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BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 16, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of Depco, Inc.)
for two waterflood projects,)
Eddy County, New Mexico.)

Case No. 5144

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

William Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

MR. STAMETS: We'll call next Case 5144.

MR. CARR: Case 5144. Application of Depco, Inc. for two waterflood projects, Eddy County, New Mexico.

Mr. Examiner, we've received a request from the Applicant that this be continued to January 30th Hearing.

MR. STAMETS: 5144 will be re-advertised and continued to January 30th, 1974.

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STATE OF NEW MEXICO)

(COUNTY OF SANTA FE)

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

COURT REPORTER

I do hereby corrier that the foregoing is a complete range of the foregoing is the Examiner house in a constant to 5/HH, neard by no on the foregoing is nearly to 5/HH, New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

February 22, 1974

I. R. TRUJILLO
CHAIRMAN
LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

	Re:	CASE NO	5144
		ORDER NO.	R-4727
Mr. Ken Bateman White, Koch, Kelly & McCar Attorneys at Law Post Office Box 787	rthy	Applicant:	
Santa Fe, New Mexico		Depco, In	
Dear Sir:			
Enclosed herewith are two Commission order recently			
	Very trul	y yours,	
	a. L.	Porter,	J.
	A. L. POP	•	
	Secretary	-Director	
ALP/ir			
Copy of order also sent t	.0:		
Hobbs OCC			
Artesia OCC			
AZCEC OCC			
Other State E	ngineer Of	fice	

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. 5144 Order No. R-4727

APPLICATION OF DEPCO, INC. FOR A WATERFLOOD PROJECT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 30, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>21st</u> day of February, 1974, the Commission, 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, Depco, Inc., seeks authority to institute a waterflood project in the Northwest Artesia Unit Area, Artesia Pool, by the injection of water into the Grayburg-San Andres formation through seven injection wells in Sections 31 and 32, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Depco, Inc., is hereby authorized to institute a waterflood project in the Northwest Artesia Unit Area, Artesia Pool, by the injection of water into the Grayburg-San Andres formation through the following-described wells in Township 17 South, Tange 28 East, NMPM, Eddy County, New Mexico:

-2-CASE NO. 5144 Order No. R-4727

State	647	Well No.	206	Unit H	Section 3	31
State	647	Well No.	219	Unit P	Section 3	31
State	647	Well No.	179	Unit H	Section 3	32
State	647	Well No.	195	Unit B	Section 3	32
State	647	Well No.	208	Unit L	Section 3	32
State	647	Well No.	212	Unit N	Section 3	32
Ramapo	"A"	Well No.	2	Unit P	Section 3	32

- (2) That the subject waterflood project is hereby designated the Northwest Artesia Unit Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (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

I. R. TRUJILLO, Chairman

ALDY J. ARMIJO Member

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

SEAL

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 30, 1974

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

The following cases will be heard before Daniel 3. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- CASE 5153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Commission Form C-113, Refiner's Monthly Report.
- CASE 5154: In the matter of the hearing called by the Oil Conservation Commission on its own motion, at the recommendation of the Commission's "Pictured Cliffs Gas Proration Committee," to consider the amendment of Commission Order No. R-1670 for the purpose of elimination of gas prorationing in the Aztec-Pictured Cliffs, Ballard-Pictured Cliffs, Fulcher Kutz-Pictured Cliffs, and West Kutz-Pictured Cliffs Gas Pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 5128: (Continued from the January 3, 1974, Examiner Hearing)

Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 SW/4 and W/2 SE/4 of Section 28 and the NW/4 NE/4 of Section 33, both in Township 21 South, Range 37 East, Blinebry Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its J. N. Carson Wells Nos. 4 and 9 located in Units O and K, respectively, of Section 28.

CASE 5132: (Continued from the January 3, 1974, Examiner Hearing)

Application of American Quasar Petroleum Company of New Mexico for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the White City Unit Area comprising 5,120 acres, more or less, of Federal, State and fee lands in Township 25 South, Ranges 25 and 26 East, Eddy County, New Mexico.

CASE 5155: Application of Harding Oil Company for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to re-enter an existing well, the surface location of which is 2310 feet from the South line and 1650 feet from the West line of Section 34, Township 13 South, Range 32 East, adjacent to the old Gross-Devonian Pool, Lea County, New Mexico, and to directionally drill said well in such a manner as to bottom the well in the Devonian formation within 100 feet of a point 430 feet South 60 degrees West of the surface location.

Application of Franklin, Aston & Fair for pool creation and special application of realism, aston a rail for poor creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Morrow production for its McIntyre Well No. 6-A located in Unit O of Section 20, Township 17 South, Range 30 East, Eddy County, New Mexico, and for CASE 5156: the promulgation of special pool rules therefor including a provision for 640-acre spacing.

Application of Petroleum Reserve Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Wood Canyon Unit Area comprising 2,560 acres, more or less, of Federal and fee lands in Township 24 South, Range 25 CASE 5159: East, Eddy County, New Mexico.

Application of Randolph M. Richardson for a unit agreement, Eddy and Chaves Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the West Hope Unit Area comprising 13,448 acres, more or less, of Federal, State and Fee lands in Townships 17 and 18 South, Ranges 20 and 21 East, Eddy and Chaves Counties, New Mexico. CASE 5160:

Application of Depco, Inc. for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Northwest Artesia Unit Area comprising 640 acres, more or less of State lands in Sections 31 and 32, Township 17 South, Range 28 East, State lands in Sections 31 and 32, lownship 17 South, Range 28 East, Eddy County, New Mexico. and Section 6. Township 18 South, Range 28 East, Eddy County, New Mexico. CASE 5161:

ASE 5144:

Application of Depco, Inc. for a waterflood project, Eddy County, New (Continued and Readvertised) Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation through six wells located in its Northwest Artesia Unit Area, Artesia Pool, Eddy County, New Mexico.

