

**OIL CONSERVATION COMMISSION**

P. O. BOX 2088

SANTA FE, NEW MEXICO

December 17, 1965

**Mr. Richard S. Morris  
Seth, Montgomery, Federici & Andrews  
Attorneys at Law  
Post Office Box 2307  
Santa Fe, New Mexico**

**Dear Mr. Morris:**

**Reference is made to Commission Order No. R-3017, recently entered in Case No. 3356, approving the Shell North Square Lake Premier Waterflood Project.**

**Injection is to be through the 13 authorized water injection wells which shall be equipped with packers and plastic-coated tubing.**

**As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 840 barrels per day.**

**Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.**

**In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify**

OIL CONSERVATION COMMISSION

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SANTA FE, NEW MEXICO

-2-

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both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

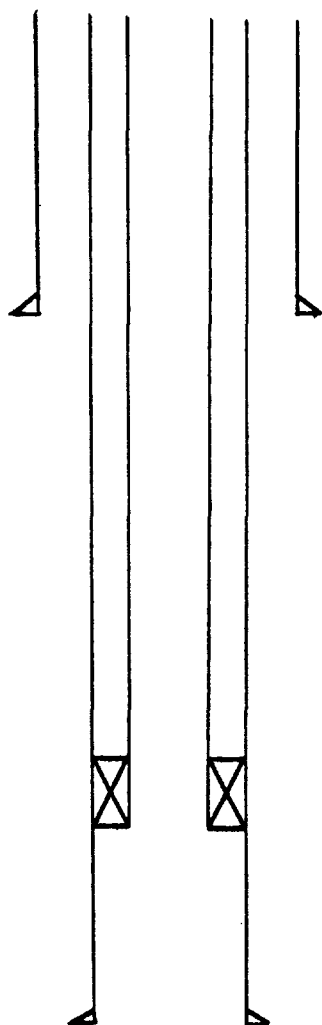
Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSH/esr

cc: Mr. Frank Irby  
State Engineer Office  
Capitol Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico



Well: Shell Trigg Federal #1

Casing: 8 5/8 " @ 521 '

Cement: 350 sx

Cement Top: circ. ' (calculated)

Tubing: 2 "

Packer: 3300 '

Perforations: 3326-3473 '

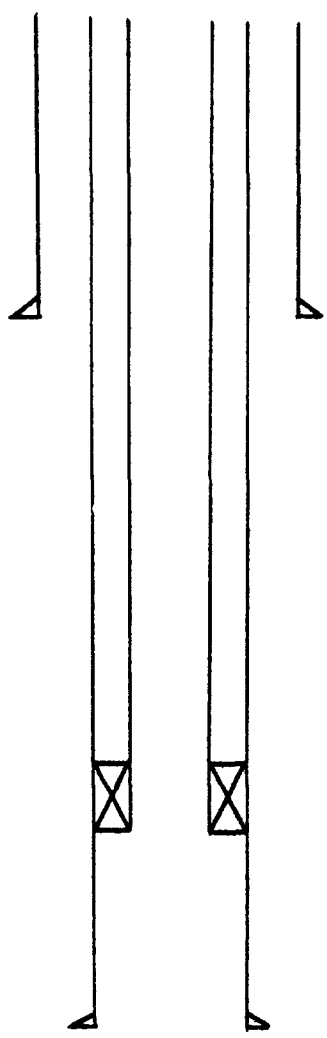
Casing: 4 1/2 " @ 3498 '

Cement: 250 sx

Cement Top: 2050 ' (calculated)

Total Depth: 3498 '

Plug Back Total Depth: 3477 '



Well: Shell Trigg Federal #2

Casing: 7 5/8" @ 200 '

Cement: 120 sx

Cement Top: circ. ' (calculated)

Tubing: 2 "

Packer: 3200 '

Perforations: 3233-43 '

Casing 1 1/2" @ 3351 '

