

CASE 7338: BEARTOOTH OIL & GAS COMPANY
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO

company

Case No.

7338

Application

Transcripts.

Small Exhibits

ETC



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

September 25, 1981

POST OFFICE BOX 2099
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. William F. Carr
Campbell, Byrd & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 7338
ORDER NO. R-6780

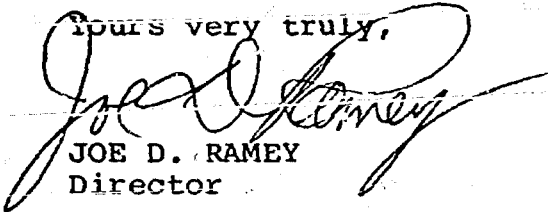
Applicant:

Beartooth Oil & Gas Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7338
Order No. R-6780

APPLICATION OF BEARTOOTH OIL
& GAS COMPANY FOR DOWNHOLE
COMMINGLING, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 26, 1981,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of September, 1981, 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, Beartooth Oil & Gas Company, is
the owner and operator of the Elledge Federal 34 Well No. 11,
located in Unit D of Section 34, Township 29 North, Range 11
West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle
Fruitland and Farmington production within the wellbore of the
above-described well.

(4) That from the Fruitland zone, the subject well is
capable of low marginal production only.

(5) That from the Farmington zone, the 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.

-2-

Case No. 7338

Order No. R-6780

(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 in order to allocate the commingled production to each of the commingled zones in the subject well, 12 percent of the commingled gas production should be allocated to the Fruitland zone, and 88 percent of the commingled gas production and all of the commingled oil production to the Farmington zone.

IT IS THEREFORE ORDERED:

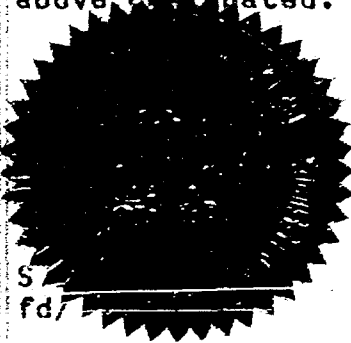
(1) That the applicant, Beartooth Oil & Gas Company, is hereby authorized to commingle Fruitland and Farmington production within the wellbore of the Elledge Federal 34 Well No. 11, located in Unit D of Section 34, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

(2) That 12 percent of the commingled gas production shall be allocated to the Fruitland zone and 88 percent of the commingled gas production and all of the commingled oil production shall be allocated to the Farmington zone.

(3) 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.

(4) 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 designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

S
fd/

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Beartooth Oil & Gas
Company for downhole commingling,
San Juan County, New Mexico.

CASE
7338

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:

William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK P.A.
Jefferson Place
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

2

I N D E X

A. R. KENDRICK

Direct Examination by Mr. Carr	3
Cross Examination by Mr. Stamets	8
Questions by Mr. Chavez	9

E X H I B I T S

Applicant Exhibit One, Plat	4
Applicant Exhibit Two, Recap	4
Applicant Exhibit Three, Plat	5
Applicant Exhibit Four, Test	5

1
2 MR. STAMETS: We'll call next Case 7338.

3 MR. PEARCE: Application of Beartooth
4 Oil and Gas Company for downhole commingling, San Juan County,
5 New Mexico.

6 MR. CARR: May it please the Examiner,
7 I am William F. Carr, with the law firm Campbell, Byrd, and
8 Black, P. A., at Santa Fe, appearing on behalf of the appli-
9 cant.

10 My witness will be Al Kendrick and I
11 would request that the record reflect that Mr. Kendrick has
12 previously been qualified as a petroleum engineer, and is
13 under oath.

14 MR. STAMETS: It will so show.

15
16 A. R. KENDRICK
17 being called as a witness and being previously sworn upon his
18 oath, testified as follows, to-wit:

19
20 DIRECT EXAMINATION

21 BY MR. CARR:

22 Q. Mr. Kendrick, are you familiar with the
23 application filed in this case by Beartooth Oil and Gas Com-
24 pany?

25 A. Yes, sir.

1

2

Q Are you familiar with the subject acreage?

3

A Yes, sir.

4

5

Q Will you briefly state what Beartooth seeks in this case?

6

7

8

A Beartooth seeks the approval to downhole commingle the Fruitland and Farmington formations in its Elledge Federal 34 Well No. 11.

9

10

11

Q Will you please refer to what has been marked as Beartooth Exhibit Number One and explain to Mr. Stamets what this is and what it shows?

12

13

14

15

A This is the outline of two -- or the plat of two townships, showing the location of the well and the location of the Aztec Fruitland Gas Pool, in which this well was drilled as a single completion well.

16

17

Q Will you now refer to your Exhibit Number Two and review this?

18

19

20

21

22

23

24

25

A Exhibit Number Two is a recap of the drilling activity, showing that the well did experience gas flows because it was drilled on a daylight only basis and at the time they started drilling on one particular morning, being on February the 16th, the well did flow gas with a trace of oil at the surface at the time they started to drill, and during the process of testing they found that the Farmington formation was attempting to blowout on the well. They

1
2 changed their drilling procedures to a 24-hour basis and
3 completed the well.

4 About a third of the way up from the
5 bottom of the page you'll find a potential test on the Fruit-
6 land formation after the well was completed, showing that the
7 70day shut-in pressure was 475 pounds and that the well stab-
8 ilized at 40 Mcf per day at a back pressure of 100 pounds.

9 They then went ahead and dual completed
10 the well or excuse me, downhole commingled the well with the
11 Farmington formation that was attempting to blowout during
12 drilling operations, and their potential test after downhole
13 commingling showed a shut-in pressure of 482 pounds commingled
14 and an absolute open flow of 341 Mcf per day, which made a
15 commercial well out of one that was marginal at 40 Mcf per
16 day as a single completion in the Fruitland formation.

17 Q Will you now refer to your Exhibit Number
18 Three and review this for Mr. Stamets?

19 A Exhibit Number Three shows that this
20 Farmington completion is located in between two identified
21 Farmington oil wells -- or excuse me, Farmington oil pools
22 in those same two townships identified on Exhibit One.

23 Q And now will you review your Exhibit
24 Number Four?

25 A Exhibit Number Four is a copy of the

1
2 potential test taken after the wells were downhole commingled
3 showing the initial potential with 482-pound 7-day shut-in
4 pressure and the flow volume of 336 Mcf per day and an abso-
5 lute open flow of 341 Mcf per day.

