

## NEW MEXICO OIL CONSERVATION COMMISSION

Examiner Hearing - Elvis A. Utz

Santa Fe, NEW MEXICOREGISTERHEARING DATE February 23, 1961 TIME: 9 a.m.

NAME:	REPRESENTING:	LOCATION:
Herman Ledbetter	Newmont oil co.	Artesia
Bill Joan	Sunray M. & G. Co.	Tulsa
D.E. Berry, Jr	Sunray Mid Continent Oil Co.	Hobbs
Jack M Campbell	Campbell & Russell	Roswell
A.E. Snyder	Ameradize	Monument, New Mex
Frank E. Juby	State Engr.	Santa Fe
Jim Welch, Jr	Continental Oil Co.	Lunenburg, N. Mex
VICTOR T. Lyon	"	"
Edwin R. Anderson	Continental Oil Co.	Roswell, NM.
JOHN M. KITTLE JR.	H.S. MOSS	DALLAS, TEXAS
GEORGE W. WILLIAMS	MID-CONTINENT SUPPLY	MIDLAND, TEXAS
Jason Kellahan	Kellahan & Fox	Santa Fe
Leech	Kelly	Santa Fe
Bill Koster	Gulf	Roswell
Franklin Bridges	Gulf	Hobbs
A.H. Porter	O.C.C.	Santa Fe
E. Kirk Newman	Atwood & Malone	Roswell
Nancy Loyd	N.M. Statehouse Reporting Service	Santa Fe

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 23, 1961

EXAMINER HEARING

-----  
IN THE MATTER OF: )

)  
Application of Newmont Oil Company for two unortho- )  
dox oil well locations and for one unorthodox lo- )  
cation for an injection well. Applicant, in the )  
above-styled cause, seeks approval for two unortho- )  
dox oil well locations, and for one unorthodox )  
water injection well location in the Loco Hills )  
Waterflood Project, Eddy County, New Mexico. The )  
proposed locations for the producing wells and in- )  
jection well are respectively as follows: )

)  
Yates A. No. 14 Well, 1980 feet from the North line )  
and 1310 feet from the East line of Section 6, Town- )  
ship 18 South, Range 30 East. )

)  
Brigham No. 5 Well, 1320 feet from the South line )  
and 990 feet from the East line of Section 31, )  
Township 17 South, Range 30 East. )

)  
Brigham No. 4 Well, 1320 feet from the South line )  
and 5 feet from the East line of Section 31, Town- )  
ship 17 South, Range 30 East. )  
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CASE  
2193

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. PAYNE: The following cases will be heard before  
Elvis A. Utz, Examiner, or Oliver E. Payne, attorney, as alternate  
examiner.

MR. UTZ: This hearing will come to order, please. Read  
the docket.

MR. PAYNE: Case 2193: Application of Newmont Oil Com-

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



pany for two unorthodox oil well locations and for one unorthodox location for an injection well.

MR. CAMPBELL: Mr. Campbell of Campbell & Russell appearing on behalf of the Newmont Oil Company. One witness, Mr. Ledbetter, is to be sworn.

(Witness sworn.)

(Marked Applicant's Exhibits  
Numbers 1 & 2, for identification.)

MR. UTZ: Any other witnesses in this case? You may proceed.

HERMAN LEDBETTER,

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Will you state your name, please?

A Herman Ledbetter.

Q Where do you live?

A Artesia, New Mexico.

Q By whom are you employed and what position?

A Newmont Oil Company as Production Superintendent.

Q Have you previously testified before this Commission?

A Yes sir.

Q What is your professional background?

A I was graduated from college as an engineer and remained



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that until two years ago when I became Production Superintendent.

Q Are you acquainted with the application of Newmont Oil Company in Case 2193?

A Yes sir.

Q Are you in charge of operations of the Loco Hills Waterflood project which is now being operated by Newmont Oil Company?

A Yes sir.

Q I refer to what has been identified as Applicant's Exhibit Number 1 and ask you to indicate what that is, please?

A That is a map of the east part of the Loco Hills Pool and with the Newmont Oil Companies' Waterflood Area colored in yellow.

Q Referring to Exhibit Number 1, will you point out to the Examiner the first well that is involved in this application, the Yates A No. 14 Well?

A The Yates A No. 14 is located in Section 6, 1310 feet from the East line and 1980 feet from the North line.

Q You are seeking approval of an unorthodox location for that well? Is that to be an injection well or producing well?

