

**OIL CONSERVATION COMMISSION**  
P. O. BOX 871  
SANTA FE, NEW MEXICO

August 22, 1963

**International Oil & Gas Corporation**  
P. O. Box 427  
Artesia, New Mexico

Attention: Mr. R. J. Davenport

Gentlemen:

Reference is made to your letter dated August 12, 1963, wherein you request that the Secretary-Director of the Commission reclassify your East Millman Queen Grayburg Pressure Maintenance Project to a waterflood project effective September 1, 1963, pursuant to Section III of Order No. R-2405.

By the authority vested in me by said Order No. R-2405, the aforesaid pressure maintenance project is hereby reclassified. This water injection project will henceforth be governed by Rule 701-E of the Commission Rules and Regulations, and the special rules relating to the pressure maintenance project as set forth in said Order No. R-2405 shall be of no further force or effect.

When all of the wells authorized for water injection have been placed on active injection, this project will be eligible to receive a maximum water flood allowable of 1050 barrels of oil per day.

Very truly yours,

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

ALP/DSN/og

cc: Oil Conservation Commission - Artesia  
Oil & Gas Engineering Committee - Hobbs  
State Land Office - Santa Fe

C  
O  
P  
Y

825 PETROLEUM CLUB BUILDING  
DENVER 2, COLORADO

ADDRESS REPLY TO:

P. O. Box 427  
Artesia, New Mexico  
August 12, 1963

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

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

Dear Sir:

International Oil & Gas Corporation, formerly Western Development Company of Delaware, hereby requests the Secretary-Director of the Commission to reclassify our East Millman Queen Grayburg Pressure Maintenance Project to a water flood project effective September 1, 1963 as per Section (111), Order No. R-2405 dated October 10, 1962. Reclassification of this project will convert to a water flood proration as per Commission Rule No. 701.

Thank you for your cooperation in this matter.

Very truly yours,

INTERNATIONAL OIL &amp; GAS CORPORATION

*R. J. Davenport*  
R. J. Davenport  
District Superintendent

RJD: cm

cc: New Mexico Oil Conservation Commission  
P.O. Drawer DD  
Artesia, New Mexico  
Attn: Mr. M. L. Armstrong

mission R2405: Can by magnetic  
date 7/1/63  
R.F. #62)  
Does not contain  
handwritten notes  
open classification to  
let Prof by Chap Die upon  
written request for release,  
by agent Mr. J. G. ...  
... of ... E-mail given  
... ..





**OIL CONSERVATION COMMISSION**

P. O. BOX 871

SANTA FE, NEW MEXICO

January 2, 1963

C  
O  
P  
Y  
  
Mr. A. J. Losee  
Losee & Stewart  
Attorneys at Law  
Post Office Box 239  
Artesia, New Mexico

Dear Sir:

Enclosed herewith are two copies of Order No. R-2405 recently entered in Case No. 2656, application of Western Development Company for a Secondary Recovery Project, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

Although the order does not specifically say so, approval of the Western Yates State 648 Lease Well No. 147, located in Unit E of Section 14, Township 19 South, Range 28 East, as a water injection well is contingent upon satisfactory repair of an apparent casing leak in the well. In a recent telephone conversation between myself and Dick Davenport of Western Development, it was agreed to cover this repair in the letter of transmittal rather than in the order itself.

It is requested that you advise the Oil Conservation Commission's Artesia Office as well as James I. Wright of the State Engineer's Roswell Office of the method and time that the casing in the No. 147 will be repaired.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/ir

cc: Frank E. Irby  
State Engineer Office  
Santa Fe, New Mexico

James I. Wright  
State Engineer Office  
Roswell, New Mexico

# Western Development Company of Delaware

65 SENA PLAZA, SANTA FE, NEW MEXICO

TELEPHONE YU 2-3568  
P. O. BOX 427 ARTESIA, NEW MEXICO

December 28, 1962

*File*

Mr. Daniel S. Nutter, Chief Engineer  
New Mexico Oil Conservation Commission  
P.O. Box 871  
Santa Fe, New Mexico

Re: Case No. 2656; Application of  
Western Development Company  
of Delaware for Secondary  
Recovery Project, East Mill-  
man Queen-Grayburg Pool,  
Eddy County, New Mexico.

Dear Dan:

In reference to the subject application, listed below are the data necessary to calculate the daily average gas equivalent of net water injected as per the proposed Rule No. 8.

$$Eg - (Vw \text{ inj} - Vw \text{ prod}) \times 5.61 \times Pa / 15.025 \times 520^{\circ} / Tr \times 1/Z$$

where:

- Eg - Average daily gas equivalent of net water injected, cubic feet.
- Vw inj - Average daily volume of water injected, barrels.
- Vw prod - Average daily volume of water produced, barrels.
- 5.61 - Cubic foot equivalent of one barrel of water.
- Pa - Average reservoir pressure at a datum of  $\pm 1700$  feet above sea level, psig  $\pm 13.20$ , as determined from most recent survey.
- 15.025 - Pressure base, psi.
- 520 $^{\circ}$  - Temperature base of 60 $^{\circ}$ F expressed as absolute temperature.
- Tr - Reservoir temperature of 85 $^{\circ}$ F expressed as absolute temperature (545 $^{\circ}$ R).
- Z - Compressibility factor from analysis of East Mill-man Queen-Grayburg Pool gas at average reservoir pressure, Pa $^1$  interpolated from compressibility

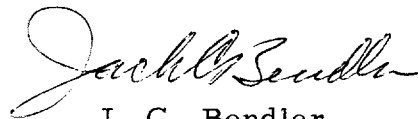
tabulation below:

<u>Pressure</u> <u>Psig</u>	<u>Z</u>	<u>Pressure</u> <u>Psig</u>	<u>Z</u>
0	. 998	550	. 863
50	. 986	600	. 851
100	. 973	650	. 838
150	. 961	700	. 826
200	. 949	750	. 816
250	. 936	800	. 802
300	. 924	850	. 790
350	. 912	900	. 777
400	. 900	950	. 765
450	. 887	1000	. 753
500	. 875	1050	. 741
		1100	. 729

In the event further data or information is required, please notify this office by mail or telephone collect.

Very truly yours,

WESTERN DEVELOPMENT COMPANY  
of Delaware



J. C. Bendler  
Assistant Production Superintendent

JCB:cm

P. S. Current estimated reservoir pressure - 275 psig at datum  
(+ 1700') above sea level. Current estimated reservoir  
temperature - 85° F.



# STATE OF NEW MEXICO

## STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

December 12, 1962

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, N. M.

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, New Mexico

Attn. Mr. Dan Nutter

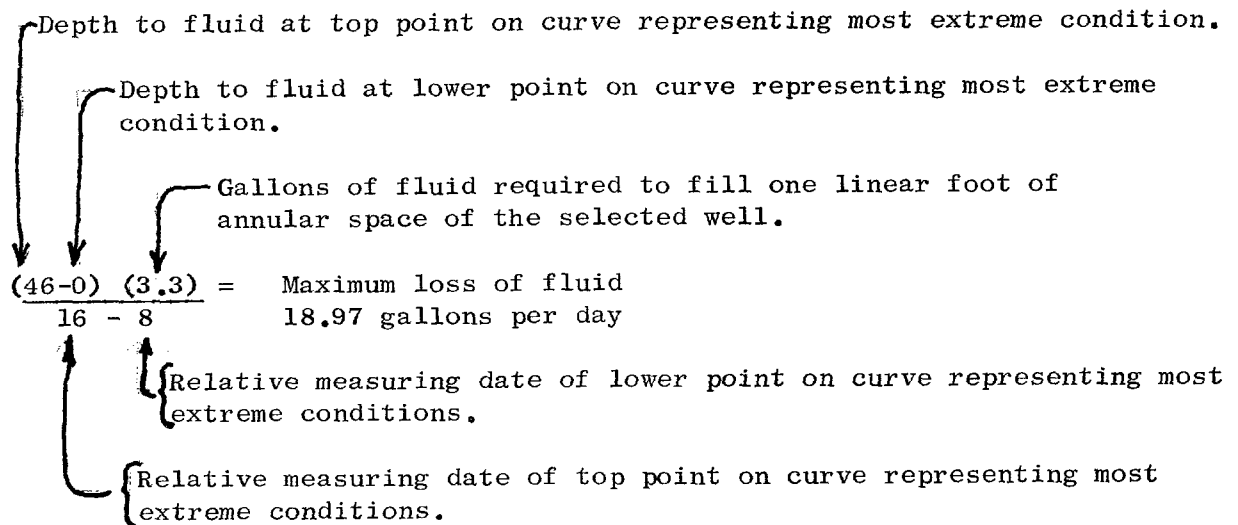
Dear Mr. Nutter:

Enclosed are Jim Wright's memorandum to me (11-30-62), his curves on lowering of fluid in 7 selected wells, his tabulation of measurements to water in the 16 wells and his memorandum to me dated 12-8-62 which was a result of my telephonic request for a clear explanation of his method of plotting the curves. I will elaborate some on the curves.