Application of Western Oil Producers, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled iocation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill an undesignated Morrow gas well at an action of the cause of th unorthodox location 1980 feet from the South line and 660 feet from unorthodox location 1900 leet from the South, Range 26 East, Eddy
the East line of Section 34, Township 17 South, Range 26 East, Eddy CASE 5162: County, New Mexico, the S/2 of said Section 34 to be dedicated to the

Application of Western Oil Producers, Inc. for an unorthodox gas well application of western off requests, inc. for an unorthodox gas we location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill an undesignated Morrow gas well at an unorthodox location 660 feet from the South and East lines of Section 27, Township 17 South, Range 26 East, Eddy County, New Mexico, CASE 5163; the S/2 of said Section 27 to be dedicated to the well. As an alternative state of said Section 27 to be dedicated to the well. tive, applicant seeks approval for a location 1980 feet from the South line and 660 feet from the East line of said Section 27.

- CASE 5158: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 29, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to its Simpson Well No. 1 to be drilled at an orthodox location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5157: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the S/2 of Section 9, Township 21 South, Range 27 East, Burton Flats Field, Eddy County, New Mexico, to be dedicated to its State C-P Well No. 1 to be drilled at an orthodox location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5164: Application of Jake L. Hamon for compulsory pooling and for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order force pooling all mineral interests in the Strawn and Morrow formations underlying the E/2 of Section 9, Township 21 South, Range 27 East, Burton Flats Field, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 1650 feet from the North line and 660 feet from the East line of said Section 9. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

DEPCO, Inc.

Exploration & Production



800 Central ODESSA, TEXAS 79760

December 20, 1973

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New Mexico Oil Conservation Commission P.O. Box 2088

Santa Fe, New Mexico

DEC 2 6 1973

OIL CONSERVATION COMM

Subject: Application for Injection of

Water

Project: Proposed Northwest Artesia

Unit Waterflood

Field: Artesia

County: Eddy

Gentlemen:

Reference my letter dated November 16, 1973, which requested a hearing to approve the subject unit. The last attachment to our original application entitled, "Individual Well Data on Offset Producers to Water Injectors" showed inaccurate oil cumulatives. Attached is a corrected data sheet which should replace the original copy.

Very truly yours.

Welton C. Smith District Engineer

WCS/vp

Northwest Artesia Unit INDIVIDUAL WELL DATA ON OFFSET PRODUCERS TO WATER INJECTORS

				CERS TO WATER IN	NJECTORS	
Lease	Well No.	Cumulative BO as of 9-1-73	August BOPD	Date of	Completion	
State 647 AC. 722 Delhi State		32;336 26,479 13,603 14,583 10,467 12,230 13,242	3 2 1 3 1 2 2	1-62 4-62 6-63 5-66 6-66 2-67 5-67	Interval 1915-1922 1911-1940 1894-1899 1898-1908 1930-1934 1913-1925 1944-1945 1962-1994 1922-1949	Stimulation SOF 24,000 gal x 1.3PPG SOF 27,000 gal x 1.1PPG SOF 20,000 gal x 1.5PPG SOF 38,000 gal x 1.3PPG SOF 38,000 gal x 1.3PPG SWF 30,000 gal x 1.3PPG SWF 36,300 gal x 1.3PPG
	1 jection Wells	34,250	1/2 1	4-55 1-54	1800-2099 1800-1812 1925-1960	SOF 10,000 gal x 1.5PPG SOF 6,000 gal x 2.0PPG
State 647 AC. 722	179 195 206 208 212 219	32,194 24,621 14,907 14,599 7,723 6,028	1 2 3 3 1	11-61 6-63 3-66 5-66 6-66 5-67	1920-1926 1886-1891 1898-1906 1898-1901 1921-1926 1935-1967	SOF 48,000 gal x 1.3PPG SOF 20,000 gal x 1.5PPG SWF 28,000 gal x 1.3PPG SOF 38,000 gal x 1.3PPG SOF 38,000 gal x 1.3PPG
Ramapo A	2	31,670	1	5-54	1967-1970 2077-2087	SWF 40,000 gal x 1.0PPG SOF 6,000 gal x 2.0PPG

Corrected Copy

-2-

(Case 5112 continued from Page 1)

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5113: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the institution of gas prorationing in the Burton Flats-Atoka Gas Pool, Eddy County, New Mexico, and to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5124: (Continued from the November 28, 1973, Examiner Hearing)

Application of Belco Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the S/2 of Section 30, Township 20 South, Range 33 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 1300 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5143: Application of E1 Paso Natural Gas Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its proposed Rocky Arroyo "D" Com. Well No. 2 in the center of Unit L of Section 4, Township 22 South, Range 22 East, Rocky Arroyo-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 4 to be dedicated to the well.

CASE 5144: Application of Depco, Inc. for two waterflood projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute two waterflood projects by the injection of water into the Grayburg-San Andres formation through six wells located on applicant's State 647 lease in Sections 31 and 32, Township 17 South, Range 28 East, Artesia Pool, Eddy County, New Mexico, and through one well on the Kersey and Company Ramapo "A" Lease in said Section 32.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 16, 1974

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

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1974, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
 - (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for February, 1974.

CASE 5110: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico, to include the S/2 of Section 28, Township 25 South, Range 24 East.

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5111: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Burton Flats-Morrow Gas Pool, Eddy County, New Mexico, to include the S/2 of Section 34, Township 20 South, Range 28 East, and the N/2 of Sections 8 and 9, and all of Section 10, Township 21 South, Range 27

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5112: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Burton Flats-Strawn Gas Pool, Eddy County, New Mexico, to include all of Section 10, Township 21 South, Range 27 East.

