

5/21/98	6/10/98	DC	KW	DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1969

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]
 [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

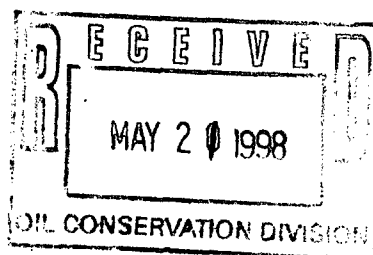
Check One Only for [B] or [C]

[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.

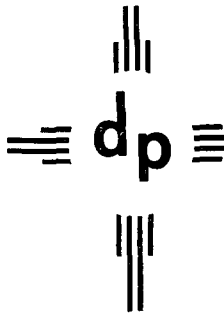
Note: Statement must be completed by an individual with supervisory capacity.

John Roe
Print or Type Name

John Roe
Signature

Engineering Manager
Title

5-20-98
Date



dugan production corp.

May 20, 1998

Ms. Lori Wrotenbery, Director
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Mr. Duane Spencer
Bureau of Land Management
1235 La Plata Highway
Farmington, NM 87401

Re: Application for Administrative Approval to Downhole Commingle
Dugan Production's Sherman Edward No. 2
API No. 30-039-21246 (M-3-29N-5W)
Gobernador Pictured Cliffs & Blanco Mesaverde Gas Pools
Rio Arriba County, NM

Dear Ms. Wrotenbery & Mr. Spencer:

Attached is NMOCD Form C-107A and it's associated attachments where in we are requesting your approvals to downhole commingle natural gas and possibly some condensate production from the Gobernador Pictured Cliffs and Blanco Mesaverde gas pools in the currently dually completed Sherman Edward No. 2 well operated by Dugan Production Corp. Dugan Production holds 100% of the working interest and all interest in each spacing unit is common. Only one Federal lease (NM-23048) is involved and there are no overriding royalty owners.

This well is currently dually equipped with two strings of 1-1/4" tubing. The Mesaverde completion is currently logged off and will not produce without some form of artificial lift. The proposed downhole commingling will allow the installation of larger tubing and both completions to be produced with a plunger if needed. In addition we plan to install wellhead compression for the commingled production. If all goes well, we hopefully will have a much more efficient operation and possibly some increased gas production.

Offset operators/owners of undeveloped leases have been provided a copy of this application and have been asked to waive objection. Should they elect to do so, we will forward their waivers to each of you.

Should you have questions or need additional information, please let me know.

Sincerely,

John D. Roe
Engineering Manager

JDR/tmf

cc: NMOCD - Aztec

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 South First St. Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Dugan Production Corp. P. O. Box 420, Farmington, NM 87499-0420
Operator Address

Sherman Edward 2 M-3 -T29N-R5W Rio Arriba
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 006515 Property Code 003836 API NO. 30-039-21246 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Gobernador Pictured Cliffs 77440		Blanco Mesaverde 72319
2. Top and Bottom of Pay Section (Perforations)	3528'-3720'		5585'-6032'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing-logged off
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 443 PSIA @ 3624' (calculated)	a.	a. 532 PSIA @ 3624' (calculated @ PC datum)
	(Original) b. 1310 PSIA @ 3624' (calculated)	b.	b. 1282 PSIA @ 3624' (calculated @ PC datum)
6. Oil Gravity (°API) or Gas BTU Content	1080 BTU/CF		1052 BTU/CF
7. Producing or Shut-In?	Producing		Shut in - logged off
Production Marginal? (yes or no)	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: 8/92 Rates: 60 MCFD + 15 BWPD
	Date: Average 3/98 Rates: 49 MCFD + 0 BWPD + 0 BCPD	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 100% Gas: 45%	Oil: % Gas: %	Oil: 0% Gas: 55%

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(D) Exceptions: ORDER NO(S). R-10770, & R-10771
16. ATTACHMENTS:
* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.-Attachments 1 & 2
* Production curve for each zone for at least one year. (If not available, attach explanation.)-Attachments 3 & 4
* For zones with no production history, estimated production rates and supporting data.
* Data to support allocation method or formula.-Attachment No. 5
* Notification list of all offset operators.-Attachments 6 & 7
* 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 John A. Roe TITLE Engineering Manager DATE May 20, 1998

