

CASE 3629: Appli. of SOUTHERN
MINERALS CORP. for salt water
disposal and a dual completion.

Case Number

3629

Application
Transcripts.

Small Exhibits

ETC.



SOUTHERN MINERALS CORPORATION

SOMICO BUILDING
BOX 716 - PHONE 884-0311

CORPUS CHRISTI, TEXAS 78408

MIDLAND DISTRICT
323 WEST MISSOURI STREET
BOX 1816 79701
PHONE 682-4349

HOUSTON DIVISION
SUITE 450 THE MAIN BUILDING
1212 MAIN STREET 77002
PHONE 225-2191

LAFAYETTE, LA. DISTRICT
SUITE 107 OIL & GAS BUILDING
BOX 52285 D.C.B. 70501
PHONE 234-3205

Corpus Christi, Texas

May 13, 1970

New Mexico Oil Conservation Commission
P. O. Box 1980
Hobbs, New Mexico 88240

Gentlemen:

In compliance with your Order No. R-3291, dated August 1, 1967, Case No. 3629, Paragraph #3, we submit the following attached quarterly coupons for corrosion tests covering the period January 14, 1970 to April 27, 1970. These tests were conducted on our State "D" Lease, Well No. 1, located in the Inbe Permo Penn Field, Unit E of Section No. 8, Township 11 South, Range 34 East, NMPM, Lea County.

We hope these quarterly tests meet with your satisfaction.

Yours very truly,

SOUTHERN MINERALS CORPORATION

John C. Capshaw
John C. Capshaw

JCC/cr

30
AM 8
MAY 21 1970

Mr. Nutter

File

PETROLITE
CORPORATION

TRETOLITE DIVISION

369 Marshall Avenue / Saint Louis 19, Missouri / WO 1-3500

KONTOL®
CORROSION INHIBITOR

CORROSION RATE REPORT

Test period: 3-24-70 to 4-27-70 Date: 5-1-70

Company: Southern Minerals Corp. City, State: _____

Field, Lease, Well: State "D" SWDW Shut-down time & cause: _____

Estimated Production During Test: Oil: _____ Water: _____ Gas: _____

Coupon numbers: 80 JL 81 JL

Wt. loss, grams: 0.6350 0.5300

Avg. wt. loss: 0.5825 Factor: 6.75 MPY: 3.931

Inhibitor used during test OK-2536, Quantity used 2 qts/day = _____

_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

Report submitted to: Mr. Yarbrough

CC: Parmer, Worsham, Farish, File

NOTE: See Reverse Side for Interpretation.

Respectfully submitted,

PETROLITE CORP. TRETOLITE DIV.

Jim Mitchell

PETROLITE
CORPORATION

TRETOLITE DIVISION

369 Marshall Avenue / Saint Louis 19, Missouri / WO 1-3500

KONTOL®
CORROSION INHIBITOR

CORROSION RATE REPORT

Test period: 1-14-70 to 3-24-70 Date: 4-3-70
Company: Southern Minerals Corp. City, State: _____
Field, Lease, Well: _____ Shut-down time & cause: _____
Estimated Production During Test: Oil: _____ Water: _____ Gas: _____

Coupon numbers: 08-KR 09-KR
Wt. loss, grams: 1.4620 1.4900
Avg. wt. loss: 1.4760 Factor: 3.32 MPY: 4.900
Inhibitor used during test OK-2536, Quantity used 2 Qtz / day = _____
_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

Report submitted to: Mr. Yarbrough
CC: Parmer, Worsham, Farish, File

NOTE: See Reverse Side for Interpretation.

Respectfully submitted,
PETROLITE CORP. TRETOLITE DIV.

Jim Mitchell

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

CASE No. 3416
Order No. R-3083

APPLICATION OF SIGNAL OIL & GAS
COMPANY FOR A DUAL COMPLETION AND
SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 8, 1966,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 30th day of June, 1966, 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, Signal Oil & Gas Company, seeks
authority to complete its New Mexico State "AP" Well No. 1,
located in Unit I of Section 17, Township 16 South, Range 34
East, NMPM, Lea County, New Mexico, as a dual completion (con-
ventional) to produce oil from the Simanola-Pennsylvanian Pool
through the annulus between the 2 3/8-inch tubing and the 5 1/2-
inch casing by means of a hydraulic downhole pump and to dispose
of produced salt water down the annulus between the 8 5/8-inch
intermediate casing string and the 5 1/2-inch production casing
string into the San Andres and Glorieta formations, with injection
into the open hole interval between the 8 5/8-inch casing shoe
at 4100 feet and the top of the cement at 9260 feet.

(3) That the produced salt water should be continuously
treated prior to injection to prevent casing corrosion.

-2-

CASE No. 3416
Order No. R-3083

(4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Signal Oil & Gas Company, is hereby authorized to complete its New Mexico State "AP" Well No. 1, located in Unit I of Section 17, Township 10 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Simanola-Pennsylvanian Pool through the annulus between the 2 3/8-inch tubing and the 5 1/2-inch casing by means of a hydraulic downhole pump and to dispose of produced salt water down the annulus between the 8 5/8-inch intermediate casing string and the 5 1/2-inch production casing string into the San Andres and Glorieta formations, with injection into the open hole interval between the 8 5/8-inch casing shoe at 4100 feet and the top of the cement at 9260 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion;

PROVIDED FURTHER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

(2) 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

JACK M. CAMPBELL, Chairman

GUYTON B. HAYS, Member

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

S E A L

esr/

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. 3629
Order No. R-3291

APPLICATION OF SOUTHERN MINERALS
CORPORATION FOR SALT WATER DISPOSAL
AND A DUAL COMPLETION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 26, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of August, 1967, 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, Southern Minerals Corporation,
seeks authority to complete its State "D" Well No. 1, located in
Unit E of Section 8, Township 11 South, Range 34 East, NMPM, Lea
County, New Mexico, as a dual completion to produce oil from the
Inbe-Pennsylvanian Pool through the 2 7/8-inch tubing and to
dispose of produced salt water down the annulus between the
8 5/8-inch intermediate casing string and the 5 1/2-inch produc-
tion casing string into the Glorieta and other formations, with
injection into the open hole interval between the 8 5/8-inch
casing shoe at 4045 feet and the top of the cement at 7168 feet.

(3) That the produced salt water should be continuously
treated prior to injection to prevent casing corrosion and coupon
corrosion tests shall be conducted continuously on said well and
the results thereof filed quarterly with the Commission until
further notice from the Secretary-Director of the Commission.

