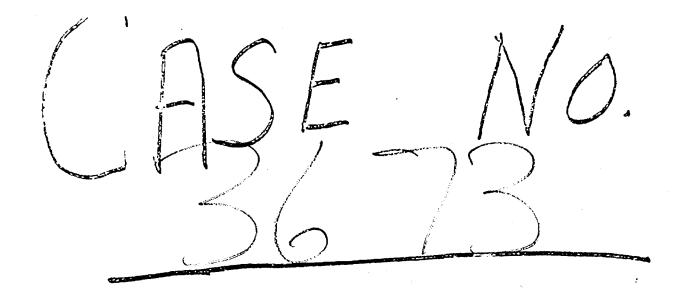
CASE 3673: Application of RALPH
LOWE FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.



APPlication,
TYANSCHIPTS,
SMALL Exh. bits
ETC.

Docket No. 33-67

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 25, 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 3668: Application of Mobil Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion (conventional) of its Bridges State Well No. 121 located in Unit L of Section 13, Township 17 South, Range 34 East, Lea County, New Mexico, to produce oil from the North Vacuum-Abo, Vacuum-Upper Pennsylvanian, and Vacuum-Middle Pennsylvanian Pools, through parallel strings of tubing.

CASE 3669: Application of Amerada Petroleum Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its State "VA" Lease by the injection of water into the Grayburg-San Andres formation through two wells located in Units K and M of Section 23, Township 17 South, Range 34 East, Vacuum Pool, Lea County, New Mexico.

CASE 3670: Application of Amerada Petroleum Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (combination) of its State "MA" Well No. 3 located in Unit M of Section 24, Township 11 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Moore-Wolfcamp Gas Pool and oil from the Moore-Pennsylvanian Pool through tubing installed in parallel strings of 2 7/8 inch and 3 1/2 inch casing, respectively, cemented in a common well bore.

CASE 3671: Application of Amerada Petroleum 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 Pennsylvanian formation, Bagley Field, Lea County, New Mexico, through the following three wells, all located in Township 12 South, Range 33 Fast:

L. H. Chambers Well No. 2, Unit C of Section 11; Disposal Interval - 9005 to 9393 feet;

State BT "D" Well No. 4, Unit N of Section 2; Disposal Interval - 8979 to 9291 feet;

J. T. Caudle Well No. 1, Unit H of Section 10; Disposal Interval - 9001 to 9326 feet:

CASE 3672: Application of Charles B. Read and Len Mayer for back allowable, Eddy County, New Mexico. Applicants, in the above-styled cause, see the assignment of back allowable for the period from

April 7, 1967, to August 3, 1967, to their Irene Brainard Well No. 1 located in Unit E of Section 20, Township 18 South, Range 26 East, Atoka-Pennsylvanian Pool, Eddy County, New Mexico, said period being from the date of completion of the well to the date of approval by the Federal Power Commission for the sale of gas from said well.

CASE 3673:

Application of Ralph Lowe for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the interval 2964 feet to 2982 feet in his Humble State Well No. 1 located in Unit G of Section 36, Township 25 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3674:

Application of Robert N. Enfield for the amendment of Order No. R-3189, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3189 which pooled all mineral interests in the Chaveroo-San Andres Pool underlying the NW/4 NW/4 of Section 11, Township 8 South, Range 33 East, Chaves County, New Mexico. Applicant specifically seeks the amendment of paragraph (9) of Order No. R-3189 to fix \$125.00 per month as a reasonable charge for supervision and operational overhead for the subject well and to authorize the applicant to withhold from production the proportionate share of said \$125.00 and the proportionate share of actual operating costs of said well attributable to each non-consenting working interest.

CASE 3675:

Application of Gulf Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Hackberry Yates Unit Area comprising 720 acres, more or less, of Federal Lands in Sections 23 and 24, Township 19 South, Range 30 East, Eddy County, New Mexico.

CASE 3676:

Application of Gulf Oil Corporation for a waterflood preject, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Yates formation through eight wells in Sections 23 and 24, Township 19 South, Range 30 East, North Hackberry-Yates Pool, Eddy County, New Mexico.

