AMEND PC 936 N/R

dugan production corp.

JAN 23

January 22, 1997

Mr. Bill LeMay, Director
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Re: ***Application for Administrative Approval***
Surface Commingling of Production
Dugan Production Corp's Davis Federal No. 1
Unit L, Section 24, T-26N, R-11W
Federal Lease SF-078937
San Juan County, NM

Dear Mr. LeMay,

We are writing to request administrative approval for the surface commingling of all production from the captioned well which is dually completed in the Gallegos Gallup associated oil and the Basin Dakota gas pools. The Gallup oil & Dakota condensate are currently authorized to be surface commingled by NMOCD Commingling Order PC-936 and we now request your approval to surface commingle the produced gas and water in addition to the liquid hydrocarbons. The 40 acre Gallup spacing unit comprises the NW/4 SW/4 and the 320 acre Dakota spacing unit comprises the S/2 of Section 24. Dugan Production's Federal Lease No. SF-078937 covers the entire S/2 of Section 24 and both spacing units. Dugan Production Corp. has 100% working interest in both completions. All interest in each zone is common.

The Davis Federal No. 1 was completed as a dual well during August 1962, and as of January 1, 1997 has produced 2,059,067 MCF of gas and 9727 bbls of oil from the Gallegos Gallup pool plus 984,821 MCF of gas and 7052 bbls of condensate from the Basin Dakota pool. During the first ten months of 1996, production averaged 67 MCFD + 0.42 BOPD from the Gallup and 50 MCFD + 0.20 bbls condensate/day from the Dakota. A compressor was installed on the Gallup completion 11/5/96 which increased production from the Gallup to 187 MCFD plus 1.2 BOPD during December. We now propose to also utilize this compressor for the Dakota gas which will require the surface commingling of the Gallup and Dakota gas streams. We anticipate that the compressor will provide an increase in the Dakota production similar to that of the Gallup and, thus, the commingled stream will be approximately 400 MCFD. In addition, the oil production has nearly tripled and will be lifted

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more efficiently at the higher gas rates.

All fluids from both zones are compatible and we do not anticipate any problem resulting from the surface commingling of production from the Gallup and Dakota. The gasses are similar in composition and Attachment No. 1 presents our most recent analysis from each zone. As can be seen, the Gallup gas has a specific gravity of 0.721, a GPM of 5.252 and a heating value of 1243 BTU/cf while the Dakota gas has a gravity of 0.711, a GPM of 5.141 and a heating value of 1222 BTU/cf. The value of the commingled gas streams should be equal to the combined value of the individual streams since our gas is sold based upon BTU content and the heating values are very similar. It should be noted that the proposed commingling will allow both gas streams to use the same separator which will eliminate one of the two separators currently being used and, thus, will reduce the fuel requirements by approximately 1.4 MCFD which will then be available for sale. In addition, the compressor fuel necessary for both zones through the same compressor will not change significantly and will be much more efficient than using separate compressors for each zone.

The liquids from the Gallup are light brown in color and are slightly paraffinic with gravities ranging from 50.8° to 56.8° API. The liquids from the Dakota are light straw colored with gravities ranging from 59.2° to 61.6° API. The liquids from each zone are compatible and have been surface commingled since 9/13/96 under NMOCD Commingling Order PC-936. To date, there have been no operational problems and the commingled liquid production is actually less of an operational problem than were the separate streams since the Dakota condensate minimizes the tendency of the paraffinic Gallup to have a higher BS&W content. As for the liquid values, Dugan Production has a contract with Giant Refining for the sale of this production and we are not penalized for the high liquid gravities; thus, the value of the individual streams should always be the same as the value of the commingled stream and if the lower BS&W content of the Gallup oil is taken into account, the commingled production will actually have a higher overall value than the individual streams.

