

111-10-7

MEETING OF THE NEW MEXICO OIL CONSERVATION
COMMISSION

Held in the Supreme Court rooms
at the Capitol Building, Saturday
June 19, 1937, at 9 o'clock A.M.

PRESENT: Governor Tingley, Chairman;
Frank Worden, State Land Commissioner, Secretary;
G. D. Macy, State Geologist;
Dr. E. H. Wells, President of the School of Mines;
A. Andreas, Jr. Assistant State Geologist;
C. G. Staley, State Pro-ration Umpire.
Carl Livingston, Attorney for the Oil Conservation
Commission.

Meeting called to order by Governor Tingley,
with the following remarks:

"This meeting was called for the purpose of considering
general rules and regulations for carbondioxide fields in the State
of New Mexico and special rules and regulations governing the
Bueyeros field in Harding County. It was called pursuant to
Chapter 193, Session Laws of 1937.

With the growing importance of the carbon dioxide industry
in the State of New Mexico, we deemed it very necessary that a
public hearing be called on rules and regulations as to drilling
programs, etc., for the purpose of adequately conserving this
valuable natural resource, and the protection of this new industry."

Thereupon, due to pressing business, the Governor turned
the meeting over to Mr. Worden, Land Commissioner and the follow-
ing proceedings were had, to-wit:

At the request of the Land Commissioner, the official
call for the meeting and the rules and regulations for carbon
dioxide fields in the State of New Mexico, were read by Mr. Macy,
as follows:

"NOTICE FOR PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Pursuant to Chapter 193, Session Laws of New Mexico, 1937, State of New Mexico, by which Act the Oil Conservation Commission of New Mexico was vested with the authority and duty of regulating and conserving the production of and preventing waste of Carbon Dioxide (C.O.2) Gas within this state in the same manner, insofar as is practicable as it regulates, conserves and prevents waste of natural or hydrocarbon gas, and by which said Act the provisions of Chapter 72, Session Laws of New Mexico, 1935, relating to gas, or natural gas, were made to apply to Carbon Dioxide (C.O.2) gas, insofar as the latter said provisions of law are applicable, notice is hereby given that a public hearing will be held at the Capitol, Santa Fe, New Mexico, on the 19th day of June, 1937, at 9:00 A.M. for the purpose of considering the following:

Case No. 7.

(a) The devising and the adoption of general rules and regulations for Carbon Dioxide (C.O.2) gas for the entire area of New Mexico.

(b) The devising and the adoption of special rules and regulations for Carbon Dioxide (C.O.2) gas for the area of Harding county.

(c) The devising and the adoption of special rules and regulations for Carbon Dioxide (C.O.2) gas for the area of Tarrant county.

Any person having any interest in the subject of the said hearing shall be entitled to be heard.

Given under the seal of said Commission at Santa Fe
New Mexico, on May 27, 1937.

OIL CONSERVATION COMMISSION

(signed) Clyde Tingley,
Governor.

(SEAL)

(signed) Frank Worden
Commissioner of Public Lands

(signed) G.D. Macy
State Geologist."

"NEW MEXICO OIL CONSERVATION
COMMISSION

ORDER NO. 67

RULES AND REGULATIONS FOR CARBON DIOXIDE FIELDS
IN THE STATE OF NEW MEXICO

EXPLANATION

These general and special rules and regulations for
the Carbon Dioxide fields, in the State of New Mexico, were
adopted by the Commission _____ and became effective

GENERAL RULES AND REGULATIONS

The general rules and regulations of the New Mexico
Oil Conservation Commission in Circular 1, "Oil and Gas Conserva-
tion Law and General Rules and Regulations for the Conservation
of Oil and Gas in New Mexico," shall apply to all present and
all future wells in the Carbon Dioxide fields in the State of
New Mexico, except as such rules and regulations are modified or
amplified herein to meet the special conditions in the various
fields and to control and prevent waste in these fields.