CASE 3677:

Application of Dugan Production Corporation for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Salt Creek-Dakota Oil Pool, San Juan County, New Mexico, to permit the drilling of wells on 2 1/2 acre spacing provided that no well be located nearer than 165 feet to the outer boundary of the quarter-quarter section and no nearer than 200 feet to another well producing from the same pool, and provided further, that a 40-acre proration unit would be subject to a 40-acre allowable regardless of the number of wells on the unit.

CASE 3678:

Application of Ryder Scott Management Company for a waterflood expansion, waterflood buffer zone, and several unorthodox locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Artesia-Nichols Waterflood Project,

Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico, by the conversion of its Western-Yates Collier State Well No. 1 located in Unit F of Section 20 and its Mershon State State Well No. 2 located in Unit D of Section 21. Applicant further proposes to drill three additional water injection wells at the following unorthodox locations in Section 20: 2650 feet from the North and West lines; 2650 feet from the North line and 1330 feet from the East line; and 1310 feet from the North line and 1330 feet from the East line. Applicant further seeks the designation of the W/2 NW/4 of Section 21 and the SW/4 NW/4, E/2 NW/4, NE/4, and W/2 SE/4 of Section 20 and the NW/4 NE/4 of Section 29 as a waterflood buffer zone with capacity allowables, or as an area wherein transfer of allowable between leases would be permitted.

CASE 3679:

Application of Sinclair Oil & Gas Company for the amendment of Order No. R-2854, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks the amendment of Order No. R-2854, which order established a 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 of Section 26, Township 21 South, Range 37 East, Tubb Gas Pool, Lea County, New Mexico, to be dedicated to applicant's J. R. Cone "A" Well No. 2 located in Unit L of said Section 26. Applicant now seeks the dedication of said unit to its J. R. Cone "B" Well No. 1 located in Unit N of said Section 26.

CASE 3680:

Application of Texaco Inc. for an unorthodox location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to recomplete its State "CT" Well No. 4 at an unorthodox location 660 feet from the North line and 1980 feet from the West line of Section 35, Township 7 South, Range 35 East, in the Todd-Upper San Andres Pool, Roosevelt County, New Mexico, in exception to the pool rules which require wells to be located in the NE/4 or the SW/4 of the Section.

GOVERNOR DAVID F. CARGO CHAIRMAN

State of New Mexico Gil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

SANTA FE

November 13, 1967

Mr. Sumner Buell	Re:	Case No. 3673 Order No. R-3336
Montgomery, Federici & Andrews Attorneys at Law		Applicant:
Post Office Box 230%	RALPH LOWE	
Santa Fe, New Mexico		

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 dro	ler also sent	to:		
Hobbs OCC	×				
Artesia OCC				•	
Aztec OCC					
Other	Mr.	Frank Irby			

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. 3673 Order No. R-3336

APPLICATION OF RALPH LOWE 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 October 25, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 9th day of November, 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, Ralph Lowe, is the owner and operator of the Humble State Well No. 1, located in Unit G of Section 36, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates formation, with injection in the open-hole interval from approximately 2964 feet to 2982 feet.
- (4) That the injection should be accomplished through 2 3/8-inch internally plastic-coated tubing installed in a packer set at approximately 2900 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus or the annulus

-2-CASE No. 3673 Order No. R-3336

left open at the surface in order to determine leakage in the tubing or packer.

(5) 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, Ralph Lowe, is hereby authorized to utilize his Humble State Well No. 1, located in Unit G of Section 36, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2900 feet, with injection in the open-hole interval from approximately 2964 feet to 2982 feet;

PROVIDED MOWEVER, that the tubing shall be internally plastic-coated; 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 left open at the surface in order to determine leakage in the tubing or packer.

- (2) That the applicant shall submit monthly reports of his disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (3) 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. Mary

Heard 10-2567
Rec. 10-36-67,

Should Rolf Lower permission
to corner their Hundlo St. #1, Jalund
pool to a 5 wp well. Hellis
1880/N, 1980/E, 36-258-366, Desposal
cinvals 2964-2582 in Section.

Gutesformation.