The dashed line departing from the solid line on each curve represents the maximum rate of lowering for the specified well. This was plotted by arbitrarily picking two points that represented the most rapid rate of lowering.

On the right side of the graph "Fluid transmitted in gallons" is arrived at by multiplying the lowering of "Depth to fluid in feet below datum" by the number of gallons of fluid per linear foot of annular space in the specific well.

I think the computation formula can best be explained by the illustration below.



Although the values with respect to days, feet and gallons vary, the same



formula is used except for well 147 where hours are used instead of days.

The sharp break in the curve for well 147 indicates a leak at about 41 feet, in my opinion. If the fluid level in the annulus is above this point an escape of approximately 90 barrels per day could occur. I recommend that measures be taken to correct this situation.

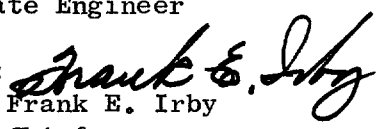
I find no objection to the granting of the application provided Western Development Company is agreeable to my recommendation in the preceding paragraph, which I believe they will find to be to their interest.

If further discussion of this matter is desired please call on me at your convenience.

Very truly yours,

S. E. Reynolds  
State Engineer

FEI/ma  
cc-Mr. Jack Bendler  
James I. Wright

By:   
Frank E. Irby  
Chief  
Water Rights Division

# MEMORANDUM

State Engineer Office  
Roswell, New Mexico  
December 8, 1962

TO Frank E. Irby, Chief, Water Rights Division

FROM James I. Wright

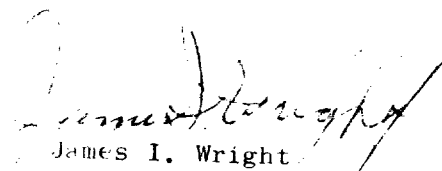
SUBJECT

BEST AVAILABLE COPY

I am submitting three copies of the report with the exhibits revised as per our telephone conversation December 7, 1962.

The computed maximum infiltration rates which are shown on the attached curves were arrived at by multiplying the slope of the curve times a conversion factor. The maximum slope of the curve was found by arbitrarily picking two values from the curve, subtracting these values, and dividing by the time interval. The conversion factor is introduced for the purpose of converting feet of fluid in the annulus to volume of fluid expressed in gallons.

The maximum slope was used since the maximum slope must be exceeded by the leakage rate before fluid can appear at the surface. In reality, the actual time required for this fluid to surface will be considerably less than the calculated amount due to the decrease in the infiltration rate with decreasing head.

  
James I. Wright  
Field Engineer

JIS:ffc  
Encl.

ILLEGIBLE

1962 DEC 10 AM 9:46

STATE ENGINEER OFFICE November 30, 1962  
SANTA FE, N. M.

Frank E. Irby, Chief, Water Rights Division

James I. Wright

Application of Western Development Company of Delaware for Secondary Recovery Project, East Millman-Queen Grayburg Field, Eddy County, New Mexico, before the Oil Conservation Commission.

In accordance with your memo of October 10, 1962, the annular space between the surface casing and the production casing of the proposed injection wells of the subject flood were filled with water on October 29, 1962. On November 7, 1962, I visited these wells and measured the depth to fluid below the opening on the outside casing and calculated the volume of water lost by infiltration from October 29, 1962 to November 7, 1962. I was not satisfied with the results obtained by this test and decided to run a second infiltration rate-test on six of these wells. The results of the latter tests, covering the period of November 7, 1962 to November 16, 1962 were plotted and the infiltration rates determined by graphic methods. The infiltration rates for these wells varied from 0.32 gal/day to 161 gal/day and further indicated that these wells had been filled with fluid on November 6, 1962. Copies of these graphs are attached as well as a tabulation of all of the information which was collected.

The Yates and Seven Rivers formations are probably open in most of the wells and do not appear to have much permeability in this area. The static fluid level in the area of the proposed flood will probably be in excess of 300 feet, but less than 600 feet, below the surface. Although there is very little factual data to support this figure, I believe that it is on the correct order of magnitude based upon my general knowledge of the area. The elevation of the land surface at each well and the density of the fluid in the annulus will effect the depth to water but will not be of significance.

It should be pointed out that the infiltration rates which were computed indicate the amount of water which the formation will take at maximum head. If a leak develops in the production casing it would be necessary to fill the annular space with fluid in addition to exceeding the infiltration rate at maximum head before fluid would appear at the surface.

With the exception of well #147, a leak of 1 GPM would show up at the surface in less than two days after the leak commenced, assuming that the hole condition remains unchanged. The sharp break in the infiltration rate curve for well #147 indicates the possibility of a leak in the surface casing. This well could have a leak exceeding 2 GPM without any fluid appearing at the surface, however, a leak of 3 GPM would be indicated at the surface in less than two days.

It appears that any leak of significance in the production casing of any of the wells in this proposed flood will be apparent at the surface if the annulus is left open to the atmosphere, and it is my understanding that this will be the case

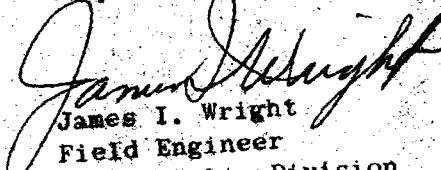
November 30, 1962

- 2 -

Mr. Frank E. Irby

during the operation of the proposed flood. I feel that the injection of water through the production casing is fairly safe in this area since any leak of significance can be easily detected by the operator, and any increase in the specific injection rate will be reflected on O.C.C. Form C-120 which you indicated you had requested be filed monthly with the State Engineer.

