DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 392 — DMEA NO. 2576

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [x] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [x] Royalty Audits
- [x] Certification of Discovery
- [x] Closing Letter
- [x] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [x] Contract Amendments
- [x] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [x] Project summary (final)
- [x] Work Completed analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab) in Folder 3
- [x] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [ ] On-site Exam Report (Tab)
- [x] Settlement Sheets Folder #2
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2. : Reports
- [x] Analysis of Semi-Annual Inspection Reports and
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [x] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [x] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No. 3 : Maps (Use pocket folder or envelope)

Folders No. 2. : Settlement Sheets

Folders No. 2. : Drill Logs

Folders No. _____ : Royalty material

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

FIRST ROYALTY AUDIT CERTIFICATE

I have examined the production records and sales documents pertaining to the sale of monazite, rutile, zircon, ilmenite, sand and gravel for the period August 27, 1952, to June 30, 1956, by

Marine Minerals, Inc.
Box 306
Clearwater, South Carolina

successors to

Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

produced from Big Horse Creek Placer located near Clearwater, Aiken County, South Carolina, on which royalties are due the U. S. Government under terms of Contract Idm-F392, Docket No. DMEA-2976 (Monazite-Columbium-Rutile), dated August 27, 1952, as amended.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established the total sales of such minerals for this period, subject to DMEA royalties, to be $140,830.00. Royalty due the Government at the rates specified in the contract is $7,041.50. The royalty paid and balance due are as follows:

Total Royalties Due	$7,041.50
Total Royalties Paid	7,041.50
Balance of Royalties Due	$ -0-

C. E. Fisher
C. E. Fisher, Auditor

August 9, 1956

FIRST ROYALTY AUDIT REPORT

I. INTRODUCTION

On August 1, 1956, an audit was made of the production, sales, and royalty accounts and records of

Marine Minerals, Inc.
Box 206
Clearwater, South Carolina

successors to

Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

pertaining to the sale of monazite, rutile, zircon, ilmenite, sand and gravel during the period August 27, 1952, to June 30, 1956, produced from property known as Big Horse Creek Placer near Clearwater, Aiken County, South Carolina, on which royalties are due the U. S. Government under terms of Contract Idm-E392, Docket No. DMEA-2576 (Monazite-Columbium-Rutile), dated August 27, 1952, as amended.

The production and sales records pertaining to this contract are maintained by Mr. L. W. Taylor, Office Manager, Marine Minerals, Inc., and were made available to this auditor in the company's office at the placer site. Mr. Robert Griffith, Superintendent, was present during the audit. Also present were Mr. Alex B. Perry of Perry Minerals Company and Mr. William A. Beck, Mining Engineer, Bureau of Mines, Knoxville, Tennessee. The cooperation of all concerned greatly facilitated the audit work.

II. GENERAL INFORMATION

Article 9 of the exploration contract provides that should the Government, within 6 months after completion or termination of the exploration project certify that a discovery or development has resulted from the work, the operator or his successor in interest shall be obligated to pay a percentage royalty on the net smelter returns or other net proceeds realized from the ore, concentrates, or metals produced within 10 years from the date of the contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first. A certificate of discovery or development was issued on September 30, 1953.

According to supplemental audit report and certificate dated April 14, 1954, prepared by E. D. Talbert, DMEA Auditor, the total accepted costs of the exploration amounted to $48,996.57, with the Government's contribution, on an 83 percent basis, being $40,667.15.

The original contract and all of the amendments thereto were executed in the name of Callahan Zinc-Lead Company, Inc. By agreement entered into as of December 1, 1953, Crane Co. was given an option to purchase Callahan's interest in the lands involved in this exploration project with the understanding that necessary titles would be transferred to a subsidiary corporation to be formed for the purpose of conducting mining operations on the property. The option has been exercised and assignment has been duly made to Marine Minerals, Inc., a subsidiary of Crane Co.

The agreement of December 1, 1953, also provided that when the option was exercised the Crane Co. subsidiary (Marine Minerals, Inc.) would assume the liability for royalties due the Government.

The agreement further granted the Callahan interests the sole right to process and sell for its own account the sand and gravel arising incidentally from dredging operations on the properties, said sand and gravel to be delivered at the end of the new corporation's pipeline on shore, free of charge as a single nonsegregated bulk product. The Callahan interests were also granted the right to establish plants for the production of commercial grades of sand and gravel and to maintain stockpiles of materials on any ground free of rental charge so long as such plant or stockpiles do not interfere with the new corporation's operations. These sand and gravel operations are now being conducted on the property by Perry Minerals Company formed by the Callahan interests.

III. SCOPE OF AUDIT AND FINDINGS

A. Conference with Examining Engineer

A conference with the examining engineer (Mr. Beck) disclosed the following:

(a) All production from the property is subject to DMEA royalties.

(b) The operator sells its production currently and as rapidly as a suitable product is made available and a customer can be found. The operator does not "stockpile" ore and mine or mill rejects that may have potential value within the royalty payment period. The examining engineer and this auditor agree that the records of unsold production being maintained at the time of the audit were adequate for the protection of the Government's interest.

(c) The sampling and assay controls in effect are considered adequate.

(d) The manner of disposing of production is considered as giving the Government its fair royalty returns.

(e) The operator is properly reporting the current production subject to DMEA royalty.

(f) The operator does not buy from or sell to other operators.

B. Audit of Settlement Statements

A considerable amount of preaudit work was accomplished in the DMEA office, Region V, Knoxville, Tennessee, prior to the field audit. During this preaudit work a statement of royalties received was prepared from copies of Marine Minerals, Inc., sales invoices furnished by that operator in support of royalty payments. The royalty receipts were verified with deposits made by the regional Finance Officer. This statement, which is filed as a part of my audit work papers, was reconciled with the production and sales records in the operator's office during the on-site audit.

The operator has paid royalties on all sales of monazite, rutile, zircon and ilmenite produced from the land described in the contract during the period August 27, 1952, to June 30, 1956, inclusive. None of the sand and gravel was sold during the period.

C. Other Observations

During the audit it was ascertained that Perry Minerals Company sold approximately 1,200 tons of sand and gravel during July 1956, and had on hand approximately 10,000 tons of washed sand and gravel available for sale. Mr. Alex B. Perry stated that the sale price had varied from $1.40 to $2.40 per ton. He was advised that royalty was due the Government at rate of 1½ percent of the proceeds from each sale. Mr. Griffith stated that the royalty would be paid by Marine Minerals, Inc., in accordance with the terms of the agreement dated December 1, 1953. It was agreed that Mr. Perry would furnish to Mr. Griffith a statement showing description of sand and gravel sold, quantities sold, unit prices and total proceeds during July 1956, and monthly thereafter and that the royalty due the Government would be computed and included in the monthly payments made to DMEA by Marine Minerals, Inc.

IV. CONCLUSIONS

A summary analysis of the operator's production and sales subject to DMEA royalties to June 30, 1956, follows:

Item and Purchaser	Number of tons Produced	Inventory 6-30-56	Sold	Price Per Ton	Proceeds
Monazite	445.00	424.00			
Heavy Minerals Co. 830 So. Michigan Ave. Chicago, Ill.			21.00	$280.00	$ 5,880.00
Rutile	585.00	70.38			
Cramet, Inc. 3800 No. Hawthorne St. Chattanooga, Tenn.			514.62	225.00	115,789.50
Zircon	540.00	50.00			
Orefraction Incorporated 7425 Thomas St. Pittsburgh, Pa.			(188.00 (145.00	30.00 35.00	5,640.00 5,075.00
Frank Samuels & Co. Phila. Nat. Bank Bldg. Philadelphia, Pa.			155.00	37.50	5,812.50
Georgia Iron Works 605 - 12th Street Augusta, Ga.			2.00	50.00	100.00
Ilmenite	750.00	625.85			
Cramet, Inc. 3800 No. Hawthorne St. Chattanooga, Tenn.			(114.15 (10.00	20.00 25.00	2,283.00 250.00
Total proceeds					$140,830.00
Royalty due and paid at 5%					$ 7,041.50

The audit has confirmed the accuracy and propriety of the royalty payments received by the regional Finance Officer applicable to production from the property during the period August 27, 1952, to June 30, 1956. It has also determined that all indicated sales during such period have been properly accounted for.

C. E. Fisher

C. E. Fisher, Auditor

August 9, 1956

Check Sheet of Examining Engineer

Operator's Name Callahan Zinc-Lead Company

Address Marine Minerals Inc., Assignee

Box 206, Clearwater, South Carolina

Exploration Contract No. Idm-E392 Docket No. DMEA-2576

	Check One Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?	X	
(b) If so, is segregation and identification procedure adequate?	X	
2. (a) Does Operator commingle production subject to DMEA royalties with exempt production?		X
(b) If so, do you consider the allocation of the commingled production equitable?		
3. (a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?	X	
(b) If so, are adequate records maintained on such material to protect the Government's interest?	X	
4. Do you consider the assay controls in effect are adequate?	X	
5. Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	X	
7. Does the Operator buy from or sell to other Operators?		X
8. Comment on any item 2 (b) to 6 if answer is No.		

Wm. A. Beck, Mining Engineer

Date August 1, 1956

Docket Copy

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

To: Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York 17, N. Y.

Pursuant to the provisions of Exploration Project Contract No. I-m-E392, dated August 27, 1952, (Docket No. DMEA-2576), hereinafter called the "contract," between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration.

The nature of said discovery or development is described broadly or indicated as follows:

Monazite, columbium, rutile, zircon, and ilmenite occur fairly evenly distributed in a placer deposit composed chiefly of quartz sand, approximately 95 percent of which will pass a standard four mesh screen.

Dated: SEP 30 1953

Copies to:
Operator (original)
Contract Adm. and Audit Division
Field Team (2 copies)
Finance Office
Rare & Misc. Metals Div. (Mr. Ellis)
Mails & Files (Docket)
Mr. Irving Gumbel, Director, EPS
Administrator's Reading File
Operating Committee
Mr. Hedges, Rm. 4604
Mr. Thayer, Rm. 5216 GSA Bldg.
Mr. F. E. Johnson

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

Rutin
McKane
Chamberlin
Ellis
Kunkel

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/15	Alley	800
5-15	Chambers	800
5-15	Murphy	700
"	Ellis	700
5/15	Selfridge	120
"	Johnson	110
"	Mittendorf	100
		220

MAY 15 1957

Heavy Minerals Company
836 South Michigan Avenue
Chicago 5, Illinois

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Co., Inc.
(and successors)
Horse Creek Placer
Aiken County, South Carolina

Gentlemen:

Under the above-cited contract the Government allotted a total of $57,593.00 for exploration for monazite and other minerals occurring in the placer deposit and agreed to share 83 percent of the cost as approved and accepted by this Administration. The accepted costs were determined to be $48,996.57 and the Government's share at 83 percent participation to be $40,667.15.

As the exploration work resulted in a discovery the Government was to receive a royalty percentage for a period of 10 years, or until the amount advanced by the Government was liquidated, whichever occurred first. The production from land under this contract enabled repayment of the Government's advance considerably before the expiration of the ten-year repayment period provided for in the contract.

As a result of this repayment the Government retains no claim or lien against the property subject to the contract or any future production therefrom.

I wish to thank you for the payment of your account under the contract.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

AMAlley/ama
May 15, 1957

Copy to: Docket
Administrator
Mr. Johnson
Mr. Baroch - Rm. 3647
Mr. Kiilsgaard - Rm. 5224
F. T. Region V (2)
Mr. Ellis
Mr. Chambers
Admr. Reading File
Callahan Zinc-Lead Co.

8623

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

SUPPLEMENTAL AUDIT CERTIFICATE

I have examined the records and transactions of the:

Callahan Zinc-Lead Company, Inc.
100 Park Avenue, New York 17, New York
and
Aiken, South Carolina

pertaining to Exploration Project Contract No. Idm-4392, Docket No. DMEA-2576, dated August 27, 1952, including Amendments Nos. 1, 2 and 3, covering a project for the exploration of monazite, columbium and rutile on property contiguous to Horse Creek in Aiken County, South Carolina, for the period of September 2, 1952 to May 31, 1953, inclusive, and the subsequent disposition of project property.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit disclosed the following facts in regard to the amount to be paid the contractor:

Total cost as billed by contractor			$57,509.40
Less: Proceeds from disposition of property			2,293.21
Net claimed cost			$55,216.19
Exceptions (see Audit Report for details):			
Prior to audit	$ - 0 -		
During audit	6,819.62	$6,819.62	
Less: Reinstatement		600.00	6,219.62
Total Accepted Cost			$48,996.57

The contract calls for an 83 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Forty thousand six hundred sixty-seven and 15/100 Dollars,

"$40,667.15"

is valid and proper.

This certificate is issued on the provision that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

E. D. Talbert, Auditor

April 14, 1954

SUPPLEMENTAL AUDIT REPORT

On September 8, 9 and 10, 1953, a final audit (covering operations for the period of September 2, 1952 to May 31, 1953) was made of the records and transactions pertaining to Exploration Project Contract No. Idm-E392, Docket No. DMEA-2576, dated August 27, 1952, including Amendments Nos. 1 and 2, with the:

Callahan Zinc-Lead Company, Inc.
100 Park Avenue, New York 17, New York
and
Aiken, South Carolina

covering a project for the exploration of monazite, columbium and rutile on property contiguous to Horse Creek in Aiken County, South Carolina.

The findings of this audit were covered by an Audit Report and an Audit Certificate issued by this Auditor over date of September 28, 1953. The disallowances, aggregating $6,819.62, taken by this audit included 2½ month's costs of supervision (1 mo. @ $600/mo. for Phase I and 1½ mos. @ $600/mo. for Phase II), which was considered by the auditor as being in excess of specified "allowable maximums" and, therefore, for the sole account of the Operator.

By Amendment No. 3 dated March 26, 1954, however, the contract was amended to allow one additional month's supervision costs for Phase I on the premise that:

(1) both the Operator and the Regional DMEA Field Team construed the contractual limitation on supervision costs as applying only to the monthly rate and not to the number of months; and

(2) the extra month of supervision was necessary for the performance of the work due to conditions not foreseen or foreseeable when the contract was entered into.

Accordingly, an additional $600.00 for 1 month's supervision costs applicable to Phase I is allowed by this supplemental audit report.

E. D. Talbert

(E. D. Talbert, Auditor

April 14, 1954

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

AUDIT CERTIFICATE

I have examined the records and transactions of the:

Callahan Zinc-Lead Company, Inc.
100 Park Avenue, New York 17, New York
and
Aiken, South Carolina

pertaining to Exploration Project Contract No. Idm-E392, Docket No. DMA-2576, dated August 27, 1952, including Amendments Nos. 1 and 2, covering a project for the exploration of monazite, columbium and rutile on property contiguous to Horse Creek in Aiken County, South Carolina, for the period of September 2, 1952 to May 31, 1953, inclusive, and the subsequent disposition of project property.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit disclosed the following facts in regard to the amount to be paid the contractor:

Total cost as billed by contractor		$57,509.40
Less: Proceeds from disposition of property		2,293.21
Net claimed cost		55,216.19
Exceptions (see Audit Report for details):		
Prior to this audit	$ -0-	
During this audit	6,819.62	6,819.62
Total Accepted Cost		$48,396.57

The contract calls for an 83 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Forty thousand one hundred sixty-nine and 15/100 Dollars,

$40,169.15

is valid and proper.

This certificate is issued on the provision that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

E. D. Talbert, Auditor

September 28, 1953

AUDIT REPORT

I INTRODUCTION

On September 8, 9 and 10, 1953, a final audit (covering operations for the period of September 2, 1952 to May 31, 1953) was made of the records and transactions pertaining to Exploration Project Contract No. Idm-E392, Docket No. DMEA-2576, dated August 27, 1952, including Amendments Nos. 1 and 2, with the:

Callahan Zinc-Lead Company, Inc.
100 Park Avenue, New York 17, New York
and
Aiken, South Carolina

covering a project for the exploration of monazite, columbium and rutile on property contiguous to Horse Creek in Aiken County, South Carolina.

The original records under this contract were maintained by and were in the custody of Mr. O. H. Perry, Superintendent of the project, and were located in the field office and laboratory building three miles north of Augusta, Georgia, on route U.S. 1. However, immediately following the audit, the records were taken to the New York office of the Company by Mr. E. A. Sale, Treasurer of the Callahan Zinc-Lead Company.

Mr. William A. Beck, Mining Engineer and member of the Region VII DMEA Field Team, accompanied the auditor and assisted in the audit. Mr. Sale also rendered considerable assistance and Mr. Perry was consulted as required.

II GENERAL INFORMATION ON RECORDS

The general books of the Company were maintained in the New York office and, therefore, were not made available to the auditor during this trip to the Aiken, South Carolina, field office. The Superintendent of the project, however, had custody of, and made available the cancelled checks, payrolls, time cards, original invoices, and insurance policies. The Treasurer of the Company brought to the Aiken office the payroll tax returns and a few invoices paid by the New York office during the final month of the project's operation.

The Operator's Monthly Report and Voucher Forms MF-104 were prepared under the direction of Mr. Sale in the New York office from a "check register" submitted monthly by Mr. Perry from the Aiken office. This "check register" listed all checks drawn on a "Prospecting Account" with the Farmers & Merchants Bank, Aiken, South Carolina, and signed by Owen H. Perry. The salary of the Superintendent, the payroll taxes and the few final invoices were paid by checks drawn by the Callahan Zinc-Lead Company, Inc., on an account with The New York Trust Company, New York, and signed by one of the Assistant Treasurers and the Treasurer of the Company.

III SCOPE OF AUDIT AND FINDINGS

The audit was limited to ascertaining the accuracy, propriety and validity of the costs shown in the "Totals to Date" column of the Form MF-104, Operator's Monthly Report and Voucher, for the month of May, 1953, but including the subsequent settlement on September 21, 1953, of the Government's equity in certain project property. Since, by letter dated September 30, 1952, addressed to the Operator, the Executive Officer of the DMEA Field Team for Region VII waived the requirement for the submission of supporting documents with the monthly Forms MF-104, a complete and detailed audit and analysis of all costs was necessary.

The audit disclosed a considerable amount of improper distribution of charges to the "Items of Cost" shown on the Form MF-104. Therefore, the audit findings presented below are those resulting after correction of the cost distribution.

(1) Independent Contracts:

This item of cost is not applicable to this contract.

(2) Labor and Supervision:

The basic records for the labor costs (wages and per diem) consisted of semi-monthly payrolls prepared by a Public Accountant (E. A. Burkhalter) in Aiken and time cards signed by the employees and approved by the Foreman-Driller (Victor Cote) or the Laboratory Operator (L. E. Davis). The salary and per diem of a technical employee (J. M. Mummenrider) also was included on these payrolls. The fee of the Superintendent (O. H. Perry) was not included on these payrolls, but was paid by the New York office at the rate of $1,000.00 a month with only the "allowable maximum" rate of $600.00 a month being charged to the project.

During the audit all time cards were checked against the payrolls, the earnings recomputed, and payments spot checked by reference to the cancelled checks. In computing the costs chargeable to the project the Operator had deducted the wages, salaries and per diem of the crew for several periods (January 22 to 28, March 24 to 31, and April 2 to 6) and for an estimated one-half of the month of May when work was performed on property not included in the contract. Mr. Beck, representing the Region VII Field Team, concurred that these adjustments were equitable.

Labor costs, determined by audit to be allowable, with the overtime rates indicated by an asterisk (*), are shown in the following analytical summary:

			Phase I	Phase II	Phase III
Wages:					
Foreman-Driller	4.58 mos.	@ $500	$ 2,288.47	$ -	$ -
Operators-Samplers	2096 hrs.	@ $2.00	2,864.00	240.00	1,088.00
" "	488½ "	@ $3.00*	781.50	144.00	540.00
Laboratory Operator	1109 "	@ $2.00	800.00	240.00	1,178.00
" "	155½ "	@ $3.00*	144.00	144.00	178.50
Helpers	2352½ "	@ $150	1,056.75	-	2,472.00
"	302½ "	@ $2.25*	175.50	-	505.12
Laborers-Helpers	2405½ "	@ $1.25	3,006.71	-	-
" "	202½ "	@ $1.87½*	379.50	-	-
Total Wages			$11,496.43	$768.00	$5,961.62
Per Diem:					
Foreman-Driller	119 days	@ $7.00	$ 833.00	$ -	$ -
Operators-Samplers	341 "	@ $6.00	1,338.00	126.00	582.00
Laboratory Operator	144½ "	@ $8.00	416.00	-	740.00
Total Per Diem			$ 2,587.00	$126.00	$1,322.00
Total Labor (Wages and Per Diem)			$14,083.43	$894.00	$7,283.62

The following audit adjustments were made in arriving at the findings shown in the above summary:

(a) A disallowance of $5.00 for 8 hours wages on December 13 of a laborer-helper (Thos. J. Bean) charged at the overtime rate whereas the straight was applicable according to the time card;

(b) An additional allowance of $6.00 due to the per diem of the foreman-driller (Victor Cote) being credited at the rate of $8.00 per day rather than the correct rate of $7.00 per day for 6 days (January 22 to 28) worked on property not under the contract; and

(c) A transfer of $256.15 wages and $95.00 per diem to item (6) New Buildings, Improvements, etc., for 5 days labor of the fore man-driller (Victor Cote) and the operators-samplers (F. L. Davis and L. Robertson).

The amounts charged to Phase II cover the wages of the laboratory operator (L. E. Davis) and the wages and per diem of an operator-sampler (F. L. Davis) during the period of November 22 to December 12, inclusive, when they were performing test work at the Tuscaloosa laboratory of the Bureau of Mines.

The original contract, which covered the Phase I and II work, did not contain a specific estimate for perdiem or living expenses, whereas Amendment No. 1, which authorized the Phase III work, did contain such an

estimate of costs. The Chief of the DMEA Rare and Miscellaneous Metals Division (Mr. E. W. Ellis), who prepared the contract, advised this auditor that it was the intent under the original contract to allow the living expenses or per diem for a crew having experience in this type of dredging operation, since such labor could not be obtained locally. Accordingly, with the concurrence of the Field Team member (W. A. Beck) that per diem was a reasonable and necessary expense for the three men (the foreman-driller and two operator-samplers) brought from Montana and the one man (the laboratory operator) brought from Massachusetts, such costs have been allowed.

Supervision properly allowable under the terms of the contract was determined to be as follows:

		Phase I	Phase II	Phase III
Superintendent	6 mos. @ $600	$2,400.00	$ -	$1,200.00

The Operator charged the project with a total of $5,100.00 for 8½ months' services of the superintendent. The contract, however, expressly states that the estimates for supervision (4 mos. @ $600/mo. for Phase I and 2 mos. @ $600/mo. for Phase III) are allowable maximums and any excess is for the sole account of the Operator. Accordingly, a disallowance of $1,500.00 has been made.

Technical Services, covering the services of John H. Munzenrider, were found to be allowable as follows:

		Phase I	Phase II	Phase III
Laboratory Technician	4 mos. @ $400	$1,600.00	$ -	$ -
" "	2 " @ $550	-	-	1,100.00

The contract specifies that the estimated requirements for technical services (4 mos. @ $400/mo. for Phase I and 2 mos. @ $550/mo. for Phase III) are allowable maximums. Since the Operator charged the project with 8½ months' salary @ $550/mo. and 187 days per diem @ $8/day, a disallowance of the $2,921.00 is necessary.

(3) Operating Materials and Supplies:

The costs chargeable to this category were determined by a detailed audit and analysis of the vendors' invoices, delivery tickets attached to petty cash reimbursement vouchers, and the cancelled checks. The following summarizes the costs determined by audit to be allowable:

	Phase I	Phase II	Phase III
Timber for roads and shafts	175.72	$ -	$ 328.96
Sample Containers	34.91	-	29.38
Diesel Fuel and Electricity	40.80	-	157.33

	Phase I	Phase II	Phase III
Tools, Hardware & Miscellaneous	583.87	-	286.14
Gas, Oil, Lubricants, etc.	440.93	-	328.82
Tires and Tubes	142.21	-	-
Total	$1,418.44	$ -	$1,130.63

The following disallowances were made in arriving at the acceptable costs shown above:

(a) $.18 for sample boxes charged at $4.75 but invoiced and paid in the amount of $4.57;

(b) $42.00 for part of a deposit on 12 diesel drums @ $6/each charged to the project in the amount of $72.00, but credited back at only $30.00;

(c) $4.00 for waterproof clothing charged at $35.11 but invoiced in the amount of $31.11; and

(d) $5.58 for a part of a petty cash reimbursement (check #198) which was not documented.

By letter dated September 21, 1953 the Executive Officer, DWM Field Team, Region VII waived the Government's interest in a group of small tools and supplies remaining unexpended at the conclusion of the project.

(4) Operating Equipment:

The acceptable costs under this category were determined to be as follows:

	Phase I	Phase II	Phase III
Rental:			
Wellpoint Equipment, Vacuumatic 880	$ -	$ -	$ 726.19
Hauling from Jacksonville and return	-	-	226.60
South Carolina Use Tax	-	-	19.53
Expenses of wellpoint supervisor:			
Per diem 13 days @ $6.00	-	-	78.00
Mileage 500 mi. @ $.08	-	-	40.00
Wages: 88 hrs. @ $2.25	-	-	198.00
23 " @ $3.37½	-	-	77.62
Total Rental Costs	$ -	$ -	$1,365.94

	Phase I	Phase II	Phase III
Purchase:			
Pump, Marlow 4M	130.17	-	-
Scale, Detecto Dial X48300-10	104.26	-	-
Survey Meter, El-tronics SM-3	195.00	-	-
Express on Meter	2.34	-	-
Scale, Harvard Trip 550-G	22.80	-	-
Hot Plate, Hevi-duty 20	64.00	-	-
Jeep, Willys 1947, CJ2A, 107943	750.00	-	-
Mounting Empire 4" drill on Jeep	330.08	-	-
Power Wagon, Dodge 1952, #3929633	3,409.00	-	-
Screen, Simplicity "C", 12'x3'	539.60	-	-
Spiral Concentrator, Humphrey's 24A	-	1,131.65	-
Freight on Concentrator	-	72.36	-
Centrifugal Pump, Marlow 27H-112"	-	-	356.05
Total Purchase Costs	$5,547.25	$1,204.01	$356.05
Less: Net proceeds from disposition	1,878.03	296.52	118.66
Net Purchase Costs	$3,669.22	$ 907.49	$237.39
Depreciation:			
Various, 4 mos. @ $160	$ 640.00	$ -	$ -

The following audit adjustments were effected in determining the allowable costs indicated above:

(a) An additional allowance in the amount of $275.62 for the wages of the wellpoint supervisor, which the Operator through error had failed to charge to the project;

(b) A disallowance of $28.40 for a 5% cash discount on the Simplicity screen which had not been credited to the project; and

(c) A disallowance of $276.65 for depreciation since the contract authorizes only an allowable maximum total of $640.00 for 4 months for Phase 1, whereas the Operator charged the project for 5 months @ $183.33 per month.

The contract did not specifically authorize the purchase of equipment for Phases II and III. However, the contract did authorize the rental under Phase II of test jigs and spirals under an allowable maximum of $1,200.00 and, since the purchase resulted in a net cost to the project of only $907.49, it has been allowed. Also, the pump for Phase III was necessary in the shaft sinking operations and this auditor was advised by the Chief of the DMEA Rare and Miscellaneous Metals Division (Mr. E. W. Ellis) that it was inadvertently omitted from the estimates under Amendment No. 1. The intent to include it is evidenced by the fact that the estimates did indicate requirements for a pump operator and the pump fuel. Accordingly, the net costs for the purchase of the pump have been allowed as a cost of the project.

Disposition of the purchased equipment was effected by sale (approved by letter dated September 18, 1953, addressed to the Operator by the Executive Officer of the Regional DMEA Field Team) as follows:

Carpco, Jacksonville, Florida:		
Pump, Marlow AM	$ 50.00	
Power Wagon, Dodge	1,400.00	
Screen, Simplicity	200.00	
Spiral Concentrator, Humphrey's	300.00	
Centrifugal Pump, Marlow	120.00	$2,070.00
G. L. Klemann, Augusta, Georgia:		
Jeep, Willys		125.00
Callahan Zinc-Lead Co., New York:		
Scale, Detecto		
Survey Meter, El-tronics		
Scale, Harvard Trip		125.00
Hot Plate, Hevi-duty		
Total		$2,320.00
Less: Advertising costs		26.79
Net proceeds		$2,293.21

In arriving at the net proceeds by phases, as shown in the summary of acceptable costs, the advertising costs have been prorated by phases on the same basis as the receipts from the disposition.

(5) Initial Rehabilitation and Repairs:

Charges to this category were determined by examination of the pertinent invoices and verification of the payments by reference to the cancelled checks. The findings, all applicable to Phase I of the work, were as follows:

Costs claimed:		
Capitol Motors, Helena, Mont. (Sept. 2 & 5):		
Overhaul truck	$845.00	
Overhaul pickup	263.22	
Repairs to truck lights	6.40	$1,114.62
Knapp Service, Helena, Mont. (Sept. 9):		
Tires and tubes for pickup		118.04
Total claimed		1,232.66
Disallowed:		
(a) Difference between $6.40 claimed and $6.04 invoiced and paid for repairs to truck lights	$ .36	

(b) Excess of claimed costs over the allowable maximum of $900.00 specified in contract	332.30	332.66
Acceptable costs		$ 900.00

(6) New Buildings, Improvements, etc.:

An audit of the invoices, payrolls, cancelled checks and other documents disclosed the following costs to be allowable:

	Phase I	Phase III
Costs claimed:		
Rental of building	$160.00	$ 120.00
Repairs, etc., to building:		
Labor	256.15	-
Per Diem	95.00	-
Materials	261.05	-
Installation of washing plant, etc.:		
Preparation of site	-	44.00
Materials	-	602.85
Electric installation	-	246.47
Total claimed	$772.20	$1,013.32
Disallowed:		
(a) Rental of building for Phase III not authorized by contract	-	120.00
(b) Excess of amount claimed ($612.20) for repairs, etc., to building over the allowable maximum ($350.00) provided by contract	262.20	-
Acceptable costs	$510.00	$ 893.32

The Labor and Per Diem charged to the Phase I repairs, etc., consisted of 5 days for three men, the foreman-driller and two operators-samplers, during the 10 day period of September 22 to October 2. The narrative attached to the September MF-104 states "Considerable work had to be done on the water supply and the electric service to get the necessary steady supply. Suitable work benches, etc., were built. This work was done by the three man crew and required about ten days." It was evident, however, that this work could not have taken ten days; furthermore, the crew did not arrive on the site until September 22 and some time was required for unloading and preparing the equipment for the drilling work which began on October 4. Accordingly, at this auditor's request, the Superintendent (Mr. O. H. Perry) and the representative of the DMTA Field Team (Mr. W. A. Beck) made a joint determination that 5 days work for the three men was a reasonable estimate.

No labor has been charged to the Phase III work of installing the washing plant and building a bulk sample shed, since it was impossible to determine or reasonably estimate the man-days involved. Furthermore such a determination was not considered essential to the audit since Amendment No. 1 to the contract specified that the allowable maximum of $2,125.00 for this work was exclusive of the labor and supervision provided under item (2).

Under Phase I the contract specified separate allowable maximums of $150.00 for repairs and installation of lights and water and $200.00 for building bins, work benches, etc. It was impractical to estimate the labor and impossible to separate the material costs to this detail. Accordingly, for the purpose of this audit the two items have been considered as a single allowable maximum of $350.00.

(7) Miscellaneous:

The allowable costs in this category were determined by audit of the invoices and cancelled checks or, as in the case of payroll taxes and insurance, by examination of the Company's tax returns and insurance policies. The findings of the audit as to the allowable costs is summarized as follows:

	Phase I	Phase II	Phase III
Repairs to Equipment:			
Drilling Equipment	$ 183.99	$ -	$ -
Vehicles	185.17	-	138.30
Wellpoint Equipment	-	-	32.61
Transit	28.19	-	-
Laboratory Equipment	17.60	-	40.48
	$ 414.95	$ -	$ 211.39
Sampling and Analysis:			
Carpco	$1,390.00	$385.50	$1,176.00
Express on samples	15.58	35.03	30.41
Ledoux	-	105.00	-
Kennametal	-	110.00	-
Humphrey's	-	-	-
Express on samples	6.62	22.18	-
RR fare (J. H. Munsenrider)	73.08	-	-
Subsistence " "	35.36	-	-
Union Carbide	-	-	-
Express on sample	4.81	-	-
Goldfield Consolidated	-	-	-
Express on sample	2.80	-	-
Foote Mineral	-	-	-
Express on sample	1.88	-	-
Productive Equipment	-	-	-
Express on sample	-	3.85	-
W. S. Tyler	-	-	-
Express on sample	-	3.44	-
	$1,530.13	$665.00	$1,206.41

	Phase I	Phase II	Phase III
Payroll Taxes:			
F.O.A.B. (Social Security), 1½%	$193.21	$ 5.76	$105.93
F.U.C.I. (Unemployment), 3%	386.41	11.52	211.85
	$579.62	$ 17.28	$317.78
Liability Insurance:			
Premium, $.98 per $100	$104.37	$ 7.53	$ 69.20
Expense Constant, $10	5.76	.42	3.82
	$110.13	$ 7.95	$ 73.02
Accounting and Stenographic Services:			
Accounting @ $12.50/mo.	$ 62.50	$ -	$ 25.00
Typing and Mimeographing	143.50	-	281.00
	$206.00	$ -	$306.00
Moving Equipment and Crew:			
Loading and preparation at Helena	$137.83	$ -	$ -
Expenses enroute-Gas, Oil, etc.	217.60	-	-
Lodging (3 men)	83.66	-	-
Meals (3 men)	94.11	-	-
Travel, J.M. Munzenrider-RR fare	125.67	-	-
Per diem	32.00	-	-
Shipping equipment (various)	39.44	156.54	66.95
Return RR fare (4 men)	-	-	402.92
	$730.31	$156.54	$469.87
Sundry Expenses:			
Telephone and Telegraph	$128.14	$ -	$ 97.38
Postage	17.48	-	22.74
Drafting and Office Supplies	148.88	-	17.60
Photostats and Blueprints	57.45	-	25.31
	$351.95	$ -	$163.03

The following audit adjustements were effected in arriving at the allowable costs indicated in the above summary:

(a) An additional allowance of $1.00 for the repairs to wellpoint equipment, which was charged to the project at $31.61 but was invoiced and paid in the amount of $32.61;

(b) A disallowance of $33.38 for express on samples sent to Humphrey's, since the project was charged $40.00 whereas the express bill and cancelled check were in the amount of $6.62;

(c) A disallowance of $64.40 for payroll taxes, being the difference between the amount of $979.08 charged to the project and the amount of $914.68 computed at the applicable rates on the taxable payroll of $20,326.20 allowed as a cost of the project;

(d) A disallowance of $171.70 for employees' compensation insurance, being the difference between the advance estimated premium of $352.80 charged to the project and the amount of $181.10 computed at the applicable rate on the insurable payroll of $18,479.20 allowed as a cost of the project;

(e) Disallowances of $750.00 and $180.20 for premiums on a comprehensive general liability insurance policy and an automotive liability insurance policy, respectively, since such insurance was not a "necessary, reasonable, direct cost of performing the exploration work" within the terms of the contract, but was for the sole benefit and protection of the Company;

(f) A disallowance of $9.37 for a reimbursement to Victor Cote for a balance due on the expenses of moving from Montana that was charged twice to project, once in September and again in October;

(g) A disallowance of $168.88 for a reimbursement to L. E. Davis for the expenses of moving Mr. and Mrs. Davis to Aiken from Massachusetts, since the contract provided for the moving of only the crew, not their families, and Mr. Davis was working on the project during October;

(h) A disallowance totalling $114.00 for collateral forfeitures, fines, fees and costs paid to the Montana Highway Patrol, the Gallatin County of Montana, the City of Douglas in Wyoming and the Wyoming Highway Patrol during the move from Montana, since such items were not a "necessary reasonable direct cost of performing the exploration work";

(i) Disallowances of $14.00 and $67.80 for automotive registration fees and taxes paid to Montana and South Carolina, respectively, since the contract provides that "No items of * * * taxes (other than payroll and sales taxes) * * * shall be allowed as costs * * *"; and

(j) A disallowance of $12.00 for a part of a petty cash reimbursement during April which was not documented.

It will be noted from the above summary of the Sampling and Analysis costs that there were some express charges for shipments of samples on which there were no assaying or analysis costs. The Superintendent (Mr. O. H. Perry) stated that such work was performed without charge, since the recipients of the samples were interested in the possible production of the

project, but that it was also of benefit to the exploration work to obtain this extra laboratory work at only the cost of the express on the samples and, in the case of Humphrey's laboratory, the travel cost involved in sending the project's Laboratory Technician (Mr. J. M. Munsenrider) to Denver. The representative of the DMEA Field Team (Mr. W. A. Beck) indicated his concurrence that the express and travel costs were necessary direct costs of the project.

The allowable Payroll Taxes were computed (after a review of the Callahan Zinc-Lead Company's tax returns, identification No. 13-0514745) as follows:

	Phase I	Phase II	Phase III
Labor	$11,496.43	$768.00	$5,961.62
Technical Services	1,600.00	-	1,100.00
New Buildings, Improvements, etc.	256.15	-	-
Allowable Payroll Costs	13,352.58	768.00	7,061.62
Less: 4th quarter 1952 wages of L. E. Davis in excess of $3,600.00 for the year	472.00	384.00	-
	$12,880.58	$384.00	$7,061.62
Social Security @ 1½%	193.21	5.76	105.93
Unemployment @ 3%	386.41	11.52	211.85

The entire 3% unemployment compensation tax was paid to the Federal Government since the Company had insufficient employees in the state for application of the South Carolina tax.

The allowable employer's Liability Insurance costs were computed (after reference to the policy, Hartford Accident & Indemnity Co. No. 560991, effective October 19, 1952) as follows:

	Phase I	Phase II	Phase III
Allowable Payroll Costs	$13,352.58	$768.00	$7,061.62
Less: Allowed costs prior to policy effective date	2,703.00	-	-
Allowable Insurance Base	$10,649.58	$768.00	$7,061.62
Cost at $.98 per $100	104.37	7.53	69.20

The applicable expense constant of $10.00 has been prorated by phases in the same ratio as the applicable premium costs.

Under Moving Equipment & Crew most of the allowed costs covered the initial movement between September 2 and 22 of the experienced crew of three men (the foreman-driller and two operators-samplers) in driving the trucks loaded with project materials from Helena, Montana, to Aiken, South Carolina. The expenses of J. M. Munsenrider (laboratory technician) covered his initial travel during the last week of September from Helena to Aiken. The item of "shipping equipment (various)" includes the shipping

costs of Company-owned or borrowed equipment, i. e., a rotap from Salida, Colorado ($29.30), a jig from Denver, Colorado ($66.95), a sampler from Elk City, Idaho ($156.54) and a calculator from Helena, Montana ($10.14).

While the contract included specific estimates (which were not allowable maximums) for "Moving equipment and crew to project" of $950.00 and "Cost of transporting equipment furnished by the Operator" of $150.00, no specific estimate was made for the return of the crew upon completion of the project. However, it appeared that equitably the cost of returning the crew must be considered a "necessary, reasonable direct cost of performing the exploration work" and, therefore, with the concurrence of the representative of the DMEA Field Team (Mr. W. A. Beck) the return railroad fare of the three man crew and the laboratory technician has been allowed as a cost of the project.

(8) Contingencies:

The audit disclosed that the following additional and unforeseen Phase II expenses were allowable costs under this title:

Costs for test work at the Bureau of Mines Laboratory, Tuscaloosa, Ala. —			
(a) Digging and loading car (Yaun Bros.)		$ 87.75	
(b) Freight and express to Tuscaloosa —			
Sand (1 car)	$150.19		
Concentrates	21.21	171.40	
(c) Expenses of operator-sampler (F. L. Davis) and laboratory-operator (L. E. Davis), Nov. 22 to Dec. 12 —			
Mileage, 1884 mi. @ $.07	$131.88		
*Lodging (L. E. Davis, only)	62.15		
*Meals (L. E. Davis, only)	89.05		
Incidentals	11.95	295.03	$554.18
Costs of obtaining special bidding materials for jigs —			
(a) Truck rental at Helena, Montana		$ 38.00	
(b) Freight on gravel from Helena		53.55	91.55
Acceptable Costs			$645.73

*F. L. Davis was paid his regular per diem, charged under item (2), during this period.

In determining these acceptable costs a disallowance has been made of $18.84 for mileage on the Tuscaloosa work, since the Operator paid and claimed expenses on the basis of $.08 per mile, whereas the rate of $.07 per mile is the maximum allowed by the standardized Government Travel Regulations and, therefore, considered the maximum rate allowable for Government participation.

The Tuscaloosa test work was not expressly authorized by the contract, but all arrangements were made with the Bureau of Mines through and with the concurrence of the DMEA Field Team. Accordingly, these costs have been considered as allowable under the specific estimate of $1,200 for Contingencies as provided for Phase II in Exhibit "A" of the contract.

The special bedding gravel obtained and shipped from property near Helena, Montana, was considered by the Superintendent (Mr. C. H. Perry) to be far superior for the purpose than any that could be obtained locally. The representative of the DMEA Field Team (Mr. W. A. Beck) concurred. Therefore, the costs incident to obtaining the materials have been allowed as a cost of the project.