Attachment No. 2 is a portion of our general well location map and, as can be seen, the Davis Federal No. 1 well is the only wellbore located on the S/2 of Section 24, T-26N, R-11W and as previously presented, is dually completed in the Gallegos Gallup and Basin Dakota pools. On Attachment No. 2 we have outlined the boundary of our lease which, in addition to the S/2 of Section 24, also includes the NW/4 of Section 24 and the SW/4 of Section 13. As can be seen, Dugan Production also is the operator of two other wells located on the subject lease, the Platero Navajo No. 1 well (E-24-26N-11W) and the Platero Navajo No. 2 well (M-13-26N-11W), both of which are completed in and produce from the Basin Dakota pool. Both of these wells have their own production facilities and neither well will be affected by the proposed surface commingling on the Davis Federal No. 1 well.

Attachment No. 3 is a schematic diagram of the proposed installation which reflects manifolding the Gallup and Dakota flowlines together so that the commingled streams will flow through the same separator. The separator and meter run currently serving the Dakota will be removed from service and all gas sales will be through the meter currently for the Gallup.

We propose that the commingled production be allocated between the Gallup and Dakota pools based upon factors determined annually during the required GOR test of the Gallup completion (and

reported on NMOCD form C-116). Monthly production attributable to each zone will be calculated by applying a percentage factor to the commingled production. The percentage allocation factors will be determined by testing the Gallup to arrive at a percentage of the total volume that is from the Gallup with the remaining percentage being from the Dakota. The Dakota completion will be shut-in during the Gallup test. Once these factors are determined, they will apply until the next annual test is taken and new factors determined. This procedure has been approved for the surface commingling of the hydrocarbon liquids and should also apply to the gas and water production.

Since the subject lease is federal acreage, we have reviewed our proposal with the Farmington District Office of the Bureau of Land Management (BLM) and do plan to provide them with a copy of this application; however, since only one federal lease is involved and all interest (working and royalty) is common, there is no required approval from the BLM.

In summary, we request administrative approval to surface commingle production from the Gallegos Gallup and Basin Dakota pools in Dugan Production's Davis Federal No. 1 well. The liquid hydrocarbon production is currently surface commingled under NMOCD Order PC-936. All interest is common and the commingled streams should have a value equal to or greater than the value of the individual streams.

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

Sincerely,

John D. Roe

John D. Roe
Manager of Engineering

JDR/cg

attachs.

cc: NMOCD, Aztec
BLM, Farmington District Office

EL PASO NATURAL GAS COMPANY
VOLUME ACCOUNTING DEPARTMENT
MEASUREMENT DIVISION
POST OFFICE BOX 1492
EL PASO, TEXAS 79978
PHONE:(915) 541-2595

DATE 8/09/96

CHROMATOGRAPHIC GAS ANALYSIS REPORT

Attachment No. 1 Pg 1 of 2

MAILEE
26730 DUGAN PRODUCTION CORPORATION
P O BOX 420
FARMINGTON, NM 87499-0420

METER NUMBER 73550 - DAVIS FEDERAL #1 GL (Gallup)
OPERATOR 1862 - DUGAN PRODUCTION CORP

ANALYSIS DATE	3/20/96	TYPE CODE	2 - ACTUAL
SAMPLE DATE	3/19/96	H2S GRAINS	0
EFFECTIVE DATE	7/01/96	LOCATION	D - DANIELS FM
EFFECTIVE FOR	6 MONTHS		

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.89	.000
H2S	.00	.000
N2	.55	.000
METHANE	80.02	.000
ETHANE	10.07	2.694
PROPANE	5.26	1.450
ISO-BUTANE	.68	.222
NORM-BUTANE	1.38	.435
ISO-PENTANE	.38	.139
NORM-PENTANE	.33	.120
HEXANE PLUS	.44	.192
	100.00	5.252

SPECIFIC GRAVITY .721

MIXTURE HEATING VALUE
(BTU @ 14.73 DRY) 1243

RATIO OF SPECIFIC HEATS .000

NO TEST SECURED FOR H2S CONTENT

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CHROMATOGRAPHIC GAS ANALYSIS REPORT

