

CASE 4066: Application of HUMBLE  
FOR CONSOLIDATION OF TWO NON-  
STANDARD GAS PRORATION UNITS.

---

— dse Number

4066

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

112C SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

March 5, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil )  
& Refining Company for )  
the consolidation of two )  
non-standard gas pro- )  
duction units, Lea County, )  
New Mexico. )

Case No. 4066

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case No. 4066.

MR. HATCH: Case No. 4066, application of Humble Oil and Refining Company for the consolidation of two non-standard gas proration units, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, of Hinkle, Bondurant, and Christy, of Roswell, appearing on behalf of Humble Oil and Refining Company. We have one witness, Mr. Hamner.

(Witness sworn.)

(Whereupon, Applicant's Exhibits  
Numbers 1, 2, 3, were marked  
for identification.)

JOE M. HAMNER

called as a witness on behalf of the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence, and by whom you are employed.

A Joe M. Hamner, Humble Oil and Refinery, Hobbs, New Mexico.

Q What is your position with Humble?

A Supervising Reservoir Engineer in the Hobbs District.

Q Have you previously testified before this Commission?

A No, sir.

Q Will you state briefly your education and background, and experience?

A I received my Bachelor of Science Degree in Electrical Engineering from Rice University in 1963. I joined Humble in June, 1963, and for the past five and a half years have participated or worked in all phases of petroleum engineering, primarily reservoir engineering. As I stated a while ago, my present position is supervising reservoir engineer.

Q Are you familiar with the operations of Humble in the Eumont Gas Pool?

A Yes, sir.

Q Have you made a study of that area?

A Yes, sir.

Q Are you familiar with the application of Humble in this case?

A Yes, sir.

Q What is Humble seeking to accomplish in this application?

A Briefly, Case 4066 is the application of Humble for approval of a standard gas proration unit in the Eumont Gas Pool for its New Mexico "G" State Lease, which is located in Section 26, Township 21 South, Range 36 East, Lea County, New Mexico.

It is proposed that the 640-acre unit allowable be assigned to Wells No. 2 and 4, with permission to produce either well in any proportion.

Q Have you prepared, or has there been prepared under your direction exhibits to be introduced in this case?

A Yes, sir.

Q Refer to Exhibit Number 1, and explain to the Commission what this is and what it shows.

A Exhibit 1 is a plat of the area showing Section 26 outlined in red, and Wells 2 and 4 circled in red. Other Eumont Gas Pool wells in the vicinity are circled in green.

Section 26 is now divided into two non-standard 320-acre units, with the north half assigned to Well 4, and the south half assigned to Well 2.

Q What is the history, briefly, of Wells No. 2 and 4?

A Well, both these were originally Eumont-Yates-Seven Rivers wells, and they were reclassified into the Eumont Gas Pool. Both of them were assigned 320-acre non-standard units by the Oil Conservation Commission. Well No. 4 has now become incapable of producing its assigned allowable, while Well No. 2 has some excess capacity. Both wells will be able to produce the full 640-unit allowable.

Q Would it save expense if the Commission saw fit to

approve this?

A Otherwise, we will be out the expenditure.

Q Is it economically feasible to drill another well, recomplate?

A No, sir.

Q It would never pay off, in your opinion?

A No, sir.

Q Refer to Exhibit Number 2, and explain what this is, and what it shows.

A Exhibit 2 is in two parts there. You will note on the first part of this exhibit, Well No. 2 has a wellhead deliverability of 1,191 Mcf per day, whereas on the second part it shows Well No. 4 has a deliverability of only 367 Mcf a day. The February allowable for a full 640-acre unit was 1,434 Mcf per day in this Eumont Gas Pool.

Q Now, refer to Exhibit Number 3 and explain what this is.

A Exhibit 3 is also in two parts. It has a radioactivity log of each of the two wells in question. Each log shows perforated intervals, stimulation treatments, and the perforated tops.

Q Do you have any further comment with respect to these?

A I think the main thing here is it shows we did give

these wells a pretty large sand-oil frack treatment.

Q In your opinion, if Humble's request in this case is approved, would it have any adverse effect on correlative rights?

A No, sir, I don't think so. If you will refer back to Exhibit 1, you get a pretty good picture of the Eumont Gas Well development in the area, and you will see there is no normal or standard development pattern. The logs in the area indicate that the pay zone in all of these wells are comparable, except for some edge wells, and we believe that the Eumont Gas Pool is declining evenly and equitably on an acreage basis.