- CASE 5150: Application of Hanson Oil Corporation 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 10 wells in its Mescalerc
 Ridge Unit Area in Sections 26 and 35, Township 19 South, Range 34
 East, Pearl-Queen Pool, Lea County, New Mexico.
- CASE 5151: Application of Penroc Oil Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause seeks approval for the dual completion (conventional) of its Dero-Federal A-Com Well No. 1, located in Unit N of Section 35, Township 19 South, Range 28 East, Eddy County, New Mexico, in such a manner as to produce gas from the Winchester-Wolfcamp gas pool and an undesignated Strawn gas pool through the casing-tubing annulus and through tubing.
- CASE 5152: Application of Petro-Lewis Corporation for a Special Depth Bracket Allowable, Media-Entrada Oil Pool, Sandoval County, New Mexico.

 Applicant, in the above-styled cause, seeks a special depth bracket allowable for the Media-Entrada Oil Pool, Township 19 North, Range 3 West, Sandoval County, New Mexico.
- CASE 5140: (Continued from the January 3, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for compulsory pooling, Vada-Pennsylvanian Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Vada-Pennsylvanian Pool underlying the NW/4 of Section 24, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to the King Resources Sheridan Well No. 1-1 located in Unit C of said Section 24. Also to be considered is designation of the applicant as operator of the NW/4 of said Section 24 and the well located thereon, provision for allocation of actual operating costs and charges for supervision, and allocation of costs for reworking said well including a 200% charge attributable to any non-consenting working interest owner's pro rata share of said workover costs, for the risk involved in said workover.

CASE 4956: (Reopened) (Continued from the January 3, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for a determination of well costs, Lea County, New Mexico. Applicant, as operator of the Sheridan Well No. 1 located in Unit M of Section 13, Township 9 South, Range 33 East, Lea County, New Mexico, to which well is dedicated the SW/4 of said Section 13, all mineral interests in the Vada-Pennsylvanian Pool thereunder having been pooled by Commission Order No. R-4560, seeks the determination of reasonable well costs attributable to applicant and to King Resources, including, but not limited to, the costs of reworking and placing said Sheridan Well No. 1 back on production and attorneys fees in connection therewith. Applicant further seeks an order assessing, as a charge for the risk involved in the reworking of the well, 120% of the pro rata share of the reasonable well costs attributable to the working interest of King Resources.

CASE 5145: Application of Texas Pacific 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 Devonian formation in the perforated interval from 10,872 feet to 11,032 feet in its State "B" Well No. 2 located in Unit B of Section 11, Township 12 South, Range 33 East, Bagley Siluro-Devonian Pool, Lea County, New Mexico.

CASE 4969: (Reopened)

In the matter of Case No. 4969 being reopened pursuant to the provisions of Order No. R-4557, which order established a temporary special depth bracket allowable for the Tocito Dome-Pennsylvanian "D" Oil Pool, San Juan County, New Mexico. All interested parties may appear and show cause why the special allowable should be made permanent.

- CASE 5146: Application of Midwest Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Target Unit Area comprising 5120 acres, more or less, of State and Federal lands in Townships 25 and 26 South, Range 25 East, Eddy County, New Mexico.
- CASE 5147: Application of Mesa Petroleum Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the S/2 of Section 12, Township 16 South, Range 35 East, North Shoe Bar Field, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit in Unit 0 of said Section 12. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5148: Application of Coquina Oil Corporation 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 gas well location 990 feet from the North and East lines of Section 16, Township 19 South, Range 25 East, Boyd-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 16 to be dedicated to said well.
- CASE 5149: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 33, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard Pennsylvanian gas well location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

DEPCO, Inc.



un. 30,1974 800 Central

Exploration & Production

September 13, 1974

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

Gentlemen:

Attached is a copy of the log recently run on our Northwest Artesia Unit Well No. 15. At the time of the hearing to approve this project, a log on this injection well was not available but it was stated during the hearing that we would send you a copy when it was available.

Very truly yours,

Welton C. Smith District Engineer

WCS/vp

1

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 30, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of Depco, Inc. for a unit agreement, Eddy County, New Mexico.

Application of Depco, Inc. for a waterflood project, Eddy County, New Mexico.

Case No. 5161

Case No. 5144

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

William Carr, Esq.

Legal Counsel for the Com-

mission

State Land Office Building

Santa Fe, New Mexico

For the Applicant:

Ken Bateman, Esq.

WHITE, KOCH, KELLY & McCARTHY

220 Otero

Santa Fe, New Mexico

Page 2

<u>I</u> <u>N</u> <u>D</u> <u>E</u> <u>X</u>

WILTON SMITH

Direct Examination by Mr. Bateman

4

Cross Examination by Mr. Nutter

12

EXHIBITS

Marked Admitted

Applicant's Exhibits 1 through 7

MR. NUTTER: Call Case 5161.

MR. CARR: Case 5161. Application of Depco, Inc. for a unit agreement, Eddy County, New Mexico.

MR. NUTTER: I presume Case 5144 is a companion case of Case 5161.

MR. BATEMAN: Yes, sir, right.

MR. NUTTER: We will also call at this time, Case No. 5144.

MR. CARR: Case 5144, continued and readvertised.

Application of Depco, Inc for a waterflood project, Eddy

County, New Mexico.

MR. NUTTER: Do you want them consolidated?

MR. BATEMAN: Yes, please.

MR. NUTTER: Cases Nos. 5161 and 5144 will be consolidated for purpose of Hearing.

MR. BATEMAN: Mr. Examiner, I'm Ken Bateman with White, Koch, Kelly and McCarthy. I have one witness and ask that he be sworn.

(Witness sworn.)

