

9/15/97

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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

**Application Acronyms:**

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
[DD-Directional Drilling] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] 1695  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

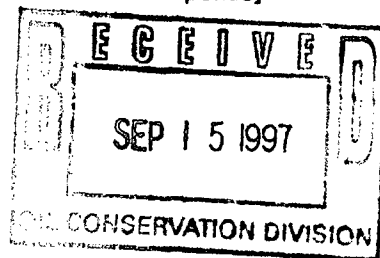
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

**[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding**

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

**James Bruce**  
**P.O. Box 1056**  
**Santa Fe, NM 87504**

Note: Statement must be completed by an individual with supervisory capacity.

Print or Type Name

Signature

Title

Date

*James Bruce*

*Attorney for Applicant*

9/12/97

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1900

## DISTRICT II

1 South First St., Artesia, NM 88210-2935

## DISTRICT III

1000 Rio Brazos Rd, Artes, NM 87410-1893

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

Mallon Oil Company 999 - 18th Street, Suite 1700, Denver, CO 80202  
Operator AddressMescalero 30 Federal 4 G-30-19S-34E Lea  
Lease Well No. Unit Ltr.: Sec - Twp - Rge CountyOGRID NO. 009171 Property Code 16285 API NO. 3002533813 Spacing Unit Lease Types: (check 1 or more)  
Federal ☒ State ☐ (and/or) Fee ☐

The following information is submitted in support of downhole commingling for:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Strawn Undesignated	Quail Ridge Morrow 83280	
2. Top and Bottom of Pay Section (Perforations)	12214-12224'	13227-13374'	
3. Type of production (Oil or Gas)	Oil	Gas	
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) SEE ATTACHMENT A b. (Original)	a. b.	a. b.
6. Oil Gravity (°API) or Gas BTU Content	46.8 API	1263 BTU 51.5 API	
7. Producing or Shut-In?	SI, Not Perforated	Producing	
Production Marginal? (yes or no)	Y	N	
• 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: Estimated Rates: 30 BOPD 50 MCFG, BWPD	Date: Rates:  Date: 7/3/97 Rates: 42 BOPD 688 MCFD, 27 BWPD	Date: Rates:  Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 40 % Gas: 5 %	Oil: 60 % Gas: 95 %	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 ☐ No11. 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 ☐ No13. 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. NMOCB Reference Cases for Rule 303(D) 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- DATE 9/2/97  
Engineering

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

**MALLON OIL COMPANY  
Mescalero 30 Federal No. 4  
SWNE Section 30-T19S-R34E  
Lea County, New Mexico**

**ATTACHMENT A**

	<b>Strawn</b>	<b>Morrow</b>
Measured bottom hole flowing pressure, psi	--	1200
Estimated bottom hole flowing pressure, psi	1200	--
Measured original shut-in bottom hole pressure, psi	6462	7000

