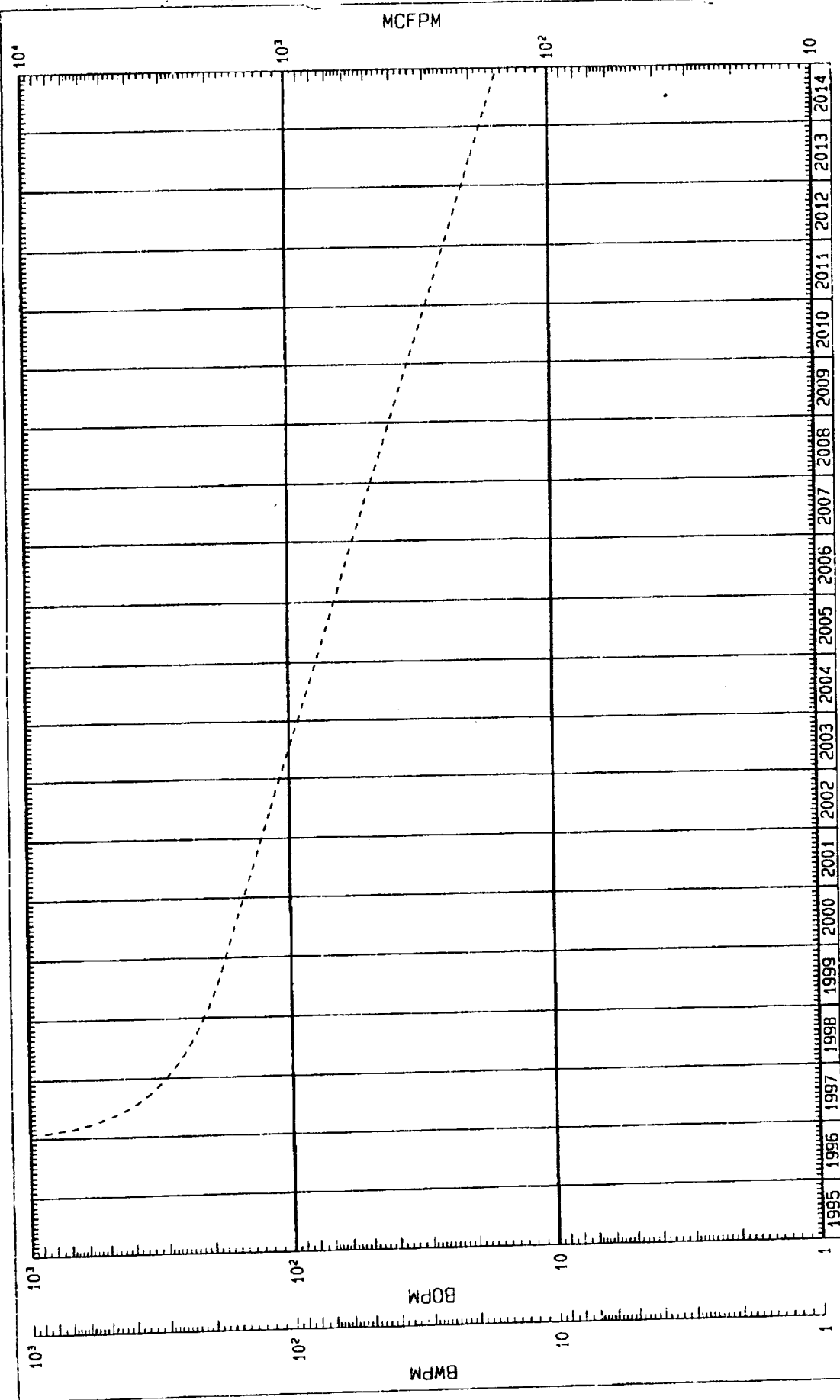
NAME : EXAMPLE ECON. - PICTURED CLIFF
FIELD : BLANCO EAST AREA
CNTY, STATE: RIO ARriba CO., NEW MEXICO
FORMATION : PICTURED CLIFFS (FLOWING) CASE
OPERATOR : MALLON OIL COMPANY

PW 5.0% -135.758 BTAX
PW 15.0% -150.735 BTAX
PW 20.0% -156.131 BTAX
PW 25.0% -160.566 BTAX
PW 30.0% -164.253 BTAX

WI	ORI	GRI	DATE	WELL COUNT	BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES
				GROSS NET	OIL 0.00	0.00	0.00	CUMULATIVE REMAINING
100.00000	80.60000	80.60000	JAN 1997	0 0.0 0.0	GAS 1.70	1.70	1.70	0.000 0.000
				G 1.0 1.0				0.000 187.608

	NUMBER GROSS WELLS 30)-----	GROSS PROD OIL + COND 5)MBSLS--	GROSS GAS PRODUCTION 7)MMCF---	WORKING INTEREST 34)-X-----	REVENUE INTEREST 35)-X-----	NET VOLUME OIL + COND 18)MBSLS--	NET GAS VOLUME 20)MMCF---	EFFECTIVE O+C PRICE 31)\$/BSL--	EFFECTIVE GAS PRICE 32)\$/MCF--	NET TOTAL REVENUE 60)-MS----
1997	1.0	0.000	55.650	100.00000	80.60000	0.000	44.854	0.00	1.70	76.252
1998	1.0	0.000	29.851	100.00000	80.60000	0.000	24.060	0.00	1.70	40.902
1999	1.0	0.000	23.185	100.00000	80.60000	0.000	18.687	0.00	1.70	31.767
2000	1.0	0.000	19.496	100.00000	80.60000	0.000	15.714	0.00	1.70	26.714
2001	1.0	0.000	16.572	100.00000	80.60000	0.000	13.357	0.00	1.70	22.706
2002	1.0	0.000	14.086	100.00000	80.60000	0.000	11.353	0.00	1.70	19.301
2003	1.0	0.000	11.973	100.00000	80.60000	0.000	9.650	0.00	1.70	16.405
2004	1.0	0.000	10.177	100.00000	80.60000	0.000	8.203	0.00	1.70	13.945
(9MO)2005	1.0	0.000	6.618	100.00000	80.60000	0.000	5.334	0.00	1.70	9.068
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	1.0	0.000	187.608	100.00000	80.60000	0.000	151.212	0.00	1.70	257.060
REMAINDER	0.0	0.000	0.000	0.00000	0.00000	0.000	0.000	0.00	0.00	0.000
TOT 8.8 YR	1.0	0.000	187.608	100.00000	80.60000	0.000	151.212	0.00	1.70	257.060