IV CONCLUSIONS

The audit disclosed that all costs charged to this project, with the exception of the disallowances aggregating $6,819.62 as itemized in the preceding section of this report, are reasonable and proper under the terms of the contract.

The adjustments between "Items of Costs" as shown on the May, 1953, Form MF-104, the disallowances, and the accepted costs as disclosed by this audit are summarized in Exhibit "A" attached hereto.

This contract contained numerous items of cost expressly designated as "allowable maximum". The status of these allowable maximums, after deduction of the disallowances discussed in the preceding section of this report, is summarized as follows:

Item of Cost	Allowable Maximum	Acceptable Cost	Balance
Phase I			
Superintendent	$ 1,600.00	$ 1,600.00	$ -
Laboratory Technician	2,400.00	2,400.00	-
Operating Equipment:			
Purchased	5,040.00	3,669.22	1,370.78
Furnished by Operator	640.00	640.00	-
Initial Rehabilitation and Repairs	900.00	900.00	-
New Buildings, Improvements, etc.:			
Rental of building	240.00	160.00	80.00
Building repairs, etc.	150.00)	350.00	-
Building bins, benches, etc.	200.00)		
Contingencies	3,000.00	-	-
Phase I Total	30,760.00	29,144.18	1,615.82
Phase II			
Operating Equipment:			
Rental (actually purchased)	1,200.00	907.49	292.51
Furnished by Operator	-	-	-

Item of Cost	Allowable Maximum	Acceptable Cost	Balance
Initial Rehabilitation and Repairs	-	-	-
New Buildings, Improvements, etc.	-	-	-
Sampling and Analysis	1,950.00	665.00	1,285.00
Phase II Total	7,200.00	3,293.99	3,906.01
Phase III			
Superintendent	1,200.00	1,200.00	-
Laboratory Technician	1,100.00	1,100.00	-
Operating Equipment:			
Furnished by Operator	-	-	-
Initial Rehabilitation and Repairs	-	-	-
New Buildings, Improvements, etc.	2,125.00	893.32	1,231.68
Total cost of project	57,593.00	48,396.57	9,196.43

At the conclusion of the audit on September 10, 1953 the findings were discussed with Mr. C. H. Perry (Superintendent of the project) and Mr. E. A. Salo (Treasurer of the Company). On the following day the findings were discussed with Mr. E. A. Laurence (Executive Officer, DHEA Field Team, Region VII).

E. D. Talbert, Auditor

September 28, 1953

Exhibit "A" — AUDIT SUMMARY — Idm-E392

	Totals May MF-104	Corrected Distribution	Disallowed By Audit	Accepted Costs Total	Phase I	Phase II	Phase III
(2) Labor and Supervision:							
Labor	$22,612.20	$22,260.05	$ -1.00	$22,261.05	$14,083.43	$ 894.00	$ 7,283.62
Supervision	5,100.00	5,100.00	1,500.00	3,600.00	2,400.00	-	1,200.00
Technical Services	-	5,621.00	2,921.00	2,700.00	1,600.00	-	1,100.00
(3) Operating Matls. & Supplies:							
Timber for Roads & Shafts	367.30	504.68	-	504.68	175.72	-	328.96
Sample Containers	-	64.47	.18	64.29	34.91	-	29.38
Diesel Fuel & Electricity	454.34	240.13	42.00	198.13	40.80	-	157.33
Tools, Hdwe., & Misc.	921.54	879.59	9.58	870.01	583.87	-	286.14
Gas,Oil,Lubricants, etc.	1,113.94	769.75	-	769.75	440.93	-	328.82
Tires and Tubes	-	142.21	-	142.21	142.21	-	-
(4) Operating Equipment:							
Rental	972.32	1,090.32	-275.62	1,365.94	-	-	1,365.94
Purchase	7,106.14	7,135.71	28.40	7,107.31	5,547.25	1,204.01	356.05
Depreciation	916.65	916.65	276.65	640.00	640.00	-	-
(5) Initial Rehab. & Repairs	1,108.22	1,232.66	332.66	900.00	900.00	-	-
(6) New Bldgs.,Improvements,etc.	1,378.12	1,785.52	382.20	1,403.32	510.00	-	893.32
(7) Miscellaneous:							
Repairs to Equipment	485.05	625.34	-1.00	626.34	414.95	-	211.39
Sampling and Analysis	3,473.85	3,434.92	33.38	3,401.54	1,530.13	665.00	1,206.41
Payroll Taxes	979.08	979.08	64.40	914.68	579.62	17.28	317.78
Liability Insurance	930.20	1,293.00	1,101.90	191.10	110.13	7.95	73.02
Acctg. & Stenographic	-	512.00	-	512.00	206.00	-	306.00
Moving Equipment & Crew	-	1,648.97	292.25	1,356.72	730.31	156.54	469.87
Sundry Expenses	9,158.58	608.78	93.80	514.98	351.95	-	163.03
(8) Contingencies:							
Tuscaloosa Expenses	313.87	573.02	18.84	554.18	-	554.18	-
Other	118.00	91.55	-	91.55	-	91.55	-
Totals	57,509.40	57,509.40	6,819.62	50,689.78	31,022.21	3,590.51	16,077.06
Proceeds from property	2,293.21	2,293.21	-	2,293.21	1,876.03	296.52	118.66
Net Totals	55,216.19	55,216.19	6,819.62	48,396.57	29,144.18	3,293.99	15,958.40

Government's Copy

Defense Minerals Administration
RECEIVED
MAR 31 1954

EXPLORATION PROJECT CONTRACT
CALLAHAN ZINC-LEAD COMPANY, INC.
DOCKET NO. DMEA-2576

AMENDMENT NO. 3

It is agreed this 26th day of March, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Callahan Zinc-Lead Company, Inc., that Exploration Project Contract Idm-E392 (Docket No. DMEA-2576), dated August 27, 1952, as amended, is further amended, effective August 27, 1952, as follows:

In Exhibit "A," under the heading "(2) Labor, supervision, consultants," under "Estimated Cost Phase I of the Project," delete the last three lines, reading as follows:

1 Superintendent @ $600/* mo.— 4 mos.	$2,400.00	
Total		$12,640.00

and substitute:

1 Superintendent @ $600/* mo.— 5 mos.*	$3,000.00*

This amendment shall not be construed to increase the estimated total cost of the project nor the aggregate total amount which the Government may be required to contribute.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. A. Mittendorf
Administrator, Defense Minerals Exploration Administration

CALLAHAN ZINC-LEAD COMPANY, INC.

By E. A. Sato
Treasurer

MAR 31 1954

EXPLORATION PROJECT CONTRACT
CALLAHAN ZINC-LEAD COMPANY, INC.
DOCKET NO. DMEA-2576

Justification for Amendment No. 3

Article 5 of the printed contract form provides:

> "Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit 'A' is there or elsewhere designated as an 'allowable maximum,' such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs."

In Exhibit "A" appears the following item of estimated cost:

> "1 Superintendent @ $600/* mo.—
> 4 mos. 2,400.00"

Above this item appears the statement "*Indicates Allowable Maximum."

The Operator construed the provision in the printed form and the provision in Exhibit "A," together, as meaning that the only "allowable maximum" item was the $600. The Field Team put the same construction on the provisions, and allowed and paid for an extra month of supervision.

The extra month of supervision was necessary for the performance of the work because of an unusually bad winter, not foreseen or foreseeable when the contract was entered into. If the Operator or the Field Team had supposed that an amendment of the contract might have been required to cover an extra month of supervision, such an amendment would have been entered into before the extra month of supervision was performed.

Government's Copy

EXPLORATION PROJECT CONTRACT
CALLAHAN ZINC-LEAD COMPANY, INC.
DOCKET NO. DMEA-2576

AMENDMENT NO. 2

It is agreed this 2nd day of March, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Callahan Zinc-Lead Company, Inc., each acting in consideration of the agreement of the other to the terms hereinafter set forth that Exploration Project Contract Idm-E392, Docket No. DMEA-2576, dated August 27, 1952, as amended, be further modified and amended effective as of December 31, 1952, and as follows:

Appendix I is hereby amended by adding the following:

(From lease dated December 31, 1952, from D. B. Blackmon)

(1) That tract or parcel of land situated now or formerly in School District No. 29, Langley Township, Aiken County, South Carolina, containing fifteen (15) acres more or less, being a part of the George D. Powell Home place bounded on the North by Big Horse Creek and on the South by the right of way of Southern Railway Company, and on the East by lands of W. A. Moss and being a part of that tract of land deeded to S. I. Busbia by the Master of Aiken County on May 2, 1932, which said deed is recorded in Masters Title Book 57 at page 159 in the office of the Clerk of Court of Aiken County.

(2) All that certain tract or parcel of land situated in Aiken County, South Carolina, and situated on the South side of the right of way of the Southern Railway Company containing sixty-nine and eighty-five one hundred (69.85) acres and being bounded on the North by the right of way of the Southern Railway Company, East by the Old Pine Log public road, South by lands now or formerly of Lincoln Burdo, West by the right of way of the Southern Railway Company and lands of Burdo, this being the same property that was deeded to D. B. Blackmon by S. C. Chavious by deed dated Jan. 24th., 1946, and recorded in deed book 99 page 161 in the office of the Clerk of Court of Aiken County.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be obligated to pay, or the percentage of costs which the Government may be obligated to pay under the provisions of Article 8 of the contract form.

Executed in sextuplicate the day and year first above written.

CALLAHAN ZINC-LEAD COMPANY, INC.

By _____
Secretary-Treasurer

UNITED STATES OF AMERICA

By _____
Administrator, Defense
Minerals Exploration
Administration

Government's Copy

EXPLORATION PROJECT CONTRACT
CALLAHAN ZINC-LEAD COMPANY, INC.
DOCKET NO. DMEA-2576

AMENDMENT NO. 1

It is agreed this 2nd day of February, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Callahan Zinc-Lead Company, Inc., each acting in consideration of the agreement of the other to the terms hereinafter set forth that Exploration Project Contract Idm-E392, Docket No. DMEA-2576, dated August 27, 1952, hereto be modified and amended effective as of February 1, 1953, and as follows:

1. In order to obtain accurate volume samples to the bedrock for the purpose of estimating tonnages and checking the commodity recoveries by concentration and assaying, the following additional work shall be performed at the estimated costs below indicated:

Description of the Additional Work

Sink to a depth of approximately 25 feet, four tightly laced timbered shafts of the approximate dimensions of 4 ft. x 5 ft. Two of the four shafts are to be sunk adjacent to 6-inch drill holes, and two adjacent to 4-inch drill holes. The location of the four shafts is to be mutually agreeable to both the Applicant and the Government.

Prior to the sinking of each shaft it will be necessary to unwater the immediate area of the selected shaft site by means of well-drill points attached to a header which in turn is to be directly connected to an unwatering pump.

While working on each shaft and obtaining the known volume sample therefrom, and after completion of this work, the Operator shall take all necessary steps to safeguard against human beings or roaming animals falling into the shafts.

Additional concentration equipment, sample bins and a suitable building are to be installed for the purpose of a complete metallurgical investigation of the four volume samples obtained from the four shafts.

Estimated Costs of the Additional Work

(1) Independent Contracts

None

(2) Labor, Supervision, Consultants

	Total Shifts	Rate/8 hrs.	Total
Shaft Labor	120	$16.00	$1,920.00
Pump Operators	120	12.00	1,440.00
Jetting & Moving Points	20	16.00	320.00
Truck Driver	40	12.00	480.00
Laboratory:			
Technician	2 mos.	550/mo.	1,100.00*
Operators	100	16.00	1,600.00
Helpers	80	12.00	960.00
Superintendent	2 mos.	600.00	1,200.00*
Living Expenses	240	7.00	1,680.00
			$10,700.00

(3) Operating Materials and Supplies

Pump fuel, 3600 gals. @ $0.28/gal.	$1,008.00	
Shaft Timber, 1000 bd. ft. @ $100/shaft	400.00	
Small Tools	100.00	
Electric Power	50.00	
		$ 1,558.00

(4) Operating Equipment

To be purchased

None

To be rented

Well point equipment, 2 mos. @ $750.00/mo. (including freight charges)		$ 1,500.00

To be furnished by Operator

Test jigs and mechanical sampler for which no charge is to be made

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

Installation of jigs, spirals, sampler, bins, etc. 1/		2,125.00

(7) Miscellaneous

Cost of transporting equipment furnished by Operator	$ 150.00	
Outside laboratory and assaying:		
20 samples @ $30.00 each	600.00	
4 concentrate samples @ $100.00 each	400.00	
12 composites @ $50.00 each	600.00	
		1,750.00

(8) Contingencies

Unforeseen expenses		2,000.00

* * * * * *

Estimated Total Cost of Additional Work	$19,633.00

1/ This includes the cost of all necessary equipment, materials and supplies, and any labor needed in excess of that provided for in Item (2). The cost of supervision shall come from the funds provided therefor in Item (2).

S U M M A R Y

Estimated Cost of Work in Original Contract	$37,960.00
Estimated Cost of Additional Work	19,633.00
Total Estimated Cost of Project	$57,593.00*
Government Participation @ 83%	$47,802.19*

2. In Article 3 of the contract form, in lieu of the words "6 months", substitute therefor the words "9 months."

3. In Article 8 of the contract form, change the figures $31,506.80 and $37,960.00 to $47,802.19 and $57,593.00 respectively.

CALLAHAN ZINC-LEAD COMPANY, INC.

By Joseph T. Hall
President

UNITED STATES OF AMERICA

By O. Mitteudorf
Administrator, Defense
Minerals Exploration
Administration

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET No. [redacted]A 2576

COMMODITY Monazite-Columbium-Rutile

Idm-E592

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Government's Copy

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this 27th day of August, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Callahan Zinc-Lead Company, Inc., (an Arizona Corporation)
100 Park Avenue
New York 17, N. Y.

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Carolina, County of Aiken, described as ~~follows~~: [3] set forth in Appendix 1

the Operator represents and undertakes: [4]

(a) ~~That the Operator is the owner, in possession and entitled to possession ...~~

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.*

Executed in sextuplicate the day and year first above written.

Callahan Zinc-Lead Company, Inc.
(Operator)

By R. F. Mahoney, Vice President

THE UNITED STATES OF AMERICA

By [signature]
Acting Administrator
Defense Minerals Exploration Administration

I, E. A. Salo, certify that I am the secretary of the corporation named as Operator herein; that R. F. Mahoney, who signed this contract on behalf of the Operator, was then Vice-President of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

E. A. Salo

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

(*b*) The Government's payment in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 83 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $31,506.80, which is 83 percent of $37,960.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

APPENDIX I

The land along Horse Creek, Aiken County, South Carolina, leased to the Operator, on which the Exploration Project is to be carried out is indicated on the map attached hereto and made a part hereof and entitled "Aiken County, South Carolina." In the instruments listed below in which Alex B. Perry and Charles Owen Perry are the lessees, the land is described as follows:

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as tract four (4) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing ten (10) acres more or less.

(From lease dated April 23, 1952, from Oscar Kemp)

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract Three (3) of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 at page 259 in the Office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty-five (25) acres more or less.

(From lease dated April 18, 1952, from Robert Kemp)

> All that certain tract of land containing one hundred (100) acres more or less situated on the north side of Horse Creek and extending from Horse Creek as the south boundary of said tract across the main line of the Southern Railway to that branch of said railway that runs to the town of Clearwater, said railway branch being

the north boundary of said tract, which is further bounded on the east by land now or once belonging to John Smart and on the west by land belonging to R. H. Moragne.

(From lease dated April 14, 1952, from Charles M. Hammond)

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract two (2) of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods containing an area of thirty-five (35) acres more or less.

(From lease dated April 25, 1952, from Mamie Drummond Kemp)

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is now owned by the heirs at law of Brady Kemp, Sr. and known as Tract One (1) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259, in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the north boundary of said Tract One and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty (20) acres more or less.

(From lease dated April 23, 1952, from Beatrice Moore Kemp, Hattie Mamie Kemp and Brady Kemp, Jr.)

Lying along the bottom and on both sides of Big Horse Creek, extending approximately from Storm Branch Road to the boundary line of the bottom lands owned by United Merchants and Manufacturers, Inc., and comprises substantially the bed of Big Horse Creek and the swamp land on either side.

(From lease dated August 5, 1952, from The Seminole Mills)

Lying along the bottom and on both sides of Big Horse Creek, extending approximately from the boundary line of the lands owned by The Seminole Mills to Langley Dam. The land comprises substantially the bed of Big Horse Creek and the swamp land on either side.

(From lease dated August 5, 1952, from United Merchants and Manufacturers, Inc.)

Alex B. Perry and Charles Owen Perry by an instrument dated June 10, 1952, assigned all their right, title, and interest in and to all the land above indicated and included within the instruments above referred to, to the Operator. The land on Horse Creek indicated on the map as belonging to Arthur Burdo has not yet been leased to the Operator but if and when it is leased, it will be included under the above assignment which covers all the "right, title, and interest in and to any and all lands contiguous to Horse Creek, now or hereafter to be acquired, in the County of Aiken, State of South Carolina" by Alex B. Perry and Charles Owen Perry.

CALLAHAN ZINC-LEAD COMPANY, INC.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-2576

EXHIBIT "A"

Description of the Work

Phase I

The purpose of Phase I is to explore, by churn drill, the gravel lying along and contiguous to Horse Creek in Aiken County, South Carolina. The area to be explored begins at the crossing of the new Savannah River Project Highway and extends up Horse Creek in a northeasterly direction for a distance of approximately five (5) miles.

The drilling pattern will be to drill on line across the deposit and the drill-lines will be approximately 500 to 1,000 feet apart according to the terrain. The interval between holes on each line will be 100 to 200 feet also according to local conditions. Total footage to be drilled is estimated at approximately 3,300 feet.

A small laboratory is to be installed for the concentration of the bulk samples taken from each hole. The resultant concentrates are to be sent to a commercial laboratory for analysis of the various constituent minerals.

Estimated Cost Phase I of the Project
(*Indicates Allowable Maximum)

(1) Independent contracts

None

(2) Labor, Supervision, Consultants

	Total Shifts	Rate/8 hrs.	Total
Driller	90	$20.00	$1,800.00
Helper	"	12.00	1,080.00
Sampler	"	12.00	1,080.00
Weigher (laboratory)	"	14.00	1,260.00
Operator "	"	14.00	1,260.00
Helper "	"	12.00	1,080.00
Truck driver "	"	12.00	1,080.00
1 laboratory technician @ $400/*mo. - 4 mos.			1,600.00
1 Superintendent @ $600/*mo. - 4 mos.			2,400.00
5 Total			$12,640.00

(3) Operating materials and supplies

Gasoline 20 gals. per day - 90 days, or 1,800 gals. @ $.30 per gal.	$ 540.00	
Tires, oil, maintenance for trucks	600.00	
Small hand tools, shovels, picks, buckets, tubs, bags, etc., all for drill and laboratory	900.00	
Electric power, water, lights	190.00	$ 2,230.00

(4) Operating Equipment

To be purchased

Four-wheel-drive truck	4,300.00	
Geiger counter	200.00	
Vibrating screen	400.00	
Platform scales	60.00	
Laboratory balance	80.00	5,040.00*

To be rented

None

To be furnished by Operator	Value
Drilling machine	$3,200.00
Drilling tools	1,300.00
Drilling pipe and sieves	300.00
Drilling truck mounting	2,200.00
Wilfley table and mounting	700.00
Pickup truck	1,900.00
	$9,600.00

Depreciation allowance 1/60 per month for 4 months	640.00*

(5) Rehabilitation and Repairs

General Repairs for all equipment	900.00	
i/ Moving equipment and crew to project	950.00	1,850.00

i/ Report this item under "Article 6 (7) Miscellaneous" when submitting costs on the monthly progress report (Form MF-104).

(6) New buildings, Improvements, Installations

Rental of building, 4 months @ $60	$ 240.00	
Repairs, lights, water, etc.	150.00	
Building bins, work benches, etc.	200.00	$ 590.00

(7) Miscellaneous

Payroll taxes	660.00	
Workmen's compensation and Employer's liability insurance	810.00	
Accounting	800.00	
Analytical work	2,500.00	4,770.00

(8) Contingencies

Unforeseen expenses (See Ellis' memo 6/9/53, copy attached) 3,000.00*

Summary of Total Estimated Cost of Phase I

Labor and Supervision	12,640.00	
Materials and Supplies	2,230.00	
Equipment to be Purchased	5,040.00*	
Equipment to be furnished by Operator	640.00*	
Rehabilitation	1,850.00	
Buildings (rental & repairs)	590.00	
Miscellaneous	4,770.00	
Contingency	3,000.00*	
Estimated Total Cost		$30,760.00*

Phase II

This phase of the work will only be undertaken after sufficient drilling and sampling have been done to indicate its need. It may begin before Phase I work is completed or immediately after said work is completed, upon mutual agreement of the Government and the Operator.

The work will consist of digging test pits to obtain sufficient volume of samples for concentrating and assaying purposes.

Estimated Cost of Phase II

(1) Independent contracts

None

(2) Labor, Supervision, Consultants 1/

Digging 14 pits, 25 cu. yds. each, @ $6.00 per cu. yd.	$ 2,100.00	
Laboratory work 25 days @ $30/day	750.00	$ 2,850.00

1/ Payroll taxes, workmen's compensation and employer's liability insurance included

(3) Operating materials and supplies

None

(4) Operating Equipment

To be purchased

None

To be rented

Test jigs including freight	550.00	
Test spirals " "	650.00	1,200.00*

To be furnished by Operator

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Outside laboratory work - Electrostatic & magnetic separations - 25 days @ $50.00 per day (Carpco)	$ 1,250.00	
Assaying 14 Columbium-tantalum determination @ $50.00 (Ledoux)	700.00	$ 1,950.00 *

(8) Contingencies

Unforeseen expenses	1,200.00

Summary of Total Estimated Cost of Phase II

Labor and Supervision	$ 2,850.00	
Equipment to be rented	1,200.00 *	
Miscellaneous	1,950.00 *	
Contingency	1,200.00	
Estimated Total Cost		$ 7,200.00 *

Summary of Total Estimated Cost of Project

Total Estimated Cost of Phase I	$30,760.00*	
Total Estimated Cost of Phase II	7,200.00*	
Total Estimated Cost of Project		$37,960.00 *
Government Participation at 83%		$31,506.80 *

Langston Dam
United Merchants (Bath)
N
United Merchants (Seminole)
Horse Creek
1" = 1320'
Burdo
Aiken County
South Carolina
Outline of Project
Drill Holes completed
1" = 1320'
Storm Branch Road
Chas. Hammond
Savannah River Project Highway
Horse Creek

Note to be left attached to Docket copy.

Callahan Zinc-Lead Company, Inc.
Property: Horse Creek, Aiken County, S. C.

Note: Owners Consents to Lien unobtainable. Callahan Zinc-Lead Company will guarantee the loan.

Elof.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. DMEA-2576
Metal or Mineral
Date Received 6-10-52
Estimated Cost
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: Callahan Zinc-Lead Company, Inc. - 100 Park Avenue, New York 17, N. Y. A corporation incorporated in the State of Arizona. Officers are Joseph T. Hall, N.Y.C.; R. F. Mahoney, N.Y.C.; Harold J. Hull, Wallace, Idaho; E. A. Salo, N.Y.C.; James G. McIntosh, N.Y.C.; Michael A. Cervantes, N.Y.C.; and Margaret M. Denny, Wallace, Idaho

(*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.

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

See Supplement Attached

(*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 The land of Charles M. Hammond we hold under an option to purchase. All other land is held under 20 year lease, and the land now being negotiated for will also be held under such a lease.

(*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. Copies of option and leases are attached. See page 5.

(*e*) If you own the land, describe any liens or encumbrances on it None.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. None.

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.

16—66551-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 10 1952

5. *The exploration project.*—(a) State the mineral or minerals for which you [illegible] to explore See Supplement Attached

(*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 5 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)?

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

[X] Money [X] 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 June 6, 1952

Callahan Zinc-Lead Company, Inc.
(Applicant)

By R. F. Mahoney

R. F. Mahoney

Vice-President in Charge of Operations

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

3. a. All that land lying in Aiken County, South Carolina lying along and contiguous to Horse Creek beginning at the crossing of the new Savannah River Project Highway and extending up Horse Creek in a northeasterly direction: (1) On the left bank or southeasterly side of Horse Creek the land of Oscar Kemp, Robert Kemp, Mamie Kemp, and the heirs of Brady Kemp, the wooded swamp land from Horse Creek to a line running fifty feet beyond and south of said wood. (2) On the right bank and northwesterly side of Horse Creek the land of Charles M. Hammond, from Horse Creek in a northwesterly direction to the Clearwater branch of the Southern Railway. Negotiations for the land of Arthur Burdo have been completed and contracts are now being prepared.

In addition to the above land, negotiations are in progress for the wooded swamp land lying on both sides of the creek extending on up the creek for an additional three and one-half miles all of which belongs to the United Merchants and Manufacturers Corp. It is expected that a contract covering this land will be completed by the time this application can be acted upon, and completed contracts will be submitted before or by that time.

4. a. This land has not been previously mined or sampled until the work done by the applicant in conjunction with the U. S. Bureau of Mines in April and May of 1952. The land is accessable generally for sampling, but a four wheel drive truck with winch will be required. To some degree the location of sampling can be adjusted to the terrain.

At the instance of the applicant, the U. S. Bureau of Mines as part of the A.E.C. Special Minerals Investigation Project began sampling this area in January (U.S.B.M. - H.S. or Savannah River Project). Four drill holes were put in at the mouth of Horse Creek when the current appropriation for drilling was exhausted. The applicant then undertook the cost of drilling and all samples were taken and analysed by the Bureau at their laboratories at Shelby, North Carolina and Raleigh, North Carolina, and a complete record of this work is in their hands (see samples H.L.P. 1-8 etc.). One complete cross section was drilled at a point one mile above the lower end of the ground as indicated on the enclosed maps. Later another hole was drilled on a cross section one and one-half miles farther upstream and two more two and one-half miles upstream to check for dredgable depth and uniformity of the material. Both these showed a slightly better depth and close uniformity of grade and character.

4. b. There has been no previous production. As to ore reserves, sampling done to date indicates an average width of 1,300 feet, a length of four and one-half miles and an average depth of 18 feet, or 20,000,000 cubic yards of dredgable ground.

As to grade of material, the analysis by the Bureau laboratory at Raleigh on the concentrates from the complete cross section showed valuable mineral as follows:

Mineral	Percent	Lbs. Per Cu. Yd.
Monazite-Xenotime	6.2	1.41
Ilmenite	15.3	3.50
Rutile	11.0	2.50
Zircon	5.2	1.18

The pounds per cubic yard are based on the finding of 22.7 pounds of concentrates per cubic yard.

4. c. As to the geology of this deposit, its location is below the "fall line" and in the ancient beach terraces (Barnwell and Tuscaloosa formations). Horse Creek has cut two or three hundred feet deep in these old formations and reconcentrated the values from them which gives an unusual uniformity to the character and grade of the deposit. The similarity of the drilled samples in line "P" and those one and one-half and two and one-half miles upstream bear this out. Before production can be undertaken, however, a complete job of sampling should be undertaken to fully establish the values, yardage and character of the ground.

4. d. As to accessibility, U. S. Highway #1 parallels the deposit at a distance of about one-quarter mile and several small roads actually cross it. There is a railroad paralleling the full length of the deposit with sidings available. Housing is available in small towns close by and the city of Augusta, Georgia is only five miles away.

4. e. Manpower is available in the area, electric power is available from private power companies' lines on or near the project, water in Horse Creek is abundant. The applicant now owns a bucket ladder dredge capable of digging and concentrating 6,000 cubic yards of raw material per day. Additional conveying, concentrating, and separating equipment for the shore plant is available from the manufacturers.

5. a. The minerals for which we wish to explore as shown above are: Monazite, Ilmenite, Rutile and Zircon.

5. b. The work proposed is to sample with a churn or ordinary placer type drill. We plan on cross sections of drill holes at approximately 1,000 feet distance between lines, the holes to be at 200 feet intervals on line, and these distances to be adjusted to the character of the terrain. We propose to establish a small laboratory to concentrate and estimate the values of the cores from the drilling at some place conveniently close by. These concentrates then will be sent to a commercial laboratory to be separated into the various mineral fractions, the purity or grade of these minerals to be checked by a commercial assay. Maps are attached showing the location of work done to date.

5. c. Work will start within thirty days and be completed within 150 days, etc.

5. d. Applicant has owned and operated placer mines for many years. O. H. Perry, who will supervise the project, has been personally occupied in the supervision of placer dredge operations from the preliminary sampling to actual production since 1935, and has been in charge of work on the proposed project since its beginning in March 1951, and will be in charge of further work.

6. It is planned that drill holes will be approximately on cross sections spaced at 500 to 1,000 feet and at intervals of 100 to 200 feet on line. We estimate it will require 100 holes, averaging 33 feet deep or 3,300 feet of drilling. We also estimate that the crew can average 35 feet of hole per day and will require 90 drilling days. We estimate 10 days for setting up laboratory and moving equipment for a part of the crew.

It is planned that a temporary laboratory can be set up in a rented building at some convenient place to handle the samples coming from the drill. Part of the laboratory equipment will have to be bought and part will be supplied by the applicant.

This equipment and the drilling equipment and tools furnished by the applicant will have to be moved down from Montana. It is probable that an experienced field engineer and laboratory supervisor as well as a skilled driller will have to be moved in from the same area.

It is planned to send the samples as turned out by our laboratory to a commercial laboratory for separation of minerals and assay of products as a final check of values.

6. a. Independent contracts - None.

6. b. Labor and supervision:

Drilling Labor		
Driller @ $2.50 per hr.		
Helper @ 1.50 per hr.		
Sampler @ 1.50 per hr.		
Laboratory		
Weigher @ 1.75 per hr.		
Operator @ 1.75 per hr.		
Helper @ 1.50 per hr.		
Truck Driver @ 1.50 per hr.		
Per hr. 12.00 per 8 hr. day $96 - 90 days	$8,640.	
Engineer & Laboratory Technician 4 months @ 600.00	2,400.	
Superintendent - 4 months @ 900.00	3,600.	14,640.

6. c. Operating materials & supplies:

Gasoline 20 gals. per day - 90 days 1,800 gals. @ 30¢	540.	
Tires, oil, maintenance for trucks	600.	
Small hand tools, hammers, wrenches, pliers, shovels, picks, buckets, tubs, bags, etc. for laboratory and for drill	900.	
Electric power, water, lights	190.	2,230.

6. d. Equipment supplied by applicant:

Drilling machine	3,200.	
Drilling tools	1,300.	
Drilling pipe and sieves	300.	
Drilling truck mounting	2,200.	
Wilfley table and mounting	700.	
Pickup truck	1,900.	
	9,600.	
Use allowance 1/60 per month 4 months		640.

Equipment to be purchased		
Four wheel drive truck	4,300.	
Geiger counter	200.	
Vibrating screen	250.	
Laboratory balance	80.	
Platform scales	60.	
	4,890.	
Use allowance 1/60 per month 4 months		326.
6. e. Rehabilitation:		
General repairs for all equipment	900.	
Moving equipment and crew to project	950.	1,850.
6. f. Buildings:		
Rental 4 months @ $60	240.	
Repairs, lights, water, etc.	150.	
Building bins, work benches, etc.	200.	590.
6. g. Miscellaneous:		
Payroll taxes	660.	
Employers liability insurance	810.	
Accounting	800.	
Analytical work	2,500.	4,770.
6. h. Contingencies:		
Suitable building for laboratory may not be available at the time in which case a temporary building must be built.		3,000.

Totals:

Labor and supervision	$14,640.
Materials and supplies	2,230.
Equipment allowance	966.
Rehabilitation	1,850.
Buildings	590.
Miscellaneous	4,770.
	$25,046.

7. a. We are prepared to furnish our share of cost.

This entire project has been and is being carried on as a joint venture between (1) Callahan Zinc-Lead Company, Inc., (2) The Goldfield Consolidated Mines Co., (3) Owen H. Perry and (4) Charles Owen Perry and Alex B. Perry. An agreement between these parties provides that all property and property rights acquired by any one of the above parties, in whatever name they may be acquired, shall be for the benefit of all parties in the joint venture. Because the Callahan Zinc-Lead Company, Inc. office is conveniently located in New York and because their identity and financial responsibility has already been established with the D.M.E.A., this application is being put in by them and they assume full responsibility under it so as to expedite the filing of and action upon it.

STATE OF SOUTH CAROLINA)
)
COUNTY OF AIKEN) SS.:

THIS AGREEMENT made and entered into this 5th day of August, 1952, by and between THE SEMINOLE MILLS, a South Carolina corporation having an office for the transaction of business at Aiken, South Carolina (hereinafter referred to as "Seminole"), party of the first part, lessor, and ALEX B. PERRY and CHARLES O. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana (hereinafter jointly and severally referred to as "Perry"), party of the second part, lessee,

W I T N E S S E T H:

IN CONSIDERATION of $10.00 in cash in hand paid by the party of the second part to the party of the first part, as well as other good and valuable consideration moving between the parties, the receipt and adequacy of which are hereby acknowledged, Seminole does hereby lease and let to Perry and his heirs, successors and, as hereinafter provided, his assignees, all of those certain bottom lands and real property situate, lying and being in the County of Aiken and State of South Carolina, lying along the bottom and on both sides of Big Horse Creek, extending approximately from Storm Branch Road to the boundary line of the bottom lands owned by United Merchants and Manufacturers, Inc. (hereinafter called "Bath"), which lands so leased are outlined in red on the Plat attached hereto, made a part hereof and marked "Exhibit A".

TO HAVE AND TO HOLD the same to Perry, his said heirs, successors and assigns, for the term and

subject to the conditions hereinafter specified, for the purpose only of exploring for and dredge mining, taking out and removing therefrom any valuable metals and minerals which are, or which hereafter may be, found on, in or under said lands, together with the right to cut and clear away and dispose of for Perry's own use and benefit the timber on the land which may interfere with Perry's mining operations hereunder, and the right to use so much of the timber as may be useful to Perry in the mining operations upon the land so leased. In connection with the operations conducted by Perry hereunder, he shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, dams, roads and roadways, including the construction of railroads and the operation of equipment thereon, as he may think proper and which may be necessary or convenient in operations conducted by him.

1. The land being leased hereunder comprises substantially the bed of Big Horse Creek and the swamp land on either side. Perry recognizes that it is of the essence hereof that any operations conducted by Perry shall in no way interfere with the operations now or hereafter conducted by Seminole on the demised premises or on premises of Seminole adjoining the demised premises. Both parties recognize that there is no apparent conflict between the dredge mining operations to be carried on by Perry and the operations of Seminole. However, Seminole being without knowledge of the nature, extent and manner in which Perry will carry on his operations, reserves to itself the absolute right to determine whether or not any operations conducted by Perry in any way interfere with operations at that time being conducted by Seminole on the leased

lands. Seminole shall have the absolute right to forbid mining in any areas adjacent to structures owned by Seminole on the leased lands or on lands adjacent thereto when, in the sole opinion of Seminole, danger to such structures will result from such mining, but it is understood that at such points, however, Perry must have a minimum right of way of 200 feet passage for his dredge. It is of the essence hereof that any and all operations conducted by Perry shall in no way interfere with operations now being or which shall hereafter be conducted by Seminole on the leased lands or lands adjacent thereto, and that Seminole be the sole judge of what is or is not interfering with its operations, and to that end Perry agrees that he will immediately, upon request in writing by Seminole, not engage in any operations which Seminole advises him will interfere and will discontinue any operations which Seminole advises him are interfering with the operations being conducted by Seminole.

2. Seminole shall retain, during the life of this lease, the right to use said leased lands for any and all purposes other than those for which said lands are specifically leased to Perry, provided such use will not interfere with Perry's operations. Discharge of sewerage and waste on the demised premises shall not be considered interference.

3. Perry, at his own expense, shall comply with all laws, orders and regulations of Federal, state, county and municipal authorities and with any direction of any public officer or officers pursuant to law which shall impose any order or duty upon Seminole or Perry with respect to the use or occupation by Perry of the leased

lands; Perry shall not do or permit to be done any act or thing upon said premises which will invalidate or be in conflict with fire insurance policies covering any buildings of Seminole which may be on or adjoin the leased lands or the fixtures and property in such buildings, and shall not do or permit to be done any act or thing upon said premises which shall or might subject Seminole to any liability or responsibility for injury to any person or persons or to property by reason of any business or operation being carried on upon said premises by Perry or for any other reason, and Perry, at his expense, shall comply with all rules, orders, regulations or requirements of the Board of Fire Underwriters having jurisdiction over the property, and shall not do or permit anything to be done in or upon said premises or bring or keep anything thereon or use the premises in a manner which shall increase the rate of fire insurance on the buildings of Seminole which are on or adjoin the demised premises or on the property located in such buildings, or increase the rate of any other insurance maintained by Seminole, over that in effect prior to this lease. If, by reason of failure of Perry to comply with the provisions of this paragraph the fire insurance rate on the Seminole buildings on the leased land or those adjoining or the property thereon or the rate for any other insurance carried by Seminole, shall, at the beginning of this lease, or at any time thereafter be higher than it otherwise would be, then upon furnishing proof that Perry's operations are responsible for such higher rates, Perry shall reimburse Seminole, as additional royalty hereunder, for that part of all fire or other insurance premiums thereafter paid by Seminole which shall have been charged because of such

failure or use by Perry and shall make such reimbursement upon the first day of the month following such outlay by Seminole. In any action or proceeding wherein Perry and Seminole are parties, a schedule or "make up" of rate for the said buildings issued by the New York Fire Insurance Exchange, or other body making fire insurance rates for said buildings or contents, shall be conclusive evidence of the facts therein stated and of the several items and charges in the fire insurance rate then applicable to such buildings or contents. That the premises are being used for a permitted purpose shall not relieve Perry from the foregoing duties and obligations.

4. This lease is subject to all mortgages which may now or hereafter affect the real property of which the demised bottom lands form a part and to all renewals, modifications, consolidations, replacements and extensions thereof. This lease shall be self-operative and no further instrument of subordination shall be required by any mortgagee. In confirmation of such subordination Perry shall execute promptly any certificate that Seminole may request. Perry hereby constitutes and appoints Seminole as Perry's attorney in fact to execute any such certificate or certificates for and on behalf of Perry. Seminole agrees that in any mortgage or mortgages hereafter placed on the property, of which the demised premises form a part, with other than a bank, insurance company or other recognized lending institution, a clause will be included to the effect that on any foreclosure thereof Perry shall not be named as a party defendant.

5. Seminole or its agents shall not be liable for any damage to the property of Perry nor for the loss thereof by theft or otherwise except for gross negligence of Seminole. Seminole or its agents shall not be liable for any injury or damage to persons or property resulting from any cause unless caused by or due to the gross negligence of Seminole, its agents, servants or employees, nor shall Seminole or its agents be liable for any such damage caused by other tenants or persons in or upon or about the leased land or caused by operations in construction of any private, public or quasi-public work. Perry shall indemnify Seminole for and hold Seminole harmless and free from damages sustained by persons or property and for any damages or monies paid out by Seminole in settlement of any claims or judgments as well as for all expenses and attorneys' fees incurred in connection therewith arising by reason of any act or omission to act on the part of Perry. Perry shall be liable for any injury or damage to the property of Seminole on the demised premises or on premises adjoining the demised premises if such damages be caused by Perry and irrespective of whether Perry was or was not negligent.

6. A. If the whole of the demised premises shall be acquired or condemned by eminent domain for any public or quasi-public use or purpose, then, and in that event, the term of this lease shall cease and terminate from the date of title vesting in such proceeding and Perry shall have no claim against Seminole for the value of any unexpired term of said lease and the entire award

shall belong to Seminole, and Perry shall execute any and all assignments required by Seminole in connection therewith, and from the net proceeds of such award Seminole shall pay to Perry 90% of such portion of the award as may be based upon the mineral content of the land.

B. If part of the demised premises shall be acquired or condemned by eminent domain for any public or quasi-public use or purpose, then and in that event the term of this lease shall cease and terminate from the date of title vesting in such proceeding to such part of the demised premises and Perry shall have no claim against Seminole for the value of any unexpired term of said lease on such condemned lands and the entire award shall belong to Seminole, and Perry shall execute any and all assignments required by Seminole in connection therewith, and if in the opinion of Perry (to be evidenced by notice given to Seminole within thirty days after such taking) the mining operations being conducted by Perry can be conducted on the remainder of the leased lands, then this lease shall continue in full force and effect as to the portion of the demised premises which have not been condemned. If such notice is not given or if such notice states that mining operations cannot be continued, then and in either of such events this lease shall terminate in its entirety on the 31st day after such taking.

7. A. Except as hereinafter in subdivision "B" provided, Perry, for himself, his heirs, distributees, executors, administrators, legal representatives, successors and assigns, expressly covenants that he shall not assign, mortgage or encumber this agreement nor underlet or use or permit the demised premises or any part thereof to be used by others for the purposes herein set forth or for any other purposes without the prior written consent

of Seminole in each instance. If this lease be assigned or if the leased lands or any part thereof be underlet or occupied by anybody other than Perry, Seminole may, after default by Perry, collect rent from the assignee, under-tenant or occupant and apply the net amount collected to the royalty herein reserved, but no such assignment, underletting, occupancy or collection shall be deemed a waiver of this covenant or the acceptance of the assignee, under-tenant or occupant as tenant or a release of Perry from the further performance by Perry of covenants on the part of Perry herein contained. The consent by Seminole to an assignment or underletting shall not in anywise be construed to relieve Perry from obtaining the express consent in writing of Seminole to any further assignment or underletting.