TYPE OR PRINT NAME John Roe TELEPHONE NO. (505) 325-1821

				<p>17 OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p>
				<p>Signature <u>John Roe</u></p> <p>John Roe Printed Name</p> <p>Engineering Manager Title</p> <p>May 19, 1998 Date</p>
<p>NM 23048</p> <p>580'</p> <p>730'</p>	<p>Section 3</p>			<p>18 SURVEYOR CERTIFICATION</p> <p><i>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 belief.</i></p> <p>November 4, 1975 Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Original signed by <u>E. V. Echohawk</u></p> <p>3602 Certificate Number</p>

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Amendment
No. 2

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-21246		² Pool Code 72319		³ Pool Name Blanco Mesaverde	
⁴ Property Code 003836		⁵ Property Name Sherman Edward			⁶ Well Number 2
⁷ OGRID No. 006515		⁸ Operator Name Dugan Production Corp.			⁹ Elevation 6752'

¹⁰ Surface Location

U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	29N	5W		730	South	580	West	Rio Arriba

¹¹ Bottom Hole Location If Different From Surface

U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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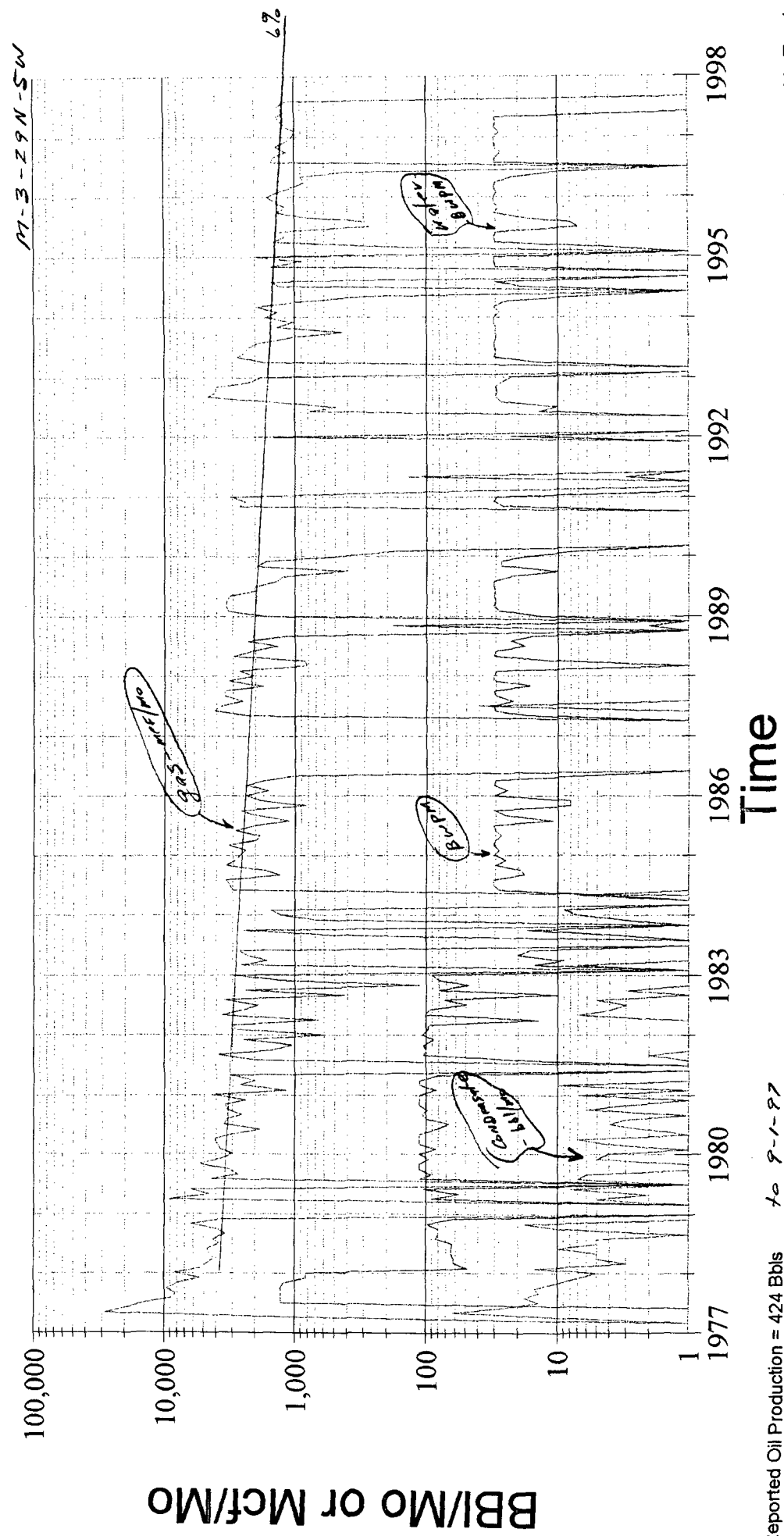
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i> Signature <u>John Roe</u> John Roe Printed Name Engineering Manager Title May 19, 1998 Date	
				¹⁸ SURVEYOR CERTIFICATION <i>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 belief.</i> November 4, 1975 Date of Survey Signature and Seal of Professional Surveyer: Original signed by E V Echohawk 3602 Certificate Number	

