

CASE 7376: DUGAN PRODUCTION CORPORATION
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO

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Case No.

7376

Application

Transcripts.

Small Exhibits

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
19 November 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production Cor-
poration for downhole commingling,
San Juan County, New Mexico.

CASE
7376

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

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MR. STAMETS: Case 7376.

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MR. PEARCE: Application of Dugan Pro-
duction Corporation for downhole commingling, San Juan County,
New Mexico.

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MR. STAMETS: Any further testimony?

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This case will be taken under advisement.

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(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion Division was reported by me; that the said transcript
is a full, true, and correct record of the hearing presented
by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete and correct transcript of the proceedings in
the hearing of Case No. 7376
heard by me on 11-19 1987.
Richard R. Stern, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

-2-

Case No. 7376

Order No. R-6825

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That the supervisor of the Division's district office at Aztec should be furnished with appropriate completion data on each zone in order to determine whether the zones should be separated by use of a check valve.

(10) That in order to allocate the commingled production to each of the commingled zones in the well, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Dugan Production Corporation, is hereby authorized to commingle Basin-Dakota and Bisti-Lower Gallup production within the wellbore of the Big 8 Well No. 1-E, to be drilled in Unit O of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

PROVIDED HOWEVER:

(1) That the applicant shall furnish the supervisor of the Division's district office at Aztec with all completion information on each of the commingled zones including pressures and production of gas, oil and water.

(2) That said district supervisor may require the installation of a check valve downhole in said Big 8 Well No. 1-E if the same appears necessary to protect either zone from excessive pressure differential or damaging crossflow.

(3) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(4) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
21 October 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production
Corporation for downhole Commingling,
San Juan County, New Mexico.

CASE
7376

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Tommy Roberts, Esq.
Dugan Production Corporation
Farmington, New Mexico

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I N D E X

THOMAS A. DUGAN

Direct Examination by Mr. Roberts	3
Cross Examination by Mr. Stamets	8
Questions by Mr. Chavez	11

E X H I B I T S

Applicant Exhibit One, Plat	3
Applicant Exhibit Two, Map	4
Applicant Exhibit Three, Cross Section	5
Applicant Exhibit Four, Curve	6
Applicant Exhibit Five, Curve	6

MR. STAMETS: We will call Case 7376.

MR. PEARCE: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico.

MR. STAMETS: The record will please show the same appearances and qualifications.

THOMAS A. DUGAN

being called as a witness and being previously sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. ROBERTS:

Q Mr. Dugan, are you familiar with the application?

A Yes, sir.

Q And would you explain its purpose?

A This is to secure permission to commingle the Dakota and Gallup zones in a proposed Big Eight 1-E Well that has not been drilled.

Q Refer to Exhibit Number One and identify that exhibit, please.

A It shows the proposed location in red and the proration unit outlined in the south half of Section 8,

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and it also shows the offset operators.

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Q

And the proration unit outlined is the

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Dakota formation unit?

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A

Yes.

6

Q

And the Gallup proration unit would not

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be the same in that --

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A

No.

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Q

-- area, would it?

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A

No, it would be 80% area, which would

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be the south half of the southeast quarter of Section 8.

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Q

Please refer to Exhibit Number Two and

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explain the significance of that exhibit to this application.

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This is a map showing wells in the vic-

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nity of the proposed well in the south half of Section 8. The

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black dots indicate plugged and abandoned wells. The blue

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dots indicate producing Dakota wells. The orange dots indi-

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cate producing Gallup wells. And the pink indicates wells

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that have approval to commingle in the Gallup and Dakota forma-

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tions.

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It was attempted to show here that we're

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drilling in an area, the abandoned South Bisti Unit, where

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most of the Gallup wells have been abandoned and also a step-

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out of the Dakota producing horizon.

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I'd also like to point out the White Wash

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Mancos Dakota Pool, where we have previously secured approval to commingle in the wellbore these horizons.

Q Would you refer to Exhibit Number Three and identify that exhibit?

A. This is a cross section of some of the wells in the vicinity of the proposed Big Eight 1-E Well. It shows that there are three wells that we have approval to commingle and are currently producing. Well, we're currently producing the two in the middle, the Merry May 1 and the June Joy 2; the Big Eight Well No. 1, which is the well on the left, the Dakota is temporarily abandoned at this point and it is producing from the Gallup formation. Also, the Greenhorn formation is open in the wellbore but I feel very little if any, oil is coming from this horizon.

So the principal production from the Big Eight No. 1 Well is the Gallup horizon, which is colored in red.

We also wanted to point out with this exhibit that we're dealing with a thin Dakota horizon and a -- the Gallup horizon is a depleted oil pool, so it's kind of a marginal type operation.

Q Okay.

A. Unfortunately.

Q Anything else to add from this exhibit?

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A. I don't believe so.

Q Now would you refer to Exhibits Four and Five and identify those exhibits?

