DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3570

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

Exploration Assistance

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Cys to USBM & USGS

Routing Slip

To:	600	Date	11/17/54
To:	Open Corr	Date	12-3-54
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

Docket Copy
Surname:
Houk
Hedges
Kilsgaard
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

DEC - 6 1954

Coastal Petroleum Company
529 Capitol Building
410 Asylum Street
Hartford 3, Connecticut

Re: Docket No. DMEA-3570 - Rutile, Monazite, and Uranium
Coastal Petroleum Company
Sarasota and Charlotte Counties, Florida

Gentlemen:

Your application for aid for an exploration project and other reports available to us in Washington relating to the subject property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant reserves of minable ore by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

LGHouk:gad 11/29/54
Copy to: Admr. R. File
Docket
Operating Committee
Field Team, Region VII
Mr. J. E. Crawford, 3641
Mr. Kiilsgaard, 5222
Mr. Houk

R.C.4.

November 29, 1954

Memorandum
To: Administrator
From: Nonmetallic Minerals Division
Subject: A denial of exploration assistance and summary report.

By: Lawrence G. Houk

1. DMEA Docket No. 3570 - Rutile, Monazite and Uranium

Property: Submerged lands (between Venice and Bocilla Pass)
Sarasota and Charlotte Counties, Florida

Applicant: Coastal Petroleum Company
529 Capitol Building
410 Asylum Street
Hartford 3, Connecticut

Application: Form MF-103, dated received November 15, 1954.

Work proposed: Plan (1) Bottom sampling between Venice and Bocilla Pass and on Lemon Bay and an appropriate grid (700') 460 holes 20' deep, 9200' hole at $2.83 per foot - $26,000.

Amount requested: $25,927 or $26,000

No contract: Application denied.
U. S. G. S. recommend denial.
U. S. B. M. recommend denial.

2. Comments:

Operator's premise: The applicant's application is based upon the areal reconnaisance (radioactive) of the Survey and geologic and geographic proximity to low grade uranium bearing phosphate deposits. Areal reconnaisance by the Geological Survey indicate radioactivity of the order of .001eU. The Survey have finished bottom sampling of this general area with results of most samples less than 0.5% P_2O_5 and less than 0.001% U. Isolated samples contained as much as 13% P_2O_5 and 0.004% U.

Geological criteria: The applicant mentions two possibilities (1) heavy sands (2) the uranium bearing phosphates, stating the prospecting stage has been completed by the Federal and State Government.

DEFENSE MINERALS ADMINISTRATION

PRODUCTION EXPANSION DIVISION

LOAN APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Amount of loan and interest rate _____

Type of Loan (R.F.C. or Guaranteed Bank Loan) _____

Term of Loan _____

Purpose of Loan — Mine Equipment _____

Mill or Reduction Plant _____

Operating Funds _____

Other _____

Repayment and Rate _____

Comments on Contract: _____

_____

_____

_____

_____

Date sent to Legal Division: _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to R.F.C. by D.P.A. _____

Date Signed into Contract by R.F.C. _____

Additional Remarks: _____

_____

_____

_____

_____

Interior—Duplicating Section, Washington, D. C.

Signed _____

Reasons for denial:

(1) Low U content of Survey samples.

(2) No evidence that heavy black sands exist. in quantity

(3) The applicant has not supplied any supporting data nor shown that additional exploration is justified.

Recommendations:

Denial on improbability of making a significant discovery.

DEFENSE MINERALS ADMINISTRATION

97021

PRODUCTION EXPANSION DIVISION

LOAN APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Amount of loan and interest rate _____

Type of Loan (R.F.C. or Guaranteed Bank Loan) _____

Term of Loan _____

Purpose of Loan -- Mine Equipment _____

Mill or Reduction Plant _____

Operating Funds _____

Other _____

Repayment and Rate _____

Comments on Contract: _____

_____

_____

_____

_____

Date sent to Legal Division: _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to R.F.C. by D.P.A. _____

Date Signed into Contract by R.F.C. _____

Additional Remarks: _____

_____

_____

_____

_____

Interior—Duplicating Section, Washington, D. C.

Signed _____

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Defense Minerals Administration
RECEIVED
NOV 24 1954

November 23, 1954

Memorandum

REVIEW OF APPLICATION DMEA-3570 (Rutile, Monazite, and Uranium)

To: L. G. Houk, Defense Minerals Exploration Administration

From: R. D. Trace, U. S. Geological Survey

Applicant's name and address: Coastal Petroleum Company, 529 Capitol Building, 410 Asylum Street, Hartford 3, Conn.

