

**CASE 3877: Application of NEWMONT
FOR A WATERFLOOD PROJECT, LEA
COUNTY, NEW MEXICO.**

Leather

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Arthur

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 Newmarket 1232
 Young 17 19
 Young 19 17 1232

Case Number

3877

Application
Transcripts.

Small Exhibits

ETC.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 9, 1968

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3872: Application of Union Oil Company of California for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to fully complete its Federal "A" Well No. 1 located in Unit P of Section 12, Township 15 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Morton-Wolfcamp Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres and such other formations as may occur in the open-hole interval from approximately 4620 to 7350 feet.
- CASE 3873: Application of R. G. McPherson for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the open-hole interval from approximately 5250 feet to 5854 feet in his S. P. Johnson Well No. 1 located 990 feet from the West line and 1650 feet from the South line of Section 5, Township 18 South, Range 39 East, South Carter-San Andres Pool, Lea County, New Mexico.
- CASE 3874: Application of Gulf Oil Company - U. S. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Paddock and Blinbry Oil Pools in the well-bore of its C. L. Hardy Well No. 2 located in Unit N of Section 20, Township 21 South, Range 37 East, Lea County, New Mexico, with the provision that no more than one single allowable will be produced from said well.
- CASE 3875: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well in exception to the Fowler-Ellenburger Rules at an unorthodox location 910 feet from the North line and 1980 feet from the West line of Section 15, Township 24 South, Range 37 East, Lea County, New Mexico.

CASE 3876: Application of Newmont Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Young (Queen) Unit Area comprising 1320 acres, more or less, of federal and state lands in Township 18 South, Range 32 East, Young (Queen) Pool, Lea County, New Mexico.

CASE 3877: Application of Newmont Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Young (Queen) Unit Area by the injection of water into the Queen formation through 17 wells located in Sections 9, 16, 17, 19, 20, 21, and 29, Township 18 South, Range 32 East, Young (Queen) Pool, Lea County, New Mexico.

CASE 3878: Application of General American Oil Company of Texas for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier sand through two injection wells located in Unit M of Section 8, and Unit G of Section 17, Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico.

CASE 3879: Application of Walter Duncan Oil Properties for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox oil well location 1000 feet from the North line and 1242 feet from the East line of Section 36, Township 32 North, Range 18 West, San Juan County, New Mexico. Said well would be projected to the Dakota formation.

CASE 3880: Application of Anne Burnett Windfohr, dba Windfohr Oil Company, for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from approximately 6970 feet to 7028 feet in the Windfohr Oil Company Jackson "B" Well No. 23 located in Unit J of Section 24, Township 17 South, Range 30 East, Jackson-Abo Pool, Eddy County, New Mexico.

CASE 3881: Application of J. M. Huber Corporation for the creation of a new oil pool and for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Devonian oil pool for its Lone Star Federal Well No. 1 located in the NE/4 NE/4 of Section 20, Township 8 South, Range 36 East, Roosevelt County, New Mexico, and for the promulgation of special rules therefor including a provision for 80-acre proration units.

- CASE 3882: Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Teague Blinebry Pool, Lea County, New Mexico.
- CASE 3883: Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Imperial Tubb-Drinkard Pool, Lea County, New Mexico.
- CASE 3884: Application of Marathon Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Miller Ranch Unit Area comprising 5,276 acres, more or less, of State, Federal and Fee lands in Townships 21 and 22 South, Range 25 East, Eddy County, New Mexico.
- CASE 3885: Application of Sinclair Oil & Gas Company for a waterflood expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Turner "B" Grayburg-Jackson Waterflood Project, Grayburg-Jackson Pool, by the conversion to water injection of 12 additional injection wells located in Sections 20, 29, and 30, Township 17 South, Range 31 East, Eddy County, New Mexico.
- CASE 3886: Application of Sinclair Oil & Gas Company for the amendment of a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of its Guadalupe Ridge Unit Agreement, unitizing certain lands in Eddy County, New Mexico, and approved by Order No. R-3471, to conform to certain requirements of the Director of the United States Geological Survey. In the absence of objection, the case will be submitted and an order issued upon the basis of the application and exhibits attached thereto.
- CASE 3887: Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier sand of the Grayburg formation through two wells to be located in Units E and K of Section 12, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico. Applicant further proposes to produce oil from the Upper Grayburg through parallel strings of tubing, if said zones are productive in the subject wells.

- CASE 3888: Application of Amerada Petroleum Corporation for a dual completion, salt water disposal and tubing exception, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State E "B" Well No. 1 located in Unit E of Section 27, Township 10 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the North Echols-Devonian Pool and the disposal of produced salt water through the tubing-casing annulus into the San Andres formation through perforations in said casing from approximately 5220 feet to 5250 feet. Applicant also seeks an exception to the tubing requirements of Commission Rule 107 in that said tubing would be set more than 250 feet above the upper most Devonian perforation.
- CASE 3889: Application of BTA Oil Producers for the creation of a new pool and special pool rules, Lea and Roosevelt Counties, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Bough C zone of the Pennsylvanian formation for its well located in Section 5, Township 9 South, Range 36 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 160-acre proration units and for the assignment of an 80-acre allowable factor of 4.77.
- CASE 3890: Application of Pan American Petroleum Corporation for special pool rules and a non-standard gas proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Empire-Pennsylvanian Gas Pool, Eddy County, New Mexico, including a provision for 320-acre spacing units with wells to be located in either the northwest quarter or the southeast quarter of the section. Applicant further seeks approval of a 280-acre non-standard gas proration unit comprising the SE/4, S/2 SW/4, and the NW/4 SW/4 of Section 30, Township 17 South, Range 28 East, Empire-Pennsylvanian Gas Pool, to be dedicated to its State V Com Well No. 1 located 990 feet from the South and East lines of said Section 30.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

November 20, 1968

Mr. Jack Russell
Attorney at Law
Post Office Drawer 640
Roswell, New Mexico 88201

Dear Sir:

Reference is made to Commission Order No. R-3555, recently entered in Case No. 3877, approving the Newmont Young Queen Waterflood Project and the Minntex Young Queen Section 17 Waterflood Project and the Minntex Young Queen Section 19 Waterflood Project.

Injection is to be through the 15 injection wells authorized for the Newmont project and through the one injection well authorized for each of the Minntex projects.

Both of the Minntex injection wells and each of the ten single Newmont injection wells shall be equipped with a string of tubing set in a packer as near as practicable to the uppermost perforation or, in the case of an open-hole completion, as near as practicable to the casing shoe. The casing-tubing annulus of each of these single injection wells shall be loaded with an inhibited fluid and equipped with a pressure gauge to facilitate detection of leakage in the casing, tubing, or packer.

In the case of the five dual zone injection wells, the Beard Young Federal Nos. 3 and 5 in Units O and L of Section 20, the Newmont Barton Federal No. 1 in Unit A of Section 29, and the Newmont Young Federal Nos. 7 and 8 in Units H and G of Section 20, all in Township 18 South, Range 32 East, injection is to be down tubing and down the casing-tubing annulus. Water injected down the annulus shall be limited to fresh water only or to water which is continuously treated with adequate corrosion inhibitor to prevent casing corrosion and leakage.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

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Mr. Jack Russell SANTA FE, NEW MEXICO 87501
Attorney at Law
Post Office Drawer 640
Roswell, New Mexico 88201

C As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which the Newmont project will be eligible to receive under the provisions of Rule 701-E-3 is 1232 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less. The maximum allowable for each of the Minntex projects is 84 barrels per day.

O Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

P In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Y Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSn/ir

cc: Oil Conservation Commission
Hobbs, New Mexico

U. S. Geological Survey
Hobbs, New Mexico

Mr. D. E. Gray
State Engineer Office
Santa Fe, New Mexico

LAW OFFICES OF
JOHN F. RUSSELL
412 HINKLE BUILDING
P. O. DRAWER 540
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-4641
AREA CODE 505

October 21, 1968

Mr. Elvis A. Utz, Examiner
Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 3876 and 3877, Consolidated.