6 Q And does this show that each of the zones
7 to be commingled are capable of only marginal production?

8 A. Yes, sir.

9 Q Would you expect any cross migration as
10 a result of the proposed completion?

11 A. No, sir, the shut-in pressures are very
12 similar; therefor, I do not suspect any cross flow.

13 Q Is the ownership of the proposed com-
14 mingled zones common, including royalty ownership?

15 A. Yes.

16 Q How do you propose to allocate production
17 between the zones?

18 A. I think the allocation procedure or
19 formula could be calculated based on the Fruitland test and
20 the commingled test, as shown on the recap of the drilling
21 operations.

22 Q Do you anticipate that the wells will
23 produce fluids?

24 A. Yes, there will be a trace of fluids
25 produced from the Farmington formation and all the liquid

hydrocarbons should be allocated to the Farmington formation.

Q Are the reservoir characteristics of these pools such that underground waste will not be caused by this downhole commingling?

A No, reservoir waste will not be caused.

Q Will granting the application result in increased recovery of hydrocarbons?

A Yes, I think it will.

Q In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A Yes, sir.

Q Were Exhibits One through Four prepared by you?

A No, the recap of drilling operations was supplied to me by the Beartooth Oil and Gas and the recap or excuse me, the initial potential test was prepared by Joe Elledge, and it is a matter of record as filed with the Commission office in Aztec.

Q Does your knowledge of this well and your review of Exhibit Number Two cause you to conclude it is accurate?

A Yes.

MR. CARR: At this time, Mr. Stamets, we

1
2 would offer into evidence Applicant's Exhibits One through
3 Four.

4 MR. STAMETS: These exhibits will be
5 admitted.

6 MR. CARR: I have nothing further on
7 direct.

8
9 CROSS EXAMINATION

10 BY MR. STAMETS:

11 Q Mr. Kendrick, on Exhibit Three I believe
12 you identified two Farmington oil pools. One of those, the
13 Kutz Farmington, is shown as a gas pool on this exhibit, is
14 that correct?

15 A Yes, it is a gas pool instead of an oil
16 pool.

17 Q Okay. And based on Exhibit Number Two,
18 the Fruitland made one -- I'm sorry. The Fruitland produced
19 what, 40 Mcf per day?

20 A Yes, sir.

21 Q Okay, so that is going to be 12 percent.

22 A That would be correlative with the 336
23 Mcf as a choke volume on the other potential because it was
24 not at calculated absolute open flow.

25 Q Okay, let me run that back and see --

1
2 "it's still 12 percent, so it would be 12 percent and 88 per-
3 cent, and which zone did you say should get all the liquid?

4 A. The Farmington.

5 Q. Is the ownership common for both zones?

6 A. Yes, sir.

7 MR. STAMETS: Any other questions of the
8 witness?

9 MR. CHAVEZ: Yes, Mr. Examiner.

10

11 QUESTIONS BY MR. CHAVEZ:

12 Q. Mr. Kendrick, Does this Farmington zone
13 produce crude oil?

14 A. It produced a trace of oil and paraffin
15 at the time it was tested during the blowout during drilling.

16 Q. What do you expect to be an expected
17 production rate of crude oil from the Farmington zone?

18 A. Well, it would be very low; probably in
19 the range of one to two barrels per day.

20 Q. Will this crude oil come in contact with
21 the Pictured Cliffs perforations, say, for example, during a
22 short duration shut-in for testing or some other reason, do
23 you suspect that might cause any damage to the Fruitland
24 perforations?

25 A. No, sir, I don't think it will. The

1
2 Fruitland formation is deep enough that it would be warm
3 enough to keep the paraffin liquid and therefor removable
4 from the formation without appreciable damage.

5 Q Okay, and on Exhibit Number Two on Feb-
6 ruary 17th it showed estimated water rate of 15 barrels per
7 minute of fresh water. What zone was that produced from?

8 A. From the Farmington zone.

9 Q Was that the upper section of the Farming-
10 ton zone or some other section than what it's completed in?

11 A. It was during the drilling operation
12 and was not cased so we don't know for sure from what zone
13 it came from.

14 It's possible it came from the Ojo Alamo
15 but if it's from the formation it would have been from the
16 Fruitland -- excuse me, from the Farmington.

17 Q Why was the squeeze job performed on
18 3-21-81? We show that the cement -- or show cement circulated
19 to surface and the casing had been pressure tested?

20 A. I think they ran a bond log and determined
21 that the bond log would -- cement bond was not sufficient at
22 the Fruitland formation to keep the fracture treatment from
23 going into the Fruitland coal, so they wanted to make sure
24 that the fracture treatment went into the Fruitland gas pay
25 instead of into the Fruitland coal.

1
2 Q The percentage that you -- the Fruitland
3 formation -- I'm sorry, yes, the Fruitland formation during
4 test was flowed at 100 psi rate to stabilize -- I'm sorry,
5 100 psi back pressure to stabilized rate of 40 Mcf, yet the
6 AOF test showed a rate of -- I'm sorry, a pressure of 52 psig
7 during the flow. Have you corrected that volume or would you
8 consider correcting the rate of flow based on a presumed
9 formation slope back to 100 pounds and then reallocating the
10 volumes to be produced from each formation accordingly?

11 A The test conducted on 4-17-81 shows well
12 stabilized at 150 psi, 40 Mcf, and also at 100 psi at 40
13 Mcf, so I think that production pressure shows that there
14 was critical flow across the perforations at that time, so
15 there would be no change if the pressure were dropped to a
16 lower pressure.

17 Q Okay.

18 MR. CHAVEZ: I have no further questions.

19 MR. STAMETS: Any other questions of the
20 witness? He may be excused.

21 Anything further in this case?

22 We'll take the case under advisement.

23
24 (Hearing concluded.)
25

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREPY 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. 7338 heard by me on 8-26 1981.

Richard L. Hunt Examiner
Oil Conservation Division

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

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

26 August 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Beartooth Oil & Gas
Company for downhole commingling,
San Juan County, New Mexico.

CASE
7338

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:

William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK P.A.
Jefferson Place
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

2

I N D E X

A. R. KENDRICK

Direct Examination by Mr. Carr	3
Cross Examination by Mr. Stamets	8
Questions by Mr. Chavez	9

E X H I B I T S

Applicant Exhibit One, Plat	4
Applicant Exhibit Two, Recap	4
Applicant Exhibit Three, Plat	5
Applicant Exhibit Four, Test	5

MR. STAMETS: We'll call next Case 7338.