WILTON SMITH

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

	<i>A</i>	
Page	—	

DIRECT EXAMINATION

BY MR. BATEMAN:

- Q State your full name, place of residence and place of employment, please?
 - A Wilton Smith, Odessa, Texas; Depco, Incorporated.
- Q Have you previously testified before the Commission?
 - A No, I have not.
- Q Would you briefly state your educational qualifications and work experience?
- A I received my BS degree in Petroleum Engineering from Texas Technological University in 1961, and commenced work with Amoco Production Company for approximately five years doing production and reservoir engineering work, and in December of '69 I was employed by Depco, Incorporated as District Engineer handling eastern New Mexico and the Texas District. I have presently held this capacity for about four years, again, doing production and reservoir engineering work.

I'm a registered professional engineer in the State of Texas.

Q Mr. Smith, are you familiar with the area in question in these two applications?

Page. 5

A Yes, sir.

MR. BATEMAN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

BY MR. BATEMAN:

Q Mr. Smith, would you refer to what we've marked as Exhibit No. 1, map of the project area, and briefly describe the area involved in both the waterflood and the unit area?

A This proposed unit is approximately 15 to 20 miles southeast of the City of Artesia, New Mexico. This is a map showing the specific area. The proposed unit boundary is shown by the yellow outline. The proposed injection wells are shown by the blue triangles. This area is located in Sections 29, 31 and 32 of Township 17, Range 28, and, also, 40 acres in Section 6 of Township 18, Range 28.

- Q What's the total acreage involved?
- A The total acreage is approximately 640 acres.
- Q The wells within the unit area indicated with a circle are what; would you explain that?
 - A Those are Abo producers.
 - Q They are not involved in your Application?
 - A They are not involved in our application.

Page. 6

Q Are there other waterflood projects in the immediate area?

A Yes, there are. The Artesia Unit which is immediately east of the area we're proposing is operated by Depco. Immediately north is a Red Lake Unit operated by Kersey and Company. Immediately to the west is the South Red Lake Unit operated by Birdley and to the south is a small unit, the West Artesia Unit, operated by H and S Oil Company, and then to the southeast is the Lever State Waterflood Project which is operated by the American Petrofina Oil Company. All of these operations are a Grayburg Waterflood Project.

Q Describe briefly, then, the proposed waterflood project.

A We propose to inject water into the wells as shown by the blue triangles on Exhibit 1. Due to the configuration of this unit we have proposed a partial five-spot injection pattern. We plan to put approximately 300 barrels of water per day at about 1,500 pounds into these seven wells.

The major working interest owners in this unit are Depco, Yates Petroleum Corporation, Husky Oil Company and Kersey Oil Company.

Q Have all the working interest owners and the royalty owners been notified of your proposal?

Page.7.......

- A They have been notified.
- Q As I understand it, the proposed injection wells are all existing wells of the -- no new well is drilled?
 - A That's correct.
 - Q Are logs of the proposed injection wells available?
- A Logs on six of the seven proposed injection wells are available and they are included as Exhibit 2.
 - Now, which of the wells has not been logged?
- A The Kirby Ramapo Well No. 2 has not had a log obtained on it.
 - Q Would you identify that, then, on Exhibit 1?
- A It's in Unit "P" of Section 32, Township 17, Range 28.
 - Q Do you intend to obtain a log of that well?
- A Yes, we plan to prior to commencing injecting in the well.
- Q Exhibit No. 2 is then the logs of the six wells that you have at the current time?
 - A That's correct.
- Q Would you then briefly describe what is included in the logs of Exhibit 2?
- A With the logs we have shown the top of the Queen, the Grayburg and San Andres Zones. Also, the Premier Section,

Page.....

we feel the major or the main producing zone in this area.

- Q Do you propose to submit the log of the Ramapo "A' Well No. 2 -- Well No. 2, excuse me -- when it is available to the Commission?
 - A Yes, we will.
- Q Would you refer then to Exhibit No. 3, which is marked as diagramatic sketches and describe the typical completion of an injection well?
- A Typical completion will have approximately 500 feet of surface pipe, in most cases cement has been circulated. Have a full string of production pipe set to T.D. perforated in the Premier zone and we will install internally plastic-coated tubing and plastic-coated packer. We plan to fill this tubing casing analus with inhibited water.
- Q Mr. Smith, the last diagramatic sketch is a sketch of the Ramapo "A" Well No. 2; is that correct?
 - A That's right.
 - Q Will additional work have to be done on that well?
- A We plan to, prior to commencing any injection into this well, to set a full string of four-and-a-half inch pipe and submit it with sufficient cement volume to bring it back to surface, then, perforate the Premier zone after obtaining a log and complete it similar to what I have described for

Page. 9

the other injection wells.

- Q Do you expect to be able to inject proposed volume of water in all of these wells?
 - A Yes.
- Q Proceed with Exhibit No. 4. Describe the cumulative production that has been obtained from this area.
- A Cumulative production obtained in this area ranges between 6,000 and 32,000 plus barrels of oil as of September 1, 1973.
- Q What do you expect to be the secondary recovery total?
- A Who appect to recover an additional 342,000 barrels of oil from operations of waterflooding this area.
 - Q What's the current production?
- A The current production averages 1.7 barrels of oil per well and ranges between one-half barrel and three barrels of oil per day, indicating that most of these wells are in a stripper stage. The remaining primary, as of September 1, '73, was indicated to be approximately 22,000 barrels of oil, which would mean that we were 93 percent depleted in this reservoir.
 - Q What kind of water do you propose to inject?
- A We plan to purchase water from local water companies operating in this area, probably from Double Eagle Corporation

Page....10

out of Roswell, New Mexico. They obtain their water from Ogalala water source in Eddy County. We're using this water in various other floods in this immediate vicinity of this particular proposed unit.