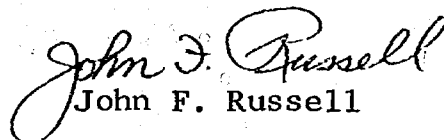
Dear Elvis:

I transmit herewith, in triplicate, the footage locations of the proposed injection wells for Newmont Oil Company's waterflood project which was presented in the above cases.

It is requested that these be made a part of the record.

Thanking you for your assistance in this matter, I remain

Very truly yours,


John F. Russell

JFR:d
Enclosures

63 Oct 22 AM 10 12

OPERATOR & WELL	LOCATION FOOTAGE	SECTION TOWNSHIP RANGE
<u>Beard Oil Company</u>		
Young Federal No. 3	990' FSL 1650 FEL 0	20-18S-32E <i>Dual</i>
Young Federal No. 4	660' FNL & 330' FEL A	17-18S-32E <i>upper section</i>
Young Federal No. 5	2310' FSL & 990' FWL L	20-18S-32E <i>Dual</i>
<u>Continental Oil Company</u>		
Cox Federal No. 3	1650' FSL & 1980' FWL X	17-18S-32E <i>upper section</i>
Walker Federal No. 1	660' FSL & 660' FWL M	9-18S-32E
<u>Mifflin-Tex Oil Company</u>		
Young Federal No. 4	330' FSL & 2310' FEL O	17-18S-32E <i>upper section</i>
<u>Newmont Oil Company</u>		
Barton Federal No. 1	660' FNL & 660' FEL A	29-18S-32E <i>Dual</i>
Barton Federal No. 3	330' FNL & 1650' FWL C	29-18S-32E <i>Lower section</i>
Edwards Federal No. 1	330' FSL & 330' FWL M	21-18S-32E <i>Lower section</i>
Lea State "HS" No. 1	1980' FNL & 660' FWL E	16-18S-32E <i>upper</i>
Lea State "HS" No. 3	1980' FNL & 1980' FWL F	16-18S-32E <i>upper</i>
Young Federal No. 4	660' FNL & 660' FWL D	20-18S-32E
Young Federal No. 7	2310' FNL & 990' FEL H	20-18S-32E <i>Dual</i>
Young Federal No. 8	2310' FNL & 2310' FEL I	20-18S-32E <i>Dual</i>
Young Federal No. 10	2350' FSL & 1025' FEL J	17-18S-32E <i>upper section</i>
Young Federal No. 11	2310' FNL & 2310' FEL G	17-18S-32E <i>upper</i>

*Amend to be 17-18S-32E, 660' E lines -
see pg. 19 - 19-18S-32E*

October 16, 1968

MAIN OFFICE

NOV 4 8 34 AM '68

MINNTEX OIL COMPANY
508 Pentagon Park Tower
MINNEAPOLIS, MINNESOTA 53435

October 29, 1968

Mr. A. L. Porter, Jr.
Secretary
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: New Mexico Oil Conservation
Commission Case Numbers
3876 and 3877

Gentlemen:

A Hearing of the subject cases was held before the Commission on October 9, 1968, on Application of Newmont Oil Company through its attorney, Mr. John F. Russell, requesting approval of the Young (Queen) Unit, Lea County, New Mexico, and requesting permission to institute a waterflood.

This is to advise that Mr. John F. Russell was also acting as Agent for Minntex Oil Company in requesting permission to waterflood our leases on a cooperative basis as reflected in the testimony given at the Hearing. Please be advised also that the Commission was informed at that Hearing that the tract designated as 1-A would be withheld from the Unit.

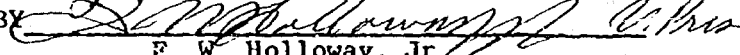
Our proposed water injection well would be:

Convert to water injection our Young Federal Well No. 4 located 330 feet from the South Line and 2,310 feet from the East Line, Section 17, Township 18 South, Range 32 east, N.M.P.M.

Give consideration to drilling and complete Young Federal No. 5 at a location 1,980 feet from the North Line and 660 feet from the East Line, Section 19, Township 18 south, Range 32 east, N.M.P.M.

Yours very truly,

MINNTEX OIL COMPANY

BY 
F. W. Holloway, Jr.

FWHjr:jmj

LAW OFFICES OF
JOHN F. RUSSELL
412 HINKLE BUILDING
P. O. DRAWER 640
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-4641
AREA CODE 505

September 25, 1968

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Re: Newmont Oil Company - Applications on Unit
Agreement and Waterflood Project.

Dear Mr. Porter:

I now transmit herewith an amended Exhibit "D" which
should be attached to the Application of Newmont Oil
Company for approval of its waterflood project.

Very truly yours,

John F. Russell
John F. Russell

JFR:d
Enclosure

60 SEP 26 PM 1 12

Case 3877

*Already attached to
each copy of application.
JFR*

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3877
Order No. R-3555

APPLICATION OF NEWMONT OIL COMPANY
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 9, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 18th day of November, 1968, the Commission, a
quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Newmont Oil Company, seeks the
institution of three waterflood projects in the Young (Queen)
Pool by the injection of water into the Queen formation through
15 wells in the Young (Queen) Participating Unit Area, through
one well on the Minn-Tex Young Federal Lease in Section 17, and
through one well to be drilled on the Minn-Tex Young Federal
Lease in Section 19, all in Township 18 South, Range 32 East,
NMPM, Lea County, New Mexico.

(3) That the wells in each of the project areas are in an
advanced state of depletion and should properly be classified
as "stripper" wells.

(4) That the proposed waterflood projects should result in
the recovery of otherwise unrecoverable oil, thereby preventing
waste.

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CASE No. 3877
Order No. R-3555

(5) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That three waterflood projects are hereby authorized to be instituted in the Young (Queen) Pool by the injection of water into the Queen formation through the following-described 17 wells in Township 18 South, Range 32 East, NMPM, Lea County, New Mexico:

	<u>UNIT</u>	<u>SECTION</u>
<u>Newmont Young (Queen) Waterflood Project</u>		
Injection wells:		
Continental Oil Company Walker Federal Well No. 1	M	9
Newmont Oil Company Lea State "HS" Well No. 1	E	16
Newmont Oil Company Lea State "HS" Well No. 3	F	16
Beard Oil Company Young Federal Well No. 4	A	17
Newmont Oil Company Young Federal Well No. 11	G	17
Newmont Oil Company Young Federal Well No. 10	I	17
Continental Oil Company Cox Federal Well No. 3	K	17
Newmont Oil Company Young Federal Well No. 4	D	20
Newmont Oil Company Young Federal Well No. 7	H	20
Newmont Oil Company Young Federal Well No. 8	G	20
Beard Oil Company Young Federal Well No. 3	O	20
Beard Oil Company Young Federal Well No. 5	L	20
Newmont Oil Company Edwards Federal Well No. 1	M	21
Newmont Oil Company Barton Federal Well No. 1	A	29
Newmont Oil Company Barton Federal Well No. 3	C	29

Minn-Tex Young (Queen) Section 17 Waterflood Project

Injection well:

Minn-Tex Oil Company Young Federal Well No. 4	O	17
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Minn-Tex Young (Queen) Section 19 Waterflood Project

Injection well:

A well to be drilled 1980 feet from the North line and 660 feet from the East line of Section 19

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CASE No. 3877

Order No. R-3555

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.