	NET LOE (FIX + VAR) 111)-MS----	NET SEV TAXES 96)-MS----	NET ADVAL TAXES 102)-MS----	NET TOTAL EXP + TAXES 223)-MS----	NET OPER REVENUE 156)-MS----	NET TOTAL INVESTMENT 143)-MS----	BTAX CASHFLOW 163)-MS----	CUM BTAX CASHFLOW 164)-MS----	BTAX CF DISC 10.00% 165)-MS----	CUM BTAX CF DISC 10.00% 166)-MS----
1997	9.000	6.047	9.814	24.860	51.391	250.000	-198.609	-198.609	-198.688	-198.688
1998	9.000	3.244	5.264	17.508	23.395	0.000	23.395	-175.214	20.277	-178.412
1999	9.000	2.519	4.088	15.608	16.160	0.000	16.160	-159.054	12.718	-165.693
2000	9.000	2.118	3.438	14.556	12.157	0.000	12.157	-146.897	8.697	-156.996
2001	9.000	1.801	2.922	13.723	8.984	0.000	8.984	-137.914	5.844	-151.152
2002	9.000	1.531	2.484	13.015	6.286	0.000	6.286	-131.628	3.720	-147.432
2003	9.000	1.301	2.111	12.412	3.993	0.000	3.993	-127.635	2.150	-145.282
2004	9.000	1.106	1.795	11.900	2.044	0.000	2.044	-125.590	1.003	-144.279
(9MO)2005	6.750	0.719	1.167	8.636	0.432	0.000	0.432	-125.159	0.196	-144.083
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	78.750	20.385	33.084	132.218	124.841	250.000	-125.159	-125.159	-144.083	-144.083
REMAINDER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-125.159	0.000	-144.083
TOT 8.8 YR	78.750	20.385	33.084	132.218	124.841	250.000	-125.159	-125.159	-144.083	-144.083



BLANCO EAST AREA

EXAMPLE ECON. - PICTURED CLIFF
 RIO ARRIBA CO., NEW MEXICO
 GAS-PICTURED CLIFFS (FLOWING) CASE
 1PDP NM0300 XXXXXXXXXX EV. 1

FILE: 5-MSA2MP.MP	DATE: 21-MAY-97
SOURCE:	TIME: 14:06

PF:CONNINGL
EVAL #: 5
ALTKEY:USA

MALLON OIL COMPANY

DATE: 05/21/97
TIME: 15:48:27

AS OF JAN 1, 1997

ID CODE : 1PDP-NM-39-NM003-0000-XXXXXXXXXX-

-GAS-NO-OM-SEC-TWNS-RANG-7777

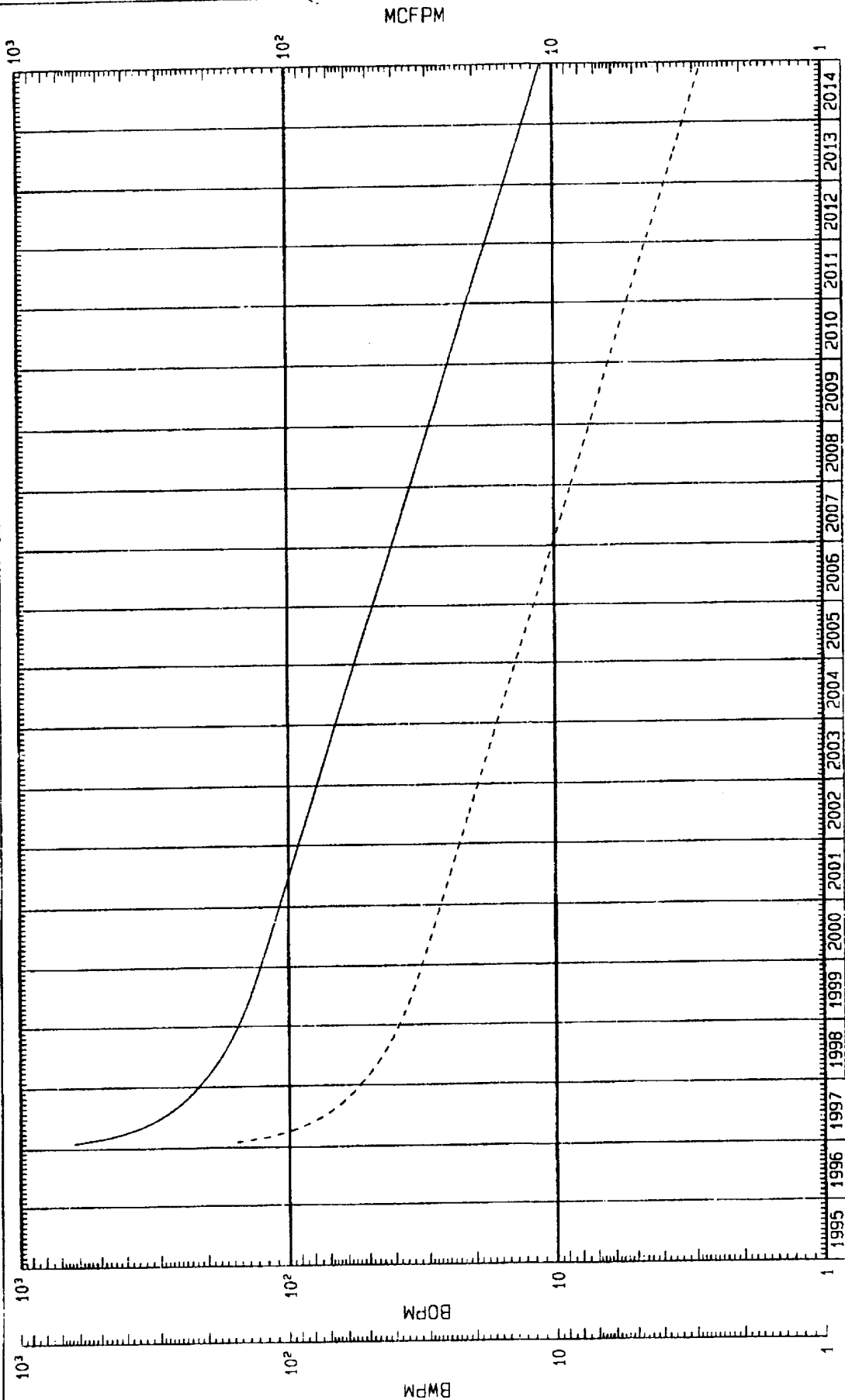
NAME : EXAMPLE ECON. - MESA VERDE
FIELD : BLANCO EAST AREA
CNTY, STATE: RIO ARRIBA CO., NEW MEXICO
FORMATION : MESA VERDE (FLOWING) CASE
OPERATOR : MALLON OIL COMPANY