Attachment No. 1 Pg 2 of 2

MAILEE
26730 DUGAN PRODUCTION CORPORATION
P O BOX 420
FARMINGTON, NM 87499-0420

METER NUMBER 73460 - DAVIS FEDERAL #1 DK (Dakota)
OPERATOR 1862 - DUGAN PRODUCTION CORP

ANALYSIS DATE	3/20/96	TYPE CODE	2 - ACTUAL
SAMPLE DATE	3/19/96	H2S GRAINS	0
EFFECTIVE DATE	7/01/96	LOCATION	D - DANIELS FM
EFFECTIVE FOR	6 MONTHS		

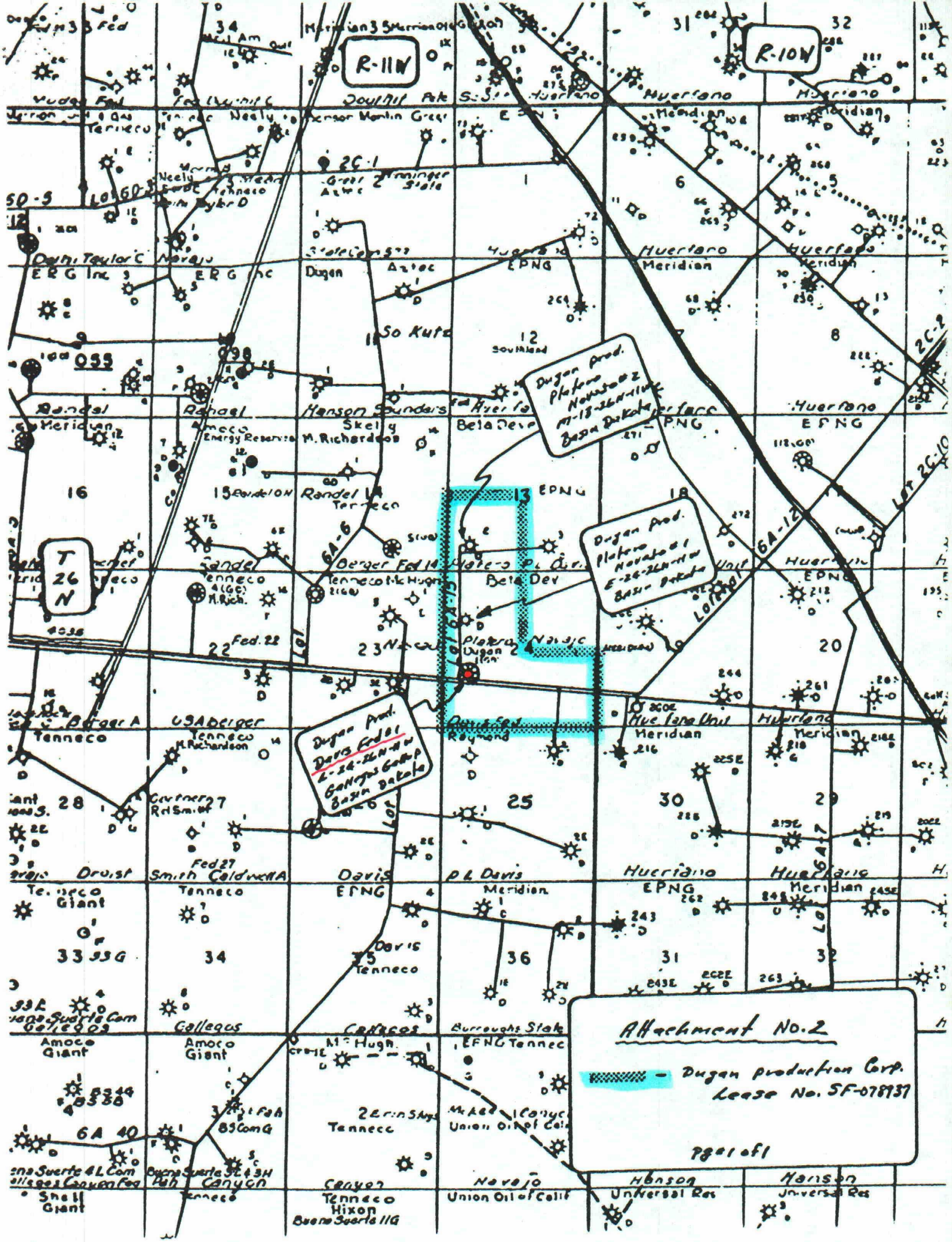
COMPONENTS	NORMALIZED MOL %	GPM
CO2	.72	.000
H2S	.00	.000
N2	1.07	.000
METHANE	79.95	.000
ETHANE	11.02	2.948
PROPANE	4.61	1.271
ISO-BUTANE	.62	.203
NORM-BUTANE	1.06	.334
ISO-PENTANE	.25	.092
NORM-PENTANE	.17	.062
HEXANE PLUS	.53	.231
	100.00	5.141