B. Seminole consents that this lease may be assigned to Callahan Zinc-Lead Company, an Arizona corporation, The Goldfields Consolidated Mines Company, a Wyoming corporation, Owen H. Perry, or any of them, or any corporation or joint venture in which they or any of them have a majority interest. Any such assignment shall be in writing and the assignee shall duly sign and acknowledge an agreement to be bound by the terms and conditions of this agreement, which said acknowledgment, together with a copy of the assignment, shall be delivered by the party making such assignment to Seminole. Notwithstanding any assignment made hereunder, the party making such assignment shall not be relieved of any of the party's obligations hereunder.

8. Perry covenants and agrees that he will procure and maintain during the life hereof public

liability and property damage insurance in companies authorized to do business in South Carolina, naming both Perry and Seminole as parties assured, in limits not less than $200,000/1,000,000 public liability and $50,000 property damage, which insurance shall be non-cancellable, except upon ten days' notice to Seminole. Perry agrees to furnish Seminole with a certificate of such insurance and evidence of payment of premium.

9. The term of this lease shall be nine years from and after the date of this instrument and as much longer (a) as sand, gravel, stone or ilmenite, rutile, magnetite and zircon or other valuable metals or minerals shall be produced hereunder; or (b) as Perry shall pay in royalties or advanced royalties hereunder as much as $250.00 per month in each month of such extension period; or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in section "12" hereof, provided that the total term of this lease shall not exceed fourteen years from the date of this instrument and subject always to termination as herein provided.

10. Beginning with the date hereof Perry shall have twelve months' time in which to examine and test said leased bottom lands for their content of sand, gravel, stone, ilmenite, rutile, monazite, zircon and other valuable products, after which time and within thirteen months from the date hereof Perry shall give to Seminole notice in writing as to whether or not he desires to proceed further with this lease. Such notice shall specify whether or not Perry desires to proceed further, and if Perry does desire to proceed further, shall specify the valuable minerals and metals disclosed upon such land by the test samples.

If such notice so given indicates the intent of Perry to proceed under the terms of this lease, Perry shall thereafter promptly take the necessary steps for the procurement of such machinery and equipment as shall be required for the mining operations and shall begin with the erection and assembly thereof for operations at some point on the mineral deposit (see section "12" hereof) of equipment capable of mining 2,000 tons of earth per day, and within 24 months from the date of said notice shall commence mining at some point on the mineral deposit (see section "12" hereof), and, beginning with the end of said twelve-month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease.

If such notice specifies that Perry does not intend to go forward with the mining operation, or if he fails to give such notice, then he shall fill all test holes and level any ground that he has disturbed during the testing operations and shall repair any damage that has been done to fences, bridges or other improvements and shall pay for any other damages which may have been occasioned by such testing operations, and in the event of such notice or of such failure to give notice, this lease shall at the end of such 13 months period cease and terminate.

11. Perry agrees that when this lease shall, for any cause, terminate, or if Perry specifies that he does not intend to go forward with mining operations, Perry will enter or cause to be entered a certificate of

that fact upon the proper books of record in Aiken County, provided this lease shall have been recorded there, and will execute or cause to be executed such releases or assignments, including the recording of the same, as may be necessary to clear the record and divest Perry of all rights and title given or acquired under this lease. Upon any such termination Perry shall quit and surrender the leased premises to Seminole in good order and condition and s all remove all of his property. Perry's obligation to observe or perform the provisions of this section shall survive the expiration or other termination of the term of this lease.

12. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which Perry may hold under lease or otherwise from other owners and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands, but in any case, whether mining is carried on upon the land hereby leased or not, a minimum payment of $250.00 per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as herein provided.

13. In the event that Perry shall commence mining on the mineral deposit (see section "12" hereof) and shall thereafter suspend such mining operations, then, unless mining operations are recommenced within twenty-four months from the date of the suspension thereof, the advanced royalty required to be paid by Perry to Seminole hereunder shall after the expiration of such twenty-four months' period be $500.00 per month instead of $250.00

per month. If such suspension be due to war, shortage of supplies or for other reasons beyond the control of Perry, or inability to sell products except at abnormally low prices, then in computing the period of suspension there shall be excluded from said twenty-four months' period such period of time as Perry is prevented from carrying on mining operations by reason of said war, shortage of supplies, or reasons beyond his control or inability to sell products except at abnormally low prices. Despite such suspension of operations by reason of war, shortage of supplies or other reasons beyond the control of Perry or inability to sell products except at abnormally low prices, the payment of the monthly royalty of $250.00 shall continue and this lease shall likewise continue. The suspension of operations due to war, shortage of supplies or other reasons beyond the control of Perry or inability to sell products except at abnormally low prices shall not be deemed to extend the term of this lease beyond the maximum period hereinabove in section "9" set forth.

14. Perry shall pay to Seminole as compensation, herein referred to as "production royalties", for material mined and removed from the leased property, the following amounts:

a. For sand, gravel, ilmenite, rutile or zircon, 5% of the proceeds realized from the sale of such products f.o.b. Perry's plant, or if not sold f.o.b. the plant, then the proceeds realized after deducting any transportation or freight handling costs after leaving Perry's plant.

b. For monazite or other valuable metals or minerals a percentage of the proceeds realized from the sale thereof f.o.b. Perry's plant, or if not sold f.o.b. Perry's plant, the proceeds realized after deducting any transportation or freight handling costs after leaving Perry's plant, such percentage to vary according to Perry's then realized price per ton of monazite ~~realized~~ ~~prevailing~~ ~~the~~ ~~may be~~ as follows:

For monazite	at	$300 per ton or less		5%
"	"	"	301 to 400	7-1/2%
"	"	"	401 to 450	8-1/2%
"	"	"	451 or over	10%

The costs deducted in determining the royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work. The payments to be made hereunder shall be made to Seminole at 1407 Broadway, New York 18, New York.

15. Upon the beginning of the mining operations upon the property herein described, Perry shall thereafter and for each month during the continuance of operations on said property within the life of this lease, pay to Seminole a sum of money equal to that amount by which said production royalties shall be less than $250.00 for such month, which payments are herein referred to as "advanced royalties". Perry shall be credited hereunder for advanced royalties paid against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided Perry shall not be entitled to offset advanced royalties against production royalties for any month in which production royalties do not exceed $250.00, and in no event

shall said credit be allowed except as against such excess.

It is understood between the parties hereto that a like lease is concurrently being entered into with Bath and that the payment of production royalties to either Bath or Seminole or both for any month in an amount equal to or more than the minimum advanced royalties due Bath and Seminole combined, shall satisfy the advanced royalty provisions of both contracts and no advanced royalty shall be due either party for such period.

Payment of royalties by Perry hereunder as hereinbefore described shall be made by Perry on or before the 25th day of the month covering such royalties due for the preceding calendar month. Production royalties shall be paid on the proceeds realized during the preceding month from the sale of the materials theretofore mined from the leased property. During the mining operations conducted by Perry under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands of other owners. Under such conditions, periodic surveys shall be made by Perry at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such surveys the number of cubic yards of material dug on each side of said boundary shall be computed and the values attributable to the lands leased hereunder shall be based upon that portion of the total values recovered during said period, determined by a proration of the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

In the event the material mined hereunder shall be commingled with that of other owners, then, for the purposes of determining whether the material mined hereunder or that mined for other owners has been sold, it shall be deemed that the first material into the commingled mass is the first material sold.

16. Perry shall keep accurate records and books of account of all sand, gravel, stone, minerals and other valuable products produced from the leased property hereunder and removed from the said leased property, and on or before the 25th day of each month after production has started hereunder, Perry shall furnish to Seminole a written statement of the tonnage removed by Perry from the leased property during the preceding calendar month, together with a statement of the proceeds of sale during the preceding month realized from the sale of products removed from the leased property, together with a computation of royalties due for said month. Seminole or its duly authorized representatives shall have the right at all reasonable times to examine the books, records and vouchers of Perry and to make copies thereof as well as to go upon the leased premises at all reasonable times for the purpose of determining Perry's compliance with the terms of this agreement. Seminole may, at its option, at any reasonable time and from time to time take samplings of the property being mined by Perry at the leased premises.

At the termination of this lease for any cause whatsoever, or in the event that Perry shall serve notice of his intention not to proceed further, then Perry shall furnish Seminole with copies of all drill logs, data on test pits and copies of any reports covering testings.

17. If at any time Seminole does not agree with a report of any survey or measurements or the computation of royalties by Perry, or the percentage of proceeds of sale of any product which is due Seminole as royalty, Seminole shall, within 120 days after the delivery of such report or statement or payment of such royalties as provided above, give to Perry written notice stating the basis of such disagreement and stating the correction and the computation of royalties claimed by it. The parties hereto shall thereupon choose a competent third party acceptable to both to review such measurements and computations or to fix the percentage of such royalty. The findings of such referee shall be final and the cost borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto cannot agree upon the selection of a referee within seven days after the delivery of such notice of disagreement to Perry, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial District of South Carolina or the Judge presiding therein for the appointment of such a referee.

If within 120 days after submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to Perry by Seminole, then such computations and royalty payments shall be construed as accepted and final.

18. Subject to the rights of Seminole as set forth in Section 1 hereof, Perry shall be the sole judge of the time, place and methods of dredge mining and production.

19. Perry shall pay, as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by him on the leased lands, and Seminole shall pay, as and when due, all taxes lawfully assessed on said lands during the life of this lease, except that if the assessed valuation of such lands which have not been mined be increased by reason of the operations carried on by Perry, the parties shall agree as to what portion of the taxes assessed upon such unmined lands is attributable to such increased valuation and such portion of said tax shall be paid by Perry. In the event the parties are unable to agree as to the amount of any such tax so payable, such amount shall be determined by arbitration as herein in section "17" set forth.

20. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina or any subdivision thereof, or any municipality or district therein, and any and all such taxes and license fees which may be charged by any taxing instrumentality measured by either (a) the tonnage of valuable products produced by Perry hereunder from said land (commonly referred to as a production tax); or (b) measured by the money value of the net proceeds from valuable products of Perry's operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, 95% thereof by Perry and 5% thereof by Seminole, even though by law such taxes and fees are levied upon and immediately payable by Perry, and, if so, Perry may withhold Seminole's portion of such taxes and fees from royalties due or to

become due hereunder. In the event that Seminole shall be entitled to royalty on any product mined in excess of 5%, then the proportionate share of such taxes to be paid by Seminole, measured by the tonnage of such product or the money value of the net proceeds thereof, shall be the percentage royalty payable to Seminole.

Nothing in this section shall be construed as requiring Seminole to pay any part of any income or excess profits tax levied or assessed upon Perry based upon Perry's annual net income or his excess profits even though proceeds of sale of products from his operations hereunder go to make up such annual net income or are considered in determining his excess profits; nor shall Seminole be required to pay any part of any ad valorem property tax levied upon Perry's products from his operations which may be stockpiled or stored or owned by Perry.

21. If Perry shall fail to complete or perform any term or condition of this agreement or the agreement with Bath made concurrently herewith, and such default shall continue for sixty days after notice in writing from Seminole or Bath, as the case may be, to Perry specifying the default, of which continuation Seminole or Bath, as the case may be, shall be the sole judge, then and in any of such events this lease may be terminated by three days' notice in writing from Seminole to Perry and Seminole may thereafter without further notice reenter the demised premises either by force or otherwise and dispossess Perry by summary proceedings or otherwise and the legal representatives of Perry or other occupant of the demised premises and remove their effects and hold the premises

as if this lease had not been made and Perry hereby waives the service of notice of intention to reenter or to institute legal proceedings to that end. Waiver by Seminole of one or more failures of Perry to keep or perform any term of this agreement shall not be considered a waiver of such term.

22. A. Anything herein to the contrary notwithstanding, Perry may abandon and terminate this lease and contract at any time upon sixty days' written notice given to Seminole, and after the giving of such notice Perry shall have no further obligations and duties hereunder except such obligations as have theretofore accrued and which accrue on termination and the obligation to account for production royalties thereafter accruing and to quitclaim and release this lease of record.

B. Seminole shall have the right to terminate this lease at any time upon giving Perry sixty days' written notice of its intention so to do and sixty days after the giving of such notice this lease shall terminate and Perry shall have no further rights hereunder and Seminole shall have no further obligations hereunder except that if such termination takes place after the commencement of the erection and assembly of the necessary mining machinery and equipment on the mineral deposit (see section "12" hereof), then (i) if such termination date is less than four years from the date hereof, Seminole shall pay to Perry $600,000; (ii) if such termination date is four or more but less than five years from the date hereof, Seminole shall pay to Perry $500,000; (iii) if such termination date is five or more but less than six years from the date hereof, Seminole shall pay to Perry $400,000; (iv) if such termination date is six or more but less than seven years from the date

hereof, Seminole shall pay to Perry $300,000; (v) if such termination date is seven or more but less than eight years from the date hereof, Seminole shall pay to Perry $200,000; (vi) if such termination date is eight or more but less than nine years from the date hereof, Seminole shall pay to Perry $100,000; (vii) if such termination date is nine or more years from the date hereof, Seminole shall pay to Perry $100.

C. Any termination of this lease shall ipso facto terminate the lease between Bath and Perry made concurrently herewith and any termination of said lease between Bath and Perry shall ipso facto terminate this lease.

23. Upon termination of this lease by forfeiture, abandonment or other manner, Perry shall have 180 days thereafter to remove from the leased property all dredges, buildings, tools, equipment, supplies and other property placed on the leased lands by or for him and shall be under an obligation to repair any and all damage caused by such removal.

24. It shall be the duty of Seminole to discharge all liens on the property created by Seminole, including the lien of any existing mortgage or mortgages as and when the same become due, and of any taxes due by Seminole, except that the following liens shall be permitted:

a. Materialmen's, mechanics, carriers, warehousemen's, vendors or other like liens incurred in the ordinary course of Seminole's business, provided that such liens are discharged within sixty days after Seminole has knowledge of the existence of such liens, or if such liens are contested in good faith, then not until such contest results in an adverse finding of the court of last resort.

b. Pledges or deposits under workmen's compensation laws or similar legislation or good faith deposits in connection with the bids, tenders, contracts or leases to which Seminole is a party.

c. Liens for taxes or assessments or governmental charges or levies on its property (hereinafter in this subdivision "c" collectively called taxes) if such taxes shall not at the time be due and delinquent, or if such taxes are contested in good faith, then not until such contest results in an adverse finding of the court of last resort.

25. a. If at any time prior to the date of commencement of mining operations hereunder there shall be filed by or against Perry in any court pursuant to any statute, either of the United States or of any state, a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee of all or a portion of Perry's property, or if Perry shall make an assignment for the benefit of creditors, this lease shall ipso facto be cancelled and terminated and in which event neither Perry nor any person claiming through or under Perry or by virtue of any statute or of an order of any court shall be entitled to continue possession of the demised premises and Seminole, in addition to the other rights and remedies given by subdivision "c" hereof and by virtue of any other provision herein or elsewhere in this lease contained or by virtue of any statute or rule of law, may retain any royalty received by Seminole from Perry or others in behalf of Perry.

b. If at the time of the commencement of mining operations or at any time thereafter there shall be filed by or against Perry in any court pursuant to any

statute, either of the United States or of any state, a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee of all or a portion of Perry's property, or if Perry makes an assignment for the benefit of creditors, this lease, at the option of Seminole exercised within a reasonable time after notice of the happening of any one or more of such events, may be cancelled and terminated and in which event neither Perry nor any person claiming through or under Perry by virtue of any statute or of an order of any court shall be entitled to possession or to remain in possession of the premises demised, but shall forthwith quit and surrender the premises, and Seminole, in addition to the other rights and remedies Seminole has by virtue of any other provision herein or elsewhere in this lease contained or by virtue of any statute or rule of law, may retain any royalty received by it from Perry or others in behalf of Perry.

c. It is stipulated and agreed that in the event of the termination of this lease pursuant to "a" or "b" hereof, Seminole shall forthwith, notwithstanding any other provisions of this lease to the contrary, be entitled to recover from Perry an amount equal to the difference between advanced royalty at the rate of $250 per month for the balance of the unexpired portion of the fourteen year term and the rental value of the demised premises at the time of termination, both discounted at the rate of 4% per annum to present worth. Nothing herein contained shall limit or prejudice the right of Seminole to prove for and obtain as liquidated damages by reason of such termination an amount equal to the maximum allowed by any statute or

rule of law in effect at the time when, and governing the proceedings in which, such damages are to be proved whether or not such amount be greater, equal to or less than the amount of the difference referred to above. In determining rental value of the demised premises the rent realized by any reletting, if such reletting be accomplished by Seminole within a reasonable time after termination of this lease, shall be deemed prima facie to be the rental value.

26. While operations are continuing on the demised land, Seminole shall have the right to indicate to Perry the place or places where it desires fill to be placed. Perry agrees to comply with any such request made by Seminole, provided Perry's costs are not increased thereby, and Perry will attempt to straighten the channel of Big Horse Creek running through the lands of Seminole and to build up the banks of such portions of the creek as adjoin the presently erected structures on lands owned by Seminole.

27. Any mechanics lien or other similar lien filed against the demised premises for work claimed to have been done for or materials claimed to have been furnished to Perry, shall be discharged by Perry within 30 days thereafter at Perry's expense.

28. Perry shall reimburse and compensate Seminole as additional rent on or before the date on which royalties are payable for the month in which a statement is rendered, for all expenditures made by or damages or fines sustained or incurred by Seminole due to non-performance or non-compliance with or breach or failure to observe any term, covenant or condition of this lease upon Perry's

part to be kept, observed, performed or complied with.

29. In case of any default, reentry, and/or dispossess by summary proceedings or otherwise,

(a) The rent shall become due thereupon and be paid up to the time of such reentry, dispossess and/or expiration, together with such expenses as Seminole may incur for legal expenses, attorneys fees and/or putting the demised premises in good order; and

(b) Perry or the legal representatives of Perry shall be liable to Seminole for an amount equal to the difference between the advance royalty at the rate of $250 per month for the balance of the unexpired portion of the fourteen year term and the rental value of the demised premises at the time of termination, both discounted at the rate of 4% per annum to present worth. In the event of a breach or threatened breach by Perry of any of the covenants or provisions hereof, Seminole shall have the right of injunction and the right to invoke any remedy allowed at law or in equity as if reentry, summary proceedings and other remedies were not herein provided for. Mention in this lease of any particular remedy shall not preclude Seminole from any other remedy in law or in equity. Perry hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Perry being evicted or dispossessed for any cause or in the event of Seminole obtaining possession of the demised premises by reason of the violation by Perry of any of the covenants and conditions of this lease or otherwise.

30. Seminole or its agents have made no representations or promises with respect to the demised premises except as herein expressly set forth.

31. The failure of Seminole to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this lease shall not prevent a subsequent act which would have originally constituted a violation from having all the force and effect of an original violation. The receipt by Seminole of royalty with knowledge of the breach of any covenant of this lease shall not be deemed a waiver of such breach. No provision of this lease shall be deemed to have been waived by Seminole unless such waiver be in writing signed by Seminole.

32. Any notice herein referred to shall be in writing and shall be served by registered mail, return receipt requested, with postage fully prepaid, and if given to Seminole shall be addressed to it at 1407 Broadway, New York 18, N. Y., attention Mr. Gardner Hawkins, and if given to Perry shall be addressed to him at 126 West Sixth Avenue, Helena, Montana, or at such other post office address as either of the parties may hereafter from time to time indicate to the other by notice given pursuant hereto.

33. The terms "advanced royalty" and "production royalty" hereunder are used herein interchangeably with the term "rent".

34. The term "Seminole" as used in this lease means only the owner for the time being of the land of which the demised premises form a part so that in the event of any sale or sales of said land or of said lease or in the event of a lease of said land, the said Seminole shall be and hereby is entirely freed and relieved of all covenants and obligations of Seminole hereunder and shall be deemed

and construed without further agreement between the parties or their successors in interest or between the parties and the purchaser at any such sale or the said lessee of the land that the purchaser or the lessee, as the case may be, has assumed and agreed to carry out any and all covenants and obligations of Seminole hereunder. The words "re-enter" and "re-entry" as used in this lease are not restricted to their technical legal meaning.

35. In the event of termination of this lease other than (a) by voluntary action of Perry, or (b) by expiration of time or (c) by default on the part of Perry or (d) for any reason specified in section "25" hereof, then Seminole agrees that for a period of fourteen years from the date hereof neither it nor any person, firm or corporation claiming from, through or under it will dredge mine the demised premises.

36. The term " Perry" as used in this lease means only the lessee in possession for the time being of the demised premises.

37. The foregoing sets forth the entire agreement between the parties and no changes shall be recognized unless in writing and signed by the party to be charged.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed the day and year first above written.

(Seal)

ATTEST: Jack L. Collins
Asst Secy

Milton N. Scofield
Witness

David Hubart
Witness

THE SEMINOLE MILLS
By Mervin R Hankel
President

(L.S.)
ALEX B. PERRY

Witness

Witness

15

STATE OF

COUNTY OF ,SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named CHARLES O. PERRY sign, seal and as his act and deed deliver the foregoing lease, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
1952.

Notary Public for

STATE OF New York
COUNTY OF New York , SS.:

Personally appeared before me David Hubart

, who being duly sworn, says that he saw the corporate seal of THE SEMINOLE MILLS affixed to the foregoing lease and that he also saw Merrill R Hackel President, and Jack L Rollins Asst, Secretary, of said THE SEMINOLE MILLS, sign and attest the same and that he with Milton H Scofield witnessed the execution and delivery thereof as the act and deed of the said THE SEMINOLE MILLS.

David Hubart

Sworn to before me this
6th day of August,
(Seal) 1952.

Notary Public for

HILDA E. BRUNS
Notary Public of the State of New York
No. 41-5443100
Qual. Queens Co., Cert. Filed with
Queens Co. Reg's, New York Co. Clk. & Reg's
Term Expires March 30, 1954

(L. S.)

CHARLES O. PERRY

Witness

Witness

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named ALEX B. PERRY sign, seal and as his act and deed deliver the foregoing lease, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
1952.

Notary Public for

In consideration of the sum of Ten ($10.00) Dollars and other good and valuable consideration to the undersigned in hand paid by THE SEMINOLE MILLS, a South Carolina corporation, with an office for the transaction of business at Aiken, South Carolina (hereinafter referred to as "Seminole"), and in order to induce Seminole to enter into the foregoing lease with ALEX B. PERRY and CHARLES O. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana, the undersigned CALLAHAN ZINC-LEAD COMPANY, with an office for the transaction of business at 100 Park Avenue, New York, New York, THE GOLDFIELDS CONSOLIDATED MINES COMPANY, with an office for the transaction of business at 1 Montgomery Street, San Francisco, California, and OWEN H. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana, (hereinafter referred to as the "guarantors") jointly and severally hereby guarantee the prompt performance by Perry (the term "Perry" as used in this guaranty being given the same meaning as is the term "Perry" in the said lease and including but not being limited to the assignees set forth in Section 7B of said lease) of any and all the terms and conditions of the lease to be performed on the part of Perry, and hereby unconditionally agree to pay to Seminole on demand and without prior demand having been made on Perry, any indebtedness which may now or hereafter be owing Seminole by Perry under the said lease.

The guarantors agree that Seminole may deal with Perry with respect to any indebtedness under said lease and the performance of the terms and conditions of said lease without notice to the guarantors the same as if this guaranty had not been given and that the guaranty herein contained shall continue subsequent to the death of the

individual guarantor unaffected by such death and as if he were alive and the liability of his estate shall be the same as if this guaranty had been validly given by his estate.

Seminole and Perry may from time to time without notice to or further consent of guarantors agree to an extension or extensions of time for the performance and/or observance by Perry of any agreements, covenants or conditions set forth in said lease or the waiver of such performance and/or observance, and/or any extension or extensions of time for the payment of any sums of money owing or payable under said lease or to make any settlement of or compromise any amount due and owing under said lease, all the same as if this guaranty had not been given. Guarantors hereby waive any notice whatsoever as to any dealings between Seminole and Perry pursuant to said lease and consent that Seminole and Perry may modify or change the terms thereof without notice to guarantors, and in the event of default waive any demand or notice in respect thereof and any requirement of legal or equitable proceedings or otherwise on the part of Seminole against Perry as a condition precedent to enforcing the obligations of guarantors hereunder.

This guaranty shall be binding upon the guarantors and their respective estates, executors, administrators and assigns, and shall enure to the benefit of Seminole, its successors and assigns.

IN WITNESS WHEREOF, the undersigned have executed these presents this day of ,

1952.

CALLAHAN ZINC-LEAD COMPANY

By_____

ATTEST:

_____

_____
Witness

_____
Witness

THE GOLDFIELDS CONSOLIDATED MINES COMPANY

By_____

ATTEST:

_____

_____
Witness

_____
Witness

_____ (L. S.)
OWEN H. PERRY

_____
Witness

_____
Witness

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the corporate seal of CALLAHAN ZINC-LEAD COMPANY affixed to the foregoing guaranty and that he also saw

, President, and

, Secretary, of said CALLAHAN ZINC-LEAD COMPANY sign and attest the same and that he with

witnessed the execution and delivery thereof as the act and deed of the said CALLAHAN ZINC-LEAD COMPANY.

Sworn to before me this
day of ,
1952.

Notary Public for

STATE OF

COUNTY OF ,SS.:

Personally appeared before me

, who being duly sworn, says that he saw the corporate seal of THE GOLDFIELDS CONSOLIDATED MINES COMPANY affixed to the foregoing guaranty and that he also saw , President, and

, Secretary, of said THE GOLDFIELDS CONSOLIDATED MINES COMPANY sign and attest the same and that he with

witnessed the execution and delivery thereof as the act and deed of the said THE GOLDFIELDS CONSOLIDATED MINES COMPANY.

Sworn to before me this
day of ,
1952.

Notary Public for

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named OWEN H. PERRY sign, seal and as his act and deed deliver the foregoing guaranty, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
1952.

STATE OF SOUTH CAROLINA)
)
COUNTY OF AIKEN) SS.:

THIS AGREEMENT made and entered into this 5th day of August, 1952, by and between UNITED MERCHANTS AND MANUFACTURERS, INC., a Delaware corporation, having an office for the transaction of business at 1407 Broadway, New York 18, New York (hereinafter referred to as "Bath"), party of the first part, lessor, and ALEX B. PERRY and CHARLES O. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana (hereinafter jointly and severally referred to as "Perry"), party of the second part, lessee,

W I T N E S S E T H:

IN CONSIDERATION of $10.00 in cash in hand paid by the party of the second part to the party of the first part, as well as other good and valuable consideration moving between the parties, the receipt and adequacy of which are hereby acknowledged, Bath does hereby lease and let to Perry and his heirs, successors and, as hereinafter provided, his assignees, all of those certain bottom lands and real property situate, lying and being in the County of Aiken and State of South Carolina, lying along the bottom and on both sides of Big Horse Creek, extending approximately from the boundary line of the lands owned by The Seminole Mills (hereinafter called "Seminole") to Langley Dam, which lands so leased are outlined in red on the Plat attached hereto, made a part hereof and marked "Exhibit A".

TO HAVE AND TO HOLD the same to Perry, his said heirs, successors and assigns, for the term and subject to the conditions hereinafter specified, for the purpose only of exploring for and dredge mining, taking out and removing therefrom any valuable metals and minerals which are, or which hereafter may be, found on, in or under said lands, together with the right to cut and clear away and dispose of for Perry's own use and benefit the timber on the land which may interfere with Perry's mining operations hereunder, and the right to use so much of the timber as may be useful to Perry in the mining operations upon the land so leased. In connection with the operations conducted by Perry hereunder, he shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, dams, roads and roadways, including the construction of railroads and the operation of equipment thereon, as he may think proper and which may be necessary or convenient in operations conducted by him.

1. The land being leased hereunder comprises substantially the bed of Big Horse Creek and the swamp land on either side. Perry recognizes that it is of the essence hereof that any operations conducted by Perry shall in no way interfere with the operations now or hereafter conducted by Bath on the demised premises or on premises of Bath adjoining the demised premises. Both parties recognize that there is no apparent conflict between the dredge mining operations to be carried on by Perry and the operations of Bath. However, Bath being without knowledge of the nature, extent and manner in which Perry will carry on his operations, reserves to itself the absolute right to determine whether or not any

operations conducted by Perry in any way interfere with operations at that time being conducted by Bath on the leased lands. Bath shall have the absolute right to forbid mining in any areas adjacent to structures owned by Bath on the leased lands or on lands adjacent thereto when, in the sole opinion of Bath, danger to such structures will result from such mining, but it is understood that at such points, however, Perry must have a minimum right of way of 200 feet passage for his dredge. It is of the essence hereof that any and all operations conducted by Perry shall in no way interfere with operations now being or which shall hereafter be conducted by Bath on the leased lands or lands adjacent thereto, and that Bath be the sole judge of what is or is not interfering with its operations, and to that end Perry agrees that he will immediately, upon request in writing by Bath, not engage in any operations which Bath advises him will interfere and will discontinue any operations which Bath advises him are interfering with the operations being conducted by Bath.

2. Bath shall retain, during the life of this lease, the right to use said leased lands for any and all purposes other than those for which said lands are specifically leased to Perry, provided such use will not interfere with Perry's operations. Discharge of sewerage and waste on the demised premises shall not be considered interference.

3. Perry, at his own expense, shall comply with all laws, orders and regulations of Federal, state, county and municipal authorities and with any direction of any public officer or officers pursuant to law which shall impose any order or duty upon Bath or Perry with

respect to the use or occupation by Perry of the leased lands; Perry shall not do or permit to be done any act or thing upon said premises which will invalidate or be in conflict with fire insurance policies covering any buildings of Bath which may be on or adjoin the leased lands or the fixtures and property in such buildings, and shall not do or permit to be done any act or thing upon said premises which shall or might subject Bath to any liability or responsibility for injury to any person or persons or to property by reason of any business or operation being carried on upon said premises by Perry or for any other reason, and Perry, at his expense, shall comply with all rules, orders, regulations or requirements of the Board of Fire Underwriters having jurisdiction over the property, and shall not do or permit anything to be done in or upon said premises or bring or keep anything thereon or use the premises in a manner which shall increase the rate of fire insurance on the buildings of Bath which are on or adjoin the demised premises or on the property located in such buildings, or increase the rate of any other insurance maintained by Bath, over that in effect prior to this lease. If, by reason of failure of Perry to comply with the provisions of this paragraph the fire insurance rate on the Bath buildings on the leased land or those adjoining or the property therein or the rate for any other insurance carried by Bath, shall, at the beginning of this lease, or at any time thereafter be higher than it otherwise would be, then upon furnishing proof that Perry's operations are responsible for such higher rates, Perry shall reimburse Bath, as additional royalty hereunder, for that part of all fire or other insurance premiums thereafter paid by Bath which shall

have been charged because of such failure or use by Perry and shall make such reimbursement upon the first day of the month following such outlay by Bath. In any action or proceeding therein Perry and Bath are parties, a schedule or "make up" of rate for the said buildings issued by the New York Fire Insurance Exchange, or other body making fire insurance rates for said buildings or contents, shall be conclusive evidence of the facts therein stated and of the several items and charges in the fire insurance rate then applicable to such buildings or contents. That the premises are being used for a permitted purpose shall not relieve Perry from the foregoing duties and obligations.

4. This lease is subject to all mortgages which may now or hereafter affect the real property of which the demised bottom lands form a part and to all renewals, modifications, consolidations, replacements and extensions thereof. This lease shall be self-operative and no further instrument of subordination shall be required by any mortgagee. In confirmation of such subordination Perry shall execute promptly any certificate that Bath may request. Perry hereby constitutes and appoints Bath as Perry's attorney in fact to execute any such certificate or certificates for and on behalf of Perry. Bath agrees that in any mortgage or mortgages hereafter placed on the property, of which the demised premises form a part, with other than a bank, insurance company or other recognized lending institution, a clause will be included to the effect that on any foreclosure thereof Perry shall not be named as a party defendant.

5. Bath or its agents shall not be liable for any damage to the property of Perry nor for the loss

thereof by theft or otherwise except for gross negligence of Bath. Bath or its agents shall not be liable for any injury or damage to persons or property resulting from any cause unless caused by or due to the gross negligence of Bath, its agents, servants or employees, nor shall Bath or its agents be liable for any such damage caused by other tenants or persons in or upon or about the leased land or caused by operations in construction of any private, public or quasi-public work. Perry shall indemnify Bath for and hold Bath harmless and free from damages sustained by persons or property and for any damages or monies paid out by Bath in settlement of any claims or judgments as well as for all expenses and attorneys' fees incurred in connection therewith arising by reason of any act or omission to act on the part of Perry. Perry shall be liable for any injury or damage to the property of Bath on the demised premises or on premises adjoining the demised premises if such damages be caused by Perry and irrespective of whether Perry was or was not negligent.

6. A. If the whole of the demised premises shall be acquired or condemned by eminent domain for any public or quasi-public use or purpose, then, and in that event, the term of this lease shall cease and terminate from the date of title vesting in such proceeding and Perry shall have no claim against Bath for the value of any unexpired term of said lease and the entire award shall belong to Bath, and Perry shall execute any and all assignments required by Bath in connection therewith, and from the net proceeds of such award Bath shall pay to Perry 90% of such portion of the award as may be based upon the mineral content of the land.

B. If part of the demised premises shall be acquired or condemned by eminent domain for any public or quasi-public use or purpose, then and in that event the term of this lease shall cease and terminate from the date of title vesting in such proceeding to such part of the demised premises and Perry shall have no claim against Bath for the value of any unexpired term of said lease on such condemned lands and the entire award shall belong to Bath, and Perry shall execute any and all assignments required by Bath in connection therewith, and if in the opinion of Perry (to be evidenced by notice given to Bath within thirty days after such taking) the mining operations being conducted by Perry can be conducted on the remainder of the leased lands, then this lease shall continue in full force and effect as to the portion of the demised premises which have not been condemned. If such notice is not given or if such notice states that mining operations cannot be continued, then and in either of such events this lease shall terminate in its entirety on the 31st day after such taking.

7. A. Except as hereinafter in subdivision "B" provided, Perry, for himself, his heirs, distributees, executors, administrators, legal representatives, successors and assigns, expressly covenants that he shall not assign, mortgage or encumber this agreement nor underlet or use or permit the demised premises or any part thereof to be used by others for the purposes herein set forth or for any other purposes without the prior written consent of Bath in each instance. If this lease be assigned or if the leased lands or any part thereof be underlet or occupied by anybody other than Perry, Bath may, after

default by Perry, collect rent from the assignee, under-tenant or occupant and apply the net amount collected to the royalty herein reserved, but no such assignment, underletting, occupancy or collection shall be deemed a waiver of this covenant or the acceptance of the assignee, under-tenant or occupant as tenant or a release of Perry from the further performance by Perry of covenants on the part of Perry herein contained. The consent by Bath to an assignment or underletting shall not in anywise be construed to relieve Perry from obtaining the express consent in writing of Bath to any further assignment or underletting.

B. Bath consents that this lease may be assigned to Callahan Zinc-Lead Company, an Arizona corporation, The Goldfields Consolidated Mines Company, a Wyoming corporation, Owen H. Perry, or any of them, or any corporation or joint venture in which they or any of them have a majority interest. Any such assignment shall be in writing and the assignee shall duly sign and acknowledge an agreement to be bound by the terms and conditions of this agreement, which said acknowledgment, together with a copy of the assignment, shall be delivered by the party making such assignment to Bath. Notwithstanding any assignment made hereunder, the party making such assignment shall not be relieved of any of the party's obligations hereunder.

8. Perry covenants and agrees that he will procure and maintain during the life hereof public liability and property damage insurance in companies authorized to do business in South Carolina, naming both Perry and Bath as parties assured, in limits not less than $200,000/1,000,000 public liability and $50,000 property damage,

which insurance shall be non-cancellable, except upon ten days' notice to Bath. Perry agrees to furnish Bath with a certificate of such insurance and evidence of payment of premium.

9. The term of this lease shall be nine years from and after the date of this instrument and as much longer (a) as sand, gravel, stone or ilmenite, rutile, magnetite and zircon or other valuable metals or minerals shall be produced hereunder; or (b) as Perry shall pay in royalties or advanced royalties hereunder as much as $200.00 per month in each month of such extension period; or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in section "12" hereof, provided that the total term of this lease shall not exceed fourteen years from the date of this instrument and subject always to termination as herein provided.

10. Beginning with the date hereof Perry shall have twelve months' time in which to examine and test said leased bottom lands for their content of sand, gravel, stone, ilmenite, rutile, monazite, zircon and other valuable products, after which time and within thirteen months from the date hereof Perry shall give to B ath notice in writing as to whether or not he desires to proceed further with this lease. Such notice shall specify whether or not Perry desires to proceed further, and if Perry does desire to proceed further, shall specify the valuable minerals and metals disclosed upon such land by the test samples.

If such notice so given indicates the intent of Perry to proceed under the terms of this lease, Perry shall thereafter promptly take the necessary steps for

the procurement of such machinery and equipment as shall be required for the mining operations and shall begin with the erection and assembly thereof for operations at some point on the mineral deposit (see section "12" hereof) of equipment capable of mining 2,000 tons of earth per day, and within 24 months from the date of said notice shall commence mining at some point on the mineral deposit (see section "12" hereof), and, beginning with the end of said twelve-month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease.

If such notice specifies that Perry does not intend to go forward with the mining operation, or if he fails to give such notice, then he shall fill all test holes and level any ground that he has disturbed during the testing operations and shall repair any damage that has been done to fences, bridges or other improvements and shall pay for any other damages which may have been occasioned by such testing operations, and in the event of such notice or of such failure to give notice, this lease shall at the end of such 13 months period cease and terminate.

11. Perry agrees that when this lease shall, for any cause, terminate, or if Perry specifies that he does not intend to go forward with mining operations, Perry will enter or cause to be entered a certificate of that fact upon the proper books of record in Aiken County, provided this lease shall have been recorded there, and will execute or cause to be executed such releases or assignments, including the recording of the same, as may be necessary to clear the record and divest

Perry of all rights and title given or acquired under this lease. Upon any such termination Perry shall quit and surrender the demised premises to Bath in good order and condition and shall remove all of his property. Perry's obligation to observe or perform the provisions of this section shall survive the expiration or other termination of the term of this lease.

12. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which Perry may hold under lease or otherwise from other owners and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands, but in any case, whether mining is carried on upon the land hereby leased or not, a minimum payment of $200.00 per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as herein provided.

13. In the event that Perry shall commence mining on the mineral deposit (see section "12" hereof) and shall thereafter suspend such mining operations, then, unless mining operations are recommenced within twenty-four months from the date of the suspension thereof, the advanced royalty required to be paid by Perry to Bath hereunder shall after the expiration of such twenty-four months' period be $400.00 per month instead of $200.00 per month. If such suspension be due to war, shortage of supplies or for other reasons beyond the control of Perry, or inability to sell products except at abnormally low prices, then in computing the period of suspension there shall be excluded from said twenty-four months' period

such period of time as Perry is prevented from carrying on mining operations by reason of said war, shortage of supplies, or reasons beyond his control or inability to sell products except at abnormally low prices. Despite such suspension of operations by reason of war, shortage of supplies or other reasons beyond the control of Perry or inability to sell products except at abnormally low prices, the payment of the monthly royalty of $200.00 shall continue and this lease shall likewise continue. The suspension of operations due to war, shortage of supplies or other reasons beyond the control of Perry or inability to sell products except at abnormally low prices shall not be deemed to extend the term of this lease beyond the maximum period hereinabove in section "9" set forth.

14. Perry shall pay to Bath as compensation, herein referred to as "production royalties", for material mined and removed from the leased property, the following amounts:

a. For sand, gravel, ilmenite, rutile or zircon, 5% of the proceeds realized from the sale of such products f.o.b. Perry's plant, or if not sold f.o.b. the plant, then the proceeds realized after deducting any transportation or freight handling costs after leaving Perry's plant.

b. For monazite or other valuable metals or minerals a percentage of the proceeds realized from the sale thereof f.o.b. Perry's plant, or if not sold f.o.b. Perry's plant, the proceeds realized after deducting any transportation or freight handling costs after leaving Perry's plant, such percentage to vary according to Perry's then realized price per ton of monazite

~~as follows:~~ as follows:

For monazite at			$300 per ton or less	5%
"	"	"	$301 to $400	7-1/2%
"	"	"	$401 to $450	8-1/2%
"	"	"	$451 or over	10%

The costs deducted in determining the royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work. The payments to be made hereunder shall be made to Bath at 1407 Broadway, New York 18, New York.

15. Upon the beginning of the mining operations upon the property herein described, Perry shall thereafter and for each month during the continuance of operations on said property within the life of this lease, pay to Bath a sum of money equal to that amount by which said production royalties shall be less than $200.00 for such month, which payments are herein referred to as "advanced royalties". Perry shall be credited hereunder for advanced royalties paid against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided Perry shall not be entitled to offset advanced royalties against production royalties for any month in which production royalties do not exceed $200.00, and in no event shall said credit be allowed except as against such excess.