MR. PEARCE: Application of Beartooth Oil and Gas Company for downhole commingling, San Juan County, New Mexico.

MR. CARR: May it please the Examiner, I am William F. Carr, with the law firm Campbell, Byrd, and Black, P. A., at Santa Fe, appearing on behalf of the applicant.

My witness will be Al Kendrick and I would request that the record reflect that Mr. Kendrick has previously been qualified as a petroleum engineer, and is under oath.

MR. STAMETS: It will so show.

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

DIRECT EXAMINATION

BY MR. CARR:

Q Mr. Kendrick, are you familiar with the application filed in this case by Beartooth Oil and Gas Company?

A Yes, sir.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Q Are you familiar with the subject acreage?

A Yes, sir.

Q Will you briefly state what Beartooth seeks in this case?

A Beartooth seeks the approval to downhole commingle the Fruitland and Farmington formations in its Elledge Federal 34 Well No. 11.

Q Will you please refer to what has been marked as Beartooth Exhibit Number One and explain to Mr. Stamets what this is and what it shows?

A This is the outline of two -- of the plat of two townships, showing the location of the well and the location of the Aztec Fruitland Gas Pool, in which this well was drilled as a single completion well.

Q Will you now refer to your Exhibit Number Two and review this?

A Exhibit Number Two is a recap of the drilling activity, showing that the well did experience gas flows because it was drilled on a daylight only basis and at the time they started drilling on one particular morning, being on February the 16th, the well did flow gas with a trace of oil at the surface at the time they started to drill, and during the process of testing they found that the Farmington formation was attempting to blowout on the well. They

1
2 changed their drilling procedures to a 24-hour basis and
3 completed the well.

4 About a third of the way up from the
5 bottom of the page you'll find a potential test on the Fruit-
6 land formation after the well was completed, showing that the
7 70day shut-in pressure was 475 pounds and that the well stab-
8 ilized at 40 Mcf per day at a back pressure of 100 pounds.

9 They then went ahead and dual completed
10 the well or excuse me, downhole commingled the well with the
11 Farmington formation that was attempting to blowout during
12 drilling operations, and their potential test after downhole
13 commingling showed a shut-in pressure of 482 pounds commingled
14 and an absolute open flow of 341 Mcf per day, which made a
15 commercial well out of one that was marginal at 40 Mcf per
16 day as a single completion in the Fruitland formation.

17 Q Will you now refer to your Exhibit Number
18 Three and review this for Mr. Stamets?

19 A Exhibit Number Three shows that this
20 Farmington completion is located in between two identified
21 Farmington oil wells -- or excuse me, Farmington oil pools
22 in those same two townships identified on Exhibit One.

23 Q And now will you review your Exhibit
24 Number Four?

25 A Exhibit Number Four is a copy of the

1
2 potential test taken after the wells were downhole commingled
3 showing the initial potential with 482-pound 7-day shut-in
4 pressure and the flow volume of 336 Mcf per day and an abso-
5 lute open flow of 341 Mcf per day.

6 Q And does this show that each of the zones
7 to be commingled are capable of only marginal production?

8 A Yes, sir.

9 Q Would you expect any cross migration as
10 a result of the proposed completion?

11 A No, sir, the shut-in pressures are very
12 similar; therefor, I do not suspect any cross flow.

13 Q Is the ownership of the proposed com-
14 mingled zones common, including royalty ownership?

15 A Yes.

16 Q How do you propose to allocate production
17 between the zones?

18 A I think the allocation procedure or
19 formula could be calculated based on the Fruitland test and
20 the commingled test, as shown on the recap of the drilling
21 operations.

22 Q Do you anticipate that the wells will
23 produce fluids?

24 A Yes, there will be a trace of fluids
25 produced from the Farmington formation and all the liquid

hydrocarbons should be allocated to the Farmington formation.

Q Are the reservoir characteristics of these pools such that underground waste will not be caused by this downhole commingling?

A No, reservoir waste will not be caused.

Q Will granting the application result in increased recovery of hydrocarbons?

A Yes, I think it will.

Q In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A Yes, sir.

Q Were Exhibits One through Four prepared by you?

A No, the recap of drilling operations was supplied to me by the Beartooth Oil and Gas and the recap -- or excuse me, the initial potential test was prepared by Joe Elledge, and it is a matter of record as filed with the Commission office in Aztec.

Q Does your knowledge of this well and your review of Exhibit Number Two cause you to conclude it is accurate?

A Yes.

MR. CARR: At this time, Mr. Stamets, we

1
2 would offer into evidence Applicant's Exhibits One through
3 Four.

4 MR. STAMETS: These exhibits will be
5 admitted.

6 MR. CARR: I have nothing further on
7 direct.

8
9 CROSS EXAMINATION

10 BY MR. STAMETS:

11 Q Mr. Kendrick, on Exhibit Three I believe
12 you identified two Farmington oil pools. One of those, the
13 Kutz Farmington, is shown as a gas pool on this exhibit, is
14 that correct?

15 A Yes, it is a gas pool instead of an oil
16 pool.

17 Q Okay. And based on Exhibit Number Two,
18 the Fruitland made one -- I'm sorry. The Fruitland produced
19 what, 40 Mcf per day?

20 A Yes, sir.

21 Q Okay, so that is going to be 12 percent.

22 A That would be correlative with the 336
23 Mcf as a choke volume on the other potential because it was
24 not at calculated absolute open flow.

25 Q Okay, let me run that back and see --

1
2 it's still 12 percent, so it would be 12 percent and 88 per-
3 cent, and which zone did you say should get all the liquid?

4 A The Farmington.

5 Q Is the ownership common for both zones?

6 A Yes, sir.

7 MR. STAMETS: Any other questions of the
8 witness?

9 MR. CHAVEZ: Yes, Mr. Examiner.

10
11 QUESTIONS BY MR. CHAVEZ:

12 Q Mr. Kendrick, Does this Farmington zone
13 produce crude oil?

14 A It produced a trace of oil and paraffin
15 at the time it was tested during the blowout during drilling.

16 Q What do you expect to be an expected
17 production rate of crude oil from the Farmington zone?

18 A Well, it would be very low; probably in
19 the range of one to two barrels per day.

20 Q Will this crude oil come in contact with
21 the Pictured Cliffs perforations, say, for example, during a
22 short duration shut-in for testing or some other reason, do
23 you suspect that might cause any damage to the Fruitland
24 perforations?

