

CASE 3421: Application of HANSON
OIL CO. for an exception to Com-
mission Order R-111-A, Lea County.

Case Number

3421

Application
Transcripts.

Small Exhibits

ETC.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

July 11, 1966

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3420
3421
Order No. R-3087 & R-3088
Applicant:

Standard & Hanson

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC

OTHER Order R-3087 to OCC - Artesia

**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. 3421
Order No. R-3088**

**APPLICATION OF HANSON OIL COMPANY
FOR AN EXCEPTION TO COMMISSION ORDER
NO. R-111-A, LEA COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 29, 1966, at Santa Fe, New Mexico, before Examiner Daniel S. Butter.

NOW, on this 11th day of July, 1966, 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, Hanson Oil Company, seeks approval of a special cementing and casing program for its Federal "R5" Well No. 2 to be drilled in Unit G of Section 21, Township 20 South, Range 34 East, NMPM, Middle Lynch-Yates Pool, Lea County, New Mexico, as an exception to the casing and cementing rules prescribed for the Potash-Oil Area by Order No. R-111-A.

(3) That the proposed drilling, casing, cementing, and abandonment program should prevent waste of oil, gas, water, and commercial potash deposits by the subject well.

(4) That approval of the subject application will relieve the applicant of unnecessary operating expenses, and will otherwise prevent waste and protect correlative rights.

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CASE No. 3421

Order No. R-3088

IT IS THEREFORE ORDERED:

(1) That the applicant, Hanson Oil Company, is hereby granted an exception to the casing and cementing requirements of the rules and regulations governing the Potash-Oil Area, promulgated by Order No. R-111-A, to drill, case, cement, and abandon its Federal "RB" Well No. 2 to be drilled in Unit G of Section 21, Township 20 South, Range 34 East, NMPM, Middle Lynch-Yates Pool, Lea County, New Mexico, in accordance with the following program:

CASING, CEMENTING, AND ABANDONMENT PROCEDURE

1. Applicant shall drill to approximately 65 feet, set 13 3/8-inch casing, and cement to surface; deepen and mud-in 10 3/4-inch casing to a depth of approximately 800 feet; drill to approximately 1600 feet and mud-in 8 5/8-inch casing; drill into the Seven Rivers formation and set 5 1/2-inch casing.
2. The 5 1/2-inch production casing shall be set below the base of the Tansill formation and tacked with not less than 25 sacks of cement before drilling into the productive formation.
3. In the event production is obtained in commercial quantities, applicant shall pull the 10 3/4-inch and the 8 5/8-inch casing and cement the 5 1/2-inch production casing to the surface.
4. If commercial production is not obtained or upon plugging the well subsequent to depletion, the well shall be plugged and abandoned in accordance with the program as set forth and described in Commission Order No. R-111-A.
5. Applicant shall notify the Hobbs District Office of the date and hour casing is to be run and cemented and the date and hour the well is to be plugged.

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CASE No. 3421

Order No. R-3088

(2) 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


Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/



POTASH COMPANY OF AMERICA

MINE AND REFINERY: P. O. BOX 31 • CARLSBAD, NEW MEXICO • 88501

1966
JUN 4
AM 10 15

H. N. CLARK
VICE PRESIDENT - PRODUCTION

June 3, 1966

Oil Conservation Commission
of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Copy to
[Signature]

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Re: Application of Hanson
Oil Company
1980' from N & E lines
Section 21-20-34, Lea County

Dear Mr. Porter:

We enclose copy of our letter of even date to Messrs. Kellahin and Fox in which we advise them that we are not entering an objection to the above mentioned application for a well location and for an exception to the drilling and casing requirements of Order R-111-A, as amended.

While we are not entering an objection in this matter, we do not wish such action to be construed as approval of a well at the proposed location since we feel that any further drilling in the Lea County R-111-A area will be detrimental to ultimate recovery of the potash reserves. We are not entering a formal protest because we feel that the evidence which would be presented at a hearing on such a protest would be substantially similar to the evidence presented in Cases 2182 and 2183, which were heard February 13, 1961. It would appear that those cases would be followed by the Commission, at least until further evidence becomes available or changed circumstances warrant further consideration.