Q Do you know whether or not Humble furnished the offset operators with copies of your application?

A It is my understanding that they were furnished.

Q Do you know of any objections that have been voiced or filed?

A No, sir.

Q With respect to approval of this application?

A No, sir.

Q Do you have anything further or anything else you would like to state?

A No, sir.

MR. HINKLE: We would like to offer in evidence



Exhibits 1 through 3.

MR. NUTTER: Pumble's Exhibits 1 through 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Numbers 1, 2, and 3 were admitted in evidence.)

MR. HINKLE: That is all on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Hamner, in looking over these latest well tests, the test on the No. 4 was taken in June of 1968 and indicated a deliverability of 367 Mcf per day, and you mentioned 640-acre allowable for February would be 1,434 Mcf. That would be about 1,717 for a 320-acre unit?

A Right.

Q So this well is capable of making only about a half of a 320-acre allowable?

A Yes, sir. In July, this well was reclassified to a marginal status, July of 1968.

Q It is classified as marginal?

A Yes, sir.

Q Now, the other well can make 1,119, as indicated by a December test, as compared with this 714 or 715 -- 717 allowable?

A Yes.

O Is it in balance as far as its allowable is concerned, or has it been overproduced?

A Yes, sir, I believe it is now balanced out, although in the year 1968 it overproduced for the whole year. The allowable for that particular well was 230 million for the year, and it produced 278 million.

O Now, is it your intent to keep the No. 4 on production?

A Yes, sir.

O And so between the two of them, you will just about make a 640-acre allowable?

A Yes, sir, that's right. For the month of January, we couldn't have made the allowable, but on a year-basis, assuming taking the 1968 allowable, we could have made it, assuming we keep both of them on production.

O Now, you mentioned you couldn't economically justify drilling another well. Do you think you could help No. 4 by working it over?

A No, sir, I don't think it would be, considering the risk, I don't think it would be a good economic venture. It already has had a sand-oil frack job, it is perforated throughout the top of the interval, so I don't think in view of the risk, it would be worthwhile spending the money.

Q Now, this sand-oil frack job, was that when it was originally drilled in the Arrowhead Pool?

A No, it was given in this pool in 1956.

Q That is not on its original completion in 1952, then?

A No, sir, I don't believe so. It was on the recompletion to a gas well status.

Q Does it make water?

A Yes, sir, our latest test indicates that it is making about 50 per cent water, which is really less than a barrel a day, but it does make a little bit of water.

MR. NUTTER: Any other questions of Mr. Hamner?

You may be excused.

Do you have anything further? If there is nothing further, we will take Case 4066 under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JOE M. HAMNER	
Direct Examination by Mr. Hinkle	2
Cross Examination by Mr. Nutter	7

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1, 2, 3	2	7

STATE OF NEW MEXICO     )  
                                   )     ss.  
 COUNTY OF BERNALILLO    )

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

*Samuel Mortelette*  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a true and correct copy of the transcript  
 filed in the office of the Secretary of the  
 New Mexico Oil Conservation Commission  
 on this 3/5 day of 1969.  
*[Signature]*  
 Secretary  
 New Mexico Oil Conservation Commission

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 26, 1969

EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of Humble Oil & )  
Refining Company for the )  
consolidation of two non-standard )  
gas proration units, Lea County, )  
New Mexico. )  
-----

) Case No. 4066  
)  
)  
)  
)

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING



MR. UTZ: Case 4066.

MR. HATCH: Case 4066. Application of Humble Oil & Refining Company for the consolidation of two non-standard gas proration units, Lea County, New Mexico.

The applicant has asked that this case be continued to March 5th, 1969.

MR. UTZ: Without exception, Case 4066 will be continued to 3-5-69.

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

Witness my hand this 29th day of March, 1969.

Glenda Burke  
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4066 heard by me on Feb 22, 1969.

*[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. 4066  
Order No. R-3700

APPLICATION OF HUMBLE OIL & REFINING  
COMPANY FOR THE CONSOLIDATION OF TWO  
NON-STANDARD GAS PRORATION UNITS, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 5, 1969,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 12th day of March, 1969, 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, Humble Oil & Refining Company, is  
the owner and operator of two 320-acre non-standard gas proration  
units comprising the N/2 and the S/2, respectively, of Section  
26, Township 21 South, Range 36 East, NMPM, Eumont Gas Pool, Lea  
County, New Mexico.