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

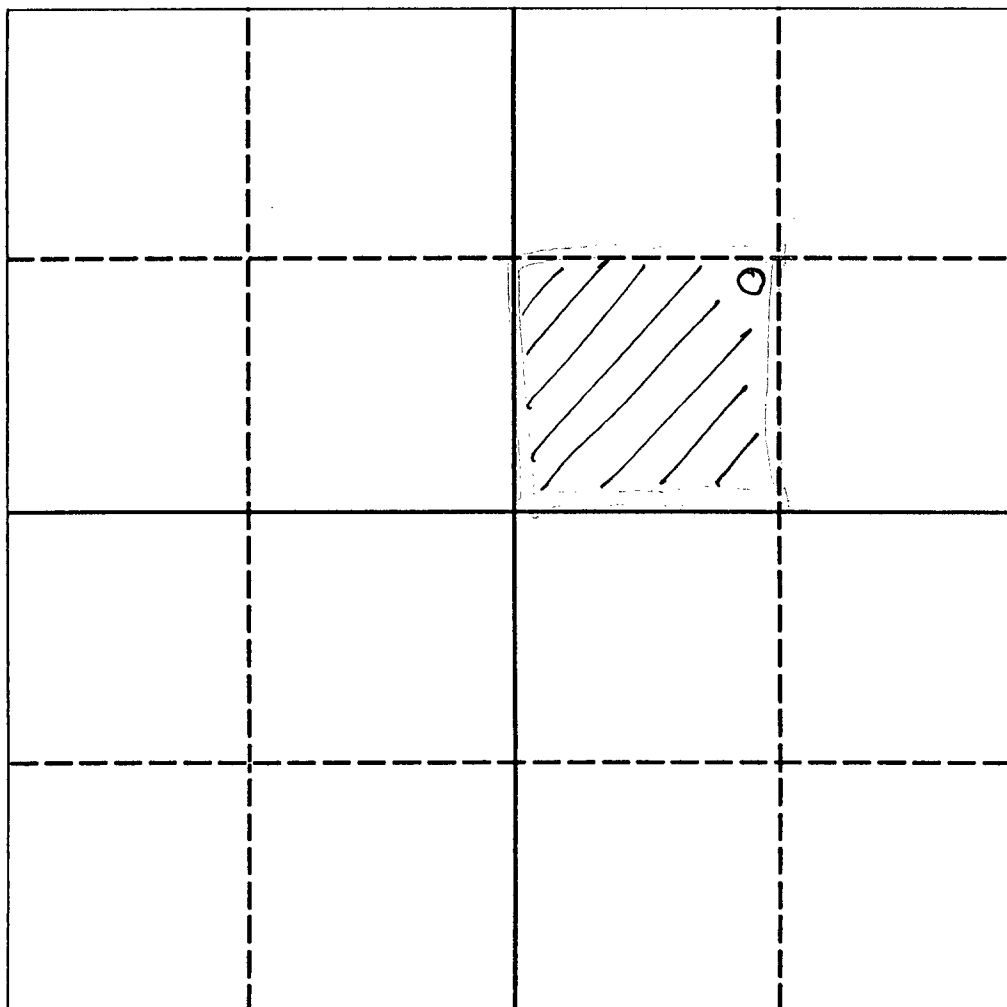
All Distances must be from the outer boundaries of the section

Operator Mallon Oil Company			Lease Mescalero 30 Federal		Well No. 4
Unit Letter G	Section 30	Township 19S	Range 34E NMPM		County Lea

**Actual Footage Location of Well:**

1330 feet from the North line and 1330 feet from the East line			
Ground level Elev. 3667'	Producing Formation Strawn	Pool	Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).  
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



**OPERATOR CERTIFICATION**

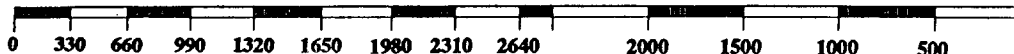
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature *Ray E Jones*  
Printed Name **RAY E JONES**  
Position **VP ENG.**  
Company **MALLON OIL CO.**  
Date **30 AUG 97**

**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed \_\_\_\_\_  
Signature & Seal of Professional Surveyor \_\_\_\_\_  
Certificate No. \_\_\_\_\_



Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

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P.O. Box 1980, Hobbs, NM 88240

