

CASE 5475: MOBIL OIL CORPORATION FOR
SALT WATER DISPOSAL, LEA COUNTY, NEW
MEXICO.

CASE No.

5475

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
14 May 1975

EXAMINER HEARING

IN THE MATTER OF:)
)

)
) Application of Mobil Oil Corporation for)
) salt water disposal, Lea County, New)
) Mexico. Applicant, in the above-styled)
) cause, seeks authority to dispose of)
) produced salt water into the Lower)
) Siluro-Devonian formation in the open-)
) hole interval from 12,188 feet to)
) 12,525 feet in its Santa Fe Pacific)
) Well No. 9, located in Unit E of Section)
) 35, Township 9 South, Range 36 East,)
) Crossroads Siluro-Devonian Pool, Lea)
) County, New Mexico.)

NO. 5475

BEFORE: Daniel S. Nutter, Examiner.

For the New Mexico Oil
Conservation Commission:

William F. Carr, Esq.
Legal Counsel for the Com-
mission
State Land Office Building
Santa Fe, New Mexico 87501

For the Applicant,
Mobil Oil Corporation:

James E. Sperling, Esq.
MODRALL, SPERLING, ROEHL,
HARRIS & SISK
Albuquerque, New Mexico

CASE 5475

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I N D E X

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THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

MR. NUTTER: Case 5475.

MR. CARR: Case 5475. Application of Mobil Oil Corporation for salt water disposal, Lea County, New Mexico.

MR. SPERLING: James E. Sperling, Albuquerque, New Mexico, appearing for the applicant, Mobil Oil Corporation. We have one witness.

(Witness sworn.)

JOHN H. SEEREY,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. SPERLING:

Q Would you please state your name, your place of residence, your employer, and the capacity in which you're employed?

A I'm John Seerey, employed by Mobil Oil Corporation, Operations Engineer, in Midland, Texas.

Q Have you on any previous occasion testified before the Commission so that your qualifications are a matter of record?

A Yes, I have.

MR. SPERLING: Are the witness' qualifications acceptable, Mr. Examiner?

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MR. NUTTER: Yes, they are.

Q (By Mr. Sperling) Mr. Seerey, would you please state what Mobil seeks in connection with the filing of this application?

A Mobil requests approval of the Commission for the conversion of the Santa Fe Pacific Well Number 9 for the disposal of produced salt water from the Crossroads Siluro-Devonian Field into the Lower Siluro-Devonian formation. The Santa Fe Pacific Well Number 9 is a temporarily abandoned Crossroads Siluro-Devonian well.

Q Now, would you please refer to what's been marked as Exhibit One and explain the purpose of that exhibit?

A Exhibit Number 1 is a plat of the area showing all the wells within a two-mile radius of the subject well. Mobil Santa Fe Pacific Well Number 9 is located in Unit E, Section 35, Township 9 South, Range 36 East, Lea County, New Mexico. The Crossroads Siluro-Devonian Wells are shown outlined in triangles.

Q Exhibit 1 also shows the location of existing salt water disposal wells, does it not?

A Yes, sir, it does.

Q Explain why Mobil is seeking to convert the

proposed well as a disposal well.

A Mobil is operating with the jointly owned Crossroads Salt Water Disposal System. This system serves certain wells in the Crossroads Siluro-Devonian Field which produces by a strong water current. The Crossroads Salt Water Disposal System apparently has two usable disposal wells. They are the Carlson Oil Development Well Number One, referring to Exhibit 1 in Section 25, and the U. D. Sawyer Number One in Unit I of Section 28. The operating capacity of the system utilizing the two present disposal wells has been estimated at 41,000 barrels of water per day. Currently the system is required to dispose of 40,000 barrels of water per day. It has been estimated that the Crossroads Salt Water Disposal System will ultimately be required to dispose of 75,000 to 100,000 barrels of water per day. We believe that the addition of the Santa Fe Pacific Number 9 disposal well will increase the disposal capacity of the system to possibly 60,000 barrels of water per day.

Q Will you now refer, Mr. Seerey, to what's been marked as Exhibit 2 and explain what it is designed to show?

A Exhibit 2 is the Commission's Form C108, which

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shows the proposed injection formation to be the Devonian. The depth of the fresh water zones to be above 320 feet, with anticipated daily injection volume on the average of 25,000 barrels of water per day. It shows that the system is a close type system. The injection pressures are estimated to be zero initially to a maximum of 300 pounds per square inch; it shows the names of the surface owners and offset operators.

Q Would you refer to Exhibit Three, please, and explain what it shows.

A Exhibit 3 is a water analysis of the Crossroads Siluro-Devonian produced water. It primarily shows that it has a total dissolved solids content of 61,708.

Q And what does Exhibit 4 refer to?

A Exhibit 4 are the waivers of the surface owner, Mr. Bobby Lewis, and the offset operator, Texaco, saying they waive objection to this application.

Q I notice that on the Form C-108 you list as an offset operator Sun Oil Company; however the waivers are from the surface owner and from Texaco. Would you explain the reason for showing Sun on the original C-108?

A WE included Sun on the C-108 because the form states that you list the names and addresses of operators.

within one-half mile of the injection well; however, while Sun is within one-half mile, they did not have a lease bordering upon this proration unit and we didn't consider them as an offset operator.

Q Would you please refer to Exhibit 5.

A Exhibit 5 is a diagrammatic well bore sketch of the existing Santa Fe Pacific Well Number 9. It shows a 10 and 3/4 inch casing, surface casing, is set at 431 feet; 7 and 5/8ths intermediate casing is set at 5000 feet; it shows a 5 and 1/2 inch liner has been run from 4818 to 12,188 feet. This well originally produced from the open hole interval from 12,188 feet to 12,200 feet in the Devonian. In 1966 the well was plugged back to 12,175 feet and perforations were opened at 12,150 feet to 12,165 feet in the Devonian. This well became uneconomical to produce in April of 1973 and was temporarily abandoned.

Referring back to the C-108, which was Exhibit 2, I believe, you might note that on the C-108 we showed the cement on the intermediate on the long string, 5 and 1/2 rather, to have a cement top of 9250 feet, which was our believe at the time that the C-108 was sent to the Commission, or application. Since that time we have re-searched the well file and found that there was an additional

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650 sacks of cement squeezed over the top of the liner and it calculates to have cement all the way as shown on this Exhibit 5.

Q Will you now please refer to Exhibit 6 and explain it?

A Exhibit 6 is a diagrammatic well bore sketch of the proposed salt water disposal recompletion in Santa Fe Pacific Number 9. Mobil proposes to squeeze the perforations at 12,150 to 12,165 feet, drill out the cement in the packer, pull or drill out the packer, set at 12,175 feet, drill 325 feet of new hole to a new total depth of 12,525 feet, set a permanent type packer in the top of the 5 and 1/2 inch liner at 4840, run 4 and 1/2 inch plastic coated tubing with a seal assembly to the packer and set, displace the annulus with with fresh water treated with one percent by volume of Quatrac 2207, which is simply a corrosion inhibitor and install leak protection devices on the casing tubing annulus (sic).

