

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



### ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

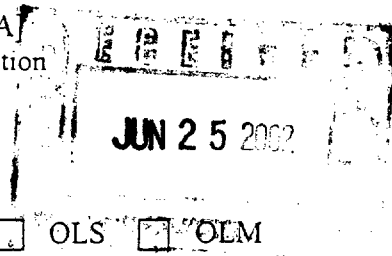
[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☒ PC ☐ OLS ☐ OLM

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

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_



#### [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

\*  
 \* Copy of Notification letter is presented  
 on Attachment No. 8. Copies of Return  
 Receipts will be mailed to NMCD upon  
 Receiving

#### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

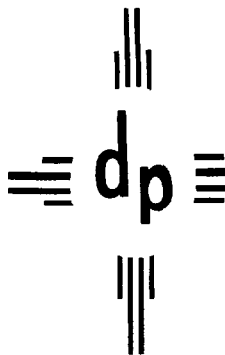
John D. Roe  
 Print or Type Name

John D. Roe  
 Signature

Engineering Manager  
 Title

06/24/02  
 Date

johnroe@duganproduction.com  
 e-mail Address



# dugan production corp.

June 24, 2002

Mr. William Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Mr. Steve Henke  
Bureau of Land Management  
Farmington Field Office  
1235 La Plata Highway, Suite A  
Farmington, NM 87401

Re: Request for Surface Commingling of Natural Gas  
Dugan Production Corp.'s  
Bengal C Wells No. 6 & No. 90  
API Nos. 30-045-29830 & 30-045-29455  
Units P & H of Section 36, T-27N, R-13W  
Federal Lease NM-16476  
WAW Fruitland Sand-PC & Basin Fruitland Coal Gas Pools  
San Juan County, New Mexico

Dear Mr. Jones and Mr. Henke,

We are writing to request administrative approval from the NMOCD to convert the existing El Paso Gas sales meter (Meter No. 99466) for Dugan Production's Bengal C No. 90 to a central delivery sales meter (CDP) for Dugan's Bengal C No. 6 & No. 90 wells. This will also require the surface commingling of natural gas production from both wells. Since the CDP sales meter is located on the No. 90 location and is "on lease", and since both wells are located on the same Federal lease (No. NM-16476), there is only one lease involved, and since all interest ownership (working, royalty, and overriding royalty) is common, it is our understanding that BLM approval is not required. This application is being sent to the BLM for informational purposes only.

Both wells are operated by Dugan Production Corp., and Dugan Production holds 100% of the working interest. Neither well has produced any oil or condensate, and none is anticipated. In addition to gas, both wells do produce water, which will be moved from each well to the CDP facility by a separate pipeline. At the CDP facility, the water from both wells will be commingled in a common two-phase separator. All water will be separated and stored/disposed of at the No. 90 well.

Attachment No. 1 presents a map of the gathering system, along with Dugan's lease No. NM-16476. Attachment No. 2 presents copies of the C-102 for each well, along with location, lease, and spacing unit dedications. Attachment No. 3 presents a summary of the interest ownership, and as previously stated, all ownership in each well is common.

Each well is equipped with rod pump artificial lift equipment. Our current plans are to install two flow lines for each well; one to move primarily water which is produced up the tubing, and one to move primarily gas which is produced up the casing-tubing annulus. Each well will be equipped with conventional dry flow gas meters on the gas flow line to continuously measure gas produced from each well. The charts from these meters will be integrated each month by a commercial integration service, and the volumes recorded will be used to determine allocation factors for allocating the CDP sales meter volumes to each well. These allocation meters will be operated and maintained by Dugan Production.

The water from each well will go to a central two-phase separator located at the CDP facility. The water will be separated and stored in a 500 bbl. steel tank and will then be disposed of by trucking to an OCD approved water disposal facility (probably a Dugan Production operated water disposal well). The water recovered at the CDP facility will be allocated to each well using allocation factors determined from periodic well tests. Each well will be tested at the wellhead using Dugan Production's portable three-phase tester on a frequency necessary to monitor any changes in the total water volumes recovered. Attachment No. 4 presents our proposed allocation procedures. Attachment No. 5 presents a sketch of the gathering system and CDP facilities. We anticipate all gas and water to be compatible and no problems to result from the proposed surface commingling.