It is understood between the parties hereto that a like lease is concurrently being entered into with Seminole and that the payment of production royalties to either Seminole or Bath or both for any month in an amount equal to or more than the minimum advanced royalties due Seminole and Bath combined, shall satisfy the advanced royalty provisions of both contracts and no advanced

royalty shall be due either party for such period.

Payment of royalties by Perry hereunder as hereinbefore described shall be made by Perry on or before the 25th day of the month covering such royalties due for the preceding calendar month. Production royalties shall be paid on the proceeds realized during the preceding month from the sale of the materials theretofore mined from the leased property. During the mining operations conducted by Perry under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands of other owners. Under such conditions, periodic surveys shall be made by Perry at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such surveys the number of cubic yards of material dug on each side of said boundary shall be computed and the values attributable to the lands leased hereunder shall be based upon that portion of the total values recovered during said period, determined by a proration of the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

In the event the material mined hereunder shall be commingled with that of other owners, then, for the purposes of determining whether the material mined hereunder or that mined for other owners has been sold, it shall be deemed that the first material into the commingled mass is the first material sold.

16. Perry shall keep accurate records and books of account of all sand, gravel, stone, minerals and other valuable products produced from the leased property

hereunder and removed from the said leased property, and on or before the 25th day of each month after production has started hereunder, Perry shall furnish to Bath a written statement of the tonnage removed by Perry from the leased property during the preceding calendar month, together with a statement of the proceeds of sale during the preceding month realized from the sale of products removed from the leased property, together with a computation of royalties due for said month. Bath or its duly authorized representatives shall have the right at all reasonable times to examine the books, records and vouchers of Perry and to make copies thereof as well as to go upon the leased premises at all reasonable times for the purpose of determining Perry's compliance with the terms of this agreement. Bath may, at its option, at any reasonable time and from time to time take samplings of the property being mined by Perry at the leased premises.

At the termination of this lease for any cause whatsoever, or in the event that Perry shall serve notice of his intention not to proceed further, then Perry shall furnish Bath with copies of all drill logs, data on test pits and copies of any reports covering testings.

17. If at any time Bath does not agree with a report of any survey or measurements or the computation of royalties by Perry, or the percentage of proceeds of sale of any product which is due Bath as royalty, Bath shall, within 120 days after the delivery of such report or statement or payment of such royalties as provided above, give to Perry written notice stating the basis of such disagreement and stating the correction and the computation of royalties claimed by it. The parties hereto

shall thereupon choose a competent third party acceptable to both to review such measurements and computations or to fix the percentage of such royalty. The findings of such referee shall be final and the cost borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto cannot agree upon the selection of a referee within seven days after the delivery of such notice of disagreement to Perry, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial District of South Carolina or the Judge presiding therein for the appointment of such a referee.

If within 120 days after submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to Perry by Bath, then such computations and royalty payments shall be construed as accepted and final.

18. Subject to the rights of Bath as set forth in Section 1 hereof, Perry shall be the sole judge of the time, place and methods of dredge mining and production.

19. Perry shall pay, as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by him on the leased lands, and Bath shall pay, as and when due, all taxes lawfully assessed on said lands during the life of this lease, except that if the assessed valuation of such lands which have not been mined be increased by reason of the operations carried on by Perry, the parties shall agree as to what portion of the taxes assessed upon such

unmined lands is attributable to such increased valuation and such portion of said tax shall be paid by Perry. In the event the parties are unable to agree as to the amount of any such tax so payable, such amount shall be determined by arbitration as herein in section "17" set forth.

20. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina or any subdivision thereof, or any municipality or district therein, and any and all such taxes and license fees which may be charged by any taxing instrumentality measured by either (a) the tonnage of valuable products produced by Perry hereunder from said land (commonly referred to as a production tax); or (b) measured by the money value of the net proceeds from valuable products of Perry's operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, 95% thereof by Perry and 5% thereof by Bath, even though by law such taxes and fees are levied upon and immediately payable by Perry, and, if so, Perry may withhold Bath's portion of such taxes and fees from royalties due or to become due hereunder. In the event that Bath shall be entitled to royalty on any product mined in excess of 5%, then the proportionate share of such taxes to be paid by Bath, measured by the tonnage of such product or the money value of the net proceeds thereof, shall be the percentage royalty payable to Bath.

Nothing in this section shall be construed as requiring Bath to pay any part of any income or excess profits tax levied or assessed upon Perry based upon Perry's annual net income or his excess profits even though proceeds

of sale of products from his operations hereunder go to make up such annual net income or are considered in determining his excess profits; nor shall Bath be required to pay any part of any ad valorem property tax levied upon Perry's products from his operations which may be stockpiled or stored or owned by Perry.

21. If Perry shall fail to complete or perform any term or condition of this agreement or the agreement with Seminole made concurrently herewith, and such default shall continue for sixty days after notice in writing from Bath or Seminole, as the case may be, to Perry specifying the default, of which continuation Bath or Seminole, as the case may be, shall be the sole judge, then and in any of such events this lease may be terminated by three days' notice in writing from Bath to Perry and Bath may thereafter without further notice reenter the demised premises either by force or otherwise and dispossess Perry by summary proceedings or otherwise and the legal representatives of Perry or other occupant of the demised premises and remove their effects and hold the premises as if this lease had not been made and Perry hereby waives the service of notice of intention to reenter or to institute legal proceedings to that end. Waiver by Bath of one or more failures of Perry to keep or perform any term of this agreement shall not be considered a waiver of such term.

22. A. Anything herein to the contrary notwithstanding, Perry may abandon and terminate this lease and contract at any time upon sixty days' written notice given to Bath, and after the giving of such notice Perry shall have no further obligations and duties hereunder except such obligations as have theretofore accrued and

which accrue on termination and the obligation to account for production royalties thereafter accruing and to quitclaim and release this lease of record.

B. Bath shall have the right to terminate this lease at any time upon giving Perry sixty days' written notice of its intention so to do and sixty days after the giving of such notice this lease shall terminate and Perry shall have no further rights hereunder and Bath shall have no further obligations hereunder except that if such termination takes place after the commencement of the erection and assembly of the necessary mining machinery and equipment on the mineral deposit (see section "12" hereof), then (i) if such termination date is less than four years from the date hereof, Bath shall pay to Perry $600,000; (ii) if such termination date is four or more but less than five years from the date hereof, Bath shall pay to Perry $500,000; (iii) if such termination date is five or more but less than six years from the date hereof, Bath shall pay to Perry $400,000; (iv) if such termination date is six or more but less than seven years from the date hereof, Bath shall pay to Perry $300,000; (v) if such termination date is seven or more but less than eight years from the date hereof, Bath shall pay to Perry $200,000; (vi) if such termination date is eight or more but less than nine years from the date hereof, Bath shall pay to Perry $100,000; (vii) if such termination date is nine or more years from the date hereof, Bath shall pay to Perry $100.

C. Any termination of this lease shall ipso facto terminate the lease between Seminole and Perry made concurrently herewith and any termination of said lease between Seminole and Perry shall ipso facto terminate this lease.

23. Upon termination of this lease by forfeiture, abandonment or other manner, Forry shall have 180 days thereafter to remove from the leased property all dredges, buildings, tools, equipment, supplies and other property placed on the leased lands by or for him and shall be under an obligation to repair any and all damage caused by such removal.

24. It shall be the duty of Bath to discharge all liens on the property created by Bath, including the lien of any existing mortgage or mortgages as and when the same become due, and of any taxes due by Bath, except that the following liens shall be permitted:

a. Materialmen's, mechanics, carriers, warehousemen's, vendors or other like liens incurred in the ordinary course of Bath's business, provided that such liens are discharged within sixty days after Bath has knowledge of the existence of such liens, or if such liens are contested in good faith, then not until such contest results in an adverse finding of the court of last resort.

b. Pledges or deposits under workmen's compensation laws or similar legislation or good faith deposits in connection with the bids, tenders, contracts or leases to which Bath is a party.

c. Liens for taxes or assessments or governmental charges or levies on its property (hereinafter in this subdivision "c" collectively called taxes) if such taxes shall not at the time be due and delinquent, or if such taxes are contested in good faith, then not until such contest results in an adverse finding of the court of last resort.

25. a. If at any time prior to the date of commencement of mining operations hereunder there shall be filed by or against Perry in any court pursuant to any statute, either of the United States or of any state, a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee of all or a portion of Perry's property, or if Perry shall make an assignment for the benefit of creditors, this lease shall ipso facto be cancelled and terminated and in which event neither Perry nor any person claiming through or under Perry or by virtue of any statute or of an order of any court shall be entitled to continue possession of the demised premises and Bath, in addition to the other rights and remedies given by subdivision "e" hereof and by virtue of any other provision herein or elsewhere in this lease contained or by virtue of any statute or rule of law, may retain any royalty received by Bath from Perry or others in behalf of Perry.

b. If at the time of the commencement of mining operations or at any time thereafter there shall be filed by or against Perry in any court pursuant to any statute, either of the United States or of any state, a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee of all or a portion of Perry's property, or if Perry makes an assignment for the benefit of creditors, this lease, at the option of Bath exercised within a reasonable time after notice of the happening of any one or more of such events, may be cancelled and terminated and in which event neither Perry nor any person claiming through or under Perry by virtue of any statute or of an order of any court shall

be entitled to possession or to remain in possession of the premises demised, but shall forthwith quit and surrender the premises, and Bath, in addition to the other rights and remedies Bath has by virtue of any other provision herein or elsewhere in this lease contained or by virtue of any statute or rule of law, may retain any royalty received by it from Perry or others in behalf of Perry.

c. It is stipulated and agreed that in the event of the termination of this lease pursuant to "a" or "b" hereof, Bath shall forthwith, notwithstanding any other provisions of this lease to the contrary, be entitled to recover from Perry an amount equal to the difference between advanced royalty at the rate of $200 per month for the balance of the unexpired portion of the fourteen year term and the rental value of the demised premises at the time of termination, both discounted at the rate of 4% per annum to present worth. Nothing herein contained shall limit or prejudice the right of Seminole to prove for and obtain as liquidated damages by reason of such termination an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and governing the proceedings in which, such damages are to be proved whether or not such amount be greater, equal to or less than the amount of the difference referred to above. In determining rental value of the demised premises the rent realized by any reletting, if such reletting be accomplished by Bath within a reasonable time after termination of this lease, shall be deemed prima facie to be the rental value.

26. While operations are continuing on the demised land, Bath shall have the right to indicate to Perry

the place or places where it desires fill to be placed. Perry agrees to comply with any such request made by Bath, provided Perry's costs are not increased thereby, and Perry will attempt to straighten the channel of Big Horse Creek running through the lands of Bath and to build up the banks of such portions of the creek as adjoin the presently erected structures on lands owned by Bath.

27. Any mechanics lien or other similar lien filed against the demised premises for work claimed to have been done for or materials claimed to have been furnished to Perry, shall be discharged by Perry within 30 days thereafter at Perry's expense.

28. Perry shall reimburse and compensate Bath as additional rent on or before the date on which royalties are payable for the month in which a statement is rendered, for all expenditures made by or damages or fines sustained or incurred by Bath due to non-performance or non-compliance with or breach or failure to observe any term, covenant or condition of this lease upon Perry's part to be kept, observed, performed or complied with.

29. In case of any default, reentry, and/or dispossess by summary proceedings or otherwise,

(a) The rent shall become due thereupon and be paid up to the time of such reentry, dispossess and/or expiration, together with such expenses as Bath may incur for legal expenses, attorneys fees and/or putting the demised premises in good order; and

(b) Perry or the legal representatives of Perry shall be liable to Bath for an amount equal to the difference between the advance royalty at the rate of $200 per month for the balance of the unexpired portion

of the fourteen year term and the rental value of the demised premises at the time of termination, both discounted at the rate of 4% per annum to present worth. In the event of a breach or threatened breach by Perry of any of the covenants or provisions hereof, Bath shall have the right of injunction and the right to invoke any remedy allowed at law or in equity as if reentry, summary proceedings and other remedies were not herein provided for. Mention in this lease of any particular remedy shall not preclude Bath from any other remedy in law or in equity. Perry hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Perry being evicted or dispossessed for any cause or in the event of Bath obtaining possession of the demised premises by reason of the violation by Perry of any of the covenants and conditions of this lease or otherwise.

30. Bath or its agents have made no representations or promises with respect to the demised premises except as herein expressly set forth.

31. The failure of Bath to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this lease shall not prevent a subsequent act which would have originally constituted a violation from having all the force and effect of an original violation. The receipt by Bath of royalty with knowledge of the breach of any covenant of this lease shall not be deemed a waiver of such breach. No provision of this lease shall be deemed to have been waived by Bath unless such waiver be in writing signed by Bath.

32. Any notice herein referred to shall be in writing and shall be served by registered mail, return receipt requested, with postage fully prepaid, and if given to Bath shall be addressed to it at 1407 Broadway, New York 18, N. Y., attention Mr. Gardner Hawkins, and if given to Perry shall be addressed to him at 126 West Sixth Avenue, Helena, Montana, or at such other post office address as either of the parties may hereafter from time to time indicate to the other by notice given pursuant hereto.

33. The terms "advanced royalty" and "production royalty" hereunder are used herein interchangeably with the term "rent".

34. The term "Bath" as used in this lease means only the owner for the time being of the land of which the demised premises form a part so that in the event of any sale or sales of said land or of said lease or in the event of a lease of said land, the said Bath shall be and hereby is entirely freed and relieved of all covenants and obligations of Bath hereunder and shall be deemed and construed without further agreement between the parties or their successors in interest or between the parties and the purchaser at any such sale or the said lessee of the land that the purchaser or the lessee, as the case may be, has assumed and agreed to carry out any and all covenants and obligations of Bath hereunder. The words "re-enter" and "re-entry" as used in this lease are not restricted to their technical legal meaning.

35. In the event of termination of this lease other than (a) by voluntary action of Perry, or (b) by expiration of time or (c) by default on the part of Perry

or (d) for any reason specified in section "25" hereof, then Bath agrees that for a period of fourteen years from the date hereof neither it nor any person, firm or corporation claiming from, through or under it will dredge mine the demised premises.

36. The term "Perry" as used in this lease means only the lessee in possession for the time being of the demised premises.

37. The foregoing sets forth the entire agreement between the parties and no changes shall be recognized unless in writing and signed by the party to be charged.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed the day and year first above written.

UNITED MERCHANTS AND MANUFACTURERS, INC.

(seal). By J. W. Schwab
President

ATTEST:
R. Hind
Asst. Secy

Melton N. Scofield
Witness

David Hubert
Witness

ALEX E. PERRY (L. S.)

Witness

Witness

CHARLES O. PERRY (L. S.)

Witness

Witness

STATE OF New York
COUNTY OF New York , SS.:

Personally appeared before me David Lubart, who being duly sworn, says that he saw the corporate seal of UNITED MERCHANTS AND MANUFACTURERS, INC. affixed to the foregoing lease and that he also saw J. W. Schwab, President, and R. Hind, Assistant Secretary, of said UNITED MERCHANTS AND MANUFACTURERS, INC. sign and attest the same and that he with Milton N. Schfield witnessed the execution and delivery thereof as the act and deed of the said UNITED MERCHANTS AND MANUFACTURERS, INC.

David Lubart

Sworn to before me this
5 day of August,
1952.

HILDEGARDE E. BRETT
Notary Public of the State of New York
No. 41-5443100
Qual. Queens Co., Cert. Filed with
Queens Co. Reg's, New York Co. Clk. & Reg'r
Term Expires March 30, 1954

(Seal)

Notary Public for

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named ALEX S. PERRY sign, seal and as his act and deed deliver the foregoing lease, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
1952.

Notary Public for

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named CHARLES O. PERRY sign, seal and as his act and deed deliver the foregoing lease, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
1952.

Notary Public for

In consideration of the sum of Ten ($10.00) Dollars and other good and valuable consideration to the undersigned in hand paid by UNITED MERCHANTS AND MANUFACTURERS, INC., a Delaware corporation, having an office for the transaction of business at 1407 Broadway, New York 18, New York (hereinafter referred to as "Bath"), and in order to induce Bath to enter into the foregoing lease with ALEX B. PERRY and CHARLES O. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana, the undersigned CALLAHAN ZINC-LEAD COMPANY, with an office for the transaction of business at 100 Park Avenue, New York, New York, THE GOLDFIELDS CONSOLIDATED MINES COMPANY, with an office for the transaction of business at 1 Montgomery Street, San Francisco, California, and OWEN E. PERRY, whose post office address is 126 West Sixth Avenue, Helena, Montana (hereinafter referred to as the "guarantors") jointly and severally hereby guarantee the prompt performance by Perry (the term "Perry" as used in this guaranty being given the same meaning as is the term "Perry" in the said lease and including but not being limited to the assignees set forth in Section 7B of said lease) of any and all the terms and conditions of the lease to be performed on the part of Perry, and hereby unconditionally agree to pay to Bath on demand and without prior demand having been made on Perry, any indebtedness which may now or hereafter be owing Bath by Perry under the said lease.

The guarantors agree that Bath may deal with Perry with respect to any indebtedness under said lease and the performance of the terms and conditions of said lease without notice to the guarantors the same as if this guaranty had not been given and that the guaranty herein contained shall continue subsequent to the death of the

individual guarantor unaffected by such death and as if he were alive and the liability of his estate shall be the same as if this guaranty had been validly given by his estate.

Bath and Perry may from time to time without notice to or further consent of guarantors agree to an extension or extensions of time for the performance and/or observance by Perry of any agreements, covenants or conditions set forth in said lease or the waiver of such performance and/or observance, and/or any extension or extensions of time for the payment of any sums of money owing or payable under said lease or to make any settlement of or compromise any amount due and owing under said lease, all the same as if this guaranty had not been given. Guarantors hereby waive any notice whatsoever as to any dealings between Bath and Perry pursuant to said lease and consent that Bath and Perry may modify or change the terms thereof without notice to guarantors, and in the event of default waive any demand or notice in respect thereof and any requirement of legal or equitable proceedings or otherwise on the part of Bath against Perry as a condition precedent to enforcing the obligations of guarantors hereunder.

This guaranty shall be binding upon the guarantors and their respective estates, executors, administrators and assigns, and shall enure to the benefit of Bath, its successors and assigns.

IN WITNESS WHEREOF, the undersigned have executed these presents this day of

1952.

CALIFORNIA TUNG-LEAD COMPANY

By _____

ATTEST:

_____

Witness

Witness

THE GOLDFIELDS CONSOLIDATED MINES COMPANY

By _____

ATTEST:

_____

Witness

Witness

_____ (L. S.)
OWEN M. PERRY

Witness

Witness

STATE OF

COUNTY OF , S.:

Personally appeared before me

, who being duly sworn, says that he saw the corporate seal of CALLAHAN ZINC-LEAD COMPANY affixed to the foregoing guaranty and that he also saw

, President, and ,

Secretary, of said CALLAHAN ZINC-LEAD COMPANY sign and attest the same and that he with

witnessed the execution and delivery thereof as the act and deed of the said CALLAHAN ZINC-LEAD COMPANY.

Sworn to before me this
day of ,
1952.

Notary Public for

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the corporate seal of THE GOLDFIELDS CONSOLIDATED MINES COMPANY affixed to the foregoing guaranty and that he also saw

, President, and , Secretary, of said THE GOLDFIELDS CONSOLIDATED MINES COMPANY sign and attest the same and that he with witnessed the execution and delivery thereof as the act and deed of the said THE GOLDFIELDS CONSOLIDATED MINES COMPANY.

Sworn to before me this
day of , 1952.

Notary Public for

STATE OF

COUNTY OF , SS.:

Personally appeared before me

, who being duly sworn, says that he saw the within named OWEN H. PERRY sign, seal and as his act and deed deliver the foregoing guaranty, and that he with witnessed the execution thereof.

Sworn to before me this
day of ,
195?.

ZINC-LEAD COMPANY, INC.
500 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

This Agreement, made and entered into this 25 day of April, 1952, by and between Mamie Drummond Kemp of Aiken County, South Carolina, as party of the first part, and Alex B. Perry and Charles Owen Perry, whose post office address is 126 West Sixth Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H:

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the second part to the party of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the party of the first part, hereinafter sometimes referred to as lessor, does hereby lease and let to the parties of the second part, and their heirs, successors and assigns, hereinafter sometimes referred to as lessees, all of those certain lands and real property situate, lying and being in the County of Aiken and State of South Carolina and more particularly described as follows:

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract two (2) of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods containing an area of thirty five (35) acres more or less.

Together with all and singular the above described property and premises and the appurtenances thereunto belonging; and warranting that said property is free of liens, with the following exceptions:

(1) The lien of any unpaid taxes.

(2) The lien of any existing mortgages.

1. During the life of this lease, lessees shall have the exclusive right to go upon and occupy said leased property for the purpose of exploring for, mining, producing, processing, and removing the sand, gravel, stone, minerals and other valuable products contained in and upon said lands, except the timber growing thereon, and as to such timber lessees shall have the right to cut and clear away such as may interfere with their operations hereunder, together with the right to use so much of the timber as may be useful to them in their operations upon said land under this lease. In connection with the operations conducted by the lessees hereunder, they shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, dams, roads, and roadways, including the construction of railroads and the operation of equipment thereon,

as they may think proper and which may be necessary or convenient in the operations conducted by them. The party of the first part shall retain during the life of this lease the right to use said lands for agriculture, logging, hunting, and fishing, and all other purposes, so long as such use does not interfere with the operations of the parties of the second part, but the party of the first part shall not be in any way liable for injuries to persons or damage to property caused by or incidental to the operations by parties of the second, their heirs, successors, and assigns, covenant and agree that they will procure and maintain during the life hereof public liability insurance in companies authorized to do business in South Carolina protective both to parties of the second part and the party of the first part in amounts deemed adequate for the protection of parties of the second part, not less than $10/20,000.00 and conditioned upon full payment of any and all claims of every kind or character that may be established as a matter of law arising or existing by reason of any act or thing done or omitted by parties of the second part, their heirs, executors, administrators or assigns, with the existence of such insurance to be established by certificate of the same.

2. The term of this lease shall be ten (10) years from and after the date of this instrument, and as much longer (a) as sand, gravel, stone or minerals in commercial quantities shall be produced hereunder, or (b) as the lessees shall pay in royalties or advanced royalties hereunder as much as Thirty-five Dollars ($35.00) per month in each month of such extension period, or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in paragraph 4 hereof, provided that the total term of this lease shall not exceed twenty years from the date of this instrument, subject always to termination as hereinprovided.

3. Beginning with the date hereof, lessees shall have twelve months time in which to examine and test said leased land for its content of sand, gravel, stone, minerals and other valuable products, after which time and within thirteen months from the date hereof, lessees shall give to the party of the first part notice in writing as to whether or not they desire to proceed further with this lease. If such notice so given indicates the intent of the lessees to proceed under the terms of this lease, the lessees shall thereafter promptly take the necessary steps for the procurement of such machinery and equipment as shall be required for the mining operations, and shall within twelve months begin the erection and assembly

thereof for operations at some point on the mineral deposit (see paragraph 4) of equipment capable of mining 2000 tons of earth per day, and beginning with the end of said twelve month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease. If such notice specifies that the lessees do not intend to go forward with this mining operation then they shall fill all testholes and level any ground that they have disturbed during these testing operations and shall repair any damage they have done to fences, bridges or other improvements and they shall pay for any crops destroyed by them at the current prices of a matured crop.

4. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which the lessees may hold and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands but in any case whether mining is carried on upon the land hereby leased or not, a minimum payment of Thirty-five Dollars ($35.00) per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as provided herein. It is also contemplated that due to war, shortage of supplies, or for other reasons the mining on the lands held by the lessees may be suspended, in which case the payment of the monthly royalty shall continue and this lease shall continue in good standing as provided in paragraph (2) hereof unless otherwise terminated as herein provided.

5. The lessees shall pay to the party of the first part as compensation, herein referred to as "production royalties", for material mined and removed from the leased property the following amounts:

(1) For gravel or stone such as is commonly used as an aggregate in construction concrete or paving or road work or other common uses, six cents per cubic yard.

(2) For sand such as is used as an aggregate in plaster, mortar, concrete or road work or other common uses, six cents per cubic yard.

(3) For any other valuable metals or minerals, five per cent of the net proceeds from the sale of such products after deducting any transportation, handling or refining cost incurred in disposing of or marketing said product,

after said product has been removed from the dredge and from the lands described herein. The costs deducted in determining royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work.

Such payments shall be made to such agent or representative of the party of the first part as may from time to time be designated by him.

Upon the beginning of mining operations on the property herein described, the lessees shall thereafter and for each month during the continuance of operations on said property, within the life of this lease, pay to the party of the first part or to his designated representative, a sum of money equal to that amount by which said production royalties shall be less than $35.00 for such month, which payments are herein referred to as "advanced royalties."

The lessees shall be credited hereunder for advanced royalties paid as against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided the lessees shall not be entitled to off-set advanced royalties against production royalties for any month in which production royalties do not exceed $35.00, and in no event shall said credit be allowed except as against such excess.

Payment of royalties by the lessees hereunder as hereinbefore described shall be made by the lessees on or before the 15th day of the month covering such royalties due for the preceding calendar month.

During the mining operations conducted by parties of the second part under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands. Under such conditions, periodic surveys shall be made by the parties of the second part, at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such survey the number of cubic yards of material dug on each side of said boundary shall be computed, and the payment of royalties hereunder shall be based upon that portion of the total values recovered during said period, determined by a proration of the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

6. Lessees shall keep accurate records and books of account of all sand, gravel, stone, minerals, and other valuable products produced from the leased property hereunder and removed from said leased property, and on or before the 15th day of each month after production has started hereunder,

lessees shall furnish to the party of the first part, or to said agent for the party of the first part, written statements of the tonnage removed by lessees from the leased property during the preceding calendar month, together with the computation of royalties due for said month.

Party of the first part, or his duly authorized representative, shall have the right at all reasonable times to examine said books and records and to make copies thereof, as well as to go upon the leased premises at all reasonable times for the purpose of enforcing the terms of this agreement.

7. If at any time the party of the first part does not agree with a report of any survey or measurements or the computation of royalties by the parties of the second part, they shall within thirty days after the delivery of such report or statement or payment of such royalties, as provided above, give to the parties of the second part written notice stating the basis of such disagreement and stating the correction in the computation of royalties claimed by them. The parties hereto shall thereupon choose a competent third party acceptable to both to act as referee to review such measurements and computations. The findings of such referee shall be borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto cannot agree upon the selection of a referee within seven days after the delivery of said notice of disagreement to the parties of the second part, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial Circuit, of South Carolina, or the Judge presiding therein, for the appointment of such a referee.

If within thirty days after the submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to the parties of the second part by the party of the first part, then such computations and royalty payment shall be considered as accepted and final.

8. Lessees shall be the sole judge of the time, place, and method of mining and production.

9. Party of the first part hereby reserves to himself the right to cut and remove the timber on said leased land, and agrees that his lumbering operations shall not impede or interfere with lessees' operations under this lease.

10. Lessees shall pay as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by them on the leased land, and the party of the first part shall pay as

and when due all taxes lawfully levied or assessed on or which may be a lien upon said land during the life of this lease.

11. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina, or any subdivision thereof, or any municipality or district therein, measured by either (a) the tonnage of valuable products produced by lessees hereunder from said land (commonly referred to as a production tax) or (b) measured by themoney value of the net proceeds from valuable products of lessees' operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, ninety-five per cent thereof by lessees and five per cent thereof by the party of the first part, even though by law such taxes and fees are levied upon and immediately payable by lessees, and, if so, lessees may withhold the party of the first part's portion of such taxes and fees from royalties due or to become due hereunder.

Nothing in this section shall be construed as requiring the party of the first part to pay any part of any income tax levied or assessed upon lessees based upon lessees' annual net income, even though proceeds of sale of products from their operations hereunder go to make up such annual net income; nor shall party of the first part be required to pay any part of any ad valorem property tax levied upon lessees' products from their operations which may be stockpiled or stored or owned by lessees.

12. If lessees shall fail to keep or perform any term or condition of this contract, and such default shall continue for sixty (60) days after notice from the party of the first part in writing, to lessees specifying such default in detail, then, at the election of the party of the first part, this lease shall be terminated.

Waiver by party of the first part of one or more failures of lessees to keep or perform any term of this agreement shall not be considered a waiver of such term.

13. Anything herein to the contrary notwithstanding, parties of the second part (lessees) may abandon and terminate this lease and contract at any time upon notice given to party of the first part, and upon the giving of such notice, parties of the second part (lessees) shall have no further obligations or duties hereunder, save (a) to account for royalties theretofore accrued, and (b) to quitclaim and release this lease of record.

14. Upon termination of this lease by forfeiture, abandonment or other manner, parties of the second part (lessees) shall have one hundred eighty (180) days thereafter in which to remove from the leased property all dredges, machinery

buildings, tools, equipment, supplies, and other property placed on the leased property by or for them.

15. Any notice herein referred to shall be in writing, and shall be either personally served on the party to whom the notice is to be given, or mailed by first class registered mail, with postage fully prepaid, and if given to party of the first part shall be addressed to him at his postoffice address, and if given to parties of the second part (lessees), it shall be addressed, one copy to O. H. Perry, 126 West Sixth Avenue, Helena, Montana, and one copy to Henderson, Salley & Cushman at 813 Laurens Street, Aiken, South Carolina, or to such other post office as the parties of the second part (lessees) may designate by notice given party of the first part, and any such notice shall be mailed at a United States post office in either the State of Georgia, or the State of Montana, and shall be considered as given when so mailed.

16. No transfer or assignment of any interest in this lease by any one or more parties hereto shall be effective or binding on any other party unless notice of such transfer or assignment be given to all other parties hereto, together with assignee's duly signed and acknowledged agreement to be bound by the terms of this agreement.

17. It shall be the duty of the lessor to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the land owner. Should the lessor fail therein, the lessees may pay off said liens and deduct the amount or amounts thereof from royalty payments thereafter due to the lessor. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the lessees, and shall bind the heirs, executors, administrators or assigns of the lessor.

18. It is understood and agreed that if in the course of mining it becomes necessary to move or damage any of the improvements that now exist on said land such as fences, roads, culverts, bridges or other structures, this may be done, but such improvements shall be replaced in original condition or better.

19. This instrument is executed in triplicate originals, of which this is Original No. ____.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 25 day of April, 1952.

WITNESS:
Herbert E. Gylex
Eleanor Gylland
As to Mamie Drummond Kemp.

Mamie Kemp L.S.
LESSOR.

_____ _____ L.S.

_____
As to Alex B. Perry.

_____ L.S.
LESSEES.

_____

_____
As to Charles Owen Perry.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me Herbert B. Lyles who, being duly sworn, says that he was present and saw Mamie Drummond Kemp, sign, seal and deliver the foregoing instrument and that he with Eleanor Lyhand witnessed the execution thereof.

Herbert B. Lyles

SWORN to before me this
25 day of April, 1952.
Eleanor Lyhand L.S.
NOTARY PUBLIC FOR S.C.

STATE OF CALIFORNIA :

COUNTY OF _____:

Personally appeared before me _____ who, being duly sworn says that he was present and saw Alex B. Perry sign, seal and deliver the foregoing instrument and that he with _____ witnessed the execution thereof.

SWORN to before me this
____ day of _____, 1952.

_____
_____ L.S.
NOTARY PUBLIC FOR CALIFORNIA.

STATE OF OKLAHOMA :

COUNTY OF _____:

Personally appeared before me _____ who being duly sworn says that he was present and saw Charles Owen Perry sign, seal and deliver the foregoing instrument and that he with _____ witnessed the execution thereof.

SWORN to before me this
_____ day of _____, 1952.

_____
_____ L.S.
NOTARY PUBLIC FOR OKLAHOMA.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA
COUNTY OF AIKEN

MAMIE DRUMMOND KEMP

TO

ALEX B. PERRY AND CHARLES OWEN PERRY

OPTION AND SALES AGREEMENT

Henderson, Salley & Cushman
Aiken, S. C.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

State of South Carolina:

County of Aiken :

THIS AGREEMENT, made and entered into this 23 day of April 1952 by and between Beatrice Moore Kemp, Hattie Mamie Kemp and Brady Kemp, Jr. of Aiken County, South Carolina, as parties of the first part, and Alex B. Perry and Charles Owen Perry, whose post office address is 126 West Sixth Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H:

Whereas Brady Kemp, Sr. heretofore died intestate leaving as his heirs at law and distributees Beatrice Moore Kemp his widow and Hattie Mamie Kemp and Brady Kemp, Jr. (who are now adults) and Lincoln Kemp and Juanite Kemp (who are minors) as his only heirs and distributees, and whereas it is the desire of all of the said heirs of Brady Kemp, Sr. to enter into this agreement, now,

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the second part to the parties of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the parties of the first part, hereinafter sometimes referred to as lessors, (acting for themselves and for the minor heirs of the said Brady Kemp, Sr.) do hereby lease and let to the parties of the second part, and their heirs, successors, and assigns, hereinafter sometimes referred to as lessees, all of those certain lands and real property situate, lying and being in the County of Aiken and State of South Carolina and more particularly described as follows:

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is now owned by the heirs at law of Brady Kemp, Sr. and known as Tract One (1) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259, in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the north boundary of said Tract One and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty (20) acres more or less.

Together with all and singular the above described property and premises and the appurtenances thereunto belonging; and warranting that said property is free of liens, with the following exceptions:

(1) The lien of any unpaid taxes.

(2) The lien of any existing mortgage.

1. During the life of this lease, lessees shall have the exclusive right to go upon and occupy said leased property for the purpose of exploring for, mining, producing, processing, and removing the sand, gravel, stone, minerals and other valuable products contained in and upon said lands, except the timber growing thereon, and as to such timber lessees shall have the right to cut and clear away such as may interfere with their operations hereunder, together with the right to use so much of the timber as may be useful to them in their operations upon said land under this lease. In connection with the operations conducted by the lessees hereunder, they shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, dams, roads, and roadways, including the construction of railroads and the operation of equipment thereon, as they may think proper and which may be necessary or convenient in the operations conducted by them. The parties of the first part shall retain during the life of this lease the right to use said lands for agriculture, logging, hunting, and fishing, and all other purposes, so long as such use does not interfere with the operations of the parties of the second part, but the parties of the first part shall not be in any way liable for injuries to persons or damage to property caused by or incidental to the operations by parties of the second part, their heirs, successors, and assigns, covenant and agree that they will procure and maintain during the life hereof public liability insurance in companies authorized to do business in South Carolina protective both to parties of the second part and the parties of the first part in amounts deemed adequate for the protection of parties of the second part, not less than $10/20,000.00 and conditioned upon full payment of any and all claims of every kind or character that may be established as a matter of law arising or existing by reason of any act or thing done or omitted by parties of the second part, their heirs, executors, administrators or assigns, with the existence of such insurance to be established by certificates of the same.

2. The term of this lease shall be ten (10) years from and after the date of this instrument, and as much longer (a) as sand, gravel, stone or minerals in commercial quantities shall be produced hereunder, or (b) as the lessees shall pay in royalties or advanced royalties hereunder as much as Twenty Dollars ($20.00) per month in each month of such extension period, or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in paragraph 4 hereof,

provided that the total term of this lease shall not exceed twenty years from the date of this instrument, subject always to termination as herein provided.

3. Beginning with thedate hereof, lessees shall have twelve months time in which to examine and test said leased land for its content of sand, gravel, stone, minerals and other valuable products, after which time and within thirteen months f rom the date hereof, lessees shall give to the parties-of the first-part notice in writing as to whether or not they desire to proceed further with this lease. If such notice so given indicates the intent of the lessees to proceed under the terms of this lease, the lessees shall thereafter promptly take the necessary steps for the procurement of such machinery and equipment as shall be required for the mining operations, and shall within twelve months begin the erection and assembly thereof for operations at some point on the mineral deposit (see paragraph 4) of equipment capable of mining 2000 tons of earth per day, and beginning with the end of said twelve month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease. If such notice specifies that the lessees do not intend to go forward with this mining operation then they shall fill all testholes and level any ground that they have disturbed during these testing operations and shall repair any damage they have done to fences, bridges or other improvements and they shall pay for any crops destroyed by them at the current prices of a matured crop.

4. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which the lessees may hold and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands but in any case whether mining is carried on upon the land hereby leased or not, a minimum payment of Twenty Dollars ($20.00) per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as provided herein. It is also contemplated that due to war, shortage of supplies, or for other reasons the mining on the lands held by the lessees may be suspended, in which case the payment of the monthly royalty shall continue and this lease shall continue in good standing as provided in paragraph (2) hereof unless otherwise terminated as herein

provided.

5. The lessees shall pay to the parties of the first part as compensation, herein referred to as "production royalties", for material mined and removed from the leased property the following amounts:

(1) For gravel or stone such as is commonly used as an aggregate in construction concrete or paving or road work or other common uses, six cents per cubic yard.

(2) For sand such as is used as an aggregate in plaster, mortar, concrete or road work or other common uses, six cents per cubic yard.

(3) For any other valuable metals or minerals, five per cent of the net proceeds from the sale of such products after deducting any transportation, handling or refining cost incurred in disposing of or marketing said product, after said product has been removed from the dredge and from the lands described herein. The costs deducted in determining royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work.

Such payments shall be made to such agent or representative of the parties of the first part as may from time to time be designated by them.

Upon the beginning of mining operations on the property herein described, the lessees shall thereafter and for each month during the continuance of operations on said property, within the life of this lease, pay to the parties of the first part or to their designated representative a sum of money equal to that amount by which said production royalties shall be less than $20.00 for such month, which payments are herein referred to as "advanced royalties."

The lessees shall be credited hereunder for advanced royalties paid as against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided the lessees shall not be entitled to off-set advanced royalties against production royalties for any month in which production royalties do not exceed $20.00, and in no event shall said credit be allowed except as against such excess.

Payment of royalties by the lessees hereunder as hereinbefore described shall be made by the lessees on or before the 15th day of the month covering such royalties due for the preceding calendar month.

During the mining operations conducted by parties of the second part under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands. Under such conditions, periodic surveys shall be made by the parties of the second part, at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such survey the number of cubic yards of material dug on each side of said boundary shall be computed, and the payment of royalties hereunder shall be based upon that portion of the total values recovered during said period, determined by a proration of the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

6. Lessees shall keep accurate records and books of account of all sand, gravel, stone, minerals, and other valuable products produced from the leased property hereunder and removed from said leased property, and on or before the 15th day of each month after production has started hereunder, lessees shall furnish to the parties of the first part, or to said agent for the parties of the first part, written statements of the tonnage removed by lessees from the leased property during the preceding calendar month, together with the computation of royalties due for said month.

Parties of the first part, or his duly authorized representative, shall have the right at all reasonable times to examine said books and records and to make copies thereof, as well as to go upon the leased premises at all reasonable times for the purpose of enforcing the terms of this agreement.

7. If at any time the parties of the first part does not agree with a report of any survey or measurements or the computation of royalties by the parties of the second part, they shall within thirty days after the delivery of such report or statement or payment of such royalties, as provided above, give to the parties of the second part written notice stating the basis of such disagreement and stating the correction in the computation of royalties claimed by them. The parties hereto shall thereupon choose a competent third party acceptable to both to act as referee to review such measurements and computations. The findings of such referee shall be borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto

cannot agree upon the selection of a referee within seven days after the delivery of said notice of disagreement to the parties of the second part, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial Circuit, of South Carolina, or the Judge presiding therein, for the appointment of such a referee.

If within thirty days after the submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to the parties of the second part by the parties of the first part, then such computations and royalty payment shall be considered as accepted and final.

8. Lessees shall be the sole judge of the time, place, and method of mining and production.

9. Parties of the first part hereby reserves to themselves the right to cut and remove the timber growing on said leased land, and agrees that their lumbering operations shall not impede or interfere with lessees' operations under this lease.

10. Lessees shall pay as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by them on the leased land, and the parties of the first part shall pay as and when due all taxes lawfully levied or assessed on or which may be a lien upon said land during the life of this lease.

11. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina, or any subdivision thereof, or any municipality or district therein, measured by either (a) tonnage of valuable products produced by lessees hereunder from said land (commonly referred to as a production tax) or (b) measured by the money value of the net proceeds from valuable products of lessees' operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, ninety-five per cent thereof by lessees and five per cent thereof by the parties of the first part, even though by law such taxes and fees are levied upon and immediately payable by lessees, and, if so, lessees may withhold the parties of the first part's portion of such taxes and fees from royalties due or to become due hereunder.

Nothing in this section shall be construed as requiring the parties of the first part to pay any part of any income tax levied or assessed upon lessees based upon lessees' annual net income, even though proceeds of sale of products from their operations hereunder go to make up such annual

net income; nor shall parties of the first part be required to pay any part of any ad valorem property tax levied upon lessees' products from their operations which may be stockpiled or stored or owned by lessees.

12. If lessees shall fail to keep or perform any term or condition of this contract, and such default shall continue for sixty (60) days after notice from the parties of the first part in writing, to lessees specifying such default in detail, then, at the election of the parties of the first part, this lease shall be terminated.

Waiver by parties of the first part of one or more failures of lessees to keep or perform any term of this agreement shall not be considered a waiver of such term.

13. Anything herein to the contrary notwithstanding, parties of the second part (lessees) may abandon and terminate this lease and contract at any time upon notice given to the parties of the first part, and upon the giving of such notice, parties of the second part (lessees) shall have no further obligations or duties hereunder, save (a) to account for royalties theretofore accrued, and (b) to quitclaim and release this lease of record.