25 A No, sir, I don't think it will. The

1
2 Fruitland formation is deep enough that it would be warm
3 enough to keep the paraffin liquid and therefor removable
4 from the formation without appreciable damage.

5 Q Okay, and on Exhibit Number Two on Feb-
6 ruary 17th it showed estimated water rate of 15 barrels per
7 minute of fresh water. What zone was that produced from?

8 A From the Farmington zone.

9 Q Was that the upper section of the Farming-
10 ton zone or some other section than what it's completed in?

11 A It was during the drilling operation
12 and was not cased so we don't know for sure from what zone
13 it came from.

14 It's possible it came from the Ojo Alamo
15 but if it's from the formation it would have been from the
16 Fruitland -- excuse me, from the Farmington.

17 Q Why was the squeeze job performed on
18 3-21-81? We show that the cement -- or show cement circulated
19 to surface and the casing had been pressure tested?

20 A I think they ran a bond log and determined
21 that the bond log would -- cement bond was not sufficient at
22 the Fruitland formation to keep the fracture treatment from
23 going into the Fruitland coal, so they wanted to make sure
24 that the fracture treatment went into the Fruitland gas pay
25 instead of into the Fruitland coal.

1
2 Q The percentage that you -- the Fruitland
3 formation -- I'm sorry, yes, the Fruitland formation during
4 test was flowed at 100 psi rate to stabilize -- I'm sorry,
5 100 psi back pressure to stabilized rate of 40 Mcf, yet the
6 AOF test showed a rate of -- I'm sorry, a pressure of 52 psig
7 during the flow. Have you corrected that volume or would you
8 consider correcting the rate of flow based on a presumed
9 formation slope back to 100 pounds and then reallocating the
10 volumes to be produced from each formation accordingly?

11 A The test conducted on 4-17-81 shows well
12 stabilized at 150 psi, 40 Mcf, and also at 100 psi at 40
13 Mcf, so I think that production pressure shows that there
14 was critical flow across the perforations at that time, so
15 there would be no change if the pressure were dropped to a
16 lower pressure.

17 Q Okay.

18 MR. CHAVEZ: I have no further questions.

19 MR. STAMETS: Any other questions of the
20 witness? He may be excused.

21 Anything further in this case?

22 We'll take the case under advisement.

23
24 (Hearing concluded.)
25

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

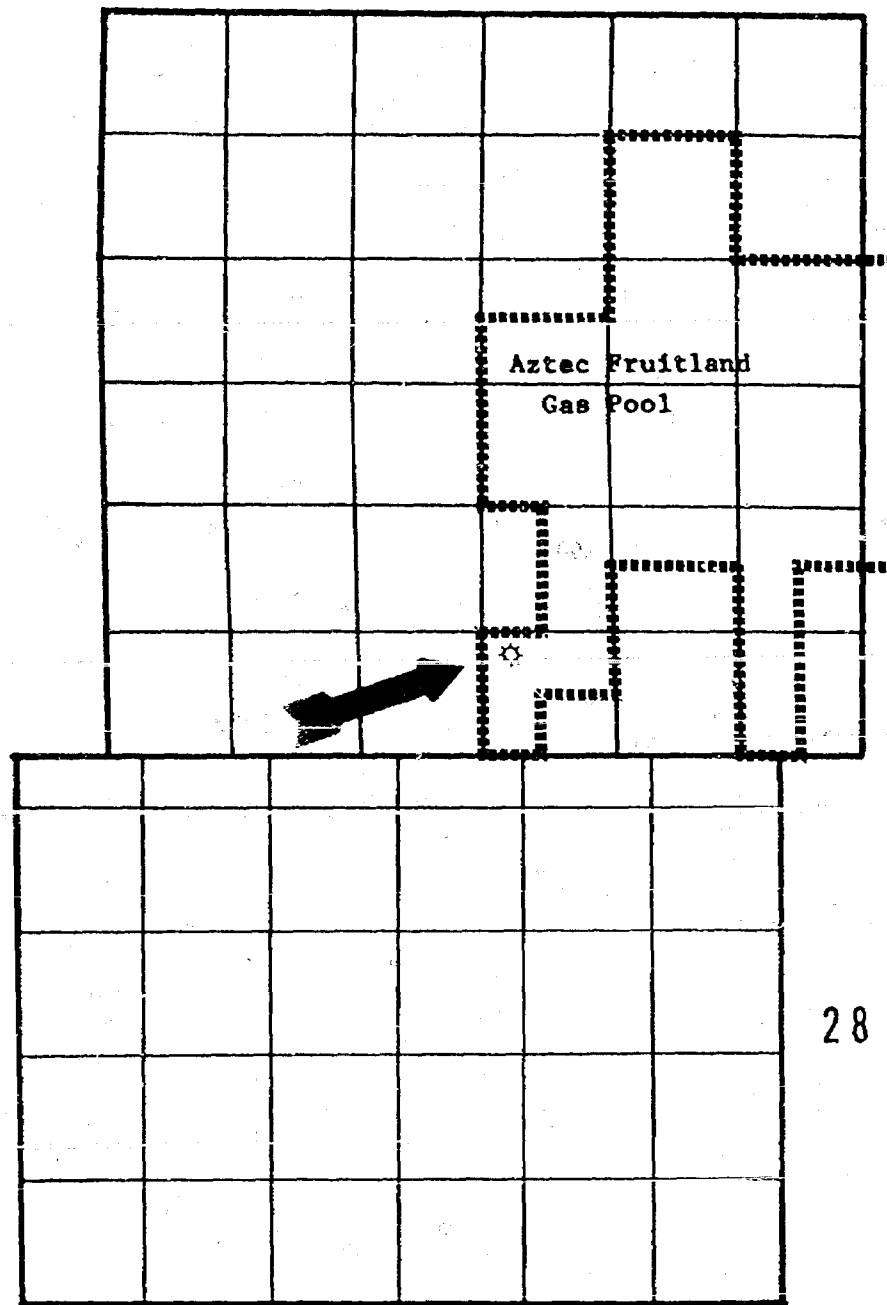
I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____, 19____.