- Q Exhibit No. 5, then, is the water analysis of the water that you expect to use in this project?
 - A That's right.
 - Q Do you expect any problems with corrosion?
 - A No, we do not.
- Q What kind of leases are involved in this proposed unit area?
 - A All of these leases are State leases.
- Q Have the proposed unit operating agreements been submitted to the State Land Office?
- A It has been submitted to the State Land Office and they have approved it as to form and content.
- Q Describe briefly, then, the contents of the unit agreement?
- A This is more or less a standard-type unit agreement which has been submitted to all the working interest and royalty interest owners.
 - Q Unit Agreement is Exhibit 6; is that correct?
 - A Yes, I believe that is right.

11

Q What percentage of working interest and royalty has signed or do you expect?

A The total overall presently, we have 68.85 percent of working interest in the unit signed. We have verbal agreement with another 25.44 percent, which brings the total unit working interest signed-up approval to approximately 93.45 percent.

Q How about the royalty?

A That will vary from tract to tract. Referring to Exhibit "B" in unit agreement.

- Q Okay. Exhibit "B" to our Exhibit No. 6?
- A Right.

Q The total working interest in Tract 1 has been -- has been signed on that particular lease or verbal agreement to. The Yates Brothers overriding royalty have verbally approved it. We have not heard from Hondo Oil and Gas.

In Tract 2, all of the working interest has signed except Donahue Estate and Copas and Warren, which is approximately 28 percent working interest in that particular tract.

98 percent of the overriding royalty has been signed for Tract 2. The only ones that have not signed are Nelson and Nelson accounts.

Tract 3, working interest would be exactly the same

Page. 12

as Tract 2 and we have neither Tenneco or Continental overriding royalty signed.

- Q Do you expect to get their signatures?
- A Yes, we see no reason they wouldn't sign.
- Q Exhibit No. 7, then, is the proposed unit operating agreement?
 - A Yes, it is.
- Q I believe you testified that's also been submitted to the State Land Office?
 - A Yes, it has.
- Q Have Exhibits 1 through 7 been prepared by you or under your direction?
 - A Yes, they have.
- Q Your Application of both of these cases, if approved, do you expect it to prevent waste and protect the correlative rights?
 - A Yes, we do.

MR. BATEMAN: No further questions of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

- Q Mr. Smith, what happened to Burham here?
- A He chose not to join, sir.
- Q So you had to leave a window right in the middle of

SMITH-CROSS

Page. 13

the unit?

A Yes, sir, we sure did. He has two producing wells there which are very good. We would have preferred to have Mr. Burham come in, but he decided that he didn't wish to.

Q I see. Now, the Ramapo No. 2 that you mentioned, that you are running a string of pipe in, is that not a producing well at the present time?

A Yes, sir, it is a producing well at the present time.

Q But you want to re-case it?

A Yes, sir, in order to inject water and control it into the zone injection -- into the formation that we would like to put the water into.

Q Now, I noticed on most of these it appears the water is going to go into the Premier, down into the lower Grayburg; will the San Andres be flooded at all?

- A No, sir, it won't.
- Q It's all Grayburg?
- A Yes, sir.

And the Queen is indicated on the log of these wells, too. There won't be any Queen flooding or production?

A Initially, there will not be. As we progress, we might, you know, decide to go and complete in the Queen.

SMITH-CROSS

Page...... 14.....

It is a part of the unitized interval, the Queen Zone.

- Q And it is a part of the Artesia Pool?
- A Yes, sir, I believe that's right.

MR. NUTTER: Are there further questions of Mr. Smith? You may be excused.

(Witness excused.)

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

Bateman?

MR. BATEMAN: No, thank you.

I offer Exhibits 1 through 7.

MR. NUTTER: Applicant's Exhibits 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits
Nos. 1 through 7 were admitted
in evidence.)

MR. NUTTER: Does anyone have anything they wish to offer in Cases 5161 and 5144? We'll take the cases under advisement and recess the Hearing until 1:30.

D	15
Page	4 /

STATE OF NEW MEXICO))ss. COUNTY OF SANTA FE

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

N co hereby contify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5/44-5/6/ best by me on 1-30 1974. Examine: Dunn ** Yexico Oil Conservation Commission

DEPCO, Inc.

Exploration & Production

800 Central ODERSA. TEXAS 79760

November 16, 1973

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

Subject:

Application for Injection of Water

Project:

Proposed Northwest Artesia Unit

Waterflood

Field:

Artesia

County:

Eddy

Gentlemen:

DEPCO, Inc. requests a hearing to approve injection of water into the Queen and Grayburg pay for the purpose of waterflood operations in the proposed Northwest

Artesia Unit. This project area is shown by the plat, Exhibit 1, and is located in Sections 29, 31, and 32, of T-17-S and Section 6 of T-18-S of R-28-E, Eddy County, New Mexico. 6 wells I will

This application also requests approval to permit present producing wells to be converted to injection wells. These wells include DEPCO, Inc. State 647 Wells No. 179, 195, 206, 208, 212, and 219 plus Kersey and Company Ramapo "A" Well No. 2. Exhibit 2 contains logs or portions of logs over the zones of interest for these DEPCO, Inc. proposed injection wells. No log was run on the Kersey and Company well. Also, diagrammatic sketches for all these wells are presented in Exhibit 3.

Injection will be into the Grayburg pay at an approximate depth of 1900'. Approximately 500 BWPD will be injected into each of the proposed injectors. Water for this project will be purchased from one of the water companies which have distribution facilities in the vicinity.