BONDING REQUIREMENTS

Before Form C-101, "Notice of Intention to Drill," is granted or approved by the Oil Conservation Commission, it will be necessary for the operator to have on file with the Oil Conservation Commission an approved and accepted corporate surety bond in the principal amount of \$5,000.00 for an individual well or a blanket corporate surety bond in the principal amount of \$10,000.00 where the operations cover more than one well. Each such bond shall be executed by a responsible surety company authorized to transact business in the State of New Mexico.

When the well or wells involved, or any such wells, are located on a State oil and gas lease, and the surface of the land involved was sold by the State prior to such oil and gas lease, such bond may, at the election of the principal, be conditioned not only for the plugging of such well or wells as above provided, but also to secure the payment for such damages to the livestock range, water, crops or tangible improvements on such land as may be suffered by such purchaser or his successors in interest by reason of the development, use and occupation of such land resulting from such oil and gas leases.

Any bond conditioned as provided in the last preceding sentence must be approved, not only by the Commission, but by the Commissioner of Public Lands in his capacity as such.

All liability on bonds conditioned for the plugging of a well or wells shall continue until the plugging of such well or wells is completed and approved. Bonds conditioned to protect surface owners as aforesaid shall cover liability incurred during the entire period of oil and gas operations by the principal on the lands involved.

The Commission will, in writing, advise the principal and sureties on any bond conditioned to plug wells, as to whether the plugging is approved, in order that, if the plugging is ap-

proved, liability under such bond may be formally terminated.

Forms of bonds which will be acceptable will be furnished by the Commission.

PRODUCTION UNITS AND SPACING REGULATIONS

The production unit for the Carbon Dioxide fields is hereby established as a 40-acre tract or lot as determined by U.S. Government surveys, and no wells shall be drilled in excess of one to each such tract and no location shall be made closer than 330 feet from any two of the boundary lines of such subdivisions.

WRITTEN NOTICES, REQUESTS AND REPORTS

Written notices, requests and reports shall be required by the Oil Conservation Commission as provided for in Circular 1 of the Commission, Rules 21 to 38 inclusive. Forms to be used in this connection, to be furnished by the Oil Conservation Commission, include:

- First-Surety Bond (See "Bonding Requirements", Page__)
- Form C-101. Notice of Intention to Drill.
- Form C-102. Miscellaneous Notices.
- Form C-103. Miscellaneous Reports on Wells.
- Form C-104. Operator's Monthly Report of Operations.
- Form C-105. Well Record.
- Form C-106. Request for Permission to Connect with Pipe Line.
- Form C-107. Purchaser's Monthly Report.

In the case of wells on lands belonging to the United States, copies of notices and reports to the proper officials of the United States will be accepted in lieu of these forms.

CASING TESTS FOR ALL FIELDS

The surface casing string shall be tested after drilling plug by bailing the hole dry. The hole shall remain dry for ten hours to constitute satisfactory proof of a water shut-off. The surface casing shall stand cemented at least 36 hours before drilling plug. The intermediate string shall stand cemented not less than 48 hours before testing. The hole shall remain dry for ten hours to constitute satisfactory proof of a water shut-off. This test shall be made both before and after drilling plug. The production string shall stand cemented not less than forty-eight hours before testing. The hole shall remain dry for ten hours to constitute satisfactory proof of a water shut-off. This test shall be made before drilling plug and also after drilling plug, if practicable.

All cementing shall be done by the pump and plug method.

Bailing tests shall be used on all casing and cement tests. In making bailing tests, the well shall be bailed dry and remain dry for approximately ten hours.

If any string of casing fails while being tested by bailing tests herein required, it shall be recemented and retested, or an additional string of casing shall be run and cemented. If an additional string is used, the same tests shall be made as outlined for the original string. In submitting Form C-101, "Notice of Intention to Drill," the number of sacks of cement to be used on each string of casing shall be stated.

