

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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

**NOMENCLATURE
CASE NO. 12027
Order No. R-11068**

**APPLICATION OF BONNEVILLE FUELS
CORP. FOR POOL CONTRACTION, POOL
CREATION AND SPECIAL POOL RULES,
SAN JUAN COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on August 20, 1998, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 14th day of October, 1998, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Bonneville Fuels Corporation, seeks the contraction of the Kutz-Gallup Pool by the deletion of the following described acreage in San Juan County, New Mexico:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM

Section 11: SW/4

Section 14: NW/4, SW/4 NE/4

(3) The applicant further seeks the creation of a new pool for production of oil from the Gallup formation comprising the following described acreage:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM

Section 11: S/2

Section 13: S/2

Section 14: All

Section 15: NE/4

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(4) The applicant further seeks the adoption of special pool rules for the proposed Gallup pool including provisions for 80-acre spacing and proration units and designated well location requirements such that wells cannot be located closer than 330 feet from the outer boundary of the spacing unit.

(5) Division records indicate that the Kutz-Gallup Pool was created by Division Order No. R-1825 dated November 21, 1960. The Kutz-Gallup Pool, which comprises the following described acreage, is currently governed by Division Rule No. 04.C., which requires standard 40-acre oil spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit:

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM

Section 5: NW/4

Section 6: N/2

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM

Section 1: N/2, SW/4

Section 2: All

Section 3: SW/4

Section 4: W/2, SE/4, NW/4 NE/4

Section 5: All

Section 6: NE/4 NE/4

Section 9: N/2, SE/4

Section 10: All

Section 11: N/2, SW/4

Section 12: NW/4

Section 14: NW/4, SW/4 NE/4

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM

Section 32: SW/4

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM

Section 31: SE/4

Section 32: SW/4

(6) The applicant currently operates the Fullerton Federal Well Nos. 9 (API No. 30-045-13047) and 11 (API No. 30-045-13049) located respectively in Unit M of Section 13 and Unit E of Section 14, both in Township 27 North, Range 11 West, NMPM.

(7) Division records indicate that the Fullerton Federal Well No. 9 was originally drilled by British-American Oil Production Company in 1961. The well tested non-commercial in the Gallup formation and was subsequently plugged and abandoned. The applicant re-entered the well in June, 1997 and drilled the well to a total depth of 6,541 feet. The well was subsequently completed in the Basin-Dakota Gas Pool at an initial producing rate of 3 BOPD, 325 MCFGD and 42 BWPD. In September, 1997, the applicant recompleted the well to the Gallup formation, Kutz-Gallup Pool, at an initial producing rate of 30 BOPD, 353 MCFGD and 0 BWPD. The well is currently downhole commingled in the Kutz-Gallup and Basin-Dakota Pools (as authorized by Order No. DHC-1562 dated June 3, 1997).

(8) Division records indicate that the Fullerton Federal Well No. 11 was originally drilled by British-American Oil Production Company in 1962. The well was completed in the Basin-Dakota Gas Pool at an initial potential of 1,709 MCFGD. Bonneville Fuels Corporation assumed operations from Chevron USA Inc. on March 8, 1990. The well was recompleted to the Gallup formation, Kutz-Gallup Pool, in December, 1996, at an initial producing rate of 32 BOPD, 0 MCFGD and 48 BWPD. The well is currently downhole commingled in the Kutz-Gallup and Basin-Dakota Pools (as authorized by Order No. DHC-1428 dated January 28, 1997).

(9) Based upon estimated producing rates, Division Order No. DHC-1428 allocated production to the Gallup and Dakota zones in the Fullerton Federal Well No. 11 as follows:

<u>POOL</u>	<u>OIL%</u>	<u>GAS%</u>
Basin-Dakota Gas Pool	6%	92%
	(Estimated Production-.33 BOPD)	(Estimated Production-60 MCFGD)
Kutz-Gallup Pool	94%	8%
	(Estimated Production-5 BOPD)	(Estimated Production-5 MCFGD)

(10) Subsequent to initiating downhole commingling operations, the Fullerton Federal Well No. 11 produced at a considerably higher gas rate than anticipated. Division records indicate that during the period from February 6-21, 1997, production from the well averaged 8.06 BOPD and 366 MCFGD.

