MAXWELL OIL COMPANY
CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

September 16, 1966

243

Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

In re: A. C. Taylor "A" Lease
Malco-Taylor "A" Lease
A. C. Taylor "B" Lease
Shugart Field
Eddy County, New Mexico

Gentlemen:

Request is hereby made for administrative approval to convert additional wells on the above referred to leases to water injection wells in order that our waterflood project may be expanded. In December 1965 we commenced water injection in our A. C. Taylor "A" No. 4 in cooperation with Atlantic Richfield Company's waterflood on their Swearingen Lease. The New Mexico Oil Conservation Commission granted approval to use the A. C. Taylor "A" No. 4 as a water injection well by letter dated November 10, 1965, having previously granted us permission to conduct waterflood operations by Order No. R-133, Case No. 334 dated March 6, 1952.

As a result of Atlantic Richfield Company's waterflood operations and injection of water in our A. C. Taylor "A" No. 4, we have obtained a substantial increase in production from our A. C. Taylor "A" No. 1 and our A. C. Taylor "B" No. 2, as indicated by the attached gas-oil ratio tests made on these two wells. Also, the results obtained by Atlantic Richfield Company on their Swearingen Lease and an engineering study of our leases indicate that a full-scale five-spot waterflood in this field should be successful and result in the recovery of approximately 100 percent of primary production.

We, therefore, request approval to convert the A. C. Taylor "A" No. 2 and the Malco-Taylor "A" No. 4 to water injection, to resume water injection in the A. C. Taylor "A" No. 3 and to use the A. C. Taylor "B" No. 3 (presently temporarily abandoned) as a water injection well.

We do not at this time desire to convert our Malco-Taylor "A" No. 2 or our Malco-Taylor "A" No. 3 to water injection wells to

fill out this pattern due to the fact that the Malco-Taylor "A" No. 1 is presently not producing after an unsuccessful workover attempt. We plan to again workover this well to try to get it back on production. We desire also to observe the performance of the waterflood for a period of time before converting these two wells to water injection. In the meantime, we feel that we should commence injection in the Malco-Taylor "A" No. 4 in order to achieve reservoir fill-up as soon as possible.

We are requesting waivers from Atlantic Richfield Company, the offset operator, and the State Engineer. These waivers, if granted, will be sent directly to your office.

Enclosed in triplicate are gas-oil ratio tests taken on the A. C. Taylor "A" No. 1 and A. C. Taylor "B" No. 2, a plat indicating our present injection well and the location of the proposed injection wells, and copies of the letters to Atlantic Richfield and the State Engineer requesting the waiver of objections.

Yours sincerely,

Joseph D. Kennedy

JDK:ah
Enclosures

cc: U. S. Dept. of Interior
Geological Survey
P. O. Drawer "U"
Artesia, New Mexico - 88210
Attn: Mr. James A. Kanuf,
District Engineer

Kewanee Oil Company
Post Office Box 2239
Tulsa, Oklahoma
Attn: Mr. H. S. Erskine

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Maxwell Oil Company

Pool: Shugart

County: Eddy

Address: 2017 Continental Natl. Bank Bldg., Fort Worth, Texas

TYPE OF TEST – (X): Scheduled [ ] Completion [ ] Special [X]

LEASE NAME	WELL NO.	LOCATION U	LOCATION S	LOCATION T	LOCATION R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	PROD. DURING TEST GRAV. OIL	PROD. DURING TEST OIL BBLS.	PROD. DURING TEST GAS M.C.F.	GAS – OIL RATIO CU.FT./BBL.
A. C. Taylor "A"	1	M	12	18S	31E	Sept. 2, 1966	P			40	24	0	36.8	38.5	TSTM	--
A. C. Taylor "B"	2	E	13	18S	31E	Sept. 1, 1966	P			85	24	0	36.6	85.0	TSTM	--

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

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

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

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

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

Joseph D. Kennedy
(Signature)

Joseph D. Kennedy
Secretary-Treasurer
(Title)

September 16, 1966
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Maxwell Oil Company	Shugart	Eddy

Address: 2017 Continental National Bank Bldg., Fort Worth, Texas

TYPE OF TEST (X): Scheduled [ ] Completion [ ] Special [X]

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A. C. Taylor "A"	1	M	12	18S	31E	May 10, 1966	P			5	24	0	36.5	5.2	TSTM	--
A. C. Taylor "B"	2	E	13	18S	31E	Dec. 20, 1965				1	24	0	36.6	1	TSTM	--