(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


A. L. PORTER, Jr., Member & Secretary


esr/

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Jack Russell
Attorney at Law
Post Office Drawer 640
Roswell, New Mexico 88201

Dear Sir:

Reference is made to Commission Order No. R-3555, entered in Case No. 3877, approving the Newmont Young Queen Waterflood Project and the Minutary Young Queen Section 17 Waterflood Project and the Minutary Young Queen Section 19 ^{recently}

Injection is to be through the 15 injection wells authorized for the Newmont Project and through the one injection well authorized for each of the Minutary projects.

Both of the Minutary injection wells and each of the ten single injection Newmont injection wells shall be equipped with a string of tubing set in a packer as near as practicable to the uppermost perforation or, in the case of an open-hole completion, as near as practicable to the casing shoe. The casing-tubing annulus of each of these single injection wells shall be loaded with an inhibited fluid and equipped with a pressure gauge to facilitate detection of leakage in the casing, tubing, or packer.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 1232 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less. The maximum allowable for each of the Minutary projects is 84 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

cc: OCC: Hobbs x
Artesia
Aztec

USGS Hobbs

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray

five
in the case of the dual zone injection wells, the Brand Young Federal Nos. 3 and 5 in Units C and L of Section 20, the Newmont Barton Federal No 1 in Unit A of Section 29, and the Newmont Young Federal Nos. 7 and 8 in Units H and G of Section 20, all in Township 18 South, Range 32 East, injection is to be down tubing and down the casing-tubing annulus. Water injected down the annulus shall be limited to fresh water only or to water which is continuously treated with an adequate corrosion inhibitor to prevent casing corrosion.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
NEWMONT OIL COMPANY FOR AN ORDER)
AUTHORIZING IT TO COMMENCE A WATER-)
FLOOD PROJECT ON ITS YOUNG (QUEEN))
UNIT, CONSISTING OF PART OF SECTIONS)
9, 16, 17, 19, 20, 21, 28 and 29 OF)
TOWNSHIP 18 SOUTH, RANGE 32 EAST,)
N.M.P.M., LEA COUNTY, NEW MEXICO,)
BEING ALL OF THE YOUNG (QUEEN) POOL,)
BY THE INJECTION OF WATER INTO THE)
QUEEN FORMATION THROUGH SEVENTEEN)
(17) WELLS LOCATED IN SECTIONS 9,)
16, 17, 19, 20, 21 and 29 of TOWN-)
SHIP 18 SOUTH, RANGE 32 EAST, N.M.)
P.M., LEA COUNTY, NEW MEXICO.)

No. 3877

APPLICATION

COMES NOW Newmont Oil Company by its attorney, John F.

Russell, and states:

1. It is the operator of the Young (Queen) Unit, consisting of the following described lands:

Township 18 South, Range 32 East, New Mexico Principal Meridian

Section 9:	SW/4 SW/4
Section 16:	SE/4 NW/4 and W/2 NW/4
Section 17:	NE/4; NE/4 SE/4; W/2 SE/4; E/2 SW/4
Section 19:	E/2 NE/4
Section 20:	NW/4; W/2 NE/4; SE/4 NE/4; E/2 SW/4; SE/4; NW/4 SW/4
Section 21:	SW/4 SW/4
Section 28:	NW/4 NW/4
Section 29:	NE/4 NE/4; NE/4 NW/4

2. Applicant proposes to institute a waterflood project for the secondary recovery of oil and gas on said unit, and

DOCKET MAILED

Date 9-26-68

attached hereto is a plat marked "Exhibit A" showing the location of the seventeen (17) proposed injection wells.

3. Applicant, at the hearing, will present all available logs covering the injection wells.

4. A diagramatic sketch showing the proposed completion of single completion injection wells is attached hereto and marked "Exhibit B."

5. A diagramatic sketch of the proposed completion of injection wells as dual completed wells is attached hereto and marked "Exhibit C."

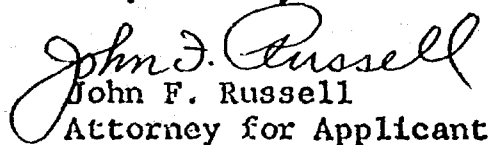
6. A tabulation showing pertinent information on each proposed well to be recompleted as a injection well is attached hereto and marked "Exhibit D."

7. Applicant proposes to inject water into the Queen formation at various intervals between 3,727 feet and 4,096 feet.

8. The water for injection purposes will be fresh water obtained from Yucca Water Company.

WHEREFORE, Applicant requests the Commission to set this matter down for hearing before an examiner, to publish its notice as provided by law, and, after hearing, to issue its order authorizing the waterflood project as requested in the application.

Respectfully submitted,


John F. Russell
Attorney for Applicant

P. O. Drawer 640
Roswell, New Mexico 88201

dearhey-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

October 9, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Newmont Oil Company
for a unit agreement, Lea County, New Mexico

)
)
) Case 3876
)
)

Application of Newmont Oil Company for
a waterflood project, Lea County, New Mexico.

)
)
) Case 3877
)
)

BEFORE: Elvis Utz, Examiner

TRANSCRIPT OF HEARING

(Whereupon, Applicant's Exhibits
Numbers 1 through 8, inclusive,
were marked for identification.)

MR. UTZ: The Hearing will come to order, please.

Cases 3876 and 3877 will be consolidated for purposes of
testimony and separate orders will be written on each case.

MR. HATCH: Case 3876, application of Newmont Oil
Company for a unit agreement, Lea County, New Mexico.

Case 3877, application of Newmont Oil Company for a
waterflood project, Lea County, New Mexico.

MR. RUSSELL: John F. Russell appearing on behalf
of the applicant and I have one witness, Mr. Guthrie.

(Witness sworn)

MR. UTZ: Do we have other appearances in either of
these cases? You may proceed.

WRIGHT M. GUTHRIE,

called as a witness, having been first duly sworn, was
examined and testified as follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you please state your name, address, name of
your employer and the capacity in which you are employed?

A My name is Wright M. Guthrie. I'm employed by
Newmont Oil Company in Houston, Texas as a Chief Petroleum
Engineer.

MR. UTZ: That's W-r-i-g-h-t?

THE WITNESS: W-r-i-g-h-t, yes, sir.

Q (By Mr. Russell) Mr. Guthrie, have you previously qualified to testify before this Commission?

A No, sir.

Q Will you give a brief resume of your educational background and practical experience?

A Yes, sir. I obtained a Bachelor of Science in Petroleum Engineering from the University of Texas in Austin, Texas in August, 1951, subsequently to which I went to work for the then Stanlon Oil and Gas Company in Northwest Texas and worked for them until December, 1956 at which time I went to work in Houston, Texas for a consulting firm of Butler, Miller and Lentz until August, 1961, at which time I quit and went into an independent engineering consulting operation in Houston, Texas.

Two years later, I went to work for Pritchard and Abbot, an evaluation engineering firm with principal offices in Fort Worth. I was employed as their District Engineer in Houston, Texas.

In February, 1966, I went to work for the Newmont Oil Company as an engineer in Houston, Texas, and I have been in this capacity to the present.

MR. RUSSELL: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Russell) Mr. Guthrie, are you familiar with the application of Newmont Oil Company in Cases 3876 and 3877?

A Yes, sir.

Q Now, I'll refer you to what has been marked as Exhibit A and ask you to identify it.

MR. RUSSELL: I only had two. I can get you one more of those.

MR. UTZ: All right.

A This is the unit agreement for the proposed Young-Queen Unit, Lea County, New Mexico setting forth the proposed terms of the agreements.

MR. UTZ: Do you wish to call that Exhibit A, rather than Number 1? It's marked Number 1 here is why I asked you.

MR. RUSSELL: I meant, referring to what was identified as Exhibit Number 1.

Q (By Mr. Russell) Has this unit agreement received the preliminary approval of the USGS and the New Mexico Land Commissioner?

A Yes, sir.

Q Who is designated as the operator of the Unit?

A Newmont Oil Company.

Q And what formation is covered by the unit agreement?