SPECIAL CASING PROGRAM

At wells in the Carbon Dioxide fields of the State of New Mexico where the general and special rules and regulations are not applicable because of exceptional conditions, the Commission may approve special casing programs upon request and provided adequate proof is submitted to justify such special programs

and to assure the prevention of waste.

SURFACE EQUIPMENT

Meter settings and recording meters of adequate size to measure efficiently the gas produced shall be installed by the operator on each and every producing well. These meters shall be subject to check at all times by the Oil Conservation Commission.

Well head equipment and suitable pressure gauges shall be installed and maintained in first class condition at all times. All well head equipment consisting of the following: one master gate installed in cellar, one high pressure 2-inch gate installed at well head and such other equipment and connections and surface lines that the Oil Conservation Commission shall deem necessary, which shall test over 1000 pounds working pressure and be subject to the inspection and approval of the Oil Conservation Commission at all times.

All plant plans and designs, plant equipment and connections in present plants in this field and in any future plants which may be constructed shall be subject to the inspection by and the approval of the Oil Conservation Commission.

DEVIATION TESTS

When the deviation from vertical in any 500-foot interval averages more than 5° the hole shall be straightened.

CONFLICTS BETWEEN GENERAL AND SPECIAL RULES AND REGULATIONS

In case of conflict between a general and a special rule or regulation, the special rule or regulation shall prevail without regard to the effective dates of the respective rules or regulations, unless the contrary is clearly prescribed by the Commission. (Rule 41, of Circular No. 1 - General Rules and Regulations for the Conservation of Oil and Gas in New Mexico)

SPECIAL RULES AND REGULATIONS FOR THE BUEYEROS
FIELD, HARDING COUNTY, NEW MEXICO.

CASING AND CEMENTING PROGRAMS

Commercial producing horizons in the Bueyeros field as determined by present drilling are between the approximate depths of 800 feet to 1000 feet and 1500 feet to 2100 feet.

In order to protect these horizons and the various waters encountered, the following casing and cementing programs shall be followed:

Casing programs for the Bueyeros field shall consist of (A) a surface casing string. (B) an intermediate casing string, except as hereinafter provided, and (C) a production casing string.

A. Surface Casing String.

In order to protect the fresh water supply, the surface casing string shall be set at least 10 feet below any water encountered under 300 feet and cemented back to the bottom of the cellar.

B. Intermediate Casing String.

The intermediate casing string, if considered necessary by the Oil Conservation Commission shall be set below the first commercial producing horizon and shall be cemented with 150% of the calculated amount to bring the cement to the bottom of the surface string.

C. Production Casing String.

The production casing string shall be set and cemented on the top of or in the producing horizon, as ordered by the Oil Conservation Commission. This string shall be cemented with 150% of the calculated amount to bring the cement to the bottom of the next larger string. The present known thickness of the first commercial horizon is approximately 50 feet and the second known horizon between 50 feet and 100 feet. In no case shall the operator drill more than two-thirds of the distance through the horizon he intends to produce from."

Thereupon A. ANDREAS was called and having been duly sworn by the Land Commissioner, testified as follows:

EXAMINATION BY MR. LIVINGSTON

Q Mr. Andreas, state your name and profession?

A Alexander Andreas. Petroleum Geologist.

Q With whom are you employed at the present time?

A The Oil Conservation Commission, Bureau of Mines.

Q Please tell the court what training and experience you have had as an Oil Petroleum Geologist?

A I have taken three years in college and been working at the profession since 1918.

Q In general, Mr. Andreas, in what states and what fields?

A I have worked in Kansas, Oklahoma, Texas, New Mexico, Columbia Venezuela and Trinidad South America.

Q Have you had experience particularly in the New Mexico oil and gas fields?

A Yes, sir.

Q Are you familiar with the carbon dioxide fields in New Mexico, such as the Bueyeros field?

A Yes, sir.

