

Dune Ridge

"D" sand

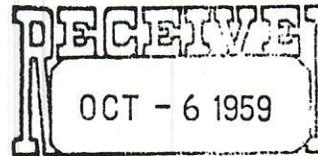
Volume 3500 bbl/day

Application  
Commission Order



00220266

BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO



IN THE MATTER OF THE APPLICATION )  
OF SHELL OIL COMPANY FOR APPROVAL )  
OF PROPOSED ENLARGEMENT OF WATER )  
FLOOD OPERATION IN THE DUNE RIDGE )  
FIELD, LOGAN COUNTY, COLORADO. )

CAUSE NO. 514

OIL & GAS

FILE NO. \_\_\_\_\_

CONSERVATION COMMISS

HEARING SET 10-20-59

A P P L I C A T I O N

Comes now SHELL OIL COMPANY, and respectfully shows to the Oil and Gas Conservation Commission of the State of Colorado, as follows:

1. That applicant is a Delaware corporation duly authorized to trans-act business as a foreign corporation in the State of Colorado.

2. That on December 10, 1957, the Commission entered its order in Cause No. 54-4 approving applicant's proposed water flood of the "D" sand formation of Dune Ridge Unit Area, embracing the following described land located in Logan County, Colorado:

The  $SE\frac{1}{4}SW\frac{1}{4}$  and the  $SW\frac{1}{4}SE\frac{1}{4}$  of Section 29,  $E\frac{1}{2}SE\frac{1}{4}$  of Section 31,  $E\frac{1}{2}NW\frac{1}{4}$ ,  $SW\frac{1}{4}NW\frac{1}{4}$ ,  $W\frac{1}{2}NE\frac{1}{4}$ ,  $SW\frac{1}{4}$ , and  $NW\frac{1}{4}SE\frac{1}{4}$  of Section 32, all in Township 7 North, Range 52 West, 6th P. M.

3. That applicant now proposes to enlarge such water flood operation and to include within said Unit Area the following described additional land located in Logan County, Colorado:

The  $NE\frac{1}{4}SW\frac{1}{4}$ ,  $SW\frac{1}{4}SW\frac{1}{4}$ ,  $NW\frac{1}{4}SE\frac{1}{4}$ , and  $SE\frac{1}{4}SE\frac{1}{4}$  of Section 29,  $SE\frac{1}{4}NE\frac{1}{4}$  of Section 31,  $NW\frac{1}{4}NW\frac{1}{4}$ ,  $SW\frac{1}{4}SE\frac{1}{4}$ , and  $E\frac{1}{2}E\frac{1}{2}$  of Section 32, all in Township 7 North, Range 52 West; and

Lots 1, 2, 3, and 4,  $SW\frac{1}{4}NW\frac{1}{4}$  of Section 5,  $E\frac{1}{2}NE\frac{1}{4}$  of Section 6, all in Township 6 North, Range 52 West.

4. That, as enlarged in accordance with this application, said Unit Area will embrace all of the following described land in Logan County, Colorado:

The  $NE\frac{1}{4}SW\frac{1}{4}$ ,  $NW\frac{1}{4}SE\frac{1}{4}$ , and the  $S\frac{1}{2}S\frac{1}{2}$  of Section 29,  $SE\frac{1}{4}NE\frac{1}{4}$ ,  $E\frac{1}{2}SE\frac{1}{4}$  of Section 31, all of Section 32, all in Township 7 North, Range 52 West; and

Lots 1, 2, 3, and 4,  $SW\frac{1}{4}NW\frac{1}{4}$  of Section 5,  $E\frac{1}{2}NE\frac{1}{4}$  of Section 6, all in Township 6 North, Range 52 West.

5. That attached hereto and made a part hereof and marked Exhibit 1 is a plat showing the area involved, together with the wells located thereon

properly designated, including the eight producing wells, six injection wells and two water source wells now included within the water flood operation.

6. That the locations of the proposed additional injection well and proposed additional producing well are shown on Exhibit 1.