A Producing well.

Q Will you state to the Commissioner your reason for desiring to have this well located at that location?

A First, we believe that it is necessary to drill a well to recover the oil that is in the area bounded by the line from Well No. 13 to 11, and from 11 to 12, and bounded on the South and



East by the water-oil contact in this pool. We would like to locate it as equi-distant from the three injection wells if possible and as near the oil-water contact as possible and still make a producible oil well out of it.

Q You believe that by locating at that point that you are going to be able to recover oil that otherwise might not be recovered?

A Yes sir.

Q Now, will you point out to the Examiner the Brigham No. 5 Well, which is the second well for your seeking unorthodox locations?

A The Brigham No. 5 is located 990 feet from the East line and 1320 feet from the South line of Section 31, Township 17 South, Range 30 East. We would like to locate this well at this particular point in order to make it a center producer in this spot in the proposed pattern.

Q Now, is the No. 5 Well related to your proposed water injection well on the section line of your Brigham No. 4 Well, which is the third well for which you seek an unorthodox location?

A Well, it's located equi-distant from the No. 4 and the Brigham No. 2 and the Brigham No. 1.

Q Will you state why you desire to drill the water injection well on the section line of the Brigham No. 4?

A In order to work out a pattern that will effectively flood that area. It would be necessary to drill a well in an area,



and we'd like to drill it on the line in order to protect the acreage along this boundary between this State and Federal acreage. We have two wells located on 330, on the line from the State acreage in Section 32, and we'll have two wells in the 330 from a line on the Federal acreage. This well will be essentially on the line.

Q Your acreage on Section 31, Federal, and Section 32, are State acreage?

A Yes sir.

Q Do you believe that if you are permitted to use these two oil well locations and the water injection well location that are shown on Exhibit Number 1, that you will be able to efficiently recover the recoverable oil in this project and the relative rights will be protected?

A Yes sir.

Q I refer you now to what has been identified as Newmont Exhibit Number 2 and ask you to explain what that is?

A These are some well tests on oil wells in this area put down on State Form C-116. The first one is for the Brigham No. 3 Well which is located to the south of the Brigham No. 4 -- proposed Brigham No. 4 injection well -- which shows the increase for flooding which we received to date on the Brigham No. 3. The second page shows some well tests over a period of time on the State BX No. 5 Well located to the south and east of the Brigham No. 4 injection well and shows the response that we have received in this well. The other two are well tests on the Yates A No. 4 and the



Yates A No. 6 in that Section 6.

Q Do these well tests over a period of time indicate that you are receiving response from your Waterflood as it flows in a northeasterly direction?

A Yes sir.

Q Is this one of the reasons that you feel that the additional well locations should be approved, and the water injection well location, your Brigham No. A, approved at this time?

A Yes sir.

MR. CAMPBELL: I would like to offer in evidence Newmont Exhibit Number 1 and Exhibit Number 2 in this case. That is all the questions I have in this case.

MR. UTZ: Without objection, Exhibits 1 and 2 will be entered into the record in this case.

#### CROSS EXAMINATION

BY MR. UTZ:

Q This Yates A No. 6 is down in Section 6?

A Yes, it's almost west, offset to the proposed No. 14.

Q Any fire response on that one?

A Yes sir, very good.

Q Mr. Ledbetter, I don't believe you gave us the data of what you feel is the gas-oil contact in Section 6?

A It's sort of uncertain to a point. Originally, I have marked the top of the Loco Hills Section on the well in an area, and originally, it was a plus 69. We have had along this edge water



encroachment for the primary life of the field, and Well No. 13, which is plus 721, has been doubtful. If we could have made a good, or economical producer -- it was drilled for an injection well, and we didn't attempt to complete it. Well No. 12 was tested pretty thoroughly before we converted it, and we had about 80 per cent water cut there, but it's slightly higher than 14. I believe by completing this well -- knowing we are going to complete it in the top of the sand -- we can get better completion, and we think we can probably complete it down to plus 712 and still get less than 50 per cent water cut.

Q You feel that there is a substantial amount of recovery between the triangle of 11 and 12 and 13?

A Yes sir, a considerable amount there.

Q Is the injection well a new injection well that you want to drill?

A Yes, the Brigham No. 4.

Q And the only reason for that is that you actually need another injection well in that area regardless of whether it's to separate the State and Federal acreage?

A Yes sir.