PW 5.0% -286.262 BTAX
PW 15.0% -286.937 BTAX
PW 20.0% -287.123 BTAX
PW 25.0% -287.232 BTAX
PW 30.0% -287.278 BTAX

WI	ORI	GRI	DATE	WELL COUNT		BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES	
100.00000	80.60000	80.60000	JAN 1997	GROSS	NET	OIL 20.00	20.00	20.00	CUMULATIVE	REMAINING
				O	0.0	GAS 1.70	1.70	1.70	0.000	8.749
				G	1.0				0.000	2.187

	NUMBER GROSS WELLS 30)-----	GROSS PROD OIL + COND 5)MBSLS--	GROSS GAS PRODUCTION 7)MMCF---	WORKING INTEREST 34)-X-----	REVENUE INTEREST 35)-X-----	NET VOLUME OIL + COND 18)MBSLS--	NET GAS VOLUME 20)MMCF---	EFFECTIVE O+C PRICE 31)\$/BBL--	EFFECTIVE GAS PRICE 32)\$/MCF--	NET TOTAL REVENUE 60)-M\$-----
1997	1.0	3.990	0.997	100.00000	80.60000	3.216	0.804	20.00	1.70	65.686
1998	1.0	2.140	0.535	100.00000	80.60000	1.725	0.431	20.00	1.70	35.235
1999	1.0	1.662	0.416	100.00000	80.60000	1.340	0.335	20.00	1.70	27.365
(8MO)2000	1.0	0.957	0.239	100.00000	80.60000	0.771	0.193	20.00	1.70	15.753
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	1.0	8.749	2.187	100.00000	80.60000	7.052	1.763	20.00	1.70	144.039
REMAINDER	0.0	0.000	0.000	0.00000	0.00000	0.000	0.000	0.00	0.00	0.000
TOT 3.7 YR	1.0	8.749	2.187	100.00000	80.60000	7.052	1.763	20.00	1.70	144.039

	NET LOE (FIX + VAR) 111)-M\$-----	NET SEV TAXES 96)-M\$-----	NET ADVAL TAXES 102)-M\$-----	NET TOTAL EXP + TAXES 223)-M\$-----	NET OPER REVENUE 156)-M\$-----	NET TOTAL INVESTMENT 143)-M\$-----	BTAX CASHFLOW 163)-M\$-----	CUM BTAX CASHFLOW 164)-M\$-----	BTAX CF DISC 10.00% 165)-M\$-----	CUM BTAX CF DISC 10.00% 166)-M\$-----
1997	18.000	4.662	8.454	31.116	34.570	335.000	-300.430	-300.430	-299.063	-299.063
1998	18.000	2.501	4.535	25.036	10.199	0.000	10.199	-290.231	8.871	-290.192
1999	18.000	1.942	3.522	23.464	3.901	0.000	3.901	-286.330	3.090	-287.103
(8MO)2000	12.000	1.118	2.027	15.145	0.607	0.000	0.607	-285.723	0.446	-286.657
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	66.000	10.223	18.538	94.761	49.277	335.000	-285.723	-285.723	-286.657	-286.657
REMAINDER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-285.723	0.000	-286.657
TOT 3.7 YR	66.000	10.223	18.538	94.761	49.277	335.000	-285.723	-285.723	-286.657	-286.657