Very truly yours,

  
James I. Wright  
Field Engineer  
Water Rights Division

JIW:ffc

cc: Fred H. Hennighausen



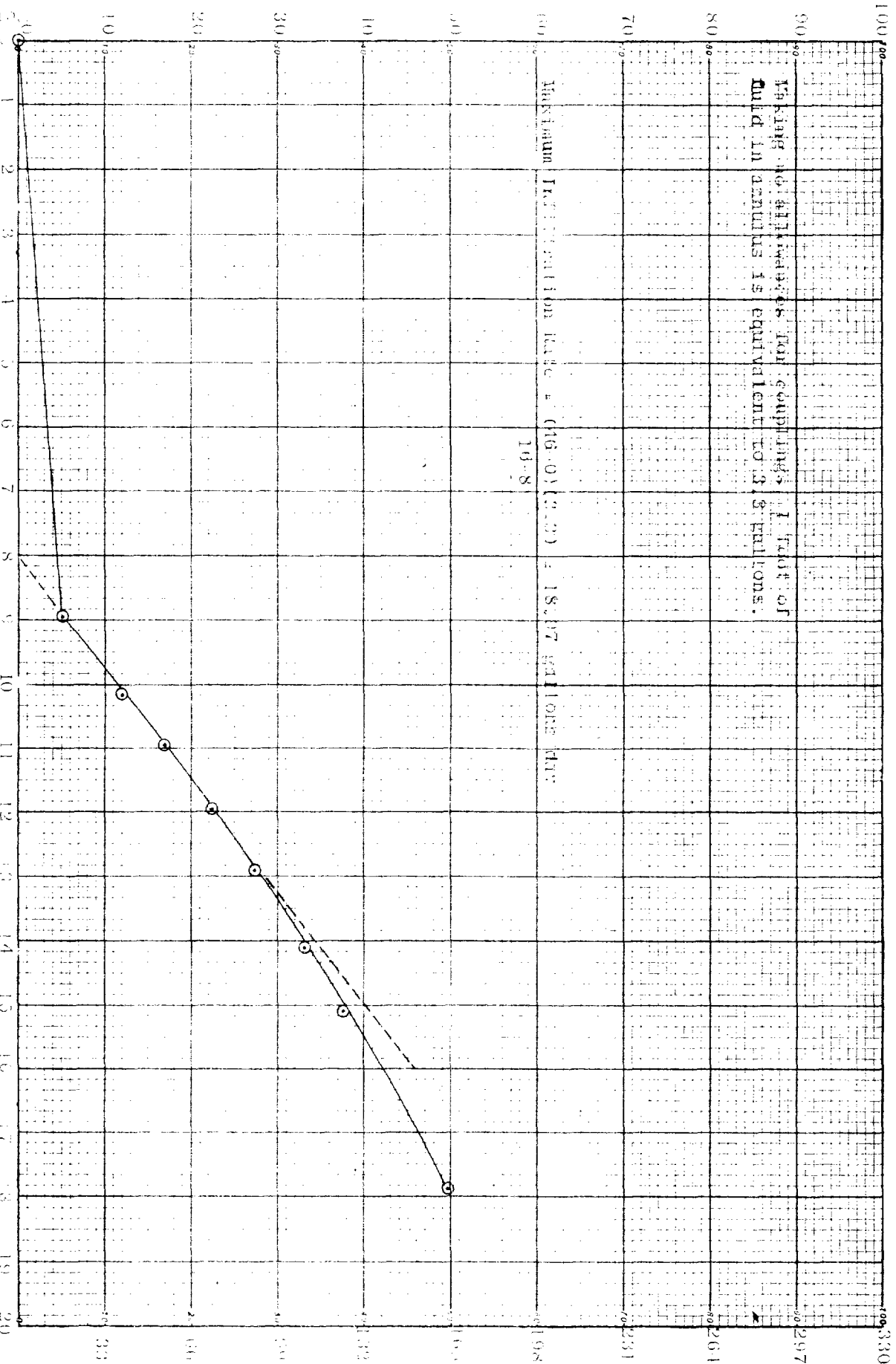
WESTERN STATES MILCO STATE NO. 3  
SW 1/4 Section 23, Township 19 South, Range 28 East

ILLEGIBLE

When no all-ways for coupling of  
and in annulus is equivalent to 3.3 millions.

Minimum Irradiation Rate = (0.6-0.7) = 18.37 million dty

19-8



Radioactivity in millions

Time in days

Radioactivity in millions

Radioactivity in millions

Radioactivity in millions



WESTERN STATES STATE 648 No. 181  
SW 1/4 Section 14, Township 19 South, Range 28 East

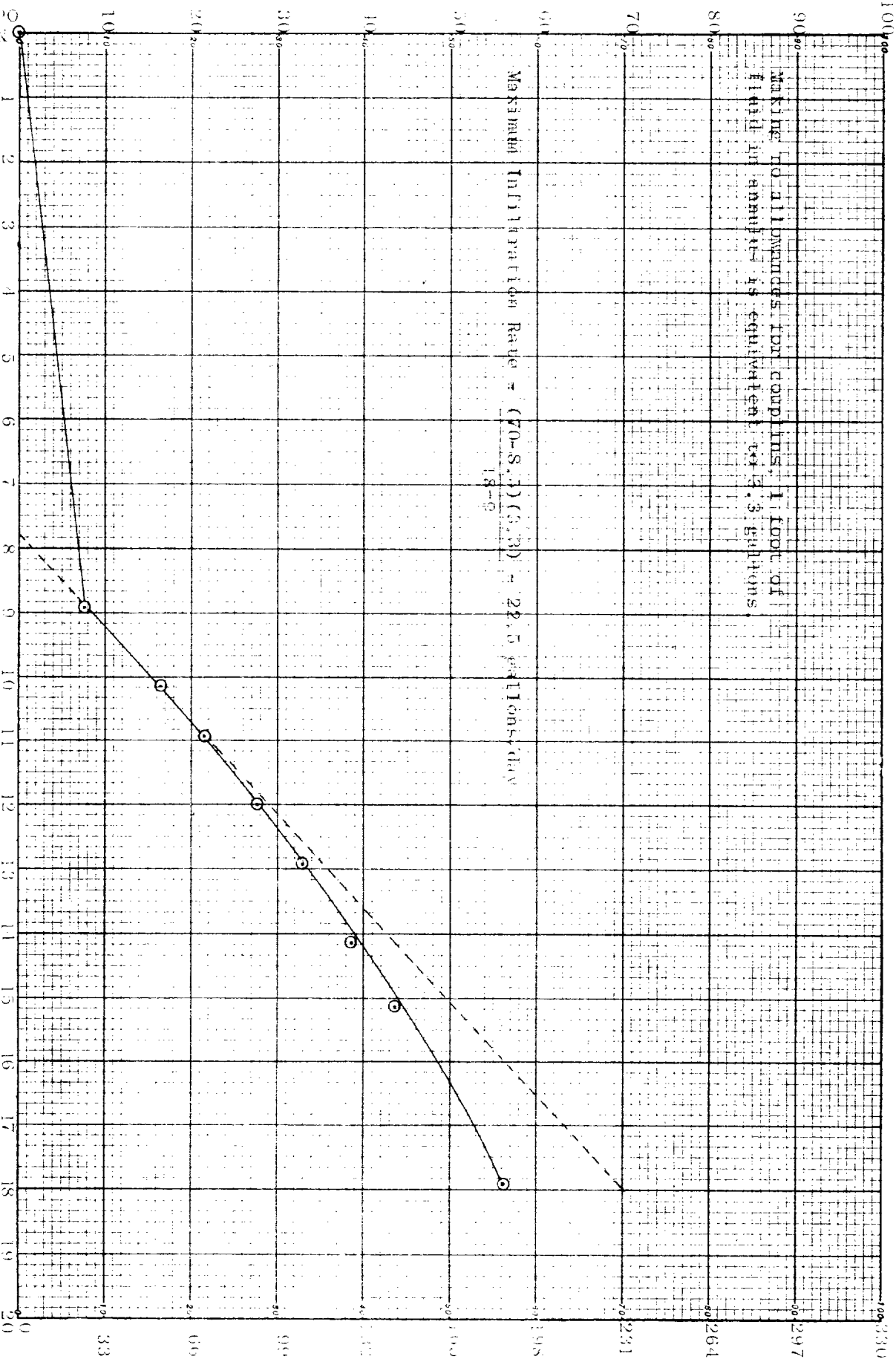
ILLEGIBLE

Depth to fluid in feet below surface

MAKING NO ALLOWANCES FOR COUPLING. 1 foot of fluid in annulus is equivalent to 2.3 gallons.