Despetition thus 2% plustice lined
tubing. Cumulus well he filleds
with inset fluids

Care 3673

Form C-108 Revised 14-65

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR Dollar Loro			ADDRESS P.	Box 832	Midland	d, Texas 79701
Ralph Lowe		WELL NO.	FIELD		,	COUNTY
Humble Sta	te	1	J	almat		Lea .
UNIT LETTER		256			orth	LINE AND 1980 FEET FROM
LINE, SECTION	Dast To	1143117	RANGE 36	AMP	'м.	v.
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEME		TOP OF CEME	ENT TOP DETERMINED BY
SURFACE CASING	7"	1600*	Cement Circulate	d	Surface	Circulation
INTERMEDIATE	None					
LONG STRING	5 1/2"	2964*	250 sx		2150'	Temperature Survey
TUBING	2 3/8"	2960*	Guiverson	a KVL 30	NG PACKER	:
NAME OF PROPOSED INJECTION FORMA	T10H		TOP OF FOR	MATION		BOTTOM OF FORMATION
Yates	G. OR ANNULUS?	PERFORATION	2960		VALUE) AS THUS	2982 PB
	W, OK ANNOLUS!	i				CCTION
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No	0	il .				TONE OTHER THAN THE PROPOSED INJECTION ZONE?
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NTICIPATED DAILY MINIMUM NIECTION VOLUME 88LS.) 200	400	Clos		both a	TO BE BY GRA	Est. none
NSWER YES OR NO WHETHER THE FOL RALIZED TO SUCH A DEGREE AS TO BE 1700K, INDICATION, OR OTHER GENERA	LOWING WATERS AR E UNFIT FOR DOMES L USE	E MIN- WATER	TO BE DISPOSED OF	SAL ZONE		ARE WATER ANALYSES ATTACHED?
AME AND ADDRESS OF SURFACE OWNE Frank IST NAMES AND ADDRESSES OF ALL O Skelly Oil Comp	R (OR LESSEE, IF S Anthony, I PERATORS WITHIN O	P. O. Box 151	12 Monahans	. Yat		Yes
Continental 011	Company,	Box 431, Midl	and, Texas			67 SEP 27 AH 8
Texaco, Inc., B	lox 3109, Mi	idland, Texas	•			DOCKET MAILED
						Date 10-11-67
AVE COPIES OF THIS APPLICATION BEG ENT TO EACH OF THE FOLLOWING?	Yes	ER	EACH OPERAT FOR THIS WELT	OR WITHIN ONE Yes	HALF MILE	THE NEW MEXICO STATE ENGINEER Yes
RE THE FOLLOWING ITEMS ATTACHED	TO PLAT OF AREA		ELECTRICAL	Log	· - · · · · · · · · · · · · · · · · · · ·	DIAGRAMMATIC SKETCH OF WELL
ILS APPLICATION (SEE RULE 701-B)	!					
HIS APPLICATION (SEE RULE 701-B)	Yes	ormation above is t	Yes	to the best	of my knowle	Yes edge and belief.
HIS APPLICATION (SEE RULE 701-B)		ormation above is t		to the best	of my knowle	

NOTE: Should waivers from the State Engineer, the surface owher, 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.

Ralph Love
Rumble State #1
Jalmat Field
Lea County,
New Mexico

Packer
2000°

Care 3673

2 A M M #	NO	
AAA IT LE	NU	

THE WESTERN COMPANY Service Laboratory

WATER ANALYSIS

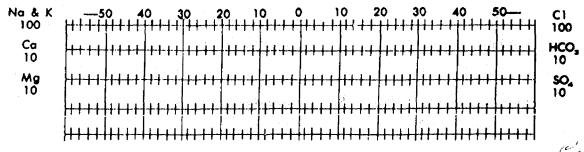
Operator	Ralph Lowe	Date Sampled	6-16-61
Well	Humble State #1	Date Received	6-17-61
Field	Jalmat	Submitted by	Hobbs District
Formation	Yates	Worked by	Jim Looney
Depth	29961	Other Description	
County	Lea, New Mexico		

CHEMICAL DETERMINATIONS

Density1.000 @ 72	F		7.3		
No Trace				Strong Trace	
Sodium and Potassium	1794	nnm	Bicarbonate	1891	ppm
Calcium	200			80	ppm
Magnesium	170	ppm			
	2320		s Socium Chloride		ppm

Remarks:

for Stiff type plot (in meq./1.)



