



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE April 28, 1982

RE: Proposed MC _____
Proposed DHC x _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

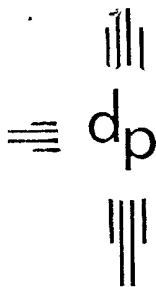
I have examined the application dated April 21, 1982
for the Ongun Prod. Corp. MF# 3 I-14-24N-10W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve _____

Yours truly,

Ernest J. Chang

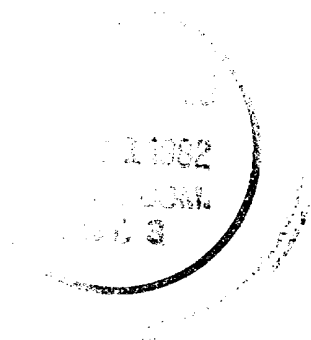


dugan production corp.

April 7, 1982

Joe D. Ramey
New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, NM 87501

Re: Application for Downhole Commingling
MF #3 Well
Basin Dakota Pool and Undesignated Gallup Pool
T-24-N, R-10-W, NMPM
Sec. 14: NE/4 SE/4
San Juan County, New Mexico



Dear Mr. Ramey:

Enclosed please find duplicate copies of the above referenced Application for Downhole Commingling which we would like to have administratively approved under Rule 303-C.

The criteria for commingling under Rule 303-C would require the well to be completed dually and each zone tested separately. However, we feel that we can forego this requirement on the grounds that data collected from nearby wells imply that the criteria will be met by the subject well. This would save the costs of a dual completion, the additional separator and meter, and the pump which would be required. Our experience in the area indicates that the production from both the Basin Dakota and the Undesignated Gallup formations in this well would be marginal. Gas chromatograph analyses of the Sixteen G's #1 Well, (Unit letter E, Sec. 7, T24N, R9W)(Undesignated Gallup formation) and the MF #1 Well, (Unit letter L, Sec. 18, T24N, R9W)(Basin Dakota formation) indicate that these flow streams will be miscible.

Also, our successful commingling of these zones in nearby wellbores shows that the liquid flowstreams are compatible and mutually non-damaging to their counterpart zones. This experience also serves to show that, in this area, there is not enough pressure disparity at the flowing conditions to create a crossflow problem. The commingling of the zones further will facilitate the production of the Undesignated Gallup zone by the device of gas lift. The mixture of the Dakota gas and Gallup effluent will be lighter than the Gallup fluids alone. This will allow production from the Gallup without the need for a pump, lower operating costs, extend the production until abandonment and prevent waste.

New Mexico Oil Conservation Commission
March 31, 1982
Page Two

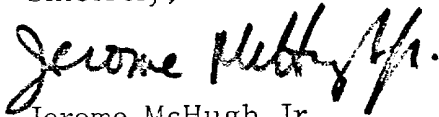
In this case, the price for which the production will be sold is not the same for the two zones. The Basin Dakota formation has been designated a Tight Gas Sand in this area, and the price for the Dakota gas will be twice that of the Gallup gas. By the use of an appropriate allocation formula, we can be sure that the value of the commingled production will not be less than the sum of the values of the individual streams.

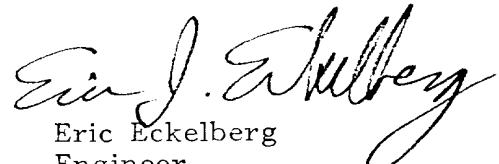
There is a common ownership of the two zones, and the distribution of royalties is the same for both zones. For this reason, there is no danger to correlative rights which would arise from the commingling of the zones in this wellbore.

We have notified all off-set operators and/or lessees of surrounding federal leases of the proposed downhole commingling application.

We trust that all is in order for this application. If there are any questions concerning this matter, please feel free to contact either of us.

Sincerely,


Jerome McHugh Jr.
Landman


Eric Eckelberg
Engineer

JM/EE:nw

cc: Frank Chavez
New Mexico Oil Conservation Commission
1000 Rio Brazos Rd.
Aztec, NM 87410

10	Indian w/drawl Application-- not open for leasing	11 Tenneco Oil Company	12 Chevron USA $\frac{3}{8}$ Energy Reserves Group $\frac{5}{8}$ H.B. P.
	Unleased Fed.	NM 16763	SF 078301
	Tenneco Oil Company	Dugan Production	Supron
		NO. 4 MF *	
15		14 Dugan Production	NM 45210-1.3 Dugan
		NO. 3 MF *	
	NM 25841	NM 16760	NM 16760
	Dugan 0	R.K. Cramer	Unleased Federal EXPIRED
22	NM 15654	NM 30019	NM 03245
		23	24

Offset Operators

Section 13: NW/4 Suprun Energy Corp.
SW/4 Dugan Production Corp.

Section 14: N/2 Dugan Production Corp.

Section 15: E/2 Tenneco Oil Co.

Section 22: NE/4 Dugan Production Corp.

Section 23: N/2 R.K. Cramer

Section 24: NW/4 Unleased Federal - Expired



RULE 303-C (§ 2e and § 2i)

The following information shows a segment of the decline curves from the MF #1 Well, Unit letter L, Sec. 18, T24N, R9W, a Dakota producer, and the Sixteen G's #1 Well, Unit letter E, Sec. 7, T24N, R9W, an Undesignated Gallup producer. This will serve as a prognostication of future production from these zones in this area, and as an example of their relative productions, for use in arriving at an allocation formula.

For eight months, from June, 1981 until January, 1982, both the Sixteen G's and the MF #1 Wells were producing. For this period the average contribution of the Gallup well to the total production of both wells was 85.66% of the oil and 12.47% of the gas.