14. Upon termination of this lease by forfeiture, abandonment or other manner, parties of the second part (lessees) shall have one hundred eighty (180) days thereafter in which to remove from the leased property all dredges, machinery, buildings, tools, equipment, supplies, and other property placed on the leased property by or for them.

15. Any notice herein referred to shall be in writing, and shall be either personally served on the party to whom the notice is to be given, or mailed by first class registered mail, with postage fully prepaid, and if given to parties of the first part shall be addressed to him at his postoffice address, and if given to parties of the second part (lessees), it shall be addressed, one copy to O. H. Perry, 126 West Sixth Avenue, Helena, Montana, and one copy to Henderson, Salley & Cushman at 813 Laurens Street, Aiken, South Carolina, or to such other post office as the parties of the second part (lessees) may designate by notice given parties of the first part, and any such notice shall be mailed at a United States post office in either the State of Georgia, or the State of Montana, and shall be considered as given when so mailed.

16. No transfer or assignment of any interest in this lease by any one or more parties hereto shall be effective or binding on any other party unless notice of such transfer or assignment be given to all

other parties hereto, together with assignee's duly signed and acknowledged agreement to be bound by the terms of this agreement.

17. The parties hereto specifically stipulate that this agreement is made by Beatrice Moore Kemp, Hattie Mamie Kemp and Brady Kemp, Jr., (the adult heirs of Brady Kemp, Sr.) for their own benefit and also for the benefit of Lincoln Kemp and Juanita Kemp (the minor heirs of the said Brady Kemp, Sr.); and they agree that all payments that are to be made by the parties of the second part hereunder are for the benefit of the widow and children of the said Brady Kemp, Sr. in the proportions provided by the Statute of Distributions of the State of South Carolina, that is to say one-third of each of said payments being for the benefit of the widow and one-fourth of two-thirds of each of said payments being for benefit of each of said children of the said Brady Kemp, Sr. It is further agreed that at such time as the parties of the second part shall request it, that a proper proceeding. shall be brought in the Court of Common Pleas of Aiken County, South Carolina in which all five of the heirs at law of the said Brady Kemp, Sr. shall be made parties in order to bind the interest of the minors Lincoln Kemp and Juanita Kemp and that the adult heirs at law will participate in said proceeding, such of them as may be decided upon acting as guardian ad litem for the minors. The parties of the first part further agree at said time to give such testimony as may be necessary and actively to participate in said Court proceeding to the end hereinbefore stated. It is further agreed that until said proceeding is instituted and the final decree is rendered by a Judge of the said Court of Common Pleas of Aiken County, South Carolina that such portions of any payments that may be due hereunder before said final decree is rendered as are due to Lincoln Kemp and Juanita Kemp shall be retained by the parties of the second part for the benefit of the said Lincoln Kemp and the said Juanita Kemp, and that after said decree is rendered that the retained amounts and all amounts that may thereafter become due to Lincoln Kemp and Juanita Kemp shall be paid to their general guardian or to the Probate Judge or to whomsoever the Court may designate, said amounts to be retained by the persons so designated for the benefit of the said minors until each one of them shall attain his or her majority, at which time said

accrued amounts shall be paid over to each of said minors so attaining his or her majority.

18. It shall be the duty of the lessors to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the land owner. Should the lessors fail therein, the lessees may pay off said liens and deduct the amount or amounts thereof from royalty payments thereafter due to the lessors. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the lessees, and shall bind the heirs, executors, administrators or assigns of the lessors.

19. It is understood and agreed that if in the course of mining it becomes necessary to move or damage any of the improvements that now exist on said land such as fences, roads, culverts, bridges or other structures, this may be done, but such improvements shall be replaced in original condition or better.

20. This instrument is executed in triplicate originals, of which this is Original No._____.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 23 day of April, 1952.

WITNESS:

Herbert E. Gyler
Sara W. Fox
As to Beatrice Moore Kemp

Herbert E. Gyler
Sara W. Fox
As to Hattie Mamie Kemp

Herbert E. Gyler
Sara W. Fox
As to Brady Kemp, Jr.

Beatrice Moore Kemp L.S.
her x mark
Hattie Mamie Kemp L.S.
B. Kemp Jr. L.S.
LESSORS.

_____ L.S.
As to Alex B. Perry

_____ L.S.
LESSEES.

As to Charles Owen Perry

STATE OF SOUTH CAROLINA:

COUNTY OF AIKEN :

Personally appeared before me Herbert E Gyles who, being duly sworn, says that he was present and saw Beatrice Moore Kemp sign, seal and deliver the foregoing instrument and that he with Sara N. Fox witnessed the execution thereof.

Herbert E Gyles

SWORN to before me this
23rd day of April, 1952.
Sara N. Fox L.S.
NOTARY PUBLIC FOR S.C.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me Herbert E Gyles who being duly sworn, says that he was present and saw Hattie Mamie Kemp sign, seal and deliver the foregoing instrument and that he with Sara N. Fox witnessed the execution thereof.

Herbert E Gyles

SWORN to before me this
23rd day of April, 1952
Sara N. Fox L.S.
NOTARY PUBLIC FOR S.C.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me Herbert E Gyles who, being duly sworn says that he was present and saw Brady Kemp, Jr. sign, seal and deliver the foregoing instrument and that he with Sara N. Fox witnessed the execution thereof.

Herbert E Gyles

SWORN to before me this
23rd day of April, 1952.
Sara N. Fox L.S.
NOTARY PUBLIC FOR S.C.

STATE OF CALIFORNIA :

COUNTY OF _____:

Personally appeared before me_____

who, being duly sworn says that he was present and saw Alex B. Perry sign, seal and deliver the foregoing instrument and that he with _____witnessed the execution thereof.

SWORN to before me this _____

____day of _____,1952.

_____L.S.
NOTARY PUBLIC FOR CALIFORNIA.

STATE OF OKLAHOMA :

COUNTY OF _____:

Personally appeared before me_____

who, being duly sworn says that he was present and saw Charles Owen Perry sign, seal and deliver the foregoing instrument and that he with _____witnessed the execution thereof.

SWORN to before me this _____

____day of_____,1952.

_____L.S.
NOTARY PUBLIC FOR OKLAHOMA.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA
COUNTY OF AIKEN

BEATRICE MOORE KEMP, HATTIE MAMIE KEMP AND BRADY KEMP, JR.

TO

ALEX B. PERRY AND CHARLES OWEN PERRY

OPTION AND SALES AGREEMENT

Henderson, Salley & Cushman
Aiken, S. C.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

THIS AGREEMENT, made and entered into this 23 day of April, 1952, by and between Oscar Kemp of Aiken County, South Carolina, as party of the first part, and Alex B. Perry and Charles Owen Perry, whose post office address is 126 West Sixth Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H:

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the second part to the party of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the party of the first part, hereinafter sometimes refe rred to as lessor, does hereby lease and let to the parties of the second part, and their heirs, successors and assigns, hereinafter sometimes referred to as lessees, all of those certain lands and real property situate, lying and being in the County of Aiken and State of South Carolina and more particularly described as follows:

2

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as tract four (4) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing ten (10) acres more or less.

Together with all and singular the above described property and premises and the appurtenances thereunto belonging; and warranting that said property is free of liens, with the following exceptions:

(1) The lien of any unpaid taxes.

(2) The lien of any existing mortgage.

1. During the life of this lease, lessees shall have the exclusive right to go upon and occupy said leased property for the purpose of exploring for, mining, producing, processing, and removing the sand, gravel, stone, minerals and other valuable products contained in and upon said lands, except the timber growing thereon, and as to such timber lessees shall have the right to cut and clear away such as may interfere with their operations hereunder, together with the right to use so much of the timber as may be useful to them in their operations upon said land under this lease. In connection with the operations conducted by the lessees hereunder, they shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, dams, roads, and roadways, including the construction

of railroads and the operation of equipment thereon, as they may think proper and which may be necessary or convenient in the operations conducted by them. The party of the first part shall retain during the life of this lease the right to use said lands for agriculture, logging, hunting, and fishing, and all other purposes, so long as such use does not interfere with the operations of the parties of the second part, but the party of the first part shall not be in any way liable for injuries to persons or damage to property caused by or incidental to the operations by parties of the second part, their heirs, successors, and assigns, covenant and agree that they will procure and maintain during the life hereof public liability insurance in companies authorized to do business in South Carolina protective both to parties of the second part and the party of the first part in amounts deemed adequate for the protection of parties of the second part, not less than $10/20,000.00 and conditioned upon full payment of any and all claims of every kind or character that may be established as a matter of law arising or existing by reason of any act or thing done or omitted by parties of the second part, their heirs, executors, administrators or assigns, with the existence of such insurance to be established by certificates of the same.

2. The term of this lease shall be ten (10) years from and after the date of this instrument, and as much longer (a) as sand, gravel, stone or minerals in commercial quantities shall be produced hereunder, or (b) as the lessees shall pay in royalties or advanced royalties hereunder as much as Ten Dollars ($10.00) per month in each month of such extension period, or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in paragraph 4 hereof, provided that the total term of this lease shall not exceed twenty years from the date of this instrument, subject always to termination as herein provided.

3. Beginning with the date hereof, lessees shall have twelve months time in which to examine and test said leased land for its content of sand, gravel, stone, minerals and other valuable products, after which time and within thirteen months from the date hereof, lessees shall give to the party of the first part notice in writing as to whether or not they desire to proceed further with this lease. If such notice so given indicates the intent of the lessees to proceed under the terms of this lease, the lessees shall thereafter promptly take the necessary steps for the procurement of such machinery and equipment as shall be required for

the mining operations, and shall within twelve months begin the erection and assembly thereof for operations at some point on the mineral deposit. (see paragraph 4) of equipment capable of mining 2000 tons of earth per day, and beginning with the end of said twelve month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease. If such notice specifies that the lessees do not intend to go forward with this mining operation then they shall fill all testholes and level any ground that they have disturbed during these testing operations and shall repair any damage they have done to fences, bridges or other improvements and they shall pay for any crops destroyed by them at the current prices of a matured crop.

4. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which the lessees may hold and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands but in any case whether mining is carried on upon the land hereby leased or not, a minimum payment of Ten Dollars ($10.00) per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as provided herein. It is also contemplated that due to war, shortage of supplies, or for other reasons the mining on the lands held by the lessees may be suspended, in which case the payment of the monthly royalty shall continue and this lease shall continue in good standing as provided in paragraph (2) hereof unless otherwise terminated as hereinprovided.

5. The lessees shall pay to the party of the first part as compensation, herein referred to as "production royalties", for material mined and removed from the leased property the following amounts:

(1) For gravel or stone such as is commonly used as an aggregate in construction concrete or paving or road work or other common uses, six cents per cubic yard.

(2) For sand such as is used as an aggregate in plaster, mortar, concrete or road work or other common uses, six cents per cubic yard.

(3) For any other valuable metals or minerals, five per cent of the net proceeds from the sale of such products after deducting any transportation, handling or refining cost incurred in disposing of or marketing said product, after said product has been removed from the dredge

and from the lands described herein. The costs deducted in determining royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work.

Such payments shall be made to such agent or representative of the party of the first part as may from time to time be designated by him.

Upon the beginning of mining operations on the property herein described, the lessees shall thereafter and for each month during the continuance of operations on said property, within the life of this lease, pay to the party of the first part or to his designated representative a sum of money equal to that amount by which said production royalties shall be less than $10.00 for such month, which payments are herein referred to as "advanced royalties."

The lessees shall be credited hereunder for advanced royalties paid as against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided the lessees shall not be entitled to off-set advanced royalties against production royalties for any month in which production royalties do not exceed $10.00, and in no event shall said credit be allowed except as against such excess.

Payment of royalties by the lessees hereunder as hereinbefore described shall be made by the lessees on or before the 15th day of the month covering such royalties due for the preceding calendar month.

During the mining operations conducted by parties of the second part under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands. Under such conditions, periodic surveys shall be made by the parties of the second part, at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such survey the number of cubic yards of material dug on each side of said boundary shall be computed, and the payment of royalties hereunder shall be based upon that portion of the total values recovered during said period, determined by a proration of the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

6. Lessees shall keep accurate records and books of account of all sand, gravel, stone, minerals, and other valuable products produced from the leased property hereunder and removed from said leased property, and on or before the 15th day of each month after production has started hereunder, lessees shall furnish to the party of the first part, or to said agent for the party of the first part, written statements of the tonnage removed by lessees from the leased property during the preceding calendar month, together with the computation of royalties due for said month.

Party of the first part, or his duly authorized representative, shall have the right at all reasonable times to examine said books and records and to make copies thereof, as well as to go upon the leased premises at all reasonable times for the purpose of enforcing the terms of this agreement.

7. If at any time the party of the first part does not agree with a report of any survey or measurements or the computation of royalties by the parties of the second part, they shall within thirty days after the delivery of such report or statement or payment of such royalties, as provided, above, give to the parties of the second part written notice stating the basis of such disagreement and stating the correction in the computation of royalties claimed by them. The parties hereto shall thereupon choose a competent third party acceptable to both to act as referee to review such measurements and computations. The findings of such referee shall be borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto cannot agree upon the selection of a referee within seven days after the delivery of said notice of disagreement to the parties of the second part, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial Circuit, of South Carolina, or the Judge presiding therein, for the appointment of such a referee.

If within thirty days after the submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to the parties of the second part by the party of the first part, then such computations and royalty payment shall be considered as accepted and final.

8. Lessees shall be the sole judge of the time, place, and method of mining and production.

9. Party of the first part hereby reserves to himself the right to cut and remove the timber growing on said leased land, and agrees that his lumbering operations shall not impede or interfere with lessees' operations under this lease.

10. Lessees shall pay as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by them on the leased land, and the party of the first part shall pay as and when due all taxes lawfully levied or assessed on or which may be a lien upon said land during the life of this lease.

11. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina, or any subdivision thereof, or any municipality or district therein, measured by either (a) the tonnage of valuable products produced by lessees hereunder from said land (commonly referred to as a production tax) or (b) measured by the money value of the net proceeds from valuable products of lessees' operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, ninety-five per cent thereof by lessees and five per cent thereof by the party of the first part, even though by law such taxes and fees are levied upon and immediately payable by lessees, and, if so, lessees may withhold the party of the first part's portion of such taxes and fees from royalties due or to become due hereunder.

Nothing in this section shall be construed as requiring the party of the first part to pay any part of any income tax levied or assessed upon lessees based upon lessees' annual net income, even though proceeds of sale of products from their operations hereunder go to make up such annual net income; nor shall party of the first part be required to pay any part of any ad valorem property tax levied upon lessees' products from their operations which may be stockpiled or stored or owned by lessees.

12. If lessees shall fail to keep or perform any term or condition of this contract, and such default shall continue for sixty (60) days after notice from the party of the first part in writing, to lessees specifying such default in detail, then, at the election of the party of the first part, this lease shall be terminated.

Waiver by party of the first part of one or more failures of lessees to keep or perform any term of this agreement shall not be considered a waiver of such term.

13. Anything herein to the contrary notwithstanding, parties,

of the second part (lessees) may abandon and terminate this lease and contract at any time upon notice given to party of the first part, and upon the giving of such notice, parties of the second part (lessees) shall have no further obligations or duties hereunder, save (a) to account for royalties theretofore accrued, and (b) to quitclaim and release this lease of record.

14. Upon termination of this lease by forfeiture, abandonment or other manner, parties of the second part (lessees) shall have one hundred eighty (180) days thereafter in which to remove from the leased property all dredges, machinery, buildings, tools, equipment, supplies, and other property placed on the leased property by or for them.

15. Any notice herein referred to shall be in writing, and shall be either personally served on the party to whom the notice is to be given, or mailed by first class registered mail, with postage fully prepaid, and if given to party of the first part shall be addressed to him at his postoffice address, and if given to parties of the second part (lessees), it shall be addressed, one copy to O. H. Perry, 126 West Sixth Avenue, Helena, Montana, and one copy to Henderson, Salley & Cushman at 813 Laurens Street, Aiken, South Carolina, or to such other post office as the parties of the second part (lessees) may designate by notice given party of the first part, and any such notice shall be mailed at a United States post office in either the State of Georgia, or the State of Montana, and shall be considered as given when so mailed.

16. No transfer or assignment of any interest in this lease by any one or more parties hereto shall be effective or binding on any other party unless notice of such transfer or assignment be given to all other parties hereto, together with assignee's duly signed and acknowledged agreement to be bound by the terms of this agreement.

17. It shall be the duty of the lessor to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the land owner. Should the lessor fail therein, the lessees may pay off said liens and deduct the amount or amounts thereof from royalty payments thereafter due to the lessor. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the lessees, and shall bind the heirs, executors, administrators or assigns of the lessor.

18. It is understood and agreed that if in the course of mining it becomes necessary to move or damage any of the improvements that now exist on said land such as fences, roads, culverts, bridges or other structures, this may be done, but such improvements shall be replaced in original condition or better.

19. This instrument is executed in triplicate originals, of which this is Original No. _____.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 23 day of april, 1952.

WITNESS:
Herbert E Lyles
Eleanor Lybrand
As to Oscar Kemp

Oscar Kemp L.S.
LESSOR

_____ L.S.

_____ L.S.
LESSEES

_____
As to Alex B. Perry

_____
As to Charles Owen Perry

STATE OF SOUTH CAROLINA :
COUNTY OF AIKEN :

Personally appeared before me Herbert E Lyles who, being duly sworn, says that he was present and saw Oscar Kemp sign, seal and deliver the foregoing instrument and that he with Eleanor Lybrand witnessed the execution thereof.

Herbert E Lyles

SWORN TO before me this
23 day of april, 1952.
Eleanor Lybrand L.S.
NOTARY PUBLIC FOR S.C.

STATE OF SOUTH CAROLINA :
COUNTY OF AIKEN :

RENUNCIATION OF DOWER

I, _____ do hereby certify unto all whom it may concern, that Mrs._____ Kemp the wife of the within named Oscar Kemp, did this day appear before me, and upon being privately and separately examined by me, did declare that she does freely, voluntarily and without any compulsion, dread or fear of any person or persons whomsoever, renounce, release and fofever relinquish unto the within named Alex B. Perry and Charles Owen Perry, their heirs and assigns, all her interest and estate

and also her rights and Claim of Dower of, in or to all and singular the premises within mentioned and released.

_____

Given under my Hand and Seal, this

____day of_____,1952.

_____ _____L.S.
NOTARY PUBLIC FOR S.C.

STATE OF CALIFORNIA :

COUNTY OF_____:

Personally appeared before me_____ who, being duly sworn says that he was present and saw Alex B. Perry sign, seal and deliver the foregoing instrument and that he with_____ witnessed the execution thereof.

_____

SWORN to before this

____day of_____,1952.

_____L.S.
NOTARY PUBLIC FOR CALIFORNIA

STATE OF OKLAHOMA :

COUNTY OF_____:

Personally appeared before me_____ who, being duly sworn says that he was present and saw Charles Owen Perry sign, seal and deliver the foregoing instrument and that he with_____ _____witnessed the execution thereof.

SWORN to before me this _____

____day of_____,1952

_____L.S.
NOTARY PUBLIC FOR OKLAHOMA.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA
COUNTY OF AIKEN

OSCAR KEMP

TO

ALEX B. PERRY AND CHARLES OWEN PERRY

OPTION AND SALES AGREEMENT

Henderson, Salley & Cushman
Aiken, S. C.

CALLAHAN ZINC-LEAD COMPANY, INC
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

THIS AGREEMENT, made and entered into this 18th day of April, 1952, by and between Robert Kemp of Aiken County, South Carolina, as party of the first part, and Alex B. Perry and Charles Owen Perry, whose post office address is 126 West Sixth Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the sedond part to the party of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the party of the first part, hereinafter sometimes referred to as lessor, does hereby lease and let to the parties of the second part, and their heirs, successors and assigns, hereinafter sometimes referred to as lessees, all of those certain lands and real property situate, lying and being in the County of Aiken and State of South Carolina and more particularly described as follows:

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract Three (3) of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 at page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty-five (25) acres more or less.

Together with all and singular the above described property and premises and the appurtenances thereunto belonging; and warranting that said property is free of liens, with the following exceptions:

(1) The lien of any unpaid taxes.

(2) The lien of any existing mortgage.

1. During the life of this lease, lessees shall have the exclusive right to go upon and occupy said leased property for the purpose of exploring for, mining, producing, processing, and removing the sand, gravel, stone, minerals and other valuable products contained in and upon said lands, except the timber growing thereon, and as to such timber lessees shall have the right to cut and clear away such as may interfere with their operations hereunder, together with the right to use so much of the timber as may be useful to them in their operations upon said land under this lease. In connection with the operations conducted by the lessees hereunder, they shall be fully authorized to construct and thereafter maintain such buildings, power lines and pipe lines, d

dams, roads, and roadways, including the construction of railroads and the operation of equipment thereon, as they may think proper and which may be necessary or convenient in the operations conducted by them. The party of the first part shall retain during the life of this lease the right to use said lands for agriculture, logging, hunting, and fishing, and all other purposes, so long as such use does not interfere with the operations of the parties of the second part, but the party of the first part shall not be in any way liable for injuries to persons or damage to property caused by or incidental to the operations by parties of the second part, their heirs, successors, and assigns, covenant and agree that they will procure and maintain, during the life hereof public liability insurance in companies authorized to do business in South Carolina protectige both to parties of the second part and the party of the first part in amounts deemed adequate for the protection of parties of the second part, not less than $10/20,000.00 and conditioned upon full payment of any and all claims of every kind or character that may be established as a matter of law arising or existing by reason of any act or thing done or omitted by parties of the second part, their heirs, executors, administrators or assigns, with the existence of such insurance to be established by certificate of the same.

2. The term of this lease shall be ten (10) years from and after the date of this instrument, and as much longer (a) as sand, gravel, stone or minerals in commercial quantities shall be produced hereunder, or (b) as the lessees shall pay in royalties or advanced royalties hereunder as much as Twenty-five Dollars ($25.00) per month in each month of such extension period, or (c) during the continuation of mining operations either on the lands herein described or adjacent lands as set forth in paragraph 4 hereof, provided that the total term of this lease shall not exceed twenty years from the date of this instrument, subject always to termination as herein provided.

3. Beginning with the date hereof, lessees shall have twelve months time in which to examine and test said leased land for its content of sand, gravel, stone, minerals and other valuable products, after which time and within thirteen months from the date hereof, lessees shall give to the party of the first part notice in writing as to whether or not they desire to proceed further with this lease. If such notice so given indicates the intent of the lessees to proceed under the terms of this lease, the

lessees shall thereafter promptly take the necessary steps for the procurement of such machinery and equipment as shall be required for the mining operations, and shall within twelve months begin the erection and assembly thereof for operations at some point on the mineral deposit (see paragraph 4) of equipment capable of mining 2000 tons of earth per day, and beginning with the end of said twelve month testing period the monthly payment of royalties, either "advanced royalties" or "production royalties" as provided herein shall begin and shall be paid monthly thereafter during the life of this lease. If such notice specifies that the lessees do not intend to go forward with this mining operation then they shall fill all testholes and level any ground that they have disturbed during these testing operations and shall repair any damage they have done to fences, bridges or other improvements and they shall pay for any crops destroyed by them at the current prices of a matured crop.

4. It is contemplated and agreed that the land leased hereby may possibly be a part of a mineral deposit extending to other adjacent lands which the lessees may hold and that in the orderly mining of such a deposit it may be necessary or desirable for the mining activities to periodically progress back and forth across the boundary line dividing such lands but in any case whether mining is carried on upon the land hereby leased or not, a minimum payment of Twenty-five Dollars ($25.00) per month royalty shall be made whether as "advanced royalty" or "production royalty" or both, as provided herein. It is also contemplated that due to war, shortage of supplies, or for other reasons the mining on the lands held by the lessees may be suspended, in which case the payment of the monthly royalty shall continue and this lease shall continue in good standing as provided in paragraph (2) hereof unless otherwise terminated as hereinprovided.

5. The lessees shall pay to the party of the first part as compensation, herein referred to as "production royalties", for material mined and removed from the leased property the following amounts:

(1) For gravel or stone such as is commonly used as an aggregate in construction concrete or paving or road work or other common uses, six cents per cubic yard.

(2) For sand such as is used as an aggregate in plaster, mortar, concrete or road work or other common uses, six cents per cubic yard.

(3) For any other valuable metals or minerals, five per cent of the net proceeds from the sale of such products after deducting any transportation, handling or refining cost incurred in disposing of or marketing said product, after said product has been removed from the dredge and from the lands described herein. The costs deducted in determining royalties shall be justifiable commercially and shall not exceed the costs usually and properly charged for such work.

Such payments shall be made to such agent or representative of the party of the first part as may from time to time be designated by him.

Upon the beginning of mining operations on the property herein described, the lessees shall thereafter and for each month during the continuance of operations on said property, within the life of this lease, pay to the party of the first part or to his designated representative a sum of money equal to that amount by which said production royalties shall be less than $25.00 for such month, which payments are herein referred to as "advanced royalties."

The lessees shall be credited hereunder for advanced royalties paid as against production royalties thereafter accruing hereunder subsequent to the month for which such advanced royalties were paid, provided the lessees shall not be entitled to off-set advanced royalties against production royalties for any month in which production royalties do not exceed $25.00, and in no event shall said credit be allowed except as against such excess.

Payment of royalties by the lessees hereunder as hereinbefore described shall be made by the lessees on or before the 15th day of the month covering such royalties due for the preceding calendar month.

During the mining operations conducted by parties of the second part under the terms hereof, such operations may involve excavation or mining which cannot be confined to the boundary lines of the property covered hereby but may encroach upon adjacent lands. Under such conditions, periodic surveys shall be made by the parties of the second part, at intervals of not more than thirty days, of the area of ground dug and the depth to which such ground is dug, and from such survey the number of cubic yards of material dug on each side of said boundary shall be computed, and the payment of royalties hereunder shall be based upon that portion of the total values recovered during said period, determined by a prorationof the cubic yardage dug on the lands described herein to the total cubic yardage dug during said period.

6. Lessees shall keep accurate records and books of account of all sand, gravel, stone, minerals, and other valuable products produced from the leased property hereunder and removed from said leased property, and on or before the 15th day of each month after production has started hereunder, lessees shall furnish to the party of the first part, or to said agent for the party of the first part, written statements of the tonnage removed by lessees from the leased property during the preceeding calendar month, together with the computation of royalties due for said month.

Party of the first part, or his duly authorized representative, shall have the right at all reasonable times to examine said books and records and to make copies thereof, as well as to go upon the leased premises at all reasonable times for the purpose of enforcing the terms of this agreement.

7. If at any time the party of the first part does not agree with a report of any survey or measurements or the computation of royalties by the parties of the second part, they shall within thirty days after the delivery of such report or statement or payment of such royalties, as provided above, give to the parties of the second part written notice stating the basis of such disagreement and stating the correction in the computation of royalties claimed by them. The parties hereto shall thereupon choose a competent third party acceptable to both to act as referee to review such measurements and computations. The findings of such referee shall be borne by the party whose computation of royalties due is most at variance with the findings of the referee. If the parties hereto cannot agree upon the selection of a referee within seven days after the delivery of said notice of disagreement to the parties of the second part, then either party may, after giving three days' notice in writing to the other party, apply to the resident Judge of the Court of Common Pleas of the Second Judicial Circuit, of South Carolina, or the Judge presiding therein, for the appointment of such a referee.

If within thirty days after the submission of computations or the payment of royalties as provided herein, no notice of disagreement has been given to the parties of the second part by the party of the first part, then such computations and royalty payment shall be considered as accepted and final.

8. Lessees shall be the sole judge of the time, place, and method of mining and production.

9. Party of the first part hereby reserves to himself the right to cut and remove the timber growing on said leased land, and agrees that his lumbering operations shall not impede or interfere with lessees' operations under

this lease.

10. Lessees shall pay as and when due, all taxes lawfully levied or assessed upon machinery, dredges, tools, supplies, equipment and buildings placed by them on the leased land, and the party of the first part shall pay as and when due all taxes lawfully levied or assessed on or which may be a lien upon said land during the life of this lease.

11. All production taxes and license fees which may at any time be levied or charged by the State of South Carolina, or any subdivision thereof, or any municipality or district therein, measured by either (a) the tonnage of valuable products produced by lessees hereunder from said land (commonly referred to as a production tax) or (b) measured by the money value of the net proceeds from valuable products of lessees' operations hereunder (commonly referred to as a mine net proceeds tax), shall be borne proportionately by the parties hereto, ninety-five per cent thereof by lessees and five per cent thereof by the party of the first part, even though by law such taxes and fees are levied upon and immediately payable by lessees, and, if so, lessees may withhold the party of the first part's portion of such taxes and fees from royalties due or to become due hereunder.

Nothing in this section shall be construed as requiring the party of the first part to pay any part of any income tax levied or assessed upon lessees based upon lessees' annual net income, even though proceeds of sale of products from their operations hereunder go to make up such annual net income; nor shall party of the first part be required to pay any part of any ad valorem property tax levied upon lessees' products from their operations which may be stockpiled or stored or owned by lessees.

12. If lessees shall fail to keep or perform any term or condition of this contract, and such default shall continue for sixty days (60) after notice from the party of the first part in writing, to lessees specifying such default in detail, then, at the election of the party of the first part, this lease shall be terminated.

Waiver by party of the first part of one or more failures of lessees to keep or perform any term of this agreement shall not be considered a waiver of such term.

13. Anything herein to the contrary notwithstanding, parties of the second part (lessees) may abandon and terminate this lease and contract at any time upon notice given to party of the first part, and upon the giving of such notice, parties of the second part (lessees) shall have no further ob-

ligations or duties hereunder, save (a) to account for royalties theretofore accrued, and (b) to quitclaim and release this lease of record.

14. Upon termination of this lease by forfeiture, abandonment or other manner, parties of the second part (lessees) shall have one hundred eighty (180) days thereafter in which to remove from the leased property all dredges, machinery, buildings, tools, equipment, supplies, and other property placed on the leased property by or for them.

15. Any notice herein referred to shall be in writing, and shall beeither personally served on the party to whom the notice is to be given, or mailed by first class registered mail, with postage fully prepaid, and if given to party of the first part shall be addressed to him at his postoffice address, and if given to parties of the second part (lessees), it shall be addressed, one copy to O. H. Perry, 126 West Sixth Avenue, Helena, Montana, and one copy to Henderson, Salley & Cushman at 813 Laurens Street, Aiken, South Carolina, or to such other post office as the parties of the second part (lessees) may designate by notice given party of the first part, and any such notice shall be mailed at a United States post office in either the State of Georgia, or the State of Montana, and shall be considered as given when so mailed.

16. No transfer or assignment of any interest in this lease by any one or more parties hereto shall be effective or binding on any other party unless notice of such transfer or assignment be given to all other parties hereto, together with assignee's duly signed and acknowledge agreement to be bound by the terms of this agreement.

17. It shall be the duty of the lessor to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the land owner. Should the lessor fail therein, the lessees may pay off said liens and deduct the amount or amounts thereof from royalty payments thereafter due to the lessor. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the lessees, and shall bind the heirs, executors, administrators or assigns of the lessor.

18. It is understood and agreed that if in the course of mining it becomes necessary to move or damage any of the improvements that now exist on said land such as fences, roads, culverts, bridges or other structures, this may be done, but such improvements shall be replaced in original condition or better.

19. This instrument is executed in triplicate originals, of which this is Original No. _____.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 18 day of April, 1952.

Robert Kemp L.S.
LESSOR

WITNESS:

L. F. Truesson

As to Robert Kemp

_____ L.S.

_____ L.S.

_____

_____
As to Alex B. Perry

_____

_____
As to Charles Owen Perry

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me Owen H. Perry who, being duly sworn, says that he was present and saw Robert Kemp, sign, seal and deliver the foregoing instrument and that he with L. F. Truesson witnessed the execution thereof.

SWORN to before me this
18th day of April, 1952.

L. F. Truesson L.S.
NOTARY PUBLIC FOR S.C.

STATE OF CALIFORNIA :

COUNTY OF _____ :

Personally appeared before me _____ who, being duly sworn says that he was present and saw Alex B. Perry sign, seal and deliver the foregoing instrument and that he with _____ witnessed the execution thereof.

SWORN TO before me this

_____ day of _____, 1952.

_____ L.S.
NOTARY PUBLIC FOR CALIFORNIA

STATE OF OKLAHOMA :

COUNTY OF_____:

Personally appeared before me_____ who, being duly sworn says that he was present and saw Charles Owen Perry sign, seal and deliver the foregoing instrument and that he with _____witnessed the execution thereof.

_____

SWORN to before me this

____day of _____,1952.

_____L.S.
NOTARY PUBLIC FOR OKLAHOMA

I, certify that I am an unmarried man.

_____
Robert Kemp.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA
COUNTY OF AIKEN

ROBERT KEMP

TO

ALEX B. PERRY AND CHARLES OWEN PERRY

OPTION AND SALES AGREEMENT

Henderson, Salley & Cushman
Aiken, S. C.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA :
:
COUNTY OF AIKEN :

THIS AGREEMENT, made and entered into this 14 day of April, 1952 by and between Charles M. Hammond, a single man, living in Clearwater Township, Aiken County, South Carolina as party of the first part and Alex B. Perry and Charles Owen Perry whose mail address is 26 West 6th Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H:

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the second part to the party of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the party of the first part does hereby grant to the parties of the second part the exclusive right and option to purchase the following described lands situated in the Clearwater district of Aiken County, South Carolina, to-wit:

All that certain tract of land containing one hundred (100) acres more or less situated on the north side of Horse Creek and extending from Horse Creek as the south boundary of said tract across the main line of the Southern Railway to that branch of said railway that runs to the Town of Clearwater, said railway branch being the north boundary of said tract, which is further bounded on the east by land now or once belonging to John Smart and on the west by lan d belonging to R. H. Moragne.

Together with all and singular the above described lands, their waters and water rights and any other rights appertenant to said lands or any part thereof.

The terms and conditions of this agreement are as follows:

1. The option price shall be twenty thousand dollars ($20,000.00) payable within twelve months from the date of this instrument.

2. At any time during said twelve month period the party of the first part, upon the request in writing by the parties of the second part, shall promptly execute and acknowledge and deliver to the Farmers & Merchants Bank of Aiken, South Carolina a good and sufficient deed conveying said optioned property by good and merchantable title, free of leins, to the parties of the second part, with a copy of this contract, which shall be taken by said bank as escrow directions for delivery of said deed to the parties of the second part upon full payment of the option price as herein provided, otherwise such deed to be returned to the party of the first part by said bank upon expiration of this agreement.

3. Beginning with the date hereof the parties of the second part shall have the right to go upon said land to test the same for its content

of sand, gravel, or other valuable minerals or products by sinking drill holes or test pits therein, using therefor efficient and experienced equipment and crew, but they shall not mine nor remove such products in commercial quantities from the land until the option price is paid in full.

4. Any thing to the contrary notwithstanding the parties of the second part may at any time abandon this option agreement upon written notice of such abandonment to the party of the first part and upon such abandonment the parties of the second part shall be under no further obligations save as follows.

5. If the parties of the second part shall abandon this option before paying the option price, they shall fill all test holes and pits made by them and shall repair any fences, bridges, or other improvements that may have been damaged by them, and shall pay for any part of a growing crop damaged or destroyed by them at the price of a matured crop. The parties of the second part shall have thirty (30) days from the date of notice of abandonment to remove all machinery, equipment, buildings or other property they may have placed on said land.

6. Any notice herein to be given shall be in writing and shall either be personally served upon the party to whom the notice is to be given or mailed by first class registered mail with postage fully prepaid and if given to the party of the first part shall be addressed to him at Route 4 Box 251, Augusta, Georgia or if given to the parties of the second part shall be addressed one copy to O. H. Perry, 126 West 6th Avenue, Helena, Montana and one copy to Henderson, Salley & Cushman 813 Laurens Street, Aiken, South Carolina or to such other post office as the parties may designate and any such notice shall be mailed at a U. S. postoffice in either the State of South Carolina or the State of Montana, and shall be considered as given when so mailed.

7. It shall be the duty of the party of the first part to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the landowner. Should the party of the first part fail therein the party of the second part may pay off said liens and deduct the amount or amounts thereof from the option price to be paid to the party of the first part. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the parties of the second part and shall bind the heirs, executors, administrators or assigns of the party of the first part.

8. This instrument is executed in triplicate originals of which this is Original No. 1.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 14th day of April, 1952.

WITNESS:

J. L. Gregory

Albert Cushman

As to Party of the First Part

C. M. Hammond

PARTY OF THE FIRST PART

PARTIES OF THE SECOND PART

As to Alex B. Perry

As to Charles Owen Perry

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me J. L. Gregory who, being duly sworn, says that he was present and saw Charles M. Hammond, sign, seal and deliver the foregoing instrument and that he Albert Cushman witnessed the execution thereof.

J. L. Gregory

SWORN to before me this 14th day of April, 1952.

Edna R. Manley L.S.
NOTARY PUBLIC FOR S.C.

STATE OF CALIFORNIA :

COUNTY OF _____ :

Personally appeared before me _____ who, being duly sworn says that he was present and saw Alex B. Perry sign, seal and deliver the foregoing instrument and that he with _____ witnessed the execution thereof.

SWORN to before me this ___ day of _____, 1952.

_____ L.S.
NOTARY PUBLIC FOR CALIFORNIA

STATE OF OKLAHOMA :
COUNTY OF _____ :

Personally appeared before me _____ who, being duly sworn says that he was present and saw Charles Owen Perry sign, seal and deliver the foregoing instrument and that he with _____ witnessed the execution thereof.

_____

SWORN to before me this

____ day of _____, 1952.

_____ L.S.
NOTARY PUBLIC FOR OKLAHOMA.

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N. Y.

STATE OF SOUTH CAROLINA
COUNTY OF AIKEN

CHARLES M. HAMMOND

TO

ALEX B. PERRY AND CHARLES OWEN PERRY

OPTION AGREEMENT

Henderson, Salley & Cushman
Aiken, S. C.

A S S I G N M E N T

The undersigned Alex B. Perry and Charles Owen Perry, whose post office address is 26 West Sixth Avenue, Helena, Montana, for and in consideration of the sum of $10.00 cash in hand paid by the assignee, hereby transfer and assign to Callahan Zinc-Lead Company, Inc., all of our right, title and interest in and to any and all lands contiguous to Horse Creek, now or hereafter to be acquired, in the County of Aiken, State of South Carolina, including the following agreements and the lands described therein:

1. Agreement dated April 14, 1952, between the undersigned and Charles M. Hammond, a single man.

2. Agreement dated April 18, 1952, between the undersigned and Robert Kemp.

3. Agreement dated April 23, 1952, between the undersigned and Oscar Kemp.

4. Agreement dated April 25, 1952, between the undersigned and Mamie Drummond Kemp.

5. Agreement dated April 23, 1952, between the undersigned and Beatrice Moore Kemp, Hattie Mamie Kemp, and Brady Kemp, Jr.

Dated June 10th, 1952

ALEX B. PERRY
CHARLES OWEN PERRY

By _____
Their Attorney-in-Fact

District of Columbia -- ss.

I, CALVIN PIERSON, a Notary Public in and for the District of Columbia, do hereby certify that Owen H. Perry, as Attorney-in-Fact for Alex B. Perry and Charles Owen Perry, parties to a certain Assignment bearing date on the 10th day of June, 1952, and hereto annexed, personally appeared before me in the said District, the said Owen H. Perry being personally and well known to me as the person who executed the said Assignment as Attorney-in-Fact, and acknowledged the same to be his act and deed.

Given under my hand and seal, this 10th day of June, 1952.

Alvin Perrin [Seal]
Notary Public
District of Columbia

NOTARY PUBLIC - D. C.
My Commission Expires April 1, 1955

POWER OF ATTORNEY.

KNOW ALL MEN BY THESE PRESENTS:

That we, Alexander B. Perry of Berkeley, California, and Charles Owen Perry of Berkeley, California, each being unmarried men over twenty-one years of age, each for himself does hereby make, constitute and appoint Owen H. Perry of Helena, Montana, his true and lawful agent and attorney-in-fact, to, for us, and for each of us, jointly and severally,

1. Sell, lease, mortgage, exchange or convey any and all real property and interest in real property owned by us, or either of us, in the County of Aiken, State of South Carolina, and upon such terms as to him shall seem in our best interests;

2. And we, and each of us, do hereby make, constitute and appoint said Owen H. Perry our true and lawful agent, attorney-in-fact and proxy to vote all corporate capital stock now owned by us, or hereafter acquired, in _____ a corporation organized under the laws of the State of _____ _____, with full power to vote said stock at any annual or special meeting of the stockholders of said corporation, and to waive notice of any such meeting, and to consent to the holding of any such meeting and to the acts and things done therein, and with power of substitution, in all respects as we, or either of us, might if personally acting.

Dated 4th Decem Ber, 1951.

Ruth Natusch
AS TO ALEXANDER B. PERRY

Alexander B. Perry (L. S.)
ALEXANDER B. PERRY

Edna E. Neal
AS TO CHARLES OWEN PERRY

Charles Owen Perry (L. S.)
CHARLES OWEN PERRY

STATE OF _____,

COUNTY OF [illegible].

Personally appeared before me R J West who, being duly sworn, says that he was present and saw ALEXANDER B. PERRY sign, seal and deliver the foregoing instrument, and that he with [illegible] witnessed the execution thereof.