Paq	હ 1

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING	·····	
SANTA FE	, NEW	MEXICO

OCTOBER 25, 1967

Hearing Date SG. Buell Sinta de Mondyomery, Federics & Andrews (Raff 1 Loue) Lamar Eschberger Kalph Lowe R.M. anderso molland Sinclair · Elperlines mobil albuque Amerada KCHo Cha. Tulso, Office a. Jack, Eyans July Phla. Midlod Tex George & , Sinchron Mobil F'L HART Losunel Gulf Bill Kastler ROSWELL GULFOIL CORP DON BILBREY while bills has a self Borker kelf SF-auster Vu Begram & W N. Waldanie Januarten photo BRO charly souls. T

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	NEW MEXICO OIL CONSERVATIO	N COMMISSION
	EXAMINER HEARING	
	SANTA FE	_, NEW MEXICO
Hearing Date	OCTOBER 25, 1967	TIME: 9 A.M.
NAME	REPRESENTING	LOCATION
Jasan Kellahi	Kellali & Fax	Santa Fel
A) Love	$1 \sim 00$	Santa 7-l Cellerice

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 8, 1967

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 Elvis A. Utz, Alternate Examiner:

- CASE 3681: Application of Burwinkle and Scanlon for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Mesaverde formation through one well located 330 feet from the North and East lines of Unit C of Section 28, Township 20 North, Range 9 West, McKinley County, New Mexico. Applicant further seeks an administrative procedure for future expansion of said project.
- CASE 3674: Application of Robert N. Enfield for an interpretation of or the amendment of Order No. R-3189, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the interpretation of Order No. R-3189 which pooled all mineral interests in the Chaveroo-San Andres Pool underlying the NW/4 NW/4 of Section 11, Township 8 South, Range 33 East, Chaves County, New Mexico, that paragraph (9) of said order, in fixing \$125.00 per month as the reasonable cost of operating the well to be drilled on the acreage being pooled, should be construed to provide said \$125.00 per month as a reasonable charge for supervision and operational overhead; that applicant should be permitted to withhold from production the proportionate share of said \$125.00 attributable to each non-consenting working interest, and that in addition thereto, applicant should be permitted to withhold from production the proportionate share of actual operating costs of said well attributable to each non-consenting working interest. In the alternative to the aforesaid interpretation of Order No. R-3189, applicant seeks the amendment of paragraph (9) of said order in accordance with the above provisions.
- CASE 3682: Application of Gulf Oil Corporation for a dual completion, Lea County, New Moxico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its J. N. Carson (NCT-A) Well No. 7 located in Unit B of Section 33, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Drinkard and Brunson-Ellenburger Pools through parallel strings of tubing.
- CASE 3683: Application of Gulf Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the Stuart Langlie Mattix Unit Area comprising 1,120 acres, more or less, of Federal, State and Fee lands in Sections 2,3, 10, and 11, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 3684: Application of Gulf Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Stuart Langlie Mattix Unit by the injection of water in the Langlie Mattix Pool through 12 wells located in Sections 2, 3, 10, and 11, Township 25 South, Range 37 East, Lea County, New Mexico.

-2- November 8, 1967 - Examiner Hearing

Docket No. 34-67

CASE 3685:

Application of Gulf Oil Corporation for an amendment of Order No. R-3290, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3290, which order authorized 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, for its R. E. Cole (NCT-A) Well No. 9, said well being projected to undesignated Silurian and Montoya oil pools. Applicant now seeks the substitution of the Drinkard Pool for the previously authorized pools.

CASE 3686:

Application of Gulf Oil Corporation for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Allison-Abo and Allison-Pennsylvanian Pools in the wellbore of its Federal Mills Well No. 1 located in Unit C of Section 11, Township 9 South, Range 36 East, Lea County, New Mexico, with the provision that no more than one single allowable will be produced from said well.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIAMS BLDG. . P. O. BOX 1092 . PHONE 243-6691 . AIBUQUERQUE, NEW MEXICO

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 25, 1967

IN THE MATTER OF:

Application of Ralph Lowe for salt water disposal, Lea County, New Mexico.

Case No. 3673

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR, UTZ: The next case will be Case 3673.