Q And the fields in Torrance county and the Estancia valley?

A No, sir, I am not familiar with that field over there.

Q In general what has been your experience in the Bueyeros field?

A I have been in the Bueyeros field ever since Mr. Curns drilled his first well and have followed closely the development up to the present time.

BY MR. LIVINGSTON: If the court please, the purpose of that examination was to qualify the witness as an expert and with the court's leave I will now proceed to examine the witness specifically in direct examination.

Q Mr. Andreas, with reference to the prevention of waste, taking into consideration the chemical operation for the development and protection of carbon dioxide gas, please tell the court your ideas of casing tests of all fields. This question is applicable to the state as a whole.

A Well, primarily the surface waters, or waters that could be used for stock purposes should be protected by what we call surface string casing. That should be protected from the bottom of the casing up to the cellar in order to protect this surface

water. If deeper production is encountered below the surface water this string or surface casing should also be cemented. That holds proper for all fields. After the string or casing is set that should be allowed to stand for 36 to 48 hours before being drilled. After it has set for that specified amount of time the casing job should be tested by running the baler into the hole. If water has seeped into the hole after the cementing job is done, the cement job should be repeated until the oil or water horizon is reached. The oil producing horizon should be protected by a cement job. This will also apply to the Bueyeros field.

Q Mr. Andreas will you now please answer this question to the court. What is your opinion as to what rules and regulations should be adopted for the development and operation of carbon dioxide gas with reference to the state as a whole as to a special casing program to fit some unusual and exceptional condition?

A Well, if there is an unusual and exceptional condition that will probably be brought before the Oil Conservation Commission. In general the casing program would be as outlined in the previous question.

Q Then you think if there is such an exceptional condition that it should be brought to the attention of the Oil Conservation Commission and that that Commission should pass upon such request for special program?

A Yes, sir.

Q Please tell the court your opinion with reference to surface equipment for carbon dioxide development and production as to the State as a whole?

A A producing well, if it is a commercial well, the waste should be prevented by installing meters. also recording meters which will record the amount of production and in one of the wells that has already been drilled in that field it has been estimated there is 600 pounds pressure therefore all meter installings in the Bueyeros field should have a working pressure of 1000 pounds. Also, there should be a master gate installed below the cellar where it is easily accessible, and a gate valve, about two inches. They should make that standard because these pressures are going to be taken and we will have a pressure guage that will fit all standard two inch fittings. In other words, the fittings should be a thousand pounds working pressure and two inch fitting to accommodate the pressure tests equipment.

Q With reference to meters, why do you think meters would be necessary in the production of carbon dioxide gas?

A Well, the meters are used to record the amount of production that the gas has developed in the field.

Q And that would be beneficial to whom?

A It would be beneficial to the land owners, the state, the royalty owners and owners of the wells if they sold their gas to any other corporation.

Q What is your opinion with reference to deviation tests in the development and production of carbon dioxide gas as to the state as a whole?