Attachment No. 3

Field: GOBERNADOR *Pickford CHAS*
 Lease: SHERMAN EDWARD | Well #2
 Operator: DUGAN PRODUCTION CORPORATION
 Production Rate vs Time
 For the Period 01/1977 to 12/1997 | API: 30039212460000

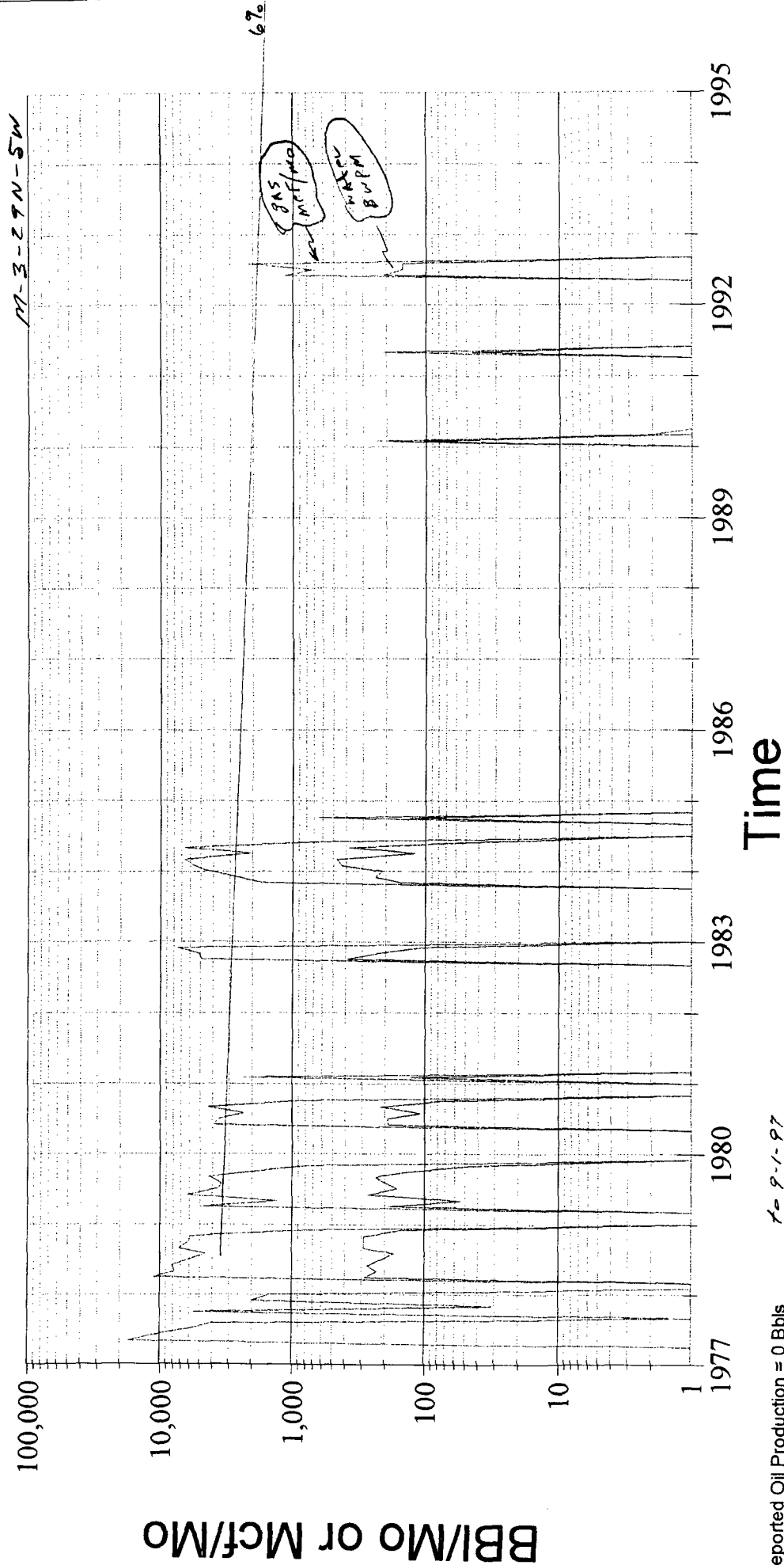
Oil	
Gas	
Water	
Wells	



Attachment No. 4

Field: BLANCO Mesa Verde
 Lease: SHERMAN EDWARD | Well #2
 Operator: DUGAN PRODUCTION CORPORATION
 Production Rate vs Time
 For the Period 01/1977 to 12/1994 | API: 30039212460000

Oil
Gas
Water
Wells



Attachment No. 5
Proposed Allocation of Downhole Commingled Production
Dugan Production's Sherman Edward No. 2 (M-3-29N-5W)
Gobernador PC & Blanco MV
API No. 30-039-21246

	<u>Gas-MCF</u>	<u>Condensate-bbl</u>	<u>Water-bbl</u>
<u>Cum. production 1-1-98 & % of total</u>			
Gobernador PC	519,381 (71.9%)	424 (100%)	15,538 (66.2%)
Blanco MV (last production 8/92)	<u>203,191 (28.1%)</u>	<u>0 (0%)</u>	<u>7,931 (33.8%)</u>