(11) In support of its application, the applicant presented geologic evidence which indicates that:

- a) the Kutz-Gallup Pool is directly offset to the southeast by the Angels Peak-Gallup Associated Pool. The Angels Peak-Gallup Associated Pool currently comprises all or portions of Sections 19-22 and Sections 26-35, Township 27 North, Range 10 West, which is the portion of the pool directly offsetting the Kutz-Gallup Pool. The

Kutz-Gallup and Angels Peak-Gallup Associated Pools likely represent a common source of supply in the Gallup formation;

- b) the Angels Peak-Gallup Associated Pool is currently governed by the General Rules and Regulations for the Associated Oil & Gas Pools/Special Rules and Regulations for the Angels Peak-Gallup Associated Pool as adopted in Division Order No. R-5353, as amended, which stipulate, among other things that:
 - i) a well shall be classified as a gas well if its producing gas-oil ratio is in excess of 30,000 cubic feet of gas per barrel of oil, and if such ratio is less than 30,000 cubic feet of gas per barrel of oil, the well shall be classified as an oil well; and
 - ii) oil wells shall be spaced on 80 acres and gas wells shall be spaced on 320 acres;
- c) there are two primary producing sand intervals within the Lower Gallup formation. These producing sand intervals have been designated by the applicant as the Upper and Lower Sand intervals;
- d) wells within the Kutz-Gallup Pool generally produce from the Lower Sand interval of the Lower Gallup formation and wells within the Angels Peak-Gallup Associated Pool generally produce from the Upper Sand interval of the Lower Gallup formation;
- e) the Lower Sand interval of the Lower Gallup formation is generally absent within the acreage proposed to be included within the new Gallup pool;
- f) the Lower Gallup formation structurally dips from the area within the Angels Peak-Gallup Associated Pool to the north towards the Kutz-Gallup Pool;
- g) considerable differences in producing gas-oil ratios between wells producing from the Kutz-Gallup and Angels Peak-Gallup Associated Pools may be attributable to structural differences within the Lower Gallup formation between these two pools; and

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- h) the permeability within the area of the Fullerton Federal Well Nos. 9 and 11 is considerably lower than the permeability generally encountered within both the Kutz-Gallup and Angels Peak-Gallup Associated Pools. This permeability difference suggests that the Fullerton Federal Well Nos. 9 and 11 may be located in a geologic transition area between the Kutz-Gallup and Angels Peak-Gallup Associated Pools.

(12) The applicant presented engineering evidence which indicates that:

- a) its Fullerton Federal Well No. 9 has a cumulative producing gas-oil ratio of 16,200:1. Its Fullerton Federal Well No. 11 has a cumulative producing gas-oil ratio of 88,700:1;
- b) the Fullerton Federal Well No. 8, which is located in Unit G of Section 14, cumulatively produced at a gas-oil ratio of 39,000:1 in the Lower Gallup formation prior to being plugged and abandoned;
- c) wells within the Kutz-Gallup Pool generally produce at gas-oil ratios which range from 0-5,000 cubic feet of gas per barrel of oil;
- d) wells within the Angels Peak-Gallup Associated Pool produce at gas-oil ratios which vary widely; and
- e) drainage area calculations for the Fullerton Federal Well No. 11 indicate that this well should ultimately drain an area of approximately 115 acres.

(13) The evidence presented in this case generally indicates that the Fullerton Federal Well Nos. 9 and 11 are producing from a transition area within the Lower Gallup formation between the Kutz-Gallup and Angels Peak-Gallup Associated Pools.