MR. UTZ: Any other questions of this witness?

#### CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Ledbetter, inasmuch as you feel that the water-oil contact is somewhere slightly to the east of your No. 14 Well and





Section 6, I take it that you don't feel that that Waterflood Project will subsequently be expanded to the east?

A No sir, I feel that we are getting just as far to the east with this procedure as we dare.

Q Now, what's the 6 to the north where I notice you have no injection wells or general injection wells to the north in the American or Ambassador acreage?

A These are well that we have verbally agreed upon as the pattern for future development with General American and Ambassador along this line.

Q You actually have a line agreement?

A We don't have a written agreement, a verbal agreement at this time.

Q Do these conform to the pattern you have been using on your Waterflood Project?

A Yes sir.

Q This is a capacity Waterflood?

A Yes sir.

Q So it doesn't make any particular difference, at least from the standpoint of an oil well, which 40-acre tract your oil well is drilled on?

A No sir.

Q Which 40-acre tract are you going to say the well is located on?

A The Southeast of the Northeast.

Q Are all your producing wells completed in the Grayburg



formation only?

A Yes sir.

Q And none of your wells listed on your Exhibit 2 are yet making water?

A None.

MR. PAYNE: Thank you. Mr. Examiner, your Ledbetter Exhibit 2 does show that they are not presently making water. Some water testing, they were at first, and the Yates had a small amount at one time.

MR. UTRY: May I ask one question, please? Would you tell me what your cement and casing project is on your well, please?

MR. LEDBETTER: We plan to set eight and five-eighths and plan to cement it with 50 sacks and set nine more over at the top of the Loco Hills sand and cement it with 100 sacks.

MR. UTRY: A hundred sacks will bring you pretty close on circulation, won't it Mr. Ledbetter?

MR. LEDBETTER: No, we probably will get about 500 feet of cement behind the pipe -- 600.

MR. UTRY: You will be at what depth?

MR. LEDBETTER: In this No. 4, I expect the top of the sand will be at 28 or 25.

MR. UTRY: Does this, with reference to the cement tops, can you tell me whether the sand is a Rosa formation?

MR. LEDBETTER: It's above the salt. It would have to be behind the surface pipes if it's above the salt, and we keep in



our injection wells -- we leave the annulus between the surface tip and oil string open at the surface in order that any time that we should ever develop a leak, there are two permanent forms below or between the Loco Hills and the surface pipe. It will come right to the surface; the water will immediately, and we know it within a few hours whether we have a leak or not.

MR. PAYNE: Is that the same case you have used in the other projections wells in the project?

MR. LEDBETTER: Yes sir.

MR. PAYNE: Has that proved to be satisfactory in your opinion?

MR. LEDBETTER: Yes sir, all of our new injection wells are handling it with satisfaction.

MR. PAYNE: You plan to use new casing in this proposed injection well?

MR. LEDBETTER: Yes sir.

MR. PAYNE: Thank you.

MR. UTZ: Did you say approximately where the top of the salt was?

MR. LEDBETTER: It will be about 450.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case? If there are none, the case will be taken under advisement.



**PHONE CH 3-6691**

ALBUQUERQUE, NEW MEXICO

*LaVerne E. Jones*  
Notary Public-Court Reporter

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 2193,  
heard by me on Feb. 23, 1961.  
Thomas H. [Signature], Examiner  
New Mexico Oil Conservation Commission



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. 1511  
Order No. R-1267

APPLICATION OF NEWMONT OIL CORPORATION  
FOR AN ORDER AUTHORIZING A PILOT WATER  
FLOOD PROJECT IN THE LOCO HILLS POOL,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 2, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 25<sup>th</sup> day of October, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Newmont Oil Corporation, proposes to institute a pilot water flood project in the Loco Hills Pool to inject water into the Grayburg formation through five (5) wells located in Section 6, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico, and through one (1) well located in Section 1, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico.

(3) That the proposed injection wells are as follows:

Yates "A" No. 2      NE/4 NW/4 Section 6 T-18-S, R-30-E

Yates "A" No. 11     NW/4 NE/4 Section 6 T-18-S, R-30-E

Yates No. 5          NW/4 SW/4 Section 6 T-18-S, R-30-E

Yates No. 2          SW/4 NW/4 Section 6 T-18-S, R-30-E

Yates No. 3          SE/4 NW/4 Section 6 T-18-S, R-30-E

Ballard "B" No. 5    NE/4 NE/4 Section 1 T-18-S, R-29-E

-2-

Case No. 1511  
Order No. R-1267

(4) That the proposed pilot water flood injection project will not adversely affect the interests of any other operators in the Loco Hills Pool.