A. Okay. This is the decline curve on the Dakota horizon and the Gallup horizon in the Big Eight No. 1 Well.

Q What conclusions can you draw from the information contained in these decline curves?

A. Well, that the Gallup horizon is producing a small amount of oil and gas and the Dakota horizon has been temporarily abandoned.

Q From an economical standpoint is it your opinion that it is necessary to commingle production in the wellbore of the Big Eight No. 1-E Well?

A. Yes.

Q Is the ownership of the zones common?

A. Yes.

Q Do you propose a formula for allocation of production to the respective zones?

A. Yes. I'd propose that 90 percent of the oil and 10 percent of the gas be allocated to the Gallup horizon and that 90 percent of the gas and 10 percent of the oil be allocated to the Dakota horizon.

Q Okay.

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MR. STAMETS: That was 90 percent of the oil and 10 percent of the gas to the Gallup?

A. Yes, sir.

MR. STAMETS: Okay, thank you.

Q What would be the basis for that allocation?

A. The history of other wells in the area.

Q Okay. Mr. Dugan, how would you propose to achieve the commingling of production in the wellbore of this well?

A. I would just complete both horizons and commingle with one string of tubing and no packer.

Q Mr. Dugan, were Exhibits One through Five prepared by you or under your supervision?

A. Yes.

MR. ROBERTS: We'd move for the admission of Exhibits One through Five into the record.

MR. STAMETS: These exhibits will be admitted.

Q In your professional opinion will the commingling of production result in recovery of additional hydrocarbons, prevention of waste, and protection of correlative rights?

A. Yes.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Dugan, I believe you've said that the yellow coloring on Exhibit Number Two indicated wells which are already downhole commingled between the Gallup and Dakota?

A NO, this color, which is the color that the White Wash Mancos Dakota Pool is in, and then there is one well in Section 8 of 24, 9, that's the Big Eight No. 1, and the June Joy 1, and the -- the June Joy 2 and the Merry May 1, down in 24 and 25 of Township 24 North, Range 10 West.

Q Do you have any information relative to pressures on these two zones?

A I have a pretty good idea of what they'll be. Assuming we make a Dakota well, the shut-in pressures have been in the neighborhood of 16-to-1700.

Q And what would be the -- looking at the Gallup?

A And the Gallup bottom hole pressure would be, in this area, in the neighborhood of 7-or-800. It's -- quite a difference, where we're drilling in the abandoned Bisti Gallup Pool. It's not -- I don't feel it's the same as you get further away from the pool where the Gallup has a

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2 higher shut-in pressure, or a higher bottom hole pressure,
3 but in the area where it has been partially drained, the
4 Gallup pressures are relatively low.

5 Q If this well were shut-in for any reason
6 and the higher pressure Dakota gas did infiltrate the Gallup
7 formation, would there be any -- could waste occur?

8 A If it was shut-in for an extended period
9 of time I'd say yes, but a relatively short period of time
10 I'd say that you would recover that -- any gas that had gone
11 into the Gallup, you could recover it back.

12 Q If it were shut-in for a long period of
13 time what would be the nature of the waste?

14 A It would -- there might be a certain
15 amount of gas that would migrate into the Gallup and you would
16 be unable to recover.

17 Of course, that's all assuming that we
18 make a Dakota well here, and I think we have a pretty good
19 chance of making a Dakota well.

20 Q What's been your experience with the Big
21 Eight No. 1 over there on the west side, or over in Section 8?
22 You have downhole commingled that well.

23 A Yes. Well, what we did was we produced
24 the Dakota by itself for a period of time and then at a later
25 date completed the Gallup. We had trouble with the Dakota

1 making water.

3 I feel that part of that water is
4 coming out of the upper Dakota perforations and the bulk of
5 the gas and the oil that we produced was coming from the hori-
6 zone 6353 to 6369.

7 So right now it's temporarily abandoned.

8 Q Would you plan this well to attempt a
9 Gallup or a Dakota completion initially to evaluate its pres-
10 sures and productivity before attempting the Gallup completion?

11 A. Yes.

12 Q How quickly do the pressures in the
13 Dakota drop when you put a well on production?

14 A. We've only -- the wells that we have in
15 this area have only been on a matter of two or three months
16 and I don't know at this point. The wells that we have pro-
17 ducing are -- one of them is, in fact, quite a good well, and
18 then the others are producing in the neighborhood of 100 Mcf
19 per day.

20 The well there in Section 18 is producing
21 about a half a million a day.

22 Q Would you have any objection to working
23 with our District Office to Aztec to assure the Division that
24 we don't have a pressure disparity problem in this well prior
25 to downhole commingling?

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A. Yes, I'd be more than happy to work with

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Frank.

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Q. Okay.

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MR. STAMETS: Any other questions of this

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witness?