A The Queen Sands, Two Members.

Q Can you identify them?

A Yes, sir. The upper member is called the Red Sand,
the lower member is called the Penrose Sand.

Q And what is the total acreage included in the
proposed unit?

A There's approximately 1328 acres included.

Q And what is the participation formula for the unit?

A The participation formula is based on one-third
cumulative oil production to 1165, one-third, a yearly
production during the year 1964, and one-third acreage as
outlined in proration units.

MR. UTZ: One-third, what?

THE WITNESS: Acreage.

Q (By Mr. Russell) Now, who are the working interest
owners in this unit?

A The working interest owners, aside from Newmont
Oil Company, CRA International, Incorporated, Beard Oil
Company, Janice Lee Anderson, K. V. Doll, F. W. Holloway,
Bruce Anderson, Neil Anderson, John Beard and Benjamin
Hitchins.

Q And have all of these working interest owners indicated their acceptance of the unit agreement?

A Excuse me, Attorney. I left out two people here. Two other working interest owners are Mintex Oil Company and F. B. Jackson, Junior. All but two of these, the last two mentioned, have indicated, verbally or in writing, that they will approve the unit agreement.

Q Let me refer you to what has been identified as Applicant's Exhibit Number 2 and ask you what that is.

A Exhibit Number 2 is a plat of the Young Field area showing the outline of the proposed unit, the wells to be involved as water injection wells and showing the tract numbers with Tract 1A being a tract which will not be committed to the unit in its entirety.

Q Now, Tract 1A, there are two of those, are there not?

A Two sections, yes, sir.

Q And they are the two tracts which you stated the working interest owners had not agreed to the unit, is that correct?

A Yes, sir.

Q But under USGS requirements, they had to be included within the unit in its preliminary form?

A Yes, sir.

Q And it is anticipated that the unit itself will have to be contracted to exclude those two tracts, is that correct?

A Yes, sir.

Q All right. Now, Tract Number 9 which is up on the northwest corner, that is a State of New Mexico Oil and Gas lease, is it not?

A Yes, sir.

Q And all the rest of the leases appearing here, are Federal leases?

A Yes, sir.

Q Now, have you given all of the overriding royalty interest owners or their production payment, if any, an opportunity to join the unit?

A Yes, sir.

Q That is being circulated at this time, is it not?

A Yes, sir. The unit agreement.

Q All right. Now, going back to Exhibit Number 2, you have the proposed unit, including the tract which will later come out, included within your proposed waterflood, is that correct?

A Yes, sir.

Q And you indicate two phases of the waterflood?

A Yes, sir.

Q Now, when would you anticipate going into the final phase?

A As soon as we have determined that the initial phase area is performing satisfactorily to justify water injection in the final phase.

Q Now, are you in the process at this time of a lease-line agreement with Mintex as to Tracts 1A?

A We have had agreement with Mintex that they would sign a lease-line agreement, yes, sir.

Q On Tract Number 1A, which is on the north portion of the unit as outlined, what well is that that is in the lease-line agreement which would be converted to injection?

A I'm sorry, Mr. Attorney, I'm going to have to ask you to repeat that.

Q On Tract 1A which is on the north end of the unit, there is shown there a proposed injection well, is that correct?

A Yes, sir.

Q And that is one that is included within your lease-line agreement with Mintex?

A Yes, sir.

Q And then Tract 1A which is on the west side of the unit which is designated as an injection well to be drilled, that is also included?

A Yes, sir.

Q And although the two tracts will be deleted from the unit, are you asking that the Examiner or the Commission approve these two wells in Tract 1A for injection if the flood is approved?

A Yes, sir.

Q All right. Now, will you explain the green symbols.

A The green symbols are the proposed water injection wells in the initial phase of the waterflood development which will be single completions in the upper Queen-Sand Member. These are located on the plat in the initial phase.

Q Now, the red squares.

A The reds are dual injection wells, proposed dual injection wells for the final phase where water will be injected into both members of the Queen Sand, the upper red and the lower Penrose Sand.

Q And then the black squares.

A The black squares are single injectors to go into the final phase where water will be injected in the lower Penrose Sand.

Q Now, there are some injection wells which you, at this time, propose to include as single injection wells and some as dual, is that correct?

A Yes, sir.

Q Is there a possibility that after this gets into operation that some of the single injection wells may be converted to dual?

A Yes, sir. If performance so indicates, we would like to have authority to do so.

Q And you would present, in connection with all wells, all pertinent data for completion except the interval of the dual completion wells if you go to them, is that correct?

A The ones that are not already proposed as duals, yes, sir.

Q All right. Now, I refer you to what has been marked as Applicant's Exhibit Number 3 and ask you to identify that. Off the record. Did I give you a set of everything other than the marked one?

MR. UTZ: Yes, sir.

MR. RUSSELL: I think I did, and I think I marked

that.

MR. UTZ: Yes.

Q (By Mr. Russell) All right. Explain that.

A Exhibit Number 3 is a schematic diagram of our single completion water injection wells showing water injection down to tubing, below a packer, into perforations where present, or open hole, if that be the case.

The injection line will have a meter at the surface to show the total volume of water or the volume of water injected into the wells. Each such single completion will be so equipped.

Q Now, this is a schematic of the plan of converting all of the single injection wells. We'll follow this plan, is that correct?

A Yes, sir.

Q Now, I refer you to Exhibit Number 4 and ask you to identify it.

A Exhibit Number 4 is a schematic diagram of dual water injection wells wherein water will be injected down tubing for the lower zone and down the tubing oil string casing annulus above a packer into the upper zone. Now, here again, both strings of injection water will be measured by meter.

Q Now, I refer you to Exhibit Number 5 which is, really, a supplementary exhibit to Exhibits 3 and 4 and ask you to explain that exhibit in relation to your two schematic drawings.

A Exhibit Number 5 shows for all wells proposed as injection wells, the operator, the location, the completion date, the number of injection zones proposed, surface casing data showing the size and depth set, oil casing data showing

the size and depth set, and the producing interval of the upper and lower Queen Sand members in each of the wells involved.

The dual and single completion, proposed for single and dual completion, will be done in a general sense in compliance or in accordance with Exhibits 3 and 4 as applicable.

Q Would you read the headings across the top? Instead of going down for each well, show the pertinent data on that exhibit as applied to your schematic drawings or have you gone through that?

A I have read the heading above each one.

Q Each one?

A Yes, sir.

Q And each well is identified by number so that you can distinguish the intervals in each well, the setting of the casing and so forth?

A That's correct.

Q Now, I'll refer you to Exhibit Number 6 and ask you to identify that.

A Exhibit Number 6 pertains to Exhibit Number 5 for each injection well and shows for each one of the wells, the oil string casing data, calculated depth to top of cement around the oil string in all, but one instance, where we had a temperature survey, and there, we show the depth to the top of

the cement from temperature survey.

Q Now, do you have a similar exhibit as to the casing string?

A I beg your pardon, sir?

Q Do you have a similar exhibit covering the cement as to the --

A Surface casing?

Q Surface casing.

A No, sir, I don't have an exhibit to that extent. However, I can state this with respect to surface casing, that of the 16 proposed injection wells, in five, fifty sacks of cement were used; in one, seventy-five sacks of cement were used, and in all others, two hundred sacks or more were used.

Q Now, where is the source of your water for this flood?

A The water source will be from the Ogallala water sands purchased from Yucca Water Company.

Q That is what is classified as fresh water, is it not?

A Yes, sir.

Q And at some point, you will be reinjecting produced water?

A Yes, sir.

Q Do you plan to treat that produced water?

A Yes, sir.

Q How do you plan that? What is your program?

A We'll put a corrosion inhibitor in the produced water to protect all casing and tubing in the well.

Q Now, did you identify whether or not the water would be injected through tubing?

A Yes, sir.