We respectfully request that the Commission Order provide that all phases of the program be conducted in accordance with Order R-111-A,



MEMBER: AMERICAN POTASH INSTITUTE

Mr. A. L. Porter, Jr.

- Page Two -

June 3, 1966

as amended, except as specifically modified in said Order.

Very truly yours,



H. N. Clark

HNC:pw
Enc.

cc: Mr. Robert S. Fulton
U.S.G.S. - Carlsbad

Mr. John Anderson
U.S.G.S. - Roswell

Kellahin & Fox
Attorneys at Law
Santa Fe, New Mexico

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 7/6/66

CASE 3241

Hearing Date 9am 6/29

DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter order approving exception to
R-111-A for Hanson Oil Co.
Well is to be Hanson Oil Co Federal
"RB" well No. 2, located in Unit G, Sec
21, Twp 20 S, Rge 34 East, Middle Lynch
Pool, Lea Co.

Well is to be drilled, cased, and
cemented in accordance with
procedure set forth in Paragraph
4 Sections A through D of application.



BEFORE THE OIL CONSERVATION COMMISSION OF NEW MEXICO

APPLICATION OF HANSON OIL COMPANY
FOR APPROVAL OF A WELL LOCATION
AND CEMENTING PROGRAM WITHIN THE
POTASH AREA, LEA COUNTY, NEW MEXICO,
AS AN EXCEPTION TO THE PROVISIONS
OF ORDER NO. R-111.

A P P L I C A T I O N

Comes now the Hanson Oil Company and applies to the Oil Conservation Commission of New Mexico for approval of a well location for its No. 2 Federal "RB" Well, and for approval of a casing and cementing program for said well as an exception to the provisions of Order No. R-111, and in support thereof would show:

1. Applicant proposes to drill its No. 2 Federal "RB" well at a location 1980 feet from the North line and 1980 feet from the East line of Section 21, Township 20 South, Range 34 East, N.M.P.M., Lea County, New Mexico.

2. Said proposed location is within the limits of the "Potash Area" as defined by Order No. R-111, of the New Mexico Oil Conservation Commission.

3. Applicant proposes to drill said well to a depth sufficient to penetrate the Seven Rivers Formation at a depth of approximately 3,800 feet.

4. Applicant seeks an exception to the provisions of Order No. R-111 as to the casing and cementing program for said well, and proposes to drill and complete said well as follows:

A. Drill and set 13 3/8 inch casing to approximately

65 feet, and cement to surface; deepen and mud-in 10 3/4 inch casing to a depth of approximately 800 feet; drill to approximately 1600 feet and mud-in 8 5/8 inch casing; drill to the Seven Rivers Formation, except as hereinafter provided, and set 5 1/2 inch casing.

B. The 5 1/2 inch production casing will be set below the base of the Tansill Formation and tacked with not less than 25 sacks of cement before drilling into the productive formation.

C. In the event production is obtained in commercial quantities, applicant proposes to pull the 10 3/4 inch, and the 8 5/8 inch casing and to cement the 5 1/2 inch production casing to the surface.

D. If commercial production is not obtained, the well will be plugged and abandoned in accordance with the program as set forth and described in Commission Order No. R-111-A.

✓ 5. To the best of applicant's information and belief, Potash Company of America is the only potash company owning leases on potash formations within one mile of the proposed well. Said Potash Company of America has been notified of this application by service of a copy thereof, by certified mail, simultaneously with the filing of this application.

6. The proposed drilling, casing, cementing and abandonment program should prevent waste of oil, gas, water, and commercial potash deposits.

7. The approval of this application will relieve the applicant of unnecessary operating expenses, and will otherwise prevent waste and protect correlative rights.