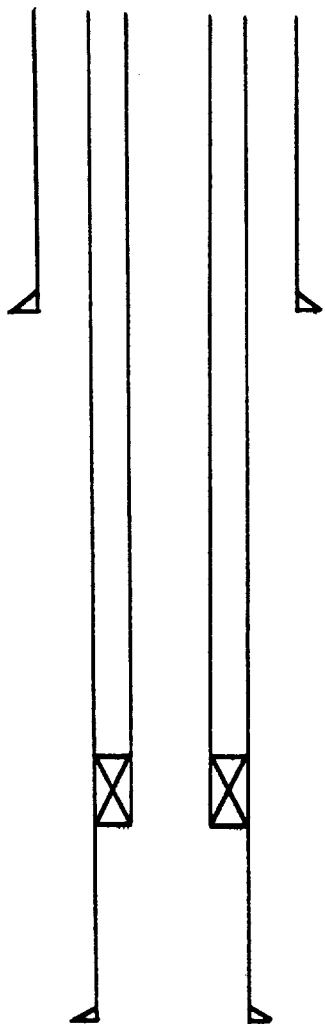
Cement: 200 sx

Cement Top: 2300 ' (calculated)

Total Depth: 3351 '

Plug Back Total Depth: 3330 '

*3256*



Well: Shell Trigg Federal #4

Casing: 7 5/8" @ 202'

Cement: 130 sx

Cement Top: circ. (calculated)

Tubing: 2"

Packer: 3330'

Perforations: 3355-57'

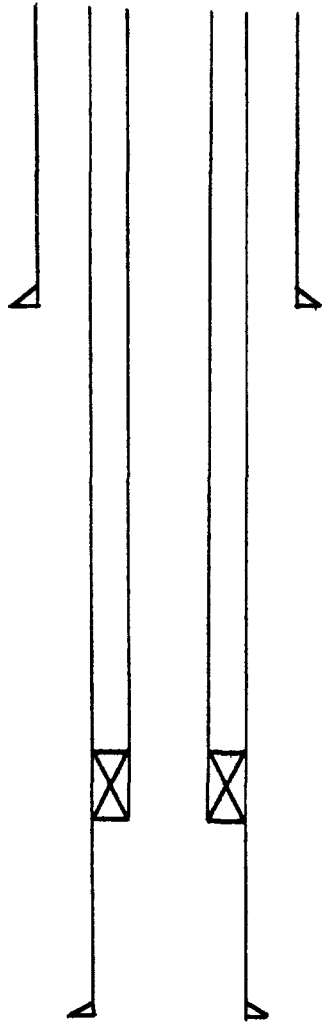
Casing: 4 1/2" @ 3549'

Cement: 200 sx

Cement Top: 2500' (calculated)

Total Depth: 3529'

Plug Back Total Depth: 3550'



Well: Shell Trigg Federal #6

Casing: 7 5/8 " @ 202 '

Cement: 135 sx

Cement Top: circ. ' (calculated)

Tubing: 2 "

Packer: 3200 '

Perforations: 3231-56 '

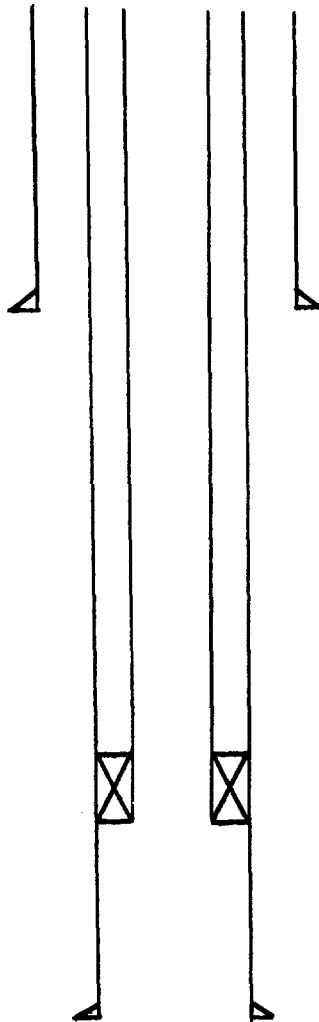
Casing: 4 1/2 " @ 3328 '

Cement: 475 sx

Cement Top: circ. ' (calculated)

Total Depth: 3328 '

Plug Back Total Depth: 3309 '



Well: Shell Trigg Federal #8

Casing: 7 5/8 " @ 198 '  
Cement: 120 sx

Cement Top: circ. ' (calculated)