BLANCO EAST AREA

EXAMPLE ECON. - MESA VERDE
 RIO ARriba CO., NEW MEXICO
 GAS-MESA VERDE (FLOWING) CASE
 1PDP NM0300 XXXXXXXXXX EV: 5

FILE: 1-MSA2NP MP DATE: 21-MAY-97
 SOURCE: TIME: 14:05

Oil Water Gas

PF:COMMINGL
EVAL #: 2
ALTKEY:USA

MALLON OIL COMPANY

DATE: 05/21/97
TIME: 15:23:16

AS OF JAN 1, 1997

ID CODE : 1PDP-NM-39-NM003-0000-XXXXXXXXXX-

-GAS-NO-ON-SEC-TWNS-RANG-7777

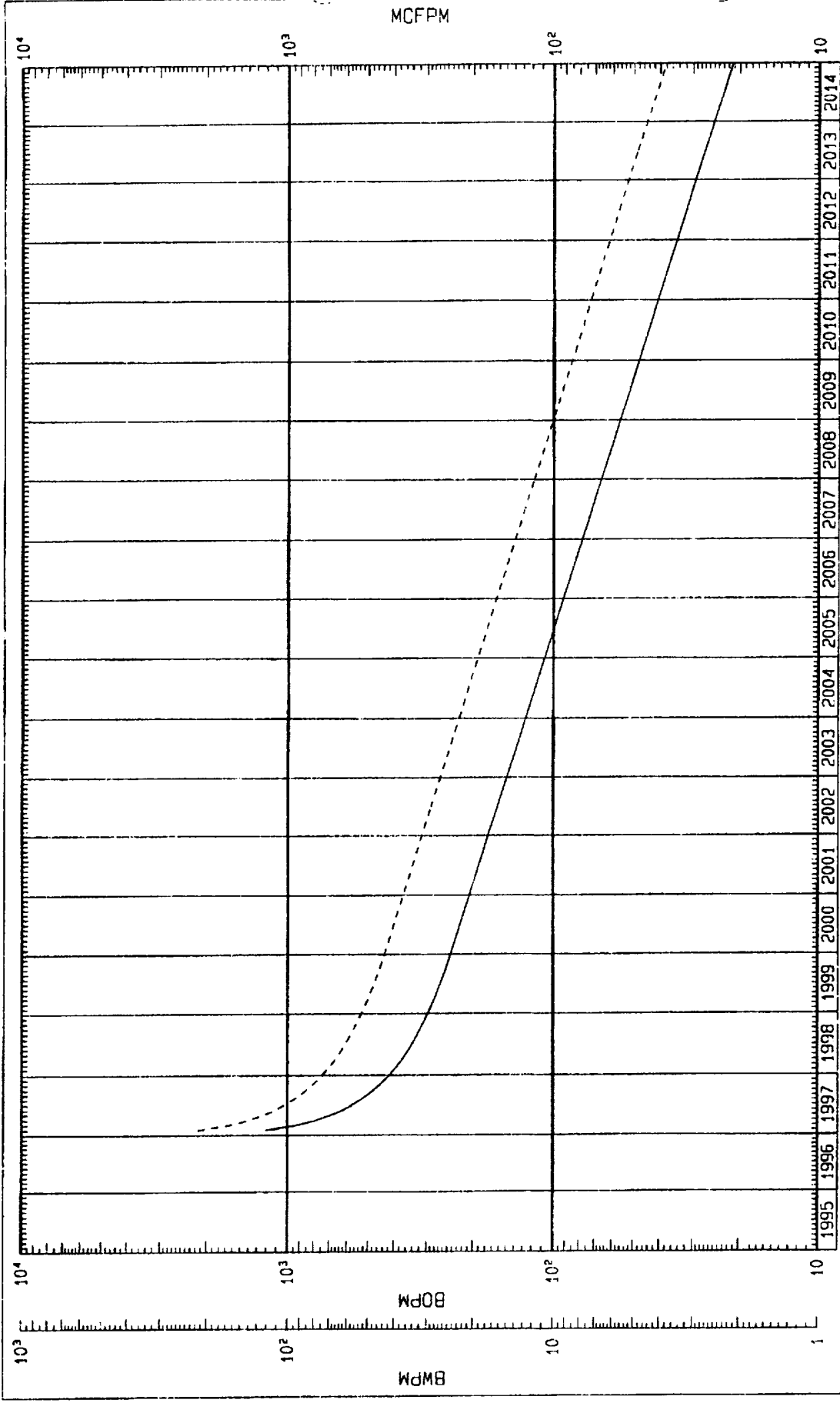
NAME : EXAMPLE ECON. - GALLUP
FIELD : BLANCO EAST AREA
CNTY, STATE: RIO ARriba CO., NEW MEXICO
FORMATION : GALLUP (PUMPING) CASE
OPERATOR : MALLON OIL COMPANY

PW 5.0% -212.217 BTAX
PW 15.0% -238.528 BTAX
PW 20.0% -248.118 BTAX
PW 25.0% -256.053 BTAX
PW 30.0% -262.693 BTAX

WI	ORI	GRI	DATE	WELL COUNT	BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES
100.00000	80.60000	80.60000	JAN 1997	GROSS NET	OIL 20.00 GAS 1.70	20.00 1.70	20.00 1.70	CUMULATIVE REMAINING
				0 0.0 0.0 G 1.0 1.0				OIL (MBBLS) 0.000 25.278 GAS (MMCF) 0.000 45.140

	NUMBER GROSS WELLS 30)-----	GROSS PROD OIL + COND 5)MBBLS--	GROSS GAS PRODUCTION 7)MMCF---	WORKING INTEREST 34)-X-----	REVENUE INTEREST 35)-X-----	NET VOLUME OIL + COND 18)MBBLS--	NET GAS VOLUME 20)MMCF---	EFFECTIVE O+C PRICE 31)\$/BBL--	EFFECTIVE GAS PRICE 32)\$/MCF--	NET TOTAL REVENUE 60)-M\$----
1997	1.0	7.644	13.650	100.00000	80.60000	6.161	11.002	20.00	1.70	141.925
1998	1.0	4.100	7.322	100.00000	80.60000	3.305	5.902	20.00	1.70	76.130
1999	1.0	3.185	5.687	100.00000	80.60000	2.567	4.584	20.00	1.70	59.128
2000	1.0	2.678	4.782	100.00000	80.60000	2.158	3.854	20.00	1.70	49.721
2001	1.0	2.276	4.065	100.00000	80.60000	1.835	3.276	20.00	1.70	42.263
2002	1.0	1.935	3.455	100.00000	80.60000	1.559	2.785	20.00	1.70	35.923
2003	1.0	1.645	2.937	100.00000	80.60000	1.326	2.367	20.00	1.70	30.535
2004	1.0	1.398	2.496	100.00000	80.60000	1.127	2.012	20.00	1.70	25.955
(4MO)2005	1.0	0.418	0.746	100.00000	80.60000	0.337	0.601	20.00	1.70	7.756
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	1.0	25.278	45.140	100.00000	80.60000	20.374	36.383	20.00	1.70	469.334
REMAINDER	0.0	0.000	0.000	0.00000	0.00000	0.000	0.000	0.00	0.00	0.000
TOT 8.3 YR	1.0	25.278	45.140	100.00000	80.60000	20.374	36.383	20.00	1.70	469.334