- A The hole should be straightened and if there is more than a five degree deviation vertical it is quite possible that the man drilling a crooked hole could divert his hole under the other adjacent land on his property.
- Q Then by having the proper deviation tests and having them carried out it would allow each owner of his particular producing unit to have his equitable and fair share of carbon dioxide gas?
- A Yes, sir.
- Q Now with reference to the Bueyeros field in particular, these questions. What casing and cementing program would you recommend for that particular field; first, with reference to surface string; second, with reference to intermediate surface string; third, with reference to production casing string. And please state the producing horizons in that field and the approximate thickness and where they are to be encountered.
- A The surface casing should be set below any water encountered under 300 feet and cemented in the bottom of the casing to the cellar. Below 300 feet, around 800 to a thousand feet is the carbon dioxide horizon. If production is to be used from this upper horizon, besides the surface string casing this first horizon should be drilled into this commercial horizon and a string of casing set at the top or in the horizon and the casing cemented from the bottom of the casing to the bottom of the surface string of casing already set. This horizon has been estimated to be approximately 50 feet thick and the well should not be drilled any more than two-thirds into this horizon because two wells already drilled through this horizon have encountered water. If the deeper horizon is to be drilled this intermediate casing should be drilled through the first horizon and then cemented from the bottom to the bottom of the surface casing. On the production string, or to the second horizon, the same procedure should be used. That lower horizon is estimated from sub-surface development drilling, to be approximately 50 to 100 feet thick. This also should be drilled only two-thirds into the horizon and production into this horizon should be also cemented from the top or in the second horizon, to the bottom of the intermediate string. If the intermediate string isn't used then the casing should be cemented to the bottom of the surface casing and the amount of cement to be used should be approximately 150 percent of the calculated amount to cement from the bottom of the casing to the bottom of the next larger string.
- Q This question is with reference to the state as a whole. What spacing of wells should be adopted for carbon dioxide wells, bearing in mind that the usual spacing adopted for all and various, is in 40 acre tracts, or legal subdivisions?
- A That same rule should apply to the carbon dioxide field in Bueyeros.
- Q What is the closest to the unit line or 40 acre tract a well should be permitted to be spudded in, or drilled?
- A The closest would be 330 feet from the two boundary lines of that particular tract.

BY MR. LIVINGSTON: If the court please, I suggest the witness now be passed back to Mr. G.D.Macy for further direct examination, if there are any questions I may not have covered.

Q (By Mr. Macy) Mr. Andreas, you made, under the direction of the Oil Conservation Commission, within the last month a careful survey of the entire Bueyeros field, did you not?

A Yes, sir.

Q Do you consider the rules and regulations which you have heard read here applicable to the carbon dioxide industry in the state, and particularly to the Bueyeros field?

A Yes, sir.

BY MR. MACY: That is all I think. I will turn the witness over for any examination by the operators present.

Q (By Mr. G.W.McFann:) Mr. Andreas, you mention cementing your surface string of casing down to 300 feet. In the Bueyeros field the drilling that has been done so far where you are down off structure a little it is practically impossible to do those things for the reason that you carry water and gravel in your pipe. Water and gravel is down in there and it is impossible to cement from the bottom of the string to the top or bottom of the cellar. In other words, theres wells down there I don't believe you will ever successfully cement because of the mud we have in those wells down there. You may put cement in there but I don't think you will ever get a cement job in that formation that will be perfect.

A You mean that will come up? Up to the cellar?

Q No, I mean if you get good circulation, you have got to get that to start. When you get circulation that will not go through. In other words, it will just channel through. You will have channels in that pipe. The only place to cement is where the channel has worked through, to get good pressure. There are some places where you can go on and drill where you don't have that condition. That is fine. In Topeka(?) we ran into a gravel and water formation there and there was no possible way to cement any of that. It was beyond cementing. We put on 12 to 1400 pounds pressure to drill to get circulation and couldn't get it. Regardless of whether you have got the means or not, there is no possible way to overcome that condition.

A It would be at the discretion of the Inspector to approve of any deviation of that cementing program.

BY MR. MACY: Mr. Andreas, isn't that question Mr. McFann brought out covered in the rules and regulations which we propose to adopt? In other words, there is enough leeway in there that the Inspector we expect to have there can use his own judgment. If they can't cement one way, they can get the water out off another. Isn't that right?

A Yes.

BY MR. MCFANN: That is proper. That is all right. I don't know of any other questions to ask Mr. Andreas. He is very familiar with what is going on, I think better acquainted with what is going on than any other person. He has got all the information we have got, so he should be very well versed.

Q (By Mr. Timmons) We were a little late. On the bonds; are they the same as the regular requirements?

A (By Mr. Macy) Exactly the same. The bond set out by the Conservation Commission covers not only the Bueyeros field but every other field in the state.

Q I was just wondering if there was any deviation from any other field in the state.