Tubing: 1 1/2 "

Packer: 3230 '

Perforations: 3255-61 '

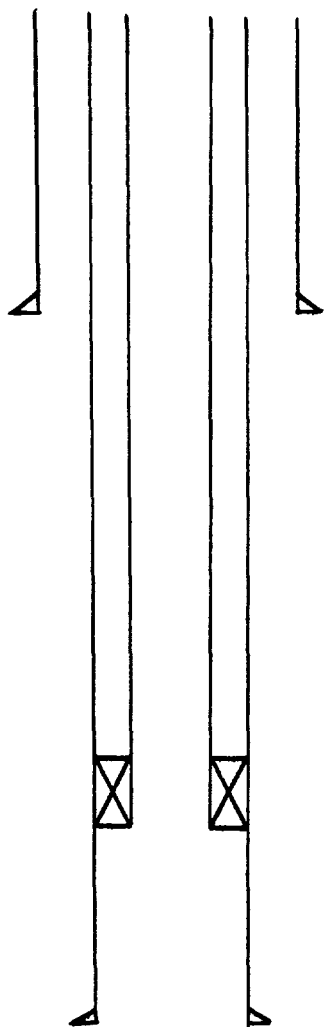
Casing 27/8 " @ 3358 '

Cement: 200 sx

Cement Top: 2000 ' (calculated)

Total Depth: 3358 '

Plug Back Total Depth: 3329 '



Well: Shell Trigg Federal #10

Casing: 7 5/8" @ 207'

Cement: 120 sx

Cement Top: circ. (calculated)

Tubing: 1 1/2"

Packer: 3200

Perforations: 3218-27

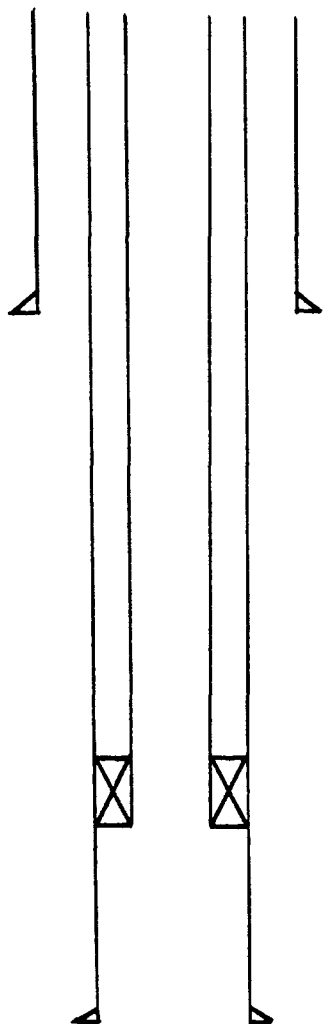
Casing: 4 1/2" @ 3270'

Cement: 410 sx

Cement Top: 1700 (calculated)

Total Depth: 3270

Plug Back Total Depth: 3234



Well: Mobil PV #1

Casing: 8 5/8" @ 180 '  
Cement: 75 sx

Cement Top: circ ' (calculated)

Tubing: 2 "

Packer: 3430 '

Perforations: 3441-47 '

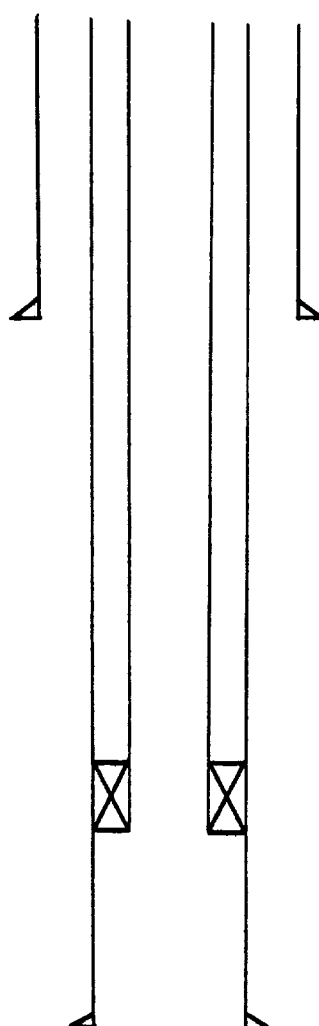
Casing: 1 1/2" @ 3481 '