Name of property: None

Location of property: Sarasota and Charlotte Counties, Florida

Summary of applicant's proposal:
Drill 460 underwater holes, average depth of hole 20 feet, in Lemmon Bay and off shore, to test bottom for concentrations of rutile, monazite, and uranium.

Sources of information on applicant's property:
Same as applicant's bibliography.

Comments: The proposed project sounds more like prospecting than exploration. The project is based entirely upon data in the literature. Florida Survey reports indicate that rutile, monazite, et al., occur in places in the general area but essentially no analytical or quantitative data are given.

The areas outlined for the project were taken from TEM-679, an aerial radioactivity reconnaissance along the beach of part of the west coast of Florida. This report (primarily a map) shows that the beach along the project areas contain higher than background radioactivity, perhaps a maximum of 0.01 percent eU. We do not know whether these anomalies are due to concentrations in the beach sand of radioactive minerals such as zircon or monazite, or to uranium in phosphate, or both.

The Survey has finished the field work of an offshore bottom sampling project in the general area of the project as mentioned in the application on page 4 item 3. No data have been published other than the material given in TEI-330 (Semi-annual progress report). According to this report most of the samples assay less than 0.5 percent P_2O_5 and less than 0.001 percent U. In the project area, samples rarely contain as much as 13 percent P_2O_5 and 0.004 percent U.

RECOMMENDATION: Unless the operator can furnish some offshore samples that suggest concentrations of rutile, monazite, or uranium, I suggest denial of the application.

Bob Trace

R. D. Trace

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 24 1954

November 23, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket No. 3570, Coastal Petroleum Company, 529 Capitol Building, 410 Asylum Street, Hartford 3, Connecticut.

Frank Lamb and I have reviewed the application included in the subject docket and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

We suggest that the application be denied, because of the lack of evidence that uranium mineralization and monazite actually occur in the area described in the application.

The applicant has based his proposed exploration program partly on the geologic and geographic proximity of subject area to known low-grade uranium-bearing phosphate deposits. The recovery of uranium from such phosphate deposits is only feasible as a byproduct of large-scale phosphatic chemical and fertilizer operations. Recent airborne radioactivity surveys along the west coast of Florida and State geological reports are given as reference to the fact that favorable mineralization occurs in the subject area. While such information may serve as supporting data, there is no evidence that the applicant has made an effort to conduct a preliminary examination of the area and physically determine the presence of favorable uranium and monazite deposits.

John E. Crawford

John E. Crawford

Attachment

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

November 17, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region VII

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region VII.

DMEA- 3570 Coastal Petroleum Co.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

November 17, 1954
Subject: DMEA-3570
Re: Exploration Assistance

Coastal Petroleum Co.
529 Asylum Street
Hartford 3, Conn.

Gentlemen:

The receipt of your application dated November 9, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3570 and referred to the Non-Metallic Minerals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 12 1954

November 12, 1954

Memorandum

To: Operating Committee, DMEA - Washington, D. C.

From: Field Team, DMEA - Region VII

Subject: Application from Coastal Petroleum Company
Offshore areas, Sarasota and Charlotte Counties,
Florida (Rutile, monazite, Uranium)

Enclosed are the original and two copies of the subject application which was received in this office. One copy of the lease is attached to the original. The fourth copy is being kept here for our use.

As the land to be explored is leased from the State of Florida, it will be impossible to obtain an Owner's Consent to Lien. Mr. Bates says the Company will sign a guaranty in any form acceptable to the Government, if a contract is approved. The Company is apparently financially able to do so. It appears to us that a repayment period of longer than 10 years would be in order here.

We do not think a field examination will add anything to present knowledge of this application, and we feel that a decision to approve or deny can best be based upon reviews by the various commodity specialist groups in Washington.

Coastal Petroleum Company is represented in Washington by Mr. C. Dean Reasoner, of Reasoner and Davis, Transportation Building, Washington 6, D. C., phone Metropolitan 8-2011.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA Field Team
Region VII

W. A. Beck
Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

Enclosures 4

ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPT. OF THE INTERIOR
Minerals Administration
RECEIVED
NOV 15 1954

November 12, 1954

Memorandum

To: Operating Committee, DMEA - Washington, D. C.

From: Field Team, DMEA - Region VII

Subject: Application from Coastal Petroleum Company
Offshore areas, Sarasota and Charlotte Counties,
Florida (Rutile, monazite, Uranium)

Enclosed are the original and two copies of the subject application which was received in this office. One copy of the lease is attached to the original. The fourth copy is being kept here for our use.

As the land to be explored is leased from the State of Florida, it will be impossible to obtain an Owner's Consent to Lien. Mr. Bates says the Company will sign a guaranty in any form acceptable to the Government, if a contract is approved. The Company is apparently financially able to do so. It appears to us that a repayment period of longer than 10 years would be in order here.

