

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE No. 3684
Order No. R-3345-A

IN THE MATTER OF THE APPLICATION OF
GULF OIL CORPORATION FOR A WATERFLOOD
PROJECT, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that due to typographical error, Order No. R-3345, dated November 15, 1967, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

(1) That the last line of Order (1) of Order No. R-3345, wherein the Union Texas Stuart "B" Well No. 2 is incorrectly shown as located in Unit F of Section 11, is hereby corrected by the substitution of Unit E for Unit F in order to show the true location of said Union Texas Stuart "B" Well No. 2.

(2) That the correction set forth above shall be effective nunc pro tunc as of November 15, 1967.

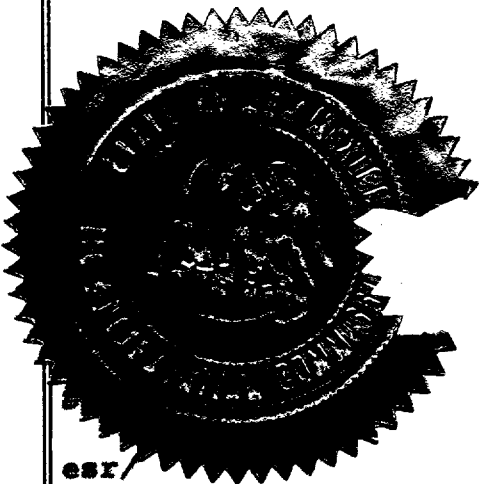
DONE at Santa Fe, New Mexico, on this 20th day of November, 1967.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



esr/

**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. 3684
Order No. R-3345**

**APPLICATION OF GULF OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 8, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of November, 1967, 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, Gulf Oil Corporation, seeks permission to institute a waterflood project in its Stuart Langlie Mattix Unit Area, Langlie-Mattix Pool, by the injection of water into the Seven Rivers and Queen formations through twelve injection wells in Sections 2, 10, and 11, Township 25 South, Range 37 East, NNPM, Lea 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.

1. The first part of the report is a general introduction to the project.

The second part of the report is a detailed description of the project.

The third part of the report is a summary of the project.

The fourth part of the report is a conclusion of the project.

The fifth part of the report is a list of references.

The sixth part of the report is a list of appendices.

The seventh part of the report is a list of figures and tables.

The eighth part of the report is a list of footnotes.

The ninth part of the report is a list of symbols.

The tenth part of the report is a list of abbreviations.

The eleventh part of the report is a list of acronyms.

The twelfth part of the report is a list of definitions.

The thirteenth part of the report is a list of terms.

The fourteenth part of the report is a list of notes.

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CASE No. 3684

Order No. R-3345

(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, Gulf Oil Corporation, is hereby authorized to institute a waterflood project in its Stuart Langlie Mattix Unit Area, Langlie-Mattix Pool, by the injection of water into the Seven Rivers and Queen formations through the following-described wells in Township 25 South, Range 37 East, NMPM, Lea County, New Mexico:

<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly State "L"	1	E	2
Richmond State "A"	4	K	2
Richmond State "A"	2	M	2
Gulf Stuart	5	A	10
Gulf Stuart	7	C	10
Union Texas Stuart	1	E	10
Gulf Stuart	1	G	10
Sinclair Stuart	1	J	10
Sinclair Stuart	4	L	10
Union Texas Jal	3	B	11
Union Texas Stuart "B"	4	C	11
Union Texas Stuart "B"	2	F	11

(2) That the subject waterflood project is hereby designated the Gulf Stuart Langlie Mattix 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.

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

for $x \in \mathbb{R}$.

2. In the second part, we consider the function $F(x)$ defined by the equation

$$F(x) = \int_0^x f(t) dt$$

for $x \in \mathbb{R}$. We show that $F(x)$ is a continuous function on \mathbb{R} and that it satisfies the equation

$$F(x) = \frac{1}{2} \pi x^2 + o(x^2) \text{ as } x \rightarrow 0.$$

3. In the third part, we study the function $G(x)$ defined by the equation

$$G(x) = \int_0^x F(t) dt$$

for $x \in \mathbb{R}$. We show that $G(x)$ is a continuous function on \mathbb{R} and that it satisfies the equation

$$G(x) = \frac{1}{6} \pi x^3 + o(x^3) \text{ as } x \rightarrow 0.$$

4. Finally, in the fourth part, we consider the function $H(x)$ defined by the equation

$$H(x) = \int_0^x G(t) dt$$

for $x \in \mathbb{R}$. We show that $H(x)$ is a continuous function on \mathbb{R} and that it satisfies the equation

$$H(x) = \frac{1}{24} \pi x^4 + o(x^4) \text{ as } x \rightarrow 0.$$

5. The last part of the paper is devoted to the study of the function $I(x)$ defined by the equation

$$I(x) = \int_0^x H(t) dt$$

for $x \in \mathbb{R}$. We show that $I(x)$ is a continuous function on \mathbb{R} and that it satisfies the equation

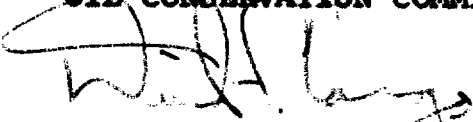
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Order No. R-3345

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



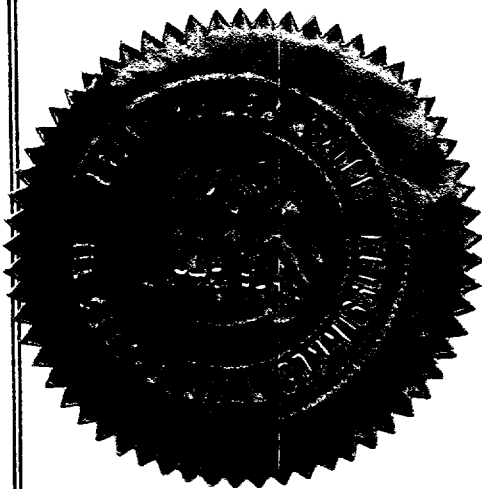
DAVID F. CARGO, Chairman



GUYTON B. HAYS, Member



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



[illegible]

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler and Sponholz (1980). The total chlorophyll content was determined by the method of Arar and Cook (1980). The carotenoid content was determined by the method of Lichtenthaler and Sponholz (1980). The total carotenoid content was determined by the method of Arar and Cook (1980). The total protein content was determined by the method of Lowry et al. (1951). The total lipid content was determined by the method of Bligh and Dyer (1959). The total carbohydrate content was determined by the method of Dubois and Gilles (1950). The total nucleic acid content was determined by the method of Burton (1956). The total ash content was determined by the method of AOAC (1990). The total water content was determined by the method of AOAC (1990). The total dry weight was determined by the method of AOAC (1990). The total organic matter content was determined by the method of AOAC (1990). The total inorganic matter content was determined by the method of AOAC (1990). The total mineral content was determined by the method of AOAC (1990). The total nutrient content was determined by the method of AOAC (1990). The total quality index was determined by the method of AOAC (1990).