(3) That the S/2 of said Section 26 is presently dedicated  
to the applicant's New Mexico State "G" Well No. 2, located in  
Unit P of said Section 26, pursuant to Commission Order No. R-748.

(4) That the N/2 of said Section 26 is presently dedicated  
to the applicant's New Mexico State "G" Well No. 4, located in  
Unit G of said Section 26, pursuant to Administrative Order  
NSP-233.

-2-

CASE No. 4066  
Order No. R-3700

(5) That the applicant now seeks the consolidation of the two existing non-standard gas proration units to form one 640-acre standard gas proration unit comprising all of said Section 26, said unit to be simultaneously dedicated to its aforesaid New Mexico State "G" Wells Nos. 2 and 4.

(6) That the applicant further seeks authority to produce the allowable assigned to the unit from either of the aforesaid wells in any proportion.

(7) That the proposed standard gas proration unit can be efficiently and economically drained and developed by the New Mexico State "G" Wells Nos. 2 and 4.

(8) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the Eumont Gas Pool, and will otherwise prevent waste and protect correlative rights.

(9) That Order No. R-748 and Administrative Order NSP-233 should be superseded.

IT IS THEREFORE ORDERED:

(1) That, effective April 1, 1969, a 640-acre standard gas proration unit in the Eumont Gas Pool comprising all of Section 26, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby established and simultaneously dedicated to the Humble Oil & Refining Company New Mexico State "G" Well No. 2, located in Unit P of said Section 26, and to the Humble Oil & Refining Company New Mexico State "G" Well No. 4, located in Unit G of said Section 26.

(2) That the allowable assigned to the above-described gas proration unit shall be based upon the unit size of 640 acres; that the operator may produce the allowable assigned to the unit from the subject wells in any proportion; and that the status of said consolidated unit shall be the combined status, as of April 1, 1969, of the two units being consolidated.

(3) That Order No. R-748 and Administrative Order NSP-233 are hereby superseded.

-3-

CASE No. 4066

Order No. R-3700


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

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



DAVID F. CARGO, Chairman



ALEX J. ARMIJO, Member



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



esr/

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 26, 1969

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

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

- CASE 4052: Application of Mobil Oil Corporation for a pool creation and discovery allowable, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Lightcap-Pennsylvanian Pool in Chaves County, New Mexico, comprising the NE/4 NE/4 of Section 7, Township 8 South, Range 30 East, and for the assignment of approximately 35,650 barrels of oil discovery allowable to the discovery well, its C. L. O'Brien Well No. 1 located in Unit A of said Section 7.
- CASE 4036: (Continued from the February 5, 1969, Examiner Hearing) Application of Mobil Oil Corporation for a dual completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its C. L. O'Brien Well No. 1 located in Unit A of Section 7, Township 8 South, Range 30 East, Chaves County, New Mexico, to produce oil from an undesignated Pennsylvanian oil pool and the Lightcap (Devonian) Pool through parallel strings of tubing.
- CASE 4053: Application of El Paso Products Company for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Gallegos-Gallup Pool, San Juan County, New Mexico, including provisions for the classification of oil and gas wells, 80-acre spacing for oil wells, and 320-acre spacing for gas wells.
- CASE 4054: Application of Amerada Petroleum Corporation for an unorthodox oil well location and amendment to Order No. R-2197, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 1250 feet from the West line and 2220 feet from the South line of Section 28, Township 24 South, Range 30 East, in its Langlie-Mattix Woolworth Unit Waterflood Project, Langlie-Mattix Pool, Lea County, New Mexico. Applicant also seeks the amendment of Order No. R-2197, which order authorized said waterflood project, to establish an administrative procedure whereby said project could be expanded to include additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern without the necessity of showing well response.

- CASE 4055: Application of Albert Gackle for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3290 feet to 3620 feet in his George Etz Well No. 3 located in Unit N of Section 27, Township 23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.
- CASE 4056: Application of Albert Gackle 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 Quden formation in the perforated interval from approximately 3642 feet to 3699 feet in his Sinclair "A" State Well No. 5 located in Unit I of Section 23, Township 23 South, Range 36 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 4057: Application of Charles B. Read for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Quail-Queen Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 4058: Application of Hiram W. Keith and Dalton Haines for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3874 feet to 3951 feet in their State Well No. 2 located in Unit K of Section 16, Township 21 South, Range 34 East, West Wilson Pool, Lea County, New Mexico.
- CASE 4059: Application of Hiram W. Keith and Dalton Haines for salt water disposal, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Delaware formation in the open-hole interval from approximately 4030 feet to 4158 feet in their Eddy "AGA" State Well No. 2 located 660 feet from the North line and 1650 feet from the West line of Section 36, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.
- CASE 4060: Application of Sidney Lanier 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-Seven Rivers formations in the open-hole interval from approximately 3402 feet to 3650 feet in his I. B. Ogg "A" Well No. 5 located in Unit J of Section 35, Township 24 South,