-2-

CASE No. 3629
Order No. R-3291

(4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Southern Minerals Corporation, is hereby authorized to complete its State "D" Well No. 1, located in Unit E of Section 8, Township 11 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion to produce oil from the Inbe-Pennsylvanian Pool through the 2 7/8-inch tubing and to dispose of produced salt water down the annulus between the 8 5/8-inch intermediate casing string and the 5 1/2-inch production casing string into the Glorieta and other formations, with injection into the open hole interval between the 8 5/8-inch casing shoe at 4045 feet and the top of the cement at 7168 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion, and provided further, that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(2) 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
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

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. 3606
Order No. R-3271

APPLICATION OF BELL PETROLEUM COMPANY
FOR SALT WATER DISPOSAL AND A DUAL
COMPLETION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 28, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of July, 1967, 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, Bell Petroleum Company, seeks
authority to complete its State "K" Well No. 1, located in Unit K
of Section 21, Township 11 South, Range 33 East, NMPM, Lea County,
New Mexico, as a dual completion to produce oil from the North
Bagley-Lower Pennsylvanian Pool through the 5 1/2-inch casing by
means of a hydraulic casing pump and to dispose of produced salt
water down the annulus between the 8 5/8-inch intermediate casing
string and the 5 1/2-inch production casing string into the San
Andres and other formations, with injection into the open hole
interval between the 8 5/8-inch casing shoe at 3845 feet and the
top of the cement at 7800 feet.

(3) That the produced salt water should be continuously
treated prior to injection to prevent casing corrosion and coupon
corrosion tests shall be conducted continuously on said well and
the results thereof filed quarterly with the Commission until
further notice from the Secretary-Director of the Commission.

-2-

CASE No. 3606
Order No. R-3271

(4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Bell Petroleum Company, is hereby authorized to complete its State "K" Well No. 1, located in Unit K of Section 21, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico, as a dual completion to produce oil from the North Bagley-Lower Pennsylvanian Pool through the 5 1/2-inch casing by means of a hydraulic casing pump and to dispose of produced salt water down the annulus between the 8 5/8-inch intermediate casing string and the 5 1/2-inch production casing string into the San Andres and other formations, with injection into the open hole interval between the 8 5/8-inch casing shoe at 3845 feet and the top of the cement at 7800 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion, and provided further, that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(2) 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

S E A L

esr/

SOUTHERN MINERALS CORPORATION
SOMICO BUILDING
P. O. BOX 716

CORPUS CHRISTI, TEXAS 78403

February 1, 1968

Mr. Nutter

file

State of New Mexico
Oil Conservation Commission
P. O. Box 1980
Hobbs, New Mexico 88240

Gentlemen:

In compliance with your Order No. R-3291, dated August 1, 1967,
Case No. 3629, paragraph #3, we submit the attached quarterly
coupons for corrosion tests covering the period October 19, 1967
to December 15, 1967. These tests were conducted on our State
D lease, well #1, located in the Inbe Penn Field, Unit E of Section
#8, Township 11 South, Range 34 East, NMPM, Lea County.

We hope these quarterly tests meet with your satisfaction.

Yours very truly,

SOUTHERN MINERALS CORPORATION

J. R. Irwin
J. R. Irwin

JRI:aln

MAIN OFFICE OGC

'68 FEB 12 AM 8 31



TRETOLITE DIVISION
368 Marshall Avenue / Saint Louis 19, Missouri / WO 1-3500

1

KONTOL®
CORROSION INHIBITOR

CORROSION RATE REPORT

Test period: 11-30-67 to 12-15-67 Date: 1-8-68
Company: Southern Minerals Corp. City, State: _____
Field, Lease, Well: St D-S WDW Shut-down time & cause: _____
Estimated Production During Test: Oil: _____ Water: _____ Gas: _____

Coupon numbers: ZL 02 ZL 03
Wt. loss, grams: 0.2347 0.2624
Avg. wt. loss: 0.248 Factor: 15.3 MPY: 3.794
Inhibitor used during test OK-2516, Quantity used 19 Qts. =
_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

Coupons rusty- appear to have been exposed to air.

MAIN OFFICE OCC

'68 FEB 12 AM 8 37

Report submitted to: Mr. Yarbrough- Box 732 Ft. Stockton, Tex; Buford Parmer
CC: Worsham; File

Respectfully submitted,
PETROLITE CORP. TRETOLITE DIV.

Bruce Lair

NOTE: See Reverse Side for Interpretation.

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis 19, Missouri / WD 1-3500

KONTOL®
CORROSION INHIBITOR

CORROSION RATE REPORT

Test period: 11-16-67 to 11-30-67 Date: 12-12-67
Company: Southern Minerals Corp. City, State: Texas
Field, Lease, Well: St. D-SWDW Shut-down time & cause: _____
Estimated Production During Test: Oil: _____ Water: _____ Gas: _____
Coupon numbers: ZL 36 ZL 37
Wt. loss, grams: 0.0291 0.0289
Avg. wt. loss: 0.029 Factor: 16.4 0.477
Inhibitor used during test OK-2516, Quantity used 3½ gal. ==
_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

MAIN OFFICE 000

'68 FEB 12 AM 8 37

Report submitted to: Mr. Yarbrough- Box 732 Ft. Stockton, Tex.; Buford Parmer

CC: Worsham; File

NOTE: See Reverse Side for Interpretation.

Respectfully submitted,
PETROLITE CORP. TRETOLITE DIV.

Bruce Lair

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis 19, Missouri / WO 1-3500

1

KONTOL®
CORROSION INHIBITOR
CORROSION RATE REPORT

Test period: 11-2-67 to 11-16-67 Date: 11-28-67
Company: Southern Minerals Corp. City, State: New Mexico
Field, Lease, Well: St D SWDN Shut-down time & cause: _____
Estimated Production During Test: Oil: _____ Water: _____ Gas: _____
Coupon numbers: ZL 68 ZL 69
Wt. loss, grams: 0.0398 0.0385
Avg. wt. loss: 0.039 Factor: 16.4 MPY: 0.640
Inhibitor used during test OK-2516, Quantity used 1 qt. day =
_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

Some rust on coupons but not as much as on previous set.

MAIN OFFICE 010

'68 FEB 12 AM 8 37

Report submitted to: Mr. Yarbrough - Box 732 FT. Stockton, Texas; Buford Parmer

CC: Worsham; File

NOTE: See Reverse Side for Interpretation.

Respectfully submitted,
PETROLITE CORP. TRETOLITE DIV.

Bruce Lair

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis 19, Missouri / WO 1-3500

1

KONTOL®
CORROSION INHIBITOR
CORROSION RATE REPORT

Test period: 10-19-67 to 11-2-67 Date: 11-7-67
Company: Southern Minerals Corp. City, State: New Mexico
Field, Lease, Well: State D-SWDN Shut-down time & cause: _____
Estimated Production During Test: Oil: _____ Water: _____ Gas: _____
Coupon numbers: ZL 32 ZL 33
Wt. loss, grams: 0.3781 0.3765
Avg. wt. loss: 0.377 Factor: 16.4 MPY: 6.183
Inhibitor used during test OK-2516, Quantity used 14 qts. =
_____ ppm based on total fluids, or _____ quarts per MMCF.