Very truly yours

Welton C. Smith District Engineer

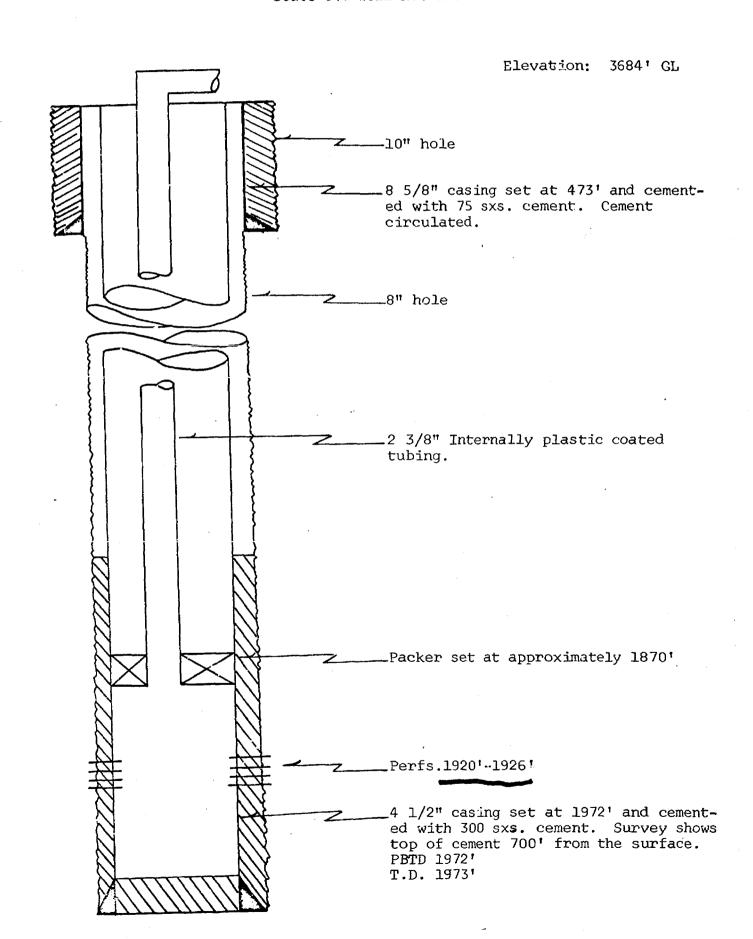
WCS/vp

cc: NMOCC - Artesia

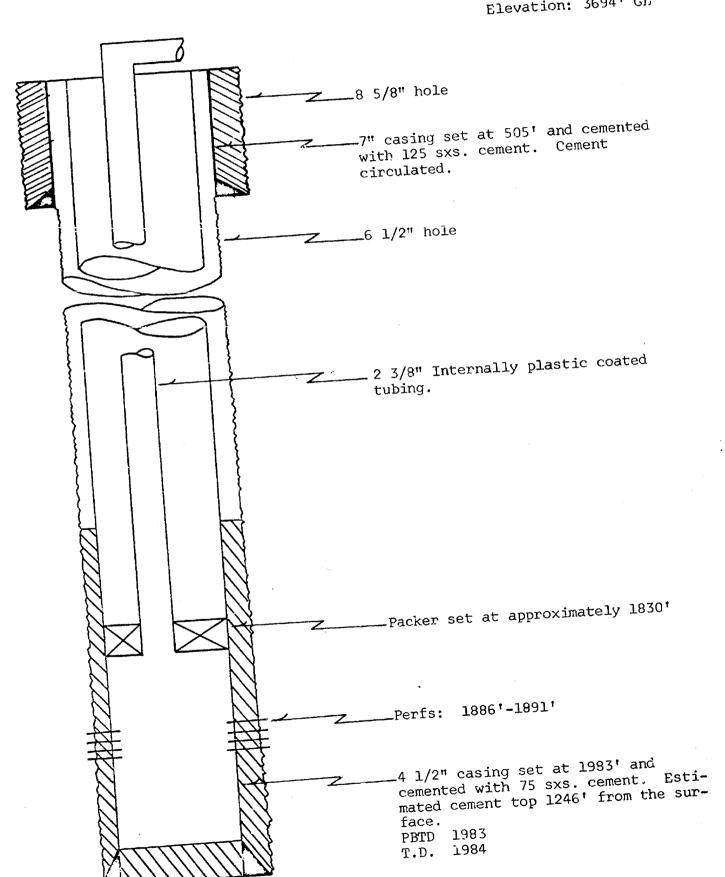
Date 1-18-14

LOGS

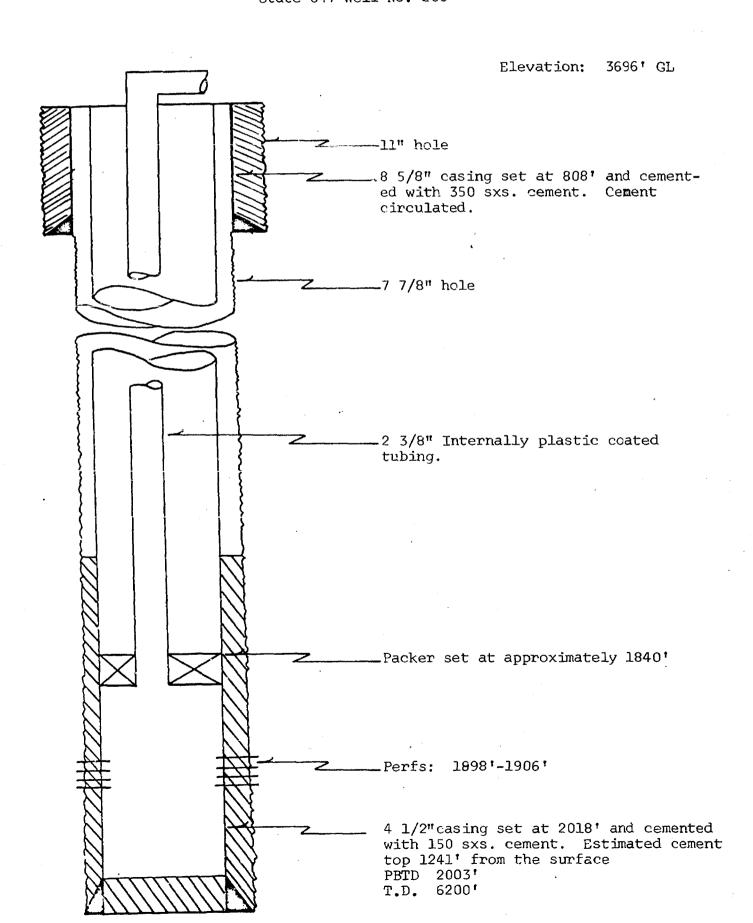
DIAGRAMMATIC SKETCHES



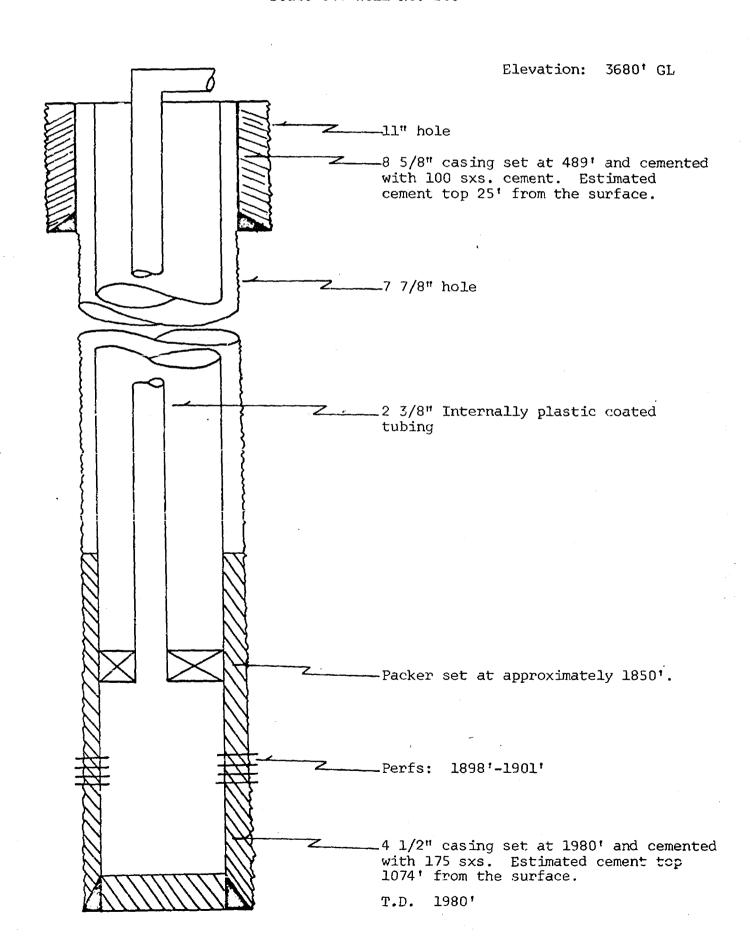
Elevation: 3694 GL

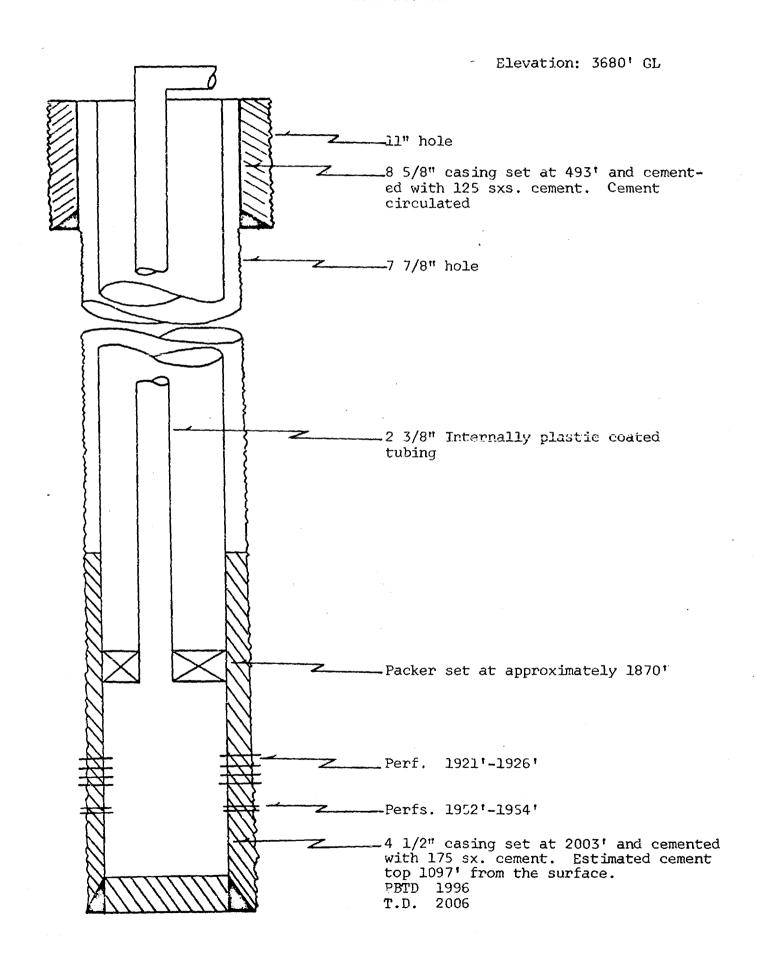


Diagrammatic Sketch Proposed Well Condition State 647 Well No. 206

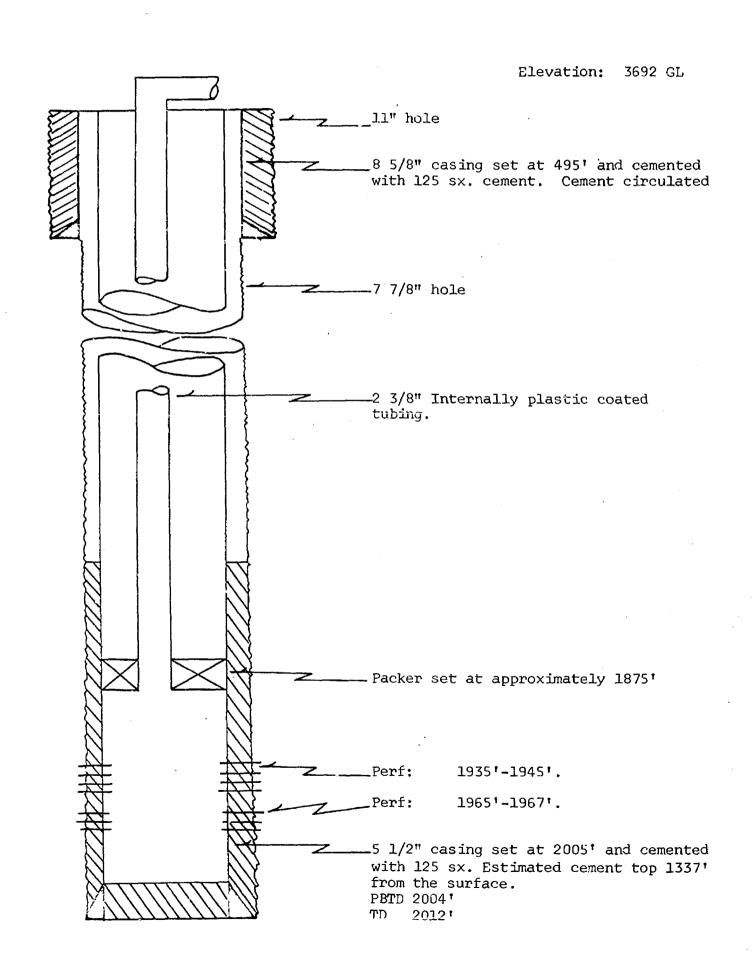


Diagrammatic Sketch Proposed well condition State 647 Well No. 208





Diagrammatic Sketch Proposed Well Condition State 647 Well No. 219



Elevation: 3672 _10" hole -8 5/8" casing set at 750' with 50 sxs. cement. Estimated cement top 491' from the surface. _est. 8" hole -2 3/8" Internally plastic coated tubing Packer set at approximately 50' above perfs Plan to perforate Permier after log is obtained Plan to run 4 1/2" full liner set to 2101' and cemented with sufficient voloume to circulate T.D. 2101

Northwest Artesia Unit INDIVIDUAL WELL DATA ON OFFSET PRODUCERS TO WATER INJECTORS

Lease	Well No.	Cumulative BO as of 9-1-73	August BOPD	Date of Completion	Completion Interval	Stimulation