We do not think a field examination will add anything to present knowledge of this application, and we feel that a decision to approve or deny can best be based upon reviews by the various commodity specialist groups in Washington.

Coastal Petroleum Company is represented in Washington by Mr. C. Dean Reasoner, of Reasoner and Davis, Transportation Building, Washington 6, D. C., phone Metropolitan 8-2011.

Robert A. Lawrence
Executive Officer, DMEA Field Team
Region VII

RAL/mg
cc - Washington - 2
Beck
Lynch
Files
O'Neill

Wm. A. Beck, for W. J. Lynch
U. S. Bureau of Mines

Enclosures 4

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DEPARTMENT OF THE INTERIOR
RECEIVED
NOV 1 5 1954

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3570
Metal or Mineral Rutile, monazite, & uranium
Date Received
Estimated Cost $26,000
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Coastal Petroleum Company, 529 Capitol Building, 410 Asylum Street, Hartford 3, Connecticut, a corporation incorporated in Florida.
Please see separate sheet for names and addresses of officers and directors.
Address of Geological Department: Room 205 Petroleum Bldg., Tallahassee, Florida.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract those submerged lands included in State lease 224-B described on the attached sheet.

(*b*) State any mine name by which the property is known. None

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee - subject to interests described on attached sheet.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. State Lease 224-B and subsequent amendments by resolutions.

(*e*) If you own the land, describe any liens or encumbrances on it Not applicable.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Not applicable.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore rutile, monazite, uranium, ilmenite and accessories of economic value.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within ~~25~~ approx. 13 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? yes.

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated November 9, 1954

COASTAL PETROLEUM COMPANY
(Applicant)

By John D. Bates

John D. Bates, General Manager

Geological Department

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

COASTAL PETROLEUM COMPANY
529 Capitol Building, 410 Asylum Street
Hartford 3, Connecticut

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
NOV 2 5 1959

1 (a) Officers of the Company:

President	Benjamin W. Heath	Above address
Vice-President	Robert B. Cole	Box 1390, Miami 8, Florida
Secretary	Harriet Pesko	Above address
Treasurer	William Shield, Jr.	488 Madison Ave. New York 22, N. Y.
Ass't Secretary & Ass't Treasurer	K. Ross Jordan	103 E. 37th St. New York 16, N. Y.

Directors of the Company:

Joseph H. Himes	Washington D. C.
Julius F. Parker	Tallahassee, Florida
Louis W. Storms, Jr.	Houston, Texas
Benjamin W. Heath	Hartford, Conn.
John W. Buckley	Hartford, Conn.

Coastal Petroleum Company is a wholly-owned subsidiary of Coastal Caribbean Oils, Inc.

3 (a) Submerged lands in and adjacent to Sarasota and Charlotte Counties, Florida, from the vicinities of Venice to Bocilla Pass, and from ordinary high water approximately one third (1/3) mile seaward and that part of Gasparilla Sound within the above limits (Lemon Bay). These properties are included in Coastal Petroleum Company's Florida State Lease Number 224-B, a copy of which is attached. Specifically they are within Block No. 7 of that lease (see map of lease enclosed with this application and a part of the lease.)

3 (c) Overriding interests in Lease 224-B are owned as follows:

Coastal Caribbean Oils, Inc. (the parent company)
1/80 of 8/8 on oil, gas and sulphur only.

Johnson & Company, a partnership
1/90 of 8/8 on oil, gas and sulphur
1/60 of 8/8 on other minerals.

Lykes Brothers
1/24 of 8/8 on oil, gas, and sulphur only.

The lessor, the State of Florida retains as its interest:
1/8 on oil, gas, and sulphur
$.50 per ton royalty on sulphur
10% royalty of production or of value on all minerals except those above.
This provision was made by amendment through resolution. (See copy of

resolutions attached to the lease).

4 (a) Physical description. - There are no mining operations at present on the lands involved in this application. None are known to have been conducted in the past. Some exploration may be in progress by private individuals interested in heavy minerals in Florida. Such exploration, if any, is not connected with the proposed work by Coastal Petroleum Company, but production by them, if any, would appear to be subject to our leasehold.

There is excellent accessibility to all areas proposed for exploration through existing roads leading to the Gulf Coast of Florida. Due to the sport fishing industry commercial docks are available for small boat operation.

(b) There is no past or current production from the lands proposed for exploration. There is, however, a well developed heavy mineral industry in Florida and uranium is at present being recovered from phosphate.

