BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1143

TRANSCRIPT OF PROCEEDINGS

September 6, 1956

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO
September 6, 1956

IN THE MATTER OF:

CASE NO. 1143: Application of Stanolind Oil and Gas Company for an order granting permission to complete two wells in the Hogback-Dakota Field, San Juan County, New Mexico, without the use of producing tubing in exception to Rule 107 (c) of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, proposes to utilize 3½ inch tubing as the production casing string and to complete, without the use of a producing tubing string, its proposed USG Section 19-29-16 Well No. 15 located 1600 feet from the North line and 2374 feet from the East line of Section 19, Township 29 North, Range 16 West, and its proposed USG Section 18-29-16 Well No. 16 located 900 feet from the South line and 1750 feet from the East line of Section 18, Township 29 North, Range 16 West, all in San Juan County, New Mexico.

BEFORE:

Warren W. Mankin, Examiner

T R A N S C R I P T O F P R O C E E D I N G S

MR. MANKIN: The next case, and the last case, is Case 1143.

MR. GURLEY: Application of Stanolind Oil and Gas Company for an order granting permission to complete two wells in the Hogback-Dakota Field, San Juan County, New Mexico, without the use of producing tubing in exception to Rule 107 (c) of the New Mexico Oil Conservation Commission Rules and Regulations.

MR. NEWMAN: I am Kirk Newman, with Atwood and Malone, Roswell, representing Stanolind Oil Company. We have one witness, J. W. Meek. (Witness is sworn.)

J. W. MEEK

called as a witness on behalf of the applicant, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. NEWMAN:

MR. NEWMAN: We have these exhibits we will offer later.

Q Will you state your name, please?

A J. W. Meek.

Q By whom, and in what capacity are you employed?

A I am employed by the Stanolind Oil and Gas Company in their District office in Roswell, New Mexico, as a Petroleum Engineer.

Q Have you previously testified as an expert before this Commission? A Yes, I have.

MR. NEWMAN: Are the witness' qualifications accepted?

MR. MANKIN: They are acceptable.

Q (By Mr. Newman) Are you familiar with the application in this case? A Yes, I am.

Q Will you please state the purpose of this application?

A The purpose of this application is to obtain an exception to Rule 107 (c) in order to drill two slim holes on the Hogback-Dakota Field well to be completed without the use of tubing.

Q Have the limits of the Hogback-Dakota Pool been defined by the Oil Conservation Commission?

A Yes, the New Mexico Conservation Commission defined the Hogback-Dakota Pool as South half of Section 18, all of Section 19, Township 29 North, Range 16 West, San Juan County, New Mexico.

Q Do you have there a plat of the Hogback-Dakota Pool showing the area covered by the leases owned by the Stanolind Oil Company?

A Yes, I do. The acreage shown on the plat, the Stanolind acreage on the plat is shown by the cross hatching.

Q Is the entire Hogback Pool as now constituted in all tracts continuous with the pool covered by the leases owned by the Stanolind Oil Company? A Yes.

Q Is it all common under oil of the Stanolind leases in the pool?

A It is common in the Hogback Pool.

Q Would you explain to the Commission the meaning of the contour line on the plat showing the acreage of the Stanolind stating the formation of the contour?

A The contour line shown on the map represents the structural interpretation as determined from the sample logs on the wells drilled in the area. The contour interval is ten feet.

Q Would you give us, briefly, the history of the Hogback Pool and its development?

A The Hogback-Dakota Pool was discovered in 1922 and development proceeded. As you can see on the map, from 1923 through 1925, several wells were drilled in the area, but only seven were successfully completed during that time. This constituted the extent of the development until 1953, USG 19-14 was successfully completed to comprise the eight in the field.

There are currently eight wells producing in the field now, which produce some 230 to 240 barrels of oil per day. All the wells flow and the field is known as non-prorated. The producing formation, which is the Dakota, is found in this field in relatively shallow depths, some six to eight hundred feet, depending on the surface terrain, as the topography is rugged. The recovery mechanics is extremely active water dry. The bottom hole pressure was estimated 455 and the pressure survey taken on two wells in 1953 -- the average of those two pressures was 430 pounds at a datum of plus 4360. The field well indicates that there has been little or no pressure declined. As mentioned previously, all the wells in the field flow and it is anticipated that they will flow to depletion, due to the active water drive in the present reservoir with the exception of well No. 14 all the wells were initially drilled with cable tools and during, oh, about the first twenty years of the field life they were produced by flowing through their casings. In the year 1944 a remedial program was initiated in the field to install packers, run tubing and install packing to protect the old casing strings that were in those original wells. We did that in order to protect the old pipe that was used on those original wells. The pipe was old and somewhat inferior grade of casings compared to what we now have available. And that was done on all but one well in the field. The Hogback-Dakota field is considered rather unique by virtue of the strong water drive and the fact that there is no measurable gas produced. In fact, from an operational standpoint, in the early years of the producing life of the field, it was necessary for us to purchase

coal for use in the lease house and we continued with that practice until the advent of LPG, which is currently in use on the lease. I believe that is all.

Q Do you have a cross section drawing of the proposed casing program for the wells included in this application?

MR. GURLEY: Do you wish this to be your Exhibit 1?

MR. NEWMAN: I will offer this, and the others will be our last Exhibit, will be Exhibit 2.

Q The question was, do you have a section drawing of the proposed casing program of the wells included in this application?

A Yes, I do.

Q Will you explain to the Commission how Stanolind proposes to drill and complete the well in this application?