	NET LOE (FIX + VAR) 111)-M\$----	NET SEV TAXES 96)-M\$----	NET ADVAL TAXES 102)-M\$----	NET TOTAL EXP + TAXES 223)-M\$----	NET OPER REVENUE 156)-M\$----	NET TOTAL INVESTMENT 143)-M\$----	BTAX CASHFLOW 163)-M\$----	CUM BTAX CASHFLOW 164)-M\$----	BTAX CF DISC 10.00% 165)-M\$----	CUM BTAX CF DISC 10.00% 166)-M\$----
1997	18.000	10.207	18.266	46.473	95.452	419.000	-323.548	-323.548	-324.044	-324.044
1998	18.000	5.475	9.798	33.273	42.857	0.000	42.857	-280.691	37.149	-286.895
1999	18.000	4.252	7.610	29.862	29.265	0.000	29.265	-251.426	23.035	-263.860
2000	18.000	3.576	6.399	27.975	21.746	0.000	21.746	-229.680	15.558	-248.302
2001	18.000	3.040	5.439	26.479	15.784	0.000	15.784	-213.896	10.270	-238.032
2002	18.000	2.584	4.623	25.207	10.716	0.000	10.716	-203.180	6.343	-231.689
2003	18.000	2.196	3.930	24.126	6.409	0.000	6.409	-196.771	3.454	-228.235
2004	18.000	1.867	3.340	23.207	2.748	0.000	2.748	-194.023	1.352	-226.883
(4MO)2005	6.000	0.558	0.998	7.556	0.200	0.000	0.200	-193.824	0.092	-226.791
2006										
2007										
2008										
2009										
2010										
2011										
SUB TOTAL	150.000	33.755	60.403	244.158	225.177	419.000	-193.824	-193.824	-226.791	-226.791
REMAINDER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-193.824	0.000	-226.791
TOT 8.3 YR	150.000	33.755	60.403	244.158	225.177	419.000	-193.824	-193.824	-226.791	-226.791



BLANCO EAST AREA

EXAMPLE ECON. - GALLUP

RIO ARRIBA CO., NEW MEXICO

GAS-GALLUP (PUMPING) CASE

1POP NM0300 XXXXXXXXXX EV: 2

FILE: 4-NSA2MP.WP

DATE: 21-MAY-97

SOURCE:

TIME: 14:05

Mallon Oil Company

PF:COMMINGL
EVAL #: 3
ALTKEY:USA

MALLON OIL COMPANY

DATE: 05/21/97
TIME: 15:23:14

AS OF JAN 1, 1997

ID CODE : 1PDP-MM-39-MM003-0000-XXXXXXXXXX-

-GAS-NO-MM-SEC-TWNS-RANG-7777

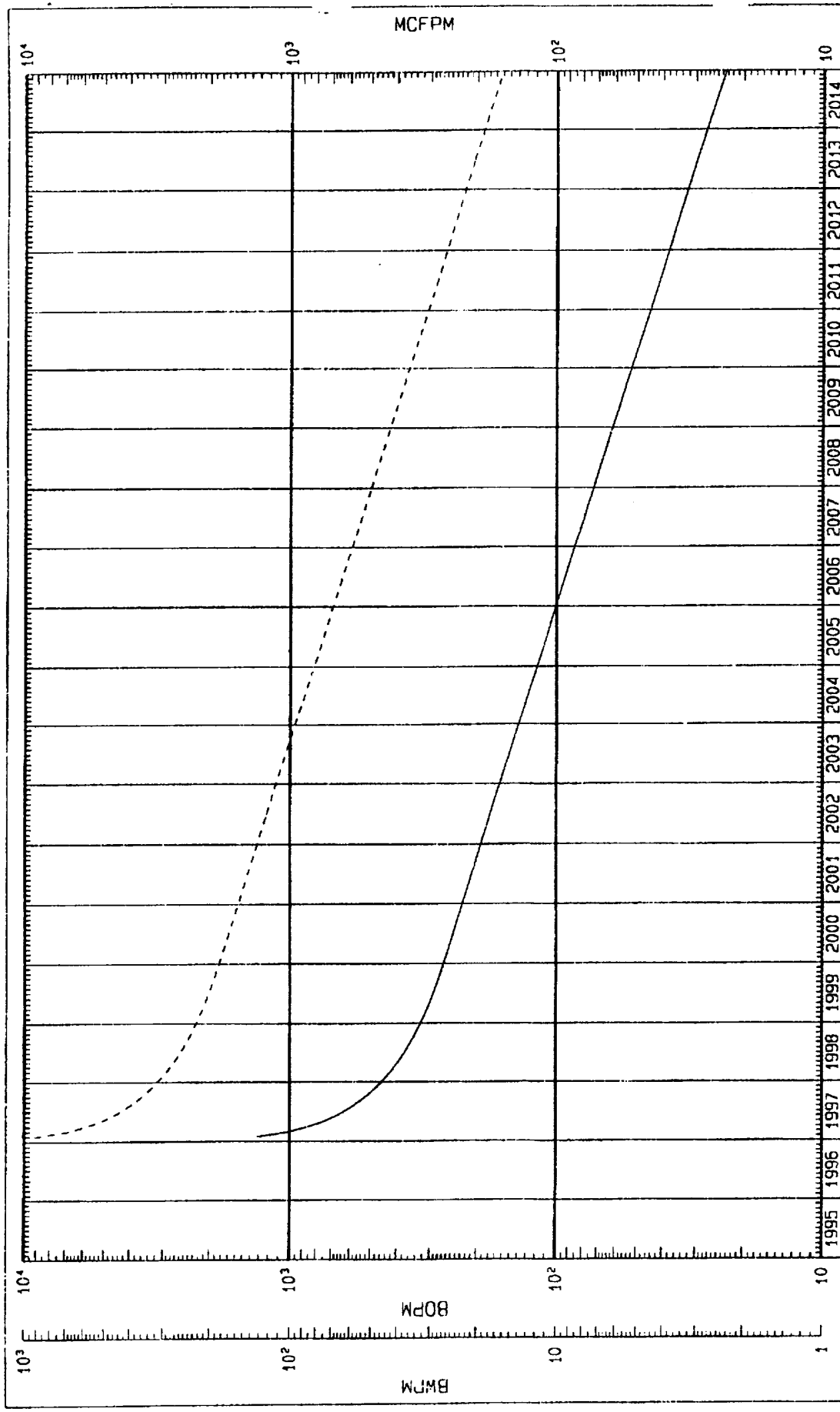
NAME : EXAMPLE ECON. - COMMINGLING
FIELD : BLANCO EAST AREA
CNTY, STATE: RIO ARRIBA CO., NEW MEXICO
FORMATION : GL, MV, & PC COMMINGLING CASE
OPERATOR : MALLON OIL COMPANY