MR. HATCH: Case 3673, Application of Ralph Lowe for salt water disposal, Lea County, New Mexico.

MR. BUELL: Mr. Examiner, I am Sumner Buell of Montgomery, Federici and Andrews, appearing on behalf of the applicant, Ralph Lowe. I have one witness, Mr. Lamar Eschberger, and ask that he be sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 5 were marked for identification.

MR. UTZ: Any other appearances? You may proceed.

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

DIRECT EXAMINATION

BY MR. BUELL:

- Q Would you state your name, please?
- A Lamar Eschberger.
- Q Where do you reside, Mr. Eschberger?
- A Midland, Texas.

MR. UTZ: Would you spell your last name, please?

THE WITNESS: E-s-c-h-b-e-r-g-e-r.

Q (By Mr. Buell) In what capacity are you employed, and by whom?

A I am a consulting petroleum engineer. I have been employed by Ralph Lowe.

- Q Have you testified before this Commission before?
- A Yes, I have.
- Q Were your qualifications accepted at that time?
- A Yes, they were.
- Q Are you familiar with what is sought by the application in Case 3673?
 - A Inm.
 - Q Would you state briefly what is sought?
- A We seek to convert Well No. 1 on the Humble State
 Lease in the Jalmat Field to water disposal well. It's
 located in Unit G of Section 36, Township 25 South, Range 36
 East, Lea County, New Mexico.
- Q Mr. Eschberger, referring to the application that has been filed in this case with the Commission, I understand that some corrections need to be made on that. Will you tell the Examiner?
- A That is correct. Since the filing of this application, we have found some additional well data and in the case of the casing, we have ten and three-quarter inch surface

pipe, set at 310 feet, cemented with a hundred and fifty sacks. The intermediate is seven inch at 1600 feet, and our records, in one case, show it was cemented with 75 sacks and another shows 200 sacks. Then 5 1/2 is at 2964, cemented with 300 sacks instead of the 250 indicated on the application, and there is no temperature survey.

MR. UTZ: Do you have estimates on where the tops of the cement might be?

THE WITNESS: Yes, sir, on the 5 1/2, if you had a hundred percent fillup, it would come back 1800 feet, which would bring it well up into the 7 inch casing and, of course, you probably had eighty percent fillup, which would still bring it up into the 7 inch.

- Q (By Mr. Buell) Mr. Eschberger, referring you to what has been marked for identification as Exhibit No. 1, would you describe to the Examiner what is shown on that exhibit?
- A This is a map of the area around the well in question, Well No. 1, is in the Northeast Quarter of Section 26, there are two other wells operated by Ralph Lowe on the same lease, Well No. 2 and Well No. 3.
- Q Is Well No. 1 your proposed injection well, "B" marked in red on the exhibit?

10

- A That is correct.
- Q Referring you to Exhibit No. 2 would you describe that?
- A This is a gamma ray neutron log of the lower zones in the Well No. 1, the proposed water <u>disposal</u> well. It shows 5 1/2 casing set at 2964.
 - Q Is there anything else shown on that exhibit?
- A The top of the formation would be approximately 2960, and the total depth by their wireline measurement was 2998.
- Q Referring you to what has been marked as Exhibit
 No. 3, would you briefly describe to the Commission what that
 shows?
- A That's a schematic drawing of the downhole casing and tubing that we would employ in disposing of water in this well.
 - what is shown on that schematic?
- A You have 10 3/4 inch surface pipe, at 310 feet, 7 inch intermediate at 1600, 5 1/2 at 2964, and we propose to inject the water through tubing that has been plastic-coated with a packer at approximately 2900 feet.
 - Q What type of packer will that be?
 - A This will be hookwall tension type packer that

would be plastic-coated on the bottom to protect it against any corrosion.

Q Do you have any plans of inverting inert fluids about the annulus?

A That is correct, we will fill the annulus with treated salt water.

Q Does Exhibit No. 3 show the cement that has been used in this?

A Yes, it does. The 150 sacks would circulate the 310 feet of 10 3/4 casing and the 7 inch, as I previously stated, there's some difference in our records, which of course, are 23 years old, and it's either 75 sacks or 200 sacks and 300 sacks was used to coment the 5 1/2 at 2964.