7. That the names and addresses of lease owners other than applicant within one mile of the intake wells are as follows:

Olen Featherstone  
Roswell Petroleum Building  
Roswell, New Mexico

E. L. Doheny and Patrick A. Doheny  
9463 Charleville Boulevard  
Beverly Hills, California

All State Oil Company  
Suite 1217  
Mile High Center  
Denver, Colorado

Skelly Oil Company  
Suite 900  
655 Broadway  
Denver, Colorado

Excelsior Oil Company  
c/o Kansas-Nebraska Natural Gas Company, Inc.  
300 North Street  
St. Joseph, Missouri

C. L. Lough  
5157 Shore Drive  
Carlsbad, California

Pan American Petroleum Corporation  
Denver Club Building  
Denver, Colorado

Samuel Gary  
Mile High Center  
Denver, Colorado

Ryan Oil Company  
Midland Savings Building  
Denver, Colorado

Lowell Williamson  
303 Empire Building  
Calgary, Alberta, Canada

Vaughey & Vaughey (Seeligson)  
1650 Denver Club Building  
Denver, Colorado

Blackwood & Nickols  
Box 1237  
Durango, Colorado

*Affidavit @ ...  
Carroll ...  
of Ex. Oil Co.*

R. K. Kelley  
P. O. Box 1127  
Sterling, Colorado

8. That the purposes of the proposed enlargement for which approval is requested are (a) to include the Shell-State of Colorado 694-2 oil well and the Shell-C. Luft, Sr. "A" No. 3 (both of which are indicated on Exhibit 1) within the unit, to permit the Luft "A" No. 3 to be used as an injection well and therefore allow greater efficiency in the operation of the flood; and (b) to include within the unit additional acreage which engineering evidence indicates may contain possible reservoir sandstone, thus permitting the drilling of additional injection or producing wells if the necessity therefor arises in order to promote conservation and increase ultimate recovery.

9. That attached hereto and made a part hereof and marked Exhibit 2 is a copy of the Amendatory Agreement dated September 25, 1959, between Shell Oil Company and the royalty owners under leases covering the above-described land. Shell Oil Company owns the full working interest in all the land covered by this application.

10. That the wells in the area involved are producing from the Muddy Sandstone reservoir.

11. That attached hereto and made a part hereof and marked Exhibit 3 is the log of the proposed additional injection well.

12. That in addition to the information contained in paragraph 11, Exhibit 3 contains the description of the casing of the proposed additional injection well. Applicant proposes to test the casing in such well by setting a packer on tubing above the casing shoe, filling the annulus with oil, and pressure testing to 1500 pounds per square inch guage.

13. That water, the sources of which are shallow water sands occurring from approximately 150 to 550 feet below the surface, is being used for injection purposes. No additional water source wells are proposed, and it is estimated that the amount of water injected daily will remain approximately 3500 barrels.

14. That the applicant, Shell Oil Company, is the sole operator of the proposed project and that the address of the applicant is 1700 Broadway, Denver 2, Colorado.

15. That applicant has given notice of this application to each owner of record of leases within one mile of the proposed additional injection well and of the enlarged Unit Area by mailing a copy of this application, together with exhibits, to such owners at the addresses shown in paragraph 7, and that attached hereto is an affidavit showing the parties on whom the notice has been served and their addresses.

16. That the injection wells, including the proposed additional injection well, are cased with safe and adequate casing so as to prevent leakage and are so cemented that damage will not be caused to oil, gas, or fresh water resources.

17. That applicant believes and therefore alleges that in the interest of conservation, to prevent waste as defined in the Colorado Oil and Gas Conservation Act of 1951, as amended, this Commission should enter its order approving the proposed enlargement of the water flood operation.

WHEREFORE, APPLICANT PRAYS that this matter be set down for hearing, that notice be given as provided by the Colorado Oil and Gas Conservation Act and the Rules and Regulations of the Oil and Gas Conservation Commission for the State of Colorado, and that upon such hearing, this Commission enter its order authorizing completion of the C. Luft, Sr. "A" No. 3 well as an injection well and approving the proposed enlargement of the water flood operation.

SHELL OIL COMPANY - Applicant

By L. W. Elderkin  
L. W. Elderkin

STATE OF COLORADO )  
CITY AND COUNTY OF DENVER ) SS

L. W. Elderkin, being first duly sworn on oath, states that he is the Division Production Superintendent for SHELL OIL COMPANY; that he has read the foregoing application and that the matters and things therein contained are true of his own knowledge.

L. W. Elderkin  
L. W. Elderkin

Subscribed and sworn to before me this 6th day of October, 1959.

My Commission Expires:  
September 15, 1962

Donna M. Mastain  
Notary Public

SHELL OIL COMPANY

By Jerrold E. Park  
Its Attorney