Two other wells in the same area are producing the commingled fluids from these zones. The July Jubilee #1 Well, Unit letter G, Sec. 30, T24N, R9W, has the gas allocated 90% to the Dakota and 10% to the Gallup, while the oil is allocated 10% to the Dakota and 90% to the Gallup. The Merry May #1 Well, Unit letter I, Sec. 24, T24N, R10W, has the gas allocated 85% to the Dakota and 15% to the Gallup. The oil from this well is allocated 15% to the Dakota and 85% to the Gallup.

Using this data as a guideline, we feel it would be appropriate to allocate the gas production from the July Jubilee #2 Well 85% to the Dakota and 15% to the Gallup. Since the oil is all valued the same, its allocation here is not critical, and the allocation of 15% of the oil to the Dakota and 85% to the Gallup should be acceptable.

11/13/81

EL PASO NATURAL GAS COMPANY
MEASUREMENT DEPARTMENT
POST OFFICE BOX 1492
EL PASO, TEXAS 79999

CHROMATOGRAPHIC GAS ANALYSIS REPORTS

DUGAN PRODUCTION CORP.
P.O. BOX 208
FARMINGTON, NM 87401

ANAL DATE 11 11 81

METER STATION NAME
GOOD TIMES METER SITEMETER STA 93757
OPER 1862

TYPE CODE	SAMPLE DATE	EFF. DATE	USE NOS.	SCALE	H2S GRAINS	LOCATI
CO	11 10 81	11 13 81	06			4 F

	NORMAL MOL%	GPM
C O 2	.58	.000
H 2 S	.60	.000
N2	.73	.000
METHANE	87.10	.000
ETHANE	6.56	1.753
PROPANE	2.62	.721
ISO-BUTANE	.57	.186
NORM-BUTANE	.72	.227
ISO-PENTANE	.36	.132
NORM-PENTANE	.28	.101
HEXANE PLUS	.48	.210

TOTALS

100.00

3.330

SPECIFIC GRAVITY

.665

MIXTURE HEATING VALUE
(BTU/CF AT 14.73 PSIA, 60 DEGREES, DRY) 1,159

RATIO OF SPECIFIC HEATS

1.291

NO TEST SECURED FOR H2S CONTENT

11/13/81

EL PASO NATURAL GAS COMPANY
 MEASUREMENT DEPARTMENT
 POST OFFICE BOX 1492
 EL PASO, TEXAS 79999

CHROMATOGRAPHIC GAS ANALYSIS REPORTS

DUCAN PRODUCTION CORP.
 P.O. BOX 208
 FARMINGTON, NM 87401

ANAL DATE 11 11 81

METER STATION NAME
 SIXTEEN G'S #1

METER STA 89825
 OPER 1862

TYPE CODE	SAMPLE DATE	EFF. DATE	USE MOS.	SCALE	H2S GRAINS	LOCATI
00	11 10 81	11 13 81	03			4 F

	NORMAL MOL%	GPM
C O 2	.82	.000
H 2 S	.00	.000
N2	.91	.000
METHANE	65.93	.000
ETHANE	13.47	3.601
PROPANE	11.02	3.032
ISO-BUTANE	1.38	.451
NORM-BUTANE	3.66	1.153
ISO-PENTANE	.66	.315
NORM-PENTANE	.93	.337
HEXANE PLUS	1.02	.446

TOTALS

100.00

9.335

SPECIFIC GRAVITY

.877

MIXTURE HEATING VALUE

(BTU/CF AT 14.73 PSIA, 60 DEGREES, DRY) 1,479

RATIO OF SPECIFIC HEATS

1.257

NO TEST SECURED FOR H2S CONTENT

GAS-OIL RATIO TESTS

Dugan Production Corp.		Pool		Bisti Lower Gallup		County		San Juan						
Box 234, Farmington, NM 87401		TYPE OF TEST - (X)		Scheduled ☒		Completion ☐		Special ☐						
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - O RATIO CU.FT/B	
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.
Sixteen G's	1	E	7	24N	9W	12-28-77	P	8	24	1/2	37.5	10	35	3,500

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

...the amount of oil produced on the official test.

No well will be assigned an allowable greater than the amount of oil produced on the offset test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned a top unit allowable when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

0.60;

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 101 and appropriate pool rules.

Ed. Crane
(Signature)

Production Superintendent

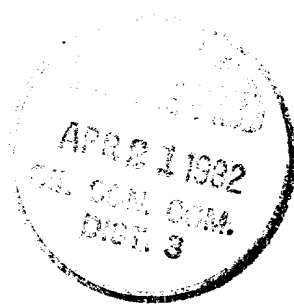
(viii)

December 30, 1977

(Date)

2 - NMOC, Aztec
1 - So Un. Expl. of TX
1 - File

Operator		County		Completion		Special							
DUGAN PRODUCTION CORP.		San Juan		Completion ☒		Special ☐							
Address		TYPE OF TEST - (X)		Scheduled ☐									
P O Box 208, Farmington, NM 87401		Pool Downhole Commingled Basin Dakota & Undesignated Gallup											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS RA CU.F.
		U	S	T	R					WATER BBL'S.	GRAV. OIL	OIL BBL'S.	GAS M.C.F.
July Jubilee	#1	G	30	24N	9W	9-24-81	--	55	24	25*	39	114	493
*Frac water													
<i>X Date of 1st new oil to tank 8-27-81</i>													



I hereby certify that the above is true and complete to the best of ledge and belief.

Thomas A. Dugan
Thomas A. Dugan, Signing
Petroleum Engineer
(Title)
10-12-81

No well will be assigned an allowable greater than the amount of oil produced on the official test.
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.
Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.
Report casing pressure in lieu of tubing pressure for any well producing through casing.
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.