Q Is that just in single or dual completions?

A The water will be injected through tubing in both types of completions.

Q And what type of tubing is that?

A This will be bare steel tubing.

Q Now, is this similar to your other waterflood operations in this area?

A Yes, sir.

Q And in your opinion, what protection is afforded here for possible contamination of any other formation or water?

A Well, in the case of single injectors, we will be injecting below a packer. In the case of dual injectors, we will be injecting below and above a packer, that injection above a packer into a casing annulus where we will have cement above the zone into which we injected, behind the oil string casing.

Q Now, what is your proposed program and what has it been in your other projects for determining leaks under this injection program?

A There are two general ways that we determine leaks; one, where volumes of water injected show a sudden change of increase; two, where casing pressure on the annular space between the tubing and the casing is detected as increasing by a pressure gauge which is available and examined by our pumping personnel, our waterflood personnel, regularly.

Q Now, do you have well logs on all of these proposed injection wells, other than, of course, the one to be drilled?

A All but one. On one, the Mintex injection well --

Q The one in Tract 1A?

A The one in Tract 1A, Mintex Number 4, which we were unable to obtain a log on. As best I can tell, it has never been logged.

MR. RUSSELL: Now, off the record, Mr. Examiner. We have fifteen logs?

THE WITNESS: Fifteen logs.

MR. RUSSELL: Do you want each one of them identified? They're held together with a rubber band.

MR. HATCH: One package is enough.

MR. RUSSELL: All right.

Q I'll refer you to what has been identified as Exhibit Number 7 and ask you what that is.

MR. UTZ: Exhibit Number 7 has how many parts?

MR. RUSSELL: How many are there?

THE WITNESS: Fifteen.

MR. RUSSELL: Fifteen.

A There are fifteen radioactivity logs on all of the proposed injection wells.

Q With the exception of the one you mentioned previously?

A Yes, sir.

Q Is there anything in particular in any of those well logs that you want to call to the attention of the Examiner?

A No, sir.

Q I will now refer you to what has been identified as Applicant's Exhibit Number 8 and ask you to identify it, and it may be twenty-two on your copy.

A Exhibit Number 8 or 22 or whichever may be the case as you have identified it there.

Q Exhibit 8.

A Exhibit 8 shows for the proposed Young-Queen unit, tabulation of oil production cumulative to June 1, 1968, with

the exclusion of one well which is now plugged and abandoned.

Q What is your average production per well per day within this proposed unit area?

A The average daily rate of oil production from the producing wells in the proposed unit area is approximately two barrels per day.

Q Now, in your opinion, would the approval of this unit and the waterflood project give each owner his fair share of the oil and also protect correlative rights and prevent waste by premature abandonment?

A Yes, sir.

Q Were these exhibits, with the exception of One, the unit agreement, and Seven, the well logs, prepared by you or under your direction and supervision?

A Yes, sir.

MR. RUSSELL: I would like to move the introduction of Applicant's Exhibits 1 through 8.

MR. UTZ: Without objection, Exhibits 1 through 8, including 7, with 15 parts, will be entered into the record.

(Whereupon, Applicant's Exhibits 1 through 8, inclusive, were admitted in evidence.)

MR. RUSSELL: I have no further questions of this witness.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Guthrie, I think we better talk about the number of wells that you are requesting here. I'm a little confused in that respect.

A All right.

Q Your Exhibit Number 7 shows some seventeen wells. I count something like twenty-two on your Exhibit Number 2. Is it my understanding that you are requesting approval at this time for all injection wells in both phases?

A Yes, sir.

Q Now, how many wells are there?

A The injection wells in both phases currently drilled, according to my count, are sixteen, with the one to be drilled on Tract 1A not included here in this tabulation.

Q That isn't included on Number 5?

A That's correct, sir.

Q So there's sixteen on Number 5?

A I believe that's correct.

Q I miscounted. Sixteen is correct. One well to be drilled is in Section 19. It would be in the southeast to the northeast?

A Yes, sir.

MR. HATCH: We need a location of where it's going

to be drilled.

MR. UTZ: Unit or foot location?

MR. HATCH: Should be a foot location.

Q (By Mr. Utz) Do you have a foot location on that well?

A No, sir, I don't. Of course, this well is a well that we, as operators, will not be drilling and will be drilled by an offset cooperating operator. I can only surmise that it would be approximately 660 from the east line of Section 19 and 1980 from the north line of Section 19 on the approximate location shown on this map. Is that sufficient?

Q That's good enough.

MR. RUSSELL: We assume that if this does go on, that Mintex will have to make application. We're trying to get it so that they can do it administratively because we still have to show intervals to be perforated.

MR. HATCH: This will really be, in effect, two waterflood projects?

MR. RUSSELL: That is correct.

MR. HATCH: This is not to be in the unit?

MR. RUSSELL: That is correct.

MR. UTZ: But you're asking for approval of their wells in this order, are you not?

MR. RUSSELL: If I can do it.

MR. HATCH: We can approve this thing on a stipulation arrangement if Mintex will give us the information.

MR. RUSSELL: In other words, furnish the location and the proposed intervals of injection?

MR. UTZ: Our problem is, John, that we do list all the wells in the order and we should have a proper location.

MR. RUSSELL: We'll furnish that information, by the way.

MR. UTZ: You will furnish it.

MR. RUSSELL: And I would move that it be made a part of the record.

Q (By Mr. Utz) In that regard, do you have anywhere on these exhibits the correct footage locations listed for each well?

A No.

Q Exhibit Number 5 has the section but not the locations.

A No, sir, I do not.

Q Will you furnish us with that information, please, sir?

A Yes, sir.

MR. RUSSELL: Now, that's to be the footage rather than unit, correct?

MR. HATCH: The unit, we have that information in the file.

MR. RUSSELL: But you want --

MR. HATCH: So the unit, I think would be sufficient

there.

MR. UTZ: These old wells are not always correct.

THE WITNESS: Would this be for all wells in the

unit?

MR. UTZ: No, just your injection wells. So if you would give us your locations on those and we'll check them against our file.

MR. RUSSELL: Yes, sir.

Q (By Mr. Utz) To boil this down, you'll have eleven dual injectors, is that correct, and six, including the wells to be drilled, single injectors that you're requesting at this time?

A I believe, sir, that it would be five dual injection wells, with the remainder, singles.

MR. RUSSELL: They are the purple ones, are they

not?

THE WITNESS: The dual are the red ones as indicated on Exhibit 2. I believe Counsel had mentioned that should performance indicate otherwise, we would ask that we might be allowed to convert others to dual injection with your

permission.

MR. UTZ: Five and twelve, then; twelve singles.

What? Well, all right.

You've got one, two, three, four, five, six, seven, eight, nine singles for your initial phase. You've got two black ones on the bottom. That's ten and eleven. Then you're going to drill a single. That's twelve, isn't it?

A Yes, sir.

Q Seventeen wells in all?

A Yes, sir.

Q Now, you mentioned at some point that you would reinject your produced water. Can you give us anything definite as to what point that will be when you start producing water or so much water or what?

A No, sir, I can only guess and if that's permissible here, I would say it would be within the first year.

Q Well, if you produce any water before then, what will you do with it?

A We're now disposing of it. We'd certainly dispose of it within the rules of the New Mexico Conservation Commission.

Q Which would probably be reinject it?

A Yes, sir.

MR. RUSSELL: Which you had indicated would be

treated before reinjecting, is that correct?

A Yes.

Q You previously testified that it would be treated before reinjecting?

A Yes, I must have said something funny. I don't know what it was.

Q Well, we've had a few hearings that have got salt water injection from open pits and so forth.

A Yes, sir, I'm aware of this.

Q And you did state that you would treat the produced water before reinjecting it, correct?

A Produced water, yes, sir.

Q And for that reason, you are not using lined tubing. You are using bare tubing?