Q Now refer to Exhibit 7, please, and explain what it shows.

A Exhibit 7 is a structure map showing contour lines on the top of the Crossroads Siluro-Devonian formation. Each well in the area is shown with its total depth and

Sub C elevation of the top of the Devonian. The estimated present oil-water contact is shown by the dashed contour line. The area shown in blue represents the area of the Crossroads Siluro-Devonian field known to be below the oil-water contact. The proposed disposal zone of this application is below the estimated oil-water contact in the Santa Fe Pacific Well Number 9.

Q The exhibit shows a rather pronounced black line running approximately straight north and south or vertically across the exhibit. What does that represent?

A That is a fault that occurs in the field.

Q That's been definitely established?

A Yes, sir, there's been no known Devonian production west of that fault.

Q Would you refer to Exhibit 8.

A Exhibit 8 is a sonic porosity log for the well in this application. This well was originally called the Magnolia Santa Fe Pacific "G" Well Number One; however its name was later changed. This log shows the depth of the well to be 12,200 feet and the top of the Devonian is marked at 12,149 feet.

Q As I understand it, your testimony in general, Mr. Seerey, principle reason for the application is to

increase the capacity of the disposal system already in existence, is that a fair statement?

A Yes, sir.

Q Do you have anything further?

A No, sir.

MR. SPERLING: We offer Exhibits 1 through 8 at this time, Mr. Examiner.

MR. NUTTER: Mobil Exhibits 1 through 8 will be admitted in evidence.

MR. SPERLING: That's all we have.

QUESTIONS BY MR. NUTTER:

Q Mr. Seerey, how many injection or disposal wells are presently in the pool?

A Mobil is currently using two disposal wells in the pool.

Q The one in 25 and one in 28?

A Mobil is using the -- yes, the Carlson old development well in 25 and U. D. Sawyer Well in Section 33, in Unit A of 33.

Q How about the one in 28?

A I show it to be abandoned.

Q I see.

A I believe we experienced fill-up and I would

like to correct my testimony to that, to that extent. I quoted the one in 28 as being the other well. Texaco has two disposal wells. I believe they both occur in the southeast quarter of Section 34.

Q Okay, those two dry holes with circles around them are --

A Yes.

Q -- Texaco's disposal wells.

A Yes, sir. I don't know of any other disposal wells in the immediate area. We have used in the history of the Crossroads we have used other disposal wells; however they were quite far to the west and off of this exhibit.

Q Well, at one time, Mr. Seerey, there was some discussion of using some of the water that was produced in this field for waterflood operations in a field to the north. Do you know if that was ever done or if it's still being done or not?

A It was done; it is being done; the McMillan Sands Unit to the northwest, I believe Union of Cal is the operator, laid a line to our Crossroads Station and takes the produced water as it is required for the waterflood. The injection volume there has never really reached

the volumes that they had predicted that they would need to begin with, so it's -- it's not a large source of disposal for this system.

Q Now you say that you're currently disposing of 40,000 barrels. That would be what Mobil is disposing of in these two wells, is that right?

A That's what Mobil is disposing of in these two wells; however that's not all produced on Mobil leases.

Q I see, and you think that the capacity of those two existing wells is about 41,000, so you need something more in the near future?

A Yes, sir.

Q Now what is this on your Exhibit Number 6, you say 4 and 1/2 inch PC tubing. What does that PC mean?

A Plastic coated.

Q Okay. Now is there any production in this area in any of the shallower formations? We've got our intermediate pipe set here at 5000 and you're proposing to set the packer at above 5000 so there would be one spring of pipe with cement opposite those shallower formations. Are any formations in there productive?

A No, sir, there's only one other well in the pool that's producing from another formation and that is

a Penn Well that is shown on Exhibit 1 by a square and that's in Unit A in Section 26, and I believe that it produces from a depth of 9500 feet, if I remember right.

MR. NUTTER: Are there any further questions of Mr. Seerey?

(No response.)

MR. NUTTER: You may be excused. Do you have anything further, Mr. Sperling?

MR. SPERLING: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 5475?

(No response.)

MR. NUTTER: We'll take the case under advisement.

(Hearing concluded.)

STATE OF NEW MEXICO)
) ss REPORTER'S CERTIFICATE
COUNTY OF SANTA FE)

I, Sally Walton Boyd, Notary Public and General Court Reporter, Santa Fe, New Mexico, DO HEREBY CERTIFY that the facts stated in the caption hereto are true and correct; that I reported the captioned proceedings; that the foregoing 13 pages, numbered 1 through 13 inclusive, is a full, true and correct transcript of my notes taken during the course of the hearing.

WITNESS my hand this 22nd day of May, 1975, at Santa Fe, New Mexico.

Sally Walton Boyd

Sally Walton Boyd
Notary Public and General Court
Reporter

My Commission expires:

10 September 1975

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5475,
heard by me on 5/14, 1975.

[Signature] Examiner
New Mexico Oil Conservation Commission

THE NYE REPORTING SERVICE
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SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

I. R. TRUJILLO
CHAIRMAN

LAND COMMISSIONER
PHIL R. LUCERO
MEMBER

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

May 22, 1975

Mr. James E. Sperling
Modrall, Sperling, Roehl, Harris
& Sisk
Attorneys at Law
Post Office Box 2168
Albuquerque, New Mexico 87103

Re: CASE NO. 5475
ORDER NO. R-5023

Applicant:
Mobil Oil Corporation

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.
A. L. PORTER, Jr.
Secretary-Director

ALP/ik

Copy of order also sent to:

Hobbs OCC X
Artesia OCC
Aztec OCC

Other State Engineer Office

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. 5475
Order No. R-5023

APPLICATION OF MOBIL OIL CORPORATION
FOR 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 May 14, 1975,
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 22nd day of May, 1975, 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, Mobil Oil Corporation, is the
owner and operator of the Santa Fe Pacific Well No. 9, located
in Unit E of Section 35, Township 9 South, Range 36 East, NMPM,
Crossroads Siluro-Devonian Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Lower Siluro-Devonian
formation, with injection into the open-hole interval from
approximately 12,188 feet to 12,525 feet.

(4) That the injection should be accomplished through
4 1/2-inch plastic lined tubing installed in a packer set at
approximately 4840 feet; that the casing-tubing annulus
should be filled with an inert fluid; and that a pressure gauge
or approved leak detection device should be attached to the
annulus in order to determine leakage in the casing, tubing,
or packer.

(5) That the operator should notify the supervisor of
the Hobbs district office of the Commission of the date and
time of the installation of disposal equipment so that the
same may be inspected.

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Case No. 5475
Order No. R-5023

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to utilize its Santa Fe Pacific Well No. 9, located in Unit E of Section 35, Township 9 South, Range 36 East, NMPM, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Siluro-Devonian formation, injection to be accomplished through 4 1/2-inch tubing installed in a packer set at approximately 4840 feet, with injection into the open-hole interval from approximately 12,188 feet to 12,525 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(4) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

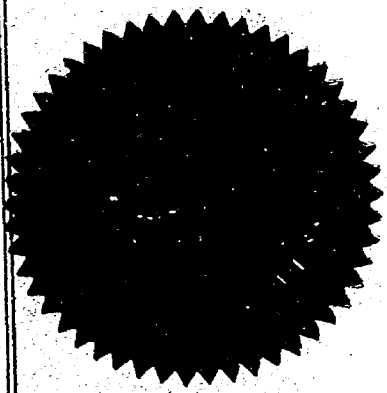
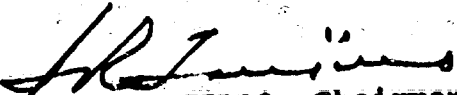
(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.