(c) Two possible mineral occurrences are important in connection with Coastal's proposed explorations. They are:

1) The heavy mineral or so called "black sand" deposits, which are natural concentrations of varying amounts of rutile, monazite, zircon, ilmenite, and others of lesser economic importance.
2) Phosphate containing quantities of uranium

Heavy mineral sands are being exploited in Florida from present beaches and from abandoned ice age shore lines now above sea level. It is believed that these former shore lines resulted from fluctuations of sea level dependent on the quantities of ocean water removed to form continental ice sheets. If this is true, sea level was depressed in relation to the continents during successive advances of the ice sheets and raised during interglacial periods.

The original source of the heavy minerals was apparently the Piedmont rocks of Alabama, Georgia, and perhaps the Carolinas. After breakdown of these source rocks, the mineral constituents were transported by stream and ocean currents until deposited on Florida beaches and bars. These processes have been active at least through the Pleistocene, or ice age, and are active today. Economic deposits have been found on beaches and bars representing interglacial stages, which are at or above present sea level. It seems reasonable to believe that during the more severe climatic conditions of times of glacial advance, the processes from which these deposits have resulted would have been accentuated. Thus economic deposits of heavy minerals should be present in bars and beaches now below sea level corresponding to low level ocean stages.

Dr. C. Wythe Cooke[1] recognized the probability of low level shore lines. He wrote, "The oscillation of sea level caused by glacial control ... would produce a steplike series of high level shore lines and a corresponding series of low level shore lines."

It is realized that low level shore lines and associated features such as beaches or bars may have been in part destroyed by subsequent inundations. Deposits of this type may be more difficult to locate and to exploit than those on land, but certainly not so difficult as to be beyond present technology.

Florida is the nation's chief producer of phosphate. The majority of the production of this important fertilizer comes from the central part of the peninsula. It is chiefly produced from the Pliocene or early Pleistocene Bone Valley Formation or, in some cases, the underlying Miocene Hawthorn Formation.

Except during high sea level stages, the phosphate deposits have been subjected to erosion since their deposition. Streams draining most of the phosphate mining area end in the Gulf in the vicinities of Coastal's leases. It is reasonable to believe that there may be economic deposits of this material reworked into our leased territory. Submarine outcrops of phosphate rock may also be present. The small amounts of uranium known to be associated with the phosphate make consideration of phosphate recovery under water important.

The mineral industry of Florida is too well known and to require substantiation in this application. A study of the industry has been made by Coastal Petroleum Company, however, and the results of our studies will be furnished, if needed.

There are several favorable indications that economic deposits of strategic minerals may exist on the submerged properties proposed for exploration. These indications have resulted from prospecting done by governmental agencies and are:

1) The report by Martens[2], many times referred to, in which black sands were reported on a beach near Venice. In this report two mineral analyses, Nos. 13 & 14, from this area are given. While the lapse of time since this report was prepared may have changed the configuration of the deposit, it should not have been removed from the area suggested for investigation. It may, in fact, have increased in size in the waters adjacent to the beach where it was discovered.

2) The Florida Geological Survey prospected the beaches of Florida's Gulf Coast in October 1927 from Anna Maria Island, Manatee County to Marco Island, Collier County. Several samples were collected and some information about them is available. Regrettably little analitical data is included. The information on these samples obtained from the Survey is as follows:

a) Sample from the north end of Anna Maria Island, Manatee County. A concentration of heavy minerals scrapped from a very small deposit. The sample contained ilmenite, staurolite, zircon, monazite, rutile, spinel, tourmaline, sillimanite, garnet, leucoxine, and collophane.

b) Sample from Venice Beach in which collophane composed about 70% of the sample. Other components in the sample were not given.

c) Sample from near Venice. This one was obtained from the vicinity of Martens'[2] sample 13 and was said to be composed of:

Mineral	Approx. Percent
Quartz and potassium feldspar	70-75
Shell	5
Phosphate	20
Zircon, corrundum, titanite, epidote, spinel, etc.	2-3

d) Sample from near Venice obtained from the vicinity of Martens' sample 14, one mile south of the Venice beach bathhouse. It was said not to be a very heavy concentrate but was rich in zircon. It also contained spinel, pink garnet, phosphate, staurolite, ilmenite, kyanite, epidote, and monazite. No percentage figures were available.

e) Sample from Minnesota Beach eight miles south of Venice which was taken from a two inch layer at the high tide line. It contained some concentration of heavy minerals, collophane, quartz, microcline, and shell fragments.

f) Sample from Treasure Island near Venice which was cut from a four foot bank. It contained a slight concentration of heavy minerals similar to those at Venice Beach. Collophane composed at least 5%, and sillimanite was identified.

g) Sample from Captiva Island, Lee County, 1/2 mile south of pass cut in 1921. Contained a very faint indication of heavy minerals on the beach but no collophane.

h) Sample from Sanibel Island, Lee County, near the channel mouth. It contained more quartz and less shell than the sample from Captiva Island.

i) Sample from Naples Beach, Collier County, near the town of Naples. It was taken from the high tide line and had a moderate concentration of heavy minerals, quartz and shell fragments. No feldspar or collophane were present but sillimanite was noted.

j) Sample from southwest corner of Marco Island, Collier County. It contained a slight concentration of heavy minerals, but not enough to warrant detailed study.