PW 5.0% 10.741 BTAX
PW 15.0% -83.829 BTAX
PW 20.0% -114.715 BTAX
PW 25.0% -139.000 BTAX
PW 30.0% -158.519 BTAX

WI	ORI	GRI	DATE	WELL COUNT	BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES
100.00000	80.60000	80.60000	JAN 1997	GROSS NET	OIL 20.00	20.00	20.00	CUMULATIVE REMAINING
				O 0.0 0.0	GAS 1.70	1.70	1.70	0.000 33.204
				G 1.0 1.0			OIL (MBBLS) GAS (MMCF)	0.000 228.993

	NUMBER GROSS WELLS 30)------	GROSS PROD OIL + COND 5)MBBLS--	GROSS GAS PRODUCTION 7)MMCF---	WORKING INTEREST 34)-X-----	REVENUE INTEREST 35)-X-----	NET VOLUME OIL + COND 18)MBBLS--	NET GAS VOLUME 20)MMCF---	EFFECTIVE O+C PRICE 31)\$/BBL--	EFFECTIVE GAS PRICE 32)\$/MCF--	NET TOTAL REVENUE 60)-MB----
1997	1.0	8.374	57.750	100.00000	80.60000	6.749	46.547	20.00	1.70	214.114
1998	1.0	4.492	30.978	100.00000	80.60000	3.620	24.968	20.00	1.70	114.854
1999	1.0	3.489	24.059	100.00000	80.60000	2.812	19.392	20.00	1.70	89.203
2000	1.0	2.934	20.232	100.00000	80.60000	2.364	16.307	20.00	1.70	75.011
2001	1.0	2.494	17.197	100.00000	80.60000	2.010	13.861	20.00	1.70	63.760
2002	1.0	2.120	14.617	100.00000	80.60000	1.708	11.782	20.00	1.70	54.196
2003	1.0	1.802	12.425	100.00000	80.60000	1.452	10.014	20.00	1.70	46.066
2004	1.0	1.531	10.561	100.00000	80.60000	1.234	8.512	20.00	1.70	39.156
2005	1.0	1.302	8.977	100.00000	80.60000	1.049	7.235	20.00	1.70	33.283
2006	1.0	1.106	7.630	100.00000	80.60000	0.892	6.150	20.00	1.70	28.291
2007	1.0	0.940	6.486	100.00000	80.60000	0.758	5.228	20.00	1.70	24.047
2008	1.0	0.799	5.513	100.00000	80.60000	0.644	4.443	20.00	1.70	20.440
2009	1.0	0.679	4.686	100.00000	80.60000	0.548	3.777	20.00	1.70	17.374
2010	1.0	0.578	3.983	100.00000	80.60000	0.466	3.210	20.00	1.70	14.768
2011	1.0	0.491	3.386	100.00000	80.60000	0.396	2.729	20.00	1.70	12.553
SUB TOTAL	1.0	33.130	228.481	100.00000	80.60000	26.703	184.155	20.00	1.70	847.114
REMAINDER	1.0	0.074	0.513	100.00000	80.60000	0.060	0.413	20.00	1.70	1.901
TOT 15.2 YR	1.0	33.204	228.993	100.00000	80.60000	26.762	184.569	20.00	1.70	849.015

	NET LOE (FIX + VAR) 111)-MB----	NET SEV TAXES 96)-MB----	NET ADVAL TAXES 102)-MB----	NET TOTAL EXP + TAXES 223)-MB----	NET OPER REVENUE 156)-MB----	NET TOTAL INVESTMENT 143)-MB----	BTAX CASHFLOW 163)-MB----	CUM BTAX CASHFLOW 164)-MB----	BTAX CF DISC 10.00% 165)-MB----	CUM BTAX CF DISC 10.00% 166)-MB----
1997	9.000	15.832	27.556	52.388	161.726	454.000	-292.274	-292.274	-295.321	-295.321
1998	9.000	8.492	14.782	32.274	82.580	0.000	82.580	-209.695	71.524	-223.797
1999	9.000	6.596	11.480	27.076	62.126	0.000	62.126	-147.568	48.865	-174.931
2000	9.000	5.546	9.654	24.200	50.811	0.000	50.811	-96.757	36.323	-138.609
2001	9.000	4.714	8.206	21.920	41.839	0.000	41.839	-54.918	27.191	-111.418
2002	9.000	4.007	6.975	19.982	34.213	0.000	34.213	-20.705	20.215	-91.202
2003	9.000	3.406	5.929	18.335	27.731	0.000	27.731	7.027	14.897	-76.305
2004	9.000	2.895	5.039	16.935	22.222	0.000	22.222	29.248	10.853	-65.452
2005	9.000	2.461	4.284	15.745	17.538	0.000	17.538	46.787	7.788	-57.664
2006	9.000	2.092	3.641	14.733	13.558	0.000	13.558	60.345	5.474	-52.190
2007	9.000	1.778	3.095	13.873	10.174	0.000	10.174	70.519	3.736	-48.455
2008	9.000	1.511	2.631	13.142	7.298	0.000	7.298	77.817	2.437	-46.017
2009	9.000	1.285	2.236	12.521	4.853	0.000	4.853	82.670	1.475	-44.543
2010	9.000	1.092	1.901	11.993	2.775	0.000	2.775	85.445	0.768	-43.775
2011	9.000	0.928	1.616	11.544	1.009	0.000	1.009	86.454	0.256	-43.519
SUB TOTAL	135.000	62.637	109.024	306.660	540.454	454.000	86.454	86.454	-43.519	-43.519
REMAINDER	1.500	0.141	0.245	1.885	0.016	0.000	0.016	86.470	0.004	-43.516
TOT 15.2 YR	136.500	62.777	109.268	308.546	540.470	454.000	86.470	86.470	-43.516	-43.516