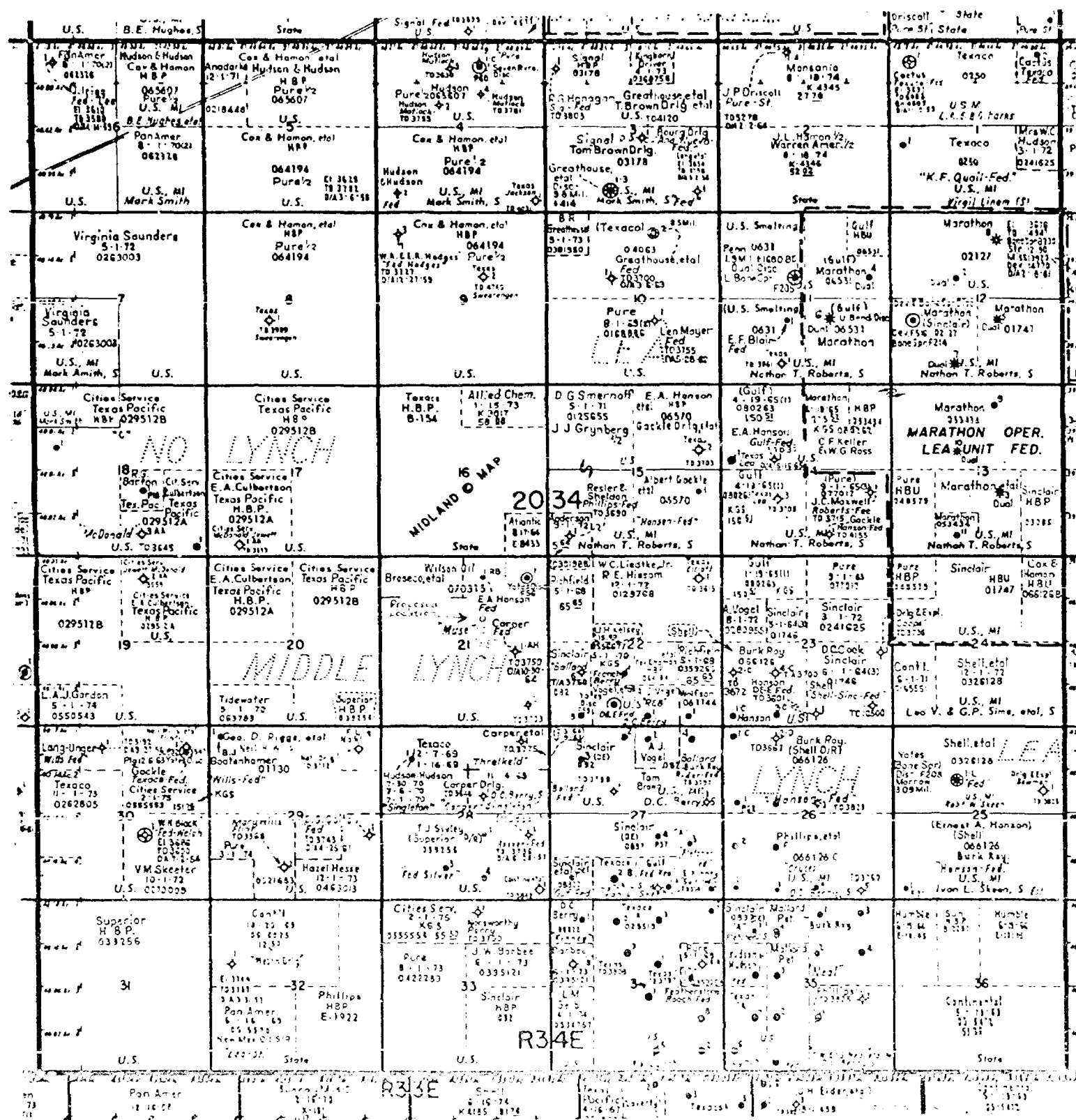
WHEREFORE, applicant prays that this matter be set for hearing before the Commission's duly appointed examiner, and that after notice and hearing as provided by law, the Commission enter its order granting the authority requested herein.

Respectfully submitted,

HANSON OIL COMPANY

By Hansen W. Kellahin
P. O. Box 1769
Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Superseded C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