- Q This well is presently an open hole at the bottom?
- A That's correct.
- Q Referring you to what has been marked as Exhibit
 No. 4, will you tell the Commission what has been shown on
 that, as well as what has been marked as Exhibit No. 5?

A Exhibit No. 4 is a water analysis made by the Western Company Laboratories, 6-16-61, the water that was being produced from this well. Now, Exhibit No. 5 is another water analysis made 10-19-67 by the Western Company Laboratories and this is an analysis of the combined water from well No.2

- and No. 3, that we propose to dispose in Well No. 1.
- Q Would you briefly describe for the Examiner how these combined water analyses were obtained?
- A It was obtained by getting samples of the two wells that were being produced through a heater treater and into a tank, a water disposal tank.
- Q Are you presently producing any hydrocarbons from Humble State No. 1?
 - A No.
- Q Would you state for the Examiner what the production is presently on Humble State No. 2 and 3?
- A Wells No. 2 and 3 produced 15 to 20 barrels of oil per day and approximately 400 barrels of water.
 - Q This is the combined production of those two wells?
 - A That's correct.
 - MR. UTZ: How much water?
 - THE WITNESS: Approximately 400 barrels per day.
- Q (By Mr. Buell) And how much water do you propose to dispose into Humble State No. 1?
 - A Approximately 400 barrels a day.
- Q Have you any information on whether the formation will accept that water?
 - A We have put water in it on a trial basis from the

other two wells and it does accept the water on a vacuum.

There's no pressure required to put it into the formation.

- Q Referring you back to Exhibit No. 1, it shows a Skelly well located in the Northeast Quarter of the Northwest Quarter of Section 36?
 - A That is correct.
- Q Do you have any information regarding the production on that well, if any?
- A According to my information, that well has been recently plugged.
- Q Is it your opinion that the granting of the application in this case would protect correlative rights and prevent waste?
 - A It would.
- Q Were Exhibits 1 through 5 prepared either by you or under your supervision?
 - A That is correct.

MR. BUELL: At this time, I would offer Exhibits

1 through 5 into evidence in this case.

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 5 were admitted in evidence.)

MR. BUELL: I have no additional questions.

CROSS EXAMINATION

BY MR. UTZ:

- Q You gave me the approximate calculation of the tops of the cement on the 7 inch; do you have them on the 5?
 - A That is correct.
 - Q Do you have the estimate on the 200?
- A On the 200 sacks, it would come back approximately 1200 feet and on the 75, of course, it would be 590.
- Q Now, this formation that you are going to inject water in, or propose to inject water in, what are the formations?
- A Well, it's impervious formations, anhydrate and shale and --
- MR. BUELL: I believe what formations you propose to inject into --
- A Oh, to inject into, I thought you were talking about up above.
 - Q (By Mr. Utz) Yes.
 - A That's the Yates Lime.
 - Q And that is the same formation that produced?
 - A Yes, that is correct.
- Q This well, what did you say the production was?

 Has it been temporarily abandoned or is it now a producing well?

- A No. it's been abandoned. The oil production gradually came down on it until it was virtually all water, Well No. 1. At the moment it's not being produced, or there's no water being put in it at the present time.
- In your opinion, then, the injection of this water in this zone that has previously produced, will not water out any other wells in the area?
- A I don't believe it will. There isn't sufficient quantity being disposed of to cause any difficulty.
- Q Is there any possibility that it might act as a waterflood?
- A Yes, sir, it could help some, but I'm sure it would be relatively small help, but it would help some.
- Q Now, was Exhibit 4 the combined water streams on Wells No. 2 and 3?
 - A That is correct.
 - Q What is Exhibit 5 ---

MR. BUELL: No, Exhibit 5 is the combined.

- A That was the combined and Exhibit 4 was the produced water from Well No. 1 when two were producing it.
- Q These producing wells in this area are producing from this same formation?
 - A That is correct.

- Q They're Jalmat Oil Wells, in other words?
- A Yes, sir,

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused.)

MR. BUELL: I have nothing further.

MR. UTZ: Any statements in this case? The case will be taken under advisement.