_____, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Rt. 1 Box 153-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

11 W



29 N

28 N

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION	
SEARCHED	EXHIBIT NO. <u>1</u>
CASE NO. <u>7338</u>	
Submitted by <u>KENDRICK</u>	
Hearing Date <u>8/26/81</u>	

WELL HISTORY

Beartooth Oil & Gas Company
Elledge Federal 34 #1
D-34-T29N-11W

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

BEARTOOTH EXHIBIT NO. 2
CASE NO. 7338
Submitted by KENDRAK
Hearing Date 8/26/81

2/7/81 Spud. Target depth: Fruitland formation.

2/15/81 TD 970' at end of day.

2/16/81 Well flowed gas and water when BOP opened to start drilling operations for the day. Produced an estimated 6-foot flare from 2 inch opening with a show of oil and parafine. Pumped into hole and well died. Started drilling at 11:00 a.m. Drilled to 1070'.

2/17/81 Opened well at 7:00 a.m. Well unloaded drilling fluid. Choked back the flow for measurement. Flowed at the rate of 75 MCFPD with 250 psi back pressure. Tested for ten hours without indication of decline. Estimated water rate of 15 barrels per minute of fresh water.

2/18/81 Well had gas fumes only. Went in hole with 6 drill collars. Weighted mud to 9.1 pounds per gallon and started drilling on a 24-hour basis.

Drilled to a TD of 1567'. Ran 2 7/8 inch casing set at 1563'. Cemented with 175 sacks cement. Show of cement circulated to surface. Pressure tested casing to 3000 psi.

3/21/81 Rigged up for squeeze job. Perforated 4 holes 1544' to 1545'. Pressured to 1200 psi before formation broke down. Squeezed with 50 sacks neat cement. Pressure increased from 900 to 1100 psi.

3/31/81 Perforated 1517 to 1525' with 2 shot per foot. Sand/foam fracture treated the well.

4/1/81 to 4/10/81 Flowing back gas and fracture fluid.

4/17/81 Tested well. 7-day shut-in pressure = 475 psig. Installed back pressure regulator: Set @ 200 psi rate was 45 MCFPD, set @ 150 psi rate was 40 MCFPD (stabilized), and set @ 100 psi rate stabilized at 40 MCFPD.

4/20/81 Shut-in pressure = 475 psig. Blew well down and installed full-opening 2 inch valve. Perforated 1060 to 1061' with 4 shots per foot. Well unloaded immediately. Rate after one hour = 300 MCFPD. Shut well in for Initial Potential Test.

4/27/81 Initial Potential Test: Shut-in Pressure 482 psig; 336 MCFPD choke volume; Absolute Open Flow 341 MCFPD.

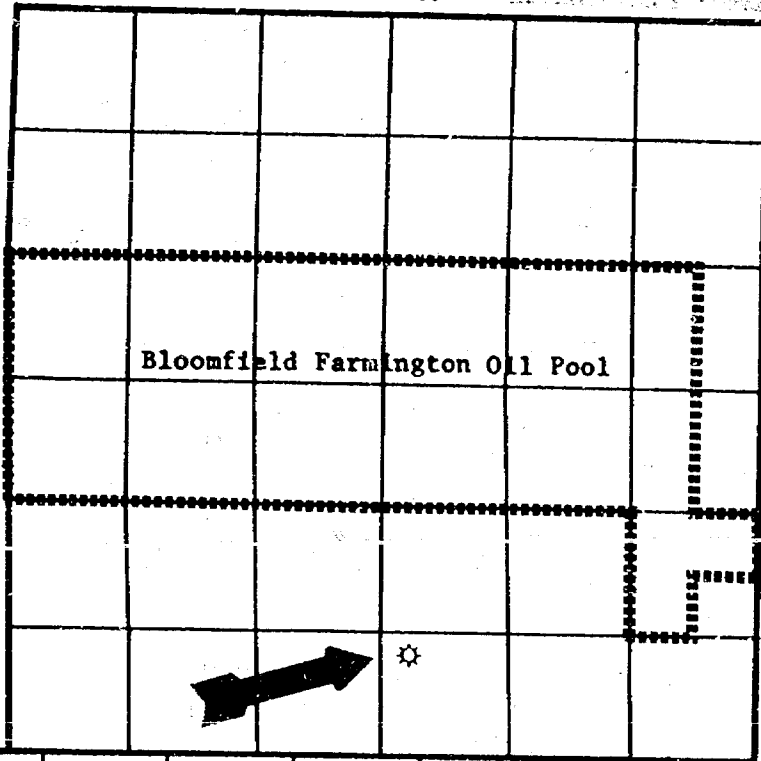
BEAUCHAMPT EXHIBIT NO. 3

CASE NO. 7338

Submitted by KENDRICK

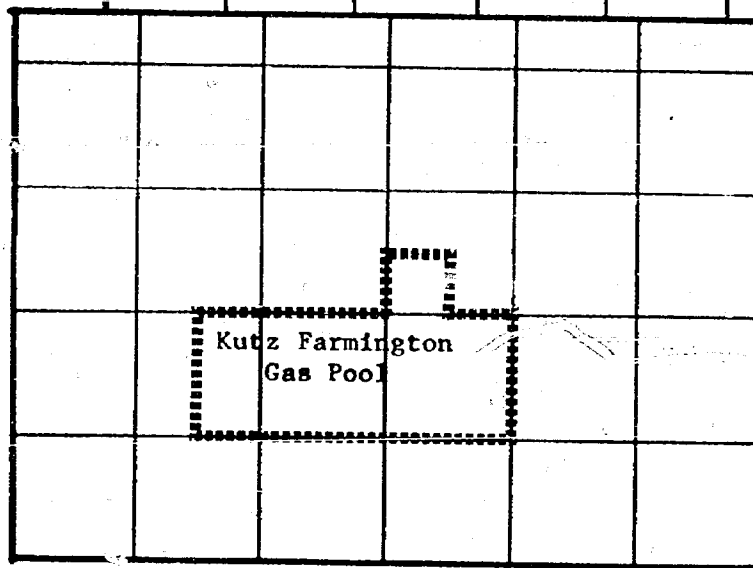
Hearing Date 8/24/81

11 W



Bloomfield Farmington Oil Pool

29 N



Kutz Farmington
Gas Pool

28 N

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 4-27-81	
Company Beartooth Oil and Gas				Connection Gas Company of New Mexico	
Pool Aztec Undesignated				Formation Fruitland Farmington	
Completion Date 4-20-81		Total Depth 1564		Plug Back TD 1535	Elevation 5572
Csq. Size 2.875	Wt. 6.5	d 2.441	Set At 1563	Perforations: From 1060 To 1525	
Trq. Size Slim	Wt. Hole	d	Set At	Perforations: From To	
Type Well - Single - Blindhead - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru Casing		Reservoir Temp. °F		Mean Annual Temp. °F	
		12 psi est.		Baro. Press. - P ₀	
L H		G _g .650	% CO ₂	% N ₂	% H ₂ S
					Prover Meter Run Taps

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2 days						482				3 hours
2.	2 inch		.500				52	60			
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	5.4315		64	1.000	.9608	1.007	336
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²	$(1) \frac{P_t^2}{P_t^2 - P_w^2} = 1.01778$ $(2) \left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 1.01508$ $AOF = Q \left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 341$
1.		65	4263	239773	
2.					
3.		(Calculated)			
4.					