(Case 4060 continued)

Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4061: Application of Millard Deck 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 Seven Rivers and Queen formations in the open-hole interval from approximately 3752 feet to 3872 feet in its Atha Well No. 1 located in Unit M of Section 31, Township 21 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.

CASE 4062: Application of Kersey & Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the perforated interval from approximately 1835 feet to 1870 feet in the Bass Well No. 3 located in Unit F of Section 12, Township 19 South, Range 28 East, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 4063: Application of Kerr-McGee Corporation for the creation of a new gas pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of gas from the Morrow formation by its Nix Well No. 1 located in Unit L of Section 11, Township 19 South, Range 26 East, Eddy County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 640-acre spacing.

CASE 4064: Application of Atlantic Richfield Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4207 feet to 4286 feet in its Tucker Well No. 4 located in Unit O of Section 23, Township 7 South, Range 32 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 4065: Application of Humble Oil & Refining Company for an unorthodox oil well location and reclassification of a water well to an oil well, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to have its New Mexico State "S" Water Source Well No. 4 (CP-427), located at an unorthodox oil well location 650 feet from the West line and 175 feet from the

South line of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico, reclassified as an oil well for the production of oil an undesignated San Andres Oil Pool and authority to produce same as an oil well.

CASE 4066: Application of Humble Oil & Refining Company for the consolidation of two non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard 320-acre gas proration units into one standard 640-acre unit comprising all of Section 26, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its New Mexico State "G" Wells Nos. 2 and 4 located in Units P and G, respectively, of said Section 26. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.

CASE 4067: Application of Benson-Montin-Greer Drilling 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 La Plata-Gallup Pool, San Juan County, New Mexico, including a provision for 160-acre spacing and proration units. Applicant further requests that said special rules provide that the unit allowable for a 160-acre unit in said pool be allocated on the basis of four times the normal unit allowable for Northwest New Mexico, and that no credit be given for depth factors. Applicant further requests that said special rules be limited in their application to the exterior boundaries of the La Plata-Mancos Unit Area.

CASE 4068: Application of Martin Yates III for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in its Yates & Hanson McCord Well No. 1 located in Unit E of Section 22, Township 23 South, Range 26 East, Dark Canyon Field, Eddy County, New Mexico. Applicant further seeks a procedure whereby its Cordie King Well No. 2 located in Unit K of said Section 22 may be approved for the disposal of salt water without the requirement of notice and hearing.



Examiner Hearing  
February 26, 1969

CASE 4045: (Continued from the February 5, 1969 Examiner Hearing)

Application of H & S Oil Company for an amendment to Order No. R-3357, as amended by Order No. R-3357-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3357, as amended by Order No. R-3357-A, which order authorized the H & S West Artesia Unit Unit Waterflood Project. Applicant proposes to substitute the Roach Drilling Company-Leonard Well No. 18 located in Unit D of Section 17 as a water injection well in said project in lieu of the Cities Service-Mell Well No. 17 located in Unit M of Section 8, both in Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

CASE 4069: Application of Union Oil Company of California for the creation of a new pool, assignment of discovery allowable, and the promulgation of special pool rules, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the creation of a new Devonian oil pool for its Midway State Well No. 1 located in Unit F of Section 12, Township 17 South, Range 36 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 57,380 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 80-acre proration units.

CASE 4070: Application of C. E. LaRue and B. N. Muncy, Jr., for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the salt and Yates formations in the open-hole interval from approximately 1254 feet to 3000 feet in the La Rue-Muncy John "B" Well No. 2 located in Unit A of Section 35, Township 17, South, Range 32, East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 5, 1969