Total	722,572	424	23,469
<u>Most Recent Annual Production (12 months) & % of total</u>			
Gobernador PC (1997)	15,200 (36.5%)	0	151 (7.8%)
Blanco MV (1984)	<u>26,497 (63.5%)</u>	<u>0</u>	<u>1,785 (92.2%)</u>
Total	41,697	0	1,936
<u>Anticipated Commingled Production & % of total</u>			
Gobernador PC (current average)	50 MCFD (45.5%)	0 (0%)	1 BWPD (16.7%)
Blanco MV (*)	<u>60 MCFD (54.5%)</u>	<u>0 (0%)</u>	<u>5 BWPD (83.3%)</u>
Total	110 MCFD	0	6 BWPD

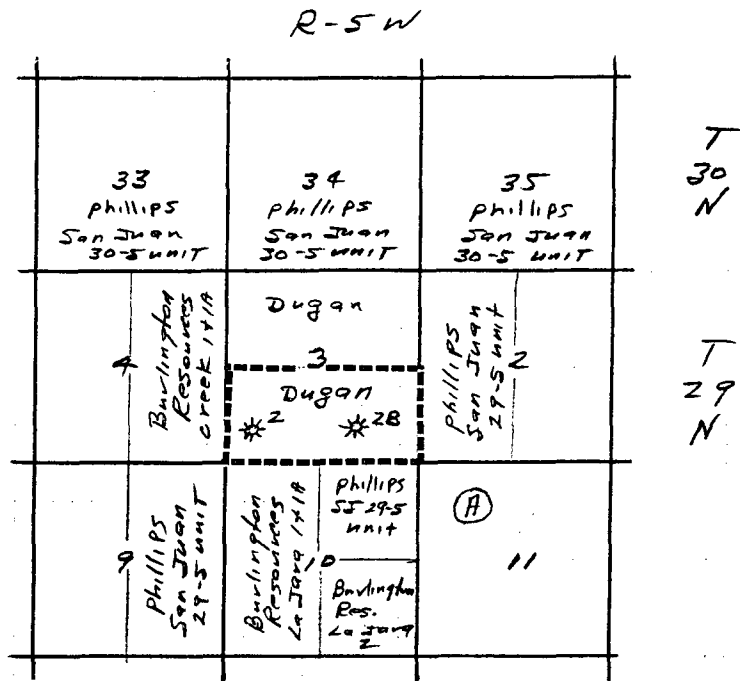
*-East offset = Dugan's Sherman Edward No. 2B (O-3-29N-5W) averaged 61 MCFD during 1997
North offset = Dugan's Sherman No 2 (E-3-29N-5W) averaged 84 MCFD during 1997
South offset = Burlington's La Jara Canyon No. 1A (D-10-29N-5W) averaged 58 MCFD during 1997
West offset = Burlington's Creek No. 1A (P-4-29N-5W) last produced in 1989