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Case No. 5475
Order No. R-5023

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

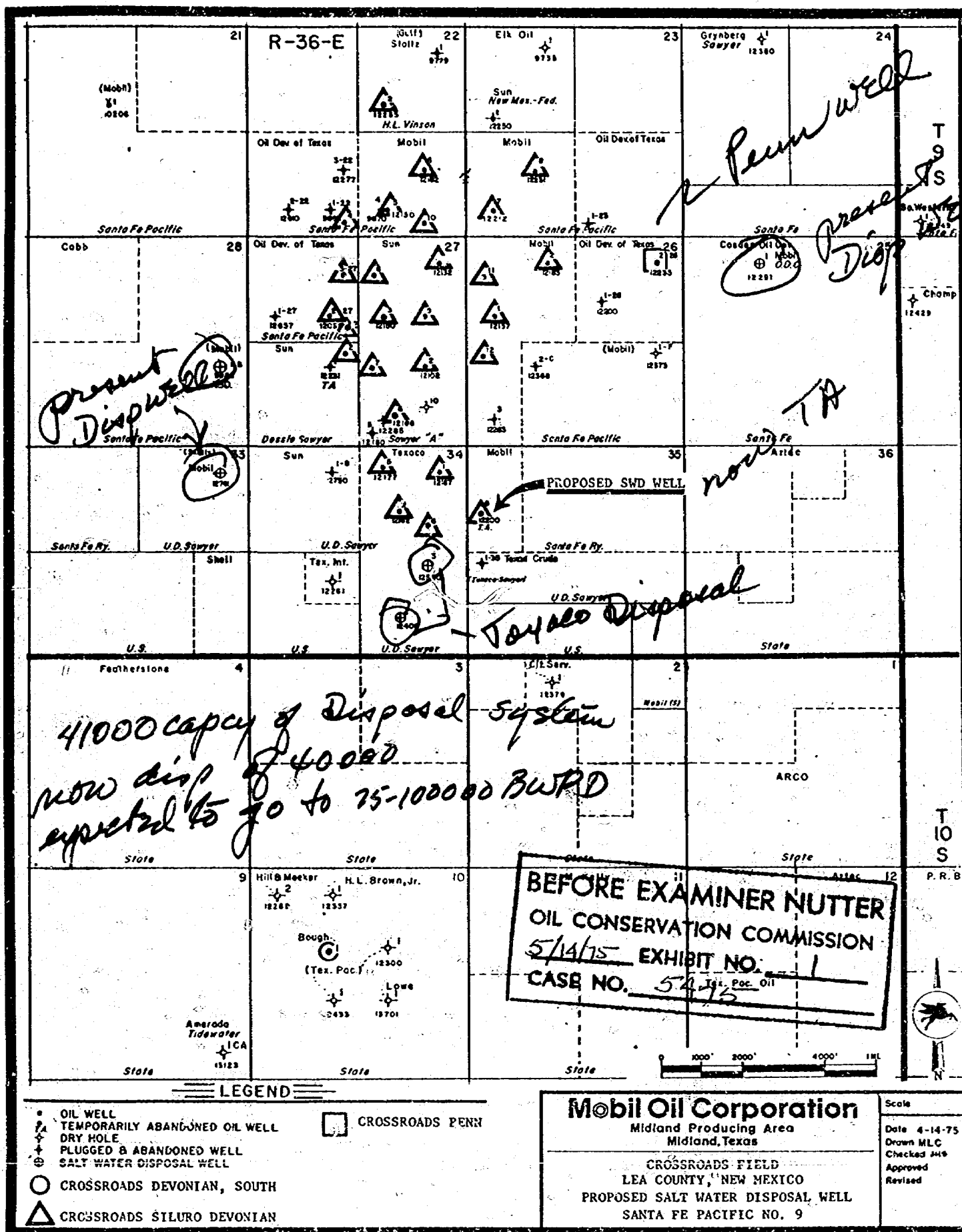


Y. R. TRUJILLO, Chairman


PHIL R. LUCERO, Member


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

S E A L

jr/



NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Mobil Oil Corporation		ADDRESS P. O. Box 633, Midland, Texas 79701	
LEASE NAME Santa Fe Pacific	WELL NO. 9	FIELD Crossroads Siluro Devonian	COUNTY Lea
LOCATION UNIT LETTER E WELL IS LOCATED 330 FEET FROM THE West LINE AND 1650 FEET FROM THE North LINE, SECTION 35 TOWNSHIP 9-S RANGE 36-E NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	10-3/4"	432'	400
INTERMEDIATE	7-5/8"	5000'	2500
LONG STRING	5-1/2"	4818' to 12188'	225
TUBING	4-1/2"	4840'	Baker FA-1 @ 4840'
NAME OF PROPOSED INJECTION FORMATION Devonian		TOP OF FORMATION 12,149'	BOTTOM OF FORMATION T.D. 12,525' in Dev.
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? Open Hole	PROPOSED INTERVAL(S) OF INJECTION 12,190' to 12,525'
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producer		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH Existing Devonian perforations (12,150-12,165') to be squeezed with 50 sxs.			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Above 320'	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 12,118 (Miss. Ls.)	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL) 25,000	MINIMUM 5000	MAXIMUM 30,000	OPEN OR CLOSED TYPE SYSTEM Closed
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 - Yes		IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity (Initial)	APPROX. PRESSURE (PSI) 300 (Ult) 0 (Initial)
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Mr. Bobby Lewis, Crossroads, New Mexico 88114		LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Texaco, Inc., P. O. Box 3109, Midland, Texas 79701 Sun Oil Company, P. O. Box 1861, Midland, Texas 79701	
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes		ELECTRICAL LOG Yes	
		DIAGRAMMATIC SKETCH OF WELL Yes	

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
5/14/75 EXHIBIT NO. **2**
CASE NO. **5475**

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

L. A. Davis

Area Operations Engineer

April 10, 1975

(Signature)

(Title)

(Date)

NOTE: Should waivers from 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.