Note: These samples appear to indicate that the best possibility of locating economic concentrations would be in the Venice vicinity.

3) The Semi annual Progress Report[3] of the U. S. Department of the Interior, Geological Survey for the period December 1, 1952 to May 31, 1953 which indicates on page 178 that, on several areas, of phosphate concentration with small amounts of uranium occurs in nearshore waters. An area specially mentioned was between Englewood and Venice, Florida. This information was obtained through the use of bottom sampling devices. No specific analyses of samples were given in the reference, but a final report was said to be in preparation. It may be that this information is now available at the Survey in Washington, D. C.

4) Trace Elements Memorandum 678[4] which indicates that an airborne radioactivity anomalies exist along and or adjacent to the beaches in the specific area suggested for exploration.

5) A report by Miller[5] which presented data that heavy minerals have been reported on beaches to the north of the area selected for exploration. This report gave two analyses of interest which are presented by Table 1.

Coastal Petroleum Company
529 Capitol Building, 410 Asylum Street
Hartford 3, Connecticut

TABLE I

Weight Percentage of Heavy Minerals in Florida Sands

No.	Locality	Occurrence	Zircon	Corundum	Sillimanite	Epidote	Garnet	Hornblende	Ilmenite	Kyanite	Magnetite	Monazite	Rutile	Sphene	Spinel	Staurolite	Tourmaline
7	Tampa	Beach sand	5		5	3	5	Tr.	26	8		Tr.	22	Tr.	Tr.	14	2
8	Clearwater	" "	1			1	17	1	23				1			47	10

Sample 7 was collected on the west coast of Florida, from a wave concentrate on the beach just south of Tampa.

Sample 8 was from a rather sparce wave concentrate on Clearwater Beach.

6) The Report of an Airborne radioactivity survey[6] east of the suggested area produced anomalies in Desoto County apparently due to uranium associated with phosphate. These anomalies were centered on Peace Creek which is also covered by Coastal's lease 224-B. (See Plate 3 of reference 6)

These favorable prospecting indications have interested Coastal Petroleum Company in exploring for "other" minerals and in starting such an exploration in the subject area.

4 (d) The area is accessible through U. S. highway No. 41 as shown on the attached official Florida road map. State routes 775, 776, and 777 provide further access to the area. Small boat facilities are available at the towns of Venice, Englewood, and Placida[7]. The county map of Sarasota County shows a trail on the promentory between Gasparilla Sound and the mainland. Access to this land strip or barrier beach may be had through a road taking off of State Road 775 about five miles south of Venice and again through State Road 776 at New Port Comfort in Charlotte County.

The area is of proposed exploration is close to the towns mentioned. Venice is on the beach, and the other towns are within a few miles of the beach. the area is about 40 miles from Fort Myers and 20 miles from Sarasota both of which have airports. Venice and Englewood also have small air fields. Supply and residence points can be established at any of the little towns along the beach as they are resort and fishing villages. A branch rail line of the Seaboard Airline Railroad from Tampa ends at Venice. It carries both passengers and freight. Another branch of the same railroad passes through Placida from the northeast and ends at Boca Grande.

4 (e) Manpower for supervision is presently available in the Company. Personnel for the field exploration crew and laboratory analyses can be obtained. Present information indicates that a qualified field party chief could be recruited from the geology department of Florida State University at Tallahassee. The numerous applications for geological employment lead us to believe that other required personnel can be obtained. Facilities for mineral analysis are known to be available in Jacksonville and Lakeland. Professional consultants to be used in establishing procedures and in checking exploration results are available through our contacts at Florida State University.

Our studies have included sources of under water coring and sampling equipment. We are convinced that adequate devices can be fabricated or purchased. Water and power would both be available in this relatively populated area.

There are several types of maps available for this work. They include the county maps available from the Florida State Road Department for Sarasota and Charlotte Counties, U.S. Coast and Geodetic Survey Coast and Harbor Charts with a scale of 1/80,000, and Army Map Service quadrangles with scale 1:25,000. The pertinent Coast and Harbor Charts are Nos. 1255 and 1256, and the quadrangles are Nos. 4537 IV NE, 4537 IV NW, and 4538 III SW.