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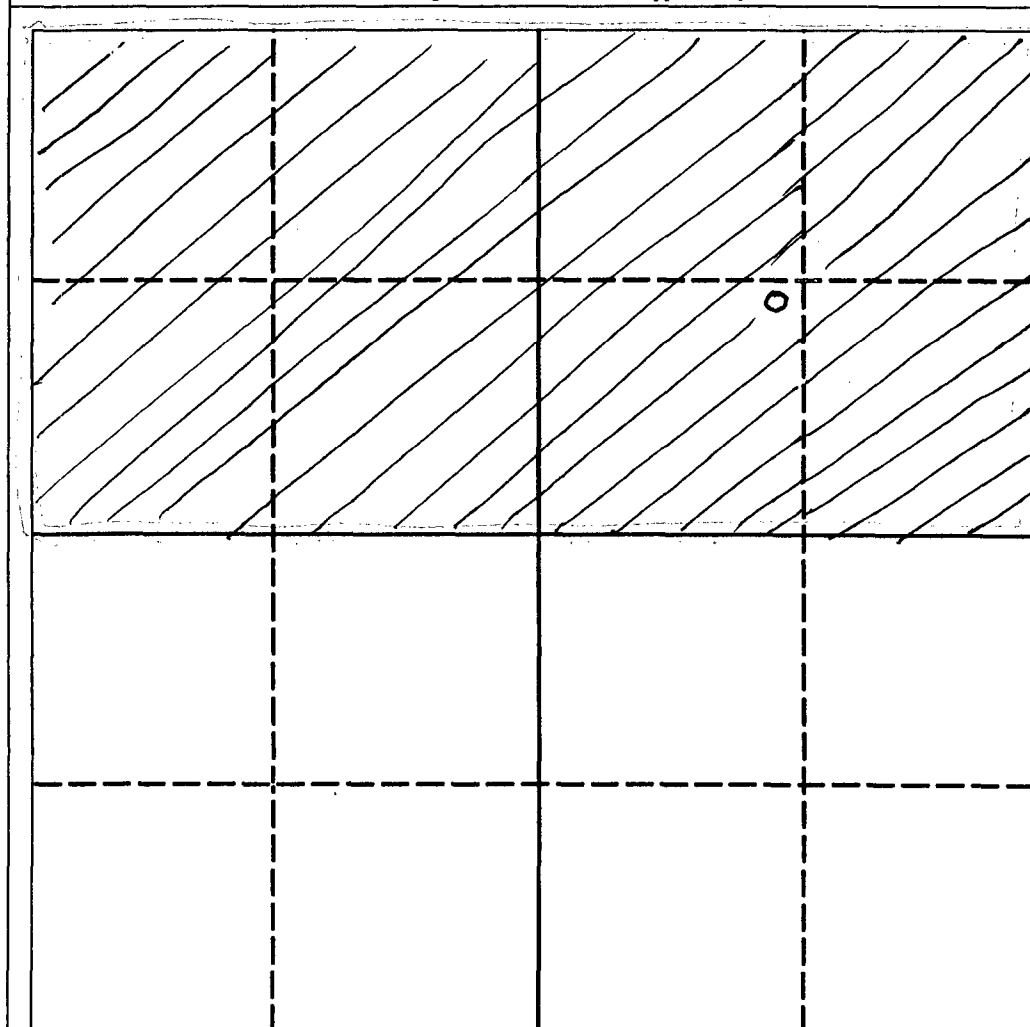
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Mallon Oil Company			Lease Mescalero 30 Federal		Well No. 4
Unit Letter G	Section 30	Township 19S	Range 34E	County NMPM	Lea
Actual Footage Location of Well: 1330 feet from the North line and 1330 feet from the East line					
Ground level Elev. 3667'	Producing Formation Morrow		Pool Quail Ridge Morrow	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).  
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature *Ray E Jones*