P. O. BOX 1468 PHONE 943-3234
MONAHANS, TEXAS 79756

408 W. ILLINOIS PHONE 683-4821
MIDLAND, TEXAS 79701

TO: Mr. I. S. Reavis
P. O. Box 633, Midland, Texas

LABORATORY NO. 770152
SAMPLE RECEIVED 7-24-70
RESULTS REPORTED 7-31-70

LEASE

SECTION _____ BLOCK _____ SURVEY _____ COUNTY _____ STATE _____

NO. 1 Produced water - taken from Santa Fe Pacific SWD. 7-22-70

NO. 2

NO. 3

NO. 4

CHEMICAL AND PHYSICAL PROPERTIES

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0450			
pH When Sampled				
pH When Received	6.9			
Bicarbonate as HCO ₃	547			
Supersaturation as CaCO ₃	44			
Undersaturation as CaCO ₃	-			
Total Hardness as CaCO ₃	7,200			
Calcium as Ca	2,250			
Magnesium as Mg	377			
Sodium and/or Potassium	21,008			
Sulfate as SO ₄	1,296			
Chloride as Cl	36,220			
Iron as Fe	1.0			
Barium as Ba	0			
Turbidity, Electric	24.2			
Color as Pt / f	14			
Total Solids, Calculated	61,708			
Temperature °F.	140			
Carbon Dioxide, Calculated	112			
Dissolved Oxygen, Winkler	0.0			
Hydrogen Sulfide	14.0			
Resistivity, ohms/m at 77° F.	0.128			
Suspended Oil				
Filtrable Solids as mg/l	22.6			
Volume Filtered, ml	1,430			

Additional Determinations And Remarks

~~Contact us for any details or discussions concerning the above results.~~

OIL CONSERVATION COMMISSION

~~5/14/75 EXHIBIT NO. 3~~

CASE NO. 5475

Waylan C. Martin, M. A.



PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
CENTRAL UNITED STATES
MIDLAND DIVISION

April 14, 1975

TEXACO INC.
P. O. BOX 3100
MIDLAND, TEXAS 79701

RECEIVED			
OPERS. ENGINEERING			
APR 13 1975			
OE	PROR.	CIRC.	
PE		XC's	
FE		FILE	

SALT WATER DISPOSAL WAIVER
MOBIL OIL CORPORATION
SANTA FE PACIFIC WELL NO. 9
CROSSROADS SILURO-DEVONIAN POOL
LEA COUNTY, NEW MEXICO

State of New Mexico
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

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

Gentlemen:

Texaco Inc. has been advised by Mobil Oil Corporation of its application to the Oil Conservation Commission asking permission to dispose of salt water through the wellbore of its Santa Fe Pacific Well No. 9. Disposal will be into openhole 12,190' to 12,525' in the Lower Devonian formation.

Texaco Inc., as an offset operator, waives objection to the application.

Yours very truly,

Darrell Smith
Division Manager

By R. G. Brown
Assistant to Division Manager

CHF/kf

cc: Mobil Oil Corporation
P. O. Box 633
Midland, Texas 79701

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
5/14/75	EXHIBIT NO. 4
CASE NO.	5475

This is recycled paper

Mobil Oil Corporation

April 10, 1975

P.O. BOX 633
MIDLAND, TEXAS 79701

Mr. Bobby Lewis
Crossroads, New Mexico 88114

APPLICATION FOR SALT WATER DISPOSAL
INTO MOBIL'S SANTA FE PACIFIC WELL #9
SECTION 35, T-9-S, R-36-E,
CROSSROADS SILURO DEVONIAN FIELD
LEA COUNTY, NEW MEXICO

Dear Mr. Lewis:

Attached is a copy of an application to the New Mexico Oil Conservation Commission for approval to dispose of produced salt water into the lower Siluro Devonian formation through the wellbore of Mobil's Santa Fe Pacific Well No. 9.

As you know, it is necessary to produce large quantities of salt water in order to produce the oil from the Crossroads Siluro Devonian Pool; therefore, an additional disposal well is necessary immediately. If you, as surface owner, have no objection to this application, please sign and return two (2) copies of the attached waiver to this office in the enclosed self-addressed envelope. One copy of the waiver is for your file.

If any additional information is necessary, please contact J. H. Seerey, Mobil Oil Corporation, Midland, Texas.

Yours very truly,

Original Signed By

L. A. DAVIS

L. A. Davis
Area Operations Engineer

JHSeerey, is
Attachment

The undersigned, as surface owner, hereby waives objection to Mobil's application to dispose of produced salt water into the lower Siluro Devonian formation through the wellbore of Mobil's Santa Fe Pacific Well No. 9. *with understanding that damages to surface and to surface water will be taken care of*

Bobby Lewis
Surface Owner

5-9-75
Date

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
5/14/75 EXHIBIT NO. 4
CASE NO. 5475

Diagrammatic Well Sketch

Santa Fe Pacific Well No. 9

Crossroads Siluro (Devonian) Pool

Lea County, New Mexico

(EXISTING COMPLETION)

G.L. Elev. = 4,016'

10 3/4" - 32.75 #/ft H-40 set w/1400 sx

432' ✓

Cmt Top (Temp Survey) —

1,520'

Liner Top 5' set w/1300 sx

4,818'

7 7/8" - 26.4 #/ft J-55 set w/12500 sx

5,000'

2 extra cmt
spaced at
cmt comes all
the way on liner

Devonian Perforations
12,150' - 12,165'

Guib Type 'A' Perm Per w/expandable plug

→ PB to
12,175' in 1966 and

5 1/2" - 17 #/ft N-80 liner set w/1225 sx

12,188'
orig compl open hole then

4-10-75

1EW

REV. 4-15-75

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

5/14/75 EXHIBIT NO. 5

CASE NO. 5475

Diagrammatic Well Sketch

Santa Fe Pacific Well No. 9

Crossroads Siluro (Devonian) Pool

Lea County, New Mexico

(PROPOSED COMPLETION)

G.L. Elev. = 4,016'

10 3/4" - 32.75' / 4 H-40 set w/ 1400 sx

Cmt Top (Temp Survey)

4 1/2" PC Tubing

*Plastic
Coated*

Liner Top Sazd w/ 300 sx

(42.8 CF)

Perm type pkr.

7 7/8" - 26.4' / 4 J-55 set w/ 2500 sx

5 1/2" - 17' / 4 N-80 liner set w/ 225 sx

4-10-75
IEW

REV. 4-15-75

432'

1,520'

4,818'

4,840'

5,000'

Devonian Perforations

12,150' - 12,165' Sazd w/ Cmt.

12,188'
BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

5/14/75 EXHIBIT NO. 6

CASE NO. 5475

12,525 L.D.