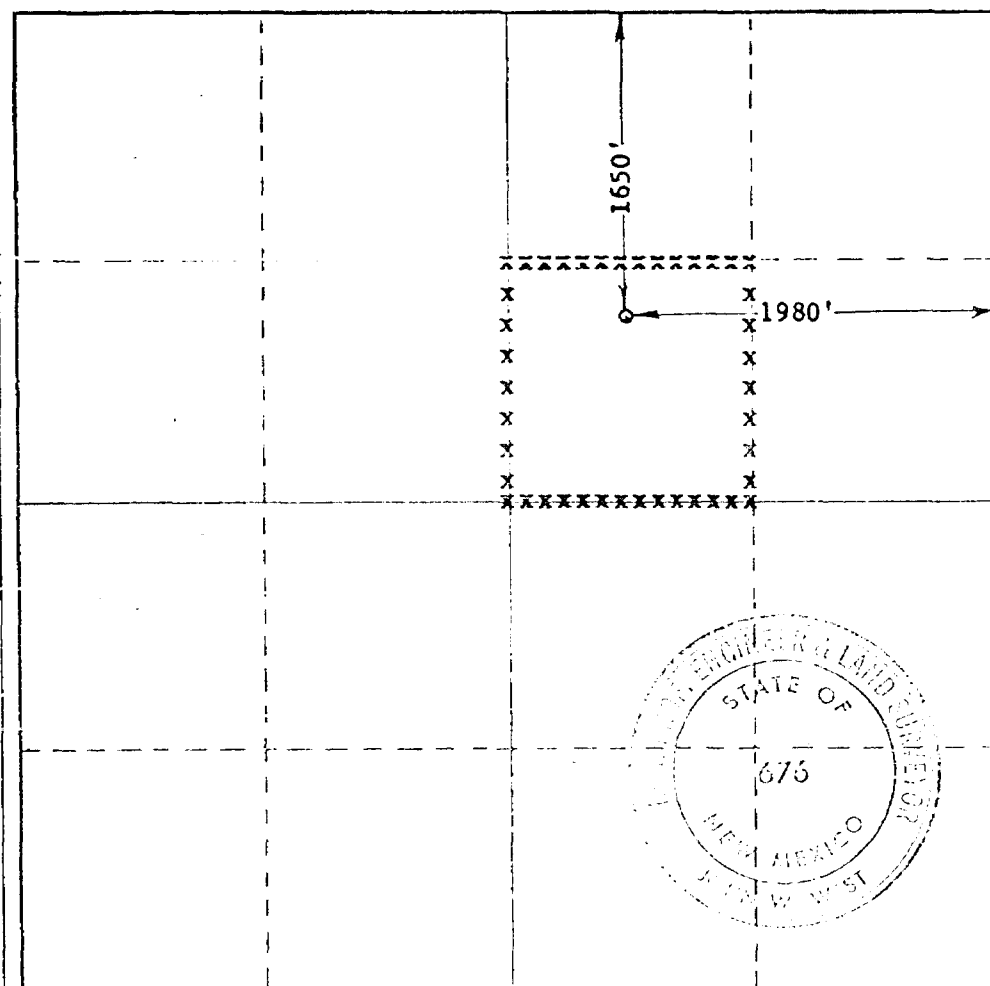
Operator ERNEST A. HANSON		Lease FEDERAL "RB"		Well No. 2
Unit Letter G	Section 21	Township 20 SOUTH	Range 34 EAST	County LEA
Actual Footage Location of Well: 1650 feet from the NORTH line and 1980 feet from the EAST line				
Ground Level Elev. 3647.5	Producing Formation Yates Formation	Pool Middle Lynch - Yates	Dedicated Acreage 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: *Ernest A. Hanson*
Position: **Explor. Mgr.**

Operator: **Ernest A. Hanson**

Date: **March 3, 1966**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: **MARCH 1, 1966**

Registered Professional Engineer and/or Land Surveyor

John W. West
Certificate No.

NM PE & LS No. 676

0 330 660 990 1320 1650 1980 2310 2640 2970 3300

JASON W. KELLAHIN
ROBERT E. FOX
FORREST S. SMITH

KELLAHIN AND FOX
ATTORNEYS AT LAW
54½ EAST SAN FRANCISCO STREET
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

May 27, 1966

TELEPHONE 982-4315
AREA CODE 505

RECEIVED
MAY 31 AM 8 2

44-3421

Oil Conservation Commission of
New Mexico
P. O. Box 2080
Santa Fe, New Mexico

Gentlemen:

Enclosed find application of Hanson Oil Company for approval of a well location and cementing program within the Potash area, Lea County. We wish to have this application heard before the commission examiner.