BLANCO EAST AREA

EXAMPLE ECON. - COMMINGLING
 RIO ARRIBA CO., NEW MEXICO
 GAS-GL, MV, & PC COMMINGLING CASE
 1PDP NM0300 XXXXXXXXXX EV. 3
 FILE: 3-MSA2MP WP DATE: 21-MAY-97
 SOURCE: TIME: 14: 06

--- OIL
 . . . WATER
 --- GAS

PF:COMMINGL
EVAL #: 4
ALTKEY:USA

MALLON OIL COMPANY

DATE: 05/21/97
TIME: 15:23:13

AS OF JAN 1, 1997

ID CODE : 1PDP-NH-39-NM003-0000-XXXXXXXXXX-

-GAS-NO-QM-SEC-TWNS-RANG-7777

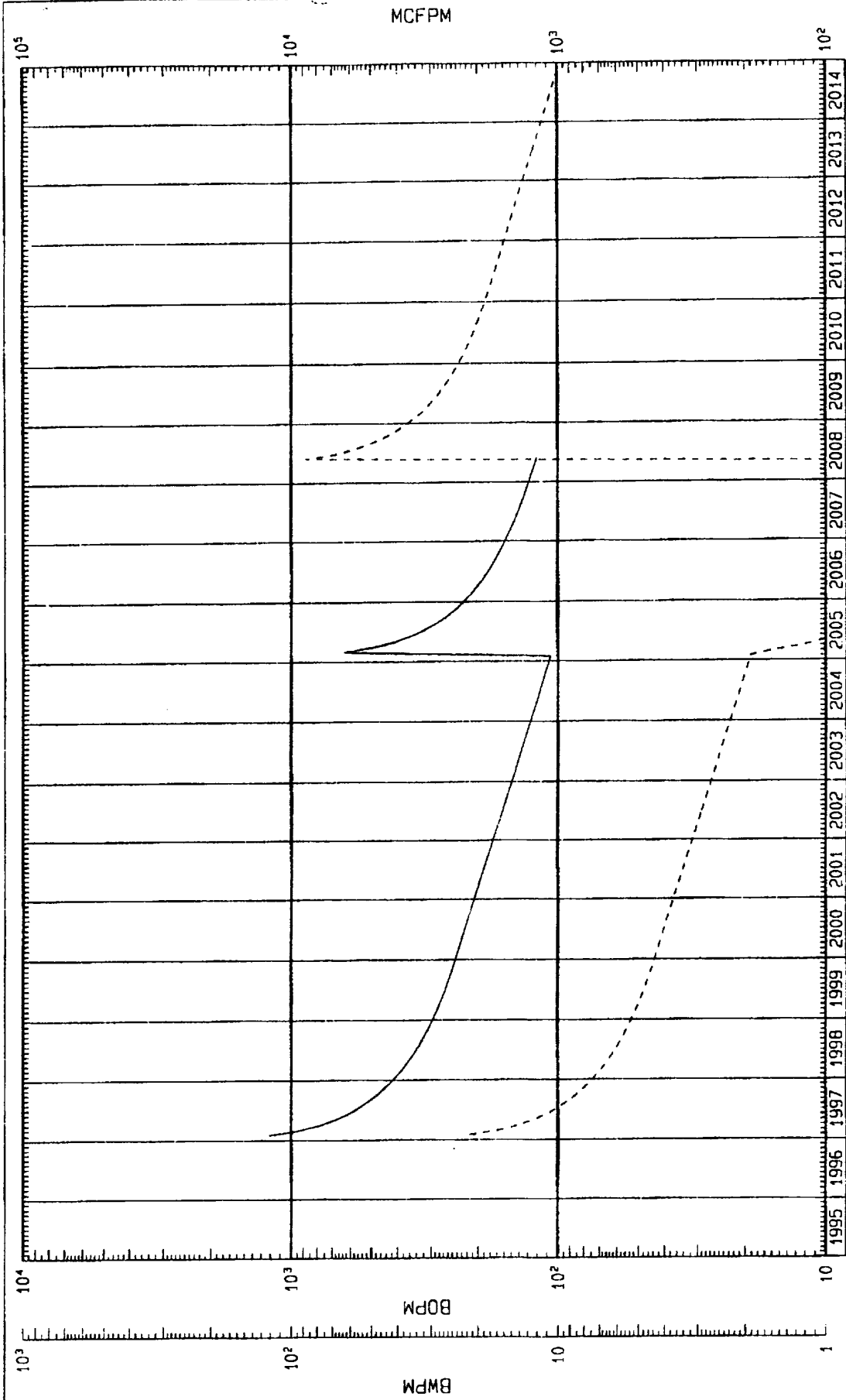
NAME : EXAMPLE ECON. - SEP. COMPL.
FIELD : BLANCO EAST AREA
CNTY, STATE: RIO ARRIBA CO., NEW MEXICO
FORMATION : GL, MV, & PC SEP. COMPLETIONS
OPERATOR : MALLON OIL COMPANY

PW 5.0% -177.662 BTAX
PW 15.0% -230.763 BTAX
PW 20.0% -244.535 BTAX
PW 25.0% -254.516 BTAX
PW 30.0% -262.154 BTAX

WI	ORI	GRI	DATE	WELL COUNT	BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES
100.00000	80.60000	80.60000	JAN 1997	GROSS NET	OIL 20.00	20.00	20.00	CUMULATIVE REMAINING
				O 0.0 0.0	GAS 1.70	1.70	1.70	0.000 33.251
				G 1.0 1.0			OIL (MMBLS) GAS (MMCF)	0.000 234.262