Maximum Infiltration Rate =  $(70 - 8.3)(0.73) = 22.5$  gallons/day

18-9



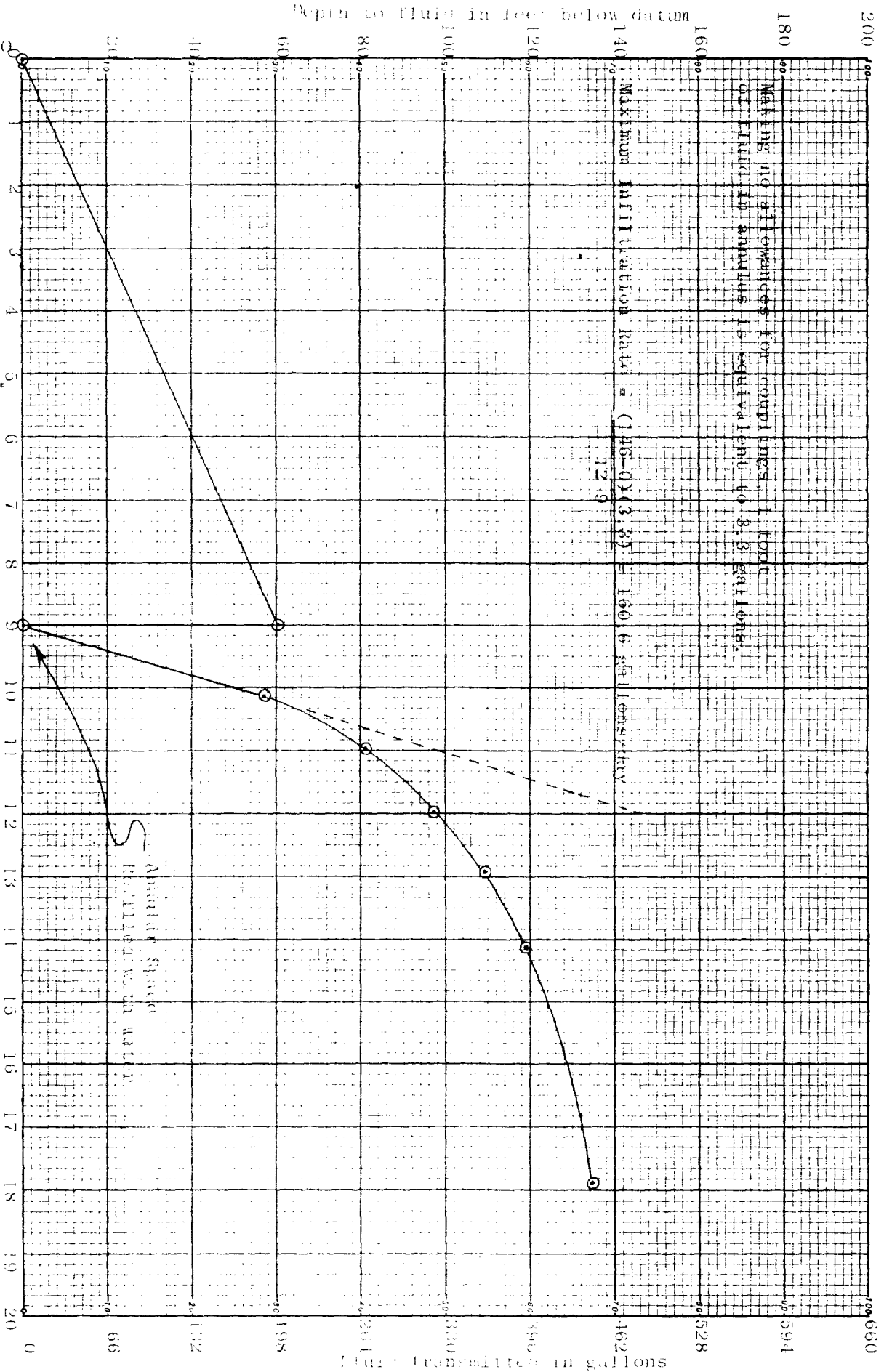
Fluid in gallons

Elapsed Time in Days

0-1.29 1962



ILLEGIBLE



Oct. 29, 1962

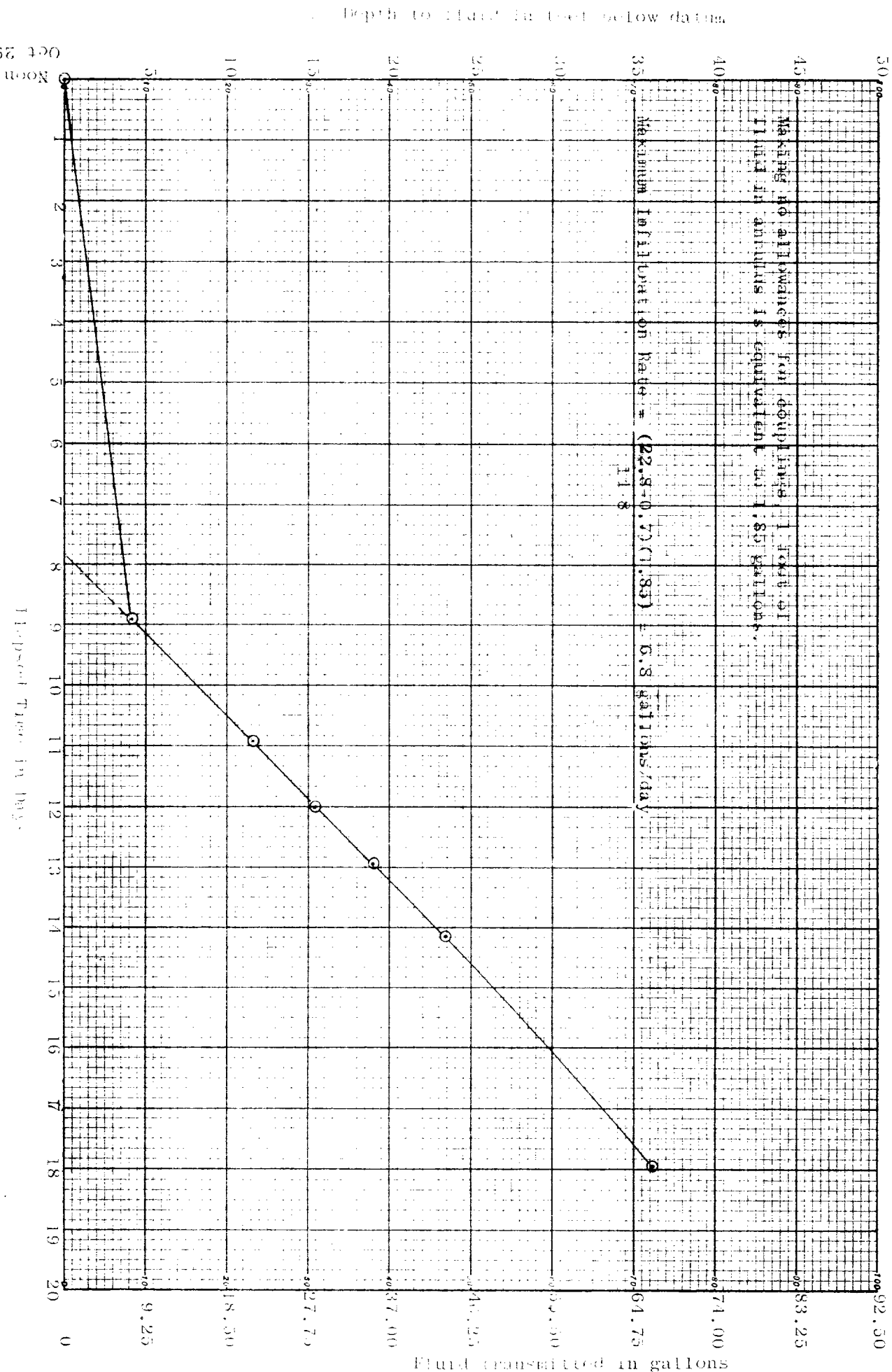
Elapsed Time in Days



WESTERN YARDS STATE NO. 160

Section 11, Township 19 South, Range 28 East