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QUESTIONS BY MR. CHAVEZ:

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Q. Just one. Mr. Dugan, would you be averse

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to installing some kind of a check float, manual, in the

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tubing string of this well, whereby the Dakota formation would

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not go into the Gallup and perhaps this could be removed at

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some later date upon administrative application showing the

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pressures had become similar?

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A. Yeah, we'd also have to set a packer to

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do that, so --

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MR. STAMETS: What would you set in this

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well to see that the lower zone higher pressure didn't flow

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into the shallower zone lower pressure?

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A. I think you can have a check valve type

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sliding sleeve that would accomplish that.

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I probably wouldn't object if the Dakota

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was very good.

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MR. CHAVEZ: I have no more questions.

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MR. STAMETS: Okay. Any other questions

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of this witness? He may be excused.

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Anything further in this case?

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This case, then, will be continued to

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the November 19th Examiner Hearing.

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(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9376, heard by me on 10-21 19 81.

Richard L. [Signature], Examiner
Oil Conservation Division

OFFSET OPERATORS AND LEASES
T-24-N. R-9-W

Sec. 7: NE/4

Dugan Production Corp.
USA NM 25433

Sec. 7: SE/4
Dugan Production Corp.
USA NM 45207

Sec. 8: N/2
Dugan Production Corp.
USA NM 25440

Sec. 9: W/2
Dugan Production Corp.
USA NM 10089

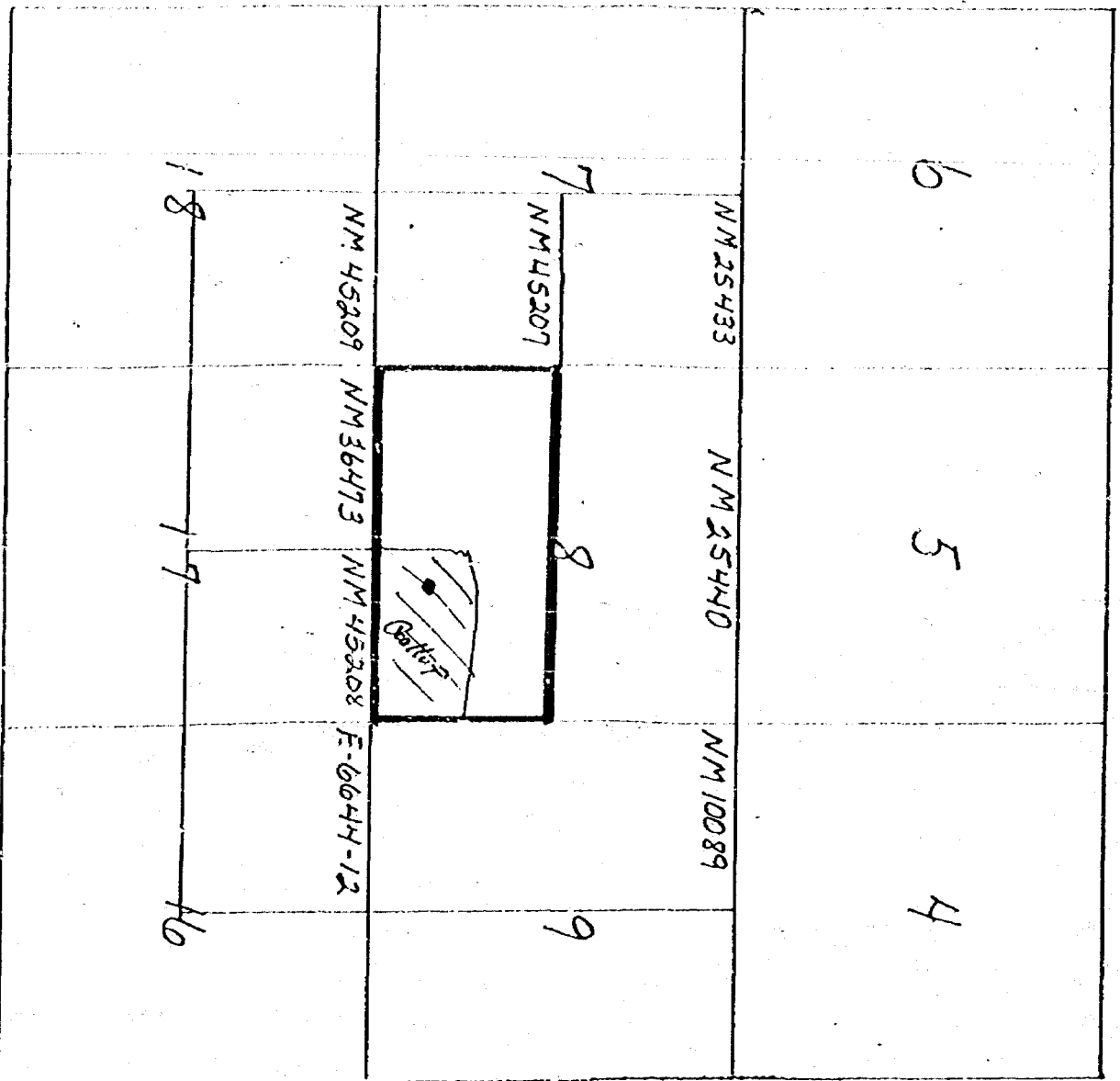
Sec. 16: NW/4
Amoco Production Co.
State of NM E-6644-12