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

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

Joseph D. Kennedy
(Signature)

Joseph D. Kennedy
Secretary-Treasurer
(Title)

September 16, 1966
(Date)

MAXWELL OIL COMPANY
CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

September 16, 1966

Mr. S. E. Reynolds, State Engineer,
State of New Mexico
Post Office Box 1717
Roswell, New Mexico - 88201

66 SEP 19 AM 8 1

Dear Mr. Reynolds:

We are today making application to the New Mexico Oil Conservation Commission for administrative approval to expand our waterflood on our A. C. Taylor "A", Malco-Taylor "A", and A. C. Taylor "B" Leases in the Shugart Field, Eddy County, New Mexico. Attached is a plat indicating thereon our present injection well and our proposed injection wells.

The reason for expanding our waterflood is that we have obtained a substantial increase in production from two wells on our leases, the A. C. Taylor "A" No. 1 and the A. C. Taylor "B" No. 2. This, together with an engineering study of our leases and the results obtained on the Atlantic Richfield Company's Swearingen Lease, indicates that a full-scale waterflood of our leases is feasible and will result in a very substantial increase in recovery of oil.

We anticipate converting these wells to water injection just as soon as Double Eagle Water Company has completed laying their new line into this area. We anticipate that we will connect to this new supply of water within the next ten days or two weeks and, in order to expedite the approval of our request, we are requesting a waiver of objections from you and that this waiver, if granted, be sent directly to the Oil Conservation Commission, Santa Fe, New Mexico, attention of Mr. A. L. Porter, Jr.

Yours sincerely,

ORIGINAL SIGNED BY
JOSEPH D. KENNEDY

Joseph D. Kennedy

JDK:ah
Enclosures

cc: Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico
Attn: Mr. A. L. Porter, Jr.

MAXWELL OIL COMPANY

CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

[illegible] 1, 1[illegible]

[illegible]
[illegible] of [illegible]
[illegible] Office Box [illegible]
[illegible], [illegible] [illegible]

Dear [illegible]:

We are today making application to the Railroad Commission of Texas for a permit to drill an exploratory test on our [illegible] Taylor "A", [illegible] Taylor "B" [illegible] Taylor County, Texas. [illegible] a plat indicating [illegible] present information well [illegible] information.

The reason for spacing our wells as [illegible] we [illegible] [illegible] [illegible] from [illegible] and the [illegible] Taylor [illegible] [illegible] [illegible] study of our [illegible] [illegible] of taking on the [illegible] Taylor [illegible] [illegible] [illegible]

MAXWELL OIL COMPANY
CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

September 16, 1966

Atlantic Richfield Company
Post Office Box 1978
Roswell, New Mexico

Gentlemen:

We are today making application to the New Mexico Oil Conservation Commission for administrative approval to expand our waterflood on our A. C. Taylor "A", Malco-Taylor "A", and A. C. Taylor "B" Leases in the Shugart Field, Eddy County, New Mexico. Attached is a plat indicating thereon our present injection well and our proposed injection wells.

The reason for expanding our waterflood is that we have obtained a substantial increase in production from two wells on our leases, the A. C. Taylor "A" No. 1 and the A. C. Taylor "B" No. 2. This, together with an engineering study of our leases and the results obtained on the Atlantic Richfield Company's Swearingen Lease, indicates that a full-scale waterflood of our leases is feasible and will result in a very substantial increase in recovery of oil.

We anticipate converting these wells to water injection just as soon as Double Eagle Water Company has completed laying their new line into this area. We anticipate that we will connect to this new supply of water within the next ten days or two weeks and, in order to expedite the approval of our request, we are requesting a waiver of objections from you and that this waiver, if granted, be sent directly to the Oil Conservation Commission, Santa Fe, New Mexico, attention of Mr. A. L. Porter, Jr.

Yours sincerely,

ORIGINAL SIGNED BY
JOSEPH D. KENNEDY

Joseph D. Kennedy

JDK:ah
Enclosures

cc: Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico -
Attn: Mr. A. L. Porter, Jr.