Cement: 137 sx

Cement Top: 3000 ' (calculated)

Total Depth: 3483 '

Plug Back Total Depth: -- '



Well: Mobil PV #3

Casing: 8 5/8 " @ 729 '

Cement: 100 sx

Cement Top: 180 ' (calculated)

Tubing: 2 "

Packer: 3260 '

Perforations: 3274-90 '

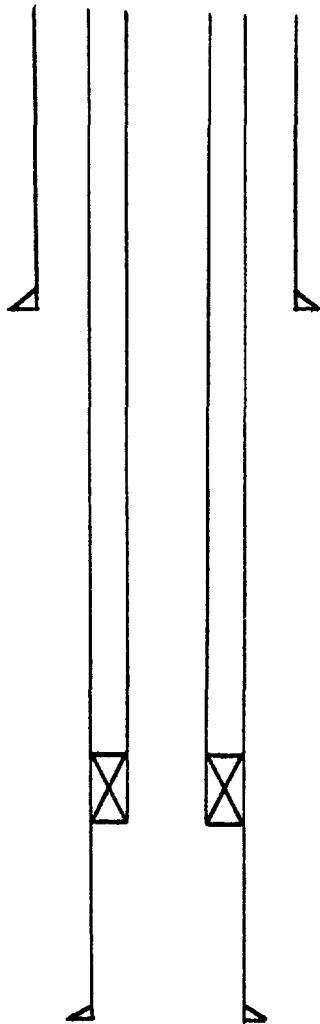
Casing: 1 1/2 " @ 3331 '

Cement: 200 sx

Cement Top: 2280 ' (calculated)

Total Depth: 3331 '

Plug Back Total Depth: 3323 '



Well: Mobil PV 4

Casing: 8 5/8 " @ 765 '

Cement: 100 sx

Cement Top: 230 ' (calculated)

Tubing: 2 "

Packer: 3300 '

Perforations: 3323-48 '

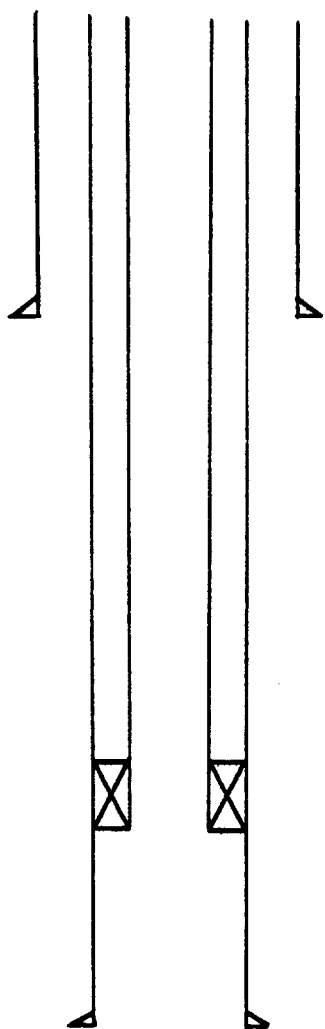
Casing: 4 1/2 " @ 3388 '

Cement: 200 sx

Cement Top: 2330 ' (calculated)

Total Depth: 3390 '

Plug Back Total Depth: 3365 '



Well: Mobil PV 5

Casing: 8 5/8 " @ 682 '  
Cement: 100 sx

Cement Top: 130 ' (calculated)

Tubing: 2 "

Packer: 3270 '

Perforations: 3296-3300 '