Printed Name **RAY E JONES**

Position **VP ENG.**

Company **MALLON OIL Co.**

Date **30 AUG 97**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

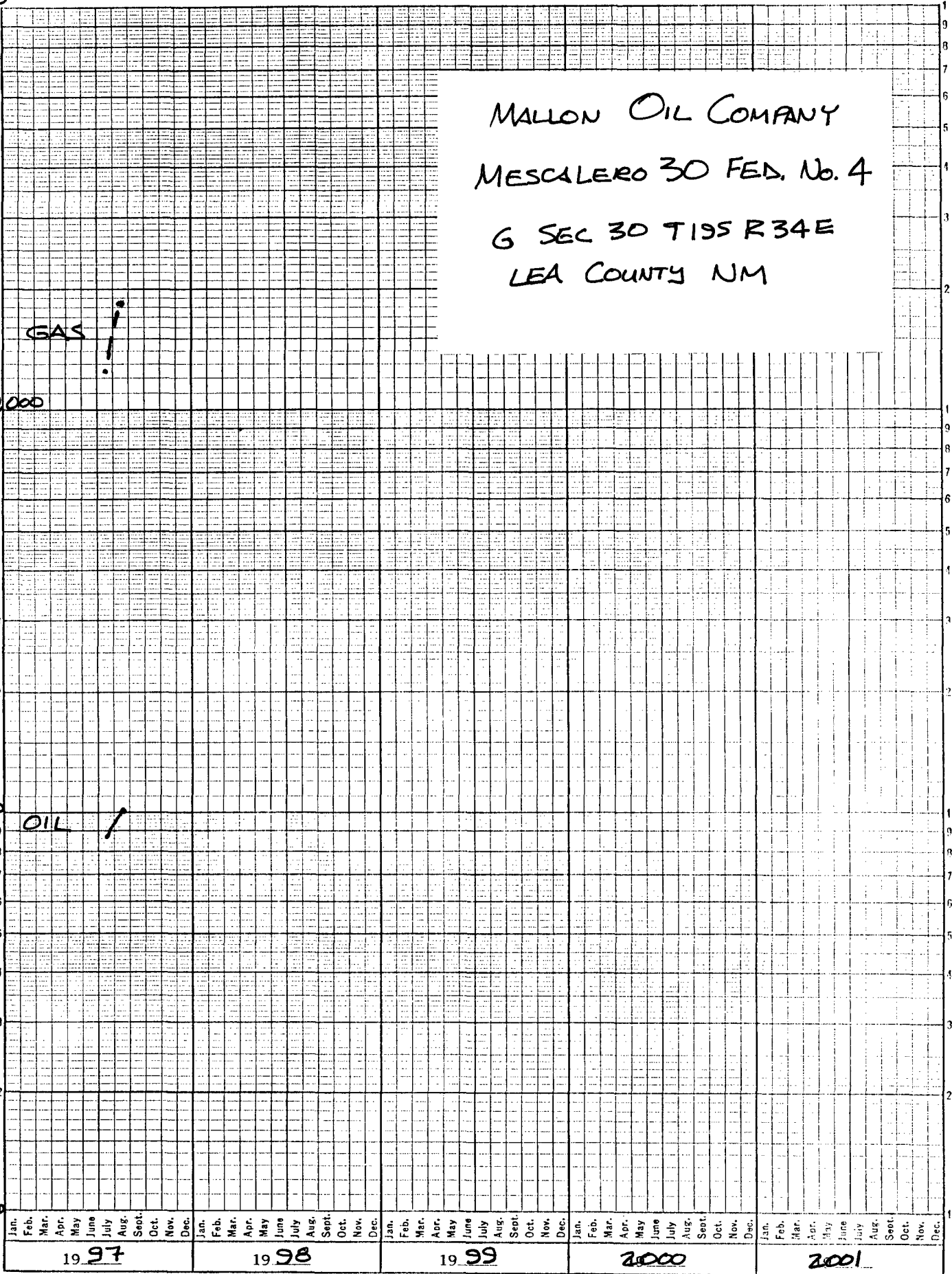
Signature & Seal of Professional Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

MONTHLY GAS & OIL PROD., (MCF & BBLs)

100,000



100

**MALLON OIL COMPANY  
Mescalero 30 Federal No. 4  
SWNE Section 30-T19S-R34E  
Lea County, New Mexico**

Estimated production rates for the Strawn are based upon production data, copy attached, from the Union Oil Co. Smith #1 well in S25T19SR33E.

The allocation formula is based upon the actual Morrow production and estimated Strawn production rounded to the nearest 5%.

Aug-28-1997  
13:47  
2 of 2

Copyright 1997 Petroleum Information Corporation  
Petroleum Information's Production Data on CD-ROM  
Southeast New Mexico - October 1996  
Full Entity Monthly Production Report - USGS(PI)

42826

Entity : SMITH (011488) Product: GAS  
Field : GEM EAST (23010) Start : 199412  
Reservoir: STRAWN (PENN) (471) Stop : 199610  
Operator : UNION OIL COMPANY OF CALIFORNIA (34551) Status : ACTIVE  
Location : S25 T19S R33E J LEA Dist : HOBBS  
Basin : PERMIAN (430) Well# : 1  
Zone : STRAWN (404STRN) Lat : 32.62933  
API : 30025277050000 Lng : 103.61415

Well Information

API	Well Number	Total Depth	Upper Perf	Lower Perf	BHP	Well Type	Dev. Shale	Tight HRZ
30025277050000	1	13650	12175	12187		PRORATED	NO	NO

Test Information

Well Nbr	Test Date	Upper Perf	Lower Perf	Gas MCFD	Liq BPD	Wtr BPD	GOR	Pressures SITP	Liq Grav	Gas Grav
1	19940122	12175	12187	74	39.0		1897	40	46.8	0.000 IP