MAXWELL OIL COMPANY
CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

October 27, 1966

Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico - 87501

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

In re: Administrative Order
No. WFX-243

Dear Mr. Porter:

We have copy of the above referred to administrative Order granting us permission to convert our A. C. Taylor "A" No. 2, Malco-Taylor "A" No. 4 and A. C. Taylor "B" No. 3 to water injection wells. Our request of September 16, 1966 for this administrative approval also requested approval to resume water injection in the A. C. Taylor "A" No. 3. Permission to use the A. C. Taylor "A" No. 3 as a water injection well was originally granted by Order No. R-133 dated March 2, 1952. We take it that the omission of this well in your Administrative Order No. WFX-243 means that we do not have to obtain approval to resume injection in this well and we will proceed with expansion of our waterflood under the assumption that we have prior authorization still in effect to inject water into this well.

Yours sincerely,

Joseph D. Kennedy

JDK:ah

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

October 17, 1966

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Maxwell Oil Company dated September 16, 1966 which seeks administrative authority to expand their waterflood project authorized by Order R-133.

This office offers no objection to the granting of the application provided the wells are completed and operated in such manner that compliance with Sec. 65-3-11 of the New Mexico Statutes will be assured.

Yours truly,

S. E. Reynolds
State Engineer

By: Frank E. Irby
Frank E. Irby
Chief
Water Rights Division

FEI/ma
cc-Maxwell Oil Co.
F. H. Hennighausen

MAXWELL OIL COMPANY
CONTINENTAL NATIONAL BANK BLDG.
FORT WORTH, TEXAS 76102

'66 OCT 13 AM 7 55

October 10, 1966

New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico

Attention: Mr. J. E. Kapteina

In re: A. C. Taylor "A" Lease
Malco-Taylor "A" Lease
A. C. Taylor "B" Lease
Shugart Field
Eddy County, New Mexico

Gentlemen:

Enclosed are three copies of a schematic diagram depicting the method by which wells on the above referred to leases were completed. The depths are all average approximate depths and the top of the cement behind the casing is calculated as no temperature surveys were run on any of these wells.

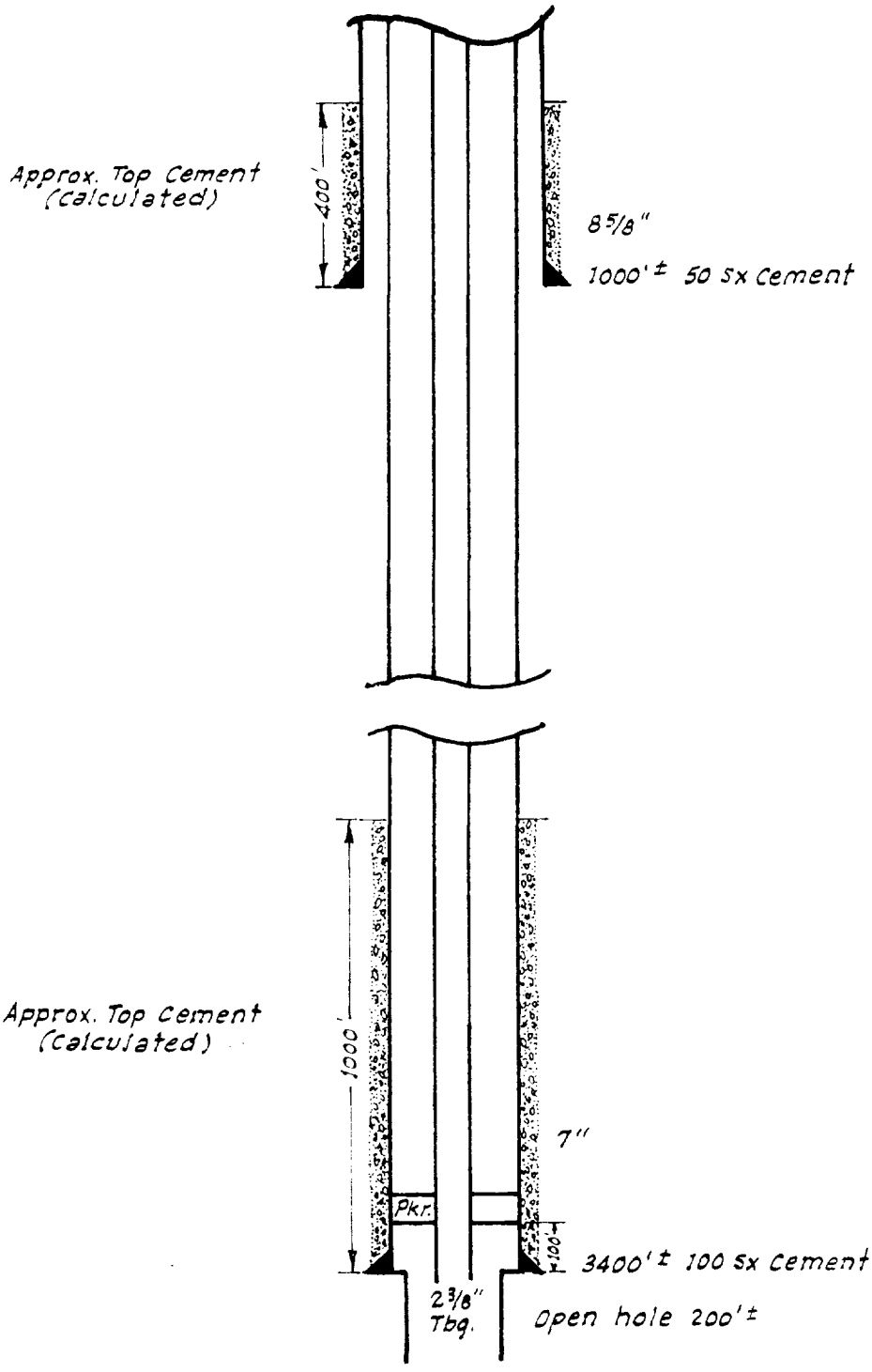
We are presently injecting water in our A. C. Taylor "A" No. 4 through 2-3/8" tubing with the packer set approximately 100' above the casing shoe. We were injecting water in the same manner in our A. C. Taylor "A" No. 3 before water injection was temporarily discontinued. We plan to run tracer surveys on our injection wells after the injection pressure has become stabilized, and if it is detected that any water is entering behind the casing in any of the wells, remedial work will be done.