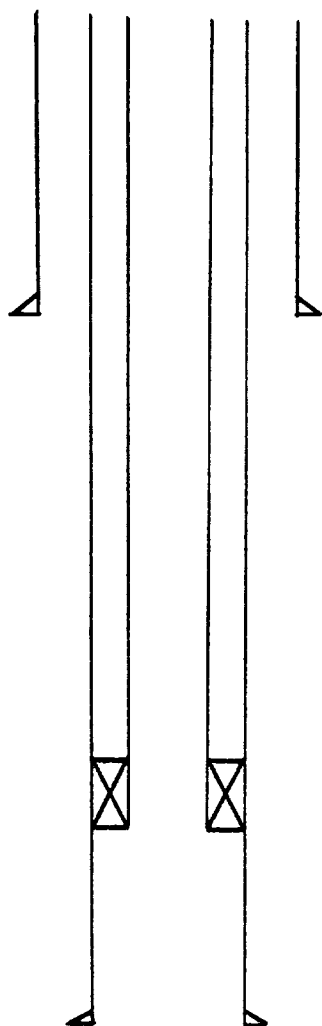
Casing: 4 1/2 " @ 3344 '

Cement: 200 sx

Cement Top: 2180 ' (calculated)

Total Depth: 3350 '

Plug Back Total Depth: 3323 '



Well: Mobil C #8

Casing: 8 5/8" @ 859 '

Cement: 100 sx

Cement Top: 300 ' (calculated)

Tubing: 2 "

Packer: 3430 '

Perforations: 3450-57 '

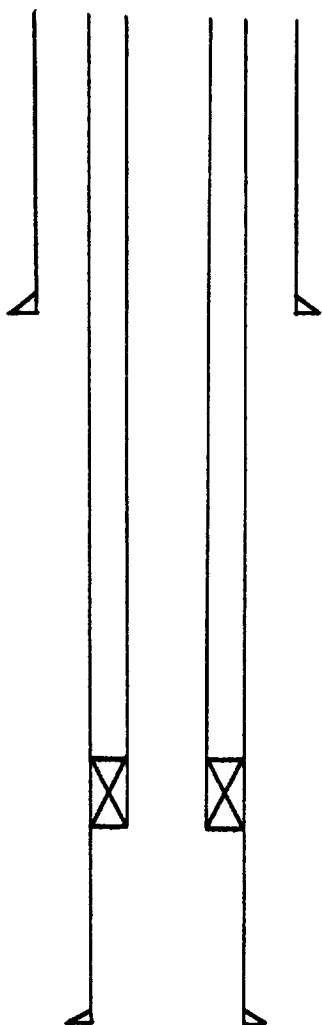
Casing 4 1/2" @ 3530 '

Cement: 100 sx

Cement Top: 2300 ' (calculated)

Total Depth: 3539 '

Plug Back Total Depth: 3503 '



Well: Leonard Oil Co., Midwest Inv. #1

Casing: 8 5/8 " @ 215 '

Cement: 125 sx

Cement Top: circ ' (calculated)

Tubing: 2 "

Packer: 3370 '

Perforations: 3390-3430 '

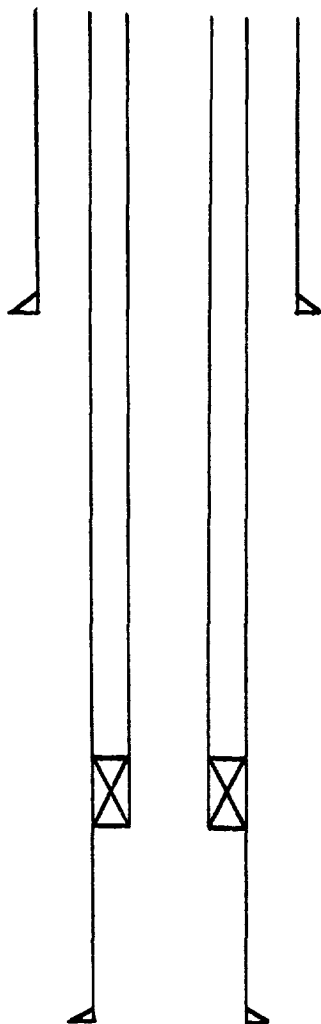
Casing: 4 1/2 " @ 3451 '

Cement: 200 sx

Cement Top: 2400 ' (calculated)

Total Depth: 3456 '

Plug Back Total Depth: -- '



Well: To be drilled

Casing: 7 5/8" @ 200 '

Cement: 100 sx

Cement Top: circ. ' (calculated)

Tubing: 2 "

Packer: 3280 '

Perforations: 3300 '

Casing: 4 1/2 @ 3500 '

Cement:        sx

Cement Top: 2000 ' (calculated)

Total Depth: 3500 '