Comments:

MAIN OFFICE 000

'68 FEB 12 AM 8 37

Report submitted to: Mr. Yarbrough- Box 732 Ft. Stockton, Texas; Buford Parmer
CC: Worsham; File

Respectfully submitted,
PETROLITE CORP. TRETOLITE DIV.

Bruce Lair

NOTE: See Reverse Side for Interpretation.

Case 3629

Form C-108
Revised 1-1-65NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Southern Minerals Corporation		ADDRESS P.O. Box 716 Corpus Christi, Texas	
LEASE NAME State "D"	WELL NO. 1	FIELD Inbe-Penn	COUNTY Lea
LOCATION UNIT LETTER <u>E</u> ; WELL IS LOCATED <u>1980'</u> FEET FROM THE <u>North</u> LINE AND <u>510'</u> FEET FROM THE <u>West</u> LINE, SECTION <u>8</u> TOWNSHIP <u>11-S</u> RANGE <u>34-E</u> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13 3/8"	372'	375	Surface ✓	Observation
INTERMEDIATE	8 5/8"	4,045'	450	2,065' ✓	Calculation ✓
LONG STRING	5 1/2"	9,868'	400	7,168' ✓	Calculation ✓
TUBING	2 7/8"	9,851' ✓	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Mod "R" Packer Set @ 9815' ✓		
NAME OF PROPOSED INJECTION FORMATION Glorieta ✓			TOP OF FORMATION 4045'		BOTTOM OF FORMATION 7168'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Annulus		PERFORATIONS OR OPEN HOLE? Open Hole		PROPOSED INTERVAL(S) OF INJECTION 4045'-7168'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? To Make Bough "C" Completion		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH Perf. For Prod. 9859'-9869'					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 110'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None Known		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None Known	
ANTICIPATED DAILY INJECTION VOLUME (BBL/S.)	MINIMUM 100	MAXIMUM 500	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 500
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? No
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Bogle Farms Inc. P. O. Box 358 Dexter, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sun Oil Company Midland Tower Midland, Texas					
Tenneco Oil Company Wilco Building Midland, Texas					
MAIN OFFICE 000					
'67 JUN 26 PM 4 24					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				THE NEW MEXICO STATE ENGINEER Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

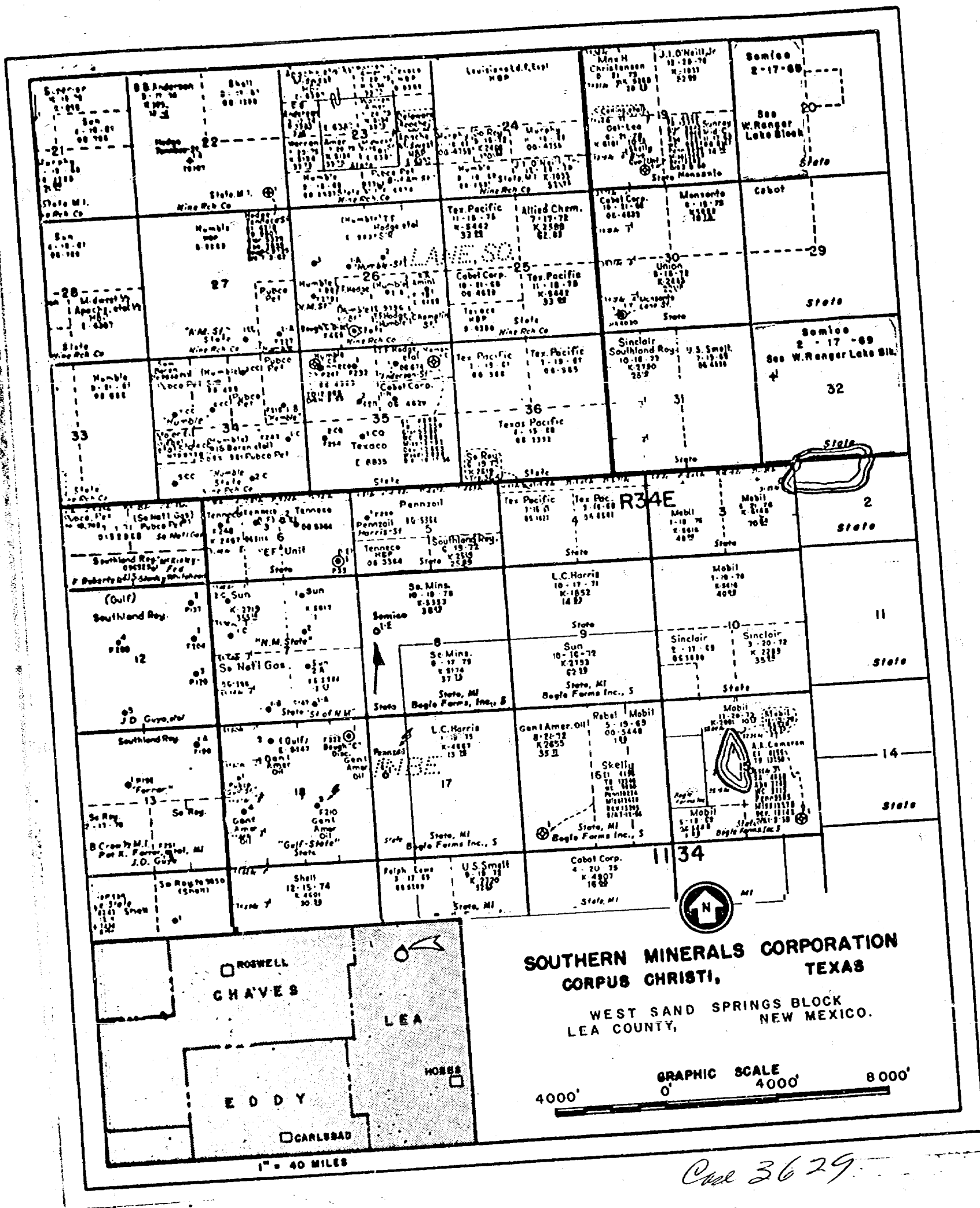
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

J. R. Irwin
(Signature) J. R. Irwin

Authorized Employee
(Title)

June 20, 1967
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.



SOUTHERN MINERALS CORPORATION

SOMICO BUILDING
P. O. BOX 716

CORPUS CHRISTI, TEXAS 78400

WATER
INJECTION

GROUND LEVEL

circulated

13³/₈ Casing @ 372'

Top Cement @ 2065'

8⁵/₈ Casing @ 4045'

2⁷/₈ Tubing

Disposal Zone
4045' to 7168'

Top Cement @ 7168'

Baker Model "R" Packer @ 9815'

Perforations 9859-69'

5¹/₂ Casing @ 9868'



Case 3629

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

August 1, 1967

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3629
Order No. R-3291
Applicant:

SOUTHERN MINERALS CORP.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other Mr. Frank Irby

Case 3629

Record 7-26-67

Rec. 7-28-67.