SWORN to before me this 1st day of December, 1951.

Ruth Nutsch (L. S.)

NOTARY PUBLIC for _____

[illegible] City and County
[illegible]
[illegible] 8, Ind.

R J West

STATE OF Indiana,

COUNTY OF Comanche.

Personally appeared before me Edna F. Neal who, being duly sworn, says that she was present and saw CHARLES OWEN PERRY sign, seal and deliver the foregoing instrument, and that she with Patty H Helman witnessed the execution thereof.

SWORN to before me this 4th day of December, 1951.

Patty H Helman (L. S.)

NOTARY PUBLIC FOR Ala

Edna F. Neal

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

SUPPLEMENTAL PROJECT SUMMARY REPORT

1. Docket No. DMEA-2576 (Columbium-Monazite-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company
Aiken County, South Carolina

The following additions should be made to sections 2 and 3 of the Project Summary Report prepared by F. M. Murphy on January 8, 1954:

2. Amendments -

Amendment No. 3, March 26, 1954

Issued to correct misunderstanding when a star was used to limit the monthly salary of the project superintendent.

3. Supplemental Audit Certificate April 14, 1954.
(An additional $600.00 for 1 month's supervision costs applicable to Phase I is allowed by this supplemental audit report.)

Total cost as billed by contractor		$57,509.40
Less: Proceeds from disposition of property		2,293.21
Net claimed cost		$55,216.19
Exceptions:		
During audit	$6,819.62	
Less: Reinstatement	600.00	6,219.62
Total Accepted Cost		$48,996.57
83% Government participation		$40,667.15

Ernest Wm. Ellis

Ernest Wm. Ellis

[illegible] SUMMARY REPORT

[illegible] : [illegible] Murphy January [illegible], 1954

1. [illegible] Docket No.-257[illegible] (Columbium-Monazite-Rutile)
   Contract No. [illegible]-[illegible]392
   Callahan Zinc-Lead Company
   Aiken County, South Carolina.

   Leased land along Horse Creek, Aiken County, about 190 acres, and also lease from R. Kemp (etal) and Seminole Mills for land along bottom and both sides of Big Horse Creek, also all lands contiguous to Horse Creek now or hereafter to be acquired. No Owner's Consent to Lien.

2. Contract August 2[illegible], 1952 - total cost $37,9[illegible]0.00.

   Amendment No. 1 - February 2, 1953, adds additional work and $19,633.00, making total estimated cost $57,593.00 with Government participation @ 83% or $47,802.19. Also, changes date of completion from 6 months to 9 months.

   Amendment No. 2 - March 2, 1953 - adds two ~~acres~~ parcels of land (8[illegible].85 acres) subject to royalty payments.

   Work authorized -

   3,300 feet churn drilling, actual cost basis.

   Amendment No. 1 - adds 4 shafts to check drill holes.

   Work completed -

   81 - 4 and 6 inch churn drill holes - approx. 3000' total
   3 - 4' x 4' test shafts each about 15' deep.

3. Audit Certificate September 2[illegible], 1953.

Total accounted costs	$ 1[illegible],395.57
83% Govt. share	$ 1[illegible],169.15

   see supplemental audit April [illegible]

4. Certificate of Discovery - dated September 3[illegible], 1953.

   Ore estimates: 18,334,000 cubic yards.

Contains per cubic yard			Value
Monazite	1.5 lbs.	@ $0.17/lb.	$ 0.255
Rutile	2.6 lbs.	@ $0.05/lb.	0.150
Zircon	4.4 lbs.	@ $0.02/lb.	0.088
Ilmenite	6.6 lbs.	@ $0.01/lb.	0.066
Gravel (4/mesh)	139 lbs.	$0.0001/lb.	0.014
Value per cubic yard			$ 0.573

Total estimated value of ore reserves - $10,505,302.00
No royalties paid to date.

5. The project work was accomplished in a satisfactory manner.

The actual cost of the work was high due to difficulty in getting the drilling equipment thru the heavily forested and swampy ground which covered part of the project area.

The shafts were not sunk to bedrock as it was too costly to sink below the water table.

The ore found is considered exploitable. The Operator is presently planning to move a dredge from Montana to this deposit. The Company Officials are experienced dredgemen.

/S/
E. H. Murphy

EHMurphy/db
1/12/54
cc to: Docket (Original)
Adm. Reading File
Mr. Ellis
Mr. Murphy
Mails & Files

☑ Audited

☑ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of Dec. 6, 1954
Incl. Voucher for May, 1953

☑ Actual Cost

☐ Agreed Unit Costs

Name Callahan Zinc-Lead Company, Inc.

Docket No. 2576

State South Carolina

Commodity Monazite, Columbium, Rutile

Idm-E No. 392

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) churn	3,300'	21,838.00	3000'	25,991.19	25,991.19
Surface Excavation 4-Test pits		11,840.69		11,840.69	11,840.69
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased		7107.31		7107.31	4814.10 *
Surface Rehabilitation & Repairs		950.00		900.00	900.00
Underground Rehabilitation					
New Building, Improvements, etc.		1490.00		1403.32	1403.32
Other (Specify) Analyses & Tests		8175.00		4047.27	4047.27
Contingencies.		6200.00			
Totals		$57,593.00		$51,289.78	$48,996.57*

* Reflects $2,298.21 proceeds from disposition of property

Prepared by F. M. Murphy

71626

File in Docket DMEA-2576
Contract No. Idm-E392
Callahan Zinc-Lead Co.
assigned to
Marine Minerals, a subsidiary of Crane Co.

RESULTS OF A DMEA EXPLORATION PROJECT

FOR

MONAZITE AND RUTILE

A contract totaling $57,593.00, to explore a monazite-rutile placer deposit in southeastern United States, was approved in 1952. The work, which consisted of churn drilling and sinking test pits, was completed at a total cost of $48,996.57. The Government contribution amounted to $40,667.15, or 83% of the total cost.

The work indicated that the property contained 18,330,000 cu yds. of dredgeable material having a mineral content estimated to be worth $13,424,000 at 1956 metal prices.

After the exploratory work was completed, the Operator installed a dredge valued at $800,000.00 and a minerals separation plant on shore costing $400,000.00. Dredging started in July, 1955.

Sale of minerals from the property to July 1, 1957, grossed $1,029,753.96. From this production the contractor has repaid the Government the $40,667.15 it had shared in the exploration costs.

It is possible that additional reserves of strategic minerals will be added to the initial estimate as exploitation of the property continues.

February 6, 1958

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/15		110
		120
		220

NOV 15 1966

Mrs. Mary L. Lombard
Librarian
Michigan Chemical Corporation
Saint Louis, Michigan 48880

Re: DMEA-2576 (Monazite-Columbium-Rutile)
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina
Contract Idm-E392

Dear Mrs. Lombard:

Your letter of October 31, 1966, addressed to the Bureau of Mines, Department of the Interior, requesting a copy of a bulletin on the subject contract, has been referred to this office.

We do not know of any bulletin on this operation that has been published. After completion of the contract, the interest in the property of Callahan Lead-Zinc Company, Inc., 100 Park Avenue, New York, New York, was transferred to the Heavy Minerals Company, 836 South Michigan Avenue, Chicago, Illinois.

Possibly you could obtain information on the sampling for heavy minerals in the Horse Creek Area, South Carolina, from either of these companies.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

FEJohnson/gla 11-15-66

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
Robert A. Laurence, Region IV w/cy incoming letter
OME Reading File

23263

Office of Minerals Exploration

~~Publications~~ ~~G. M. Merrill~~

MICHIGAN CHEMICAL CORPORATION

SAINT LOUIS, MICHIGAN, 48880 • TELEPHONE 681-2141 • AREA CODE 517

OFFICIAL COPY
O. M. E.
RECEIVED
NOV 9 1966
INITIALS | CODE
110
220

October 31, 1966

Bureau of Mines
Department of Interior
Interior Building
Washington, D. C.

Gentlemen:

We need to obtain a copy of the following bulletin:

Docket No. DMEA 2576 ~ file ordered coe
Contract No. Idm E392
Sampling for Heavy Minerals in the Horse Creek Area, South Carolina.

Please notify us of the price so that we may issue a purchase order.

Thank you.

Very truly yours,

Mary L. Lombard

(Mrs.) Mary L. Lombard
Librarian

MLL

copy to R-IV

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
1/14	Murphy	700
	Ellis	700
1-14	Chandler	800
	Kleman	110
1/14	Mathenoy	100
1-15	C	220

225

Lamb
Kilsgaard
Selfridge

JAN 15 1957

Mr. E. E. Wyatt
Executive Vice President
Heavy Minerals Company
836 South Michigan Avenue
Chicago 5, Illinois

Re: Docket No. DMEA-2576
(Monazite-columbium-rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Wyatt:

This is to acknowledge your letter of January 3, 1957, enclosing the Certificate of Ownership merging Marine Minerals, Inc., into Heavy Minerals Corporation.

It is assumed that Heavy Minerals Corporation will continue the same procedure as Marine Minerals, Inc., in respect to the royalty payments due the Government under the above-referenced contract.

Sincerely yours,

C. O. Mitchell (for)

Administrator

FMMurphy/izm 1-14-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
Audit Division
DMEA F. T. Region V (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224

8623

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
1/14/57	Murphy	700
"	Ellis	700
"	Chamberlain	800
1/14	Selfridge	130
	[illegible]	110
1/14	Murphy	100

1-15 225

JAN 15 1957

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Rm #13, P. O. Building
Knoxville 2, Tennessee

Re: Docket No. DMEA-2576
(Monazite-columbium-rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Co., Inc.
~~(Marine Minerals, Inc., Assignee)~~
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Laurence:

Enclosed are two copies each of self-explanatory letters, dated January 3, and 10, 1957, by Heavy Minerals Company and our Associate Solicitor, respectively, relating to new ownership of the Horse Creek Placer property.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FMMurphy/izm 1-14-57
cc to: Code 700
Mr. Murphy
Operating Com.
Admr.'s Reading File
Audit Division
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

JAN 10 1957

Memorandum

To: Administrator, DMEA
Attention: Chief, Rare and Miscellaneous Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-2576 (Monazite-columbium-rutile)
Callahan Zinc-Lead Co., Inc. (Marine Minerals, Inc., Assignee)
Contract Idm-2392

As requested in Mr. Ellis' memorandum dated January 8, 1957, we have reviewed the letter dated January 3, 1957, from Heavy Minerals Company and the copy of Certificate of Ownership merging Marine Minerals, Inc., into Heavy Minerals Company.

The Government's rights have not been diminished by this action.

Robert P. Dwyer

Robert P. Dwyer

HCRubin/emd

Copy to: Solicitor's Docket (2)
DMEA Docket
E. W. Ellis
H. C. Rubin
chron.

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
1-8-57	Murphy	700
		225

January 8, 1957

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-2576
(Monazite-columbium-rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Attached is a letter, dated January 3, 1957, from Heavy Minerals Company to the Administrator. Will we require a formal request for the transfer of the subject contract or is this sufficient to protect the Government's interest?

To December 10, 1956, Marine Minerals, Inc., has repaid $24,118.93 of the $40,667.15 contributed by the Government under the contract. There appears little doubt that the Government's royalty will be paid as it becomes due.

Please refer to your memorandum, dated February 7, 1956, regarding the Callahan Zinc-Lead Company's transfer of the property to Crane Company.

/s/

Ernest Wm. Ellis

Attachment

FMMurphy/izm 1-8-57
cc to: Code 700
Mr. Murphy

8623

HEAVY MINERALS CO.

836 SO. MICHIGAN AVE.
CHICAGO 5

GENERAL OFFICE

TELEPHONE
WABASH 2-3123

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 7 1957

DATE	INITIALS	CODE
1-7	[illegible]	700
		225

January 3, 1957

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
United States Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Mittendorf:

Please be advised that Marine Minerals Inc., a Delaware corporation, has been merged into Heavy Minerals Co., a Delaware corporation, as of the close of business, December 31, 1956 under the authority of Section 253 of the Delaware Corporation Code. As you remember, Marine Minerals Inc. was the assignee of the leases of the land under the subject contract. For your further information please be advised that prior to this merger, Marine Minerals Inc. was a wholly-owned subsidiary of Heavy Minerals Co.

We enclose herewith a copy of the Certificate of Ownership which merges Marine Minerals Inc. into Heavy Minerals Co. and which indicates that Heavy Minerals Co. assumes all of the liabilities and obligations of Marine Minerals Inc.

Very truly yours,

HEAVY MINERALS CO.

E. E. Wyatt
Executive Vice President

EEW-WRS:ld

cc J. T. Hall, President, Callahan Zinc-Lead Company, Inc.
R. T. Ruder, Treasurer, Heavy Minerals Co.
W. W. Stephen, Jr., Asst. Treasurer & Auditor, Heavy Minerals Co.

cc made of letter for Audit Div.
1-8-57 Reg. V (2)
Code 700

OFFICIAL FILE COPY
D M E A
RECEIVED JAN 7 1957

DATE	INITIALS	CODE

CERTIFICATE OF OWNERSHIP

MERGING

MARINE MINERALS INC., A DELAWARE CORPORATION

INTO

HEAVY MINERALS CO., A DELAWARE CORPORATION

(Pursuant to section 253 of Title 8 of The Delaware Code of 1953)

Heavy Minerals Co., a corporation incorporated on the 12th day of June, 1953, pursuant to the provisions of the General Corporation Law of the State of Delaware DOES HEREBY CERTIFY that this company owns all the outstanding stock of Marine Minerals Inc., a corporation incorporated on the 28th day of April, 1954, pursuant to the provisions of the General Corporation Law of the State of Delaware, and that this company, by a resolution of its Board of Directors duly adopted at a meeting held on the 21st day of August, 1956, determined to and did merge into itself said Marine Minerals Inc., which resolution is in the following words to wit:

WHEREAS, Heavy Minerals Co. lawfully owns all the outstanding stock of Marine Minerals Inc., a corporation organized and existing under the laws of Delaware, and

WHEREAS, this company desires to merge into itself the said Marine Minerals Inc. and to be possessed of all the estate, property, rights, privileges and franchises of said company,

NOW, THEREFORE, BE IT RESOLVED That, this company merge into itself, and it does hereby merge into itself said Marine Minerals Inc. and assumes all of its liabilities and obligations, and

FURTHER RESOLVED That, the President or a Vice-President, and the Secretary or Treasurer of this company be and they hereby are directed to make and execute, under the corporate seal of this company, a certificate of ownership setting forth a copy of the resolution to merge said Marine Minerals Inc. and assume its liabilities and obligations, and the date of adoption thereof, and to file the same in the office of the Secretary of State of Delaware, and a certified copy thereof in the office of the Recorder of Deeds of Newcastle County.

FURTHER RESOLVED That, the officers of this company be and they hereby are authorized and directed to do all acts and things whatsoever, whether within or without the State of Delaware, which may be in anywise necessary or proper to effect said merger.

For all accounting purposes the effective date of the merger shall be as of the close of business on December 31, 1956.

IN WITNESS WHEREOF, said Heavy Minerals Co. has caused its corporate seal to be affixed and this certificate to be signed by E. E. Wyatt, its Executive Vice-President, and K. L. Karr, its Secretary, this 24th day of December A. D. 1956.

Signed, Sealed and Delivered in the Presence of:

Gwendolyn Owens

Edward C. Cushman, Jr.

HEAVY MINERALS CO.

E. E. Wyatt
Executive Vice-President

K. L. Karr
Secretary

HEAVY MINERALS CO.
CORPORATE SEAL
1953
DELAWARE

STATE OF SOUTH CAROLINA,
COUNTY OF AIKEN,

Personally appeared before me Gwendolyn Owens, and made oath that she saw the within named E. E. Wyatt, Executive Vice-President, and K. L. Karr, Secretary, sign the name of HEAVY MINERALS CO., and affix the seal of the said corporation to the foregoing written instrument, and sign their names and affix their seals as Executive Vice-President and Secretary thereof, and as its act and deed deliver the within written instrument, and that she with Edward C. Cushman, Jr., witnessed the execution thereof.

SWORN TO and subscribed before me this 24th day of December, 1956.

Edward C. Cushman, Jr. L. S.
Notary Public for South Carolina.

Gwendolyn Owens

EDWARD C. CUSHMAN, JR.
NOTARY PUBLIC
SOUTH CAROLINA

STATE OF ILLINOIS)
COUNTY OF COOK) ss:

BE IT REMEMBERED that on this 24th day of December A. D. 1956, personally came before me, William R. Stead a Notary Public in and for the County and State aforesaid, E. E. Wyatt, a Vice-President of Heavy Minerals Co., a corporation of the State of Delaware, the company described in and which executed the foregoing certificate, known to me personally to be such, and he, the said E. E. Wyatt as such Vice-President, duly executed said certificate before me and acknowledged the said certificate to be his act and deed and the act and deed of said company; that the signatures of the said Vice-President and of the Secretary of said company to said foregoing certificate are in the handwriting of the said Vice-President and Secretary of said company respectively, and that the seal affixed to said certificate is the common or corporate seal of said company.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of office the day and year aforesaid.

William R. Stead
Notary Public

Notary Public in and for the
County of Cook, State of Illinois
My Commission expires Feb. 7, 1958

WILLIAM R. STEAD
NOTARY PUBLIC
COOK COUNTY, ILL.

State of Delaware

Office of Secretary of State.

I, **John N. McDowell**, *Secretary of State of the State of Delaware,* **do hereby certify** *that the above and foregoing is a true and correct copy of*

Certificate of Ownership of the "HEAVY MINERALS CO." merging "MARINE MINERALS INC.", pursuant to Section 253 of the General Corporation Law of the State of Delaware, as received and filed in this office the thirty-first day of December, A.D. 1956, at 3 o'clock P.M.

In Testimony Whereof, *I have hereunto set my hand and official seal at Dover this* thirty-first *day of* December *in the year of our Lord one thousand nine hundred and* fifty-six.

John N. McDowell
Secretary of State

Ass't. Secretary of State

FORM 120

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Room 13, Post Office Bldg.
Knoxville 2, Tenn.

September 11, 1956

Mr. Ed Talbert, Acting Chief
Contract Administration and Audit Division
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Mr. Talbert:

Reference is made to the Royalty Audit Reports and Royalty Audit Certificates transmitted from your office on August 27, 1956, pertaining to the following contracts:

Idm-E392	DMEA-2576	Marine Minerals Inc.
Idm-E321	DMEA-1709	Hale-Georgia Mineral Corp.
Idm-E515	DMEA-2914	Thomas Johnson, Assignee

We concur in the facts stated in all of them and have forwarded the original of each to the Finance Officer, and copies to the respective Operators.

The difference between our figures and those of Mr. Fisher's on the Hale-Georgia Mineral Corp., report is due to our using different royalty percentages.

Mr. Fisher's total sales on the Thomas Johnson contract differs from our by $123.57 because he did not take into account a sale made to the Government Depot in that amount on April 6, 1956 in Lot. No. 1021 by E. H. Schwab. This sale was 12.06 pounds of sheet mica. As the total sales made from the property since the date of the contract is more than enough to pay the Government's royalty we have sent the certificate and report to the Operator.

Very truly yours,

/s/ Wm. A. Beck

Mining Engineer

8/15/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
ROOM POST OFFICE BLDG.
KNOXVILLE 2, TENN.
August 13, 1956

RECEIVED
AUG 1 1956

Marine Minerals Inc.
P.O. Box 928
Aiken, South Carolina

Atten: Mr. L. W. Taylor, Jr.

Re: DMEA-2576, Idm-E392
Horse Creek Placer
Aiken County, S. C.

Dear Mr. Taylor:

This will acknowledge check No.2820 dated August 7, as the third payment on the subject DMEA loan.

We would like to call your attention to your transmittal letter accompanying the check - the figures you gave in "Contract Price" is incorrect, it should be $40,667.15; Which will make your balance due $31,562.87.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region V

ZM.
cc:
Mittendorf
LYnch

Files

Finance Office

7/30/56

DMEA-2576 Idm-E392
Callahan Zinc-Lead Company
Horse Creek Placer
Aiken County, S.C.
(Monazite - Columbium - Rutile)

A-8 THE SUNDAY STAR, Washington, D. C.
SUNDAY, JULY 29, 1956

Titanium Mining Is Big Success In S. Carolina

CLEARWATER, S. C., July 28 (AP).—With transplanted Montana gold mining equipment, a titanium mining operation has been operating successfully here for a year.

Owen H. Perry, vice president and general manager of Marine Minerals, Inc., says "we are the first ones to attempt mining the way we are doing."

The operation is producing these four different minerals: Ilmenite, rutile, zircon and monozite.

Ilmenite and rutile are the common elements of titanium, a hard but light metal in great demand by the aircraft industry. Zircon is the ore of zirconium. Monozite is known as one of the rare earth minerals.

Long Operation Seen

There's enough of the four minerals in Aiken County's Horse Creek Valley to keep the operation going, Mr. Perry estimates, for longer than anyone now connected with it will be living.

About his production volume, Mr. Perry will say only that about 8,000 tons of earth are mined every 24 hours by a huge dredge formerly used in the Montana gold fields. He says about 1 per cent of that is useable.

Financially, the operation also is proving successful, Mr. Perry says.

The area now being mined is about 4½ miles long and maybe ½ mile wide in some places.

The dredge, which measures more than 200 feet over-all, is similar, Mr. Perry says, to a type used to mine tin in Malaya. It was brought in pieces from Montana and reassembled here.

The four minerals, which sink to the bottom of a container while the lighter substances wash away, are separated from the sand and earth inside the dredge. After going through a vast system of sieves and shaker beds. They then are pumped or hauled to the drier house.

Ovens Remove Impurities

Big, gas fired ovens dry the minerals and remove other impurities. A complicated electrolic and magnetic process separates each into what resembles piles of fine black, brown and red sand ready for shipment.

Much of the output is being taken by a firm in Chattanooga, Tenn., which, like Marine Minerals, is a subsidiary of Chicago's Crane Co., plumbing fixture manufacturers.

The titanium mining operation is the result of a winter trip to the South in 1951. Mr. Perry, middle-aged Columbia University mining school graduate who lived all his life in his native Montana until he came to South Carolina two years ago, says the trip had the two-fold purpose of getting away from the cold weather and "to look around."

After looking around considerably in Georgia and North Carolina, Mr. Perry finally found what he wanted here. The site, along the geological fall line, looked promising. He spent two years studying and prospecting it before getting Marine Minerals into operation in June, 1955.

700

FILE COPY
Surname:

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

JUL 9 1956

Mr. Donald B. Clayton, Jr.
Virginia Minerals, Inc.
McCrum Building - Box 1156
Lexington, Virginia

Dear Mr. Clayton:

This will acknowledge receipt of your letter dated July 4, 1956, wherein it is noted that you have property in Henry County, Virginia, containing monazite in rock form. Furthermore, you believe the dredge equipment presently employed in handling the placer material in the vicinity of Aiken, South Carolina, might be useful in beneficiating your ore and consequently, you are desirous of obtaining the address of the company employing said dredge.

The address is as follows:

Marine Minerals, Inc.
Post Office Box 928
Aiken, South Carolina

I trust this is the information you desire.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

EWEllis/izm 7-6-56
cc to: Docket 2576
DMEA Field Team, Reg. V (2)
Code 700 2576
Mr. Ellis
Admr.'s Reading File

DMEA-2576 Idm-E392 (Monazite-Columbium-Rutile) Aiken County, S.C.
Horse Creek Placer Project

7-6-56

VIRGINIA MINERALS, INCORPORATED
McCRUM BUILDING
TELEPHONE NUMBER ONE
BOX 1156
LEXINGTON, VIRGINIA

4 July 1956

Defense Minerals Exploration Administration
Rare Earths Division
Department of the Interior
Washington 25, D. C.

Gentlemen:

Our company has leases in Henry County, Virginia, containing monazite in rock form. We understand that a company is dredging monazite from placer deposits in the vicinity of Aiken, South Carolina, and would like to discuss with them the feasibility of beneficiating a quantity of our ore with their equipment. If you have their address, or the address of any other company with similar equipment, we would appreciate it if you would send it to us.

Yours very truly,

Donald B. Clayton, Jr.

Donald B. Clayton, Jr.

RECEIVED
JUL 6 - 1956

July 2, 1956

JUL 5 - 1956

Mr. L. W. Taylor, Jr.
Marine Minerals, Inc.
P.O. Box 926
Aiken, South Carolina

DMEA-2576, Idm-E392 (Monazite-Columbium-Rutile) Aiken County, S. C. Horse Creek Placer Project

Dear Mr. Taylor:

Thank you for sending us the corrected copy of the invoice for the ilmenite sent the Bureau of Mines at Albany, Oregon.

In going over the invoices on sales made through May 31, 1956, it is noted that your royalty check in the amount of $4,489.40 did not include payment on the $913.20 which was the Marine Minerals, Inc. portion of the above invoice. Royalty is due on the value of any minerals mined or produced from the claims described in Article 2 of the contract, regardless of whether or not they are sold (Article 9 a, b).

You may add the royalty $45.66 to your next royalty payment.

Very truly yours,

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

WAB/zm
PAL-
cc:
Opr. Com.-2
Finance Office
Lynch
Files

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

June 7, 1956

Mr. Robert F. Griffith, Superintendent
Marine Minerals, Inc.
P. O. Box 928
Aiken, South Carolina

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Horse Creek Placer
Aiken County, South Carolina

Dear Bob:

Reference is made to your letter of June 5, 1956, requesting information as to the method of making royalty payments to the Government on production from the subject contract. Checks made payable to the Defense Minerals Exploration Administration and accompanied by copies of the settlement sheets should be mailed to this office monthly.

By the terms of the Exploration Project Contract, as amended, and of the certification, all monazite, columbium, rutile, sand and gravel, and other valuable minerals produced from the claims described in Article 2 of the contract, from August 27, 1952, the date of the contract, are subject to the Government's percentage royalty as set forth in the contract until the sum of $40,667.15 is paid, or until August 27, 1962.

The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent of each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

I am glad to report that Bill Beck is back in the office and is well on the road to recovery.

We will be looking forward to receiving your first royalty payment in the near future.

Sincerely,

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

WAB/mg
cc - Operating Committee (2)
Mrs. Helen Miller
Mr. V. J. Lynch
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

FEB 7 1956

Memorandum

To: The Administrator, DMEA

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-2576, Callahan Zinc-Lead Company, Inc.
Contract No. Idm-E392

As requested in your memorandum dated January 20, 1956, we have reviewed the agreement entered into as of December 1, 1953, between Crane Co. and Callahan Zinc-Lead Company.

In our judgment, the agreement conforms to the Operator's obligation under the contract respecting transfer of the land. As to the Operator's continuing liability, see the discussion of this question in our memorandum dated January 17, 1956, concerning Willis and Snyder (Docket No. DMEA 3229).

Robert P. Dwyer

Robert P. Dwyer

Docket Copy
Surname:
Houk
Ellis
Matteucci

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

Mr. Robert S. Cooper
Room 4731, General Accounting
Office Building
Office of Defense Mobilization
Washington 25, D. C.

FEB - 1 1956

33
24
27
25
82

Dear Mr. Cooper:

Reference is made to your recent oral request for information on the inferred reserves of rutile as a result of the DMEA exploration work. The following information is confidential for Government use only and not for public disclosure.

DMEA has received six applications for rutile exploration under the DMEA program. Four from Florida in Duvall, St. Johns, Brevard and Indian River, Sarasota and Charlotte Counties. One from Kings County, California, and one from Calvert County, Maryland. Four applications were denied, one withdrawn, and one contract, National Lead Company, DMEA-2286, was written. One certification of discovery or development for rutile, DMEA-2286, National Lead Company, and one certification in which rutile is a co-product, DMEA-2576, Marine Minerals, Inc., have been issued by DMEA.

National Lead Company
DMEA-2286, Contract No. Idm-E264

The work by National Lead Company, and in participation with DMEA outlined an estimated, inferred reserve of 60,560 short tons of rutile and 272,520 short tons of ilmenite and the project was certified. The company is reported to plan initial operations in approximately three years at this property located in Duvall County, Florida, six miles southeast of Jacksonville. No reserves of zirconium have been calculated in this case, but zircon content may approximate two parts zirconium to one part rutile.

Marine Minerals, Inc.
DMEA-2576, Contract No. Idm-E392

Rutile, and possibly zircon, is reported as being produced from this operation in Aiken County near the City of Aiken in South Carolina. This deposit is estimated to contain approximately 23,834 tons of rutile, 14,300 tons of monazite, 40520 tons of zirconium, and 60,780 short tons of ilmenite.

Sincerely yours,

LGHouk:gad 1/31/56

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Copy to: Admr. R. File
Docket (2)
Field Team, Region V
Mr. Ellis
Mr. Houk

Surname copy

700

Murphy
Ellis

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

January 20, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: C. O. Mittendorf, Administrator

Subject: Docket No. DMEA-2576
(Monazite-columbium-rutile)
Contract No. Ldm-8392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

In response to my letter of January 16, 1956 (in docket), Mr. Stead, Assistant Secretary of Crane Co., has forwarded a copy of an Agreement between his Company and Callahan relating to the captioned placer property. The copy is attached hereto.

In the Agreement, please note Article 1. B., page 2, and (1), page 11, especially. The "new corporation" mentioned is the Marine Minerals, Inc., a subsidiary of Crane Co.

The above-mentioned letter from DMEA to Crane Co. indicated that we would accept royalty payments from Marine Minerals, Inc. In your opinion, is the Government's interest now properly protected, or should we take further action?

C. O. Mittendorf
(by SST)
Administrator

FMMurphy/gla
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy

Corr

FOUNDED BY R.T. CRANE 1855

CRANE CO.

VALVES - FITTINGS - PIPE
PLUMBING AND HEATING

836 SO MICHIGAN AVE.

CHICAGO 5

TELEPHONE
WAbash 2-3123

RECEIVED
JAN 19 1956

January 18, 1956

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
United States Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Mittendorf:

I wish to thank you for your letter of January 16, 1956 enclosing a copy of the captioned contract with map and Amendments 1, 2 and 3.

I did not mean to imply that Crane Co. was going to be the producer. Your earlier information that our subsidiary Marine Minerals, Inc., rather than Crane Co. was assignee of the leases of the land under the subject contract is correct. We enclose a copy of the agreement under which Marine Minerals, Inc. assumed the obligation to pay the Government's royalty. Your attention is directed to subparagraph (1) on page 11 of said contract. All checks will be made payable to the Defense Minerals Exploration Administration instead of to the Treasurer of the United States as stated in your letter of September 30, 1953.

Very truly yours,

C R A N E C O.

William R. Stead

William R. Stead
Assistant Secretary

WRS:ld

cc Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

CRANE'S FIRST CENTURY 1855 1955

RECEIVED
JAN 19 1956

AGREEMENT

THIS AGREEMENT made and entered into as of the 1st day of December, 1953 by and between Crane Co., a corporation duly organized and existing under the laws of Illinois, hereinafter referred to as "CRANE", and Callahan Zinc-Lead Company, Inc., a corporation duly organized and existing under the laws of Arizona, Owen H. Perry, Alex B. Perry, Charles O. Perry, and The Goldfield Consolidated Mines Company, a corporation duly organized and existing under the laws of Wyoming, all collectively hereinafter referred to as "CALLAHAN",

W I T N E S S E T H:

WHEREAS, Callahan represents and warrants that it has acquired and holds certain leases and options set forth in Schedule "A" attached hereto and made a part hereof, covering certain land and mineral rights situated in the vicinity of Big Horse Creek, in Aiken County, South Carolina, and

WHEREAS, Callahan represents that it has expended substantial sums of money in drilling and testing mineral values in the aforesaid land and elsewhere in the vicinity, and

WHEREAS, Callahan has turned over to Crane a certain report detailing the results of an exploration program which indicates the presence of monazite, rutile, ilmenite, zircon and other minerals, a copy of which report (being "Final Engineering Report" by Owen H. Perry with Supplements A and B dated April 25, 1953) is attached hereto and made a part hereof as Exhibit "1", and Callahan represents that said report accurately sets forth the results of said exploration program, and

WHEREAS, Callahan represents and warrants that it owns Yuba Dredge No. 137, with repair parts and collateral equipment, being presently located on the Missouri

River near Helena, Montana, and

WHEREAS, Crane is desirous of obtaining the interests of Callahan in the said land and mineral rights and the said dredge, repair parts and collateral equipment, and

WHEREAS, Crane is desirous of moving said dredge, repair parts and collateral equipment to Big Horse Creek and equipping the properties in the vicinity of said Big Horse Creek to mine earth and separate therefrom the valuable heavy mineral products in commercial forms and grades, and

WHEREAS, Callahan is desirous of obtaining sand and gravel from the Big Horse Creek dredging operation;

NOW, THEREFORE, in consideration of the sum of Ten ($10.00) Dollars paid by Crane to Callahan, receipt of which is hereby acknowledged and of the mutual covenants of the parties herein contained, it is agreed as follows:

1. A. Callahan hereby grants to Crane an exclusive option for the period from the date of this agreement to April 30, 1954 inclusive to investigate the desirability of proceeding with the acquisition of the said leases, options on land and mineral rights held by Callahan and said Yuba Dredge, repair parts and collateral equipment owned by Callahan. If, in the opinion of Crane, the results of such investigation conducted during the option period warrant further proceedings, Crane may on or before the last day of said option period serve written notice upon Callahan of its intention of proceeding pursuant to the terms, conditions and agreements hereinafter set out.

   B. Crane shall forthwith after service of notice provided for in paragraph 1 A hereof, cause a new corporation to be formed to acquire said leases, options on land and mineral rights held by Callahan and said Yuba Dredge, repair parts and collateral equipment owned by Callahan. All matters and

detail of organization and procedure in connection with the incorporation and organization of such new corporation shall be determined by Crane and all expense in connection therewith shall be chargeable to the new corporation.

C. Within ten (10) days after receipt by Callahan of notice from Crane of the creation of the new corporation, Callahan shall assign to said new corporation all of its right, title and interest in and to the leases and other agreements set forth in Schedule "A" hereto; said assignments to be in good and sufficient form satisfactory to Crane. Callahan hereby represents and warrants to Crane that it has acquired and holds said leases and other agreements with power to assign as therein set forth.

D. Callahan represents and warrants that it previously has and that as part of this agreement, it will duly keep, observe and perform all of the terms, conditions and provisions of said leases and other agreements set forth in Schedule "A" hereof for the period from the date of this agreement to the date of the assignment of the leases to the new corporation or the date of the expiration of the option provided for in paragraph 1 A hereof without it having been exercised by Crane, whichever event first occurs. In any event, Crane agrees to reimburse Callahan for any payments which are required to be paid by Callahan during the aforesaid period in order to fully comply with all of the terms, conditions and provisions of the leases from The Seminole Mills, The United Merchants and Manufacturers Inc., Oscar Kemp, Robert Kemp, M. D. Kemp, and B. Kemp, such leases requiring monthly payments in the aggregate of Five Hundred Forty ($540.00) Dollars a month, such reimbursement to be made forthwith upon notice from Callahan. Also, Callahan agrees to use its best efforts to obtain at least a three

month extension of time from D. B. Blackmon for the first half purchase price payment of Eight Thousand Five Hundred ($8,500.00) Dollars due December 31, 1953 pursuant to the provisions of the option agreement between D. B. Blackmon and Alex B. Perry and Charles O. Perry dated December 31, 1952. If Callahan, after using its best efforts to obtain an extension of time from D. B. Blackmon, fails to obtain such extension of time, both parties to this agreement are relieved of further responsibility under this agreement with regard to said D. B. Blackmon option agreement.

E. Service of said notice provided for in paragraph 1 A hereof by Crane shall obligate Crane to cause the new corporation to purchase from Callahan, Yuba Dredge No. 137 together with repair parts and collateral equipment "as is" and "where is". Crane agrees to cause the new corporation to pay for said dredge, repair parts and collateral equipment, upon tender by Callahan of a good and sufficient bill of sale thereof free and clear of all liens and encumbrances, the sum of $160,000.00 of which $60,000.00 is payable in cash and $100,000.00 in shares of common stock in the new corporation having a fully paid up and non-assessable aggregate par value of $100,000.00. Crane agrees that during the escrow period as provided herein, it will not permit the issuance of any further stock by the new corporation for any consideration other than (1) cash equal to par value, or (2) tangible property at cost or fair market value, whichever is lower.

F. Simultaneously with receipt of said $100,000.00 par value shares of common stock from the new corporation, Callahan agrees to endorse said shares in blank and place them in escrow pursuant to the terms of an escrow agreement, a copy of which is attached hereto and made a part hereof as Exhibit "2"; said escrow to be executed by both parties hereto concurrently with

the endorsement of the said shares by Callahan and to be subject to change in order to comply with the requirements of the escrow agent. Crane shall have the obligation and the right during the term of the escrow period to purchase shares of stock deposited in escrow as follows:

(1) Crane shall purchase within thirty (30) days after completion of the audit for each fiscal year by such certified public accountants as may be representing the new corporation, (which shall not be later than four months after the close of the fiscal year of said new corporation), sufficient shares from the escrow stock at the book value shown in said audit so that Callahan shall receive an amount which, together with dividends declared during said fiscal year applicable to the escrow shares, shall equal the proportion of the preceding fiscal year's earnings as shown by said audit which is applicable to the proportion of the common stock then remaining in escrow. This purchase is contingent upon the non-exercise of the option to purchase hereinafter granted by Callahan to Crane in sub-paragraph 1-F(2). Exercise of said option, set forth in sub-paragraph 1-F(2), by Crane prior to the close of the fiscal year of the new corporation shall terminate the obligation of Crane to purchase shares for that and subsequent fiscal years as provided herein. Certification of the book value of said shares and the number to be purchased by Crane hereunder by aforesaid certified public accountants shall be binding upon both parties hereto and the escrow agent.

(2) Crane may purchase all of said shares remaining in said escrow in one block at the book value of said shares, audited according to accepted accounting procedures, said book value to be as of a date not more than 120 days prior to the purchase thereof. Crane shall

notify Callahan and the escrow agent in writing of the exercise of its option under this sub-paragraph and thereupon, upon presentation to Callahan of the audit provided for in connection herewith, Callahan shall have ten (10) days within which to examine and approve or disapprove said audit. Upon approval or disapproval of said audit, Callahan shall notify in writing forthwith both Crane and the escrow agent of its approval or disapproval. If Callahan fails to either approve or disapprove said audit within ten (10) days, said audit shall be considered approved. If approved, Crane shall forthwith make payment to the escrow agent of the value of the shares of stock remaining in said escrow. If disapproved, then any objection thereto by Callahan shall be submitted to such one of the following named certified public accounting firms as Callahan may select, to wit: Arthur Anderson & Co.; Peat, Marwick & Mitchell; Lybrand, Ross Bros. & Montgomery; Price Waterhouse & Co.; and the decision and certification of said firm as to the book value of said escrow shares is to be final and binding upon the parties hereto and the escrow agent. Expenses of said audit are to be borne equally by Callahan and Crane. In case of disapproval, the escrow period shall be extended for a sufficient period of time in which to settle the dispute.

(3) The escrow period shall commence on the date of the escrow agreement and terminate (unless extended for the purpose of clearing up an objection as provided for in sub-paragraph 1-F(2))on the last day of the fourth (4th) month following the end of the second fiscal year of full dredging operations undertaken by the new cor-

poration. Crane shall cause the new corporation to notify both Callahan and the escrow agent of the date of commencement of full dredging operations by the new corporation. Upon termination of the escrow period, any shares remaining in the hands of the escrow agent shall be returned to Callahan free of all options.

2. Immediately upon the assignment by Callahan of its entire interest in the properties listed in Schedule "A" and said Yuba Dredge to the new corporation, the following agreement containing the terms and conditions set forth hereinafter in this paragraph 2 shall become effective between Callahan and the new corporation, and ratification and acceptance of such agreement by the new corporation, which Crane agrees to cause, shall release Crane from any further liability with respect to the subject matter thereof:

(a) Definitions. As used herein, "initially segregated", means the first separation of the bulk concentrate into a minimum of three fractions, i. e. monazite, zircon and combined titanium minerals.

"Affiliated organization" means any person or organization (other than the new corporation) controlled by Crane Co., an Illinois corporation, or in which Crane has some degree of ownership.

"Third party" means any person or organization, corporate or otherwise, other than Crane Co., Callahan, the new corporation or an affiliated organization.

"Date of this agreement" means December 1, 1953.

(b) Callahan agrees that, during the term of this agreement, it will not, directly, or indirectly, acquire by lease, purchase, or otherwise, except pursuant to agreement with the new cor-

poration, any properties situated in the area within a radius of forty (40) miles from the County Court House of the town of Aiken, South Carolina, including the properties listed in Schedules "A" and "B", attached hereto and made a part hereof. The new corporation at its expense shall have the exclusive right in the above area to explore, develop and mine any and all property that in its opinion justifies such work. Callahan shall give to the new corporation all knowledge of, rights, and interests in any mining properties it now has or may later acquire in said area retaining only its mineral royalty interest and sand and gravel rights as described below.

(c) On or before the twentieth (20th) day of January, April, July and October in each year, and for the period of time hereinafter stated, the new corporation shall deliver to Callahan a royalty of five percent (5%) by weight of such of the heavy minerals as are "initially segregated" by the new corporation or by an affiliated organization from the bulk concentrate mined by the new corporation during the preceding quarter calendar year, from properties acquired and listed in Schedules "A" and "B".