Very truly yours,

KELLAHIN & FOX

Jason W. Kellahin

Jason W. Kellahin

jwk/mas
enclosures

DOCKET MAILED

Date _____

Docket No. 16-66

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 23, 1966

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 3418: Application of Ashmun & Hilliard for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the dual completion (conventional) of its J. E. Stokes Well No. 1, located in Unit G of Section 26, Township 16 South, Range 35 East, Lea County, New Mexico, to produce oil from the Wolfcamp and Pennsylvanian formations, Shoe Bar Field, through parallel strings of tubing.
- CASE 3419: Application of B. M. Jackson for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through one well located in Unit H of Section 4, Township 18 South, Range 32 East, Pearsall Queen Pool, Lea County, New Mexico.
- CASE 3420: Application of Standard Oil Company of Texas for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1650 feet from the North line and 990 feet from the East line of Section 15, Township 18 South, Range 26 East, Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico.
- CASE 3421: Application of Hansen Oil Company for an exception to Commission Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to drill and complete a well in Unit G of Section 21, Township 20 South, Range 34 East, Middle Lynch Yates Pool, Lea County, New Mexico, and to drill, case, and cement said well as follows:
- Drill to 65 feet and cementate cement on 13 3/8-inch casing; deepen to 800 feet and mud-in 10 3/4-inch casing; deepen to 1600 feet and mud-in 8 5/8-inch casing; drill into the Seven Rivers formation and cask 5 1/2-inch casing with at least 25 sacks of cement; drill into and test the Seven Rivers pay. If production is obtained, pull the 10 3/4-inch and 8 5/8-inch casing and cement 5 1/2-inch casing to surface. (Note: All depths are approximate.) The well would be plugged and abandoned in accordance with Commission Order No. R-111-A.
- CASE 3422: Application of Pan American Petroleum Corporation for creation of a new pool, special pool rules and four non-standard production units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Gallup production discovered by the Galliegos Canyon Unit well No. 250 located in Unit N of Section 14, Township 28 North,

- 2 -

June 29, 1966, Examiner Hearing

CASE 3422 Continued:

Range 12 West, San Juan County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 160-acre proration units and specified well locations. Applicant further seeks the approval of four non-standard proration units as follows in Township 28 North, Range 12 West:

A 164.44-acre unit comprising lots 2, 3, and 4 and the S/2 SW/4 of Section 9;

A 176.14-acre unit comprising lot 1 and the S/2 SE/4 of Section 9 and lot 4 and the SW/4 SW/4 of Section 10;

A 163.29-acre unit comprising lots 1, 2, and 3 and the SW/4 SE/4 and SE/4 SW/4 of Section 10;

A 175.14-acre unit comprising the SE/4 SE/4 of Section 10 and the S/2 SW/4 and lots 3 and 4 of Section 11.

CASE 3423: Application of Pan American Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Seven Rivers Reef formation, Scarborough Yates-Seven Rivers Pool through the open hole interval from 3029 to 3080 feet in its C. M. Farnsworth "B" Well No. 9, located in Unit N of Section 7, Township 26 South, Range 37 East, Lea County, New Mexico.

POTASH COMPANY OF AMERICA

CARLSBAD, NEW MEXICO

66 JUN 4 A

June 3, 1966

C
O
P
Y

Mr. Jason W. Kellahin, Esq.
Kellahin & Fox
Attorneys at Law
P. O. Box 1769
Santa Fe, New Mexico 87501

Dear Jason:

I enclose copy of our letter of even date to the Commission relating to the application of Hanson Oil Company for a well location in Section 21-20-34, Lea County and some exceptions to the R-111-A procedures.

Personal regards.

Sincerely,

R. H. Blackman
Resident Counsel

RHB:pw
Enc.

cc: Oil Conservation Commission
of New Mexico
Santa Fe, New Mexico

dearnley-meier reporting service, inc.

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

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 29, 1966

EXAMINER HEARING

IN THE MATTER OF:

Application of Hanson Oil Company for
an exception to Commission Order No.
R-111-A, Lea County, New Mexico.

Case No. 3421

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 3421.

MR. HATCH: Application of Hanson Oil Company for an exception to Commission Order No. R-111-A, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, appearing for the applicant. I have one witness I would like to have sworn.

(Witness sworn.)

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

ERNEST HANSON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Ernest Hanson.

Q Are you connected with the Hanson Oil Company, Mr. Hanson?

A I am.

Q What is your position with the Hanson Oil Company?

A President.

Q You are the applicant in Case 3421?