A Exactly the same.

Q (By Mr. Guthman) Relative to the bonds. Will your office designate acceptable bonding companies? Surety companies?

By Mr. Worden: I imagine we pass on that.

By Mr. Guthman: Will there be a list available?

By Mr. Worden: Yes. We have at the present time a number of companies listed with us that are bonding the operators in the various fields at this time.

By Mr. Livingston: The reason, Mr. Guthman, that a licensed bonding company is required is because the state may be required to sue upon the bond and they would have to have a hearing. Only those companies under the law are authorized to do business who are licensed by the corporation commission and have \$25,000 in securities up with the State Treasurer to take care of any obligations. The Insurance Commission supplies the Oil Conservation Commission with a list of companies in good standing and the Commission supplies anyone with a copy of that list.

Q (By Mr. Curns) Mr. Andreas, the approximate, or the exact distance from the boundary line, speaking now,--supposing the state has certain acreage and fee land adjoining and one wanted to drill on the state land or fee land, how close could they go to the boundary line?

A 330 feet.

Q I was thinking when I was talking last time it was 600 feet.

A That was from the center of the 40. But if you drill in the center of the 40, 660 feet from both boundary lines. That would be one well to each 40 acre unit. But if you drill your well 330 feet from the two boundary lines that would be one well you could drill in that 40. For instance, on an offset lease, if you get a well you don't want to get as close as possible to that well. As near as you could get would be 330 feet.

Q (By Mr Timmons) Did I understand on state lots for instance, the unit would be considered whatever the lot would be? Would that be whether 40 or 30 or 13?

A (By Mr. Macy:) That would be a special case and would have to be taken up with the Commission.

DR. E. H. WELLS, having been sworn by the Land Commissioner testified as follows:

EXAMINATION BY MR. LIVINGSTON

- Q State your name and profession?
- A E.H.Wells. Graduate from the University of North Dakota in mining engineering. Have been President of the New Mexico School of mines since 1921. Have held the position of director of the New Mexico Bureau of Mines and Mineral Resources since 1927; served as State Geologist in charge of conservation work in 1925 and 1926 and from 1931 to 1935, and also served as State Geologist and member of the Oil Conservation Commission in 1935 and 1936.
- Q With such experience and training have you had actual experience with New Mexico Oil and gas fields?
- A I have had considerable experience with them both in connection with the Bureau of Mines work, particularly in connection with the bulletin which the Bureau prepared, or the bulletin which the Bureau issued which was prepared by D.D.Winchester, who is a well known authority on oil and gas, and I worked in fairly close association with him in the preparation of that bulletin so that I have a pretty fair knowledge of the geological conditions throughout the state and the occurrence of carbon dioxide gas; and in that connection, carbon dioxide was considered in moderate detail by Winchester in that bulletin which the Bureau issued. And I have had considerable experience in drawing up rules and regulations for gas and progress and conservation in connection with the various oil fields in the state.
- Q Have you any knowledge with reference to particular carbon dioxide fields in New Mexico, such as that in the Estancia Valley, which is in Torrance county, and the one in Hardind county, known as the Bueyeros field?
- A My knowledge of those fields is very largely from the custody of authentic and reliable reports, and also from well records in those fields.
- Q Carbon dioxide gas, as a gas, does it substantially follow the same rules as gas of the hydro-carbon kind in accumulating in structures and other reserves ^{ours} for such gas?
- A Yes, it does. It follows the ordinary rules of accumulation occurring in the tops of domes and migrating upward through water and also oil, if any should be present.
- Q Dr. Wells, you heard the proposed rules read by Mr. G.D.Macy, the rules proposed for the governing of production of carbon dioxide gas in New Mexico, and with reference in particular to the Bueyeros field, did you not?
- A Yes.
- Q What is your opinion as to the advisability of adopting them substantially as suggested?
- A Why I consider them fair to the operator and adequate to conserve the gas and prevent its damage in the formations in which it occurs from encroaching waters.