The Bengal C No. 90 was completed 08/02/97 in the Basin Fruitland Coal gas pool. The 320-acre spacing unit comprises the E/2 of Section 36 and encompasses only one lease, Federal lease NM-16476. This well was connected to El Paso's pipeline with El Paso's sales meter No. 99466 located at the well. First production occurred during 09/97, and as of 05/01/02, a total of 469,450 mcf of gas, plus 30, 263 bbls. of water, have been produced. Production during the first four months of 2002 has averaged 204 mcf plus 4 BWPD. Attachment No. 6 presents the production history for this well.

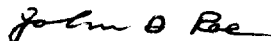
The Bengal C No. 6 was completed on 09/20/00 in the WAW Fruitland Sand-PC gas pool. The spacing unit for this well comprises the SE/4 of Section 36 and encompasses only Federal lease NM-16476. Prior to completion of the No. 6 well, the SE/4 had been dedicated to Dugan's Bengal C No. 5, which is also completed in the WAW Fruitland Sand-PC gas pool. Production from the Bengal C No. 5 was averaging only 1 to 3 mcf, and the Bengal C No. 5 is currently shut in. The Bengal C No. 5 is connected directly to El Paso's pipeline (Meter No. 89931) and has never been a very good producing well. The well first produced during 02/92 and has a cumulative production of 11,557 mcf. The maximum rate of production (11.0 mcf) occurred during 06/94, and the well has been shut in since 05/00. The production history is presented on Attachment No. 7. We will either plug or temporarily abandon the Bengal C No. 5. It is our intention to separately seek amendments to the WAW Fruitland Sand-PC pool rules to allow more than one well within a 160-acre spacing unit. If approved, we hope to return the Bengal C No. 5 to production, and if not approved, the Bengal C No. 5 will be permanently plugged.

Based upon production testing to date, we anticipate the Bengal C No. 6 well will average 15 to 20 mcf plus 75 to 100 BWPD. To date, most gas production from the Bengal C No. 6 has been used to supplement the fuel requirements for the pumping unit engine. Initially, all fuel was supplied by commercial propane. However, natural gas production from the Bengal C No. 6 is gradually increasing and currently is providing 100% of the fuel requirements, plus we are starting to vent a small amount of gas. We are optimistic that upon connection for sales, production will continue to improve.

Upon approval of the surface commingling and CDP, we plan to utilize the compressor currently serving the Bengal C No. 90 well, which does have additional capacity for the Bengal C No. 6 well. This will allow both wells to use the existing production facilities (separator, compressor, and water storage tank) currently serving the Bengal C No. 90 and will eliminate the need to install a separate compressor for the Bengal C No. 6, which currently is not economically viable.

In summary, Dugan Production Corp is proposing to convert the gas sales meter for Dugan Production's Bengal C No. 90 to a CDP sales meter for Dugan's Bengal C No. 6 and No. 90 wells. This will necessitate the surface commingling of natural gas from the Bengal C No. 6 and No. 90 wells, plus will eliminate installing separate production facilities for the No. 6 well and will allow the No. 6 well to be placed on production. The No. 6 well is anticipated to average 15 to 20 mcf, which will not support the installation of separate production and compression facilities. The CD sales meter is located at the No. 90 well and will be on lease for both wells. This will allow using a single compressor (currently on the No. 90 well) for both wells and will produce a saving in compressor fuel, exhaust emissions, and noise. Should there be questions or additional information needed, please let me know.