5 (b) In view of the evidence that economic deposits may occur on this area of its lease 224-B, it is important that Coastal Petroleum Company take steps to obtain any possible profit from their exploitation. The first step is conduct

with Government assistance if possible, such explorations as required to demonstrate the existance of mineable deposits. It is believed that the prospecting stage is behind us due to the work done, as reported above, by the State and the Federal Government.

The exploration would consist of bottom sampling of an area between Venice and Bocilla Pass, Florida. Samples would be taken on an appropriate grid using devices best suited to the specific situation. Geological profiles would be developed of the bottom and samples analized for mineral content. Certain samples would also be tested to determine chemical composition.

Two areas would be included. One is in Lemon Bay (Upper part of Gasparilla Sound) and the other offshore for a distance of about 1/3 miles. The length of the entire area is about 15 miles as shown on the map included in this application and in the lease. This distance omits areas between radiometric anomalies[4]. One line of exploration holes would be placed in Lemon Bay and three lines would be off shore. Holes would be about 700 feet apart in each direction. Additional holes might be added as needed in favorable places. Hole depth would depend on the ability of the equipment obtained. An effort would be made to reach depths of 20 feet below water bottom or more if possible. The nature of the ore may cause further efforts as to depth especially if commercial tonages are not proven at lessor depths.

The total number of holes is estimated at 460. This number times 20 feet gives 9200 feet of hole.

The depth of water in Lemon Bay averages about 5 feet and 10 feet is the maximum. Offshore water deepens to about 20 feet 1/3 mile out. It is believed that work can be done at this depth, but that this will be about the maximum depth practical.

5 (d) Coastal Petroleum Company, a wholly-owned subsidiary of Coastal Caribbean Oils, Inc., has for over 7 years been actively engaged in exploration for oil and gas on its leases. Due to the apparent favorable indications resulting from prospecting, chiefly by others, it now desires to expand its exploration activities to the heavy mineral field. It is financially able to do so due to the position of its parent company as shown by the attached 1953 Annual Report and Consolidated Balance Sheet.

Coastal Petroleum Company has excellent professional management through its contract with The Catawba Corporation (See Annual Report of parent Company, page 11, note 4). Coastal has a competent geological department located in Tallahassee Florida. The general manager of this department has been designated by the Company to supervise the proposed mineral explorations. The manager holds B.S. (with Honors) and M.A. degrees in geology from the University of Virginia and had 1 1/2 years additional study (towards a PhD) at Cornell University. His acedemic specialty was minerology and petrology. He has had over eleven years of professional experience in geology including technical and supervisory positions with private industry and the Federal Government.

6. Estimate of Costs

a. No subcontracts expected at present though possible farmouts of certain phases may later be considered if feasible.

b.(1) Supervision 1/2 of salary one man 12 mo. @ $625/mo	$3750	
(2) Salary full time of two man field party 12 month 1 man @ 250/mo = 3000 1 man @ 300/mo = 3600	6600	
(3) Salary of part time laboratory assistant 2/3 of 12 mo. @ 200 per month	1600	
(4) Professional consulting fees on procedures and verifications of results	1500	$13,450
c. Operating materials, supplies fuel etc. $100 per month X 12 months	1200	1,200
d. Equipment figured on a monthly depreciation rental of 1/60 of cost over 5 year basis:		
Boat - equipped for exploration (except winch) 4800 X 1/60 = $80/mo. X 12 mo.	960	
Bottom sampling devices $4400 X 1/60 = 73.33/mo X 12 mo.	880	
Navigation equipment $1200 X 1/60 = 20/mo X 12 mo.	240	
Winch for obtaining samples - to be mounted on boat $300 X 1/60 = $5/mo X 12 mo.	60	
Electronic water depth device $600 X 1/60 = $10/mo X 12 mo.	120	
Radio communications $600 X 1/60 = $10/mo X 12 mo.	120	
Laboratory equipment - mineral separation & analysis $1200 X 1/60 = 20 mo X 12 mo.	240	2,620
e. None		
f. None		
g. Per diem 2 men 12 mo. @ 140 mo. ($7/day for 20 da) ?	3360	
1 man 12 mo. @ 35 mo. ($7/da. for 5 da)	420	
Repairs to equipment	1000	
Analitical work - chemical analyses of certain samples	500	
Accounting - Coastal's Hartford, Conn. Office $425		
Social security-2% up to $3600;$72 over 3600 for each man 236		
Workmans Compensation 3% of salaries 359	1020	6,300

h. Contingencies	10% of total (23,570)	2,357
	Grand Total	$25,927
	Adjusted Total	or $26,000

Estimated 9200 feet of exploration hole at an estimated cost of $26,000 equals $2.83 per foot. This unit cost is for under water exploration which is realized to be more costly than that on land.