Absolute Open Flow 341		Mcf @ 15.025	Angle of Slope θ	Slope, n = .85
Remarks: Dry gas throughout test. No show of oil or water.				
Approved By Consultant:		Conducted By: Joe Elledge	Calculated By: Joe Elledge	Checked By: Joe Elledge

A 6x6 grid map showing a path of dots forming a complex shape. The text "Aztec Fruitland Gas Pool" is located in the center-right area. A large arrow points towards the bottom-left corner, and a small star symbol is located near the bottom center.

28 N

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
~~BEFORE~~ EXHIBIT NO. 1
CASE NO. 7338
Submitted by KENDRICK
Hearing Date 8/24/81

WELL HISTORY

Beartooth Oil & Gas Company
Elledge Federal 34 #11
D-34-T29N-11W

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

BEARTOOTH EXHIBIT NO. 2
CASE NO. 7338
Submitted by KENDRAK
Hearing Date 8/26/81

2/7/81 Spud. Target depth: Fruitland formation.

2/15/81 TD 970' at end of day.

2/16/81 Well flowed gas and water when BOP opened to start drilling operations for the day. Produced an estimated 6-foot flare from 2 inch opening with a show of oil and parafine. Pumped into hole and well died. Started drilling at 11:00 a.m. Drilled to 1070'.

2/17/81 Opened well at 7:00 a.m. Well unloaded drilling fluid. Choked back the flow for measurement. Flowed at the rate of 75 MCFPD with 250 psi back pressure. Tested for ten hours without indication of decline. Estimated water rate of 15 barrels per minute of fresh water.

2/18/81 Well had gas fumes only. Went in hole with 6 drill collars. Weighted mud to 9.1 pounds per gallon and started drilling on a 24-hour basis.

Drilled to a TD of 1567'. Ran 2 7/8 inch casing set at 1563'. Cemented with 175 sacks cement. Show of cement circulated to surface. Pressure tested casing to 3000 psi.

3/21/81 Rigged up for squeeze job. Perforated 4 holes 1544' to 1545'. Pressured to 1200 psi before formation broke down. Squeezed with 50 sacks neat cement. Pressure increased from 900 to 1100 psi.

3/31/81 Perforated 1517 to 1525' with 2 shot per foot. Sand/foam fracture treated the well.

4/1/81 to 4/10/81 Flowing back gas and fracture fluid.

4/17/81 Tested well. 7-day shut-in pressure = 475 psig. Installed back pressure regulator: Set @ 200 psi rate was 45 MCFPD, set @ 150 psi rate was 40 MCFPD (stabilized), and set @ 100 psi rate stabilized at 40 MCFPD.

4/20/81 Shut-in pressure = 475 psig. Blew well down and installed full-opening 2 inch valve. Perforated 1060 to 1061' with 4 shots per foot. Well unloaded immediately. Rate after one hour = 300 MCFPD. Shut well in for Initial Potential Test.

4/27/81 Initial Potential Test: Shut-in Pressure 482 psig; 336 MCFPD choke volume; Absolute Open Flow 341 MCFPD.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