(d) The aforesaid royalty is subject to the provision that on monazite segregated from bulk concentrate dredged from properties leased from The Seminole Mills and the United Merchants and Manufacturers Inc. under leases dated August 5, 1952, the new corporation shall deliver to Callahan as royalty ten percent (10%) by weight of such monazite as is segregated from such concentrate, less the percent (%) of royalty payable on sales of monazite as required by the aforesaid lease agreements with The Seminole Mills

and the United Merchants and Manufacturers Inc., provided that the royalty to Callahan shall in no event be less than a minimum of 2-1/2%.

(e) The new corporation agrees that products delivered to Callahan as royalty shall be "initially segregated". Segregation of heavy minerals may take place at either the point of storage at the project or at any other point within the continental limits of the United States where the new corporation or an affiliated organization may see fit to segregate said heavy minerals. In either case, Callahan shall receive said royalties, F.O.B. point of segregation. Such products delivered to Callahan shall be of a grade at least as high as the average of the total of such products segregated during said quarter, and the new corporation shall give to Callahan assay certificates in the customary form as to the grade of the products paid as royalty. If, during the first twenty days of the quarter, the production does not contain minerals of the quality required to be delivered, the new corporation may delay such delivery until sufficient quantities of royalty minerals of quality required are mined and segregated, but not longer than thirty (30) days. If the bulk concentrate is not so segregated by the new corporation or an affiliated organization, but is sold to a third party in the form of bulk concentrate, then Callahan's royalty shall remain unchanged percentagewise but shall be paid as a percent of the dollar sales value of the bulk concentrate rather than of minerals in kind.

(f) Callahan shall only be entitled to heavy mineral royalty payments from such leased properties as are dredged by the new corporation, and only during the term of the applicable leases listed in Schedule "A" hereto, or leases obtained on other property within said area.

(g) Heavy mineral royalty payments from property listed in Schedule "A" and "B" owned in fee by the new corporation shall only be due Callahan if said properties are dredged, but in no event shall said royalty payments be payable after the sale of said property by the new corporation to a third party or after the period of twenty-five (25) years from the date of this agreement, whichever event first occurs.

(h) In any event, once dredging operations are completed on a given property owned or leased by the new corporation, the new corporation may dispose of its interests in such property or properties free and clear of any rights on the part of Callahan.

(i) Callahan shall have the sole right to process and sell for its own account the sand and gravel arising incidentally from dredging operations on the properties listed in Schedules "A" and "B" by the new corporation to the extent that such sand and gravel are not required by any law or regulation made by state or local authorities for grading or leveling of mined areas, but nothing herein shall vest in Callahan any title in and to any sand or gravel in place. The new corporation shall deliver, if Callahan so requests, sand and gravel arising out of the dredging operations at the end of the new corporation's pipeline on shore, free of charge as a single non-segregated bulk product.

(j) Callahan shall have the right to establish plants for the production of commercial grades of sand and gravel and to maintain stockpiles of materials on any ground free of rental charge so long as such plant or stockpiles do not interfere with the new corporation's operations or any of the conditions or leases under which the new corporation is obliged to operate. In the event the new corporation disposes of its

interest in any given piece of property, Callahan shall not later than 180 days after such disposition remove its plants, stockpiles and other property therefrom. Callahan agrees to indemnify and hold harmless the new corporation from any and all damage arising out of and from the operation of such plant or from such stockpiling.

(k) Callahan shall pay to the new corporation any calculated royalty applicable to sales of such sand and gravel as the new corporation may be obligated to pay to a lessor under the terms of any lease under which the new corporation is operating, but the amount of such royalty shall not exceed in percent the royalty payable on heavy minerals to such lessor. Callahan shall also pay to the new corporation a royalty equal to five percent (5%) of the proceeds of the sales of sand and gravel dredged from properties owned outright by the new corporation at the time of dredging.

(l) Attached hereto and made a part hereof as Exhibit "3", is a copy of the Agreement dated August 27, 1952, between Defense Minerals Exploration Administration and Callahan. The new corporation assumes all of the obligations contained therein and shall pay the sums required to be paid thereunder when and if due, it being understood that these payments to be made on the part of the new corporation shall in no event exceed the sum of Forty-Five Thousand ($45,000.00) Dollars. Any obligation over and above $45,000.00 resulting from such Agreement between Defense Minerals Exploration Administration and Callahan shall be paid by Callahan.

(m) The new corporation may, without obligation of any kind to Callahan, enter into contracts with third parties in respect to any properties which have been explored and developed by such third parties.

(n) The term of this agreement shall be for thirty (30) years from the date thereof, any other terms and conditions to the contrary notwith-

standing. Upon expiration of this agreement at the end of such thirty (30) year period, each party shall promptly complete all outstanding commitments arising under this agreement, making such payments and such deliveries as are called for under this agreement.

(o) The provisions of paragraphs 4,5 and 7 hereinafter set forth, insofar as they refer to Callahan and the new corporation are made a part of this paragraph 2.

(p) The provisions of this paragraph 2 shall be binding upon the successors and assigns of the new corporation.

(q) In the event the new corporation acquires, during the period of this agreement, by purchase, lease, or otherwise, rights to properties, other than those listed in Schedules "A" and "B", in an area within a radius of forty (40) miles from the County Court House of the town of Aiken, South Carolina, such properties shall be held subject to all of the provisions, rights and obligations of this paragraph 2, with the following exceptions:

(1) Callahan's royalty, as provided for in sub-paragraph 2(c) above shall be reduced from 5% to 2-1/2%.

(2) Sub-paragraph 2(g) shall not apply and in lieu thereof it is agreed that heavy mineral royalty payments from property owned in fee by the new corporation shall only be due Callahan if the properties are dredged; and in the event of sale or assignment of any of such properties by the new corporation before dredging operations are commenced or completed, Callahan's mineral royalty and sand and gravel rights shall, subject to the terms of any applicable lease, run with the land for a period not to exceed thirty (30) years from date of this agreement.

3. If after exercise of the option provided for in paragraph 1 hereof, Crane or an affiliated organization controlled by Crane (other than the new corporation) acquires, within 30 years from the date hereof, mineral rights in the properties in an area within a radius of 40 miles from the County Court House of the town of Aiken, South Carolina, such properties shall be held subject to rights and obligations of Crane or such affiliated organization and of Callahan, corresponding to those contained in the agreement between Callahan and the new corporation set forth in sub-paragraphs 2(a) to 2(q), above, both inclusive, except that sub-paragraph 2(b) shall not apply.

4. Callahan Zinc-Lead Company, Inc., Owen H. Perry, Alex B. Perry, Charles O. Perry, and The Goldfield Consolidated Mines Company, who are the parties to this agreement collectively and are referred to herein as "Callahan", agree that each of them is jointly and severally liable for the obligations which are herein stated to be undertaken by "Callahan".

5. Callahan, and its successors and assigns shall have the right to assign any and all of its rights under this agreement to any corporation, partnership or joint venture in which the group of Callahan Zinc-Lead Company, Inc., The Goldfield Consolidated Mines Company, Owen H. Perry, Alex B. Perry and Charles O. Perry have an equity ownership aggregating not less than fifty-one percent (51%) in said corporation, partnership or joint venture.

6. Except as to the provisions relating to the escrowed stock of the new corporation, Crane, subject to Callahan's rights under this agreement, may assign any or all of its rights together with the obligations appurtenant thereto set forth in this agreement, and upon such assignment Crane shall be fully discharged of any liabilities with respect thereto. Crane may assign its rights and obligations relating to such escrowed stock but such assignment shall not release Crane from any obligations with respect thereto.

7. All notices to be given by either party under this agreement shall be

in writing and shall be served by registered mail with registry receipt being conclusive evidence of such service. Notices shall be addressed to Crane and the new corporation at #836 South Michigan Avenue, Chicago 5, Illinois. Notices and payments (including issuance of capital stock of the new corporation) required to be delivered, issued or made by Crane, the new corporation, or the escrow agent when delivered, issued or made to Callahan Zinc-Lead Company, Inc., 100 Park Avenue, New York City 17, New York, shall constitute notice, delivery or payment to each of the individuals collectively referred to herein as "Callahan". Any party by notice in writing may designate a different address for receipt of notices.

8. Closing of the option provided for in paragraph 1 hereof (Assignment of leases, delivery of bill of sale, payment of consideration, and execution of escrow agreement) shall take place in Chicago, Illinois, at the office of the escrow agent, or at such other place as may be mutually agreed upon by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in duplicate the date first above written by its officers thereunto duly authorized.

ATTEST:

_____
Secretary

_____
Witness

_____
Witness

CRANE CO.

BY_____
Vice President and Treasurer

ATTEST:

_____
Secretary

_____
Witness

_____
Witness

CALLAHAN ZINC-LEAD COMPANY, INC.

BY_____

_____
Witness

_____
Witness

_____
Witness

_____
Witness

_____
Witness

_____
Witness

_____(L.S.)
Owen H. Perry

_____(L.S.)
Alex B. Perry

_____(L.S.)
Charles O. Perry

ATTEST:

_____
Secretary

_____
Witness

_____
Witness

THE GOLDFIELD CONSOLIDATED MINES COMPANY

BY_____

STATE OF)
)ss.
COUNTY OF)

Personally appeared before me _____, who being duly sworn, says that he saw the within named Alex B. Perry sign, seal and as his act and deed deliver the foregoing agreement, and that he with _____ witnessed the execution thereof.

_____

Sworn to before me this _____
day of _____ 195__.

_____
Notary Public

STATE OF)
) ss.
COUNTY OF)

Personally appeared before me _____, who being duly sworn, says that he saw the within named Charles O. Perry sign, seal and as his act and deed deliver the foregoing agreement, and that he with _____ witnessed the execution thereof.

_____

Sworn to before me this _____
day of _____195__.

_____
Notary Public

STATE OF)
) ss.
COUNTY OF)

Personally appeared before me _____ who being duly sworn, says that he saw the within named Owen H. Perry sign, seal and as his act and deed deliver the foregoing agreement, and that he with _____ witnessed the execution thereof.

_____

Sworn to before me this _____
day of _____ 195__.

_____
Notary Public

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

Personally appeared before me _____,

who being duly sworn, says that he saw the corporate seal of Crane Co.

affixed to the foregoing agreement and that he also saw _____

_____, _____, and _____

Secretary, of said Crane Co. sign and attest the same and that

he with _____ witnessed the execution and delivery

thereof as the act and deed of the said Crane Co.

_____

Subscribed and sworn to before
me this _____ day of _____,
195 __.

_____
Notary Public

RECEIVED
JAN 19 1956

SCHEDULE "A" OF
AGREEMENT DATED AS OF December 1 , 1953
BY AND BETWEEN CRANE CO. AND CALLAHAN

ZINC-LEAD COMPANY, INC. AND OTHERS.

A. Options to Purchase

(1) Option agreement dated December 31, 1952 between D. B. Blackmon, Optionor, and Alex B. Perry and Charles Owen Perry, Optionees, expiring December 31, 1954 covering the land described as:

(1) That tract or parcel of land situated now or formerly in School District No. 29, Langley Township, Aiken County, South Carolina, containing fifteen (15) acres more or less, being a part of the George D. Powell Home place bounded on the North by Big Horse Creek and on the South by the right of way of Southern Railway Company, and on the East by lands of W. A. Moss and being a part of that tract of land deeded to S. I. Busbia by the Master of Aiken County on May 2, 1932, which said deed is recorded in Masters Title Book 57 at page 159 in the office of the Clerk of Court of Aiken County.

(2) All that certain tract or parcel of land situated in Aiken County, South Carolina, and situated on the South side of the right of way of the Southern Railway Company containing sixty-nine and eighty-five one hundred (69.85) acres and being bounded on the North by the right of way of the Southern Railway Company, East by the Old Pine Log public road, South by lands now or formerly of Lincoln Burdo, West by the right of way of the Southern Railway Company and lands of Burdo, this being the same property that was deeded to D. B. Blackmon by S. C. Chavious by deed dated Jan. 24th., 1946, and recorded in deed book 99 page 161 in the office of the Clerk of Court of Aiken County.

(2) Option agreement dated April 14, 1952 between Charles M. Hammond, Optionor, and Alex B. Perry and Charles Owen Perry, Optionees, original agreement with expiration date of April 14, 1953 renewed to April 14, 1954 covering the land described as:

All that certain tract of land containing one hundred (100) acres more or less situated on the north side of Horse Creek and extending from Horse Creek as the south

boundary of said tract across the main line of the Southern Railway to that branch of said railway that runs to the Town of Clearwater, said railway branch being the north boundary of said tract, which is further bounded on the east by land now or once belonging to John Smart and on the west by land belonging to R. H. Moragne, lying and being in the Clearwater district of Aiken County, South Carolina.

B. Leases

1. Lease dated April 23, 1952 between Oscar Kemp, Lessor, and Alex B. Perry and Charles Owen Perry, Lessees, covering the land described as:

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as tract four (4) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing ten (10) acres more or less, lying and being in the County of Aiken and State of South Carolina.

2. Lease dated April 18, 1952 between Robert Kemp, Lessor, and Alex B. Perry and Charles Owen Perry, Lessees, covering the land described as:

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract Three (3) of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 at page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty-five (25) acres more or less, lying and being in the County of Aiken and State of South Carolina.

3. Lease dated April 25, 1952 between Mamie Drummond Kemp, Lessor, and Alex B. Perry and Charles Owen Perry, Lessees, covering the land described as:

> A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is known as Tract two (2)

of the Kemp property as delineated upon a plat made by J. T. Wise dated December 19, 1929, which plat is recorded in Misc. Book 16 on page 259 in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the North boundary of said tract and extending thence south to a line fifty feet beyond and south of the edge of the woods containing an area of thirty five (35) acres more or less, lying and being in the County of Aiken and State of South Carolina.

4. Lease dated April 23, 1953 between Beatrice Moore Kemp, Hattie Mamie Kemp and Brady Kemp, Jr., Lessors and Alex B. Perry and Charles Owen Perry, Lessees, covering the land described as:

A portion of that tract of land formerly owned by Lincoln Kemp, Sr. which is now owned by the heirs at law of Brady Kemp, Sr. and known as Tract One (1) of the Kemp property as delineated upon a plat made by J. T. Wise, dated December 19, 1929 which plat is recorded in Misc. Book 16 on page 259, in the office of the Clerk of the Court of Aiken County. The portion covered by this lease is the wooded swamp land beginning at Horse Creek which is the north boundary of said Tract One and extending thence south to a line fifty feet beyond and south of the edge of the woods, containing an area of twenty (20) acres more or less, lying and being in the County of Aiken and State of South Carolina.

5. Lease dated August 5, 1952 between The Seminole Mills, a South Carolina corporation, Lessor, and Alex B. Perry and Charles O. Perry, Lessees, covering the land described as:

All of those certain bottom lands and real property situate, lying and being in the County of Aiken and State of South Carolina, lying along the bottom and on both sides of Big Horse Creek, extending approximately from Storm Branch Road to the boundary line of the bottom lands owned by United Merchants and Manufacturers, Inc.

6. Lease dated August 5, 1953 between United Merchants and Manufacturers, Inc. a Delaware corporation, Lessor, and Alex B. Perry and Charles O. Perry, Lessees covering the land described as:

> All of those certain bottom lands and real property situate, lying and being in the County of Aiken and State of South Carolina, lying along the bottom and on both sides of Big Horse Creek, extending approximately from the boundary line of the lands owned by The Seminole Mills (hereinafter called "Seminole") to Langley Dam.

RECEIVED
JAN 19 1956

SCHEDULE "B" OF
AGREEMENT DATED AS OF December 1, 1953
BY AND BETWEEN CRANE CO. AND CALLAHAN
ZINC-LEAD COMPANY, INC. AND OTHERS.

List of Additional Properties contiguous to Properties covered in Schedule "A" of the Agreement to which this Schedule is attached.

Any and all land, not covered in Schedule "A" hereof, lying on either side of Big Horse Creek in the County of Aiken, South Carolina and within a distance of one thousand feet (1000) of the center line of said creek, beginning at the mouth of said creek where it enters the Savannah River and extending up stream to the town of Graniteville, a distance of eleven (11) miles more or less.

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

140 Surnamed
Murphy
Ellis
Rewritten HCRubin

JAN 16 1956

Mr. William R. Stead
Assistant Secretary
Crane Co.
836 So. Michigan Avenue
Chicago 5, Illinois

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Stead:

In response to your request of December 20, 1955, we are enclosing a copy of the captioned contract with map, and Amendments Nos. 1, 2, and 3. Also, for your information, we are enclosing copies of two letters, dated September 30, 1953, and April 29, 1954, addressed to Mr. Joseph T. Hall, President, Callahan Zinc-Lead Company, Inc., relating to the certificate of discovery or development issued by this Administration, and the sum to be repaid the Government on production from the captioned property.

Your letter implies that Crane Co. is going to be the producer. We had earlier been informed that your subsidiary, Marine Minerals, Inc., rather than Crane Co., was assignees of the lessees of the land under the subject contract.

In either event, both companies are aware of the Government's royalty, and one or the other has assumed the obligation to pay it by agreement with the Callahan-Zinc Lead Company, Inc. The Government will accept royalty from either of your companies and apply it against the total obligation under the subject contract. In this regard, as previously requested, we should like a copy of the agreement under which the obligation to pay the Government's royalty is assumed.

RCR,

Incidentally, payments should be made directly to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee. Checks should be made payable to the Defense Minerals Exploration Administration, instead of to the Treasurer of the United States, as stated in our letter of September 30, 1953.

Sincerely yours,

G. D. Mittender

Administrator

Enclosures

Copy to: Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

FMMurphy/HCRubin/wog
January 12, 1956

Copies: DMEA Docket
Admin. Reading File
Operating Com.
T.H.Kiilsgaard/Rm 5224
F.D.Lamb/Rm 3649
J.L.Chambers/Rm 4448
E.W.Ellis
DMEA Field Team, Region V (2)
RPDwyer
HCRubin
FMMurphy
Chron.
Pending

Surname copy

700

Murphy
Ellis

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

Mr. William R. Stead
Assistant Secretary,
Crane Company
836 So. Michigan Avenue
Chicago 5, Illinois

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Ida-8392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Stead:

In response to your request of December 20, 1955, we are enclosing a copy of the captioned contract with map, and Amendments Nos. 1, 2, and 3. Also, for your information, we are enclosing copies of two letters, dated September 30, 1953, and April 29, 1954, addressed to Mr. Joseph T. Hall, President, Callahan Zinc-Lead Company, Inc., relating to the certificate of discovery or development issued by this Administration, and the sum to be repaid the Government on production from the captioned property.

We have recently been informed by our Executive Officer, Region V, that Mr. Wm. A. Beck, examining engineer, visited the Horse Creek operation on December 6. Officials of Marine Minerals, Inc., a subsidiary of Crane Company, advised Mr. Beck that their company was aware of the royalty obligation to the Government under the captioned contract, and, judging from your letter, the Crane Company plans on assuming payment of any royalty due the Government.

In regard to royalty, the DMEA is willing to accept payments from either Marine Minerals, Inc., or the Crane Company on any production from the subject property. However, we shall hold the Callahan Zinc-Lead Company, Inc., responsible for all payments until the Crane Company or some other acceptable party enters into a separate written guaranty running directly to the Government for the payment of royalty under the captioned contract. Upon receipt of such a guaranty, and finding it acceptable, we will then release the original Operator under the contract.

Incidentally, payments should be made directly to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee. Checks should be payable to the Defense Minerals Exploration Administration, instead of to the Treasurer of the United States, as stated in our letter of September 30, 1953.

Sincerely yours,

Administrator

Enclosures

FMMurphy/gla
12-30-55

Copy to: Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, N. Y.

cc to: Admr.'s Reading File
Docket
Messrs. Frank D. Lamb, Rm. 3649
T. H. Kiilsgaard, Rm. 5224
Contract Adm. & Audit Div.
Code 700
Mr. Murphy
DMEA Field Team, Region V (2)

12/23/55

FOUNDED BY R.T. CRANE 1855

CRANE CO.

VALVES - FITTINGS - PIPE
PLUMBING AND HEATING

836 SO MICHIGAN AVE.
CHICAGO 5

TELEPHONE
WAbash 2-3123

RECEIVED
DEC 22 1955

December 20, 1955

United States Department of The Interior
Defense Minerals Exploration Administration
Washington 25, D.C.

Attention Administrator

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Horse Creek Placer
Aiken County, South Carolina

Dear Sir:

As you know Crane Co. is the Assignee of the above DMEA contract from Callahan Zinc-Lead Company, Inc. Our copy of this contract has been misplaced and it is requested that you forward to the writer, if possible, a copy of the same.

Thanking you for your courtesy,

Very truly yours,

C R A N E C O.

William R. Stead

William R. Stead
Assistant Secretary

WRS:ld

CRANE'S FIRST CENTURY 1855 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

N Sir RR December 7, 1954

Memorandum

To: The Administrator, DMEA
Attention: E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-2576 (Monazite-Columbium-Rutile), Contract No. Idm-E398, Callahan Zinc-Lead Company, Inc., Horse Creek Placer, Aiken County, South Carolina

In Mr. Ellis' memorandum to me of November 23 he says:

> "A letter, which you wrote on May 21, replied that the new lessee should submit a written guaranty running directly to the Government for the payment of royalties under the contract. Evidently, through oversight on our part, that letter was not followed up."

You are mistaken in thinking that the Administrator's letter of May 21 stated, ". . .that the new lessee should submit a written guaranty, . . ." The Operator, Assignor, had requested that it be released from liability under the exploration contract, and the Administrator's letter simply stated that the Government could not release the Assignor (Callahan Zinc-Lead Company) without a guaranty from some third party, in this case, Crane Co. Evidently the Assignee (Marine Minerals, Inc.) decided to forget about the matter, and it follows that there is nothing further for the Government to do at this time.

If this does not sufficiently answer your inquiry, please advise me.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor,
Defense Minerals

JLHofflund:gjb
Copy to: Sol. Docket
DMEA Docket
E. W. Ellis
J. L. Hofflund
Chron. File

11-23-54

Memorandum

To: Acting Assistant Solicitor, DMEA

From: Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-2576 (Monazite-columbium-rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Pursuant to our telephone conversation today, I am forwarding the docket file on the captioned project.

In reading the November issue of Mining Engineering in the personal column it was drawn to my attention that a former Bureau of Mines staff member is superintendent at the captioned project and they are now in the process of equipping this property for production. A review of the file shows that under date of April 30, 1954, the Callahan Zinc-Lead Company, Inc., the Operator, intended to assign their leases to Marine Minerals, Inc., a subsidiary of Crane Company, and said company agrees to assume all the obligations under the contract. A letter, which you wrote on May 21, replied that the new lessee should submit a written guaranty running directly to the Government for the payment of royalties under the contract. Evidently, through oversight on our part, that letter was not followed up.

I believe that the new lessee fully expects to pay the royalties when due. However, perhaps we should write to the Executive Officer of Region VII and request that he contact the new Operator in order to make sure that the royalties will be paid. I have no knowledge that the operation is in production yet, but doubtless it will be in the near future.

Kindly advise what steps, if any, you believe we should take at the present time.

/S/
Ernest Wm. Ellis

EWEllis:am
11-23-54
cc to: Docket
Code 700 Contract File
Blue Chrom

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION ~~[illegible]~~
WASHINGTON 25, D. C.

MAY 21 1954

Mr. E. A. Salo
Treasurer, Callahan Zinc-
Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Horse Creek Placer
Aiken County, South Carolina
Contract Idm-E392

Dear Mr. Salo:

This responds to your note dated May 14 to which were attached a copy of a letter dated April 30 from you to the Executive Officer, Region VII, and a photostat of his response dated May 6. I understand that you desire the Government to release Callahan Zinc-Lead Company, Inc. from all liability under the subject contract.

You will recall that an Owner's Consent to Lien was waived in this case. This waiver was based upon the fact that your company was undertaking the obligations of the contract including the payment of any royalty that might be due the Government. It now appears that your company transferred its leases of the Horse Creek Placer project to Marine Minerals, Inc., a subsidiary of Crane Co., and that Marine Minerals has agreed to assume your company's obligations under the contract. As the assignment has been completed, it is difficult to find any consideration running to the Government for releasing your company from liability under the subject contract. However, if the parent Crane Co. or some other acceptable party would enter into a separate written guaranty running directly to the Government for the payment of royalty under the subject contract, we would consider such an undertaking as a sufficient consideration for releasing your company. In the absence of such a separate undertaking, however, there would not be any justification for the Government releasing your company.

Sincerely yours,

C. O. Mittenderf

Administrator

JLHofflund:HCR:ep 5-20-54

Copy to: Docket
Admin. Reading File
Administrator
Operating Committee
Field Team, Reg. VII (2)
Mr. Rubin
Mr. Hofflund
Mr. Ellis
Mr. D. M. Larrabee, USGS (G-232 GSA)
Mr. J. H. Hedges, B/M (4604)
Chron.
Pending

R.C.S.

IF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 5/19

REFERRED TO:

1.
2. Rubin
3.
4.

FOR:

RECEIVED
MAY 19 1954
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

	Action		Recommendation
	Approval		Record
✓	Comment		of
	Conference		Referring
	Consideration		to
	Filing		Reply for signature of
	Instructions		
	Investigation		Rewriting
	Initials		Signature
	Mailing		Suggestions
	Previous correspondence		Your information

REMARKS:

In light of comments by Shawkers & Johnson

Check (X) before the items needing attention.

Initials of sender.

GPO 16—63815-1

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 5/19/54

REFERRED TO:

1. [illegible]
2. [illegible]
3.
4. [illegible]

FOR:

..... Action	..... Recommendation
..... Approval	..... Record
..... Comment	of .....
..... Conference	..... Referring
..... Consideration	to.....
..... Filing	..... Reply for signa-
..... Instructions	ture of .....
..... Investigation	..... Rewriting
✓ Initials	..... Signature
..... Mailing	..... Suggestions
..... Previous correspondence	..... Your information

REMARKS: I do not believe we should send this letter the last paragraph reaches a half-way conclusion which in my opinion has no place in this letter JH

Check (X) before the items needing attention.

C. O. Mittendorf (JH)
Initials of sender.

GPO 16—63815-1

FILE COPY
SURNAME:

140

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

Hoff Sent

Mr. E. A. Salo, Treasurer
Callahan-Zinc Lead Company, Inc.
100 Park Avenue
New York 17, N. Y.

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Horse Creek Placer
Aiken County, South Carolina
Contract No. Idm-E392

Dear Mr. Salo:

Reference is made to a letter dated May 6 from the Executive Officer, DMEA Field Team, Region VII to you, which is in reply to a letter dated April 30 from you to the Executive Officer, copies of which you enclosed with your note to me dated May 14 in which you refer to our telephone conversation. I understand that you would like to release Callahan of any possible liability under the subject contract.

I have discussed this matter with Counsel for DMEA. He points out that Callahan did not transfer its interests to Crane Co., but to Marine Minerals, Inc., a subsidiary of Crane. Although the new operator is a subsidiary of Crane Co., it may well be that the transfer is beneficial to the Government. However, with the transfer already completed, it is difficult to find any consideration running to the Government for releasing Callahan from any possible liability under the exploration contract.

If Crane Co. (not its subsidiary, Marine Minerals, Inc.) would care to enter into a written guarantee running directly to the Government for the payment of royalties under the contract, it might be practicable for the Government to release Callahan of any possible liability. It seems unlikely that Crane Co. would make such a guarantee.

It has been contended that once an operator has made an assignment of its interests and has complied with all of the exploration project contract form relating to

assignments, there is no remaining liability for the payment of royalties. However this may be, in the absence of some new consideration running to the Government, we cannot discover any justification for releasing Callahan of any liability that may remain under the exploration contract.

Sincerely yours,

Administrator

J. L. Hofflund/emd
5/18/54

Copy to: Docket
Adm. R. File
G. O. Mittendorf
E. W. Ellis
J. H. Hedges, B.M.
D. M. Larrabee, GS
Field Team, Reg. VII (2)
J. L. Hofflund
chron.
pending

May 6, 1958

Mr. R. A. Sills, Treasurer
Colonial Land Co.
100 East Avenue
New York 17, N. Y.

Dear Mr. Sills:

Thank you for your letter of April 24 advising that you are replanting your lands on the Santee River in Berkeley County. We will need a copy of your documents which authorize that Marine Minerals Inc. will operate all of the subjacent rights. The information contained in the letter of the Attorney will be needed if this determination of delegation is in a formal document.

I would appreciate it if you will send us the correct address of the appropriate official of Marine Minerals Inc. so that our future correspondence concerning this contract is not be misdirected.

I should point out, however, that Colonial Maryland Co., is still responsible for the obligations under the contract and for the payment of royalties due as a result of this contract. Although of course we will be glad to deal directly with Marine Minerals Inc., and to accept payments from them on behalf of Colonial Maryland Company.

Yours very truly,

Robert A. Lawrence,
Reparation Officer, DMRA
Region VII

RAL/ms
cc:
Field
Area
Regional File
Files

5/4/54 gl

CALLAHAN ZI[illegible]ANY, INC.

OFFICE OF THE TREASURER

Defense Minerals Administration
RECEIVED
MAY 3 - 1954

April 30, 1954

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

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-#392
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Laurence:

In the last paragraph of Mr. Frank E. Johnson, Acting Administrator's letter of September 30, 1953 to us, he asked that we notify you of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty for the above project.

We wish to advise you that we are in the process of assigning our leases on the Horse Creek Placer Project to Marine Minerals, Inc., a subsidiary of Crane Co. Marine Minerals, Inc. has agreed to assume all of the obligations under our contract no. Idm-#392.

Please let me know if you need any other advice or notification of this change so that your records will show that the obligations of contract Idm-#392 are now obligations of Marine Minerals, Inc. and not of Callahan Zinc-Lead Company, Inc.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E A Salo

E. A. Salo
Treasurer

EAS:aim
CC: Mr. O. H. Mittendorf

Surname
Docket copy

700

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

Ellis
Talbert

Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, N. Y.

APR 29 1954

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Hall:

We have been informed by Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Knoxville, Tennessee, of the receipt of your company's check in the amount of $828.20 as full payment of over-payment by the Government on the subject contract as set forth in the Supplemental Audit Report and Audit Certificate dated April 14, 1954.

Inasmuch as the final audit of the contract increased the total approved for the Government's participation to $40,667.15, instead of $40,169.15 as shown in the first Audit Report and Audit Certificate dated September 28, 1953, the second paragraph of our letter to you dated September 30, 1953, is amended as follows:

> By the terms of the Exploration Project Contract, as amended, and of the certification, all monazite, columbium, rutile, sand and gravel, and other valuable minerals produced from the claims described in Article 2 of the contract, from August 27, 1952, the date of the contract, are subject to the Government's percentage royalty as set forth in the contract until the sum of $40,667.15 is paid, or until August 27, 1962.

Your cooperation in the settlement of the contract account is appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

EWEllis/gla
4-27-54

cc to: Admr. Reading File
Docket
Messrs. Hedges, Rm. 4604
Thayer, Rm. 5216, GSA

Operating Committee
DMEA Field Team, Region VII (2)
Mr. Chambers
Code 700
FEJohnson

R.C.G.

Callahan Zinc-Lead Company, Inc.

Docket No. DMEA 2576

Date	Remarks
Aug. 27, 1952	Contract (Phase I & II) signed. Amt. $37,960.
Sept. 2, '52	Moving began - Montana to South Carolina
Oct. 4, '52	Drilling began in S.C.
Nov. '52	Continued drilling
Dec. '52	Heavy rains. Drilling restricted.
Jan. '53	Funds nearly exhausted. Total to date $36,677.61
Jan. 28 '53	Owen Corey in Washington seeking additional funds
Feb. 2nd '53	Amendment No. 1 ($19,633) increases total to $57,593.
Feb. '53	Heavy rains & difficulty with well points.
March 25, '53	Shaft work completed.
April & May '53	Cleanup & metallurgical work.

Supervision Payments to Owen Corey

Amt.	Month.	Year
600	Sept.	1952
600	Oct.	"
600	Nov.	"
600	Dec.	"
600	Jan.	1953
600	Feb.	"
600	March	"
600	Apr.	"
300	~~May~~ 8½ months	"

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 15, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

April 22, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, D M E A- Region VII

Subject: DMEA-2576, Contract Idm-E392 (Monazite-columbium-Rutile)
Callahan Zinc-Lead Co. Aiken County, South Carolina

Today we received a check in the amount of $828.20 as full payment of over-payment by the Government on the subject contract as set forth in the supplemental Audit Report and Audit Certificate.

As Amendment No. 3 to the contract increased the total approved amount of the Government's participation to $40,667.15, the Operator should be advised that this is the amount to be repaid by percentage royalty instead of $40,169.15, as stated in Mr. Johnson's letter of September 30, 1953 to Joseph T. Hall, President of the Callahan Zinc-Lead Company, Inc.

Robert A. Laurence

Robert A. Laurence

April 22, 1954

Memorandum

To: Cora Piper, Chief - Finance Branch - Region VII

From: Executive Officer, D M E A- Region VII - Knoxville

Subject: Check for Over-payment on Contract Idm-E 392, DMEA-2576, Callahan Zinc-Lead Co.

Transmitted herewith is a check in the amount of $820.20, refund over-payment on the subject contract as set forth in the supplemental audit certificate and audit report sent you on April 19.

Robert A. Laurence

WAB/xm
cc:
Beck
Lynch
Laurence
Chambers.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 313 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

Defense Minerals Administration
RECEIVED
APR 20 1954

April 19, 1954

Mr. Jay L. Chambers, Chief
Contract Administration & Audit Div.
DMEA-Dept. of the Interior
Washington 25, D. C.

Re: DMEA-2576, Idm-E 392
Callahan Zinc-Lead Co. South Carolina

Dear Mr. Chambers:

The supplemental audit report and certificate on the subject contract have been received and distributed.

The Field Team accepts this project as having otherwise met the terms of the contract, except as specifically stated in these reports.

Very truly yours,

Robert A. Laurence

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

Wm. A. Beck

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

800

Talbert
Chambers

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

APR 15 1954

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

Re: Idm-E392, DMEA-2576
Callahan Zinc-Lead Company

Dear Mr. Laurence:

Enclosed herewith are the original and one copy of a Supplemental Audit Report and the original and two copies of a Supplemental Audit Certificate, which have been issued to conform with Amendment No. 3, dated March 26, 1954, to the subject Exploration Project Contract.

The original of the Audit Report and the original and one copy of the Audit Certificate are for the files of the DMEA Regional Finance Officer. One copy of each is for your files.

One copy of each is being forwarded directly to the Operator with the request that he forward a check in the amount of the overpayment ($828.20) to you in order that the account may be closed. A copy of our letter to the Operator is enclosed.

Sincerely yours,

SIGNED

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosures

EDTalbert/ama
April 14, 1954

Copy to: Docket
Admr. Reading File
Mr. Ellis
Mr. Chambers

R.C.S.

800
Talbert
Chambers

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

APR 15 1954

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Idm-E392, DMEA-2576
Callahan Zinc-Lead Company

Dear Mr. Salo:

Reference is made to your letter of March 30, 1954, addressed to the Administrator, wherein you advise that, upon determination of the amount of the overpayment which has been made to your Company under the subject Exploration Project Contract, prompt settlement will be made.

Enclosed herewith is a copy of a Supplemental Audit Report and Audit Certificate, which indicates the amount valid and proper for payment by the Government under this contract, including the Amendment No. 3, dated March 26, 1954. Accordingly, the amount due may be stated as follows:

Payments made on Monthly Vouchers	$41,495.35
Less: Amount of Supplemental Audit Certificate	40,667.15
Overpayment	$ 828.20

Kindly forward your check in the amount of $828.20, made payable to the Treasurer of the United States, to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee.

With reference to the note which you attached to your letter questioning the assignment of No. 3, rather than No. 2, to the Amendment of March 26, 1954, you are advised that No. 3 is correct. Amendment No. 2 covered the addition of certain lands (from lease dated December 31, 1952, from D. B. Blackmon) to Appendix I of the Contract.

Sincerely yours,

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosures

EDTalbert/ama
April 14, 1954

Copy to: Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII
Docket — Mr. Ellis — Mr. Chambers
Admr. Reading File

R.C.

700

DOCKET
SURNAME

Ellis
Chamberlin
Selfridge
Johnson
Mattendorf

APR 5 1954

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

Re: Docket No. DMEA-1576
(Manganite-Columbium-Rutile)
Contract No. Ism-1392
Callahan Zinc-Lead Company, Inc.
Matrix Creek Prospect
Aiken County, South Carolina

Dear Mr. Lawrence:

Enclosed are the Field Team and Finance Office copies of Amendment No. 3, dated March 26, 1954, to the captioned contract, executed by the Operator's representative and the Administrator.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures 2

APPROVED:

J. H. Hedges

Member, Bureau of Mines (JHB)

D. M. Larrabee

Member, Geological Survey (JHB)

EWEllis:foc 4-1-54
cc to: Adm. Reading File
Operating Comm.
Docket
Messrs. E. J. Carlson, Rm. 3649
D. M. Larrabee, Rm. G-232 - GSA
Code 700
Mr. Ellis
DMEA Field Team, Region VII

R.C.J.

MF-500.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 3/31/54

REFERRED TO:

1. Mr. Chambers, Rm. 4542
2.
3.
4.

DMEA-2576
Idm-E392

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of Mittendorf
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

X

REMARKS: Attached is Govt.'s copy Am.#3 and letter and note from Mr. Salo. He is incorrect. Amendment #2, March 2, 1953, added 2 acres of land subject to royalty payments. We are writing letter transmitting FT and Finance Office copies to Region.

Check (X) before the items needing attention.

Walt Wm. Ellis
Initials of sender.

GPO 16—63815-1

gla

Memorandum from
E. A. SALO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 31 1954

March 30th

Dear Mit:

I note that the enclosed amendment is designated no. 3.

I think it should be no. 2 as I don't seem to have any record of an amendment no. 2 to Contract Idm-E392.

Would you please check into this and advise.

Sincerely,

Arthur Salo

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

Defense Minerals
RECEIVED
MAR 31 1954

OFFICE OF THE TREASURER

March 30, 1954

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-2576
Contract No. Idm-E392
Aiken County, South Carolina
(Columbium-Monazite-Rutile)

Dear Mr. Mittendorf:

I am returning to you, duly signed, Amendment No. 3 to the above cited contract.

Now that the Amendment has been signed, I presume that in due course I shall be receiving a letter superseding Mr. Lawrence's letter of October 7th which stated that an over-payment was made under the contract in the amount of $1,326.20.

Upon receipt of the letter outlining the revised amount, we shall make prompt settlement.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:aim
Encl.

Chamberlain
Ellis
Johnson

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

MAR 26 1954

Mr. E. A. Sale, Treasurer
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576
Contract No. Idm-1392
Aiken County, South Carolina
(Columbium-Tantalite-Cassiterite)

Dear Mr. Sale:

I am enclosing Amendment No. 3 to the above-cited contract for your signature, provided you are in agreement with its terms.

This amendment was issued to correct a misunderstanding which resulted when a star was used for limiting the monthly salary of the superintendent of the project. By the use of the star on this item the provisions for the time and total salary of the superintendent of the project apparently were in contradiction to Section 6 (a) (2) of the contract form itself. As a result of these contradictory terms there was a misunderstanding between your Company and the Regional Executive Officer, and the auditors of the Washington Office as to the intent of the contract. This amendment, I believe, will correct this misunderstanding. It is along the lines discussed with you on your last visit to Washington.

If your Company agrees with the amendment the appropriate officer should sign it and return all copies except your own to this office.

Sincerely yours,

R. D. Mittendorf (for)

Administrator

Enclosure

JLChambers/wb 3-22-54

Copy to: Docket
Admr. Reading File
Operating Committee
Mr. Laurence, Region VII
Mr. Griffith
Mr. Larrabee
Mr. Chambers
Mr. Ellis

R.C.B. 3-26-54

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 28 1953

OFFICE OF THE TREASURER

December 23, 1953

Mr. C. O. Mithendorf, Administrator
U. S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Company
Aiken County, South Carolina
(Columbium-Monazite-Rutile)

Dear Mr. Mithendorf:

Since writing to you on December 1st, we have now had opportunity to fully study your letter of November 17th and the audit of September 28th covering the Aiken Project.

We do not agree with some of the interpretations of the exploration contract Idm-E392 dated August 27, 1952 as amended February 2, 1953.

We are, therefore, submitting in duplicate a claim which we understand must be submitted to the Controller General for final settlement. As we are anxious to arrive at a settlement for this project, we hope that we may have a ruling on our claim from the Controller General in the near future.

If there is any additional information required in connection with our claim, we shall be glad to supply it.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:aim
Encl. (2)

December 23, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 28 1953

letter attached
sent to Code 100 - 800

CLAIM UNDER EXPLORATION CONTRACT NO. IDM-E392, DOCKET NO. DMEA-2576

The audit of September 28, 1953 did not allow the per diem paid to the Laboratory Technician. We feel we are unduly penalized by this disallowance as the per diem should not be considered a salary which was limited to $400 per month ($550 in amendment #1). It should be allowed as a necessary and reasonable direct cost of the exploration work. It is a well known fact in the mining industry that when men are working on a temporary exploration project away from home, the employer must pay a reasonable per diem. It would be impossible to hire a man of this calibre for only $400 per month. As a matter of fact, the per diem of the Laboratory Technician is included in the living expense estimate of $1,680 which is shown on the Schedule "Estimated Costs of the Additional Work" attached to amendment #1 dated February 2, 1953. As we acted in good faith and for the reason outlined above, we believe the per diem for the Laboratory Technician for the period October 1, 1952 through March 31, 1953 should be allowed. This period would amount to 163 days. We want to point out that for the entire period the salary paid to this employee was $550 per month although for part of the time only $400 was allowed under the contract.