Monthly Production

Year	Gas (MCF)	Liq (BBLs)	Wtr (BBLs)	Gas Trans	Liq Trans	Active Wells	Days On
1994 CUM							
1994 JAN							
1994 FEB							
1994 MAR							
1994 APR							
1994 MAY							
1994 JUN							
1994 JUL							
1994 AUG							
1994 SEP							
1994 OCT							
1994 NOV							
1994 DEC	1763	956				1	31
1994 ANN	1763	956	0				
1995 CUM	1763	956					
1995 JAN	1734	959				1	31
1995 FEB	1536	852				1	28
1995 MAR	1705	929				1	31
1995 APR	1621	879				1	30
1995 MAY	1649	876				1	31
1995 JUN	1531	880				1	30
1995 JUL	1550	858				1	31
1995 AUG	1507	851				1	
1995 SEP	1528	813				1	29
1995 OCT	1359	889				1	29
1995 NOV	1533	839				1	30
1995 DEC	1538	860				1	31
1995 ANN	18791	10485	0				
1996 CUM	20554	11441					
1996 JAN	1519	847				1	31
1996 FEB	1427	810				1	28
1996 MAR	1515	823				1	31



Aug-28-1997  
13:47  
2 of 2

Copyright 1997 Petroleum Information Corporation  
Petroleum Information's Production Data on CD-ROM  
Southeast New Mexico - October 1996  
Full Entity Monthly Production Report - USGS(PI)