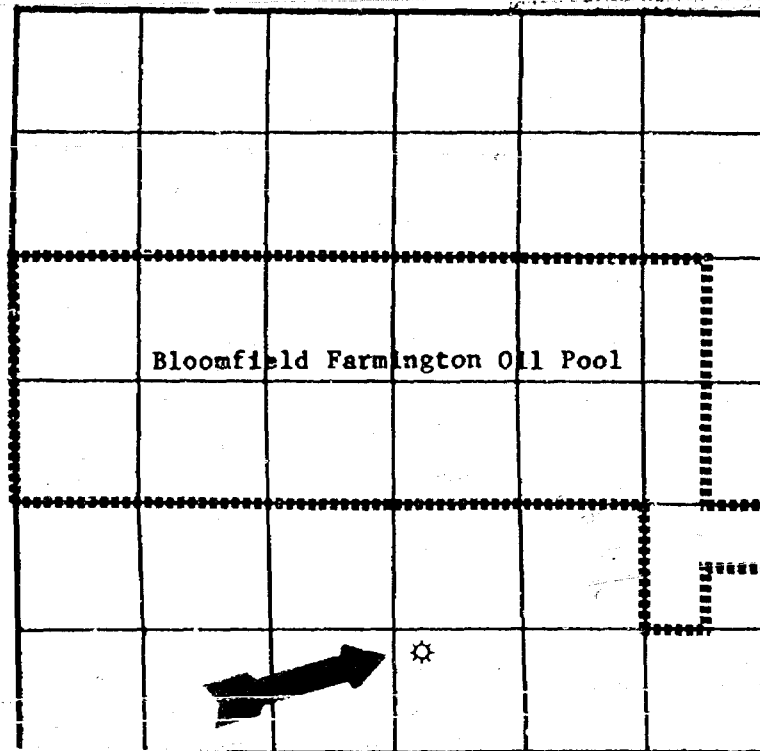
SEARIGHT MATCH NO. 3

CASE NO. 7338

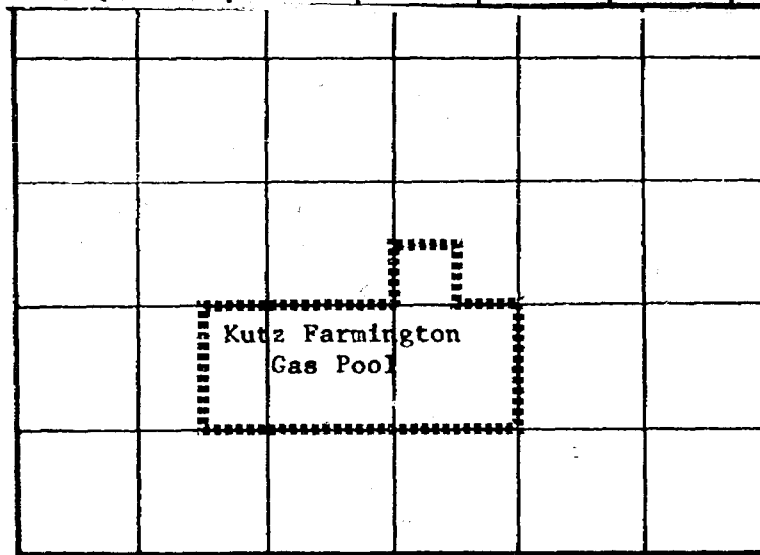
Submitted by KENDRICK

Hearing Date 8/26/81

11 W



29 N



28 N

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 4-27-81	
Company Beartooth Oil and Gas				Connection Gas Company of New Mexico	
Field Aztec Undesignated				Formation Fruitland Farmington	
Completion Date 4-20-81		Total Depth 1564		Plug Back TD 1535	
Elevation 5572		Farm or Lease Name Elledge Federal-34			
Csg. Size 2.875	Wt. 6.5	d 2.441	Set At 1563	Perforations: From 1060 To 1525	
Trg. Size Slim	Wt. Hole	d ----	Set At ----	Perforations: From To	
Type Well - Single - Blindhead - G.C. or G.O. Multiple Single				Packer Set At None	
Producing thru Casing		Reservoir Temp. °F 9		Mean Annual Temp. °F 12 psi est.	
L		H	G _g .650	% CO ₂	% N ₂
				% H ₂ S	Prover
				Meter Run	Taps

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Office Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2 inch	.500					482	52	60		
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w p_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1.	5.4315		64	1.000	.9608	1.007	336
2.							
3.							
4.							
5.							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ XXXXXXXXXX
3.					Specific Gravity Flowing Fluid _____ XXXXXX
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>P_t²</th> <th>P_w</th> <th>P_w²</th> <th>P_t² - P_w²</th> </tr> <tr> <td>1.</td> <td></td> <td>65</td> <td>4263</td> <td>239773</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td>(Calculated)</td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²	1.		65	4263	239773	2.					3.		(Calculated)			4.					5.					<p>(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.01778$</p> <p>(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.01508$</p> <p>AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 341$</p>
NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²																											
1.		65	4263	239773																											
2.																															
3.		(Calculated)																													
4.																															
5.																															

Absolute Open Flow	341	Mcf @ 15.025	Angle of Slope θ	Slope, n = 85
--------------------	-----	--------------	------------------	---------------

Remarks: Dry gas throughout test. No show of oil or water.

Approved By Consultant:	Conducted By: Joe Elledge	Calculated By: Joe Elledge	Checked By: Joe Elledge
-------------------------	------------------------------	-------------------------------	----------------------------

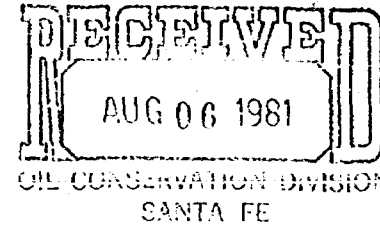
- CASE 7335: Application of C & E Operators, Inc. for amendment to Division Order No. R-5459, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-5459 by amending the location of the Northwest-Southeast trending line as described in Exhibit A of said Order No. R-5459 pertaining to Township 30 North, Range 11 West, as follows: Section 6: West and South; Section 8: West and South; Sections 9, 10, and 11: South; and Section 13: West and South.
- CASE 7336: Application of C & E Operators, Inc. for three triple completions, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to triply complete the following wells in Township 30 North, Range 11 West, to produce gas from the Farmer-Fruitland Pool, the Aztec-Pictured Cliffs Pool, and the Blanco Mesaverde Pool through separate strings of tubing: Aztec Wells Nos. 8 in Unit N of Section 8 and 9 in Unit M of Section 9; and Fee Well No. 8 in Unit C of Section 8.
- CASE 7337: Application of Beartooth Oil & Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Ojito Gallup-Dakota and Blanco Mesaverde production in the wellbore of its Minel Federal Well No. 1 located in Unit E of Section 7, Township 25 North, Range 3 West. Applicant further seeks the establishment of an administrative procedure for approval of downhole commingling of Gallup-Dakota and Mesaverde production in the W/2 of Sections 6 and 7, Township 25 North, Range 3 West.
- CASE 7338: Application of Beartooth Oil & Gas Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fruitland and Farmington production in the wellbore of its Elledge Federal 34 Well No. 11 located in Unit D of Section 34, Township 29 North, Range 11 West.
- CASE 7339: Application of Doyle Hartman for compulsory pooling, unorthodox well location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Pool underlying the S/2 of Section 17, Township 24 South, Range 37 East, to be simultaneously dedicated to his Late Thomas Well No. 1 located in Unit M of said Section 17, and to two proposed wells, one to be drilled at an orthodox location in Unit J and the other at an unorthodox location 2310 feet from the South line and 330 feet from the West line, both in said Section 17. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.
- CASE 7340: Application of Doyle Hartman for directional drilling and unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill his City of Jal Well No. 1, the surface location of which is 1635 feet from the South line and 1210 feet from the West line of Section 20, Township 25 South, Range 37 East, Jalmat Pool, to top the Jalmat at a bottom hole location 660 feet from the South and West lines at a vertical depth of 2800 feet and to bottom said well at an unorthodox location 330 feet from the South and West lines at a vertical depth of 3530 feet.
- CASE 7317: (Continued from July 29, 1981, Examiner Hearing)
Application of Four Corners Gas Producers Association for designation of a tight formation, San Juan and Rio Arriba Counties, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Dakota formation underlying Townships 30 and 31 North, Ranges 2 thru 7 West, containing 270,260 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 7129: (Continued from August 12, 1981, Examiner Hearing)
Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the N/2 of Section 28, Township 28 North, Range 8 West, 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 7169: (Continued from August 12, 1981, Examiner Hearing)
Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the S/2 of Section 22, Township 28 North, Range 8 West, 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.

CAMPBELL, BYRD & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
HARL D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
WILLIAM G. WARDLE

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 5, 1981



Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 7338

Re: Application of Beartooth Oil & Gas Company for
Downhole Commingling, San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Beartooth Oil
& Gas Company in the above-referenced matter.