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 4071: Application of T. J. Sivley for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Federal Silver Well No. 4 located in the SW/4 SE/4 of Section 28, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, in such a manner as to permit production of oil from the Yates-Seven Rivers formations and the disposal of produced salt water into the Lower Seven Rivers formation.
- CASE 4072: Application of Pennzoil United, Inc., for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Mobil "12" Federal Well No. 1 located in Unit B of Section 12, Township 23 South, Range 26 East, Eddy County, New Mexico, in such a manner as to permit the production of gas from an undesignated Atoka gas pool and gas from an undesignated Morrow gas pool through parallel strings of tubing.
- CASE 4073: Application of Standard Oil Company of Texas for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Continental State Well No. 1 located in Unit B of Section 5, Township 24 South, Range 38 East, Stateline-Ellenburger Pool, Lea County, New Mexico, in such a manner as to permit production of oil from the Ellenburger formation through tubing and the disposal of produced salt water into the Queen, San Andres, Glorieta, Tubk, Drinkard, and Mississippian formation through the casing-casing annulus in the open-hole interval from 4105 feet to 8980 feet.
- CASE 4067: (Continued from the February 26, 1969 Examiner Hearing)
- Application of Benson-Montin-Greer Drilling 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 La Plata-Gallup Pool, San Juan County, New Mexico, including a provision for 160-acre spacing and proration units. Applicant further requests that said special rules provide that the unit allowable for a 160-acre unit in said pool be allocated on the basis of four times the normal unit allowable for Northwest New Mexico, and that no credit be given for depth factors. Applicant further requests that said special rules be limited in their application to the exterior boundaries of the La Plata-Mancos Unit Area.

- CASE 4074: Application of Benson-Montin-Greer Drilling Corporation for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Gallup formation in its La Plata Mancos Unit Well No. 1 located in Unit P of Section 31, Township 32 North, Range 13 West, and by the injection of gas into said Gallup formation in its La Plata Mancos Unit Well No. 4 located in Unit N of said Section 31, La Plata-Gallup Pool, San Juan County, New Mexico. Applicant, further seeks the promulgation of special rules governing the operation of said project.
- CASE 4075: Application of Benson-Montin-Greer Drilling Corporation for amendment of the La Plata Mancos Unit Agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks to amend the form of the La Plata Mancos Unit Agreement, San Juan County, New Mexico, with respect to Sections 11 and 12 of said unit agreement, to permit inclusion in the participating area of any and all lands necessary for unit operations.
- CASE 4076: Application of American Trading and Production Corporation for the creation of a new pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Morrow gas pool for its Southeast Lea Unit Well No. 2 located in Unit L of Section 25, Township 20 South, Range 35 East, Lea County, New Mexico.
- CASE 4065: Application of Humble Oil & Refining Company for the creation of a new oil pool, assignment of discovery allowable, and the promulgation of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to have its New Mexico State "S" Water Source Well No. 4 (CP-427), located at an unorthodox oil well location 650 feet from the West line and 175 feet from the South line of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico, reclassified as an oil well for the production of oil from the San Andres formation. Applicant further seeks the creation of a new San Andres oil pool for said well and the assignment of an oil discovery allowable of approximately 21,190 barrels to said well. Applicant further seeks the promulgation of special rules for said pool, including a provision for 80-acre proration units.

CASE 4066: (Continued from the February 26, 1969 Examiner Hearing)

Application of Humble Oil & Refining Company for the consolidation of two non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard 320-acre gas proration units into one standard 640-acre unit comprising all of Section 26, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its New Mexico State "G" Wells Nos. 2 and 4 located in Units P and G, respectively, of said Section 26. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in proportion.