Sincerely,

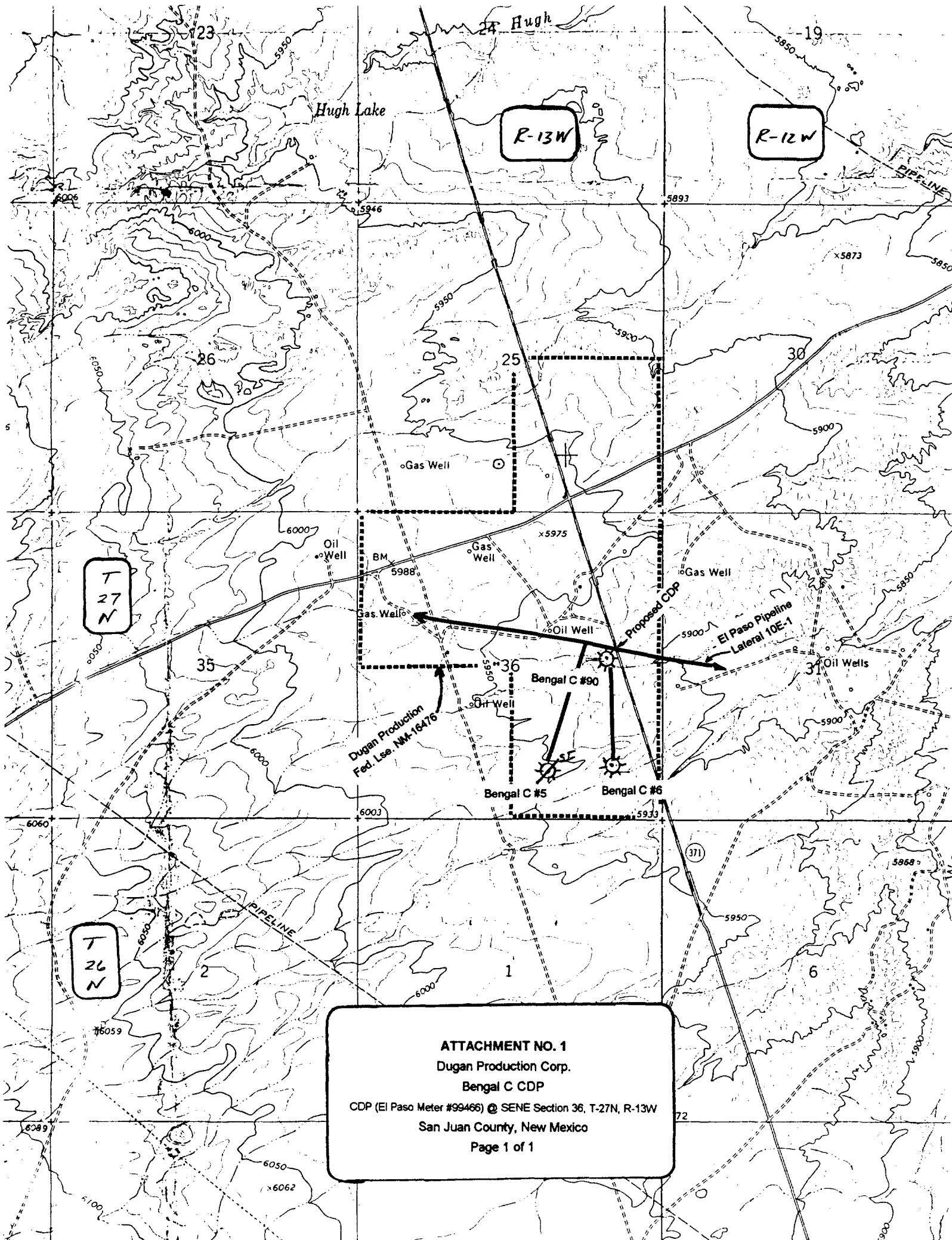


John D. Roe  
Engineering Manager

JDR:sh

cc: All interest owners (Attachment No. 8)  
NMOCD – Aztec

Attachments



District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

Attachment  
No. 2  
pg 1 of 2

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30 045 29830		2. Pool Code 87190		3. Pool Name WAW Fruitland Sand PC		
4. Property Code 003586		5. Property Name Bengal C			6. Well Number 6	
7. OGRID No. 006515		8. Operator Name Dugan Production Corporation			9. Elevation 5930' Estimated	

10. Surface Location

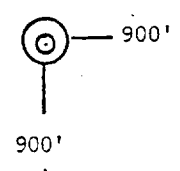
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	27N	13W	P	900	South	900	East	San Juan

11. Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12. Dedicated Acres 160	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