State 647 AC. 722	180 186 196 211	32,999 16,479 13,614 14,583	3 2 1 3	1-62 4-62 6-63 5-66	1915-1922 1911-1940 1894-1899 1898-1908 1930-1934	SOF 24,000 gal x 1.3PPG SOF 27,000 gal x 1.1PPG SOF 20,000 gal x 1.5PPG SOF 38,000 gal x 1.3PPG
	213	10,467	1	6-66	1913 -1 925 1944-1945	SOF 38,000 gal x 1.3PPG
	216 220	12,239 13,242	2 2	2-67 5-67	1962 -1 994 1922 -1 949	SWF 30,000 gal x 1.3PPG SWF 36,300 gal x 1.1PPG
DelhiStat Ramapo A	te 14 1	9,622	1/2 1	4-55 1-54	1800-2099 1800-1812 1925-1960	SOF 10,000 gal x 1.5PPG SOF 6,000 gal x 2.0PPG
Proposed	Injection	Wells				
State 647	7					
AC. 722	179 195 206 208 212 219	32,194 24,721 14,907 14,599 7,723 6,028	1 2 3 3 1	11-61 6-63 3-66 5-66 6-66 5-67	1920-1926 1886-1891 1898-1906 1898-1901 1921-1926 1935-1967	SOF 48,000 gal x 1.3PPG SOF 20,000 gal x 1.5PPG SWF 28,000 gal x 1.3PPG SOF 38,000 gal x 1.3PPG SOF 38,000 gal x 1.3PPG SWF 40,000 gal x 1.0PPG
Ramapo A	A 2	22,920	1	5 - 54	1967 - 1970 2077 - 2087	SOF 6,000 gal x 2.0PPG

DRAFT

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. <u>5144</u>
Order No. R-<u>4727</u>

APPLICATION OF __DEPCO, INC. EDDY COUNTY, FOR A WATERFLOOD PROJECT, __ NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 30 , 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of February, 1974, 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, Depco, Inc. seeks authority to institute a waterflood project in the Northwest Artesia Unit Area, Artesia Pool, by the injection of water into the Grayburg-San Andres formation through injection wells in Sections 31 and 32, Township 17 North, South, Range 28 West, East, NMPM, Eddy County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Depco Inc.
is hereby authorized to institute a waterflood project in the
Northwest Artesia Unit Area, Artesia Pool,
by the injection of water into the Grayburg-San Andres formation
through the following-described wells in Township 17
North, South, Range 28 West, East, NMPM, Eddy
County, New Mexico:
647 Well to, +19 206 / Unil H Section 31
500 32 - State 647 Well No. 495 219 thit FP Section 31
e 12 3 5 5 6 7 West No. 246 179 1 11 4 4 Section 32
< 1 - Section 32
1 22- State 647 Well 10, 212 208 Unit HAL Section 32
132- State 447 Well Mo. 249 212(212) Unit PN Section 32
Calinate RamporA word No. Z Visit PP Section 32

- (2) That the subject waterflood project is hereby designated the Normwer Aries A Unit— Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (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.