A Yes, sir.

Q Now, do you anticipate any problem with reinjecting treated water as far as formation problems are concerned, plugging up formations? In other words, is it compatible? Do you anticipate it will be compatible with your other water formations?

A We anticipate that it will be, yes, sir.

Q Have you done this before?

A We have done it in nearby areas using Queen water from another well in another injection project; the Queen

produced water and Yucca or Ogallala fresh water.

Q And you haven't had any problems to date?

A Well, there have been minor which we have been able to handle by treatment of one sort or another.

MR. UTZ: Are there any other questions of the witness?

Oh, you wanted administrative approval in this order, did you not, for additional injection wells?

THE WITNESS: Yes, sir, or duals instead of singles, or vice versa.

MR. UTZ: Are there any other questions?

MR. LONG: Mr. Examiner, may I pose a question to the witness?

MR. UTZ: This is Mr. Malcolm Long with the State Land office.

MR. LONG: You used the terminology, you gave initial phase and final phase, and on your exhibit, you show the two areas. I presume your proposed tract participation with your unit agreement will hold true as set up for both phases?

MR. RUSSELL: I believe that is correct. Of course, there is tract participation --

MR. LONG: Because there's quite a differential in that area, if you will so note.

MR. RUSSELL: Frankly, all I can say at this point is, we're going to have to revise the unit area and participation, which will have to be approved by you and by the USGS.

MR. LONG: That's what I wanted to know.

MR. RUSSELL: Yes, that will be done.

MR. UTZ: Is that all you have?

MR. LONG: Yes.

MR. UTZ: Are there other questions? The witness may be excused. Any statements in these cases? The cases will be taken under advisement.

You would consider this more of a five-spot pattern than a peripheral pattern, would you not?

THE WITNESS: Yes, sir. It's certainly not peripheral, but it doesn't conform to five-spot, either, exactly.

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I N D E X

WITNESS

WRIGHT M. GUTHRIE

Direct Examination by Mr. Russell

Cross Examination by Mr. Utz

PAGE

2

18

EXHIBIT

Applicant's 1
through 8

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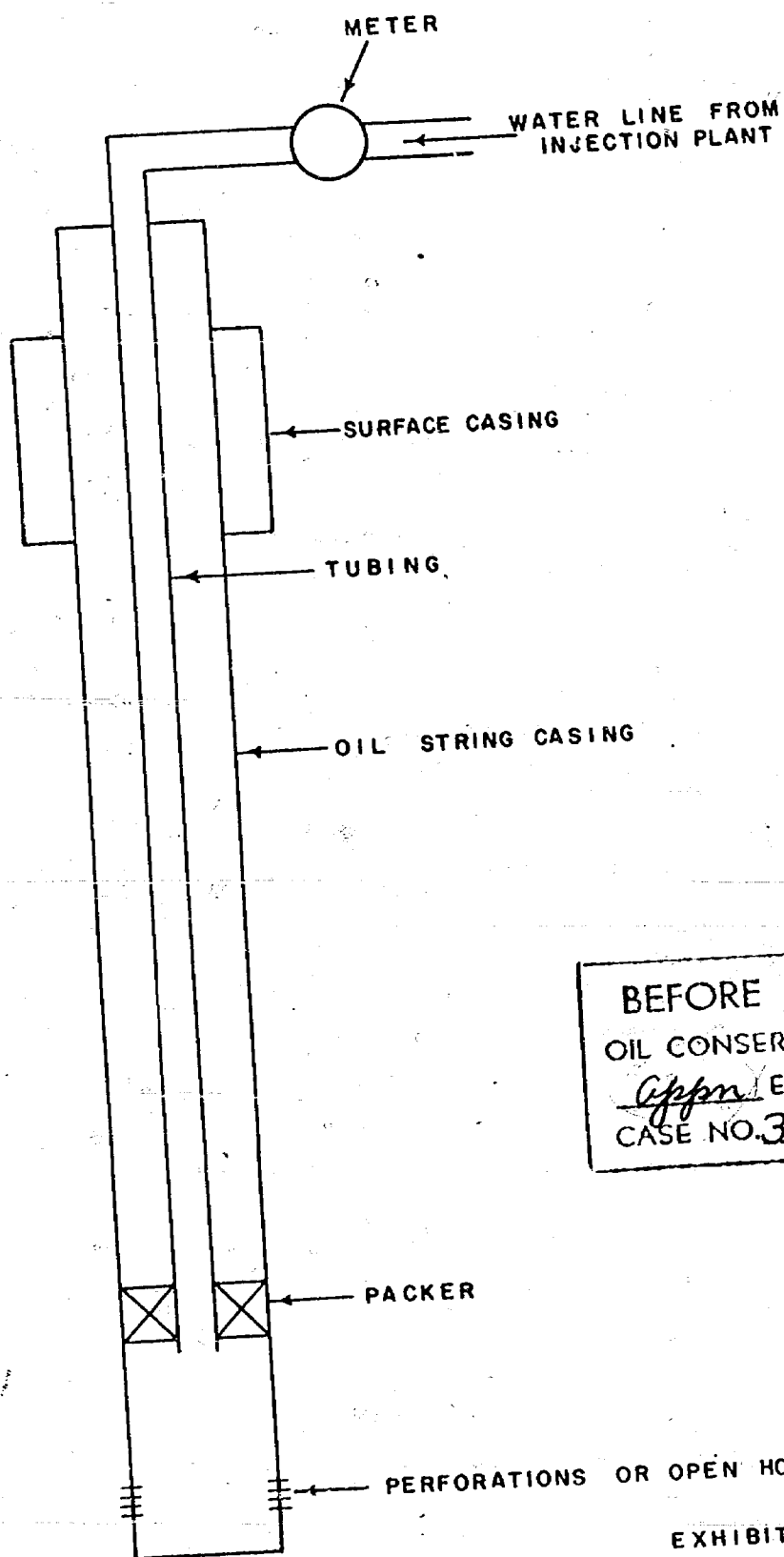
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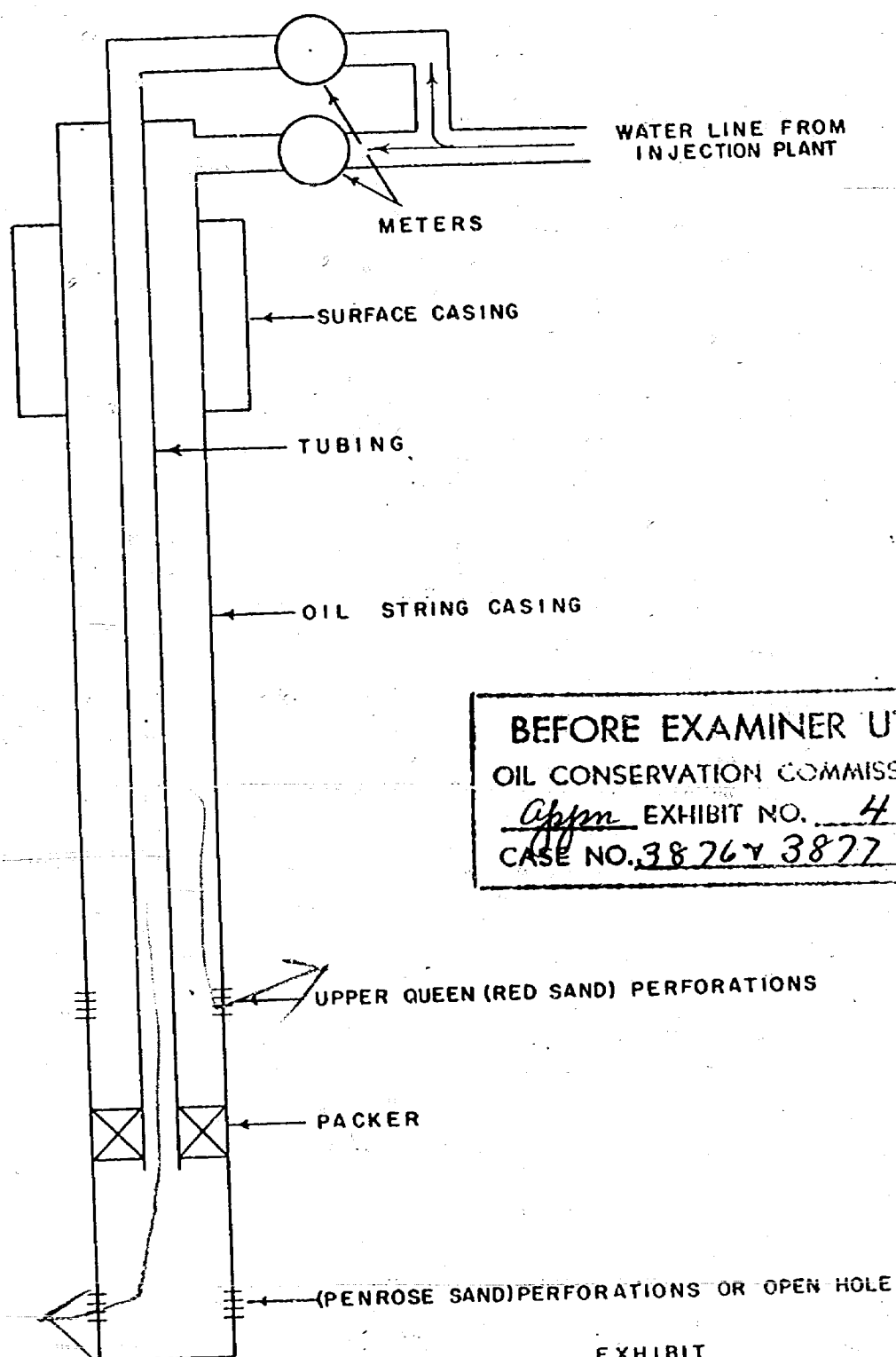
Charlotte M. Magias
COURT REPORTER