Plug Back Total Depth: -- '

Water Analysis Results  
Conducted by Bradford Laboratories  
Midland, Texas

Shell Oil Company

Case No. 65M22

Sample Number	X-1	X-3
Date Sampled	10-20-65	10-20-65
Time Sampled	2:45	1:00
Location	Yucca System	Double Eagle System
Appearance When Sampled	Clear	Gassy
Appearance After Standing	Clear	Clear
Odor	None	None
Temperature, °F	66	92
pH	7.3	7.5
Carbon Dioxide CO <sub>2</sub>	14	10
Dissolved Oxygen O <sub>2</sub>	7.7	5.0
Residual Chlorine Cl <sub>2</sub>	N.D.	N.D.
Hydrogen Sulfide H <sub>2</sub> S	0	0
Turbidity SiO <sub>2</sub>	4.0	9.0
Carbon Alkalinity CO <sub>3</sub>	0	0
Bicarbonate Alkalinity HCO <sub>3</sub>	170	180
Chlorides Cl	27	23
Total Hardness CaCO <sub>3</sub>	170	150
Calcium Ca	54	39
Magnesium Mg	9	12
Sulfates SO <sub>4</sub>	26	25
Meta Phosphate NaPO <sub>3</sub>		
Manganese Mn	0	0
Iron (Total) Fe	0.05	0.3
Iron (Dissolved) Fe	0.05	0.2
Total Solids	344	340
Suspended Solids	0.3	1.4
Specific Gravity (60° F)	N.D.	N.D.
Conductivity (micromhos)	430	430

Note: Results expressed in mg/liter  
N.D. means "not determined".

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

December 16, 1965

Re: Case No. 3356

Order No. R-3017

Applicant:

Mr. Richard S. Morris  
Seth, Montgomery, Federici & Andrews  
Attorneys at Law  
Post Office Box 2307  
Santa Fe, New Mexico

SHELL OIL COMPANY

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC   X    
Artesia OCC   X    
Aztec OCC           

Other           Mr. Frank Irby



Case 3356

# STATE OF NEW MEXICO

## STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

December 14, 1965

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, NEW MEXICO 87501

DEC 14 1965

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

*use these descriptions  
for a day, suggested.*

Dear Mr. Porter:

Reference is made to Shell Oil Company's application seeking approval of a waterflood project in the North Square Lake Premier Unit Area. The wells involved are tabulated below:

		<u>Section</u>	<u>Trinity</u>
T-16-S	Shell Trigg Federal No. 1	5	S
	Shell Trigg Federal No. 2	6	P
	Shell Trigg Federal No. 4	5	V
	Shell Trigg Federal No. 6	6	Q
R-31-E	Shell Trigg Federal No. 8	6	X
	Shell Trigg Federal No. 10	6	J
	Mobil PV No. 1	5	Q
	Mobil PV No. 3	5	M
	Mobil PV No. 4	5	N
	Mobil PV No. 5	8	D
	Mobil C No. 8	5	X
	Leonard Oil Co. Midwest Inv. No. 1	8	B
	To be drilled (not numbered) -----	6	V

Shell has submitted a revised diagrammatic sketch on the Shell Trigg Federal No. 4 well. The only change from the original sketch submitted is that TD is changed from 3529' to 3550' and plugged back TD is changed from 3550' to 3529'.


This office offers no objection to the granting of the application provided the wells are constructed and equipped as shown on the

diagrammatic sketches for the individual wells and using the revised sketch for the Shell Trigg Federal No. 4 well.

Yours truly,

S. E. Reynolds  
State Engineer

FEI/ma  
cc-Seth, Montgomery, Federici &  
Andrews  
F. H. Hennighausen

By:   
Frank E. Irby  
Chief  
Water Rights Div.

Corrected

Well: SHELL TRIGG FEDERAL #4

Casing: 7 5/8" @ 202'

Cement: 130 sx

Cement Top: Circ. (calculated)

Tubing: 2"

Packer: 3330'

Perforations: 3355 - 57'

Casing: 4 1/2" @ 3549'

Cement: 200 sx

Cement Top: 2500' (calculated)

Total Depth: 3550'

Plug Back Total Depth: 3529'