Sec. 17: NE/4
Dugan Production Corp.
USA NM 45208

Sec. 17: NW/4
Cotton Petroleum Corp.
USA NM 36473

Sec. 18: NE/4
Supron Energy Corporation
USA NM 45209

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DUGAN PRODUCTION CORP.
Big Eight #1-E Well
USA NM 25440
SE/4 Sec. 8, T-24-N, R-9-W

Application for Downhole Commingling
Dugan Production Corp.
Big Eight #1-E Well
Unit O, Sec. 8, T-24-N, R-9-W
San Juan County, New Mexico
Case No. 7376
Exhibit No. 1

Application for Downhole Commingling
Dugan Production Corp.
Big Eight #1-E
Unit O, Sec. 8, T-24-N, R-9-W
San Juan County, New Mexico
Case No. 2396
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Exhibit No. 2

T 25 N

White Wash Mancos-Dakota Pool

POOL #1-E

T 24 N

Plugged and Abandoned
Dakota
Gallup
Comingled Production

R-9-W

R-9-W

R-8-W

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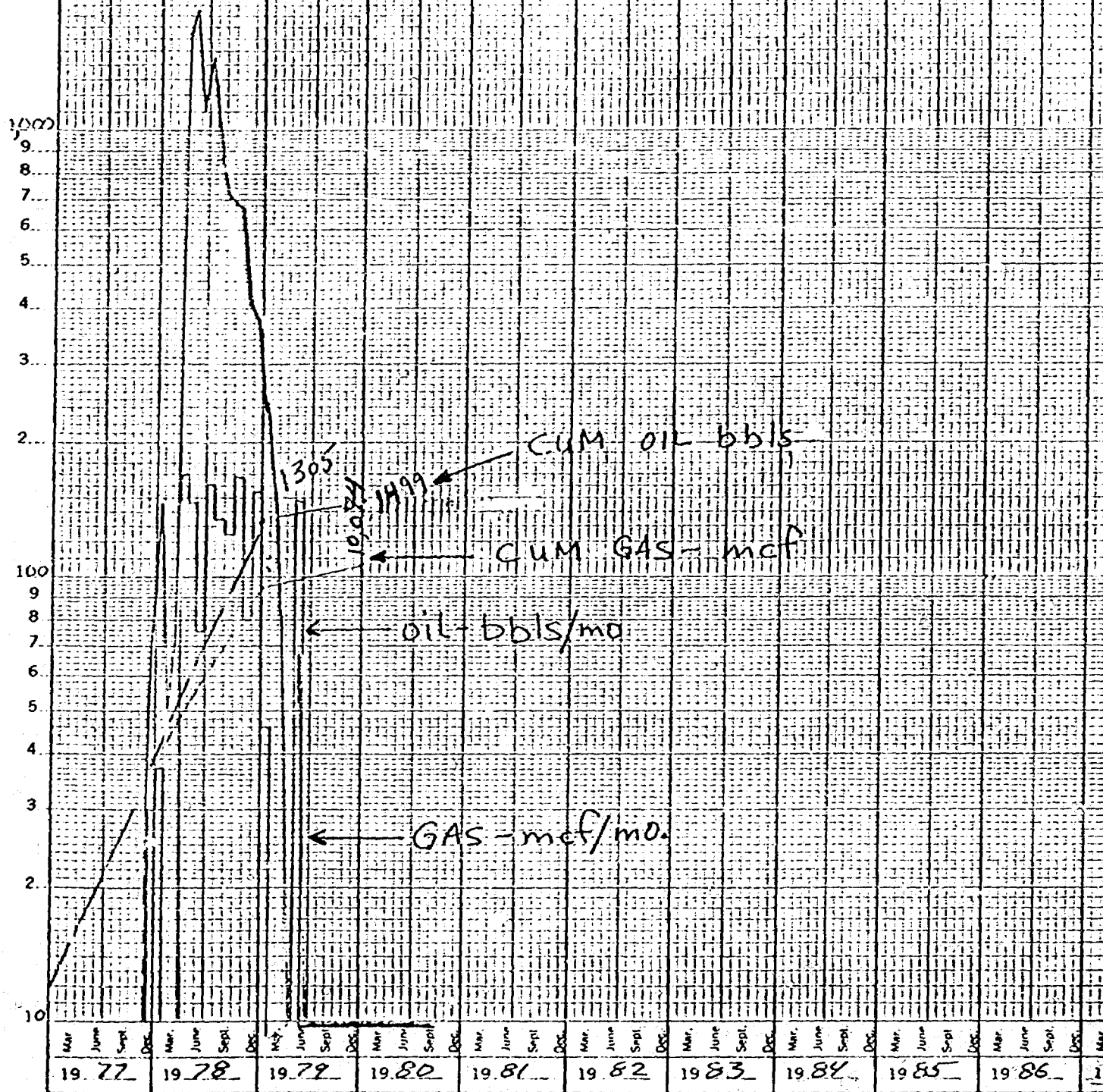
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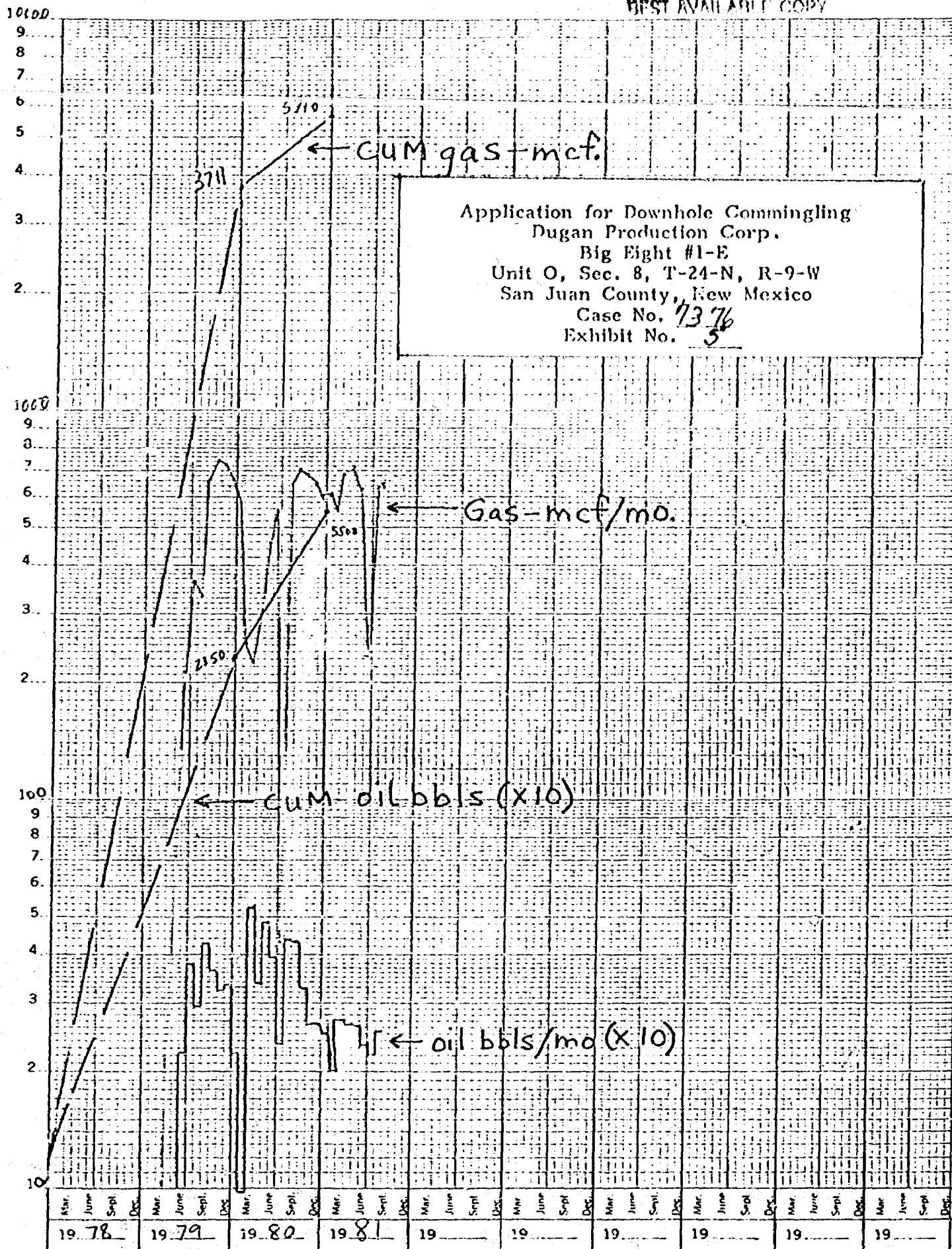
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Application for Downhole Commingling
Dugan Production Corp.
Big Eight #1-E
Unit O, Sec. 8, T-24-N, R-9-W
San Juan County, New Mexico
Case No. 7376
Exhibit No. 4



4, 6840

K&E
KEUFFEL & ESSER CO. MADE IN U.S.A.
6770A7 FINI F X BUSHBROOK AVE BUFFALO NY



Big Eight #1
Lower Bisti Gallup

Docket No. 33-81 are tentatively set for October 21 and November 4, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - OCTOBER 14, 1981

9 A.M. - OIL CONSERVATION COMMISSION - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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(The following cases are continued from the October 14, 1981, Commission hearing to October 16, 1981.)
CASE 7345: (Continued and Readvertised)

Application of Bass Enterprises Production Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres, Bone Springs and Pennsylvanian formations, Lovington Field, underlying the N/2 NE/4 of Section 17, Township 16 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7323: (DE NOVO)

Application of Clements Energy, Inc., for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 of Section 32, Township 15 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Upon application of Southland Royalty Company, this case will be heard DE NOVO pursuant to the provisions of Rule 1220.