Proposed Commingled Production Allocation

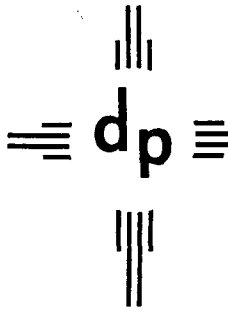
Gobernador PC	45%	100%	17%
Blanco MV	55%	0%	83%

Attachment No. 6

Operators Offsetting Dugan Production's
 Sherman Edward No. 2 (M-3-29N-5W)
 SW/4 + S/2 Spacing units - Gobernador PC + Blanco MV



- Ⓐ All of Section 11, T-29N, R-5W is undeveloped in the Gobernador PC + Blanco MV pools. Federal Lease SF-078736 comprises the whole section + according to BLM Records, operating rights are held by Phillips petroleum.



dugan production corp.

Attachment
No. 7
Pg 1 of 3

May 20, 1998

CERTIFIED RETURN RECEIPT

To: Operators and owners of undeveloped leases (address list attached)
Offsetting Dugan Production's
Sherman Edward No. 2
Unit M, Section 3, Township 29N, Range 5W
Gobernador Pictured Cliffs and Blanco Mesaverde Gas Pools
Rio Arriba Co., New Mexico

Dear Offset Operator or Lease Owner:

Attached is a copy of our application to the NMOCD and BLM requesting administrative approval to downhole commingle the existing Gobernador Pictured Cliffs and Blanco Mesaverde completions in the captioned dually completed well.

Notice is being sent to you as an offsetting operator or holder of undeveloped offset leasehold interest. If you have objections to this proposal, you should notify the NMOCD at 2040 South Pacheco, Santa Fe, NM 87505 with a copy to Dugan at our letterhead address within 20 days of this letter date. If you have no objections to this proposal, we would appreciate your signing the waiver below on the duplicate copy of this letter and return to us in the enclosed postage paid envelope.

Should you have questions or need additional information, please let me know.

Sincerely,

John D. Roe
Engineering Manager

The undersigned offset operator/undeveloped lease holder has no objection to Dugan Production's proposed downhole commingling of Gobernador Pictured Cliffs and Blanco Mesaverde production in their Sherman Edward No. 2

Signed

Company

Date

JDR/tmf

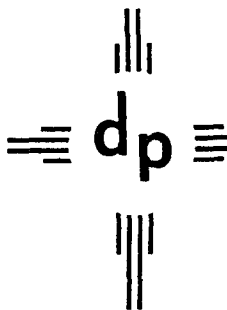
cc: NMOCD - Santa Fe

**OFFSET OPERATOR NOTIFICATION
DUGAN PRODUCTION CORP.'S SHERMAN EDWARD NO. 2
GOBERNADOR PICTURED CLIFFS & BLANCO MESAVERDE GAS POOLS
SW/4 & S/2 SPACING UNITS, SECTION 3, T-29N, R-5W
RIO ARriba COUNTY, NEW MEXICO**

Burlington Resources
P. O. Box 4289
Farmington, NM 87499-4289

Phillips Petroleum Co.
5525 US Highway 64
Farmington, NM 87401

Dugan Production Corp.
P. O. Box 420
Farmington, NM 87499-0420



dugan production corp.

SIGN & RETURN
THIS COPY

Attachment
No. 7
pg 3 of 3

May 20, 1998

CERTIFIED RETURN RECEIPT

To: Operators and owners of undeveloped leases (address list attached)
Offsetting Dugan Production's
Sherman Edward No. 2
Unit M, Section 3, Township 29N, Range 5W
Gobernador Pictured Cliffs and Blanco Mesaverde Gas Pools
Rio Arriba Co., New Mexico

Dear Offset Operator or Lease Owner:

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Should you have questions or need additional information, please let me know.

Sincerely,

John D. Roe

John D. Roe
Engineering Manager

The undersigned offset operator/undeveloped lease holder has no objection to Dugan Production's proposed downhole commingling of Gobernador Pictured Cliffs and Blanco Mesaverde production in their Sherman Edward No. 2

Signed

Company

Date

JDR/tmf

cc: NMOCD - Santa Fe