SPECIFIC GRAVITY .711

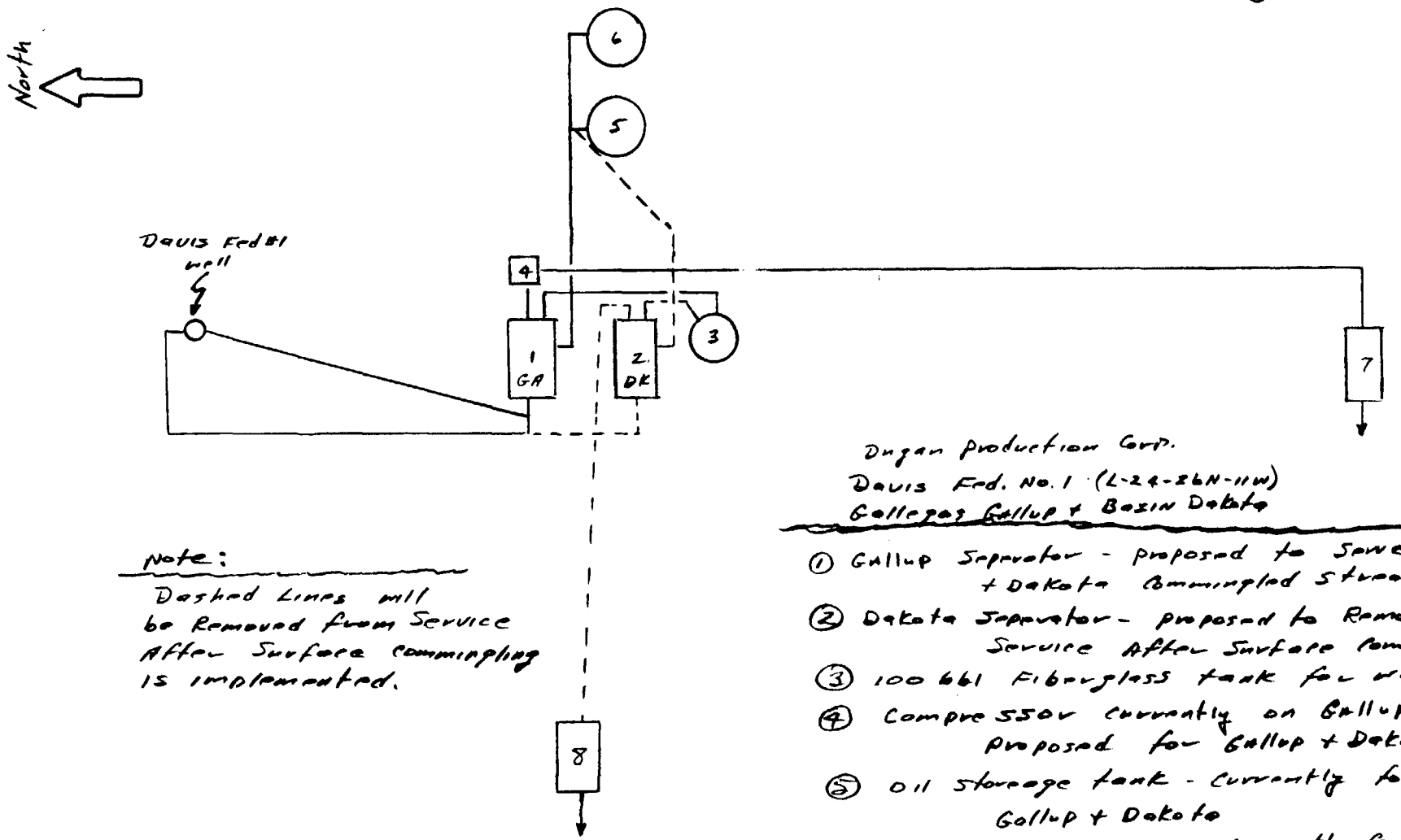
MIXTURE HEATING VALUE
(BTU @ 14.73 DRY) 1222