Docket No. 34-81

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 21, 1981

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for November, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for November, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7373: Application of J. C. Williamson for Amendment of Division Order No. R-6738, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the Amendment of Division Order No. R-6738, which approved an unorthodox location for a well 1560 feet from the North line and 1830 feet from the West line of Section 10, Township 23 South, Range 34 East. Applicant seeks the Amendment of said order to reflect the corrected location of said well at a point 1580 feet from the North line and 2614 feet from the West line of said Section 10.

CASE 7374: Application of Dugan Production Corporation for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Farmington formation well located 330 feet from the South line and 990 feet from the East line of Section 9, Township 28 North, Range 11 West, the E/2 of said Section 9 to be dedicated to the well.

- CASE 7375: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Angel Peak Gallup-Basin Dakota production in the wellbore of its McAdams Well No. 2 located in Unit P of Section 34, Township 27 North, Range 10 West.
- CASE 7376: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and Bisti-Lower Gallup production in the wellbore of its Big 8 Well No. 1-E, located in Unit O of Section 8, Township 24 North, Range 9 West.
- CASE 7377: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its July Jubilee Well No. 1 located in Unit G of Section 30, Township 24 North, Range 9 West.
- CASE 7378: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Wildhorse-Gallup and Basin-Dakota production in the wellbore of his Apache E Well No. 1, located in Unit A of Section 18, Township 26 North, Range 3 West.
- CASE 7356: (Continued from September 23, 1981, Examiner Hearing)
- Application of S & I Oil Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the W/2 SW/4 of Section 12, Township 29 North, Range 15 West, Cha Cha-Gallup Oil Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7379: Application of JEM Resources, Inc., for vertical pool extension and special GOR limit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the vertical extension of the Cave-Grayburg Pool to include the San Andres formation, and the establishment of a special gas-oil ratio limit for said pool to 6000 to one or, in the alternative, the abolishment of the gas-oil ratio limit in said pool, all to be effective October 1, 1981.
- CASE 7380: Application of Bird Oil Corporation for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Entrada location of a well to be drilled 2310 feet from the North line and 1325 feet from the East line of Section 10, Township 22 North, Range 9 West, the SW/4 NE/4 of said Section 10 to be dedicated to the well.
- CASE 7381: Application of H. L. Brown, Jr., for an unorthodox gas well location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 330 feet from the South line and 2310 feet from the East line of Section 34, Township 7 South, Range 37 East, Bluiett-Wolfcamp Gas Pool, the E/2 of said Section 34 to be dedicated to the well.
- CASE 7382: Application of TXO Production Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow well to be drilled 660 feet from the South and West lines of Section 20, Township 17 South, Range 28 East, the W/2 of said Section 20 to be dedicated to the well.
- CASE 7383: Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation underlying the NW/4 of Section 19, Township 19 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

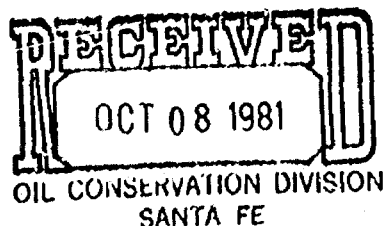
- CASE 7384:** Application of Morris R. Antweil for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Abo formation underlying the NE/4 SW/4 of Section 5, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7385:** Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blanco-Mesaverde and Basin-Dakota production in the wellbore of its San Juan 27-5 Unit Well No. 59, located in Unit A of Section 6, Township 27 North, Range 5 West.
- CASE 7386:** Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco-Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 54, located in Unit L of Section 31, Township 27 North, Range 5 West.
- CASE 7387:** Application of Sun Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the North and East lines of Section 32, Township 9 South, Range 37 East, West Sawyer-San Andres Pool, the N/2 NE/4 of said Section 32 to be dedicated to the well.
- CASE 7388:** Application of Sun Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled in the Northeast Lusk Yates Pool, 2500 feet from the North line and 1880 feet from the East line of Section 15, Township 19 South, Range 32 East the SW/4 NE/4 of said Section 15 to be dedicated to the well.
- CASE 7389:** Application of Yates Petroleum Corporation for an Amendment to Division Order No. R-4365, Eddy County, New Mexico. Applicant, in the above-styled cause seeks the amendment of Division Order No. R-4365, which promulgated special rules and regulations for the Penasco Draw San Andres-Yeso Pool, by amending Rule 5 to permit the simultaneous dedication of gas wells and oil wells and amending Rule 9 to provide for annual gas-liquid ratio tests in lieu of semi-annual tests.
- CASE 7365:** (Continued from October 7, 1981, Examiner Hearing)
- Application of Yates Petroleum Corporation for the amendment of Order No. R-6406, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6406, to permit recompletion of its State "JM" No. 2 Well, drilled at an unorthodox Morrow location 660 feet from the South line and 660 feet from the East line of said Section 25, Township 18 South, Range 24 East, in any and all Wolfcamp and Pennsylvanian pays in said well.
- CASE 7390:** Application of Harvey E. Yates Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mississippian formation underlying the W/2 of Section 18, Township 9 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7391:** Application of Harvey E. Yates Company for statutory unitization, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order unitizing, for the purposes of a secondary recovery project, all mineral interests in the Travis Penn Unit encompassing 480 acres, more or less, underlying all or portions of Sections 12 and 13, Township 18 South, Range 28 East, Eddy County, New Mexico.