*loaded
w/ inhibited
fluid w/7
leak det
device
on annulus*

- CASE 5471: Application of Union Texas Petroleum for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Justis Blinebry and Justis Tubb-Drinkard production in the wellbore of its Carlson "B" Wells Nos. 1 and 2 located in Unit P of Section 23 and Unit H of Section 26, respectively, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 5472: Application of Mesa Petroleum Co. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of a well to be drilled at a point 660 feet from the North and East line of Section 6, Township 26 South, Range 33 East, Red Hills Field, Lea County, New Mexico.
- CASE 5473: Application of Mesa Petroleum Co. for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Drinkard production for its West Knowles Well No. 1 located in Unit P of Section 34, Township 16 South, Range 37 East, Lea County, New Mexico, and for the promulgation of special rules therefore, including a provision for 80-acre spacing units.
- CASE 5474: Application of Gulf Oil Company for two non-standard locations and the amendment of Order Nos. R-2904 and R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Central Drinkard Unit Wells Nos. 101 and 401 located, respectively, 554 feet from the North line and 766 feet from the East line, and 660 feet from the North and East lines of Section 28, Township 21 South, Range 37 East, Drinkard Pool, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-2904 which order approved the Central Drinkard Unit Agreement to provide that the vertical limits of the unitized formation shall include the entire Drinkard formation; application further seeks the amendment of Order No. R-4909 which approved the Central Drinkard Unit Waterflood Project to provide an administrative procedure for the approval of additional unorthodox well locations.
- CASE 5475: Application of Mobil Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower Siluro-Devonian formation in the open-hole interval from 12,188 feet to 2,525 feet in its Santa Fe Pacific Well No. 9, located in Unit E of Section 35, Township 9 South, Range 36 East, Crossroads Siluro-Devonian Pool, Lea County, New Mexico.
- CASE 5476: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the NE/4 of Section 30, Township 22 South, Range 27 East, and in the Pennsylvanian formation underlying the E/2 of said Section 30, to be dedicated to a proposed gas well to be drilled at an orthodox location for both formations. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the applicant as operator of the well and a charge for the risk involved in drilling said well.

Dockets Nos. 12-75 and 13-75 are tentatively set for hearing on May 28 and June 11, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 14, 1975

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner.

ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico, for June, 1975.

(2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for June, 1975.

CASE 5429: (Continued from the March 5, 1975 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Charles M. Goad and United States Fidelity & Guaranty Company and all other interested parties to appear and show cause why the Charles M. Goad, State No. 1 Well located in Unit M of Section 28, Township 2 South, Range 26 East, De Baca County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5408: (Continued from the April 2, 1975 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit W. E. Medlock and Reliance Insurance Company and all other interested parties to appear and show cause why the Queen Ridge No. 1 Well located in Unit M of Section 36, Township 10 South, Range 26 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5469: Application of Read & Stevens for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of a well to be drilled at a point 990 feet from the South and East line of Section 7, Township 15 South, Range 28 East, Chaves County, New Mexico, in exception to the Buffalo Valley-Pennsylvanian Gas Pool Rules.

CASE 5470: Application of Maralo, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Butler Springs Unit Area comprising 3841 acres, more or less, of state and federal lands in Townships 14 and 15 South, Range 28 East, Chaves County, New Mexico.

- CASE 5477: Application of Cities Service Oil Company for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 18, Township 22 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said unit 1650 feet from the South line and 1980 feet from the West line of said Section 18. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the application as operator of the well and a charge for the risk involved in drilling said well.
- CASE 5478: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Warren Unit Well No. 31 located in Unit O of Section 27, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Blinbry Oil and Gas Pool and oil from the Warren-Tubb Gas Pool through parallel strings of tubing.
- CASE 5479: Application of Continental Oil Company for two non-standard gas proration units, two unorthodox locations, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a non-standard gas proration unit comprising Lots 1, 2, and 3 and Lots 6 through 11 of Section 4, Township 11 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Meyer B-4 Well No. 14 located in Unit G of said Section 4. Applicant further seeks approval of a 360-acre Eumont Gas proration unit comprising Lots 14, 15, and 16 and the SE/4 and E/2 SW/4 of said Section 4 to be simultaneously dedicated to its Meyer B-4 Well No. 4 and 29 at unorthodox locations in Units S and P, respectively, of said Section 4.
- CASE 5480: Application of Continental Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation through the perforated interval 7648 to 7690 feet in its SEMU Well No. 7 located in Unit F of Section 23, Township 20 South, Range 37 East, Cass-Pennsylvanian Gas Pool, Lea County, New Mexico.
- CASE 5481: Application of Phillips Petroleum Company for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Carlsbad-Atoka and South Carlsbad-Morrow gas production in the wellbore of its Tidwell-A "COM" Well No. 1 located in Unit E of Section 8, Township 23 South, Range 27 East, Eddy County, New Mexico.
- CASE 5482: Application of Phillips Petroleum Company for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Lusk Deep Unit "A" Well No. 1 located in Unit A of Section 19, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico, and the simultaneous dedication of said Section 19 to the above well and to applicant's Lusk Deep Unit "A" Well No. 5 located in Unit J of said Section 19.

CASE 5483: Application of Phillips Petroleum Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to dually complete its Lusk Deep Unit "A" Well No. 12 located in Unit G of Section 20, Township 19 South, Range 32 East, Lusk Field, Lea County, New Mexico, in such a manner as to produce oil from the Wolfcamp formation through the casing-tubing annulus and gas from the Lusk-Morrow Gas Pool through tubing.

CASE 5484: Southeastern New Mexico nomenclature case calling for the creation and extension of certain pools in Lea, Eddy, and Chaves Counties, New Mexico and for the assignment of certain oil well discovery allowables.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the East Carlsbad-Wolfcamp Gas Pool. The discovery well is the Champlin Petroleum Co. Nix-Yates Well No. 1, located in Unit G of Section 2, Township 22 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 36: SW/4

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 1: NW/4
Section 2: NE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Cemetary-Wolfcamp Gas Pool. The discovery well is the Read & Stevens, Inc. Alliriah Well No. 1, located in Unit P of Section 30, Township 20 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 30: SE/4

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Crooked Creek-Strawn Gas Pool. The discovery well is the C & K Petroleum Inc. Lowe State Well No. 1, located in Unit C of Section 16, Township 24 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 24 EAST, NMPM
Section 16: N/2

(d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for San Andres production and designated as the Dickenson-San Andres Pool. The discovery well is the Hanson Oil Corporation Santa Fe Well No. 1, located in Unit F of Section 35, Township 10 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM
Section 35: NW/4

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Golden Lane-Atoka Gas Pool. The discovery well is the Meadco Properties Ltd. Harris 6 Well No. 1, located in Unit I of Section 6, Township 21 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM

Section 6: Lots 1, 2, 7, 8, 9, 10, 15, and 16

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Grayburg-Atoka Gas Pool. The discovery well is the Horizon Oil & Gas Co. of Texas State 28 Com Well No. 2, located in Unit K of Section 28, Township 17 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM

Section 28: S/2

Section 29: E/2

(g) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Premier production and designated as the High Nitro-Premier Gas Pool. The discovery well is the McClellan Oil Corporation Hinkle Federal Well No. 1, located in Unit A of Section 9, Township 16 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Section 3: SW/4

Section 4: SE/4

Section 9: NE/4

(h) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Hoag Tank-Morrow Gas Pool. The discovery well is the Yates Petroleum Corporation Allison CQ Federal Well No. 1, located in Unit P of Section 22, Township 19 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM

Section 22: E/2

(i) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the N. W. Indian Basin-Morrow Gas Pool. The discovery well is the Charles A. Dean Northwest Indian Basin Well No. 1Y, located in Unit K of Section 28, Township 20 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 23 EAST, NMPM

Section 28: W/2

(j) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for San Andres production and designated as the Lonesome-San Andres Pool. The discovery well is the Phillips Petroleum Company Luther A Well No. 1 located in Unit N of Section 18, Township 8 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM

Section 18: SW/4

(k) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the South Rocky Arroyo-Wolfcamp Gas Pool. The discovery well is the El Paso Natural Gas Co. Patterson A Well No. 1, located in Unit N of Section 20, Township 22 South, Range 22 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 22 EAST, NMPM
Section 20: SW/4

(l) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Sheep Draw-Atoka Gas Pool. The discovery well is the Hanagan Petroleum Corp. Mary Federal Well No. 1, located in Unit H of Section 11, Township 23 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 11: E/2

(m) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Sheep Draw-Morrow Gas Pool. The discovery well is the Hanagan Petroleum Corp. Mary Federal Well No. 1 located in Unit H of Section 11, Township 23 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 11: E/2
Section 12: W/2

(n) CREATE a new pool in Lea County, New Mexico, classified as an oil pool and designated as the Shipp-Drinkard Pool and assign 41,650 barrels of discovery allowable to the discovery well, the Mesa Petroleum Company West Knowles Well No. 1, located in Unit P of Section 34, Township 16 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM
Section 34: SE/4

(o) EXTEND the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 2: All

(p) EXTEND the North Benson Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 32: N/2 NE/4

(q) EXTEND the Blinebry Oil and Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 27: SE/4

(r) EXTEND the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM
Section 3: N/2

(s) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 18: N/2

(t) EXTEND the South Carlsbad-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 3: W/2
Section 11: All

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 8: All
Section 17: N/2

(u) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 16: S/2

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM
Section 1: W/2

(v) ESTABLISH a discovery allowable in the Casey-Strawn Pool in Lea County, New Mexico, and assign 56,630 barrels of discovery allowable to the discovery well, the C & K Petroleum, Inc. Shipp "27" Well No. 1, located in Unit O of Section 27, Township 16 South, Range 37 East, NMPM.

(w) EXTEND the Cerca-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 34 EAST, NMPM
Section 27: S/2 and NE/4

(x) EXTEND the East Chisum San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 28 EAST, NMPM
Section 16: NE/4 NE/4

(y) EXTEND the Double L Queen Associated Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 29 EAST, NMPM
Section 23: NE/4

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM
Section 32: N/2 and SW/4

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM
Section 17: N/2

(z) EXTEND the Double X-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 32 EAST, NMPM
Section 27: NE/4

(aa) EXTEND the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 36: SW/4

(bb) EXTEND the East Empire Yates Seven Rivers Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 34: W/2 NE/4

(cc) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 22: E/2

(dd) EXTEND the Penasco-Draw-San Andres-Yaso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 30: NW/4 SW/4

(ee) EXTEND the Ranger Lake-Bough Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 34 EAST, NMPM
Section 23: SW/4

(ff) EXTEND the Rock Tank-Lower Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 18: All

(gg) EXTEND the Round Tank San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
Section 31: NW/4 NW/4

(hh) EXTEND the vertical limits of the Sand Hills-San Andres Pool in Lea County, New Mexico, to include the Grayburg formation.

(ii) EXTEND the Sulmar Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM
Section 18: SW/4 SW/4

(jj) EXTEND the Tres Papalotes-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 34 EAST, NMPM
Section 5: SW/4

(kk) EXTEND the Turkey Track Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 32: NE/4 NE/4

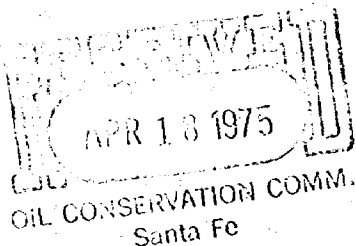
J. R. MODRALL
JAMES E. SPERLING
JOSEPH E. ROEHL
GEORGE T. HARRIS, JR.
DANIEL A. SISK
LELAND S. BEDBERRY, JR.
ALLEN C. DEWEY, JR.
FRANK H. ALLEN, JR.
JAMES A. PARKER
JOHN R. COONEY
KENNETH L. HARRIGAN
PETER J. ADAMO
DALE W. EK
DENNIS J. FALK
ARTHUR D. MELENDRIS
BRUCE D. BLACK
JOE R. O. FULCHER
MEL E. YOST
JAMES R. HOUGHTON
GEORGE J. HOPKINS
PAUL M. FISH
JUDY A. FRY

LAW OFFICES OF
MODRALL, SPERLING, ROEHL, HARRIS & SISK
PUBLIC SERVICE BUILDING
P. O. BOX 2188
ALBUQUERQUE, NEW MEXICO 87108

JOHN F. SIMMS (1885-1954)
AUGUSTUS T. SEYMOUR
(1907-1965)

TELEPHONE 243-4811
AREA CODE 505

April 17, 1975



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

Re: Mobil Oil Corporation's Application
for Approval of Injection of Salt
Water Subsurface for Disposal Purposes

Dear Mr. Porter:

Enclosed herewith, please find original and two copies
of Mobil Oil Corporation's application for hearing con-
cerning the above-captioned matter.

It would be appreciated if this matter can be scheduled
for hearing before an Examiner at the hearing to be held
on May 14, 1975.

Very truly yours,


James E. Sperling

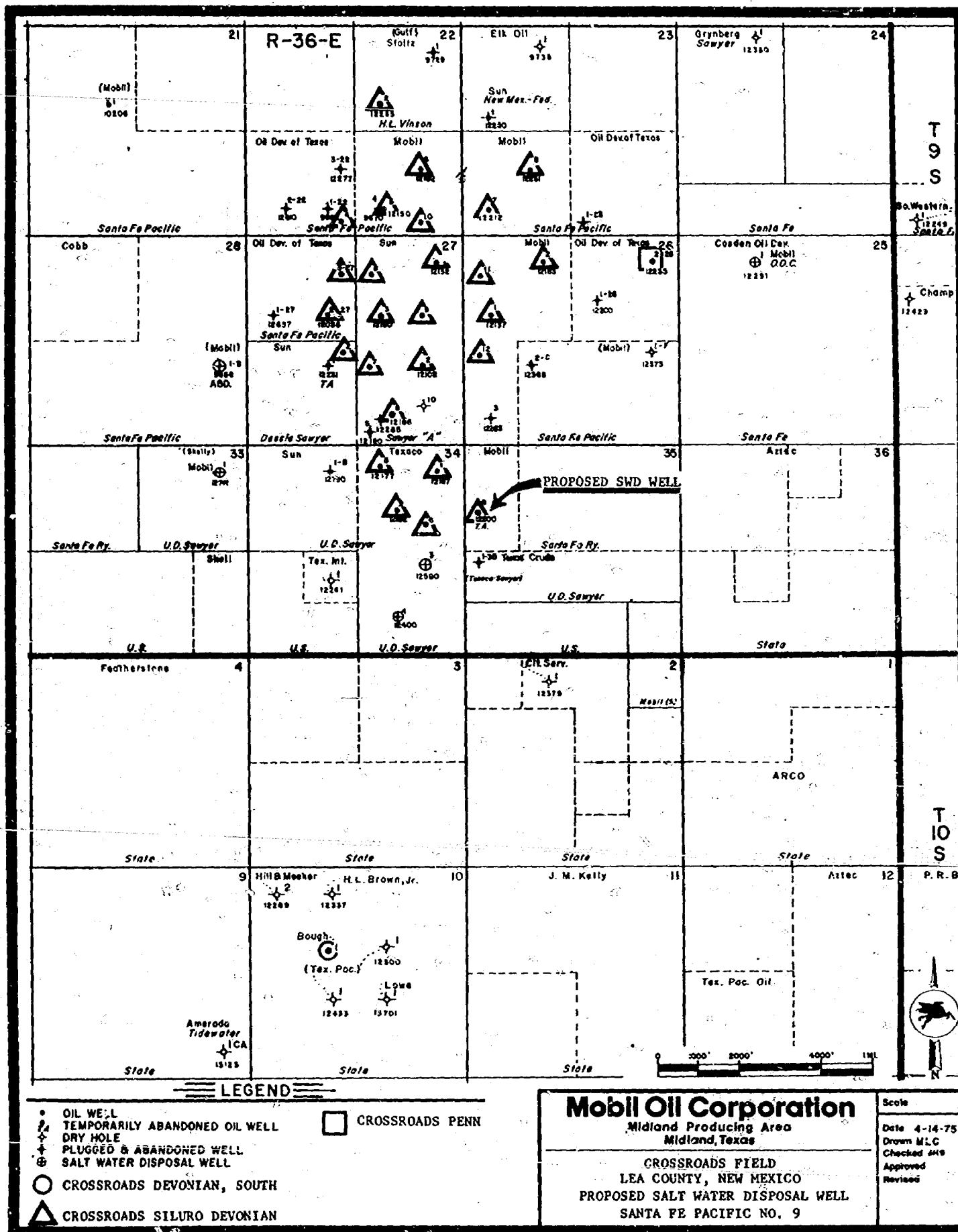
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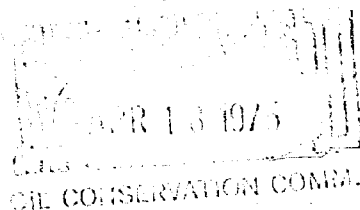
Enclosures