1. Grant So. Minerals permission
to dually complete their ~~Salt~~ ^{Salt} ~~well~~ ^{well}
1-E 8-115-34 E.

Inholan - Oil will be produced thru $2\frac{3}{8}$ "
tubing thru a packer set at approx
7815.

Salt water will be injected thru
 $8\frac{5}{8} \times 5\frac{1}{2}$ annulus and injected
into open hole section from
 $8\frac{5}{8}$ casing shoe @ 4045 to top of
cement behind $5\frac{1}{2}$ @ 7165.

2. Water will be treated before
injection and ~~continue~~ frequently
checked with coupons.

Mike W.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 26, 1967

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 3620: Application of Pubco Petroleum Corporation for an unorthodox location and a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Federal Well No. 16 to produce gas from the Blanco-Mesaverde and Basin-Dakota Pools at an unorthodox location for said pools 330 feet from the South line and 990 feet from the West line of Section 9, Township 27 North, Range 8 West, San Juan County, New Mexico.
- CASE 3621: Application of Mobil Oil Corporation for an amendment to Commission Rule 1103 A. Applicant, in the above-styled cause, seeks the amendment to Rule 1103 A to eliminate the requirement for filing Form C-103 as a notice of intention to acidize, fracture, or clean out previously completed wells.
- CASE 3622: Application of Ryder Scott Management Company for a waterflood buffer zone, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the N/2 NE/4, SW/4 NE/4 of Section 20, Township 18 South, Range 28 East, Eddy County, New Mexico, as a waterflood buffer zone in the Artesia Pool offsetting its waterflood project in Section 21 and Cima Capitan's waterflood project in Section 17 of the same township.
- CASE 3623: Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the interval from 11,610 feet to 11,800 feet in the Amerada Petroleum Corporation State "BTC" Well No. 2, located in Unit B of Section 35, Township 11 South, Range 33 East, Bagley Field, Lea County, New Mexico.
- CASE 3624: Application of Texas Pacific Oil Company to amend Order No. R-69-D, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment to the Bagley Siluro-Devonian Pool Rules promulgated by Order No. R-69-D to

CASE 3624 continued

permit the completion of more than one well on an 80-acre proration unit in said pool, the second well on a unit being located within 150 feet of the center of the NE/4 or the SW/4 of the quarter section, with the 80-acre allowable being produced from either well in any proportion.

CASE 3625: Application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its C. E. LaMunyon Well No. 11 located in Unit C of Section 27, Township 23 South, Range 37 East, Lea County, New Mexico, to produce oil from the Teague McKee and Teague Ellenburger Pools through parallel strings of tubing.

CASE 3626: Application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its R. E. Cole (NCT-A) Well No. 8 located in Unit K of Section 16, Township 22 South, Range 37 East, Lea County, New Mexico, to produce oil from undesignated Silurian and Montoya oil pools through parallel strings of tubing.

CASE 3627: Application of Gulf Oil Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its R. E. Cole (NCT-A) Well No. 9 at an unorthodox oil well location 1075 feet from the South line and 2395 feet from the West line of Section 16, Township 22 South, Range 37 East, Lea County, New Mexico, said well being projected to undesignated Silurian and Montoya Oil Pools.

CASE 3628: Application of Charles E. Seed for four Ogallala oil proration units and special rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the SW/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, as four oil proration units for the production of oil from the Ogallala formation. Applicant also seeks the establishment of special rules governing said 40-acre tracts including a maximum density of one well per 0.625-acre with a provision that wells should be drilled no nearer than 82.5 feet to the outer boundary of a 40-acre unit and no nearer than 165 feet to another well producing from the same formation, provided that an exception should be made for existing

CASE 3628 continued

wells which are not located in conformance with said spacing rules. Applicant also seeks a temporary exception to Rule 307 for each well to permit utilization of a vacuum-type drilling unit during the drilling and completion operations. Applicant also seeks authority to produce the wells at capacity even though the aggregate production from wells on a 40-acre tract exceeds the 40-acre normal unit allowable.

CASE 3629:

Application of Southern Minerals Corporation for salt water disposal and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State "D" Well No. 1 located in Unit E of Section 8, Township 11 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Inbe-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the Glorieta and other formations in the open hole interval from 4045 feet to 7168 feet.

STATE ENGINEER OFFICE
MEMO

DATE 6-26-67

TO: OCC

- () For Your Information () Note & Return
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REMARKS:

Sorry that I
marked on this
before I realized it
was for your instad
of this office

Libz

1967 **SOUTHERN MINERALS CORPORATION**

STATE ENGINEER OFFICE
SANTA FE, N. M.

SOMICO BUILDING
P. O. BOX 716

Set for hearing
Case 3629

CORPUS CHRISTI, TEXAS 78403

June 21, 1967

512

SMD

Due July 11

MAIN OFFICE 000

JUN 26 PM 4 24

JU-40311

New Mexico
Oil Conservation Commission
State Engineer Office
Capitol Building
Santa Fe, New Mexico

Gentlemen:

Enclosed you will find three (3) copies of Form C-108, Application To Dispose Of Salt Water By Injection Into A Porous Formation, a plat showing the location of the proposed injection well, a Sidewall Neutron Porosity Log of the proposed well and a diagrammatic sketch of the well.

Copies of the Form C-108 have been submitted to the Oil Conservation Commission District Office at Hobbs, New Mexico and to the surface owner and operators within one-half mile of this well.

If additional information is needed, please advise us.

Yours very truly,

SOUTHERN MINERALS CORPORATION

J. R. Irwin
J. R. Irwin

JRI:aln

DOCKET MAILED

Date *7-14-67*



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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 26, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Southern Minerals
Corporation for salt water disposal
and a dual completion, Lea County, New
Mexico.

Case No. 3629

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

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MR. UTZ: Case 3629.

MR. HATCH: Case 3629, application of Southern Minerals Corporation for salt water disposal and a dual completion, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin appearing for the Applicant and I have one witness I would like to have sworn, please.

(Witness sworn.)

WILLIAM GENE MCCOY, called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A William Gene McCoy.

Q Mr. McCoy what business are you engaged in?

A I am self employed as a consulting engineer and geologist.

Q Where are you located?

A Roswell, New Mexico.

Q In connection with your work as a consulting geologist, have you done any work for Southern Minerals Corporation, the Applicant in Case Number 3629?

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A I have. I have been on a retainer for them for the last three years.

Q Are you familiar with the area that is involved in this application?

A I am.

Q Have you testified before the Oil Conservation Commission as a geologist and made your qualifications a matter of record?

A I have.

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

MR. UTZ: Yes, sir.

Q (By Mr. Kellahin) Mr. McCoy, briefly, what does Southern Minerals Corporation propose in Case 3629?

A Southern Minerals Corporation proposes to take the produced water from our Number 1 State D, located in Unit E of Section 8, Township 11 South, Range 34 East and inject it into the annulus, between the eight and five eighths and five and a half inch casing.

Q Now, in effect, then, you are proposing a dual completion for the production of oil from the Inbe-Pennsylvanian Pool and disposal of the produced water from the same well through the casing tubing annulus?