The unitized interval would be the Cisco-Canyon formation between the depths of 9815 feet and 9935 feet in Harvey E. Yates Company's Travis Deep Unit No. 2 Well. Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of the fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in well and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations.

- CASE 7392:** Application of Sam H. Snoddy, for an unorthodox gas well location in the Oil-Potash Area, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the location of a Pennsylvanian well to be drilled 660 feet from the North and East lines of Section 26, Township 20 South, Range 32 East, Oil-Potash Area, the N/2 of said Section 26 to be dedicated to the well.
- CASE 7393:** Application of Uriah Exploration Incorporated for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Cisco, Canyon and Morrow formations underlying the W/2 of Section 13, Township 22 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7394:** Application of Supron Energy Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian well to be drilled 467 feet from the North line and 1650 feet from the West line of Section 13, Township 22 South, Range 24 East, the N/2 of said Section 13 to be dedicated to the well.
- CASE 7395:** Application of Curtis J. Little for Designation of a Tight formation, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Pictured Cliffs formation underlying portions of Townships 25 and 26 North, Ranges 6 and 7 West containing a total of 14,400 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 19 CFR Section 271. 701-705.
- CASE 7300:** (Reopened and Readvertised)
- Application of Dome Petroleum Corporation for designation of a tight formation, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Chacra formation underlying portions of Townships 21 and 22 North, Ranges 5, 6, and 7 West, containing 73,018 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.
- CASE 7352:** (Continued from September 23, 1981, Examiner Hearing)
- Application of Yates Petroleum Corporation for designation of a tight formation, Eddy County, New Mexico. Applicant, in the above-styled cause, pursuant to Section 107 of the Natural Gas Policy Act 19-CFR Section 271. 701-705, seeks the designation as a tight formation of the Permian Penn formation underlying all of the following townships:
- Township 17 South, Ranges 24 thru 26 East;
 - 18 South, 24 and 25 East,
 - 19 South, 23 thru 25 East;
 - 20 South, 21 thru 24 East;
 - 20 1/2 South, 21 and 22 East;
 - 21 South, 21 and 22 East;
 - Also Sections 1 thru 12 in 22 South, 21 and 22 East,
- All of the above containing a total of 315,000 acres more or less.

dugan production corp.

October 7, 1981



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

Case 7376

Re: Application for Downhole Commingling
Big Eight #1-E Well (Basin Dakota and
Bisti Lower Gallup Pool)
San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the October 21, 1981 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored.

Please advise if you are in need of further information.

Sincerely,

A handwritten signature in cursive script that reads "Tommy Roberts".

Tommy Roberts
Landman

nw

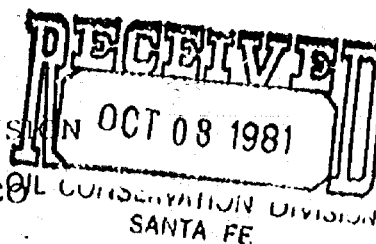
enc.

cc: Amoco Production Co.
Amoco Bldg.
17th & Broadway
Denver, CO 80202

Cotton Petroleum Corp.
717 17th Street, Suite 2200
Denver, CO 80202

Supron Energy Corporation
Bldg. V, 5th Floor
10300 Central Expressway
Dallas, TX 75231

OIL CONSERVATION DIVISION



STATE OF NEW MEXICO

IN THE Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Big Eight #1-E Well
in San Juan County, New Mexico

Case 7376

APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Dugan Production Corp., by and through its attorney, Tommy Roberts, hereby makes application for approval of downhole commingling in the well bore of the Big Eight #1-E Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Big Eight #1-E Well will be the Applicant, Dugan Production Corp., whose address is P.O. Box 208, Farmington, NM 87401.