A If you will refer to this sketch we propose to drill a ten inch hole to approximately 60 feet and set a seven inch surface string which will be cemented to the surface. Drill out from underneath the surface string 5 1/8 inch hole to the top of the Dakota. We will then set a 3½ inch oil string, which again will be cemented to the surface, drill out the shoe, take a minimum penetration to complete in the Dakotas and complete the well flowing through this 3½ inch oil spring casing.

Q From the point of view of the conservation of oil or of the conservation of reserve reservoir energy, is there any reason why tubing will be needed in the new wells in this pool?

A No, due to the strong nature of the water drive present in the reservoir, the fact that we have no gas in the solution and since we anticipate that the wells will flow to depletion

there is no need for tubing in these slim hole completions.

Q Will you state the reason that some of the wells in this pool do have both casing and tubing?

A Well, I think I mentioned previously that most of the tubing strings were run to set packers to remedial measures, to protect the old casing which was set during the original completion.

Q Are there any wells in the pool still producing through the casing?

A Yes, we have one well in the pool which is now flowing through the casing, but we have a new string of casing which was run inside the old string.

Q If, for any reason, good old field practices require the running of tubing in the proposed well, could tubing be run?

A Yes, we could run a 1¼ inch tubing string.

Q Did you state that the tubing in the well would serve no useful purpose? Are there any reasons why the tubing is undesirable?

A Well, first, we consider the use of tubing as unnecessary, as an unnecessary use of steel, and, secondly, due the size limitations, they probably would require special equipment in the event, during the completion, it was necessary to swab the well through the small 1¼ inch tubing.

Q Have you made an estimate of the cost under the slim hole program as opposed to -- as compared to the cost of a normal operation with a large hole in both casing and tubing runs?

A Yes, it is estimate it would cost approximately $5800

for the proposed slim hole completions as compared to something in excess of twice that amount for the conventional completion utilizing 5½ inch casing and 2 inch tubing.

Q Have you made any economic study to determine whether it is economically feasible to drill a well at the lower cost or whether it is economically feasible to drill a well at the higher cost?

A We have determined drilling the lower cost well economically feasible; however, we have been unable to determine to our satisfaction how the drilling of a higher cost well would be justified.

Q Where is the oil from this pool marketed?

A The oil from this pool is marketed at Continental Refinery in Farmington, N. M., which was specifically designed to handle the high gasoline content produced from the Hogback, Rattlesnake and Table.

Q Do you have a request for additional oil production from this pool?

A Yes, we do. We have a request for an additional 100 barrels per day from the Hogback.

Q Could this additional oil be produced from the existing wells in the pool?

A No, from our experience, over thirty years, in over thirty years of operating in the field we have determined the most efficient rate to produce each well, which we are doing, the wells are individually rate sensitive, where the field is not.

Q Would the correlative rights be affected by the granting of

this order? A No, they would not.

Q Would the granting of this order permit production of additional oil without, thereby, preventing underground waste?

A Yes, it would.

Q Would the granting of this order prevent economic waste unless casing and tubing would be required to drill the wells?

A Yes, it would.

Q Were the exhibits, these plats and cross sections of the proposed completion prepared by you or under your direction?

A They were.

MR. NEWMAN: I would like to submit these exhibits, 1 and 2, as a cross section of the proposed completion procedure.

MR. MANKIN: Is there any objection to entering Exhibits 1 and 2 in this case? If not, it will be so entered.

MR. GURLEY: I have one question. You stated that all the ownership was common under this land. Is that the Navaho Tribal lands? A Yes.

MR. MANKIN: Any further questions of the witness? If not, the witness may be excused.

(Witness is excused.)

MR. MANKIN: Is there any statement to be made in this case? If not, we will take the case under advisement. The hearing is adjourned.

REPORTER'S CERTIFICATE

I, LOUIS R. GUEVARA, do hereby certify that the foregoing and attached Transcript of Proceedings, pages numbered 2 through 9, were reported by me in Stenograph at the time and place aforesaid; that the same was reduced to typewritten transcript by me and contains a true and correct record of said proceedings to the best of my knowledge, skill and ability.

DATED this 17th day of September, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Louis R. Guevara

LOUIS R. GUEVARA, COURT REPORTER

NEW MEXICO OIL CONSERVATION COMMISSION

1000West Broadway

Hobbs, NEW MEXICO

REGISTER

HEARING DATE Sept. 6, 1956 TIME: 10:00 a.m.

NAME:	REPRESENTING:	LOCATION:
[illegible]	[illegible]	Roswell
[illegible]	"	"
[illegible]	✓	✓
E. P. Hamilton	Shell Oil Co.	Hobbs.
M. McCague	SHELL OIL CO.	HOBBS
[illegible] L. WARD	Stanolind Oil & Gas	Roswell
L Kelley	Atkinson & Malone - for Stanolind	Roswell
[illegible] Neumann	STANOLIND OIL & GAS CO.	ROSWELL N.M.
[illegible] Mack	Tom Boyd & Jack Blewman	artesia N. Mex
Tom Boyd	attorney for Tom Boyd & Jack Blewman	Artesia
Neil B. Watson	Amarada	Monument
W F Abbott	✓	Midland
Hawkwood	✓	Tulsa Okla
R. S. Christie	OCC	A6665
R J Montgomery	-	Hobbs
Mrs. C. D. Biggs	N. Mex. Oil & Gas Engr Comm	Hobbs -
Geo. Hinchfield	Humble	
R C. Healdf		