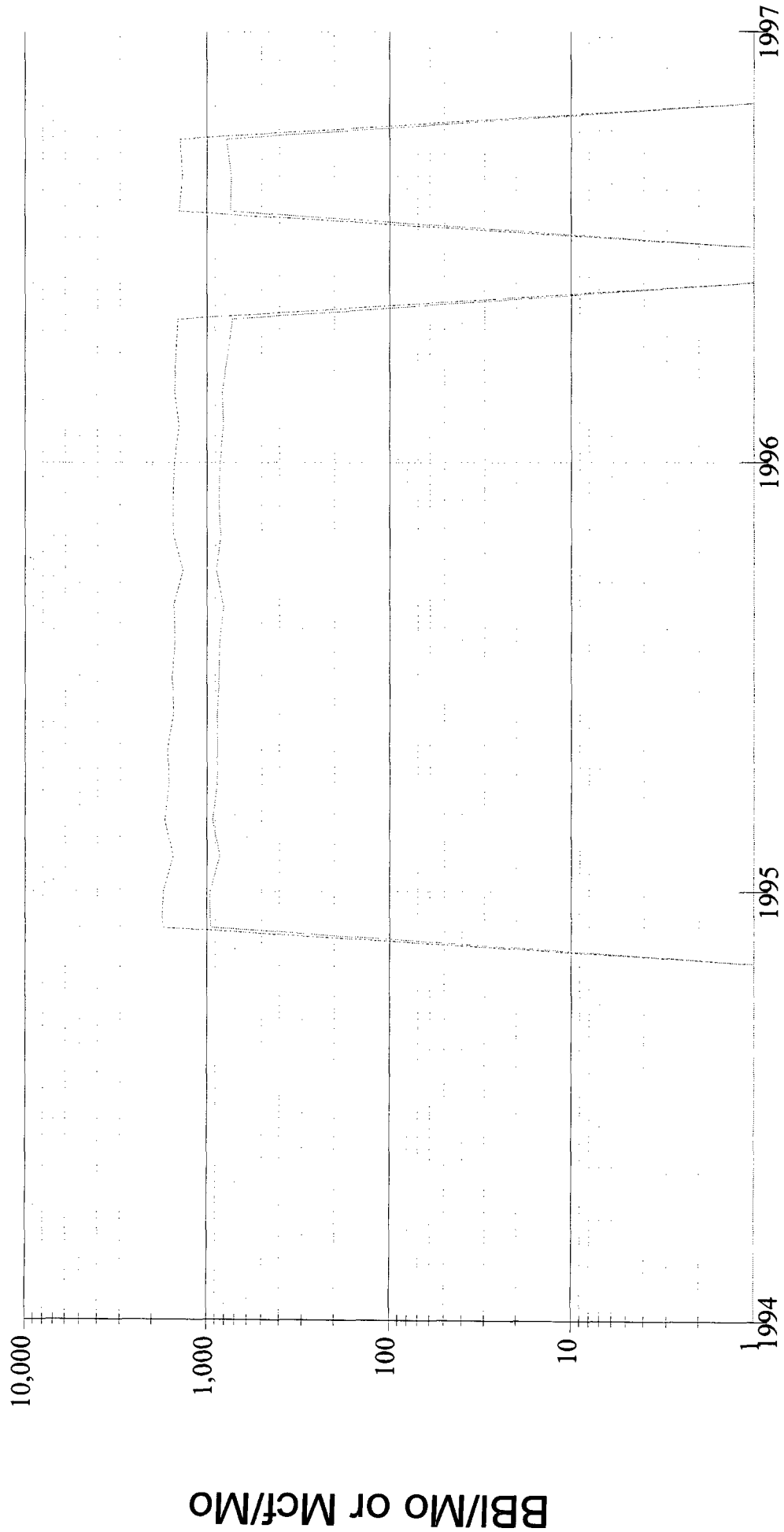
42826

=====

Entity	: SMITH (011488)	Product	: GAS
Field	: GEM EAST (23010)	Start	: 199412
Reservoir	: STRAWN (PENN) (471)	Stop	: 199610
Operator	: UNION OIL COMPANY OF CALIFORNIA (34551)	Status	: ACTIVE
Location	: S25 T19S R33E J LEA	Dist	: HOBBS
Basin	: PERMIAN (430)	Well#	: 1
Zone	: STRAWN (404STRN)	Lat	: 32.62933
API	: 30025277050000	Lng	: 103.61415
1996 JUL			
1996 AUG	1418	739	1 30
1996 SEP	1365	735	1 30
1996 OCT	1410	784	1 30
1996 NOV			
1996 DEC			
1996 ANN	11585	6232	0

Oil
Gas
Water
Wells

Field: GEM EAST  
Lease: SMITH | Well #1  
Operator: UNION OIL COMPANY OF CALIFORNIA  
Production Rate vs Time  
For the Period 01/1994 to 12/1996 | API: 30025277050000



Time

Reported Oil Production = 17,673 Bbls  
Reported Gas Production = 32,139 Mcf  
Reported Water Production = 0 Bbls

**MALLON OIL COMPANY  
Mescalero 30 Federal No. 4  
SWNE Section 30-T19S-R34E  
Lea County, New Mexico**

**STRAWN EXAMPLE ECONOMICS  
QUAIL RIDGE AREA  
LEA COUNTY, NM**

Example economics are attached for drilling a single Strawn completion in the Quail Ridge area. The oil and gas projections were based upon the closest Strawn producer, Union Oil Co. Smith #1 in S25T19SR33E. Drilling and operating costs were based upon current price estimates. As shown by the attached economics, a single zone Strawn completion would be uneconomic and, therefore, not attempted without downhole commingling.

## MALLON OIL COMPANY

DATE: 08/29/97

TIME: 11:36:51

AS OF JUL 1, 1997

\*\*\* SUMMARY \*\*\*

STRAWN EXAMPLE ECONOMICS  
QUAIL RIDGE AREA

PW 5.0%	-308.504 BTAX
PW 15.0%	-522.921 BTAX
PW 20.0%	-587.748 BTAX
PW 25.0%	-636.735 BTAX
PW 30.0%	-674.748 BTAX

	BEGINNING	ENDING	AVERAGE	WELL COUNT		BEG-PRICES	END-PRICES	AVG-PRICES	GROSS RESERVES		
WI (%)	100.0000	100.0000	100.0000	GROSS	NET	OIL 18.75	18.75	18.75	CUMULATIVE	REMAINING	
ORI (%)	80.0000	80.0000	80.0000	O 1.0	1.0	GAS 1.90	1.90	1.90	OIL (MBBLS)	0.000	81.375
GRI (%)	80.0000	80.0000	80.0000	G 0.0	0.0				GAS (MMCF)	0.000	146.475