ILLEGIBLE



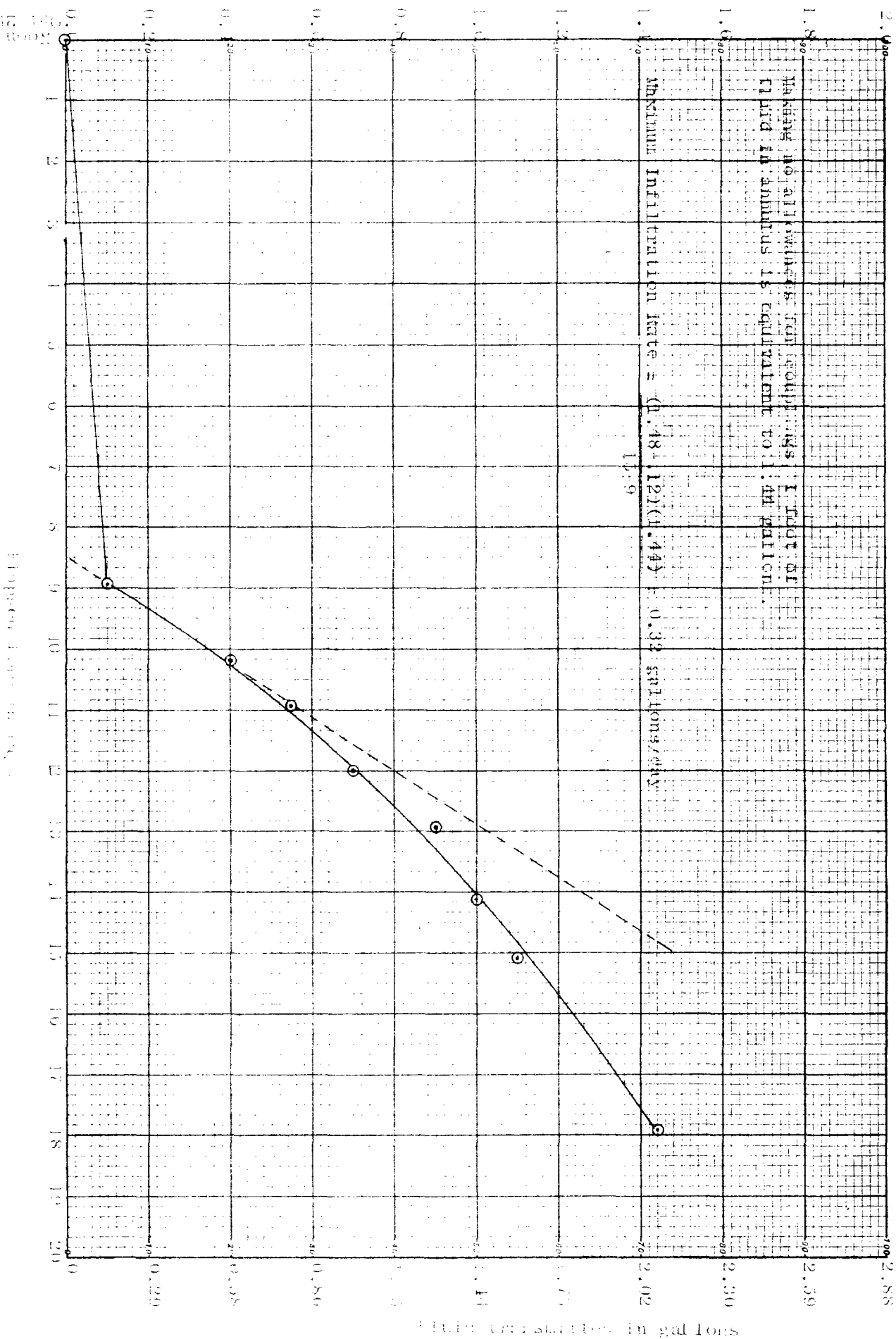
Oct 29, 1966





WESTERN STATES STATE 648 No. 182  
SW 1/4 Section 14, Township 19 South, Range 28 East

ILLEGIBLE

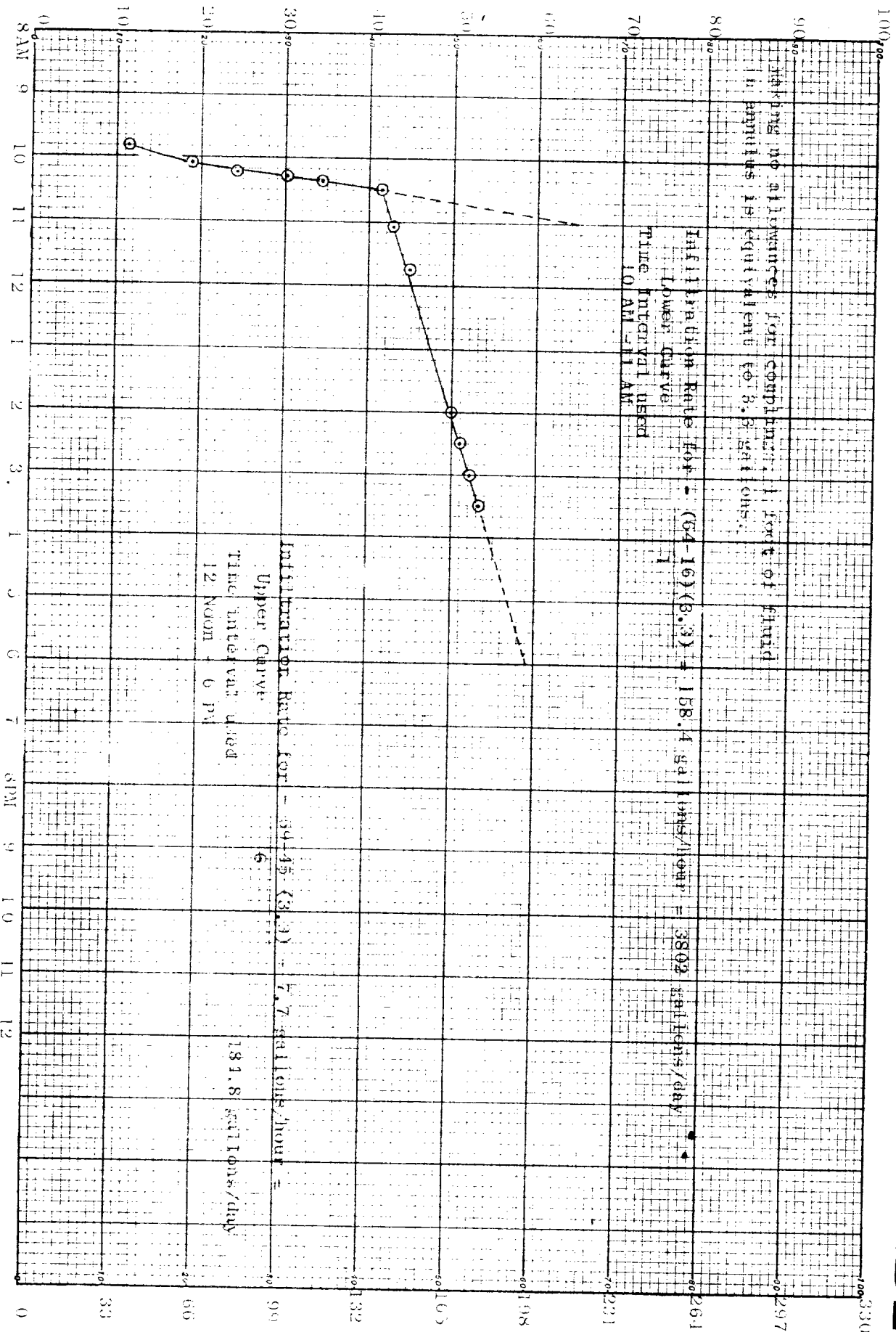




WESTERN YATTS STAT 648 No. 147  
SW 1/4 Section 14, Township 19 South, Range 28 East

