JUN 2 4 1998



## dugan production corp.



June 23, 1998

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

Re: Request for Surface Commingling, Off-lease Measurement, Storage and Sale of Produced Natural Gas plus Gathering System Drip Accumulations Dugan Production's Goodtimes Gas Gathering System San Juan County, New Mexico

Dear Ms. Wrotenbery:

Attached for your approval is the captioned application. This is our first formal application to the NMOCD requesting approval for surface commingling and off-lease measurement at Dugan's Goodtimes Gas Gathering System. Prior to this application, our last expansion was in January 1992 and at that time we were of the understanding that the NMOCD did not consider surface commingling and off-lease measurement to be an issue since all wells and central batteries did have a conventional gas measurement (or NMOCD approved alternative measurement) of produced gas prior to leaving the wellsite and/or lease. Each well and/or central battery continues to have conventional (or NMOCD approved alternative measurement) gas measurement prior to the gas leaving the wellsite and/or central battery. Each of these meters serves as an allocation meter for allocating gas sales volumes and revenues plus any drip volumes and revenues from central delivery sales meters and system drip tanks.

We are now requesting your approval for the current application as it is our understanding that NMOCD approval is now necessary, along with that of the State Land Office and the Bureau of Land Management (BLM). The BLM has approved this system initially in 1984 and all prior expansions to date and we have provided the NMOCD with copies of all applications to the BLM for the Goodtimes Gas Gathering System. The Goodtimes Gas Gathering System was initially approved by the Bureau of Land Management in January 1984, and this expansion will be our twelfth expansion.

As presented in our application, the Goodtimes Gas Gathering System is a very large central gas gathering system which was initially constructed in 1984 to gather gas produced from low volume wells which did not qualify for wellhead gas pipeline connections and installing our own gas



gathering system made more sense than venting the gas. The system currently consists of ±377,000 feet of gas gathering lines, has 151 wells connected (105 on Federal, 23 on State and 23 on Navajo Allotted leases) and delivers gas to two central delivery sales meters, one on El Paso Field Services pipeline and one on a pipeline system operated by Elm Ridge Resources. Only produced natural gas plus a small amount of liquid hydrocarbons (drip) that may condense within the system drip traps from time to time are subject to this application. All oil and condensate is separated, stored and sold from each individual wellsite and/or central battery located on the individual leases. During 1997, the average production from all 151 completions was 3.0 bbl of oil or condensate plus 11.1 MCFD of gas of which only 58.3% of the gas produced was actually sold with the balance being used for fuel. By all practical standards, the majority of wells connected to Dugan Production's Goodtimes Gas Gathering System are marginal in producing rates and economics; in fact, 86 wells on State and Federal leases, are currently receiving reduced stripper oil royalty rates.

If the Goodtimes Gas Gathering System had not been constructed, it would have been necessary to vent the gas associated with these wells. Dugan Production has worked very hard to provide a means to facilitate gas sales from typically low rate and marginally economic wells all of which did not qualify for wellhead gas sales. In addition, we have established allocation procedures that ensure a fair and equitable allocation of sales volumes and revenues from the CDP's and drip storage tanks to the individual wells and interest owners. Thus there should be no decrease in value to any interest owner and when compared to the option of venting the produced gas, the Goodtimes Gas Gathering System has actually increased the value of production to all interest owners.

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

Sincerely,

John D. Roe

Engineering Manager

John O Roce

JDR/tmf

cc: NMOCD - Aztec

# Attachment No. 6 Allocation Procedures

### Dugan Production Corp.'s Goodtimes Gas Gathering System

CDP #1 = Elm Ridge Resources - SE SE 22, T24N, R8W CDP #2 = El Paso Field Services - SE NE 12, T24N, R10W San Juan County, New Mexico

#### **Base Data for Gas Allocations:**

W=Gas Volume (MCF) from Well or Battery Allocation Meter

X=Total Gas Volume (MCF) from CDP Sales Meters (CDP1 + CDP2)

Y=Total BTU's from CDP Sales Meters (CDP1 + CDP2)

Y1=BTU's from CDP1 Sales Meter

Y2=BTU's from CDP2 Sales Meter

Z1=Gas Revenue (\$) from CDP1 Sales Meter

Z2=Gas Revenue (\$) from CDP2 Sales Meter

- 1. Individual Well Gas Production = A+B+C+D+E
  - A = Allocated Sales Volume, MCF.
    - $= (W/SUM W) \times X$
  - B = On-lease fuel usage, MCF. Determined from equipment specifications, operating conditions, and days operated.
  - 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 / 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 / Sum W).
- 2. <u>Individual Well Allocated BTU's</u> =( (W x Individual well BTU) / Sum (W x individual well BTU)) x Y.