16				17. OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature: <u>Sherman E. Dugan</u> Printed Name: <u>Sherman E. Dugan</u> Title: <u>Vice-President</u> Date: <u>8/28/98</u>			
Section 36							
18. 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 belief.  Date of Survey: <u>March 2, 1998</u> Signature and Seal of Surveyor: <u>Edgar L. Bisenroover</u> Certificate Number: <u>5979</u>				 Dugan Prod. NM-16476			

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

Attachment  
No 2  
Pg 2 of 2

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30 045 29455		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal		
4 Property Code 003586		5 Property Name Bengal C			6 Well Number 90	
7 OGRID No. 006515		8 Operator Name Dugan Production Corporation			9 Elevation 5917 Estimated	

10 Surface Location

UL or lot no. H	Section 36	Township 27N	Range 13W	Lot Idn	Feet from the 2500	North/South line North	Feet from the 990	East/West line East	County San Juan
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 320		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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

16		Dugan Prod. NM 16476		2500'	
Section 36				990'	

17 OPERATOR CERTIFICATION

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

Signature  
Sherman E. Dugan  
Printed Name  
Vice-President  
Title  
6/19/96  
Date

18 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 belief.

August 2, 1995  
Date of Survey

Signature and Seal of Surveyor:  
EDGAR L. RISENHOVER  
NEW MEXICO  
5979  
Edgar L. Risenhofer  
Certificate Number

**ATTACHMENT NO. 3**  
**Interest Ownership**  
**Dugan Production Corp.'s**  
**Bengal C Wells No. 6 & No. 90**

<u>Well Name</u>	<u>Pool</u>	<u>Location</u>	<u>Spacing Unit</u>	<u>Lease Type &amp; No.</u>
Bengal C No. 6	WAW Fruitland Sand-PC	SESE 16, T-27N, R-13W	SE/4-160A	Federal NM-16476
Bengal C No. 90	Basin Fruitland Coal	SENE 16, T-27N, R-13W	E/2-160A	Federal NM-16476

**INTEREST OWNERSHIP****INTEREST%**

<u>Gross</u>	<u>Net</u>
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**Working Interest**

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

100.0000	83.5000
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**Royalty**

USA - Bureau of Land Management  
1235 La Plata Hwy., Suite A  
Farmington, NM 87401

0.0000	12.5000
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**Overriding Royalty**

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

0.0000	3.0000
--------	--------

Jo Ann Kruse  
2757 South Jackson  
Denver, CO 80210

0.0000	1.0000
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**TOTAL WELL**

<b>100.0000</b>	<b>100.0000</b>
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**ATTACHMENT NO. 4**  
**Proposed Allocation Procedures**  
**Dugan Production Corp.'s**  
**Bengal C CDP Gas Sales Meter**  
**CDP Meter: SENE 36-27N-13W (El Paso Meter # 99466)**  
**San Juan County, New Mexico**

**Base Data:**

U = Periodic water test of each well, BWPD

V = Water volume recovered @ CDP facility during allocation period, bbl.

W = Gas Volume (MCF) from allocation meters at individual wells during allocation period.

X = Gas Volume (MCF) from CDP Sales Meter during allocation period.

Y = BTU's from CDP Sales Meter during allocation period.

Allocation Period is typically a calendar month and will be the same for all wells.

1. Individual Well Gas Production = A + B + C + D + E

A = Allocated Sales Volume, MCF. =  $(W / \text{SUM } W) \times X$

B = On lease fuel usage, MCF. Determined from equipment specification and operating conditions.

C = Purged and/or vented gas from well and/or lease equipment, MCF. Calculated using equipment specifications and pressures.

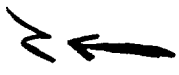
D = Allocated fuel from gathering system equipment, MCF. The total fuel required to operate gathering system equipment will be allocated to the individual wells benefiting from the equipment using allocation factors determined by  $W / \text{SUM } W$  for the wells involved.

E = Allocated volume of gas lost and/or vented from the gathering system and/or gathering system equipment, MCF. The total volume will be determined using industry accepted procedures for the conditions existing at the time of the loss. All volumes corresponding to liquid condensation within the gathering system will also be determined. The total volume lost and/or vented will be allocated to the individual wells affected using factors determined by  $W / \text{SUM } W$ .