ILLEGIBLE

Dep 1 - 6 ft. in feet below datum



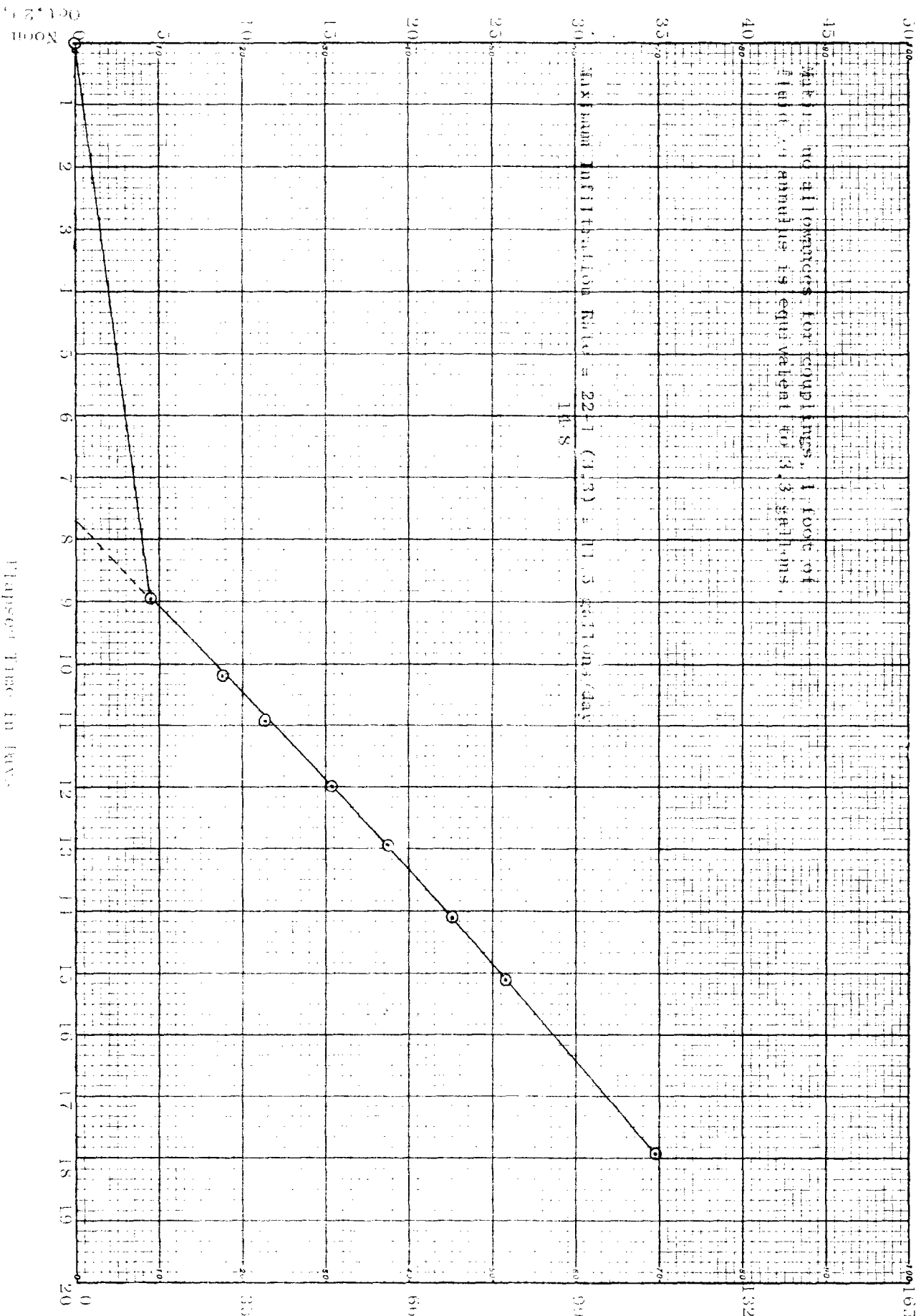
Time in hours  
November 27, 1962



WESTERN STATES STATE 648 No. 148  
 NE 1/4 Section 11, Township 19 South, Range 28 East

ILLEGIBLE

Depth to fluid in feet below datum



Time in hours

Elapsed Time in hours

Oct. 2, 1962

WESTERN DEVELOPMENT COMPANY OF DELAWARE  
SECONDARY RECOVERY PROJECT INJECTION WELLS

Well No.	Filling	Depth to Fluid Below Datum in Feet										Volume of Annular Space Above Estimated Water Table in Gallons	Maximum Infiltration Rate in Gallons/day
		10/29/62 Computed Prior to Filling	10/29/62 After Filling	11/7/62	11/8/62	11/9/62	11/10/62	11/11/62	11/12/62	11/13/62	11/16/62	11/20/62	
Malco #3	20	0	0	5.1	12.0	17.0	22.5	27.45	33.20	37.84	49.72	64.15	1980 19.0
Malco #2	65	0	0	60.2	59.5	81.40	97.6	109.60	119.60		134.33	138.00	1980 160.6
#182	0			.1	.40	.55	.70	.90	1.00	1.10	1.44	1.90	864 0.3
#184	13	0	0	7.7	16.4	21.6	27.8	33.0	38.85	43.8	56.29	71.05	1980 22.5
#148	26	0	0	4.5	8.7	11.45	15.4	18.7	22.6	25.82	34.88	47.05	1980 11.5
#160	33	0	0	4.1		11.65	15.4	19.0	23.4	29.1	36.18	47.55	1110 6.8
#152		0	0	0.6	0.8					3.75	5.26		1980 1.7
#158		0	0	0.7	0.9					4.74	6.61		1980 2.2
#145	7.0	0	0	0.6	0.6					.80	.89		1980 0.1
#156	0	0	0	0.1						7.2	3.40		1980 1.1
#151	13	0	0	0.1						1.65	1.95		1980 0.8
#143	0	0	0	.05						0.6	.71		1110 1.8
#161	11.0	0	0	2.5	4.3					11.27	14.26		1110 2.6
#147	120	0	0	17.0						144.5	146.20	147.50	1980 3802.0
#5000#1	25	0	0	2.5	5.7					17.1	33.42		524 2.2
#153	7	0	0	0.1						2.96	3.95		1980 1.5

# Western Development Company of Delaware

1002 OCT 1 1962

65 SENA PLAZA, SANTA FE, NEW MEXICO

TELEPHONE TOLCO 2-5568

P. O. BOX 427 ARTESIA, NEW MEXICO

October 11, 1962

Mr. Daniel S. Nutter, Chief Engineer  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Re: Case No. 2656; Application of  
Western Development Company  
Of Delaware for Secondary  
Recovery Project, East Millman  
Queen-Grayburg Pool, Eddy  
County, New Mexico

Dear Dan:

In keeping with your request I am enclosing herewith the Oil  
Conservation Commission forms C-115 and C-116 for your disposition.

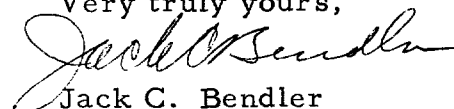
Please note on the C-116 that there were numerous errors in  
the producing method column. I have written a letter to your District  
II office correcting each of the errors. Our production clerk failed to  
note the changes in producing status this past year.

We as yet have not received gas sales volumes from the various  
purchasers, therefore, am unable to send you the completed copy of the  
C-115 for September, 1962. The well status column on the form C-115  
for September, 1962 is current and correct.

Also, enclosed herewith, is a list of the wells within the proposed  
project area indicating the producing formations presently open to the  
well bore. I thought perhaps in my haste to supply this information  
during the hearing, I might have failed to note correctly a set of perfora-  
tions in one of the two producing formations.

If you should desire any further data regarding the subject proposed  
Pressure Maintenance Project, please feel free to call our Artesia office  
telephone collect.

Very truly yours,

  
Jack C. Bendler

JCB:cm

encl.

cc: Western Development Company  
Denver, Colorado

WESTERN-YATES  
EAST MILLMAN QUEEN-GRAYBURG POOL  
EDDY COUNTY, NEW MEXICO  
PROPOSED PRESSURE MAINTENANCE PROJECT

<u>Lease &amp; Well No.</u>	<u>Producing Zones Open</u>
State Lease 648 Well No. 143	Queen
State Lease 648 Well No. 144	Queen
State Lease 648 Well No. 145	Queen-Grayburg
State Lease 648 Well No. 146	Queen
State Lease 648 Well No. 147	Queen-Grayburg
State Lease 648 Well No. 150	Queen
State Lease 648 Well No. 151	Queen
State Lease 648 Well No. 152	Queen-Grayburg
State Lease 648 Well No. 153	Queen-Grayburg
State Lease 648 Well No. 154	Queen-Grayburg
State Lease 648 Well No. 156	Queen-Grayburg
State Lease 648 Well No. 157	Queen-Grayburg
State Lease 648 Well No. 158	Queen-Grayburg
State Lease 648 Well No. 159	Queen-Grayburg
State Lease 648 Well No. 162	Queen-Grayburg
State Lease 648 Well No. 163	Queen
State Lease 648 Well No. 165	Queen
State Lease 648 Well No. 181	Queen-Grayburg
State Lease 648 Well No. 182	Queen
State Lease 648 Well No. 183	Queen-Grayburg
State Lease 648 Well No. 184	Queen
State Lease E-5003 Well No. 1	Queen-Grayburg
Malco State Lease Well No. 1	Queen
Malco State Lease Well No. 2	Grayburg
Malco State Lease Well No. 3	Grayburg

# NEW MEXICO OIL CONSERVATION COMMISSION

BOX 871 SANTA FE, NEW MEXICO

## OPERATOR'S MONTHLY REPORT

STATEWIDE FORM C-115 REV. 10-1-61  
SUBMIT: ORIGINAL TO OCC SANTA FE  
ONE COPY TO OCC DIST. OFFICE  
ONE COPY TO TRANSPORTER

(Company or Operator) **Western-Yates**

(Address) **P.O. Box 427, Artesia, New Mex.** FOR MONTH OF **September, 1962** Page **1** of **2**

WELL NO. UNIT SEC. TWP. RNG.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS					DISPOSITION OF OIL				
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLD	PURCH.	OTHER	C O D E	OIL ON HAND BEG. OF MONTH	BARRELS TO TRANS-PORTER	OTHER	C O D E
LEASE NAME AND STATE LAND LEASE NUMBER OR FEDERAL LEASE NUMBER																
Millman Queen Grayburg East																
Malco State (E-5136)																
1 D 23-19-28	P	570	326													
2 C 23-19-28	P	750	432													
3 E 23-19-28	P	630	365													
Lease Total		1950	1123													
State 648																
143 K 14-19-28	P	1020	482													
144 L 14-19-28	P	1050	482													
145 M 14-19-28	P	1050	470													
146 F 14-19-28	P	1050	444													
147 E 14-19-28	P	1050	470													
148 A 14-19-28	P	1050	520													
149 B 14-19-28	P	1050	482													
150 P 15-19-28	P	1050	432													
151 I 15-19-28	P	1050	470													
152 A 22-19-28	P	1050	444													
153 C 14-19-28	P	1050	482													
154 B 22-19-28	P	1050	457													
155 N 11-19-28	P	1050	495													
156 O 15-19-28	P	1050	457													
157 H 15-19-28	P	1050	458													
158 G 22-19-28	P	1050	470													
159 O 14-19-28	P	1020	508													
160 K 11-19-28	P	SI	SI													
161 I 14-19-28	P	1050	508													
162 H 22-19-28	P	1050	483													
163 N 15-19-28	F	300	290													

Wells underlined in Red are not within the proposed project area.