Individual well gas heating values to be determined in accordance with BLM's On Shore Order No. 5. Computations to be based upon dry BTU @ 14.73 psi.

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3. <u>Individual Well Allocated Gas Revenues</u>: Since CDP1 and CDP2 deliver gas to different purchasers and the gas prices received at each CDP are rarely the same; for royalty purposes, during any given production month, revenue for wells delivering gas to CDP1 or CDP2 will be determined using the gas price in effect at each CDP applied to the allocated BTU's for each well.

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i.e. gas price @ CDP1 = Z1/Y1, $/MMBTU & gas price @ CDP2 = Z2/Y2, $/MMBTU
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Individual Well Allocated Gas Revenue = (Individual well allocated BTU's) X

(gas price @ CDP1 or CDP2 depending upon which purchaser the well is dedicated to)

4. Individual Well Allocated Drip Volumes & Revenues. All liquid hydrocarbon volumes and revenues recovered from system drip traps will be allocated to the individual wells producing gas through the drip trap from which the hydrocarbons were recovered using a factor to be determined by dividing the individual well's theoretical liquids by the total theoretical liquids from all wells producing into the system from which liquids were recovered. The theoretical liquids will be calculated by multiplying the individual well's produced gas volumes by the individual wells gas stream liquids content (GPM) of isobutane and heavier. This allocation is to be made at the time the liquids are removed and will be based upon the most recent annual gas volumes produced from the wells involved and an average GPM during the same period. Using annual gas production rather than actual months of production will simplify this calculation and will not significantly affect the accuracy or validity of this factor.

### **Base Data for Drip Allocations:**

- S = Volume of drip (bbl) removed from system drip storage tank.
- T = Revenue resulting from multiplying the volume of drip by the existing posted oil price in the field at the time of drip removal.
- U = GPM (gallons per MCF) of isobutane and heavier from a current individual well gas analysis.
- V = Most recent calendar year of gas production from the individual well MCF. If a full 12 months is not available, an annual volume will be determined using an average production rate from the data available.

F = Individual Well Allocated Drip Volume, bbl $F = ((V \times U)/Sum (V \times U)) \times S$ 

G = Individual Well Allocated Drip Revenues, \$
G = F x current posted oil price

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COMMERCIAL RESOURCES

SURFACE RESOURCES (505)-827-5795

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July 20, 1998

Dugan Production Corporation P. O. Box 420 Farmington, New Mexico 87499-0420

Attn: Mr. John D. Roe

Request for Surface Commingling, Off-Lease Measurement, Storage, and Sale of Produced

Natural Gas Gathering System Drip Accumulations Dugan Production's Goodtimes Gas Gathering System

State Leases numbers LG-1035, LG-1917, LG-5685, LG-5686, LG-5689, LG-9801, LG-9804.

LH-1896, V-1509 and V-2364 San Juan County, New Mexico

This Ls- is Not on Goodfimes System.

Dear Mr. Roe:

Re:

We are in receipt of your letters of June 22, 1998 and June 23, 1998 requesting our approval to include 23 State wells from the above captioned leases to Dugan's Goodtimes Gas Gathering System. It is our understanding that this is the twelfth expansion to the Goodtimes Gas Gathering System which will now contain a total of 151 Federal, State and Navajo Alloted wells.

Since it appears that all the New Mexico Oil Conservation Division's rules and regulations have been complied with, and there will be no loss of revenue to the State of New Mexico as a result of your proposed operation, your request is hereby approved. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Your \$30.00 dollar filing has been received.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.

COMMISSIONER OF PUBLIC LANDS

JAMI BAILEY, Director

Oil, Gas and Minerals Division

(505) 827-5744

RP/JB/pm

pc: Reader File, OCD-Attention: David Catanach, Ben Stone, BLM-Farmington Attn: Mr. Duane Spencer

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