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner's hearing of Case No. 3877.
heard by me on 10-9-68. 1968.
Thurmond
New Mexico Oil Conservation Commission



BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
Apfn EXHIBIT NO. 3
 CASE NO. 3876 Y 3877

EXHIBIT
 NEWMONT OIL COMPANY
 YOUNG (QUEEN) UNIT
 LEA COUNTY NEW MEX.
 SCHEMATIC DIAGRAM OF SINGLE
 COMPLETION WATER INJ. WELL



BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
Apjm EXHIBIT NO. 4
 CASE NO. 3876 & 3877

EXHIBIT
 NEWMONT OIL COMPANY
 YOUNG (QUEEN) UNIT
 LEA COUNTY NEW MEX.
 SCHEMATIC DIAGRAM OF DUAL
 WATER INJECTION WELL

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
 SECTION NO. 3672 * 38 NUMBER OF
 TOWNSHIP 5 EXHIBIT NO. 5
 COMPLETION DATE 7-1-57 INJECTION ZONES

ATTACHMENT TO EXHIBITS NO. 5
 DATA ON PROPOSED WATER INJECTION WELLS
 YOUNG (QUEEN) UNIT
 YOUNG FIELD, LEA COUNTY, N.M.

OPERATING WELL	RANGE	DATE	ZONES	SURFACE CASING DATA		OIL STRING CASING DATA		PRODUCING SAND DEPTH INTERVAL - FEET			
				DIAMETER INCHES	SETTING DEPTH & QUANTITY SET FT.	DIAMETER INCHES	SETTING DEPTH & QUANTITY SET FT.	UPPER QUEEN (RED SAND) PERFORATIONS	OPEN HOLE	LOWER QUEEN (PENROSE SAND) PERFORATIONS	OPEN HOLE
BEARD OIL COMPANY YOUNG FEDERAL #3	20-18S-32E	7-1-57	*DUAL	8 5/8	1054	5 1/2	4101	3720-8302	-	4053-71	-
YOUNG FEDERAL #4	17-18S-32E	11-1-57	SINGLE	8 5/8	1076	5 1/2	3849	3796-804	-	-	-
YOUNG FEDERAL #5	20-18S-32E	4-12-58	DUAL	8 5/8	1001	5 1/2	4012	3746-58	-	3964-80	-
CONTINENTAL OIL COMPANY COX FEDERAL #3	17-18S-32E	1-7-55	SINGLE	8 5/8	347	5 1/2	3808	3748-68	-	-	-
WALKER FEDERAL #1	9-18S-32E	12-31-57	SINGLE	8 5/8	1071	5 1/2	3860	3810-24	-	-	-
MINN-TEX OIL COMPANY YOUNG FEDERAL #4	17-18S-32E	6-2-56	SINGLE	8 5/8	432	5 1/2	3824	3760-76	-	-	-
NEWMONT OIL COMPANY BARTON FEDERAL #1	29-18S-32E	6-1-56	*DUAL	7	641	5 1/2	4048	3785-8252	-	-	-
BARTON FEDERAL #3	29-18S-32E	6-29-61	SINGLE	8 5/8	1036	4 1/2	4041	-	-	-	-
EDWARDS FEDERAL #1	21-18S-32E	12-24-64	SINGLE	8 5/8	1063	4 1/2	4157	-	-	-	-
LEA STATE "HS" #1	16-18S-32E	10-5-57	SINGLE	8 5/8	272	5 1/2	3873	3822-36	-	4092-96	-
LEA STATE "HS" #3	16-18S-32E	7-2-58	SINGLE	7	1072	4 1/2	3900	3832-52	-	-	-
YOUNG FEDERAL #4	20-18S-32E	7-29-46	SINGLE	8 5/8	975	5 1/2	3740	-	-	-	-
YOUNG FEDERAL #7	20-18S-32E	10-28-57	*DUAL	8 5/8	1035	5 1/2	4135	3786-813	-	4025-60	-
YOUNG FEDERAL #8	20-18S-32E	9-5-57	*DUAL	8 5/8	1045	5 1/2	4062	3771-81	-	3994-4024	-
YOUNG FEDERAL #10	17-18S-32E	9-2-57	SINGLE	8 5/8	1017	5 1/2	3845	3748-52	-	-	-
YOUNG FEDERAL #11	17-18S-32E	9-17-57	SINGLE	8 5/8	1091	5 1/2	3841	3727-37	-	-	-
								3742-46	-	-	-
								3754-58	-	-	-
								3762-70	-	-	-

NOTES: The calculated depths to the top of the oil string casing cement are shown on a supplementary attachment.
 Plans are to (1) use Packers and 2 inch tubing in all injection wells, (2) set Packers in the casing between injection zones in dual injectors and near the seat in single zone injectors.
 * To be perforated in Upper Queen (Red Sand) before converting to water injection service
 ** To be perforated in Lower Queen (Penrose Sand) before converting to water injection service
 pam/8-23-68

SUPPLEMENTARY ATTACHMENT TO EXHIBITS NO. _____
 DATA ON PROPOSED WATER INJECTION WELLS
 YOUNG (QUEEN) UNIT
 YOUNG FIELD, LEA COUNTY, N.M.