	NUMBER GROSS WELLS	GROSS PROD OIL + COND	GROSS GAS PRODUCTION	WORKING INTEREST	REVENUE INTEREST	NET OIL VOLUME	NET GAS VOLUME	EFFECTIVE O+C PRICE	EFFECTIVE GAS PRICE	NET TOTAL REVENUE
	30)-----	5)MBBLS--	7)MMCF---	34)-%-----	35)-%-----	14)MBBLS--	20)MMCF---	31)\$/BBL--	32)\$/MCF--	60)-M\$----
( 6MO)1997	1.0	5.580	10.044	100.00000	80.00000	4.464	8.035	18.75	1.90	98.963
1998	1.0	10.145	18.260	100.00000	80.00000	8.116	14.608	18.75	1.90	179.923
1999	1.0	8.927	16.069	100.00000	80.00001	7.142	12.855	18.75	1.90	158.332
2000	1.0	7.856	14.141	100.00000	80.00000	6.285	11.313	18.75	1.90	139.332
2001	1.0	6.913	12.444	100.00000	80.00001	5.531	9.955	18.75	1.90	122.613
2002	1.0	6.084	10.951	100.00000	80.00000	4.867	8.760	18.75	1.90	107.899
2003	1.0	5.354	9.636	100.00000	80.00000	4.283	7.709	18.75	1.90	94.951
2004	1.0	4.711	8.480	100.00000	80.00000	3.769	6.784	18.75	1.90	83.557
2005	1.0	4.146	7.462	100.00000	80.00000	3.317	5.970	18.75	1.90	73.530
2006	1.0	3.648	6.567	100.00000	80.00001	2.919	5.254	18.75	1.90	64.706
2007	1.0	3.211	5.779	100.00000	80.00000	2.568	4.623	18.75	1.90	56.942
2008	1.0	2.825	5.085	100.00000	80.00000	2.260	4.068	18.75	1.90	50.109
2009	1.0	2.486	4.475	100.00000	80.00000	1.989	3.580	18.75	1.90	44.096
2010	1.0	2.188	3.938	100.00000	80.00001	1.750	3.151	18.75	1.90	38.804
2011	1.0	1.925	3.466	100.00000	80.00001	1.540	2.772	18.75	1.90	34.148
SUB TOTAL	1.0	75.998	136.797	100.00000	80.00000	60.799	109.437	18.75	1.90	1347.904
REMAINDER	1.0	5.377	9.679	100.00000	80.00000	4.302	7.743	18.75	1.90	95.366
TOT 18.3 YR	1.0	81.375	146.475	100.00000	80.00000	65.100	117.180	18.75	1.90	1443.270

	NET LOE (FIX + VAR)	NET SEV TAXES	NET ADVAL TAXES	NET TOTAL EXP + TAXES	NET OPER REVENUE	NET TOTAL INVESTMENT	BTAX CASHFLOW	CUM BTAX CASHFLOW	BTAX CF DISC 10.00%	CUM BTAX CF DISC 10.00%
	111)-M\$----	96)-M\$----	102)-M\$----	223)-M\$----	156)-M\$----	143)-M\$----	163)-M\$----	164)-M\$----	165)-M\$----	166)-M\$----
( 6MO)1997	9.000	7.136	2.184	18.321	80.642	1100.000	-1019.358	-1019.358	-1012.838	-1012.838
1998	18.000	12.974	3.971	34.946	144.977	0.000	144.977	-874.380	131.473	-881.364
1999	18.000	11.418	3.495	32.912	125.420	0.000	125.420	-748.960	103.400	-777.964
2000	18.000	10.047	3.075	31.123	108.210	0.000	108.210	-640.751	81.103	-696.861
2001	18.000	8.842	2.706	29.548	93.064	0.000	93.064	-547.686	63.412	-633.449
2002	18.000	7.781	2.382	28.162	79.737	0.000	79.737	-467.950	49.393	-584.056
2003	18.000	6.847	2.096	26.943	68.008	0.000	68.008	-399.941	38.300	-545.756
2004	18.000	6.025	1.844	25.870	57.687	0.000	57.687	-342.254	29.535	-516.220
2005	18.000	5.302	1.623	24.925	48.605	0.000	48.605	-293.649	22.624	-493.596
2006	18.000	4.666	1.428	24.094	40.612	0.000	40.612	-253.037	17.187	-476.409
2007	18.000	4.106	1.257	23.363	33.579	0.000	33.579	-219.458	12.920	-463.490
2008	18.000	3.613	1.106	22.719	27.389	0.000	27.389	-192.069	9.581	-453.908
2009	18.000	3.180	0.973	22.153	21.943	0.000	21.943	-170.126	6.979	-446.929
2010	18.000	2.798	0.856	21.655	17.149	0.000	17.149	-152.977	4.960	-441.969
2011	18.000	2.462	0.754	21.216	12.932	0.000	12.932	-140.045	3.401	-438.568
SUB TOTAL	261.000	97.199	29.750	387.950	959.955	1100.000	-140.045	-140.045	-438.568	-438.568
REMAINDER	67.500	6.877	2.105	76.482	18.884	0.000	18.884	-121.161	4.229	-434.339
TOT 18.3 YR	328.500	104.076	31.855	464.431	978.839	1100.000	-121.161	-121.161	-434.339	-434.339

?E