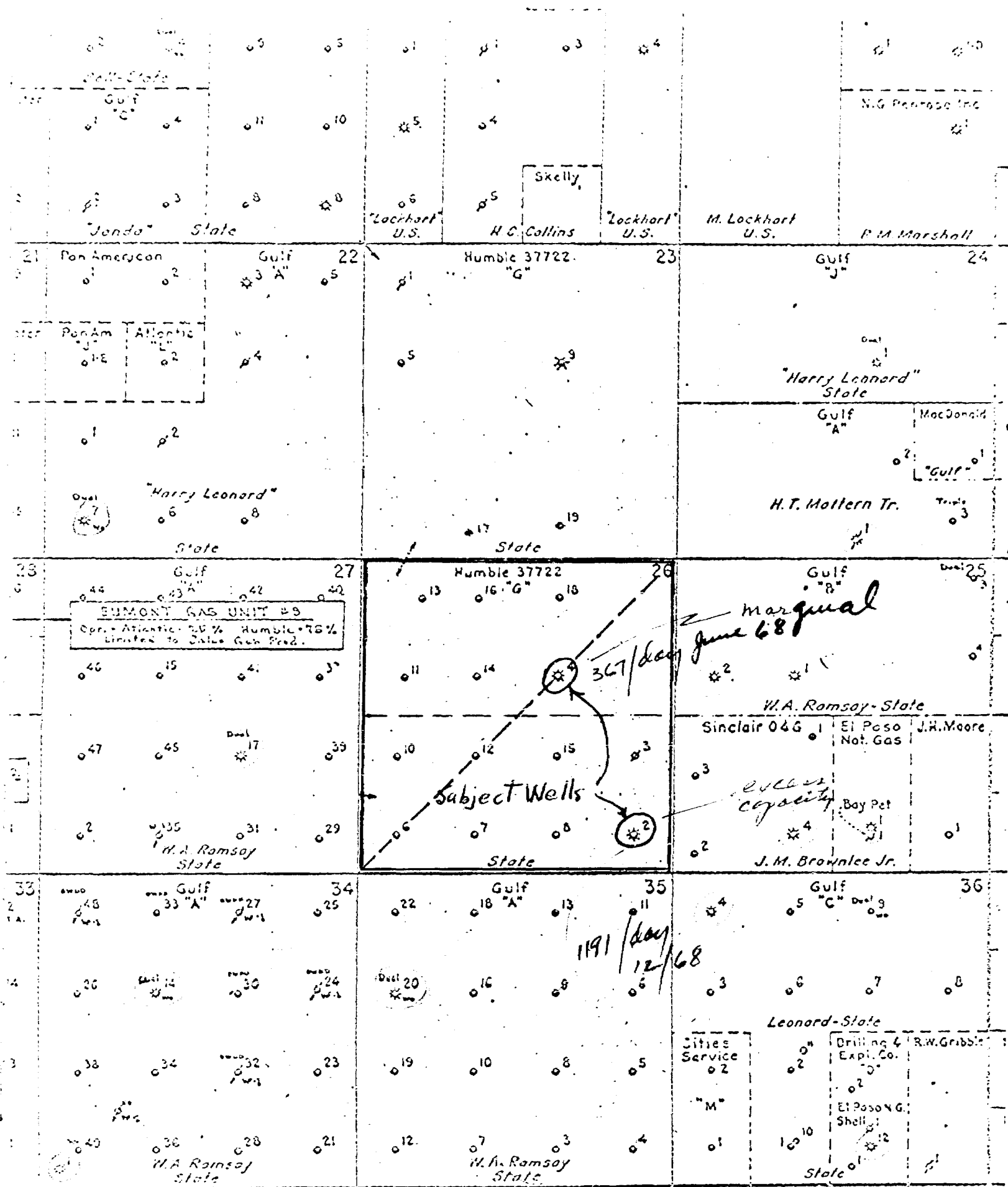
OIL FIELD CHEMICALS

4. M. "G" Soluble

Ammonium Chloride

New Standard Gas Unit

Quality chemicals for the petroleum industry.



76 E

T-21-S R-36-E

Company Humble Oil and Refining Company				EM	Start Date of Test June 7, 1968		
County Lea				Lease New Mexico "G" State Batt. 2 No. 4			
Sec. 26	Twp. 21	Rgn. 36	County Lea	Pool Eumont			
Type Well Single		Producing Thru		Tubing X	Casing	Top of Pay 3580	Bar. Pressure 13.2
Date of Previous Minimum Contract Test 6-30-67		n <sub>1</sub> of Previous Back Pressure Test .577		Gravity .698	Meter Sta. No. 60-688	Compressor On	
						Acro Factor 2.00	

FLOW DATA					FLOWING PRESSURES, PSIA		DURATION OF FLOW HOURS
Prover Line Size	Choke X Orifice Size	Static Pressure Psig.	Diff. hw	Temp. °F	Tubing	Casing	
		221			243.2		24

VOLUME CALCULATIONS

Coefficient (24 - Hour)	$\sqrt{h_w P_m}$	Pressure Psia.	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCF/D @ 15.025 Psia.
		VOLUME INTEGRATED BY MAIN OFFICE				327

$$D_1 = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_t^2} \right]^{n_1}$$