cc: Mr. John H. Seerey, w/encl. (w/o exhibits)
Mobil Oil Corporation

DOCKET MAILED

Date 5-2-75





BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

Santa Fe
IN THE MATTER OF THE APPLICATION
OF MOBIL OIL CORPORATION FOR
APPROVAL OF INJECTION OF SALT
WATER SUBSURFACE FOR DISPOSAL
PURPOSES THROUGH MOBIL'S SANTA
FE PACIFIC WELL NO. 9, UNIT E,
SECTION 35, TOWNSHIP 9 SOUTH,
RANGE 36 EAST, LEA COUNTY, NEW
MEXICO

Case No. 5475

A P P L I C A T I O N

1. Mobil Oil Corporation is the owner and operator of a well in the Crossroads Pool, Lea County, New Mexico, known as Mobil's Santa Fe Pacific Well No. 9, located in Unit E, 330 feet from the west line and 1650 feet from the north line of Section 35, Township 9 South, Range 36 East, N.M.P.M., Lea County, New Mexico. The well is completed in the lower Siluro Devonian Formation and is presently temporarily abandoned. Mobil proposes to dispose of produced salt water into the Siluro Devonian Formation.

2. Attached hereto are the following:

- A. Plat of the area where the well is located, including the designation of the subject well and all wells within a two-mile radius.
- B. Log of the well.
- C. Diagrammatic sketch of the existing completion and wellbore condition.
- D. Diagrammatic sketch of the proposed completion for injection-disposal.
- E. Copy of Form C-108.
- F. Analysis of produced water indicating representative chemical and physical properties

of the fluid proposed to be injected.

3. Mobil anticipates that initial injection will be by gravity and that subsequent injection pressures will not exceed 300 p.s.i. at the wellhead. Anticipated volume of injected water is 25,000 barrels per day.

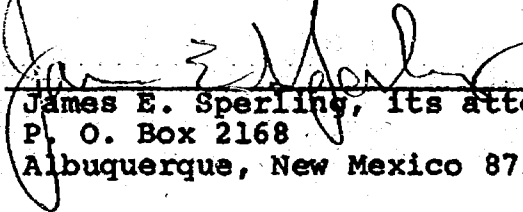
4. Mobil requests the approval of the Commission for the conversion of the above-identified well for salt water disposal and requests that this matter be set for hearing on May 14, 1975.

Respectfully submitted,

MOBIL OIL CORPORATION

By: MODRALL SPERLING ROEHL HARRIS & SISK

By:


James E. Sperling, its attorneys
P. O. Box 2168
Albuquerque, New Mexico 87103

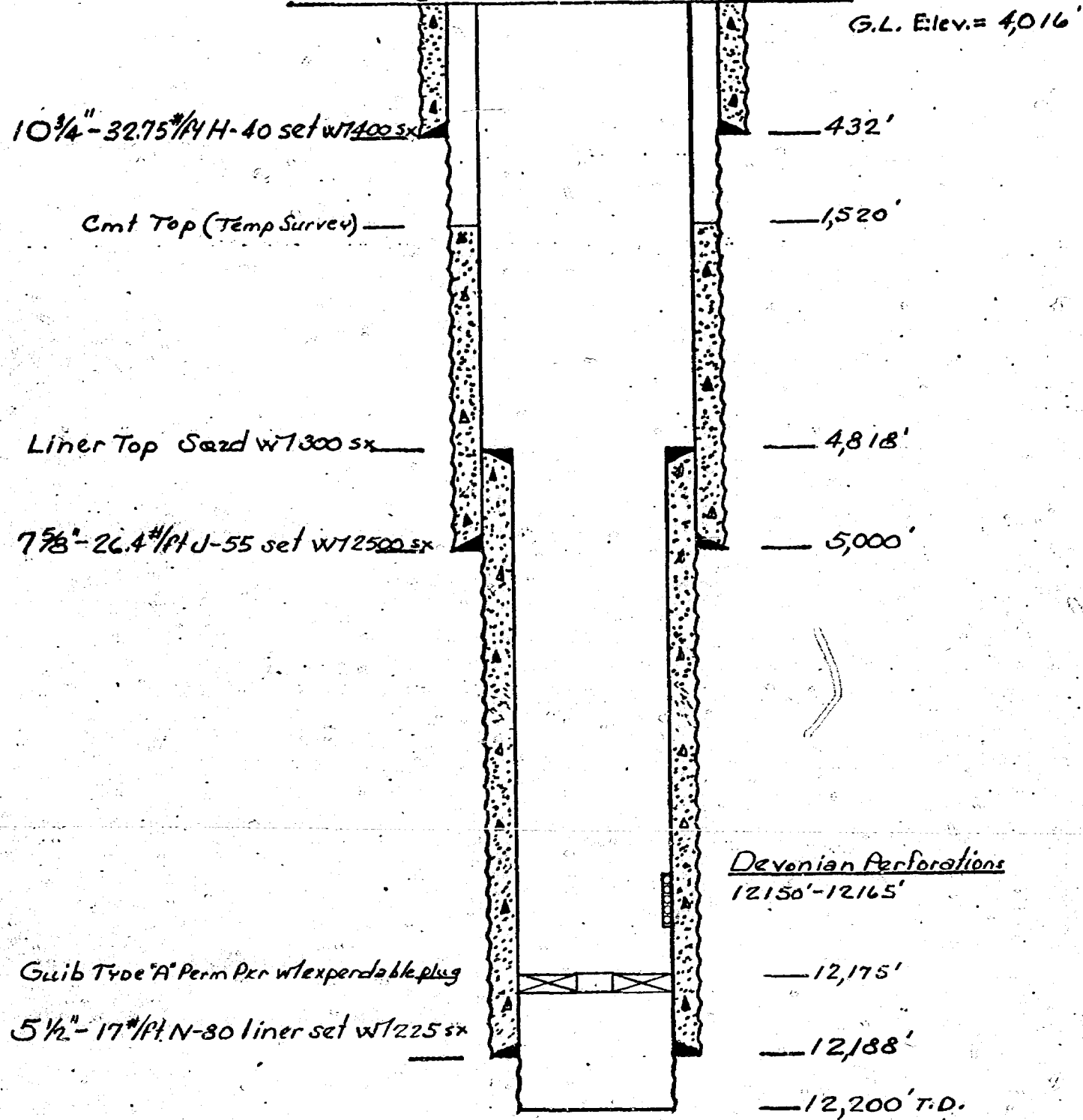
Diagrammatic Well Sketch

Santa Fe Pacific Well No. 9

Crowsroads Siluro (Devonian) Pool

Lea County, New Mexico

(EXISTING COMPETITION)



4-10-75
IEW

REV. 4-15-76

Diagrammatic Well Sketch

Santa Fe Pacific Well No. 9

Crossroads Siluro (Devonian) Pool

Lea County, New Mexico

(PROPOSED COMPLETION)

G.L. Elev. = 4,016'

10 $\frac{3}{4}$ "-32.75#/ft H-40 set w/1400sx

—432'

Cmt Top (Temp Survey) —

—1,520'

4 $\frac{1}{2}$ " PC Tubing

Liner Top Sezd w/1300sx
(428CF)
Perm type pkr.

—4,818'

—4,840'

7 $\frac{5}{8}$ "-26.4#/ft J-55 set w/12500sx

—5,000'

Devonian Perforations

12,150'-12,165' Sezd w/1 Cmt.

5 $\frac{1}{2}$ "-17#/ft N-80 liner set w/1225sx

—12,188'

4-15-75
1CW

REV. 2-15-75

—12,525' T.D.

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR Mobil Oil Corporation		ADDRESS P. O. Box 633, Midland, Texas 79701	
LEASE NAME Santa Fe Pacific	WELL NO. 9	FIELD Crossroads Siluro Devonian	COUNTY Lea
LOCATION UNIT LETTER E ; WELL IS LOCATED 330 FEET FROM THE West LINE AND 1650 FEET FROM THE North LINE, SECTION 35 TOWNSHIP 9-S RANGE 36-E NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	10-3/4"	432'	400
INTERMEDIATE	7-5/8"	5000'	2500
LONG STRING	5-1/2" Liner	4818' to 12188'	225
TUBING	4-1/2"	4840'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker FA-1 @ 4840'
NAME OF PROPOSED INJECTION FORMATION Devonian		TOP OF FORMATION 12,149	BOTTOM OF FORMATION T.D. 12,525' in Dev.
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES Open Hole	PROPOSED INTERVAL(S) OF INJECTION 12,190' to 12,525'
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producer		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH Existing Devonian perforations (12,150-12,165') to be squeezed with 50 sxs.			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Above 320'	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 12,118 (Miss. Ls.)	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL) 25,000	MINIMUM 5000	MAXIMUM 30,000	OPEN OR CLOSED TYPE SYSTEM Closed
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 - Yes		IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure (Ult)	APPROX PRESSURE (PSI) 300 (Ult)
		NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Mr. Bobby Lewis, Crossroads, New Mexico 88114			
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Texaco, Inc., P. O. Box 3109, Midland, Texas 79701 Sun Oil Company, P. O. Box 1861, Midland, Texas 79701			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING: Yes			
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
PLAY 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.

L. A. Davis
(Signature)

L. A. Davis
(Title)

April 10, 1975
(Date)

NOTE: Should waivers from 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.

P. O. BOX 1468 PHONE 943-3234
MONAHANS, TEXAS 79756

408 W. ILLINOIS. PHONE 683-4521
MIOLAND, TEXAS 79701

TO: Mr. I. S. Reavis
P. O. Box 633, Midland, Texas

LABORATORY NO. 770152
SAMPLE RECEIVED 7-24-70
RESULTS REPORTED 7-31-70

LEASE

FIELD OR POOL

SECTION _____ BLOCK _____ SURVEY _____ COUNTY _____ STATE _____

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Santa Fe Pacific SWD. 7-22-70

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0450			
pH When Sampled				
pH When Received	6.9			
Bicarbonate as HCO ₃	547			
Supersaturation as CaCO ₃	44			
Undersaturation as CaCO ₃	-			
Total Hardness as CaCO ₃	7,200			
Calcium as Ca	2,260			
Magnesium as Mg	377			
Sodium and/or Potassium	21,008			
Sulfate as SO ₄	1,296			
Chloride as Cl	36,220			
Iron as Fe	1.0			
Barium as Ba	0			
Turbidity, Electric	24.2			
Color as Pt	14			
Total Solids, Calculated	61,708			
Temperature °F.	140			
Carbon Dioxide, Calculated	112			
Dissolved Oxygen, Winkler	0.0			
Hydrogen Sulfide	14.0			
Resistivity, ohms/m at 77° F.	0.120			
Suspended Oil				
Filtrable Solids as mg/l	22.6			
Volume Filtered, ml	1,420			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

~~Contact us for any details or discussions concerning the above results.~~

Form No. 3

By

Waylan C. Martin, M. A.

DRAFT

jr/

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. 5475

Order No. R- 5023

APPLICATION OF MOBIL OIL CORPORATION
FOR 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 May 14, 1975,
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this day of May, 1975, 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, Mobil Oil Corporation,
is the owner and operator of the Santa Fe Pacific Well No. 9,
located in Unit E of Section 35, Township 9 South,
Range 36 East, NMPM, Crossroads Siluro-Devonian Pool,
Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Lower Siluro-Devonian
formation, with injection into the open-hole interval
from approximately 12,188 feet to 12,525 feet.

(4) That the injection should be accomplished through 4 1/2
-inch plastic lined tubing installed in a packer
set at approximately 4840 feet; that the casing-tubing annulus
should be filled with an inert fluid; and that a pressure gauge
or approved leak detection device should be attached to the

annulus in order to determine leakage in the casing, tubing, or packer.

(4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

(5) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to utilize its Santa Fe Pacific Well No. 9, located in Unit E of Section 35, Township 9 South, Range 36 East, NMPM, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Siluro-Devonian formation, injection to be accomplished through 4 1/2-inch tubing installed in a packer set at approximately 4840 feet, with injection into the open-hole interval from approximately 12,188 feet to 12,525 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

(2) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(4) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(5) 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.