A Yes.

Q Have you ever testified before the Oil Conservation Commission?

A Yes, sir.

Q And your qualifications have been made a matter of record?

A I believe so.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, sir, they are.

Q (By Mr. Kellahin) What is proposed by Hanson Oil Company in Case No. 3421?

A To drill a well to approximate depth of 3500 feet in Section 21, Township 20 South, Range 34 East of the Middle Lynch Field, Lea County, New Mexico.

Q That area is located within the potash-oil area as covered by Commission's Order No. R-111-A, is it not?

A Yes.

Q And you are applying for an exception to the provisions of that order?

A Yes.

Q As to the casing program only?

A Right.

Q Referring to what has been marked as Exhibit No. 1, would you identify that exhibit, please?

A The Exhibit No. 1 shows the area of the oil and gas lease, of course, together with the well location proposed, together with existing wells and the area covered by potash leases within a distance of one mile from the well location.

Q The area covered by potash leases is shown in yellow, is that correct?

A Right.

Q And the blank area in the center of that, is that leased according to your information?

A According to our information the white area is not leased for potash.

Q On the same exhibit are there other wells shown which have been completed and you propose to complete yourself?

A Yes.

Q Where would they be located?

A There are four or more wells completed in this manner either in or near Section 28, which adjoins our section to the south.

Q And that includes the Hudson and Hudson well, does it not?

A Yes.

Q Referring to what has been marked as Exhibit No. 2, would you identify that exhibit?

A Exhibit No. 2 shows the casing program required in the potash area under Order No. R-111-A, and also our proposed program to be used in drilling our No. 2 Federal R. B.

Q Would you just briefly outline and compare the two programs and show what the difference is? Just state first what the Order R-111-A requires and then in detail the casing program that you propose to follow.

A In general, both programs are quite similar. Program R-111-A provides for one string of casing to be set and cemented in the Rustler anhydrite at approximately 1600 feet together with the temporary setting of casing in the Tancil formation at a depth of about 3400 feet, which may be cut and removed from the hole if the well is productive and if another string of casing is set at the top of the pay and cemented into the next cemented string above or to the surface of the ground. In comparison, we would propose first to set in cement 13-3/8ths-inch casing.

Q That would be the same as required by Order 111-A?

A It is not required by the order.

Q It is not?

A It is not required by the order. We show 13-3/8ths also under the R-111-A program because we have used that program in the past and also cemented the surface pipe

for drilling convenience, so we propose to do the same thing in the drilling of the No. 2 well, although not required. Similarly we're setting 10-3/4-inch casing mudded at about 800 feet for drilling convenience, and protection of the hole, as we have similarly done when drilling under Order R-111-A, although it is also not required by R-111-A.

When we get to the Rustler anhydrite we propose to set and mud the 8-5/8ths-inch casing at the depth of 1600 feet and go ahead down into the Upper Yates and set and cement a string of 5-1/2-inch casing with not less than 25 sacks of cement.

Q That would be done, then, before you drill into the producing formation, is that correct?

A Yes. This would be drilled open hole below the casing and we would drill into the Seven Rivers formation probably.

Q Now, then, essentially the difference between the two programs is you would not run the seven-inch string which is shown on your exhibit as cemented in the top of the Yates?

A That's right.

Q And you would not cement in your 10-3/4 string to the top of the Rustler, is that correct?

A The 8-5/8ths, I believe it is.

Q 8-5/8ths.

A To the top of the Rustler. We would not cement

dearnley-meier

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

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203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



that string, no.

Q But you would then, in the event you got production, would you cement your 5-1/2-inch string to the surface?

A Yes. We would cement the 5-1/2-inch casing from the pay, from the total length of the casing from the bottom to the surface of the ground and put enough cement in so that circulation of the cement would be evident.

Q Has this type of completion been approved by the Commission in any other instance in this area?

A Yes. We have had, I believe, up to four or five other cases approved by the Commission on this type.

Q Then it is identical to the program approved for Hudson and Hudson, is that correct?

A Yes.

Q That's approximately one mile south of your well location?

A Right.

Q Mr. Hanson, do you know whether there is any potash mining activity in this area?

A To the best of my knowledge there is no mining in this local area and the nearest mine entry would probably be ten or twelve miles west of this area.