A Yes, sir.

Q Is that what is proposed?

A Right, we are.

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

Q Now, referring to what has been marked as Exhibit Number 1, would you identify that exhibit, please?

A This is a land ownership map of the area showing the current producing wells. The wells circled in orange are current producers from the Bough C formation, Pennsylvanian age. The one well located in the southwest quarter of the southeast quarter of Section 7, 11 South, 34 East is an abandoned Wolfcamp producer.

Q Without going into any detail right at this point, what formation will you be disposing the water in, Mr. McCoy?

A Between the base of the eight and five eighths, which is set approximately 100 feet in the San Andres, and the top of the cement from the five and a half inch casing at 71 --

Q Well, we will come to that later. Just what formation will it be?

A Well, I was going to say, between that interval we enter curves, the San Andres, the Glorieta-Yeaso Section and 300 feet of Tub formation.

Q Now, with reference to the Exhibit Number 1, you have shown the producing wells in the area.

A Yes, sir.

Q Are any of those wells producing from the formations in which you will dispose of the salt water?

A They are not.

Q Are there any within a mile or two miles of the disposal well?

A No.

Q Is there another disposal well in the area?

A There is one other salt water disposal well in the area.

Q And is it shown on Exhibit Number 1?

A It is shown in Unit M of Section 16, Township 11 South, Range 34 East, owned by General American Oil Corporation.

Q Now, referring to what has been marked as Exhibit Number 2, would you identify that exhibit, please?

A That is the C-104 Request for Allowable covering the Number 1 State E.

Q And that is an allowable from the Inbe-Pennsylvanian pools, is that correct?

A That is correct.

Q And Exhibit Number 3, would you identify that exhibit?

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A C-105, Well Completion Report and Log of the Southern Minerals Corporation's Number 1 State E .

Q And that shows the completion data on the subject well, is that correct?

A Yes, it does.

Q Now, Exhibit Number 4, would you identify that exhibit?

A C-108, Application to dispose of salt water by injection into a force formation, covering the Southern Minerals' Number 1 State E.

Q Now, that is essentially what you are proposing in the application before the Commission today?

A That's correct.

Q Now, referring to what has been marked as Exhibit Number 5, would you identify that exhibit?

A Exhibit Number 5 is a schematic showing the casing as run into the well and cemented.

Q Now, would you discuss the cementing and casing program on this well, just what intervals you are producing from and what intervals you will inject into.

A The casing program, starting from the top, was thirteen and three eighths inch casing set at 372 feet and cemented with 375 sacks, which was circulated at the surface.

The second string was eight and five eighths casing, set at 4,045 feet, cemented with 450 sacks of cement, with the estimated top by Calculation from Halliburg and Tables at 2,065 feet. The production casing, that is, a desire to string, of five and a half inch casing set at 9868 feet and cemented with 400 sacks of cement. The top of the cement calculated by Halliburg and Tables at 7168 feet.

Q Now, how do you propose to utilize this well for a salt water disposal well?

A We propose to inject our produced water down the annulus between the eight and five eighths casing and the five and a half casing within the interval of 4,045 to 7,168 feet.

Q Well, that interval, then, would be open hole in the way this well is completed, is that correct?

A That is correct?

Q It is not a perforated casing?

A It is not.

Q And, do you have any way of knowing what formation the water will go into?

A To the best of my knowledge, in the current condition, there is no way we can determine what exact formation will take the water. We have tested injection with a Kiel truck, and have injected at the rate of twenty barrels per hour at 1100 pounds pressure.

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Q Have you any idea whether the water, under those circumstances, would go into the Sand Andres, Glorieta, or both?

A My own opinion would be, that it would probably go into the Glorieta.

Q Now, on what do you base this opinion?

A This is based on drillstem tests that have been taken in the Slaughter Zone, which would also be open in our well, and the drillstem tests indicate a bottom hole pressure of approximately 1700 pounds. And I feel that, with 1100 pounds injection pressure, I do not believe that we could overcome that bottom hole pressure.

Q The San Andres, then, would not take the water, in your opinion?

A That's right, and I believe the next force formation below that is the Glorieta.

Q In that connection, you mentioned another disposal well in the area, do you know how that well is completed and into what zone water is being injected in it?

A The well mentioned is located in Unit M of 16, of 11 South, 38 East. It was originally drilled by Skelly Oil Company as a Number 1 Bogle. It was completed as a dry hole in July of 1956. Mr. French re-entered the well in September

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of '63, and cleaned out the hole from the surface to 5490 feet. The eight and five eighths casing in this well was set at 4,182 feet, which would be approximately the same interval as our well, that is, approximately 100 feet into the San Andres.

His open hole interval would cover the San Andres and the top of the Glorieta formation. In his application he stated that the water would be injected into the San Andres.

Q Have you any information on what he has been injecting in recent months?

A According to the C-128, for May 1967, they injected a total of 35,574 barrels of water and have accumulated an injection of 1,362,153 barrels of water.

Q At the time this application was approved, was there any requirement for running a profile to determine the zone the water was going into or anything of that nature?

A According to the files in the Commission's office, I did not see any requirement to that effect.

Q Do you feel that such a procedure would be necessary in the case of Southern Minerals Corporation's well?

A I do not feel that it would be, because as prudent operators, we will, ourselves, gauge and test this well, and at any time we are, in our opinion, endangering our five and a half casing, we will cease production of produced water.

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Q Now, the General American well, you say, injected in May 35,574 barrels, what volume of water will you be injecting in the Southern Minerals Corporation's well?

A Based on our most recent test, which was the 19th of July, our daily production was 271 barrels of oil and 141 barrels of water, based on this, it will give approximately 4200 barrels of water per month injection.

Q You don't plan to inject water from any other wells in the area into this well?

A At present, no.

Q Do you have logs of the subject well and marked as Exhibits 6 and 7?

A Correct.

Q Have you marked any information on those logs, Mr. McCoy?

A I have indicated on the log, the tops of the various formations encountered in drilling and also have indicated the base of the eight and five eighths and the top of the cement of the five and a half inch casing.

Q Now, have you had an analysis made of the produced water?

A We have.

Q Now, referring to what has been marked Number 8, would

you identify that exhibit, please?

A This is a report from the Tret-O-Lite Company of Hobbs, New Mexico, giving recommendations for scale inhibitors and control of corrosion additives to treat our injected water with, to prevent any undue corrosion, or scale on our five and a half inch casing within the injection zone.

Q Is the water corrosive, Mr. McCoy?

A Basically, it is.

Q And in your opinion, it would require treatment, is this correct?

A It would.

Q And the Tret-O-Lite Company has recommended a procedure for this treatment, is this correct?

A They have.

Q Will you follow that treatment in the event this application is approved?

A For control of scale, they recommend an additive of OS-2520 Scale Preventative at the rate of one quart per hundred barrels of water. For control of corrosion, one quart of Tret-O-Lite, OK-2516 Corrosion Inhibitor at the rate of one quart per hundred barrels of water.