	NUMBER	GROSS PROD	GROSS GAS	WORKING	REVENUE	NET VOLUME	NET GAS	EFFECTIVE	EFFECTIVE	NET TOTAL
	GROSS WELLS	OIL + COND	PRODUCTION	INTEREST	INTEREST	OIL + COND	VOLUME	O+C PRICE	GAS PRICE	REVENUE
	30)-----	5)MMBLS--	7)MMCF---	34)-X-----	35)-X-----	18)MMBLS--	20)MMCF---	31)\$/BBL--	32)\$/MCF--	60)-M\$----
1997	1.0	7.644	13.650	100.00000	80.60000	6.161	11.002	20.00	1.70	141.925
1998	1.0	4.100	7.322	100.00000	80.60000	3.305	5.902	20.00	1.70	76.130
1999	1.0	3.185	5.687	100.00000	80.60000	2.567	4.584	20.00	1.70	59.128
2000	1.0	2.678	4.782	100.00000	80.60000	2.158	3.854	20.00	1.70	49.721
2001	1.0	2.276	4.065	100.00000	80.60000	1.835	3.276	20.00	1.70	42.263
2002	1.0	1.935	3.455	100.00000	80.60000	1.559	2.785	20.00	1.70	35.923
2003	1.0	1.645	2.937	100.00000	80.60000	1.326	2.367	20.00	1.70	30.535
2004	1.0	1.398	2.496	100.00000	80.60000	1.127	2.012	20.00	1.70	25.955
2005	1.0	3.880	1.134	100.00000	80.60000	3.127	0.914	20.00	1.70	64.091
2006	1.0	2.202	0.551	100.00000	80.60000	1.775	0.444	20.00	1.70	36.255
2007	1.0	1.690	0.423	100.00000	80.60000	1.362	0.341	20.00	1.70	27.827
2008	1.0	0.618	39.176	100.00000	80.60000	0.498	31.576	20.00	1.70	63.648
2009	1.0	0.000	35.179	100.00000	80.60000	0.000	28.354	0.00	1.70	48.202
2010	1.0	0.000	25.366	100.00000	80.60000	0.000	20.445	0.00	1.70	34.756
2011	1.0	0.000	20.876	100.00000	80.60000	0.000	16.826	0.00	1.70	28.604
SUB TOTAL	1.0	33.251	167.097	100.00000	80.60000	26.800	134.680	20.00	1.70	764.962
REMAINDER	1.0	0.000	67.166	100.00000	80.60000	0.000	54.136	0.00	1.70	92.031
TOT 20.2 YR	1.0	33.251	234.263	100.00000	80.60000	26.800	188.816	20.00	1.70	856.992

	NET LOE	NET SEV	NET ADVAL	NET TOTAL	NET OPER	NET TOTAL	BTAX	CUM BTAX	BTAX CF	CUM BTAX CF
	(FIX + VAR)	TAXES	TAXES	EXP + TAXES	REVENUE	INVESTMENT	CASHFLOW	CASHFLOW	DISC 10.00%	DISC 10.00%
	111)-M\$-----	96)-M\$-----	102)-M\$-----	223)-M\$-----	156)-M\$-----	143)-M\$-----	163)-M\$-----	164)-M\$-----	165)-M\$-----	166)-M\$-----
1997	18.000	10.207	18.266	46.473	95.452	419.000	-323.548	-323.548	-324.044	-324.044
1998	18.000	5.475	9.798	33.273	42.857	0.000	42.857	-280.691	37.149	-286.895
1999	18.000	4.252	7.610	29.862	29.265	0.000	29.265	-251.426	23.035	-263.860
2000	18.000	3.576	6.399	27.975	21.746	0.000	21.746	-229.680	15.558	-248.302
2001	18.000	3.040	5.439	26.479	15.784	0.000	15.784	-213.896	10.270	-238.032
2002	18.000	2.584	4.623	25.207	10.716	0.000	10.716	-203.180	6.343	-231.689
2003	18.000	2.196	3.930	24.126	6.409	0.000	6.409	-196.771	3.454	-228.235
2004	18.000	1.867	3.340	23.207	2.748	0.000	2.748	-194.023	1.352	-226.883
2005	18.000	4.551	8.248	30.799	33.292	50.000	-16.709	-210.732	-8.087	-234.969
2006	18.000	2.573	4.666	25.239	11.016	0.000	11.016	-199.716	4.470	-230.499
2007	18.000	1.975	3.581	23.556	4.270	0.000	4.270	-195.446	1.577	-228.922
2008	12.750	4.963	8.192	25.904	37.744	50.000	-12.256	-207.702	-4.321	-233.243
2009	9.000	3.822	6.204	19.026	29.176	0.000	29.176	-178.526	8.873	-224.370
2010	9.000	2.756	4.473	16.229	18.527	0.000	18.527	-159.999	5.112	-219.257
2011	9.000	2.268	3.681	14.950	13.654	0.000	13.654	-146.344	3.423	-215.834
SUB TOTAL	237.750	56.105	98.451	392.306	372.656	519.000	-146.344	-146.344	-215.834	-215.834
REMAINDER	46.500	7.298	11.844	65.642	26.388	0.000	26.388	-119.956	5.437	-210.397
TOT 20.2 YR	284.250	63.403	110.295	457.948	399.044	519.000	-119.956	-119.956	-210.397	-210.397



BLANCO EAST AREA

EXAMPLE ECON. - SEP. COMPL.
 RIO ARriba CO., NEW MEXICO
 GAS-GL, MV, & PC SEP. COMPLETIONS
 1PDP NM0300 XXXXXXXXXX EV: 4

FILE: 2-MSA2MP.MP DATE: 21-MAY-97
 SOURCE: TIME: 14:05

--- OIL
 . . . WATER
 --- GAS