RATIO OF SPECIFIC HEATS .000

NO TEST SECURED FOR H2S CONTENT


R-11W
R-10W
T 26 N
Dugan Prod. Plateau Navajo 2 M-18-26N-11W Basin Dakota
Dugan Prod. Plateau Navajo 1 E-24-26N-11W Basin Dakota
Dugan Prod. Davis Fed 1 L-24-26N-11W Gallup Gas Basin Dakota
Attachment No. 2
Dugan production Corp. Lease No. SF-078937
Page 1 of 1

Attachment No. 3 PG 1 of 1



Dugan Production Corp.
Davis Fed. No. 1 (L-24-26N-11W)
Gallegos Gallup + Basin Dakota

Note:
Dashed Lines will be Removed from Service After Surface Commingling is implemented.

(1) Gallup Separator - proposed to serve Gallup + Dakota Commingled Stream
(2) Dakota Separator - proposed to Remove from Service After Surface Commingling
(3) 100 bbl Fiberglass tank for water prod.
(4) Compre 550 currently on Gallup GAS - proposed for Gallup + Dakota Commingled
(5) Oil Storage tank - Currently for commingled Gallup + Dakota
(6) Oil Storage tank - Currently for commingled Gallup + Dakota.
(7) Gallup Gas Sales meter - proposed to serve as Sales meter for Commingled GAS + DK
(8) Dakota Gas Sales meter - proposed to remove from Service After Commingling.

dp

dugan production corp.

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• FAX# (505) 327-4613

FAX TRANSMITTAL

DATE: 1-21-97 TIME: _____

TO: Ben Stone

COMPANY: NMOCD - Santa Fe

DEPARTMENT: _____

FAX NO. 505-827-8177 TELEPHONE NO. _____

You should receive 2 pages including this cover sheet. If you did not receive all pages or are unable to read any pages, please contact:

FROM: John Roe TELEPHONE NO. (505) 325 - 1821

Ben - The well we are considering is Dugan's Davis Fed #1 on Federal Lse #SF-078937 & located in unit L; of Sect. 24, T-26N, R-11W. This well is dually completed in the:

Gallegos Gallup Assoc. oil pool - Spacing unit = 40A NWSW

Basin Dakota Gas - Spacing unit = S/2 - 320A.

Dugan prod. Has 100% WI & All interest in both zones is common.

Surface commingling of oil/condensate is Authorized by NMOCD commingling order PC-936 (7-15-96).

We have installed a compressor on the Gallup gas & propose to add the Dakota gas which will require surface commingling of the gas Also. - The Sales meter belongs to EPFS & will