Q And will you follow that procedure if this is approved?

A We would.

Q Were Exhibits 1 through 8 prepared by you, with the exception that 6 and 7 are logs and Number 8 is a letter from the Tret-O-Lite Company?

A They were prepared by Southern Minerals Corporation of Corpus Christi.

Q Have you examined them?

A I have.

Q In your opinion, are they correct?

A They are.

MR. KELLAHIN: At this time, I offer into evidence Exhibits 1 through 8 inclusive.

MR. UTZ: Without objection, Exhibits 1 through 8 will be entered into the record of this case.

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

MR. KELLAHIN: That's all I have on Direct Examination, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q In addition to treating the injected water, will you run a coupon survey periodically --

A Yes, sir.

Q -- to see how it is coming along?

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A In fact, I have recommended also a flow rate meter and a pressure recorder for the first month to gauge an estimated daily pressure volume relationship.

Q Now, was this 1100 pounds that you used to inject twenty barrels per hour, surface pressure?

A Surface pressure, sir.

Q How much pressure do you think it will take to dispose of 4200 barrels a month.

A We have made no estimate of this. We felt that the tests indicated -- Our actual injection is an injection at the rate of 500 pounds, according to our estimates.

Q This casing in this well, how old is it?

A Sir?

Q How old is the casing in this well?

A It was new casing at the time it was run.

Q Let's see, that was completed when?

A Sir?

Q That was completed when?

A May 19th of this year.

Q It is pretty new, then. The Bogle in Section 16, do you know what kind of pressures they are using?

A According to their C-128, their injection pressure now is 1700 pounds, that is at the rate of 35,574 a month.

Q That is considerably more water than you propose to inject into this well, is that correct?

A Yes, sir.

Q What do you have behind the casing from 372 to 2,065, which is the top of the cement on the eight and five eights?

A From what interval, now?

Q From 372 to 2,065, where there is no cement behind the five?

A Mud.

Q Just mud? What kind of formation? Is there any oil or water producing formation there?

A To the best of my knowledge, there is no shallow water producing zones within that interval.

Q No oil or gas?

A No, sir.

MR. UTZ: Any questions of the witness?

CROSS EXAMINATION

BY MR. PORTER:

Q The Slaughter zone you referred to, is that the lower part of the San Andres in this area?

A Yes, sir.

Q What is that depth, about five thousand feet?

A Well, it would occur, the best method of estimating

would be about 750 feet below the San Andres. I don't have the log handy, but I believe it was about 4700 in this log.

Q In the Glorieta is the formation immediately below the Slaughter zone?

A Right at the base of the San Andres, yes, sir.

MR. PORTER: That's all I have.

MR. UTZ: Any other questions?

MR. HATCH: The application was sent to the State Engineer's Office, wasn't it?

MR. KELLAHIN: Yes, it was. I have a copy of a letter direct to Southern Minerals stating that Oil Conservation Commission has furnished a copy of the application, so it was furnished, but not by the Applicant.

MR. UTZ: Are there any other statements in this case?

(Whereupon, Applicant's Exhibit Number 9 was marked for identification.)

MR. KELLAHIN: We will offer into evidence Exhibit Number 9, a copy of the letter from the State Engineer acknowledging receipt of a copy of the application.

MR. UTZ: We will make it a part of the record.

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PAGE

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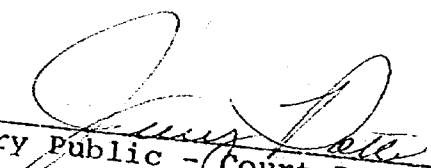
(Whereupon, Applicant's Exhibit Number 9 was admitted in evidence.)

MR. UTZ: We will take the case under advisement and the hearing is adjourned.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO)

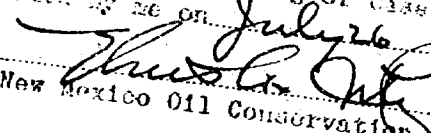
I, JERRY M. POTTS, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Santa FE, New Mexico, is a true and correct record to the best of my knowledge and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 4th day of August, 1967


Notary Public - Court Reporter

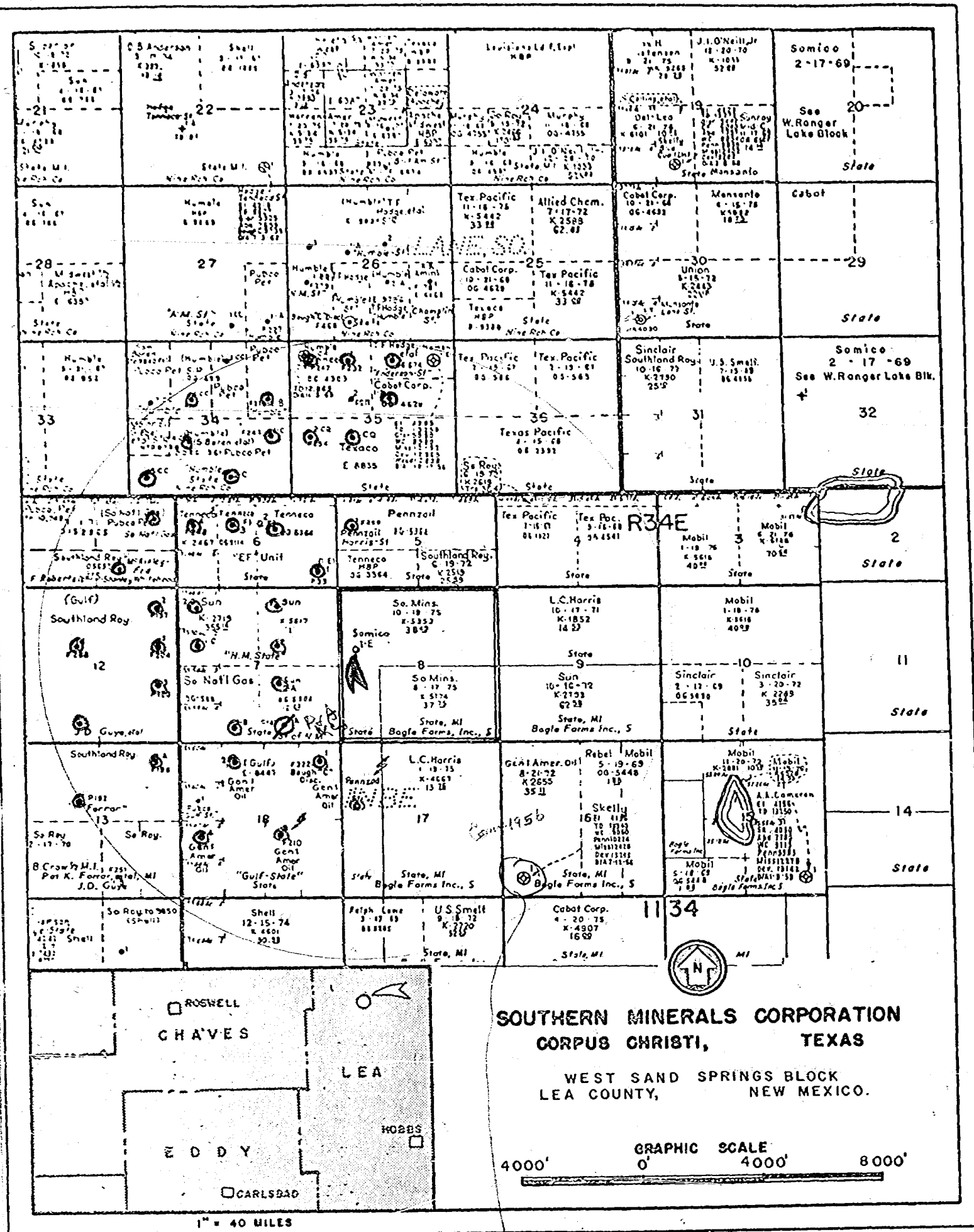
My Commission Expires:

7-10-70

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3628 heard by me on July 26, 1967.

New Mexico Oil Conservation Commission

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EXAMINER UTZ

RESERVATION COMMISSION

EXHIBIT NO. 1

CASE 36 29

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NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-55

I. OPERATOR

Southern Minerals Corporation

Address

P.O. Box 716, Corpus Christi, Texas 78403

Reason(s) for filing (Check proper box)

New Well: ☒ Change in Transporter of: Oil ☐ Dry Gas ☐
 Recompletion: ☐ Casinghead Gas ☐ Condensate ☐
 Change in Ownership: ☐ Other (Please explain):

If change of ownership give name and address of previous owner:

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Fuel Name, including Formation	Kind of Lease	Lease No.
State "D"	1	Inbe-Penn	State, Federal or Free State	K-5353
Location				
Unit Letter	1200'	Feet From The North Line and	510'	Feet From The West
Line of Section	8	Township	11-S	Range 34-E, NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Pan American Petroleum Corporation	Box 1725, Midland, Texas
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
NONE	-
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
	E 8 11-S 34-E No

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
X	X							
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
March 30, 1967	May 6, 1967	9868'	-					
Elevations (D.F., R.A.B., R.T., G.R., etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
4195.6 Gr.	Exxon-Bough C	9854'	9851'					
Perforations	9859-9859'		Depth Casing Shoe					
			9868'					
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					
17 1/2"	13 3/8"	372	375 Sacks					
11"	8 5/8"	4045	450 Sacks					
7 7/8"	5 1/2"	9868	400 Sacks					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
May 19, 1967	May 20, 1967	Flow	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
24 Hours	180	Sealed	21/64
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF
227.2 (Oil) 157.9 (Water)	227.2	157.9	365

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (split, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete.

OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 3629

Authorized

(Title)

OIL CONSERVATION COMMISSION

APPROVED _____, 19

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1102.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

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NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form O-105
Revised 1-1-65

1. Indicate Type of Lease
State ☒ ☐ Fee ☐

2. State Oil & Gas Lease No.
1-1-65

3. Unit Agreement Name

4. Name of Lessee Name
State D

5. Well No.
10.1

6. Field and Pool, or Wildcat

1. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐

2. TYPE OF COMPLETION
NEW ☒ RE-DRILL ☐ DEEPER ☐ PLUG BACK ☐ DIFF. RESER. ☐ OTHER ☐

3. Name of Operator
Southern Minerals Corporation

4. Address of Operator
P.O. Box 120, Corpus Christi, Texas 78403

5. Location of Well
West line of sec. 8 Twp. 11-S Rge. 34-E NMPM

6. Located 1030' FEET FROM THE NORTH LINE AND 510 FEET FROM

7. County
Loa

8. Elevations (DF, RKB, RT, GR, etc.)
1199.6' Gr.

9. Date Drilled
March 30, 1967

10. Date T.O. Reached
April 27, 1967

11. Date Compl. (Ready to Prod.)
May 6, 1967

12. If Multiple Compl., How Many

13. Intervals Drilled By
Rotary Tools
All

14. Cable Tools

15. Was Directional Survey Made
No

16. Was Well Cored
No

17. Producing Interval(s), of this completion - Top, Bottom, Name
Rough 0 Top 9854'

18. Type Electric and Other Logs Run
Sidewall Neutron Porosity Log, Interolog

CASING RECORD (Report all strings set in well)				AMOUNT PULLED
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	
12 1/8"	48	372	11 1/2"	375 Sx Common plus 2' CA CL
8 5/8"	24 A 32	4045	11"	250 Sx Incorcat plus 200 Sx Incor plus 25%
5 1/2"	17	9858	7 7/8"	How Sx Incor 50-50 Pacmix 10% CaCl

LINER RECORD				SIZE	DEPTH SET	PACKER SET
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN		
				2 7/8	9851	9815

19. Perforation Record (Interval, size and number)
9859 - 69 (11) 2/Ft.

20. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

21. DEPTH INTERVAL
9859-69

22. AMOUNT AND KIND MATERIAL USED
1250 Gals 15% HCA

23. PRODUCTION

24. Well Status (Prod. or Shut-in)
Prod.

25. Date First Production
May 19, 1967

26. Production Method (Flowing, gas lift, pumping - Size and type pump)
Flowing

27. Date of Test
May 20, 1967

28. Hours Tested
24

29. Choke Size
21/64

30. Prod'n. For Test Period
227.2

31. Oil - Bbl.
227.2

32. Gas - MCF
365

33. Water - Bbl.
157.9

34. Gas - Oil Ratio
1607/1

35. Oil Gravity - API (Corr.)
46

36. Flow Tubing Press.
180

37. Casing Pressure
Sealed

38. Calculated 24-Hour Rate
227.2

39. Gas - MCF
365

40. Water - Bbl.
157.9

41. Test Witnessed By
Gus Verborough

42. Disposition of Gas (Sold, used for fuel, vented, etc.)
Vent

43. List of Attachments
Sidewall Neutron Porosity Log, Interolog

44. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

45. SIGNED
TITLE Authorized Employee

46. DATE
May 22, 1967

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 3629

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 30 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well, and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 30 through 34 shall be reported for each zone. The form is to be filed in triplicate except on state land, where six copies are required. See Rule 1103.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "D" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
R. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. ? Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Qizto _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blaineby _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todillo _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
-0-	1190	1190	Red Beds				
1190	200	810	Red Beds & Anhydrite				
2000	3500	1500	Anhydrite & Salt				
3500	4000	400	Anhydrite				
4000	7700	3700	Dolomite				
7700	9050	1350	Dolomite w/Shale Streaks				
9050	9868	818	Limestone				

MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

Applicant Southern Minerals Corporation		Address P.O. Box 716 Corpus Christi, Texas			
County State "D"	Well No. 1	Field Inbo-Penn	County Lea		
Location UNIT LETTER E I WELL IS LOCATED 1980' FEET FROM THE North LINE AND 510' FEET FROM THE West LINE. SECTION 8 TOWNSHIP 11-S RANGE 34-2 N.M.P.M.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	BACKS CEMENT	TOP OF CEMENT	TOP UNCEMENTED BY
SURFACE CASING	13 3/8"	372'	375	Surface	Observation
INTERMEDIATE	8 5/8"	4,045'	450	2,065'	Calculation
LONG STRING	5 1/2"	9,868'	400	7,168'	Calculation
TUBING	2 7/8"	9,851'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Mod "R" Packer Set @ 9815'		
NAME OF PROPOSED INJECTION FORMATION Glorieta			TOP OF FORMATION 4045'		BOTTOM OF FORMATION 7168'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Annulus		PERFORATIONS OR OPEN HOLES? Open Hole		PROPOSED INTERVAL(S) OF INJECTION 4045'-7168'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? To Make Bough "C" Completion		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND BACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH Perf. For Prod. 9859'-9869'					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 110'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None Known		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None Known	
ANTICIPATED DAILY INJECTION VOLUME (BBL/D) 100	MINIMUM 100	MAXIMUM 500	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 500
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE UTILIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes			WATER TO BE DISPOSED OF Yes		NATURAL WATER IN DISPOSAL ZONE Yes
ARE WATER ANALYSES ATTACHED? No					
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Bogle Farms Inc. P. O. Box 358 Dexter, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Sun Oil Company Midland Tower Midland, Texas					
Tenneco Oil Company Wilco Building Midland, Texas					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

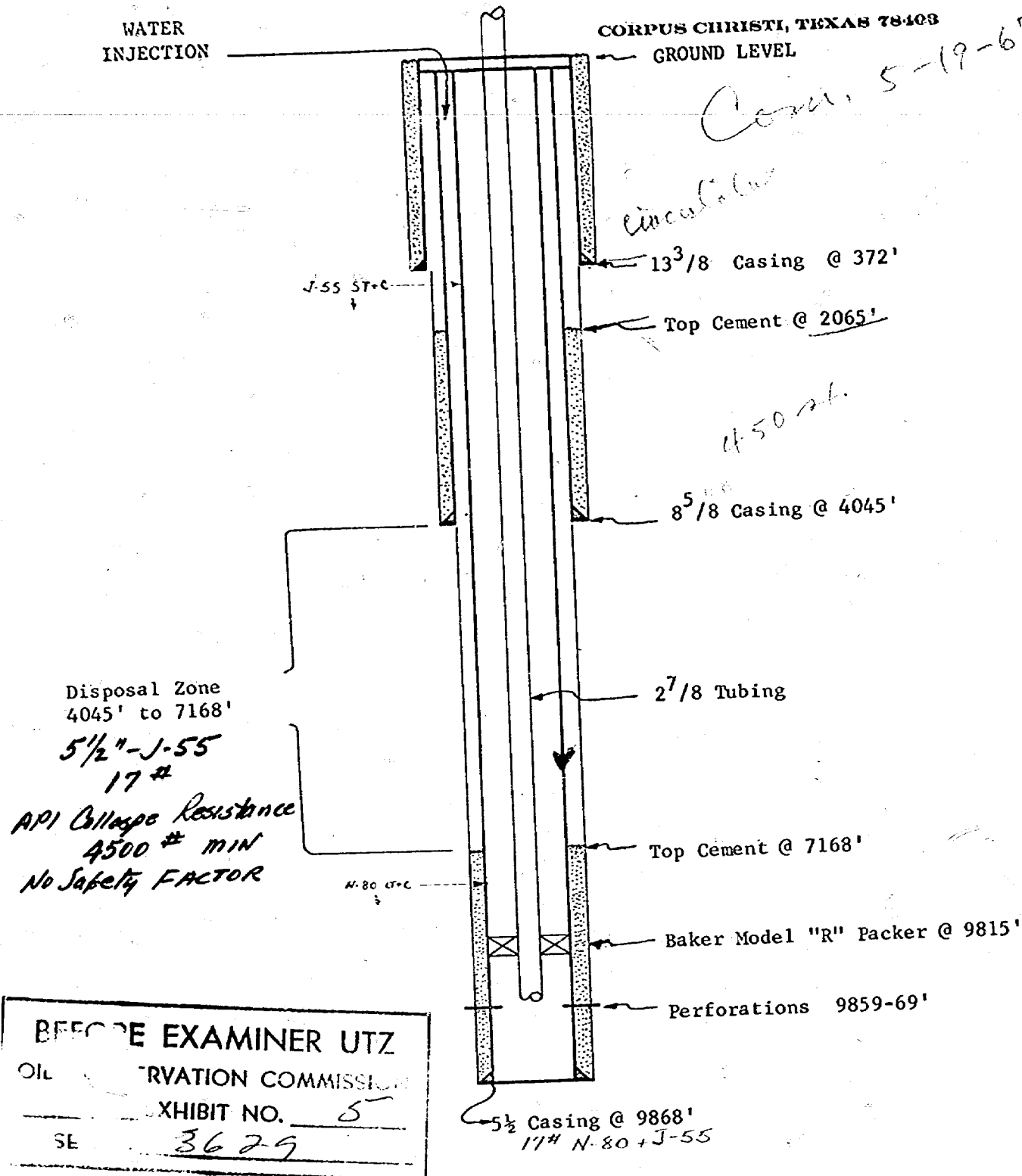
(Signature) **J. R. Irwin**
Authorized Employee
(Date) **June 20, 1967**

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

SOUTHERN MINERALS CORPORATION

SOMICO BUILDING

P. O. BOX 716



Hobbs, New Mexico
P.O. Box 6276
July 21, 1967

Mr. Bill McCoy
610 Security National Bank Building
Roswell, New Mexico

Subject: Southern Minerals Corporation
Salt Water Disposal System
State "D" Lease
Lane Field, Tatum, New Mexico

Dear Sir:

For control of scale in above well, use one quart of Tretolite
OS 2520 "Scale Preventitive" per one hundred barrels of water injected.

For control of corrosion, use one quart of Tretolite OK 2516
"Corrosion Inhibitor" per one hundred barrels of water.

These materials should be fed continuously.

Thank you for your interest in our products.

Sincerely,

Byford Parmer

Byford Parmer
Tretolite Company
Hobbs, New Mexico

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	8
CASE NO.	3629



STATE OF NEW MEXICO

STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

July 7, 1967

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

Southern Minerals Corporation
Somico Building
P. O. Box 716
Corpus Christi, Texas 78408

Attn. Mr. J. R. Irwin

Gentlemen:

Please be advised that the Oil Conservation Commission has furnished me with a copy of your application to dispose of salt water into a well identified as State "D" #1, Unit E of Sec. 8, T. 11 S., R. 34 E., and has also furnished me a copy of the plat and the diagrammatic sketch of the well.

FEI/ma

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 9
CASE NO. 3629