P <sub>r</sub>	Temp. R	T <sub>r</sub>	Z

SHUT-IN DATA, PSIA

DURATION	TUBING	CASING
24 Hour	491.2	
48 Hour	506.2	
72 Hour	517.2	

ITEM	SOURCE	113.2	263.2	613.2
1	P <sub>c</sub> <sup>2</sup>	267.5		
2	P <sub>d</sub> <sup>2</sup>	12.8		
3	P <sub>t</sub> <sup>2</sup>	59.1		
4	P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup>	254.7		
5	P <sub>c</sub> <sup>2</sup> - P <sub>t</sub> <sup>2</sup>	208.4		
6	B	1.222		
7	Log B	.087071		
8	n <sub>1</sub>	.577		
9	7 x 8	.050240		
10	B <sup>n<sub>1</sub></sup>	1.123		
11	Q-MCF/D	327		
12	D <sub>1</sub>	367		

- n<sub>1</sub> = Slope of Wellhead Deliverability Curve (P<sub>c</sub><sup>2</sup> - P<sub>t</sub><sup>2</sup> vs Q)  
Q = Actual flow @ end of Flow Period at Wellhead Press., P<sub>t</sub>  
P<sub>c</sub> = Maximum Shut-in Pressure, Psia Observed in a 72 Hour Period  
P<sub>d</sub> = Deliverability Pressure, Psia  
D<sub>1</sub> = Wellhead Deliverability @ Deliverability Pressure (P<sub>d</sub>), MCF/Day

Witnessed By: (Name)
Company:
Tested By: Don Read
Calculated By: Don Read

Company Humble Oil and Refining Company				Lease N.M. G State Batt. 2 No. 2			
Pool Eumont				Start Date of Test December 6, 1968			
P	26	21	36	Lea			
Single	Producing Thru		X	Casing	Top of Pay	Bar. Pressure	Compressor
6-7-68			.500		2640	13.2	On
Gravity		Meter Sta. No.		Acce Factor			
.703		60-687		2.00			

FLOW DATA					FLOWING PRESSURES, PSIA		DURATION OF FLOW HOURS
Prover Line Size	Choke Orifice Size	Static Pressure Psig.	Diff. hw	Temp. °F	Tubing	Casing	
		232			258.2		24

### VOLUME CALCULATIONS

Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure Psia.	Flow Temp. Factor $F_t$	Gravity Factor $F_g$	Super Compress. Factor $F_{pv}$	Rate of Flow Q-MCF/D 15,025 Psia.
						1,028

VOLUME INTEGRATED BY MAIN OFFICE

$$D_i = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_i^2} \right]^{n_1}$$

Pr	Temp. R	Tr	Z

### SHUT-IN DATA, PSIA

DURATION	TUBING	CASING
24 Hour	413.2	
48 Hour	453.2	
72 Hour	473.2	

LINE	ITEM	SOURCE	113.2	263.2	613.2	863.2
	$P_c^2$		223.9			
2	$P_d^2$		12.8			
3	$P_i^2$		66.7			
4	$P_c^2 - P_d^2$	$\bar{1} - \bar{2}$	211.1			
5	$P_c^2 - P_i^2$	$\bar{1} - \bar{3}$	157.2			
6	B	$\bar{4} \div \bar{5}$	1.343			
7	Log B		.128076			
8	$n_1$		.500			
9		$\bar{7} \times \bar{8}$	.064038			
10	$B^{n_1}$	Antilog 9	1.159			
11	Q-MCF/D		1,028			
12	$D_i$	$\bar{10} \times \bar{11}$	1,191			

230 MM  
278 MM

- $n_1$  = Slope of Wellhead Deliverability Curve ( $P_c^2 - P_i^2$  vs Q)  
Q = Actual flow @ end of Flow Period at Wellhead Press.,  $P_i$   
 $P_c$  = Maximum Shut-in Pressure, Psia Observed in a 72 Hour Period  
 $P_i$  = Flowing Wellhead Pressure (tubing if flowing thru tubing and vice versa), Psia  
 $P_d$  = Deliverability Pressure, Psia  
 $D_i$  = Wellhead Deliverability @ Deliverability Pressure ( $P_d$ ), MCF/Day

Witnessed By: (Name)
Company:
Tested By: J. B. Murray
Calculated By: J. B. Murray



# HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT

February 4, 1969

POST OFFICE BOX 1600

SOUTHWESTERN DIVISION

L. H. BYRD  
MANAGER

Request to Consolidate Two Non-  
Standard Gas Units--New Mexico  
"G" State Lease, Eumont Queen  
Gas Pool, Lea Co., New Mexico

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

4066  
Check 4656

Attention: Mr. A. L. Porter, Jr., Executive  
Secretary, Director and State Geologist

Gentlemen:

Humble Oil & Refining Company respectfully requests a hearing before the Commission to consider its application to consolidate two non-standard gas proration units in the Eumont Queen Gas Pool, Lea County, New Mexico. The consolidation will form a standard 640-acre unit comprising all of Section 26, T-21-S, R-36-E. It is proposed that the unit allowable be assigned to the two wells, New Mexico "G" State Wells No. 2 and 4, with permission to produce either well in any proportion.