The applicant requests that this matter be included on the
docket for the examiner hearing scheduled to be held on
August 26, 1981.

Very truly yours,

A handwritten signature in dark ink, appearing to read "William F. Carr".

William F. Carr

WFC:lr

Enclosure

cc: Mr. A. R. Kendrick

BEFORE THE
OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS
SANTA FE

IN THE MATTER OF THE APPLICATION
OF BEARTOOTH OIL & GAS COMPANY
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO.

CASE 7338

APPLICATION

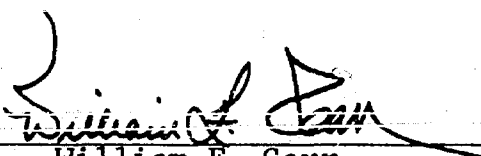
Comes now, BEARTOOTH OIL & GAS COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

1. Applicant is the operator of the Beartooth Oil & Gas Company Elledge Federal 34 No. 11 Well located in Unit D, 790 feet from the North and 955 feet from the West line of Section 34, Township 29, North, Range 11 West, N.M.P.M., San Juan County, New Mexico.
2. Applicant proposes to commingle in the well bore of said well production from the Fruitland formation and the Farmington formation.
3. Approval of this application will result in the production of hydrocarbons that would not otherwise be produced, will prevent waste and will not cause damage to either the Fruitland or Farmington formations.
4. Approval of this application will not impair the correlative rights of any offset operators.

WHEREFORE, BEARTOOTH OIL & GAS COMPANY requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on August 26, 1981, that notice be given as required by law and the rules of the Division and that the Division enter its order granting the applicant permission to downhole commingle production from the Fruitland and Farmington formations in the well bore of its Elledge Federal 34 No. 1 Well.

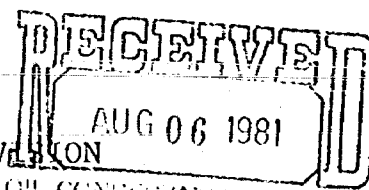
Respectfully submitted,
CAMPBELL, BYRD & BLACK, P.A.

By


William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

BEFORE THE
OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS



IN THE MATTER OF THE APPLICATION
OF BEARTOOTH OIL & GAS COMPANY
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO.

CASE 7338

APPLICATION

Comes now, BEARTOOTH OIL & GAS COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

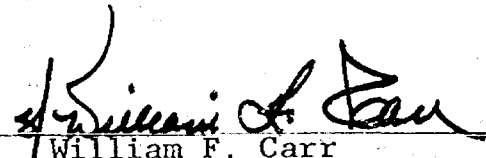
1. Applicant is the operator of the Beartooth Oil & Gas Company Elledge Federal 34 No. 11 Well located in Unit D, 790 feet from the North and 955 feet from the West line of Section 34, Township 29, North, Range 11 West, N.M.P.M., San Juan County, New Mexico.
2. Applicant proposes to commingle in the well bore of said well production from the Fruitland formation and the Farmington formation.
3. Approval of this application will result in the production of hydrocarbons that would not otherwise be produced, will prevent waste and will not cause damage to either the Fruitland or Farmington formations.
4. Approval of this application will not impair the correlative rights of any offset operators.

WHEREFORE, BEARTOOTH OIL & GAS COMPANY requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on August 26, 1981, that notice be given as required by law and the rules of the Division and that the Division enter its order granting the applicant permission to downhole commingle production from the Fruitland and Farmington formations in the well bore of its Ellledge Federal 34 No. 1 Well.

Respectfully submitted,

CAMPBELL, BYRD & BLACK, P.A.

By



William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

BEFORE THE
OIL CONSERVATION DIVISION AUG 06 1981
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF BEARTOOTH OIL & GAS COMPANY
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO.

CASE 2338

APPLICATION

Comes now, BEARTOOTH OIL & GAS COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

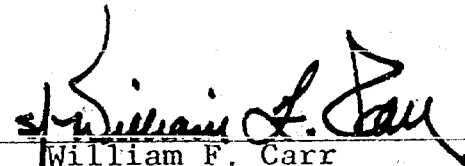
1. Applicant is the operator of the Beartooth Oil & Gas Company Elledge Federal 34 No. 11 Well located in Unit D, 790 feet from the North and 955 feet from the West line of Section 34, Township 29, North, Range 11 West, N.M.P.M., San Juan County, New Mexico.
2. Applicant proposes to commingle in the well bore of said well production from the Fruitland formation and the Farmington formation.
3. Approval of this application will result in the production of hydrocarbons that would not otherwise be produced, will prevent waste and will not cause damage to either the Fruitland or Farmington formations.
4. Approval of this application will not impair the correlative rights of any offset operators.

WHEREFORE, BEARTOOTH OIL & GAS COMPANY requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on August 26, 1981, that notice be given as required by law and the rules of the Division and that the Division enter its order granting the applicant permission to downhole commingle production from the Fruitland and Farmington formations in the well bore of its Elledge Federal 34 No. 1 Well.

Respectfully submitted,

CAMPBELL, BYRD & BLACK, P.A.

By



William F. Carr
Post Office Box 2206
Santa Fe, New Mexico 87501
Attorneys for Applicant

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7338

Order No. R-6280

APPLICATION OF BEARTOOTH OIL & GAS COMPANY
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 26
19 81, at Santa Fe, New Mexico, before Examiner Richard L.
Stamets.

NOW, on this _____ day of _____, 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, Beartooth Oil & Gas Company, is
the owner and operator of the Elledge Federal 34 Well No. 11,
located in Unit D of Section 34, Township 29 North
Range 11 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle
Fruitland and Farmington production
within the wellbore of the above-described well.

(4) That from the Fruitland zone, the subject well is capable of low marginal production only.

(5) That from the Farmington zone, the 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 / consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 12 percent of the commingled gas production should be allocated to the Fruitland zone, and 88 percent of ~~percent~~ of the commingled oil production to the Farmington zone.

The commingled

(ALTERNATE)

(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, Beartooth Oil & Gas Company, is hereby authorized to commingle Fruitland and Farmington production within the wellbore of the Elledge Federal 34 Well No. 1 located in Unit D of Section 34, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

(2) 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.

(ALTERNATE)

(2) That 12 percent of the commingled gas production shall be allocated to the Fruitland zone and 88 percent of the commingled gas production and all percent of the commingled oil production shall be allocated to the Farmington zone.

(3) 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.

(4) 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 designated.