2. Allocated Individual Well BTU's =  $(W \times \text{Individual well BTU}) / \text{Sum } (W \times \text{individual well BTU}) \times Y$ .  
 Individual well gas heating values to be determined in accordance with BLM regulations (currently On shore Order No. 5).

3. Allocated Individual Well Water Production =  $(U / \text{Sum } U) \times V$ .





Section 36  
T-27N, R-13W

To El Paso  
Lateral 10E-1

CDP Sales Meter  
El Paso Meter #99466

To Recover Any Natural  
Gas that may be  
Produced with water  
- Anticipate very little

Bengal C  
No. 90  
Location

Bengal C No. 90  
2500' FNL V 990' FEL  
36-27N-13W

Gas Flow Line  
from casing - T&G Annulus

Gas Flowline from Csg-t&g Annulus  
Water Flowline from tubing

Water  
Flowline to  
from T&G

Bengal C No. 6  
900' FSL V 900' FEL  
36-27N-13W

Bengal C  
No. 6  
Location

Legend

- [S] - 2 Phase Non fired Separator
- (W) 500 bbl water Storage tank - Horizontal, Skid Mounted Free Tank
- Gas Meter: A = Allocation  
S = Sales
- Gas Compressor Single Stage Screw



Attachment No. 5  
Page 1 of 1

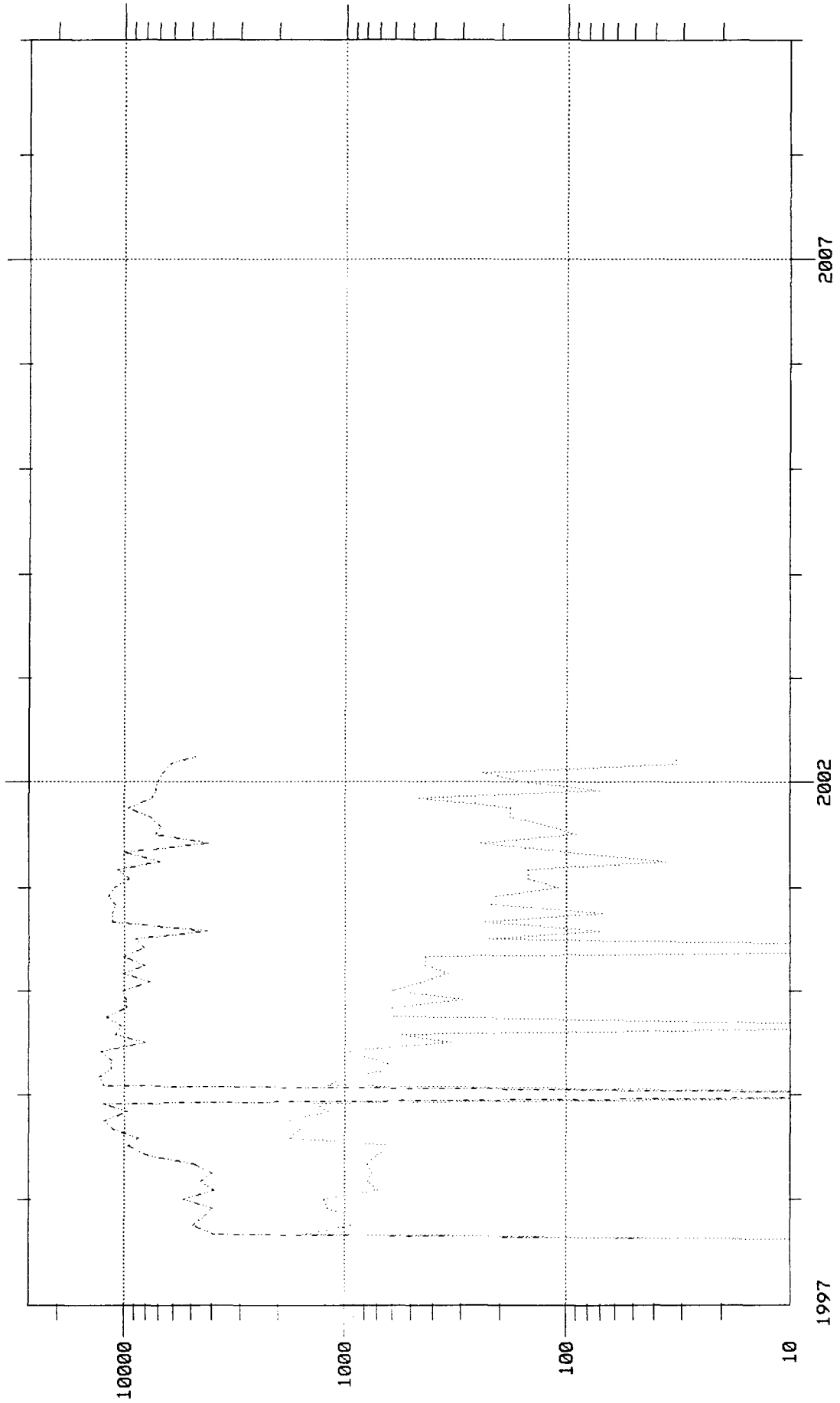
well & CDP facilities Sketch  
Dugan Production Corp