Yours sincerely,

Joseph D. Kennedy

JDK:ah
3 Enclosures

cc: State Engineer (w/diagram)
State Capitol Building
Santa Fe, New Mexico



Typical Well Completion and Down Hole Installation for water Injection.

MAXWELL OIL COMPANY

Taylor Leases, Shugart Field

EDDY COUNTY, NEW MEXICO

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. DRAWER DD
ARTESIA

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

September 23, 1966

N. M. Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Attention: Dan Nutter

Re: WFX

Dear Dan:

Referring to Maxwell Oil Company's application dated September 16, 1966, to expand their North Shugart waterflood, we can find no objections to the same. However, as the wells appear to have the salt section, Tansil, Yates and part of the Seven Rivers formations open behind the pipe, the injection of water down tubing with a packer set near the casing shoe should be considered.

Very truly yours,

OIL CONSERVATION COMMISSION

Dick

R. L. Stamets
Geologist

RLS/bh

AtlanticRichfieldCompany
North American Producing Division
New Mexico-Arizona District
Post Office Box 1978
Roswell, New Mexico 88201
Telephone 505 622 4041

W. P. Tomlinson
District Engineer

September 20, 1966

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Re: Proposed Expansion of Maxwell Oil Company
A.C.Taylor "A" and "B" Lease Waterflood
Sections 12 and 13, T-18-S, R-31-E
Eddy County, New Mexico

Gentlemen:

Maxwell Oil Company has informed us of their plan to expand the subject waterflood and offset the Atlantic operated Johnson Federal Lease comprising the E/2 SE/4 of Section 11, with an injection well, their A. C. Taylor No. 2. Atlantic Richfield Company has no objection to this proposed expansion.

Yours very truly,

W. P. Tomlinson

W. P. Tomlinson

WPT:jcb

cc: Maxwell Oil Company
Continental National Bank Building
Fort Worth, Texas 76102
Attention: Mr. Joseph D. Kennedy

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO

COPY

November 2, 1966

Maxwell Oil Company
Continental National Bank Building
Fort Worth, Texas 76102

Attention: Mr. Joseph D. Kennedy

Gentlemen:

Authorization to inject water into A. C. Taylor "A" Well No. 3, located in the SE/4 SW/4 of Section 12, Township 18 South, Range 31 East, NMPM, was granted by Order R-133. To meet obligations of a lease line agreement with Atlantic Refining Company, Maxwell Oil Company requested authorization to convert A. C. Taylor "A" Well No. 4 to water injection and received permission to substitute Well No. 4 for Well No. 3 in its Taylor Waterflood Project. Inasmuch as both wells conform to the established injection pattern, Maxwell Oil Company is hereby authorized to resume water injection in its A. C. Taylor "A" Well No. 3.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og
cc: Oil Conservation Commission - Artesia
U. S. Geological Survey - Artesia
File WFX No. 243