7 (b) Coastal Petroleum Company will be glad to put up whatever guarantee necessary to insure furnishing its share of exploration costs. This can be done in any manner agreeable to the Government.

BIBLIOGRAPHY

1) Geology of Florida by C. Wythe Cooke, Florida Geological Survey Bul. No. 29, page 246, 1945.

2) Beach Deposits of Ilmenite, Zircon and Rutile in Florida by James H. C. Martens, 19th Annual Report of the Florida State Geological Survey, pages 124-154, 1928.

3) Search for and Geology of Radioactive Deposits, Semiannual Progress Report, December 1, 1952 to May 31, 1953, by the U. S. Department of the Interior Geological Survey for the Atomic Energy Commission, TEI-330, June 1953.

4) Airborne Radioactivity Survey of the Gulf of Mexico Beach Between Sanibel Island and Calidesi Island, Florida, U. S. Department of the Interior Geological Survey, Trace Elements Memorandum Report 678, November 1953.

5) The Heavy Minerals of Florida Beach and Dune Sands, by Roswell Miller III, Amer. Minerologist, Vol. 30, Nos 1 & 2, pages 65-75, February 1945.

6) Airborne Radioactivity Surveys for Phosphate in Florida, by R. M. Moxham, United States Department of the Interior Geological Survey. Circular 230, 1954.

7) Small Boat Harbors and Facilities in Florida, State of Florida Board of Conservation, Division of Water Survey & Research, p. 19, 15 Jan. 1952.

The following are useful references on the heavy mineral industry of Florida:

1) Titanium Minerals in Trail Ridge, Florida by Robert V. Spencer, U. S. Bureau of Mines Report of Investigations R.I. 4208, March 1948.

2) Titanium Minerals in Central and Northeastern Florida by J. R. Thoenen and J. D. Warne, U. S. Bureau of Mines Report of Investigations R.I. 4515 September 1949.

3) Florida Sands Boost Supply of Titanium Mineral, Engineering and Mining Journal, May 1952.

4) Mining and Concentration of Ilmenite and Associated Minerals at Trail Ridge, Florida by J. H. Carpenter and others, Mining Engineering, August 1953.

Docket Copy
Surname:
Houk
Selfridge
Johnson
Mitchell

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

SEP 13 1954

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Coastal Petroleum Company
Rutile, Monazite, Uranium
Citrus County, Florida

Dear Mr. Laurence:

Reference is made to your memorandum of August 26, 1954, on eligibility of Coastal Petroleum Company for exploration assistance under plan of exploration outlined.

Although the facts in your memorandum are too meager to make a firm determination, it would appear that the work of sampling of sediments in select areas where submerged shore lines are thought to exist is prospecting as are the Geiger counter traverses. However, should the company indicate interesting anomalies by Geiger counter traverses the Government would participate in the cost of the sampling and outlining their extent.

The same criteria that are used on other beach sand applications would be applicable there. If the application contains sufficient factual data to justify Government participation the application will be favorably considered.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Approved:

J. H. Hedges

Member, Bureau of Mines (JB)

Thor H. Kiilsgaard

Member, Geological Survey (JB)

LGHouk:gad 9/9/54
Copy to: Admr. R. File
Records File
Operating Committee
Mr. Cservenyak, 3411
Mr. Kiilsgaard, 5227
Mr. Houk

R.C.L.

Docket Copy
Surname:
Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Coastal Petroleum Company
Rutile, Monazite, Uranium
Citrus County, Florida

Dear Mr. Laurence:

Reference is made to your memorandum of August 26, 1954, on eligibility of Coastal Petroleum Company for exploration assistance under plan of exploration outlined.

While the facts in your memorandum are too meager to make a firm determination it would appear that the work of sampling of sediments in select areas where submerged shore lines are thought to exist is prospecting as is the Geiger counter traverses.

The same criteria of the geologic probability of making a significant discovery that is used on all applications would be applicable here. If the application contains sufficient factual data to justify Government participation the application will be favorably considered.

Sincerely yours,

Chairman, Operating Committee

Approved:

Member, Bureau of Mines

Member, Geological Survey

LGHouk:gad 9/3/54
Copy to: Admr. R. File
Records File
Operating Committee
Mr. Cservenyak, 3411
Mr. Kiilsgaard, 5227
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1080 FEDERAL BLDG.
KNOXVILLE 2, TENN.

August 26, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region VII - Knoxville, Tennessee

Subject: Possible application from Coastal Petroleum Company - (Rutile, Monazite, uranium)

Mr. John D. Bates, Geologist, Coastal Petroleum Company, Tallahassee, Florida was here yesterday to discuss a proposed exploration project by his company, for rutile, monazite, and other heavy sands, and also uraniferous phosphatic sediments, in the offshore coastal area of western Florida.