(5) That the proposed program will promote conservation and will tend to prevent waste through the production of oil which might not otherwise be recovered.

IT IS THEREFORE ORDERED:

(1) That the application of Newmont Oil Corporation for permission to institute a pilot water flood project in the Grayburg formation of the Loco Hills Pool in Eddy County, New Mexico, be and the same is hereby approved.

(2) That the following-described wells be and the same are hereby authorized as water injection wells:

Yates "A" No. 2	NE/4 NW/4 Section 6 T-18-S, R-30-E
Yates "A" No. 11	NW/4 NE/4 Section 6 T-18-S, R-30-E
Yates No. 5	NW/4 SW/4 Section 6 T-18-S, R-30-E
Yates No. 2	SW/4 NW/4 Section 6 T-18-S, R-30-E
Yates No. 3	SE/4 NW/4 Section 6 T-18-S, R-30-E
Ballard "B" No. 5	NE/4 NE/4 Section 1 T-18-S, R-29-E

(3) That monthly progress reports on the water flood project herein authorized shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

S E A L

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**BEFORE EXAMINER UTZ**  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 2  
CASE NO. 2193

# GAS-OIL RATIO REPORT

OPERATOR Newmont Oil Company POOL Loco Hills  
ADDRESS 300 Booker Building, Artesia, NM MONTH OF \_\_\_\_\_, 19\_\_\_\_  
SCHEDULED TEST \_\_\_\_\_ COMPLETION TEST \_\_\_\_\_ SPECIAL TEST ☒ (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Brigham	3	5-17-60	GL		24		0	14		
		9-20-60	P		24		0	22		
		12-15-60	P		24		0	28		
		2-14-61	P		24		0	30		

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

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

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

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date Feb. 21, 1961

Newmont Oil Co.  
Company  
By Sherman D. Ledbetter  
Supt.  
Title

## NEW MEXICO OIL CONSERVATION COMMISSION

## GAS-OIL RATIO REPORT

OPERATOR Newmont Oil Company POOL Loco Hills  
ADDRESS 300 Booker Building, Artesia, N.M. MONTH OF           , 19        
SCHEDULED TEST                            COMPLETION TEST                            SPECIAL TEST X (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
State EX	5	1-12-59	GL		24		0	29		
		4-7-59	GL		24		0	36		
		6-11-60	P		24		0	47.8		
		9-11-60	P		24		0	49.0		
		10-13-60	P		24		0	48.0		
		1-4-61	P		24		0	47.0		

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

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(I certify that the information given is true and complete to the best of my knowledge.)

Date Feb. 21, 1961

Newmont Oil Co.  
Company  
By L. J. Lutter  
Supt.  
Title



NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR.....Newmont Oil Company..... POOL.....Loco Hills.....  
 ADDRESS.....300 Booker Building..... MONTH OF....., 19.....  
 Artesia, N.M.  
 SCHEDULED TEST..... COMPLETION TEST..... SPECIAL TEST.....X.....(Check One)  
 (See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Yates A	4	10-17-59	P		24		0	26.80		
		2-25-60	P		24		0	42.10		
		5-8-60	P		24		0	61.70		
		8-20-60	P		24		0	79.10		
		10-20-60	P		24		0	104.00		
		12-11-60	P		24		0	170.00		
		1-19-61	P		24		0	152.30		

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 Company  
 By.....*Herman Redlutter*.....  
 Supt.  
 Title

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## GAS-OIL RATIO REPORT

OPERATOR Newmont Oil Company POOL Loco Hills  
ADDRESS 300 Booker Building MONTH OF \_\_\_\_\_, 19\_\_\_\_  
Artesia, N.M.  
SCHEDULED TEST \_\_\_\_\_ COMPLETION TEST \_\_\_\_\_ SPECIAL TEST X (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Yates A	6	2-26-60	P		24		0.20	15.70		
		5-7-60	P		24		0.70	56.20		
		8-10-60	P		24		0	80.50		
		10-9-60	P		24		0	104.00		
		12-16-60	P		24		0	137.00		
		1-4-61	P		24		0	278.00		

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Newmont Oil Co.  
Company

By Herman J. Ledbetter

Supt.

Title