Wells underlined in Red are not within the proposed project area.

"OTHER" GAS DISPOSITION CODE  
X - FLOWING  
P - RUMPLING  
G - GAS LIFT  
S - SHUT IN  
T - TEMP. ABANDONED  
I - INJECTION  
D - USED OFF LEASE  
U - USED FOR DRILLING  
L - LOST  
E - EXPLANATION ATTACHED  
R - REPRESSURING OR PRESSURE MAINTENANCE

"OTHER" OIL DISPOSITION CODE  
C - CIRCULATING OIL  
L - LOST  
S - SEDIMENTATION (BSAW)  
E - EXPLANATION ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

(SIGNATURE)

(DATE)

(POSITION)

# NEW MEXICO OIL CONSERVATION COMMISSION BOX 871 SANTA FE, NEW MEXICO OPERATOR'S MONTHLY REPORT

(Company or Operator) Western-Yates (Address) P.O. Box 427, Artesia, New Mexico MONTH OF September, 1962 Page 2 of 2

WELL NO. UNIT SEC. TWP. RNO.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS					DISPOSITION OF OIL					
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLD	PURCH.	OTHER	C D E	OIL ON HAND BEG. OF MONTH	BARRELS TO TRANS-PORTER	OTHER	C D E	TRANS-PORTER
LEASE NAME AND STATE LAND LEASE NUMBER OR FEDERAL LEASE NUMBER																	
165 J 15-19-28	P	1050	495														
178 P 14-19-28	P	1050	711														
181 J 14-19-28	P	1050	520														
182 O 14-19-28	P	810	457														
183 N 14-19-28	P	1050	520														
184 G 14-19-28	P	1050	495														
185 N 14-19-28	P	1050	483														
Lease Total		27300	12985														
State E-5003																	
1 A 15-19-28	F	300	157														

"OTHER" GAS DISPOSITION CODE  
 X----- FLOWING  
 D----- USED OFF LEASE  
 G----- GAS LIFT  
 S----- SHUT IN  
 T----- TEMP ABANDONED  
 I----- INJECTION

"OTHER" OIL DISPOSITION CODE  
 C----- CIRCULATING OIL  
 L----- LOST  
 S----- SEDIMENTATION (BS&W)  
 E----- EXPLANATION ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

(SIGNATURE) \_\_\_\_\_ (DATE) \_\_\_\_\_

(POSITION)



# NEW MEXICO OIL CONSERVATION COMMISSION

BOX 871 SANTA FE, NEW MEXICO

## OPERATOR'S MONTHLY REPORT

COMPANY OR OPERATOR: **Western - Yates**

(ADDRESS) **P. O. Box 427, Artesia, New Mexico** FOR MONTH OF **August, 1962**

PAGE **5** OF **7**

STATEWIDE FORM C-115 REV. 10-1-61  
SUBMIT ORIGINAL TO OCC SANTA FE  
ONE COPY TO OCC DIST. OFFICE  
ONE COPY TO TRANSPORTER

WELL NO. UNIT SEC. TWP. RANG.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS				DISPOSITION OF OIL			
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLD	PURCH.	OTHER	OIL ON HAND BEG. OF MONTH	BARRELS TO TRANS-PORTER	OTHER
LEASE NAME AND STATE LAND LEASE NUMBER OR FEDERAL LEASE NUMBER														
110 J 25-18-27	P	124	41	15	322	30			322					
111 O 25-18-27	P	62	37	None	TSTM	31								
112 N 25-18-27	P	62	37	None	TSTM	31								
116 L 25-18-27	P	62	37	50	TSTM	31								
117 M 25-18-27	P	62	36	60	TSTM	31								
174 K 10-19-28	P	310	252	None	TSTM	17								
Lease Total		2418	1611	305	429				429	PP		726	1456	CON 881
State E-1286 (1286)														
109 L 15-18-28	P	62	30	None	31	31			31					
126 D 15-18-28	P	93	47	75	TSTM	31								
128 E 15-18-28	P	93	46	75	TSTM	31								
Lease Total		248	123	150	31				31	PP		300	216	CON 207
State E-1288 (1288)														
81 G 27-18-28	P	899	302	None	310	31			310					
103 F 22-18-28	P	62	34	None	77	14			77					
Lease Total		961	336	None	387				387	PP		158	224	CON 270
Millman Queen Graburg East														
Malco State (E-5136)														
1 D 23-19-28	P	589	328	186	694	31			694					
2 C 23-19-28	P	775	434	248	917	31			917					
3 E 23-19-28	P	651	368	93	868	31			868					
Lease Total		2015	1130	527	2479				2479	PP		194	1255	CON 69
State 648 (648)														
143 K 14-19-28	P	1054	498	279	1316	31			1316					
144 L 14-19-28	P	1054	498	-0-	1316	31			1316					
145 M 14-19-28	P	1054	485	341	1281	31			1281					

"OTHER" GAS DISPOSITION CODE

"OTHER" OIL DISPOSITION CODE

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

1-FLUWING  
2-PUMPING  
3-GAS LIFT  
4-SHUT IN  
5-TEMP ABANDONED  
6-INJECTION

X-USED OFF LEASE  
D-USED FOR DRILLING  
G-GAS LIFT  
L-LOST (NCF ESTIMATED)  
E-EXPLANATION ATTACHED  
R-REPRESSURING OR PRESSURE MAINTENANCE

C-CIRCULATING OIL  
L-LOST  
S-SEDIMENTATION (GSAM)  
E-EXPLANATION ATTACHED

Signature: *W. Yates*  
Production Clerk  
9/24/62 (DATE)

# NEW MEXICO OIL CONSERVATION COMMISSION BOX 871 SANTA FE, NEW MEXICO

## OPERATOR'S MONTHLY REPORT

COMPILED FOR **Western - Yates** (ADDRESS) **P. O. Box 427, Artesia, New Mexico** MONTH OF **August, 1962** PAGE **6** OF **7**

WELL NO. UNIT SEC. TWP. RNG.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS				DISPOSITION OF OIL								
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLD	PURCH.	OTHER	C O D E	OIL ON HAND BEG. OF MONTH	BARRELS TO TRANS-PORTER	OTHER	C O D E	TRANS-PORTER	OIL ON HAND END OF MONTH	
146 F 14-19-28	F	1054	459	None	1212	31			1212										
147 E 14-19-28	F	1054	485	62	1281	31			1281										
148 A 14-19-28	F	1054	538	None	1420	31			1420										
149 B 14-19-28	F	1054	498	124	1316	31			1316										
150 P 15-19-28	F	1054	446	None	1177	31			1177										
151 F 15-19-28	F	1054	485	93	1281	31			1281										
152 A 22-19-28	F	1054	459	None	1212	30			1212										
153 C 14-19-28	F	1054	498	93	1316	31			1316										
154 B 22-19-28	F	1054	472	None	1247	30			1247										
155 N 11-19-28	F	1054	510	None	1351	31			1351										
156 O 15-19-28	F	1054	472	62	1247	31			1247										
157 M 15-19-28	F	1054	472	93	1247	31			1247										
158 G 22-19-28	F	1054	485	930	1281	30			1281										
159 D 14-19-28	F	1023	524	248	1385	31			1385										
160 K 11-19-28	F	1054	SI	SI	SI	-													
161 I 14-19-28	F	1054	524	310	1385	31			1385										
162 H 22-19-28	F	1054	498	60	1316	30			1316										
163 M 15-19-28	F	310	300	None	1380	31			1380										
165 T 15-19-28	F	1054	511	None	1351	31			1351										
178 P 14-19-28	F	1054	735	620	1939	31			1939										
181 J 14-19-28	F	1054	538	248	1420	31			1420										
182 C 14-19-28	F	837	472	186	1247	31			1247										
183 M 14-19-28	F	1054	538	None	1420	31			1420										
184 G 14-19-28	F	1054	511	62	1351	31			1351										
185 N 14-19-28	F	1054	498	341	1316	31			1316										
Lease Total		28520	13409	4152	36011	31			36011	PP			1730	13351					
State E-5003																			
1 A 15-19-28	F	310	188	93	1668	31			1668	PP			71	-0-					
										</									