Q You don't know where the closest actual mining

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PAGE 8

activity is though, do you?

A No, sir, I don't.

Q It would be something on the order of six or eight miles anyway?

A At least, I'm sure.

Q Is this a high pressure zone you are contemplating developing or what is the nature of it?

A That is probably the critical question here. The area, by the drilling and completion of two wells, one by Wilson Oil and one by ourselves, has been shown to be a marginal, low pressure, low producing area which would not warrant high completion costs.

Q And by the same token, will the casing program and cementing program, as you propose it, adequately protect the salt zone?

A We believe so. In addition, we think it will serve in the nature of a conservation measure in that the well may not be drilled if the higher cost program were required.

Q In other words, you are saying that this would result, then, in the recovery of oil that would not otherwise be recovered, is that your testimony?

A Yes.

Q Now, referring to what has been marked as Exhibit No. 3, will you discuss that exhibit?

A The exhibit shows the difference in cost between the casing program usually followed under Commission Order R-111-A and the cost that we would expect under our proposed drilling and casing program. If we assume that the location will be a dry hole, which is entirely possible, we find that the total net cost on the left, which is Commission Order R-111-A, would be on the order of \$11,242.00, whereas the cost of the proposed program would be \$5,635.00, giving us a saving of \$5,607.00 by using the proposed program.

If we assume that the well is productive, we find a cost of \$11,242.00 for the R-111-A program and a net cost, or a total cost of \$2,220.00 under the proposed program, giving us a net saving on the overall program of \$9,022.00.

Q As I understand, in the event you get a dry hole you will plug and abandon the well in accordance with Order R-111-A?

A Yes, under either program, under R-111-A or the proposed program, the hole will be in such a condition that full compliance can be made with the plugging requirements under the Commission order.

Q Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes, 1 and 2 and 3.

MR. KELLAHIN: At this time I will offer in



evidence Exhibits 1 through 3.

MR. NUTTER: Applicant's Exhibits 1 through 3 will be admitted into evidence.

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

MR. KELLAHIN: That's all I have.

CROSS EXAMINATION

BY MR. NUTTER:

Q What is the total depth of the potash?

A The total thickness of the potash?

Q Yes, the top and bottom.

A I don't know. The total thickness of the salt is on the order of 1500 feet, the salt section itself, the total section which contains streaks or layers of potash.

Q Really, that's what I meant, the salt rather than the potash.

A Yes.

Q In completing some of these previous wells that have been drilled in this manner that you propose today, and when production has been obtained, what is the method for circulating the cement on the 5-1/2? Now you have tacked it with 25 sacks originally?

A Yes.

Q And drill into the pay and test. What has been the

method of circulating the cement, perforating the casing?

A Right.

Q And just circulating above the perforation?

A To the top.

Q Has this been satisfactory in the other wells?

A As far as we know. We have been able to obtain satisfactory cementing jobs insofar as the circulating cement does reach the surface and we have an excess visible at that point. Of course, I think nowadays we have a little better success with that type of job because cementing companies such as Halliburton have new design and have high pressure and have adequate equipment which, looking back, maybe even ten years ago we couldn't do the kind of job that we're talking about.

Q How many holes do you normally have to perforate in the casing to cement?

A I would say a minimum of two.

Q Do you try to get those two holes as close to the top of the 25 sack tack as possible?

A Yes. As a matter of good practice, I believe that our cementing job on the 5-1/2 would probably be on the first stage on the order of, say, 50 sacks rather than 25 sacks, although both I think would be adequate, but the 50 sacks would give us, oh, a little more insurance, and in addition



we can locate the top of that cement for the location of these perforations by running a temperature survey.

Q What size of a hole do you drill under that 8-5/8ths-inch pipe?

A Under the 8-5/8ths, oh, usually about 7 and, oh, about 7-3/4, 7-7/8ths. It's nearly 8 inches.

Q Your proposal is to drill to the Seven Rivers and set the 5-1/2. Now, there are some Yates wells in this neighborhood, are there not?

A Yes. I believe it would be more accurate to say that we would plan to set and cement the 5-1/2 in the upper part of the Yates formation, and the Yates sands that we're talking about that are productive are in the lower part, or we're hoping for production in the next formation, which would be the Seven Rivers. We would actually set this 5-1/2-inch casing, or hope to, in the upper portion of the Yates formation, which you could expect to be, oh, three or four hundred feet thick in this particular field.