OIL STRING CASING DATA
 CALCULATED DEPTH TO
 TOP OF CEMENT
 FEET

OPERATOR & WELL

BEARD OIL COMPANY
 YOUNG FEDERAL #3

YOUNG FEDERAL #4

YOUNG FEDERAL #5

CONTINENTAL OIL COMPANY
 COX FEDERAL #3

WALKER FEDERAL #1

MINN-TEX OIL COMPANY
 YOUNG FEDERAL #4

NEWMONT OIL COMPANY
 BARTON FEDERAL #1

BARTON FEDERAL #3

EDWARDS FEDERAL #1

LEA STATE "HS" #1

LEA STATE "HS" #3

YOUNG FEDERAL #4

YOUNG FEDERAL #7

YOUNG FEDERAL #8

YOUNG FEDERAL #10

YOUNG FEDERAL #11

3147

3213

3058

763

998

2552

3648

3557

3621

2818 (Temperature Survey)

115

3104

2863

2790

2573

2569

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 CASE NO. 3876-3877 EXHIBIT NO. 6

EXHIBIT

YOUNG (Queen) UNIT

Tabulation of Oil Production
(Excluding Once Productive but
Now Plugged and Abandoned*)

<u>Year/Month</u>	<u>Barrels Oil Produced</u>
<u>Cumulative 1-1-57</u>	582,522
1957	161,527
1958	169,033
1959	89,205
1960	67,319
1961	60,159
1962	48,717
1963	37,377
1964	<u>32,737</u>
	1,248,596
<u>Cumulative 1-1-65</u>	26,961
1965	21,087
1966	<u>19,840</u>
1967	1,316,484
<u>Cumulative 1-1-68</u>	1,742
1968	1,724
January	1,801
February	1,411
March	<u>1,782</u>
April	1,324,944
May	
<u>Cumulative 6-1-68</u>	

2B & PD are.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Chpm EXHIBIT NO. 8
CASE NO. 3876 & 3877

American-State AP No. 1, Sec. 16-T18S-R32E,
cumulative oil production 16,554 barrels and
Maxwell-Fox Federal No. 1, Sec. 8-T18S-R32E,
cumulative oil production 628 barrels.

ATTACHMENT TO EXHIBITS NO. D
 DATA ON PROPOSED WATER INJECTION WELLS
 YOUNG (QUEEN) UNIT
 YOUNG FIELD, LEA COUNTY, N.M.

OPERATOR & WELL	SECTION TOWNSHIP RANGE	COMPLETION DATE	NUMBER OF INJECTION ZONES	SURFACE CASING DATA		OIL STRING CASING DATA		PRODUCING SAND DEPTH INTERVAL - FEET	
				DIAMETER INCHES	SETTING DEPTH & QUANTITY SET FT.	DIAMETER INCHES	SETTING DEPTH & QUANTITY SET FT.	UPPER QUEEN (RED SAND) PERFORATIONS	LOWER QUEEN (PENROSE SAND) PERFORATIONS
BEARD OIL COMPANY YOUNG FEDERAL #3	20-18S-32E	7- 1-57	*DUAL	8 5/8	1054	5 1/2	4101	-	4058-71
YOUNG FEDERAL #4	17-18S-32E	11- 1-57	SINGLE	8 5/8	1076	5 1/2	3849	3796-804	-
YOUNG FEDERAL #5	20-18S-32E	4-12-58	DUAL	8 5/8	1001	5 1/2	4012	3746-58	3964-80
CONTINENTAL OIL COMPANY COX FEDERAL #3	17-18S-32E	1- 7-55	SINGLE	8 5/8	347	5 1/2	3808	3748-68	-
WALKER FEDERAL #1	9-18S-32E	12-31-57	SINGLE	8 5/8	1071	5 1/2	3860	3810-24	-
MINN-TEX OIL COMPANY YOUNG FEDERAL #4	17-18S-32E	6- 2-56	SINGLE	8 5/8	432	5 1/2	3824	3760-76	-
NEWMONT OIL COMPANY BARTON FEDERAL #1	29-18S-32E	6- 1-56	*DUAL	7	641	5 1/2	4048	-	4048-75
BARTON FEDERAL #3	29-18S-32E	6-29-61	SINGLE	8 5/8	1036	4 1/2	4041	-	3958-56
EDWARDS FEDERAL #1	21-18S-32E	12-24-64	SINGLE	8 5/8	1063	4 1/2	4157	-	4066-67
LEA STATE "HS" #1	16-18S-32E	10- 5-57	SINGLE	8 5/8	272	5 1/2	3873	3822-36	-
LEA STATE "HS" #3	16-18S-32E	7- 2-58	SINGLE	7	1072	4 1/2	3900	3832-52	-
YOUNG FEDERAL #4	20-18S-32E	7-29-46	SINGLE	8 5/8	975	5 1/2	3740	-	3740-65
YOUNG FEDERAL #7	20-18S-32E	10-28-57	**DUAL	8 5/8	1035	5 1/2	4135	3786-813	-
YOUNG FEDERAL #8	20-18S-32E	9- 5-57	*DUAL	8 5/8	1045	5 1/2	4062	-	3994-4024
YOUNG FEDERAL #10	17-18S-32E	9- 2-57	SINGLE	8 5/8	1017	5 1/2	3845	3748-52 3756-58 3760-66 3771-81	-
YOUNG FEDERAL #11	17-18S-32E	9-17-57	SINGLE	8 5/8	1091	5 1/2	3841	3727-37 3742-46 3754-58 3762-70	-

NOTES: The calculated depths to the top of the oil string casing cement are shown on a supplementary attachment.

Plans are to (1) use Packers and 2 inch tubing in all injection wells, (2) set Packers in the casing between injection zones in dual injectors and near the seat in single zone injectors.

* To be perforated in Upper Queen (Red Sand) before converting to water injection service

** To be perforated in Lower Queen (Penrose Sand) before converting to water injection service

pam/8-23-68

Case 3897

DRAFT

GMH/esr
10-25-68

(7)

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3877

Order No. R-3555

APPLICATION OF NEWMONT OIL COMPANY
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 9, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this Nov. day of Nov., 1968, the Commission, a
quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Newmont Oil Company, seeks the
institution of three waterflood projects in the Young (Queen)
Pool by the injection of water into the Queen formation through
15 wells in the Young (Queen) Participating Unit Area, through
one well on the Minn-Tex Young Federal Lease in Section 17, and
through one well to be drilled on the Minn-Tex Young Federal
Lease in Section 19, all in Township 18 South, Range 32 East,
NMPM, Lea County, New Mexico.

(3) That the wells in each of the project areas are in an
advanced state of depletion and should properly be classified
as "stripper" wells.

(4) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That three waterflood projects are hereby authorized to be instituted in the Young (Queen) Pool by the injection of water into the Queen formation through the following-described 17 wells in Township 18 South, Range 32 East, NMPM, Lea County, New Mexico:

UNIT SECTION

Newmont Young (Queen) Waterflood Project

Injection wells:

Continental Oil Company Walker Federal Well No. 1	M	9 ✓
Newmont Oil Company Lea State "HS" Well No. 1	E	16
Newmont Oil Company Lea State "HS" Well No. 3	F	16
Beard Oil Company Young Federal Well No. 4	A	17
Newmont Oil Company Young Federal Well No. 11	G	17
Newmont Oil Company Young Federal Well No. 10	I	17
Continental Oil Company Cox Federal Well No. 3	K	17
Newmont Oil Company Young Federal Well No. 4	D	20
Newmont Oil Company Young Federal Well No. 7 ✓	H	20
Newmont Oil Company Young Federal Well No. 8 ✓	G	20
Beard Oil Company Young Federal Well No. 3 ✓	O	20
Beard Oil Company Young Federal Well No. 5 ✓	L	20
Newmont Oil Company Edwards Federal Well No. 1	M	21
Newmont Oil Company Barton Federal Well No. 1 ✓	A	29
Newmont Oil Company Barton Federal Well No. 3	C	29

Minn-Tex Young (Queen) Section 17 Waterflood Project

Injection well:

Minn-Tex Oil Company Young Federal Well No. 4	O	17
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Minn-Tex Young (Queen) Section 19 Waterflood Project

Injection well:

A well to be drilled 1980 feet from the North line and 660 feet from the East line of Section 19

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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