(14) Preliminary engineering evidence indicates that the Fullerton Federal Well No. 11 is capable of draining an area in excess of 40 acres.

(15) Bonneville Fuels Corporation is the only interest owner within the N/2 of Section 14 and the S/2 of Section 13, being the area which will be affected by a change in well spacing.

(16) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(17) The proposed pool creation and adoption of special pool rules will allow the applicant the opportunity to economically further develop this portion of the reservoir and will allow the recovery of additional oil and gas reserves from the Lower Gallup formation which may otherwise not be recovered, thereby preventing waste.

(18) A new pool for the production of oil from the Gallup formation should be created and designated the South Kutz-Gallup Pool.

(19) The South Kutz-Gallup Pool should initially comprise the S/2 of Section 11, the S/2 of Section 13, all of Section 14, and the NE/4 of Section 15.

(20) In order to prevent the economic loss caused by, and avoid the risk involved in, the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 80-acre spacing units should be adopted for the South Kutz-Gallup Pool.

(21) At the time of the hearing, the applicant further requested that:

- a) the proposed special rules and regulations be adopted on a permanent basis; and
- b) the special rules and regulations provide for designated well locations such that wells may be located no closer than 330 feet from the outer boundary of a quarter-quarter section or lot in order to provide for flexibility in drilling wells within the pool.

(22) Adoption of the proposed special rules and regulations on a permanent basis is justified in this case.

(23) The applicant did not present sufficient evidence to justify or support its request for 330 foot well setback requirements within the South Kutz-Gallup Pool.

(24) The special rules and regulations should provide for designated well locations such that a well should be located within 150 feet of the center of a governmental quarter-quarter section or lot in order to protect correlative rights.

(25) Pursuant to Division Rule Nos. 505 and 506, the subject pool should be assigned a depth bracket allowable of 160 barrels of oil per day at a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Bonneville Fuels Corporation, the boundaries of the Kutz-Gallup Pool, San Juan County, New Mexico, are hereby contracted by the deletion of the following described acreage:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM

Section 11: SW/4

Section 14: NW/4, SW/4 NE/4

(2) A new pool for the production of oil from the Gallup formation is hereby created and designated the South Kutz-Gallup Pool. The South Kutz-Gallup Pool shall initially comprise the following described acreage:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM

Section 11: S/2

Section 13: S/2

Section 14: All

Section 15: NE/4

(3) Special Rules and Regulations for the South Kutz-Gallup Pool are hereby adopted as follows:

**SPECIAL RULES AND REGULATIONS
FOR THE
SOUTH KUTZ-GALLUP POOL**

RULE 1. Each well completed in or recompleted in the South Kutz-Gallup Pool or in the Gallup formation within one mile thereof, and not nearer to or within the limits of another designated Gallup pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules hereinafter set forth.

RULE 2. Each well completed or recompleted in the South Kutz-Gallup Pool shall be located on a unit containing 80 acres, more or less, which consists of the N/2, S/2, E/2 or W/2 of a single governmental quarter section.

RULE 3. The Director may grant an exception to the requirements of Rule 2 without hearing when an application has been filed for a non-standard unit consisting of less than 80 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered

an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

RULE 5. The Director may grant an exception to the requirements of Rule 4 without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to a deeper horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 6. The allowable for a standard proration unit (79 through 81 acres) shall be based on a depth bracket allowable of 160 barrels of oil per day, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED THAT:

(4) The location of all wells presently drilling to or completed in the South Kutz-Gallup Pool or in the Gallup formation within one mile thereof are hereby approved; the operator of any well having an unorthodox location shall notify the Division's Aztec District Office in writing of the name and location of the well within 30 days from the date of this order.

(5) Existing oil wells in the South Kutz-Gallup Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 80 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable until a non-standard spacing unit has been approved.

(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


LORI WROTENBERY
Director

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