BY MR. LIVINGSTON: Thank you. If the court please, the witness is now passed back to Mr. Macy for further direct examination.

Q (By Mr. Macy) I have only one question, Doctor. You assisted and gave us your advice in making these rules and regulations. Do you consider them applicable to the industry in the State of New Mexico?

A I do.

BY MR. WORDEN: Do any of you gentlemen want to ask Dr Wells any further questions?

BY MR. LIVINGSTON: If the court please, maybe some of the gentlemen present have some witness they would like to put on the stand to give us their facts.

BY MR. MCFANN: I asked one question. I think I understand it thoroughly. That was in regard to your rules in that particular area where you come up against certain conditions. There has been provision made to overcome that. That is as I understand it.

BY MR. MACY: Mr. McFann, , under these rules and regulations if you run into unusual cases out there it has to be passed to your Conservation Commission through the inspector and there is enough leeway so care can be taken of any condition that may arise.

BY MR. MCFANN: That is what we have to have out there. As I have seen the field up to the present time, different parts of the field has different conditions and if you are in shape to handle the field in that way there is no question I know of. Mr. Andreas understands that part of it. I just wanted to get it right.

BY MR. WORDEN: Mr. Andreas will be with you people over there a good part of the time in the future and we assure you the Commission and the Land Office will be only too glad to cooperate with you in every way and in case certain problems come up that deviate from the usual drilling problems if you will notify us we will have the best men we have in our set-up on the ground to help you with any knowledge or any suggestions that they may have to overcome those conditions.

BY MR. MCFANN: There is no question then about getting along and working things out.

BY MR. STALEY: Mr. Chairman, in regard to the surface connections. I represent the operators in Lea county and also have charge of the engineering committee that passes upon, or makes recommendations regarding, remedial work or conservation of gas in the production of oil and to a certain extent the conservation of gas. The same principles we use will apply to the carbon dioxide field.

In the rules and regulations here you will note that they require a master gate in the cellar and a high pressure 2 inch gate at the top. The reason for that is that the pressure of the well and the volume, or its ability to produce, has a direct connection so that the bottom hole pressure--that is the pressure at the bottom hole is your indication of what that well is doing, or is capable of doing, and your meter will give you the amount of gas produced. Your depth pressure will give you the amount of gas produced per pound drop, therefore I think it is very important that the equipment--that the wells be so equipped that

from time to time the Commission can come in and run a bottom hole pressure guage and give you information that will be very valuable to you, which is the amount of gas produced per pound drop in your formation.

Q (By Mr. Curns) Mr. Worden, in reducing that to a two inch connection, what effect will that have? As I understand they want to take a larger flow out of the two inches direct into the plant?

BY MR. WORDEN: That question should be answered by some of the engineers.

BY MR. CURNS: I wondered how that would be overcome, Mr. Andreas?

BY MR. ANDREAS: Well, it is necessary to have a four inch outlet in order to transport the gas into the plant. There is no reason why we couldn't change that from two inches to four inches if more applicable.

BY MR. MACY: I don't believe there is anything in there, Mr. Curns, in which you can't make a change. It is more or less up to the Inspector.

BY MR. CURNS: I think Mr. Andreas understands that, of course, if he came out there. Anyone else hasn't the knowledge.

BY MR. ANDREAS: On a two inch, that would be very inconvenient, wouldn't it?

BY MR. CURNS: Yes, unless we were prepared.

BY MR. MACY: The state is just as much interested in the safety of the various wells of the plant as they are in the conservation of the product, and it needs some attention out in the Bueyeros field so that is the reason for us making the surface equipment regulation and I think there is enough leeway so that the Inspector, whoever he is, out there, can take care of the situation without any trouble.

BY MR. ANDREAS: Whatever you do in the field, the procedure should be standardized--the same for all wells.

After further informal discussion, the meeting adjourned.