Briefly, Mr. Bates' proposal consists of two parts: (1) sampling of sediments to determine heavy mineral content in selected areas where submerged shore lines are thought to exist, and (2) traverses in selected areas with a Geiger counter having a special underwater probe. Coastal Petroleum recently bought this counter for about $2,000 from Tracerlab, who built it to order from Coastal's specifications.

Coastal Petroleum currently has leases on all the Gulf Coast of peninsular Florida between 26° and 30° latitude, including rivers and estuaries, from high tide to 10.3 miles offshore. They anticipate that litigation concerning certain leases in Citrus County, expected to be completed in October, will establish their right to extract all minerals, in addition to oil, gas, and sulphur.

Mr. Bates estimated the cost of the proposed exploration at less than $50,000, although he did not have firm estimates. He says depth of water is less than 50 feet in all areas to be explored, and that mining, in event of discoveries, would be by dredges on barges comparable to those now in use at Trail Ridge, Florida.

Mr. Bates was advised to file his application as soon as the status of the company's leases is clarified. In the meanwhile, we are referring the problem to you for an opinion as to whether this type of exploration would be considered eligible under the DMEA program. If it

would not be considered eligible or feasible, we should so advise Mr. Bates before his company spends an appreciable amount of time and money in preparation of their application.

Robert A. Laurence

Robert A. Laurence
EXECUTIVE OFFICER
DMEA REGION VII

Wm. A. Beck

Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

COASTAL PETROLEUM application.

From Trace Elements Investigation Report 330, Page 176.

Phosphate studies on the Eastern Gulf of Mexico by H. R. Gould.

Investigation of the bottom sediments on the Eastern Gulf of Mexico were undertaken in 1951 to determine the area distribution, quality, source, and mode of formation of phosphatic sediments in this region. It seemed possible that the phosphate region might be a re-working of the marginal extension on the tertiary deposit on the Florida Peninsula.

Field studies in 1953 provide 3,000 bottom sediment samples, 34 dredge holes, 9 cores, and 169 water samples.

Preliminary results show that the Continental Shelf sediments between Tarpon Springs and Fort Myer consist of sands made up chiefly of quartz and 2 calcarous snads of organic origin. Most of the samples contained less than .5% P205 and less than .0001% U. Some samples from within this area contained as much as 13.4% P205, and 004% U. These concentrations occur near shore between Anglewood and Venice and between St. Petersburg and Tarpon Springs.

Final Report on this project is scheduled for completion June 1954.

An area of lesser concentration is located in the southeastern part of Tampa Bay near the mouth of Little Manatee and Alafia Rivers.

DEFENSE MINERALS ADMINISTRATION

97021

PRODUCTION EXPANSION DIVISION

LOAN APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Amount of loan and interest rate _____

Type of Loan (R.F.C. or Guaranteed Bank Loan) _____

Term of Loan _____

Purpose of Loan — Mine Equipment _____

Mill or Reduction Plant _____

Operating Funds _____

Other _____

Repayment and Rate _____

Comments on Contract: _____

_____

_____

_____

_____

Date sent to Legal Division: _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to R.F.C. by D.P.A. _____

Date Signed into Contract by R.F.C. _____

Additional Remarks: _____

_____

_____

_____

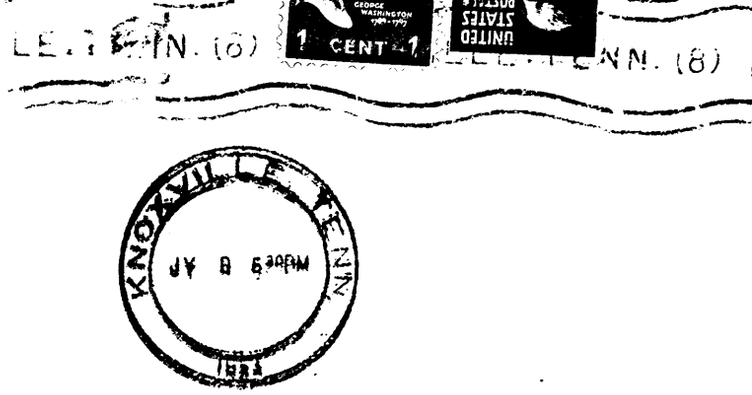
_____

Interior—Duplicating Section, Washington, D. C.

Signed _____

DEFENSE MINERALS
EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.~~ C.

OFFICIAL BUSINESS



Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Dept. of the Interior
Washington 25, D.C.