New Mexico "G" State 2, located 660' from the south line and 660' from the east line, Section 26, was originally completed as an oil well in the Eumont Yates 7 Rivers Queen Pool. In March 1956 it was recompleted as a gas well and assigned the south half of Section 26, as a non-standard gas proration unit, by Commission Order R-748.

New Mexico "G" State 4, located 1980' from the east line and 1980' from the north line of Section 26, was originally completed as an oil well in the Eumont Yates 7 Rivers Queen Pool also. In February 1956 it was reclassified as a gas well and assigned the north half of Section 26, as a non-standard gas proration unit, by Commission NSP Order No. 233.

Well No. 2 is capable of its present allowable with some excess capacity. Well No. 4 is incapable of producing its assigned allowable. It is believed that both wells together will be able to produce the full 640-acre unit allowable.

Yours very truly,

  
L. H. Byrd

RECEIVED

DOCKET MAILED

Date 2-20-69

Date 2-13-69

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4066

Order No. R-3700

APPLICATION OF HUMBLE OIL & REFINING  
COMPANY FOR THE CONSOLIDATION OF TWO  
NON-STANDARD GAS PRORATION UNITS, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 5, 1969,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of March, 1969, 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, Humble Oil & Refining Company, is  
*two 320-acre non-standard proration units*  
the owner and operator of ~~the~~ Lease,  
*comprising all the N/2 and S/2 of Sec. 26,*  
*Summit*  
consisting of Section 26, Township 21 South, Range 36 East, NMPM,  
~~Salinas~~ Gas Pool, Lea County, New Mexico.

(3) That the S/2 of said Section 26 is presently dedicated  
to the applicant's New Mexico State "G" Well No. 2, located in  
*patented to Commission*  
Unit P of said Section 26, *by* Order No. R-748.

(4) That the N/2 of said Section 26 is presently dedicated  
to the applicant's New Mexico State "G" Well No. 4, located in  
*patented to*  
Unit G of said Section 26, *by* Administrative Order NSP-233.

(5) That the applicant now seeks the consolidation of the  
two existing non-standard gas proration units to form one 640-acre

standard gas proration unit comprising all of said Section 26, said unit to be simultaneously dedicated to its aforesaid New Mexico State "G" Wells Nos. 2 and 4.

(6) That the applicant further seeks authority to produce the allowable assigned to the unit from either of the aforesaid wells in any proportion.

(7) That the proposed standard gas proration unit can be efficiently and economically drained and developed by the New Mexico State "G" Wells Nos. 2 and 4.

(8) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the ~~Jalmat~~ <sup>Eumant</sup> Gas Pool, and will otherwise prevent waste and protect correlative rights.

(9) That Order No. R-748 and Administrative Order NSP-233 should be superseded.

IT IS THEREFORE ORDERED:

(1) That, effective April 1, 1969, a 640-acre standard gas proration unit in the ~~Jalmat~~ <sup>Eumant</sup> Gas Pool comprising all of Section 26, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby established and simultaneously dedicated to the Humble Oil & Refining Company New Mexico State "G" Well No. 2, located in Unit P of said Section 26, and to the Humble Oil Company & Refining Company New Mexico State "G" Well No. 4, located in Unit G of said Section 26.

(2) That the allowable assigned to the above-described gas proration unit shall be based upon the unit size of 640 acres; that the operator may produce the allowable assigned to the unit from the subject wells in any proportion; and that the status of said consolidated unit shall be the combined status, as of

April 1, 1969, of the two units being consolidated.

(3) That Order No. R-748 and Administrative Order NSP-233 are hereby superseded.

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

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

# Memo

From  
D. S. NUTTER  
CHIEF ENGINEER

To Humble Oil & Refg Co  
request to consolidate  
2 non-std gas units  
Summit Gas Pool,

1st unit -  
NM St A #2 660 FSL  
660 FEL

26-215-36 E

320 5/2 Sec 26  
ac

NM St A #4 1980 FNL  
1980 FEL

320 N/2 Sec 26

Combine units into std 640 ac  
use both wells to prod unit allow;