INDEX

	WITNESS	PAGE
LAMAR	ESCHBERGER	
	Direct Examination by Mr. Buell	2
	Cross Examination by Mr. Htz	9

EXHIBITS	MARKED	ADMITTED
Applicant's 1 through 5	2	8

STATE OF NEW MEXICO)

(COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

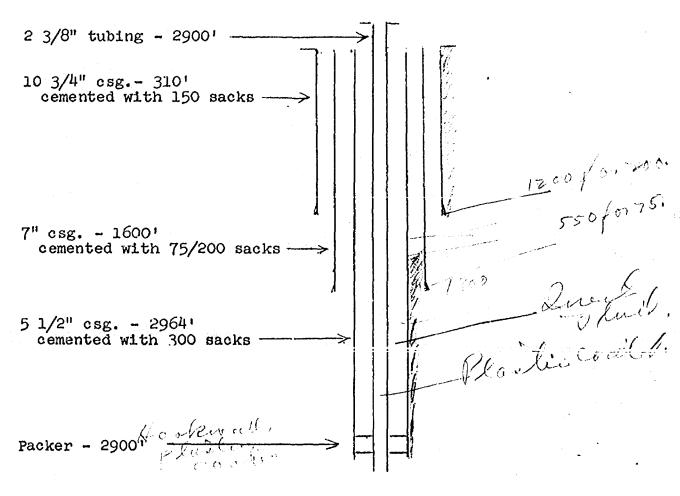
WITNESS my hand this 28th day of November, 1967.

Gaa Dearnley-Court Reporter

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Apple EXHIBIT NO. BEFORE EXAMINER UT Ralph Lowe Humble State No. 1 Jalmat Field Lea County, N.M.



Open hole 2964 - 2982 PB

BEFORE EXAMINER UTZ	·
OIL CONSERVATION COMMISSION	
CASE NO. 3673	
CASE NO. 3673	-

3

SAMPLE	NO	

THE WESTERN COMPANY Service Laboratory

Combined.

WATER ANALYSIS

Operator Ralph Lowe Date Sampled 6-16-61 Well 6-17-61 Humble State #1 Date Received Field Hobbs District Jalmat Submitted by Formation Jim Looney Yates Worked by Depth Other Description 29961 County Lea, New Mexico

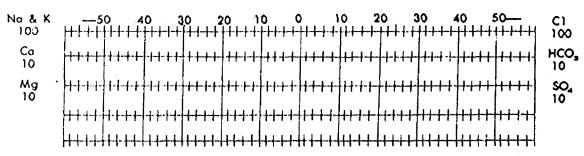
CHEMICAL DETERMINATIONS

Density1.000 @ 72 F		7. 3			
IronNo Trace			Hydrogen Sulfide	Strong Trace	
Sodium and Potassium _	1794	ppm	Bicarbonate	1891	ppm
Calcium	200 -	ppm	Sulfate -	80	ppm
Magnesium	170	ррм	Phosphate		ppm
Chloride	23201	ppm (as Sodium Chloride		PPM

Remarks:

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 3673

for Stiff type plot (in meq./1.)



Por _____

SAMPLE	W		
	TV	 	

THE WESTERN COMPANY Service Laboratory

Cambinist.

WATER ANALYSIS

Operator Ralph Lowe Estate Date Sampled Well Humble State #1 Date Received 10-19-67 Field Submitted by Kermit District **Formation** Worked by Jones Depth Other Description County Lea, New Mexico

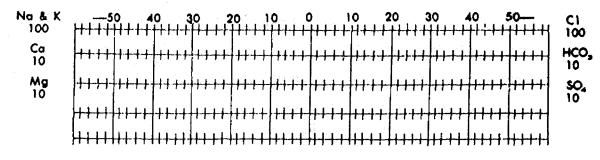
CHEMICAL DETERMINATIONS

Density1. 008 @ 75 F		рн			
IronVery Faint Trace			Hydrogen Sulfide	Very Strong Trace	
Sodium and Potassium	2,415	ppm	Bicarbonate	1,462	ppm
Calcium	600	ppm	Sulfate	1,560	ppm
Magnesium	170	ppm	Phosphate		ppm
Chloride	3.280	ppm a	s Sodium Chloride		ppm

Remarks:

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 3673

for Stiff type plot (in meq./1.)



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