Not Drawn to Scale

Production  
Oil ———  
Gas - - - -  
Water . . . .

Attachment  
No. 6  
Pg 1 of 1

DUGAN PRODUCTION CORP  
Production Rate vs Time  
BBl/Mo or Mcf/Mo vs Months  
Bengal C No. 90  
Basin Fruitland Coal (-36-27N-13W)

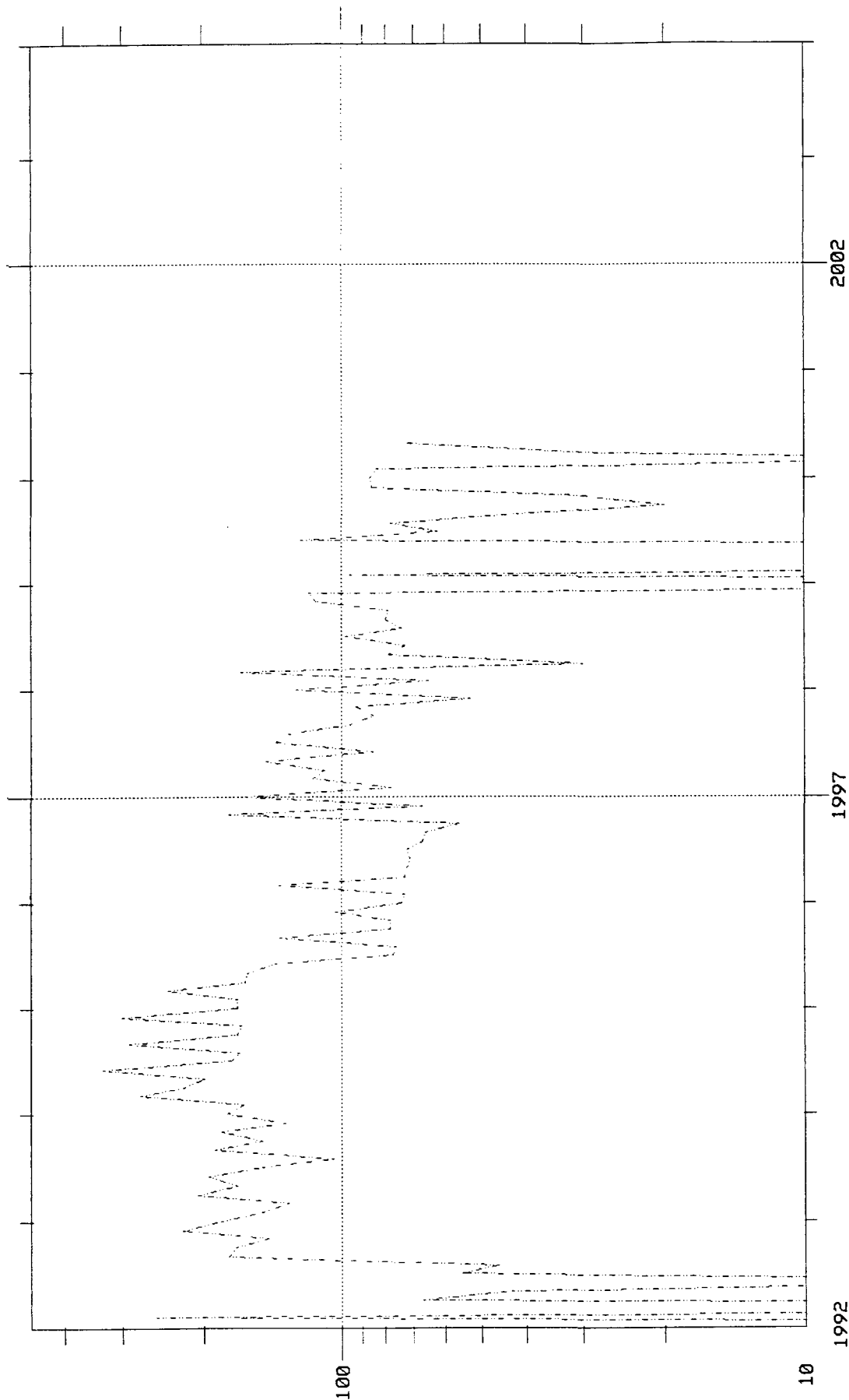


Cum. Gas 5-1-02 = 469,450 mcfcf  
Cum. Water 5-1-02 = 30,263 bbl  
Cum. Oil 5-1-02 = 0 bbl

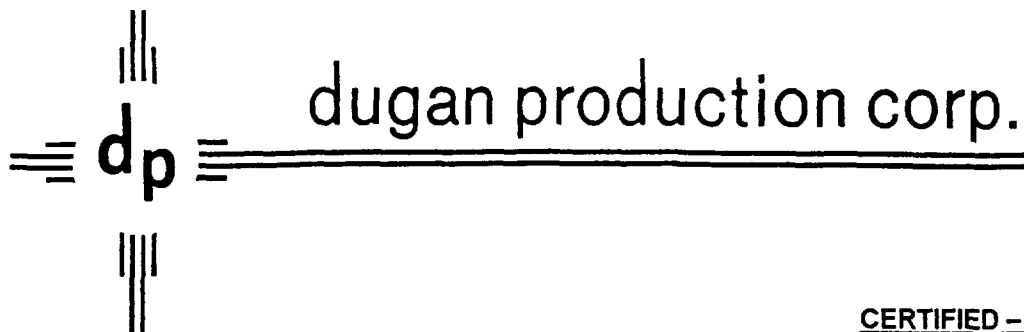
DUGAN PRODUCTION CORP  
 Gas Production Rate vs Time  
 Mcf/Mo vs Months  
 Bengal C No. 5  
 WAW Fruitland Sand-PC Gas Pool (0-36-27N-13W)

Production  
 Oil  
 Gas  
 Water

Attachment  
 No. 7  
 PG 1 of 1

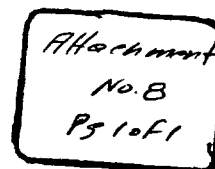


Reported Oil Production = 0 Bbls  
 Reported Gas Production = 11557 Mcf  
 Reported Water Production = 54 bbl



CERTIFIED - RETURN RECEIPT

June 24, 2002



Ms. JoAnn Kruse  
2757 South Jackson  
Denver, CO 80210

Re: Interest Owner Notification  
Proposed Surface Commingling  
Dugan Production Corp.'s  
Bengal C Wells No. 6 & No. 90  
San Juan County, New Mexico

Dear Ms. Kruse:

Attached for your information and file is a copy of our application requesting authorization to convert the existing gas sales meter for the Bengal C No. 90 well to a central delivery gas sales meter (CDP) for the Bengal C No. 6 and No. 90. Both wells are operated by Dugan Production Corp. Our records reflect you have a 1% overriding royalty interest in both wells.

There is no cost to you for this proposal, and there should be no loss of revenue to either well. By having both wells use the same compressor, each well will benefit from a reduced fuel consumption, plus the additional revenue from the Bengal C No. 6 production should increase your revenue.

Should you have questions, concerns, or objections, please let us know. Should you object to our proposal, you should let the New Mexico Oil Conservation Division know of your objection as soon as possible (and prior to 07/15/02).

Sincerely,

John D. Roe  
Engineering Manager

JDR:sh

Attachment