2. The Big Eight #1-E Well will be located on Federal Oil and Gas Lease Serial No. NM 25440 insofar as said lease covers the following described lands:

Township 24 North, Range 9 West, NMPM
Section 8: SW/4 SE/4 (Basin Dakota Pool)
Section 8: SW/4 SE/4 (Bisti Lower Gallup Pool)
San Juan County, New Mexico

3. The legal location of the well will be as follows:

Township 24 North, Range 9 West, NMPM
Section 8: Unit Letter O
San Juan County, New Mexico

4. The Big Eight #1-E Well is not currently dually completed in the Basin Dakota Pool and the Bisti Lower Gallup Pool.

5. The Big Eight #1-E Well will be capable of only low marginal production from the Basin Dakota Pool, and will be capable of only low marginal production from the Bisti Lower Gallup Pool.

6. The ownership of the above mentioned Pools is common.

7. The proposed commingling from the above Pools will result in recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

8. All operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey and the Supervisor of the District III Office of the New Mexico Oil Conservation Division have been mailed a copy of this Application.

WHEREFORE, the Applicant requests this Application be set for hearing on October 21, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Big Eight #1-E Well in San Juan County, New Mexico.

Respectfully submitted,

Tommy Roberts

Tommy Roberts
Attorney for Applicant
P.O. Box 208
Farmington, NM 87401

BIG EIGHT #1-E WELL

Application For Approval of Downhole Commingling
Dugan Production Corp.

OFFSET LEASES AND OPERATORS

1. USA NM 25433
Township 24 North, Range 9 West, NMPM
Sec. 7: NE/4
San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

2. USA NM 45207
Township 24 North, Range 9 West, NMPM
Sec. 7: SE/4
San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

3. USA NM 25440
Township 24 North, Range 9 West, NMPM
Sec. 8: N/2
San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

4. USA NM 10089
Township 24 North, Range 9 West, NMPM
Sec. 9: W/2
San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

5. State of NM E-6644-12
Township 24 North, Range 9 West, NMPM
Sec. 16: NW/4
San Juan County, New Mexico

OPERATOR: Amoco Production Co.
Amoco Bldg.
17th & Broadway
Denver, CO 80202

BIG EIGHT #1-E WELL

Application For Approval of Downhole Commingling
Dugan Production Corp.

OFFSET LEASES AND OPERATORS (Cont'd)

6. USA NM 45208

Township 24 North, Range 9 West, NMPM

Sec. 17: NE/4

San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

7. USA NM 36473

Township 24 North, Range 9 West, NMPM

Sec. 17: NW/4

San Juan County, New Mexico

OPERATOR: Cotton Petroleum Corp.
717 17th Street., Suite 2200
Denver, CO 80202

8. USA NM 45209

Township 24 North, Range 9 West, NMPM

Sec. 18: NE/4

San Juan County, New Mexico

OPERATOR: Supron Energy Corporation
Building V, 5th Floor
10300 Central Expressway
Dallas, TX 75231

October 21, 1981

WEST AVENUE SUITE 100

Memo

From

FLORENE DAVIDSON
ADMINISTRATIVE SECRETARY

To Called in by Tommy Roberts
9/16/81

Hugan Production Corporation
Whorlhole Commingling

Big 8 #1E-0 8-24.0-9W

San Juan County

Basin - Dakota

Bisti - Lower Gallup

OIL CONSERVATION COMMISSION-SANTA FE

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

dr/

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7376Order No. R-6825

APPLICATION OF DUGAN PRODUCTION CORPORATION
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO.

ORDER OF THE DIVISIONBY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 21,
19 81, at Santa Fe, New Mexico, before Examiner Richard L.
Stamets.

NOW, on this _____ day of October, 19 81, the
Division Director, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully
advised in the premises,

FINDS:

(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, Dugan Production Corporation, is
the owner and operator of the Big 8 Well No. 1-E,
to be drilled
located in Unit 0 of Section 8, Township 24 North,
Range 9 West, N:4PM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle
Basin-Dakota and Bisti-Lower Gallup production
within the wellbore of the above-described well.

(4) That from the Basin-Dakota zone, the ^{expected to be} subject well is capable of low marginal production only.

(5) That from the Dist-Lower Gallup zone, the ^{expected to be} subject well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That the supervisor of the Division's district office at Aztec ~~and~~ should be furnished with appropriate completion data on each zone in order to determine whether the zones should be separated by use of a check valve.

(10) (9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Dugan Production Corporation, is hereby authorized to commingle Basin-Dakota and Bisti-Lower Gallup production within the wellbore of the Big 8 Well No. 1-E, ^{to be drilled} located in Unit 0 of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

PROVIDED HOWEVER:

(1) That the applicant shall furnish the supervisor of the Division's district office at Aztec with all ~~completion~~ ^{commingling} information on each of the ~~commingled~~ ^{commingled} zones including pressures and production of gas, oil, and water.

(2) That said district supervisor may require the installation of a check valve ~~in the~~ downhole in said Big 8 Well No 1-E if the same appears necessary to protect either zone from excessive pressure differential or ~~contaminating~~ ^{damaging} cross flow.

(3) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.
~~zone.~~

(4) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove