

BEFORE THE
OIL CONSERVATION COMMISSION
OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
THE BRITISH-AMERICAN OIL PRODUCING)
COMPANY FOR AN ORDER AUTHORIZING THE)
CONVERSION OF CERTAIN WELLS TO IN-)
JECTION WELLS AND AUTHORIZING A SECONDARY)
RECOVERY PROJECT IN THE BISTI-LOWER)
GALLUP OIL POOL, SAN JUAN COUNTY, NEW)
MEXICO, PURSUANT TO RULE 701 OF THE)
RULES AND REGULATIONS OF THE NEW MEXICO)
OIL CONSERVATION COMMISSION.)

CASE NO. _____

A P P L I C A T I O N

TO THE HONORABLE OIL CONSERVATION COMMISSION OF THE STATE OF NEW
MEXICO:

COMES NOW, the Applicant, The British-American Oil Producing
Company, and alleges and states to the Commission as follows:

1. Applicant is the owner of oil and gas leases covering the
following described lands within the defined limits of the Bisti-Lower
Ballup Oil Pool, San Juan County, New Mexico:

Township 26 North, Range 13 West

Sections 27, 28, 29, $W\frac{1}{2}$ -32, 33, 34, 35

Township 25 North, Range 13 West

Sections 1, 3, and 4

2. Applicant desires to inject gas or liquified petroleum gas
and gas, if the latter proves to be feasible, pursuant to Rule 701 of the
Commission's Rules and Regulations, into the first bench of the Bisti-Lower
Gallup Oil Pool by injection of such substances in the following described
wells:

- (a) Applicant's Douthit B-5, located in the $SW\frac{1}{4}NE\frac{1}{4}$
Section 28, T-26N, R-13W.
- (b) Applicant's Douthit B-7, located in the $SW\frac{1}{4}NW\frac{1}{4}$
Section 27, T-26N, R-13W.
- (c) Applicant's Douthit B-12, located in the $SW\frac{1}{4}SW\frac{1}{4}$
Section 27, T-26N, R-13W.
- (d) Applicant's Douthit B-13, located in the $SW\frac{1}{4}SE\frac{1}{4}$
Section 28, T-26N, R-13W.

3. Attached hereto as Exhibit "A" is a plat showing the location
of the above-described wells proposed to be used as injection wells and the

location of all oil and gas wells, including drilling wells and dry holes, if any, and the names of lessees within one half-mile of the said proposed intake wells and showing the operator of each lease offsetting Applicant's lease covering Sections 27 and 28, T-26N, R-13W.

4. The above-described proposed intake wells are producing oil and gas from the Lower Gallup Sandstone, which is that stratigraphic section in the first bench of the Gallup Sandstone as encountered in the Douthit B-9 well located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 28, T-26N, R-13W, between the depths of 4966 ft. and 5000 ft. and which is the formation into which it is proposed to inject such substances and which will be affected by such injection.

5. Attached hereto and marked respectively Exhibits B-1, B-2, B-3, and B-4 are the logs of Applicant's wells Douthit B-5, B-7, B-12, and B-13.

6. A description of the intake wells' casing is as follows:

DOUTHIT B-5: 9 5/8" 25.4-lb. Armco spiral well casing set at 213.62 ft. KB, cemented with 175 sacks of regular cement, containing 2% calcium chloride. 5 $\frac{1}{2}$ " 15.5-lb. J-55 casing (21 joints), and 5 $\frac{1}{2}$ " 14-lb. J-55 casing (148 joints) set at 5201.05 ft. KB, cemented with 100 sacks of regular cement mixed with 3% gel.

DOUTHIT B-7: 9 5/8" 25.4-lb. Armco spiral well casing set at 213.88 ft. KB, cemented with 200 sacks of regular cement. 10 joints of 5 $\frac{1}{2}$ " 15.5-lb. J-55 casing and 117 joints of 5 $\frac{1}{2}$ " 14-lb. J-55 casing set at 5164 ft. KB and cemented with 100 sacks of regular cement mixed with 3% gel.

DOUTHIT B-12: 9 5/8" 25.4-lb. Armco spiral well casing set at 213.75 KB, cemented with 200 sacks regular cement. 123 joints 5 $\frac{1}{2}$ " 14-lb. J-55 casing set at 5097 ft. KB, cemented with 100 sacks regular cement mixed with 3% gel.

DOUTHIT B-13: 9 5/8" 25.4-lb. Armco spiral well casing set at 214 ft. KB, cemented with 200 sacks regular cement. 126 joints 5 $\frac{1}{2}$ " 14-lb. J-55 casing set at 5122 ft. KB, cemented with 100 sacks regular cement mixed with 3% gel.

It is proposed to test the casing in each of the above-described intake wells before injection therein with a test pressure of 2000 psi by making use of tubing and packer set above the perforations in the casing.

7. All gas produced from all of Applicant's leases in the Bisti Field above described (except gas produced from Applicant's Marye No. 1 Well,

located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T-25N, R-13W) will be used for injection, except gas used in the field for lease purposes. It is estimated that daily injection amounts will approximate 650 mcf initially, which will be increased as required to inject all of the gas produced from Applicant's said leases in the field, except that utilized for lease purposes. Applicant is currently conducting a study to attempt to determine the economic feasibility of preceding the injection of said produced gas with the injection of quantities of liquified petroleum gas. If such studies indicate the economic feasibility of injecting liquified petroleum gas, Applicant may also propose to the Commission at the hearing on this Application that it be granted permission to inject such substances preceding the injection of the produced gas, such injection to be in such quantities as may be then proposed to the Commission. It is proposed that injection of all the produced gas and also of liquified petroleum gas, if justified, will be made initially into Applicant's Douthit B-5 well above-described, and that injection of gas and of liquified petroleum gas, if justified, will be undertaken in the said other proposed injection wells when the volumes of produced gas and the results obtained from injection into the Douthit B-5 well justify the use of such additional injection wells.

8. The Commission is requested in the interest of conservation, the prevention of waste, and to permit the most efficient and effective operation of the gas injection project, or the injection of both liquified petroleum gas and gas, to adopt special field rules and regulations which will encompass the following:

Douthit B-5

✓ (a) The conversion of Applicant's Douthit B-7, B-12, and B-13 wells to injection wells upon application to and approval of the Secretary-Director of the Commission.

✓ (b) The transfer of allowables from producing wells converted to injection wells to other producing wells of the Applicant, located on Applicant's leases above-described.

✓ (c) The transfer of allowables of producing wells which may be shut in for observation in connection with the injection project, or to increase the efficiency of the injection project, to Applicant's other producing wells located on Applicant's leases above described.

✓ (d) The operation of all of Applicant's wells producing gas from its said leases on a net gas-oil ratio basis be permitted, each well producing gas which is reinjected into the Bisti-Lower Gallup Oil Pool to be permitted to produce its allowable so long as the gas therefrom is so reinjected.

✓ (e) Such other rules and regulations which the Commission deems to be necessary to the proper and efficient operation of the injection program.

WHEREFOR, Applicant respectfully requests that this Application be set for hearing before an examiner at the earliest possible date, and that notice hereof be given as required by law, and that upon the evidence adduced at the hearing, the Commission issue an order establishing rules and regulations governing that part of the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, more particularly described hereinabove, to accomplish the requests made herein.

Dated this fourth day of November, 1958.

THE BRITISH-AMERICAN OIL PRODUCING COMPANY,
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