Q Because some of the wells have been productive from the Yates?

A Right. Yes. In fact, I believe all of them are productive from the Yates to some degree.

MR. NUTTER: Are there any other questions of Mr. Hanson? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all, Mr. Nutter.

MR. NUTTER: Mr. Hatch.

MR. HATCH: I have a letter from the Potash Company of America dated June 3rd, 1966 to the Oil Conservation Commission in reference to the application of Hanson Oil Company. "Dear Mr. Porter: We enclose copy of our letter of even date to Mr. Kellahin and Mr. Fox, in which we advise them that we are not entering an objection to the above-mentioned application for a well location and for an exception to the drilling and casing requirements of Order R-111-A as amended. While we are not entering an objection in this matter, we do not wish such an action to be construed as the approval of a well at the proposed location, since we feel that any further drilling in Lea County R-111-A area will be detrimental to the ultimate recovery of the potash reserves.

"We are not entering a formal protest because we feel that the evidence that would be entered at a hearing, on such a hearing, will be similar to the cases presented in Case 2182 and 2183 which were heard in February, 1961. It would be apparent that those cases would be followed by the Commission, at least until further evidence becomes

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available or changed circumstances warrant further consideration.

"We respectfully request that the Commission order require that all phases of the program be conducted in accordance with Order R-111-A as amended, except as specifically modified in such order. Very truly yours, H. N. Clark."

MR. NUTTER: Mr. Hanson, Potash Company of America is the only potash company owning leases within one mile of your proposed location, is it not?

MR. HANSON: Yes.

MR. NUTTER: Does anyone have anything further to offer in Case 3421? If not, we will take the case under advisement.

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I N D E X

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Applicant's 1, 2 & 3	2	10

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

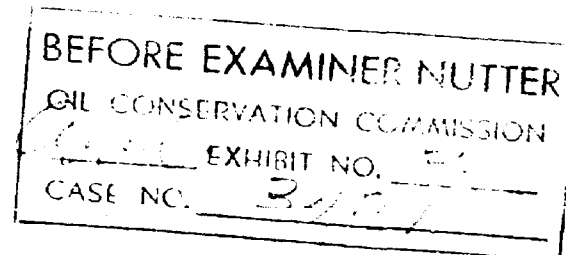
I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings,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

Witness my Hand and Seal this 6th day of July, 1966.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19, 1967.

I do hereby certify that the foregoing is
a correct record of the hearing held in
the County of Bernalillo, State of New Mexico
on the 6/29/66.
3421
66
Ada Dearnley
Notary Public



ERNEST A. HANSON - #2 FEDERAL "RB"

DIFFERENCES IN COST

UNDER ORDER R-111-A

PROPOSED PROGRAM

ASSUME DRY HOLE

1600' - 8-5/8" 24# J-55 Casing	\$ 4,880
300 sx. cement	600
Cementing equipment & service	643
24 hours Rig Time - W. O. C.	300
3400' - 7" 20# J-55 Casing	8,605
25 sx. cement	50
24 hours Rig Time - W. O. C.	300
Cementing equipment & service	643
Shoot and pull 7"	900
Salvage Value - 3000' 7"	5,679 (Cr.)

Net Total Cost \$11,242

Additional Cost over
proposed program \$ 5,607

1600' - 8 5/8" 24# J-55 Casing	\$4,880
Pull 8-5/8"	200
Salvage value of 8-5/8"	3,660 (Cr.)
3700' - 5-1/2" 14# J-55 Casing	6,783
25 sx. cement	50
Cementing equip. & service	643
24 hours rig time - W. O. C.	300
Shoot and pull 5-1/2"	900
Salvage 3250' 5-1/2"	4,461 (Cr.)

Net Total Cost \$5,635

ASSUME CEMENTING WELL

8-5/8" Casing Net Costs	\$ 6,123
7" Casing Net Costs	4,819

Net Total Cost \$11,242

Additional Cost over
proposed program \$ 9,022

8-5/8" Casing Net Costs	\$1,420
Additional cost for cementing 5-1/2" casing	800

Net Total Cost \$2,220

EXHIBIT #3