NOTE: OTHER GAS DISPOSITION CODE  
 X-USED OFF LEASE  
 D-USED FOR DRILLING  
 G-GAS LIFT  
 L-LOST ONCE ESTIMATED  
 E-EXPLANATION ATTACHED  
 R-REPRESSURING OR PRESSURE MAINTENANCE

OTHER OIL DISPOSITION CODE  
 C-CIRCULATING OIL  
 L-LOST  
 S-SEGMENTATION (ASSAY)  
 E-EXPLANATION ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Aug. 1962*  
 (SIGNED)  
 Production Clerk

9/24/62  
 (DATE)

## NEW MEXICO OIL CONSERVATION COMMISSION

## GAS-OIL RATIO REPORT

60R  
Fit

BEST AVAILABLE COPY

OPERATOR Western - Yates POOL East Millman (Queen-Grayburg)

ADDRESS P.O. Box 427, Artesia, New Mexico MONTH OF September, 1962

SCHEDULED TEST X COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
State 648	143	9-13	Flow	1/2"	24	34	8	18	48	2660
State 648	144	9-12	Flow	1/2"	24	35	0	17	46	2700
State 648	145	9-9	Pump	---	24	35	9	18	47	2610
State 648	146	9-21	Flow	1/2"	24	35	0	17	45	2650
State 648	147	9-22	Pump	---	24	35	2	19	48	2520
State 648	148	9-27	Flow	1/2"	24	35	0	18	47	2610
State 648	149	9-26	Pump	---	24	35	3	17	47	2760
State 648	150	9-7	Pump	---	24	35	0	15	40	2660
State 648	151	9-11	Pump	---	24	35	3	18	48	2660
State 648	152	9-4	Flow	1/2"	24	35	0	17	44	2580
State 648	153	9-25	Pump	---	24	35	3	18	49	2720
State 648	154	9-3	Flow	1/2"	24	35	0	17	45	2650
State 648	155	9-28	Pump	---	24	35	0	18	48	2660
State 648	156	9-6	Flow	1/2"	24	35	2	16	45	2820
State 648	157	9-23	Pump	---	24	35	3	17	45	2650
State 648	158	9-1	Pump	---	24	35	31	17	48	2820
State 648	159	9-24	Pump	---	24	34	7	18	46	2560
State 648	160	Shut In	---	---	--	35	-	--	--	----
State 648	161	9-17	Pump	---	24	35	10	18	47	2610

## NEW MEXICO OIL CONSERVATION COMMISSION

## GAS-OIL RATIO REPORT

OPERATOR **Western - Yates** POOL **East Millman (Queen-Grayburg)**  
ADDRESS **P.O. Box 427, Artesia, New Mexico** MONTH OF **September**, 19**62**  
SCHEDULED TEST ☒ COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
State 648	162	9-2	Pump	---	24	35	3	18	48	2660
State 648	163	9-5	Flow	1/2"	24	10	0	10	46	4600
State 648	165	9-8	Pump	---	24	35	0	17	48	2820
State 648	178	9-15	Pump	---	24	35	20	26	69	2660
State 648	181	9-18	Pump	---	24	35	8	18	46	2560
State 648	182	9-14	Pump	---	24	27	6	16	45	2810
State 648	183	9-10	Flow	1/2"	24	35	0	18	48	2660
State 648	184	9-20	Pump	---	24	35	2	17	48	2820
State 648	185	9-19	Flow	1/2"	24	35	11	17	47	2760

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

October 5, 1962

WESTERN - YATES

Date.....

Company

By.....

Production Superintendent

Title

## NEW MEXICO OIL CONSERVATION COMMISSION

## GAS-OIL RATIO REPORT

OPERATOR **Western - Yates** POOL **East Millman (Queen-Grayburg)**  
ADDRESS **P.O. Box 427, Artesia, New Mexico** MONTH OF **September**, 19 **62**  
SCHEDULED TEST ☒ COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
<b>State E-5003</b>	<b>1</b>	<b>9-1</b>	<b>Flow</b>	<b>1/2"</b>	<b>24</b>	<b>10</b>	<b>1/2</b>	<b>7</b>	<b>62</b>	<b>8850</b>

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Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date **October 5, 1962**

**WESTERN - YATES**  
Company  
By *R. D. Davenport*  
**Production Superintendent**  
Title

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

*gcr file*

OPERATOR Western - Yates POOL East Millman (Queen-Grayburg)  
ADDRESS P.O. Box 427, Artesia, New Mexico MONTH OF September, 19 62  
SCHEDULED TEST X COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Malco State	1	9-1	Pump	---	24	19	8	12	27	2250
Malco State	2	9-2	Pump	---	24	25	9	16	34	2120
Malco State	3	9-3	Pump	---	24	21	4	14	33	2360

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date October 5, 1962

**WESTERN - YATES**  
Company

By *R. P. Davenport*

**Production Superintendent**  
Title

# Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins

~~W. A. Sheilshear~~  
DISTRICT MANAGER

F. O. Mortlock  
DISTRICT EXPLORATION  
MANAGER

M. I. Taylor  
DISTRICT PRODUCTION  
MANAGER

H. C. Vivian  
DISTRICT SERVICES MANAGER

October 3, 1962

P. O. Drawer 1938  
Roswell, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

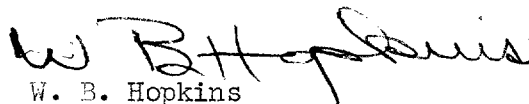
Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Reference is made to the application of Western Development Company in Case No. 2656 scheduled for Examiner Hearing on October 10, 1962, for approval of a secondary recovery project, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

The application as advertised provides for water to be injected initially through 16 injection wells in Sections 11, 14, 15, 22 and 23, Township 19 South, Range 28 East. We have been informed verbally by Western Development Company that they propose to initially inject only into Wells No. 143, 145 and 147 in Section 14, and Well No. 151 in Section 15. It is assumed that the project area will comprise these wells and the direct and diagonal offset wells. If this is the case, Gulf has no objections provided that the provisions of Rule 701 are complied with insofar as notification to offset operators for expansion of the project area is concerned. If approval is requested by Western for all 16 injections wells without further need for expansion approval, then we object to placing the wells on injection at this time that offset our top allowable Eddy State "BN" and "AN" leases located in Sections 11 and 13 respectively.

Yours very truly,

  
W. B. Hopkins

JHH:dch

cc: Western Development Company  
Post Office Box 427  
Artesia, New Mexico



SEP 17 AM 1 20

September 26, 1962

*Circ 2656*

Losee & Stewart  
Attorneys at Law  
P. O. Drawer 239  
Artesia, New Mexico

Attn. Mr. A. J. Losee

Dear Mr. Losee:

Reference is made to the application of Western Development Company of Delaware dated September 18, 1962 which seeks permission to initiate a secondary recovery project in the East Millman Queen-Grayburg Field in Eddy County, New Mexico. The graphic illustration of the typical casing program employed in the wells does not give any information with regard to tops of cement used in setting the casing. It appears to me that there is considerable 4½ inch casing which has no cement between it and the hole bore and that you propose to inject water through this casing by using the annulus outside the tubing. It would be very helpful to me if you could inform me as to the cementing program employed in the construction of these proposed injection wells. Without this information, I am unable to reach a conclusion as to whether the fresh water which may occur in the area would be protected.

Very truly yours,

S. E. Reynolds  
State Engineer

FBI/ma

cc-Mr. A. L. Porter, Jr.

Western Development Co. of Delaware  
F. H. Hennighausen

By:

Frank E. Irby  
Chief  
Water Rights Division