The audit allowed a salary of $600 per month for six months for the Superintendent. The reason was that the contract specified four months at $600 for Phase 1 and 2. We agree that the $600 is the allowable maximum per month. However, we should like to point out that the contract is not clear that Phase 1 and 2 should be limited to four months or $2,400. The asterisk in Exhibit "A" is next to the $600 and not the $2,400. As these figures are only estimates and the contract is not clear, we feel we should be allowed the $600 for five months covering the period September, 1952 through January, 1953 which is the actual period of Phase 1 and 2.

We should like to furtherpoint out that in the amendment of February 2, 1953, the asterisk is next to the total amount in connection with the salary for the Superintendent which indicates that the Government realized the original contract was not clear and, therefore, placed the asterisk in the proper place in the amendment.

The audit disallowed $750 and $180.20 for premiums on comprehensive general liability and automobile liability policies. No place in the contract does it state that premiums on these types of insurance are not allowed. As a matter of fact, the form entitled "Operators Monthly Report and Voucher" which is filed monthly has a designation "Liability Insurance". As these types of insurance premiums are "necessary, reasonable and direct costs of performing the exploration work", we feel the $750 and $180.20 should be allowed.

We also want to point out in connection with the disallowance that it does not seem equitable to us that the Government approve our monthly vouchers and pay them, and then come along under audit and disallow expenses which are necessary, reasonable and direct costs of performing the exploration work. All the expenditures under the contract were made by us in good faith. We should like to point out that we kept total expenditures under the estimate. We should further like to point out that due to our work on this important deposit of monazite, rutile and ilmenite bearing gravels, the Government has been able to certify a discovery.

In summary, we wish to state that we feel the following expenses disallowed by the audit should be allowed for the reason stated.

Per diem for Laboratory Technician	$1,141.00
Salary of Superintendent	600.00
Liability Insurance Premiums	930.20
Total	$2,671.20

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo, Treasurer

made

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 2 - 1953

OFFICE OF THE TREASURER

December 1, 1953

Mr. C. O. Mithendorf, Administrator
U. S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Company
Aiken County, South Carolina
(Columbium-Monazite-Rutile)

Dear Mr. Mithendorf:

Thank you for your letter of November 17th in answer to mine of November 4th addressed to Mr. Robert A. Laurence, the Executive Officer, DMEA Field Team, Region VII.

Due to the heavy pressure of work, including the fact that our auditors are in starting our 1953 audit, I haven't as yet had a chance to study your letter of the 17th. I hope to be able to do this within the next week or ten days at which time I shall be in touch with you concerning the points raised in your letter.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:aim

FILE COPY
SURNAME:

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

NOV 17 1953

Mr. E. A. Sale, Treasurer
Callahan Zinc-Lead Company
100 Park Avenue
New York 17, New York

Re: DMA-2576, Idn-E392
Callahan Zinc-Lead Company
Aiken County, South Carolina
(Columbium-Monazite-Rutile)

Dear Mr. Sale:

Reference is made to your letter of November 4, 1953, addressed to Mr. Robert A. Lawrence, the Executive Officer, DMA Field Team, Region VII, requesting a review of the recently issued Audit Report covering the referenced Exploration Project Contract. Mr. Lawrence has forwarded your letter to this office with the request that a reply be sent directly to you.

It is noted that you believe that 8½ months' salaries for a Superintendent and a Laboratory Technician should be allowed as costs of this project, whereas only 6 months' salaries for each were determined to be allowable by the audit. You base your opinion upon Article 6 (a) (8) of the contract which provides, under the title of "Contingencies", for participation by the Government in "Such other necessary, reasonable direct costs of performing the exploration work ***." Article 6 (a) (2) of the contract, however, expressly provides that the requirements and related estimated costs for supervision and technical services, as set forth in Exhibit "A", are allowable maximums. By the terms of Article 5 of the contract items expressly designated as allowable maximum are limitations and any excess cost is for the sole account of the Operator.

It is true that the original contract provided that the project should be brought to completion within a period of 6 months and that Amendment No. 1, providing for additional work, extended the period to 9 months. However, the Exhibit "A", attached to the original contract, specified only 4 months' salaries each for the Superintendent and Laboratory Technician, and the Amendment No. 1 specified only 2 months' additional salaries. Accordingly, it appears that the audit findings are in accordance with the pertinent provisions of the contract, including Exhibit "A" attached thereto, and the Amendment.

Contingency amounts were included in this contract to provide for any unforeseen costs not expressly designated as allowable

R.C.G.
11-17-53

maximum. The Audit Report indicates that the contingency funds were used for several excesses over estimates and for unforeseen expenses. For example:

Phase I - The labor costs were considerably in excess of estimates;

Phase II - The expenses of the Tuscaloosa laboratory unit were unforeseen expenses; and

Phase III - The sundry and mixing expenses were not included in estimates.

It is hoped that the foregoing explanation is sufficient to enable you to settle this account by remitting the amount of $1,326.20 to cover the Government's overpayment to you under this contract.

Sincerely yours,

C. O. Mittendorf

Administrator

EDTalbert/vb
November 13, 1953

Copy to: Docket
Admr. Reading File
Operating Committee
Mr. Lawrence, Region VII
Mr. Ellis
Mr. Chambers

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 1953

November 9, 1953

Mr. Jay L. Chambers
Chief, Contract Administration
and Audit Division
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Co., Inc.
(Columbium-Monazite-Rutile)

Dear Mr. Chambers:

Enclosed is a letter just received from Mr. Salo. Obviously, the question must be answered in Washington rather than here, and I would suggest that, to save time, a reply be sent direct to Mr. Salo from Washington, rather than through this office. A copy of the reply will be sufficient to inform this office of the action taken.

Sincerely,

Robert A. Laurence

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

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
NOV 12 1953

RECEIVED
NOV 9 - 1953
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

OFFICE OF THE TREASURER

November 4, 1953

Mr. Robert A. Laurence
Executive Officer, DMEA-Region 7
Knoxville, Tennessee

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Company
(Columbium-Monazite-Rutile)

Dear Mr. Laurence:

I have now had opportunity to study the Audit Report covering the Aiken Project enclosed with your letter of October 7th.

There are two points I should like to bring to your attention. Paragraph 8 of the contract reads as follows:

> "Contingencies - Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A", as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers."

As you know, all our vouchers were paid as presented, and we were of the opinion that our excess cost of supervision and technical services over our estimated costs was therefore, approved.

Also, we should like to point out that the salary of the Superintendent and the Laboratory Technician was limited to six months in the audit. The original term of the contract as per Article 3 was six months, but the amendment extended the contract for nine months. It is, therefore, our opinion that we were properly charging the cost of supervision and technical services as these salaries were paid for 8-1/2 months.

Our total costs of $48,396.57 and the amount paid by us of $41,495.35 by the Government are both under the contract amounts of $57,593.00 and $47,802.19 respectively. We believe, therefore, that under the provisions of the contingency paragraph quoted above, our costs, particularly the supervision and technical service costs of performing the exploration work are within the limit of the aggregate estimate of costs.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 12 1953

Will you please review the matter in the light of this letter, and see if our position isn't reasonable.

Very truly yours,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:aim

ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

EXECUTIVE OFFICER
DMEA REGION VII

DEPARTMENT OF [illegible]
Defense Minerals Administration
RECEIVED
NOV 12 1953

November 9, 1953

Mr. E. A. Salo
Treasurer
Callahan Zinc-Lead Co., Inc.
100 Park Avenue
New York 17, New York

Re: DMEA-2576, Idm-E392
(Columbium-Monazite-Rutile)

Dear Mr. Salo:

Your letter of November 4, concering the Audit Report on the subject exploration project, has been forwarded to our Washington office, as this office does not have the authority to make any changes in the reports. We will notify you as soon as an opinion is received.

Very truly yours,

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

RAL/mg
cc
Operating Committee
Chambers
Finance Office
Beck
Lynch
File

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

October 8, 1953

Memorandum

To: Administrator

From: Rare & Miscellaneous Metals Division

Subject: Closing Review of Docket No. DMEA-2576
(Monazite, Columbium, Rutile)
Contract No. Idm-E392
Property: Horse Creek Placer
Aiken County, South Carolina

Operator: Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York 17, N. Y.

Amount approved in Contract:

Original contract 8/27/52	$37,960.00
Increased by Amendment No. 1 2/2/53	$19,633.00
T O T A L	$57,593.00
83% Government share	$47,802.19

Total accepted cost:	$ 48,396.57
Government share @ 83%	40,169.15
Project work started:	September 2, 1952
Stopped:	April 30, 1953

Docket Summary:

June 6, 1952	Application date; amount $25,046.00.
X June 10, 1952	Acknowledgement to Applicant.
Y June 12, 1952	Comments of E. J. Carlson, USBM.
X June 16, 1952	Comments of Paul L. Weis, USGS.
X June 19, 1952	Further comments by Paul L. Weis, USGS.
June 23, 1952	Letter to Executive Officer, DMEA Field Team, Region VII, which stated that inasmuch as the Bureau of Mines had knowledge of the area involved in the application through former drillings by the USBM and others, a field examination was not necessary. Enclosed with

X — Omit

the letter was a proposed contract and estimate of the cost of the project. Field Team requested to make comments on the proposed contract.

June 27, 1952	Letter to Applicant - company re necessity for DMEA to have a copy of an executed lease on the Arthur Burdo land and likewise on the United Merchants and Manufacturers Corp. land, both of which areas are considered as part of subject project.
June 30, 1952	Received comments from Field Team, Region VII, dated June 26, 1952, on proposed contract, suggesting, among other items, that contract be prepared on the short form.
August 11, 1952	Draft of proposed contract, prepared by Rare and Miscellaneous Metals Division, referred to Legal Division.
August 19, 1952	Contract in satisfactory form returned to Rare and Misc. Metals Division from Legal Division.
August 22, 1952	Six copies of proposed contract, undated and bearing no contract number in total amount of $37,960.00 (83% Government share $31,506.80) transmitted to Applicant-company for signature before being signed by the Administrator.
August 27, 1952	Received original and 5 copies of contract duly signed by authorized representative of Applicant-company. Contract was signed by the Administrator, dated August 27, 1952, and assigned Contract No. Idm-E392.
August 29, 1952	Operator's copy of Contract No. Idm-E392, dated August 27, 1952, signed for the Government, forwarded to Operator; Field Team's and Finance Officer's copies forwarded to Executive Officer, Region VII.
October 6, 1952	Interim Report by Wm. A. Beck, USBM, and Robert F. Griffith, USBM.
October 16, 1952	Interim Report by Robert F. Griffith, USBM.
October 20, 1952	Letter by Owen H. Perry regarding possible use of equipment at the Tuscaloosa Station in the second phase of their testing operation.

December 1, 1952	Interim Report by Wm. A. Beck, USBM, and H. S. Johnson, Jr., USGS, reporting that during the month a bulk sample consisting of 18 tons was sent to the USBM laboratory at Tuscaloosa, Alabama, for testing.
December 31, 1952	Memorandum by Executive Officer, Region VII, to Operating Committee enclosing (1) Drill and Laboratory logs; (2) Map showing holes drilled to December 1, 1952, and (3) Cross Sections of holes drilled to December 1, 1952.
January 6, 1953	Interim Report by H. S. Johnson, Jr., USGS.
January 26, 1953	Operator's request that contract be amended to provide addition funds, amount to $19,633.00, for additional work under the contract necessary to the proper determination of tonnages, recoverable values, and economics. Total funds under original contract expended. Copies of request referred to USBM and USGS Commodity Members for comment.
January 29, 1953	Matter of amending contract referred to the Legal Division by Rare and Miscellaneous Metals Division.
January 30, 1953	Comments of R. F. Griffith, USBM, concurring in approval of amendment.
February 2, 1953	Amendment cleared with Region VII by telephone. Memorandum from Rare and Miscellaneous Metals Division to Operating Committee, referring Amendment No. 1 for approval of the Committee and signature of the Administrator, if approved.
February 3, 1953	Operator's representative signed Amendment No. 1 in Washington, and the "Operator's Copy", with covering letter, was handed to him.
February 5, 1953	"Field Team's Copy" and "Finance Office's Copy" of Amendment No. 1, signed by the Operator and the Administrator, transmitted to Executive Officer, DMEA Field Team, Region VII.
February 5, 1953	Received Interim Report of visit to property on January 29, 1953, by H. S. Johnson, Jr., USGS.
March 2, 1953	Amendment No. 2, to include the Blackmon tract of land in the contract, transmitted to Operator for signature.

March 6, 1953	Received company's letter March 5, 1953, returning five signed copies Amendment No. 2, and the Operator's copy was retained.
March 11, 1953	"Field Team's Copy" and "Finance Office Copy" Amendment No. 2, dated March 2, 1953, forwarded to Executive Officer, Region VII.
May 13, 1953	Operator's letter regarding delivery under separate cover, of five copies of the final engineering report to DMEA. One additional copy was delivered to the office of the Defense Materials Procurement Agency. The Operator's final report consisted of three separately bound sections: (1) the report itself, (2) Supplement "A" containing map and cross sections, and (3) Supplement "B" containing assay reports. Letter further advised that at the suggestion of the D.M.P.A. some additional assays were being run as to columbium, tantalum and rutile, and the returns from these would be submitted when available. All equipment had been stored in the building the Operator rented as a laboratory until final disposition. One set of Operator's report (3 volumes) to Docket and Executive Officer, Region VII.
June 8, 1953	Received Field Team's memorandum dated June 5, 1953, transmitting Field Team's final report dated June 4, 1953, by Wm. A. Beck, Mining Engineer, USBM, and H. S. Johnson, Jr., Geologist, USGS, recommending project be certified.
June 18, 1953	Comments by D. M. Larrabee, USGS, on Field Team Report.
June 19, 1953	Comments by R. F. Griffith, USBM, on Field Team's Report.
July 30, 1953	Letter by Chief, Contract Administration and Audit Division to Executive Officer, Region VII, suggesting final audit be arranged on or about August 25, 1953.
August 11, 1953	Letter to Mr. Owen H. Perry, in care of the Operator's New York Office, to contact the Executive Officer, Region VII, regarding arrangements to make final audit of project accounts.
September 10, 1953	Certification of Discovery and letters written, but held for completion of final audit.

September 25, 1953	Mr. Chambers advised Mr. Ellis that final figures as shown by final audit are: Allowable cost of project $48,396.57, with Government share being $40,169.15.
September 28, 1953	Final Audit report.
September 30, 1953	Certification of Discovery and letter to the Operator, and a letter to Mr. Irving Gumbel, Director, Materials Division, Emergency Procurement Service, enclosing copies of the certification and final report of the Field Team, were mailed, with respective copies to Field Team, Region VII.

Proposed Project was cont.?

Resume of Work:

The contract, as amended, provided for churn-drilling approximately 3,300 feet of holes. The drill lines were specified to be 500 to 1,000 feet apart according to the terrain, and the holes in each line to be 100 to 200 feet apart according to local conditions. Following the drilling operation, four tightly laced timbered shafts were to be sunk to an approximate depth of 25 feet each, the shafts to be approximately 4 ft. x 5 ft. in cross section. The contract called for two of the shafts to be located adjacent to 6-inch drill holes and two adjacent to 4-inch drill holes. The contract furthermore provided for sampling, laboratory concentration, and analytical determination of the drill-hole cuttings and also the bulk samples taken from the test shafts.

The project resulted in the discovery or development of approximately 18,334,000 cubic yards of dredgeable material having a heavy mineral content as follows:

Monazite	1.56	lbs. per cubic yard
Rutile	2.60	" " " "
Zircon	4.42	" " " "
Ilmenite	6.63	" " " "
Saleable Gravel (+4 Mesh)	139.9	" " " "

Columbium is not shown in the list above; however, its presence was revealed in the analytical work. Additional laboratory testing, now in process, should bring out its commercial value. As stated in the Operator's letter dated May 13, 1953, at which time the Operator's final engineering report was submitted to DMEA and DMPA, the Operator will make these results available when the laboratory testing is completed.

Cont on pg 7.

Project Cost: (Per final Audit Certificate, September 28, 1953)

Total cost as billed by contractor		$ 57,509.40
Less: Proceeds from disposition of property		$ 2,293.21
Net claimed cost		$ 55,216.19
Exceptions (see Audit Report for details):		
Prior to this audit	$ -0-	
During this audit	$ 6,819.62	$ 6,819.62
Total Accepted Cost		$ 48,396.57
Government participation @ 85%		$ 40,169.15

Comments and Recommendations:

It is my understanding that Operator is attempting to arrange for private capital with which to dismantle a dredge in Montana and reassemble it on subject property for the purpose of bringing this rather valuable property into production.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare & Misc. Metals Division

10/13/53 gla

DEPARTMENT OF THE INTERIOR
Bureau of Land Management
RECEIVED

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

cc: Opr. Com.
Chambers
H. Miller
Lynch
Laurence
Beck

October 7, 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Company
100 Park Avenue
New York 17, N.Y.

Re: DMEA-2576, Idm-E 392,(Columbium-
Callahan Zinc-Lead Co. Monazite-Rutile)

Dear Mr. Salo:

Enclosed are copies of an Audit Certificate and the Audit Report issued as a result of the recent audit made on your contract made by Mr. E. D. Talbert, Assistant Chief, Contract Administration and Audit Division of the Defense Minerals Exploration Administration.

You will note from the audit report that the total accepted costs of the project are $48,396.57. The Government's portion of these costs is 83 percent or $40,169.15 as shown on the audit certificate.

A refund of $1,326.20 is in order. This is computed from our records as follows:

MF-104, payments:	September, 1952	$3,819.83	
	October	9,227.84	
	November	5,123.17	
	December	6,051.70	
	January 1953	5,722.04	
	February	6,517.48	
	March	5,033.29	
			$41,495.35
Less:			
	Amount of Audit Certificate		40,169.15
	Overpayment, for refund		1,326.20

Please make the check payable to the Treasurer of the United States and mail it to this office for processing.

Please accept my thanks for the co-operation and courtesies extended Mr. Talbert and Mr. Beck by you and Mr. Perry during the course of this audit.

Very truly yours,

Executive Officer, DMEA-Region 7

AB/zm

FILE COPY
SURNAME: 800

Talbot
Chamberlin

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

OCT - 1 1953

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

Re: DMEA-2576, Idn-F392
Callahan Zinc-Lead Company

Dear Mr. Lawrence:

Enclosed herewith are the original and two copies of the Audit Report and the original and three copies of the Audit Certificate issued as a result of the recent audit of the referenced project.

If the factual information contained in the Report and Certificate are acceptable to you, please forward the original Audit Report and the original and one copy of the Audit Certificate to the DMEA Regional Finance Officer and one copy of each to the Operator, retaining one copy of each for your files. It is suggested that the Operator's copy be forwarded by a letter requesting refund of the overpayment, which is computed from our records as follows:

MF-104 payments:	September, 1952	$3,819.83	
	October	9,227.84	
	November	5,123.17	
	December	6,051.70	
	January, 1953	5,722.04	
	February	6,517.48	
	March	5,033.29	41,495.35
Less:			
Amount of Audit Certificate			40,169.15
Overpayment, for refund			$ 1,326.20

No payments, of course, should be made on the April and May, 1953, Forms MF-104, which you have been holding in suspense, but distribution of the copies thereof should be effected in the normal manner.

It will be noted from the Audit Certificate and Report that the amount of disallowances is at variance to a small extent, from the figure informally furnished to you and Mr. Beck at the conclusion of the field audit work. This difference is due to a few miscalculations in the field plus the subsequent disallowance of fines and collateral

R.L.G.
10-1-53

forfeitures included in the amount claimed for reimbursing the crew for the expenses of the move from Helena, Montana, to Aiken, South Carolina. These expenses were unsupported at the time of the field audit, but Mr. Salo subsequently submitted the applicable documents, which included receipts for fines and collaterals as well as the allowable gas, oil, board and lodging.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
September 30, 1953

Copy to: Docket
Admr. Reading File
Mrs. Piper
Mr. Chambers

FILE COPY
SURNAME:

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

SEP 30 1953

Mr. Irving Gumbel, Director
Materials Division
Emergency Procurement Service
General Services Administration
General Services Administration Building
Washington 25, D. C.

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Callahan Zinc-Lead Company, Inc.
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Gumbel:

Enclosed is a copy of a certification of discovery or development certified to the captioned project, together with a copy of the Field Team's final report.

The project contract was signed August 27, 1952, with Government participation to the extent of 83 percent, in an exploration project estimated to cost $37,960.00 (Government share $31,506.80). The results of the initial drilling, in 1952, prompted the Operator to apply to DMEA for assistance to further explore and extend the limits of the Horse Creek deposit. On February 2, 1953, by amendment, the total amount of the contract was increased by $19,633.00, bringing the total of the contract to $57,593.00 (83 percent Government share - $47,802.19). Project work under the contract was completed on April 30, 1953. The final audit of the expenditures made during the life of the contract shows the total accepted cost of the project is $48,396.57 (83 percent Government share - $40,169.15).

The contract, as amended, provided for churn-drilling approximately 3,300 feet of holes. The drill lines were specified to be 500 to 1,000 feet apart according to the terrain, and the holes in each line to be 100 to 200 feet apart according to local conditions. Following the drilling operation, four tightly laced timbered shafts were to be sunk to an approximate depth of 25 feet each, the shafts to be approximately 4 ft. x 5 ft. in cross section. The contract called for two of the shafts to be located adjacent to 6-inch drill holes and two adjacent to 4-inch drill holes. The contract furthermore provided for sampling, laboratory concentration, and analytical determination of the drill-hole cuttings and also the bulk samples taken from the test shafts.

R.C.G. 9-30-53

The project resulted in the discovery or development of approximately 18,334,000 cubic yards of dredgeable material having a heavy mineral content as follows:

Monazite	1.56	lbs. per cubic yard
Rutile	2.60	" " " "
Zircon	4.42	" " " "
Ilmenite	6.63	" " " "
Saleable Gravel (+4 Mesh).	139.9	" " " "

Columbium is not shown in the list above; however, its presence was revealed in the analytical work. Additional laboratory testing, now in process, should bring out its commercial value.

By letter dated May 13, 1953, the Operator's representative stated that a complete set of three bound volumes of the Operator's final engineering report had been delivered to the Defense Materials Procurement Agency.

Sincerely yours,

Frank E. Johnson
657
Acting Administrator

Enclosures 2

EWEllis/gla
9-28-53
cc to: Adm. Reading File
Operating Committee
Messrs. Hedges, Rm. 4604
Thayer, Rm. 5216 GSA
F. E. Johnson
Ellis
Chambers
Docket
Field Team, Region VII (2)

700
FILE COPY
SURNAME:

Ellis
Pritzie
Arkoff
Chandler
Kimbrel
Hedges
Selfridge

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

Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York 17, N. Y.

SEP 30 1953

Re: Docket No. [illegible]A-2576
(Monazite-Columbium-Rutile
Contract No. I[illegible]-[illegible]392
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Hall:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all of the land described in Article 2 of the above identified contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all monazite, columbium, rutile, sand and gravel, and other valuable minerals produced from the claims described in Article 2 of the contract, from August 27, 1952, the date of the contract, are subject to the Government's percentage royalty as set forth in the contract until the sum of $40,169.15 is paid, or until August 27, 1962.

Payments should be made to Mr. Robert A. Laurence, Executive Director, DMA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee. Checks should be payable to the Treasurer of the United States. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. Laurence of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period, please notify Mr. Laurence at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

Frank E. Johnson
ACTING Administrator

EWEllis/gla 9-25-53
cc to: Adm. Reading File
Operating Committee
Mr. Hedges, Rm. 4604
Mr. Thayer, Rm. 5216, GSA
DMA Field Team, Region VII
Enclosure
Docket
Chambers

Ellis
F. E. Johnson

R.C.G. 9-30-53

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

Mr. Joseph T. Hall, President
Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York 17, N. Y.

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Contract No. Idm-E392
Horse Creek Placer
Aiken County, South Carolina

Dear Mr. Hall:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all of the land described in Article 2 of the above identified contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all monazite, columbium, rutile, sand and gravel, and other valuable minerals produced from the claims described in Article 2 of the contract, from August 27, 1952, the date of the contract, are subject to the Government's percentage royalty as set forth in the contract until the sum of ~~$41,062.79 (subject to final audit)~~ $40,169.15 is paid, or until August 27, 1962.

Payments should be made to Mr. Robert A. Laurence, Executive Director, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee. Checks should be payable to the Treasurer of the United States. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. Laurence of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period, please notify Mr. Laurence at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

Enclosure

Administrator

FILE COPY
SURNAME:

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

SEP 29 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Exploration Project
Contract No. Idm-E392
Docket No. DMA-2576

Dear Mr. Salo:

Returned herewith is the additional information, which you forwarded with your letter of September 25, 1953, in support of your charge of $845.00 repair costs to the referenced project contract.

This material is adequate for the purposes of the audit. Your promptness in furnishing same is appreciated.

For your information the audit report will be completed and forwarded to Mr. Laurence in Knoxville, Tennessee, within the next few days. Upon his acceptance thereof you will receive your copy from him.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert, Assistant Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
September 29, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers

SEP 23 1953

September 21, 1953

WAIVER OF GOVERNMENT'S INTEREST IN PROPERTY

TO: Callahan Zinc-Lead Company, Inc.
100 Park Avenue, New York 17, New York

Operator under Exploration Project Contract IDM-E 292,
Docket No. 2576, dated August 27, 1952

The United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, under the terms of the above described contract, hereby waives its interest in all property acquired under that contract is listed below:

Group of small tools and supplies bought during the life of the contract.

Dated Sept. 21, 1953

THE UNITED STATES OF AMERICA

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

sm.
cc:
Peek
Charbers
Finance Office
Lynch
Files

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
SEP 18 1953

September 16, 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Company
100 Park Avenue
New York 17, N. Y.

Re: DMEA-2576, Idm-E 392
Monazite-Columbium-rutile

Dear Mr. Salo:

Reference is made to your bid of $125.00 on the following items:

1. Geiger Counter
2. Detecto Platform scale
3. Ohans scale
4. Hot plate

As your bid is the highest received for the above items the DMEA Field Team, Region VII accepts it. Payment of the bid amount will be handled on the final audit.

I wish to take this opportunity to thank you and Mr. Perry for your cooperation on the recent audit of your account by Mr. Talbert. I also hope that you were able to find the material requested by Mr. Talbert in your New York office so that the final audit may be hastened.

Very truly yours,

Wm. A. Beck

WAB/sm
cc:
Beck
Lynch
Laurence
D. Chambers

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
SEP 23 1953

September 18, 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Co. Inc.
100 Park Avenue
New York 17, N. Y.

Re: DMEA-2576, Contract Idm-E 392
Monazite-Columbium-Rutile

Dear Mr. Salo:

Receipt is hereby acknowledged of photostatic copies of the advertisement for bids on the equipment which was purchased on the subject contract in the joint account of your company and the Government of the United States, and photostatic copies of bids received.

The Government hereby accepts the following bids as they were the highest received:

1.	1-1952 Dodge Power Wagon Truck Carpo Engineering and Mfg. Co. Jacksonville, Fla.	$1400.00
2.	1-1947 Willys Jeep Gilbert L. Klemann, Augusta, Ga.	125.00
3.	1-1 1/2" Marlow Water Pump Carpo Engineering & Mfg. Co. Jacksonville, Fla.	50.00
4.	1-2" Marlow Water Pump. Carpo Engineering & Mfg. Co. Jacksonville, Fla.	120.00
5.	1 Simplicity Engineering Co, 2' x 3' double deck screen. Carpo Engineering & Mfg. Co. Jacksonville, Fla.	200.00
6.	1 Humphrey Test Spiral Complete Carpo Engineering & Mfg. Co. Jacksonville, Fla.	300.00
7.	1 Geiger Counter 1 Chans Scale 1 Detecto Platform Scale 1 Hot plate Above four items bid in one group .... Callahan Zinc-Lead Co. Inc. New York, N.Y.	125.00
	Total	$2,320.00
	Less advertising Cost	26.79
		$2,293.21

Very truly yours,

ACTING EXECUTIVE OFFICER
DMEA REGION VII

CARSWELL & DUNBAR

YARD AT WALTER FARM MACHINERY CO.
Sand Bar Ferry Rd. -:- Phone 2-8437
Home Address: 257 Telfair St.
AUGUSTA, GA.

USED PARTS FOR ALL CARS & TRUCKS

ARMY SURPLUS VEHICLES & PARTS . . . USED TIRES & TUBES

Aug. 1, 1953

Mr O. H. Perry

Henderson Hotel

Aiken S. C.

Dear Sir:

We submit the following offers for the two government owned vehicles which are in your custody and are offered for sale.

For the 1946 model Ford pickup truck- ---- ----------$205.00

For the 1952 model Dodge power wagon truck----------$600.00

EQUIPMENT SALE

Bids Invited

1952 Dodge Truck, four wheel drive with winch. Marlow Portable Water Pump 1½ inch, Briggs - Stratton Motor, Marlow Portable Water Pump 2 inch, Wisconsin motor, Vibrator Screen, Simplicity 2'x3', double deck. Detecto Platform Scale, dial reading, 300 lb. cap. Humphrey Spiral Concentrator, Test Unit, new complete. Industrial Hot Plate, HeviDuty, 1800W. 110-220V. Laboratory Balance, Ohaus, cap. 3000 gr. with weights. Geiger Counter El-Tronics— Model SM-3. Well Drill—Cable Type, 31' mast, complete 6" tools, mounted on Ford 1½ ton truck, excellent condition. Ford 1-Ton Pickup truck 1946 good condition.

Can be seen at Grover Derricks Sinclair Service Station on Old U. S. No. 1 Highway, Clearwater, S. C. 9 a.m. to 10 a.m. this week., or phone O. H. Perry, Hotel Henderson, Aiken, S. C.

Yours very truly,

Carswell & Dunbar

257 Telfair St.

Augusta Ga.

By- Paul Dunbar Jr

Paul Dunbar Jr (Partner)

[illegible] TRUCKS
M. STARR SMITH, President

[illegible]
AUGUSTA, GEORGIA

PLYMOUTH PASSENGER CARS
J. C. COLEMAN, Vice-President

July 27, 1953

Mr. O. H. Perry
Henderson Hotel
Aiken, South Carolina

Dear Mr. Perry:

We offer for your consideration and immediate acceptance a price of $50.00 for your 1947 Willys Jeep, serial #107943, delivered our Lot, 616 Greene Street, Augusta, Georgia.

Yours very truly,

STARR SMITH MOTORS, INC.

J. C. Coleman
J. C. COLEMAN
VICE-PRESIDENT

JCC/ms

ONLY DODGE BUILDS Job-Rated TRUCKS

MORGAN TRUCK & TRACTOR CO.

SYMBOL OF SERVICE

INTERNATIONAL HARVESTER

640 Twiggs Street Phone: 2-8368

AUGUSTA, GEORGIA

August 1, 1953.

Mr. O. H. Perry,
Henderson Hotel,
Aiken, S. C.

We herewith submit our bid as follows on two U. S. Government Motor Trucks now in your custody:

1 1946 Ford Pickup Truck	$175.00
1 1952 Dodge Power Wagon	$475.00
(Total both vehicles)	$650.00

Yours very truly,

Morgan Truck & Tractor Co.,
Twiggs & Fenwick St.,
Augusta, Ga.

by: C W L Payne
Secty & Treas.

INTERNATIONAL

MOTOR SALES CORPORATION
OF AUGUSTA

WILLYS CARS — TRUCKS — "JEEP"

SALES — SERVICE — PARTS

H. C. McGOWAN, MANAGER
G. H. SEAGO, MGR. SERVICE DEPT.

466 BROAD STREET
AUGUSTA, GEORGIA

To C.H. Perry.
Henderson Hotel.
Aiken. S.C.

July. 27.1953

Motor Sales Corporation Of Augusta hereby submits a bid of $100.00 dollars.
For one 1947 CJ2-A jeep. Delivered at 466 Broad St. Augusta. GA.

MOTOR SALES CORPORATION
OF AUGUSTA
466 Broad Street Augusta, Georgia

C H Perry

28 July 1953

Sold To: Gilbert L. Klemann
2815 Richmond Hill Road
Augusta, Georgia

1947 Willys Jeep ....Model CJ2A.....Used
Serial # 107943.....Motor# J110921

Price: $125.00

Equipped with Power take-off.

I hereby request delivery of above vehicle and hereby certify that delivery of same was made to me in the State of Georgia at 1215 Broad Street, Augusta, Georgia.

Signed: Gilbert L. Klemann
Gilbert L. Klemann.

Full payment recieved this date O. H. Perry: O. H. Perry

GILBERT L. KLEMANN, M. D.

OFFICE 2-1287 702 SOUTHERN FINANCE BUILDING RESIDENCE 6-4258

AUGUSTA, GEORGIA

July 27, 1953

O. H. Perry
Henderson Hotel
Aiken, S.C.

I herewith submit a bid of $125.00 for your 1947 jeep for immediate consideration and delivery to 1215 Broad St., Augusta, Ga.

Gilbert L. Klemann

Gilbert L. Kle mann, M.D.

August 10, 1953

Mr. O.H. Perry
Henderson Hotel
Aiken, South Carolina

Dear Sir:

We submit the following bid on the equipment you have in your laboratory.

Item	Bid	Accepted
Body Power Wagon	$1400.00	1400 -
1 1/2" Marlow Water Pump w B.&S. Motor	50.00	50 -
2" Marlow water Pump w Wisconsin Motor	120.00	120 -
Geiger Counter	50.00	No
Pallets Platform Scales	30.00	No
O. Hauss Scale & pot plate	20.00	No
Simplicity Mechanical Screen		
2'x3' Hobart deck & extra screen	200.00	200 -
One Humphry test spiral	300.00	300 -
Total	2170.00	$ 2070.00

This is good for any item or all items.

Carpco Engineering and Manufacturing

Robert V. Spencer

Request the above accepted items to the total of $2070.00

Robert V. Spencer

Mr. O. H. Perry -

I would like to offer you $40.00 for Ohaus scale and hot plate which you have in your laboratory

W. M. Black
2419 Peach Orchard Rd.
Augusta, Ga

FILE COPY
SURNAME:

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

REGISTERED

SEP 15 1953

Mr. E. A. Sale, Treasurer
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Exploration Project
Contract No. Idm-5388
Docket No. DMA-1909

Dear Mr. Sale:

Returned herewith are the details on the $509.37 expenditure claimed for moving the equipment and crew from Montana to Aiken. Your courtesy in promptly forwarding these documents is appreciated. I regret, however, that it will be necessary to disallow the collateral fines and fees included in these expenses.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert, Assistant Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
September 15, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers

REGISTERED

HHR
9-15-53

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

OFFICE OF THE TREASURER

August 28, 1953

Mr. E. D. Talbert
Contract Administration and Audit Division
Defense Minerals Exploration Authority
Washington, D. C.

Dear Mr. Talbert:

This is to confirm our telephone conversation of today in which Mr. Perry and I agreed to meet you and Mr. Beck of your Knoxville, Tennessee office on Tuesday, September 8th at the Henderson Hotel in Aiken, South Carolina.

Very truly yours,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:aim
CC: Mr. Beck
Mr. Perry

FILE COPY
SURNAME:

Talbert

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

Contract Admin. & Audit Division
Defense Minerals Exploration Admin.
1.X3923.970 Working Dumd,
DMEA

August 28, 1953

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

In re audit Callahan Zinc-Lead, DMEA-2576, E-392, Mr. Salo advises he and Mr. Perry will meet me at Henderson Hotel, Aiken, on Tuesday morning, September 8. Please retel whether Mr. Beck can be there at that time.

(Signed) E. D. Talbert

E. D. Talbert, Assistant Chief
Contract Administration
and Audit Division

EDTalbert/wb
August 28, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.G.S.
8-28-53

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

Columbia University Administration
RECEIVED
AUG 17 1953

August 14, 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Company
100 Park Avenue
New York 17, New York

Re: DMEA-2576, Idm-E-392
(Rutile, monazite, columbium)

Dear Mr. Salo:

I have just received your letter of August 13, indicating that you or Mr. Perry may be available during the first or second week of September for the final audit of the exploration contract. Until Mr. Talbert arrives here, I will not know if he can be available then, but possibly Mr. Ellis or Mr. Chambers can advise you on this.

Very truly yours,

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

RAL/mg
cc - Ellis (DMEA)
Chambers (DMEA)
Beck
Laurence
Lynch
Johnson

CALLAHAN ZINC-LEAD COMPANY, INC.

OFFICE OF THE TREASURER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 18 1953

August 13, 1953

Mr. Robert A. Laurence, Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Bldg.
Knoxville 2, Tennessee Re: DMEA-2576(Rutile etc.)

Dear Mr. Laurence:

It is too bad that your auditors were not available this week when Mr. Perry and I could have met them in Aiken to complete the audit for expenditures on the Aiken project. It is my understanding that your Mr. Talbert will be available to perform the audit the last week in August. I had expected to be available to come south during the last week in August but it is beginning to look now as if I have to be here in New York and therefore, could not make it until the first or second week in September. Also, we are not sure when Mr. Perry will come east as he is leaving this week-end for a meeting in Spokane, Washington and Chicago in connection with the project.

We are, of course, just as anxious as your office to have the audit completed so we may wind up the exploration contract. If by any chance Mr. Perry and I can be in the south the last week in August, I shall immediately contact you. Could you let me know when in September Mr. Talbert would be available to perform the audit.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:ms
CC: Mr. Ernest Wm. Ellis

Aug. 20 195
I read this letter to Mr. Ch
and he said he thought t
first or second week in S
would be O.K.
E.W.E.

FILE COPY
700 SURNAME:

Ellis
Cramer
Matthews

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

AUG 11 1953

Mr. Owen H. Perry
c/o Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576
(Monazite, columbium, rutile)
Contract No. Tdm-2392
Aiken County, South Carolina

Dear Mr. Perry:

On May 12, 1953, you submitted your engineering report on the captioned project. At that time you stated that, at the suggestion of DMPA, additional assays were being run for columbium, tantalum, and rutile on the concentrate resulting from the test pit work. Kindly let us know if this work has been completed and, if so, we would appreciate receiving a report on the results obtained.

It is my understanding that our auditors have attempted to contact you with the view of auditing the project books. It is expected that Mr. E. D. Talbert, DMEA auditor of the Washington Office, will be at the Regional Office, Region VII, Room 13, Post Office Building, Knoxville, 2, Tennessee, on August 24. He can be contacted through Mr. Robert A. Laurence, the Executive Officer. Kindly inform us if you can arrange to be in Knoxville at that time and submit the books covering the exploration project for audit. If the books are in New York and other arrangements have to be made, we would appreciate receiving your early reply in order that a mutually convenient time and place for the audit may be worked out.

Sincerely yours,

SIGNED
Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

EWEllis/db/gla 8-11-53
cc to: Adm. Reading File
Docket
Messrs. E.J.Carlson, Rm. 3649
D.M.Larrabee, Rm. G-232, GSA
R.F.Griffith, Rm. 3641A
Ellis
DMEA Field Team, Region VII (2)

R.C.G.
8-11-53

FILE COPY
SURNAME: pc
DOC
Talbert
Chambers

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

JUL 3 0 1953

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

Re: DMEA-2576, Idn-1392
Callahan Zinc-Lead Company

Dear Mr. Laurence:

Reference is made to the recent correspondence between our offices relative to a final audit of the above-cited project, which at the latest has been scheduled "for some time in August".

Could it be possible to arrange for this audit to be performed on or about August 25, 1953?

Such arrangements would be greatly appreciated since Mr. Talbert is leaving within the next few days for an audit trip to the West and Southwest and the tentative schedule for his return route indicates that he will pass through Knoxville during the week end of August 22 to 23. If the arrangements can be made for the audit on or about August 25, and you will so advise me, I can contact Mr. Talbert and have him stop off at Knoxville.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

LDTalbert/wb
July 30, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers
Mr. Talbert
Mrs. Cora Piper

ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

July 14, 1953

Mr. E. A. Salo
Callahan Zinc-Lead Company
100 Park Avenue
New York, N. Y.

AIRMAIL

Re: DMEA-2576, (Rutile, etc.)

Dear Mr. Salo:

Your telegram of July 13 and letter of the same date have been received, and accordingly we will tentatively schedule the audit for the exploration project at Aiken for some time in August. Please give us as much advance notice as possible when you and Mr. Perry will be available to come to Aiken, as it will be necessary to arrange a date suitable to Mr. Talbert, of the Contract Administration and Audit Division.

It will facilitate the audit and final settlement of the project account if you will provide a full account of the disposition of equipment and supplies purchased for the joint account of the Operator and the Government under this contract, as provided in Article 11 of the contract, at the earliest possible date.

Yours very truly,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/sm
cc:
Beck
Opr. Com. Talbert or Chambers
Finance Office
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13, POST OFFICE BLDG.
WASHINGTON 25, D. C.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
RECEIVED
JUL 10 1953

July 8, 1953

Mr. E.D. Talbert, Assistant Chief
Contract Administration & Audit Div.
Defense Minerals Exploration Administration
Dept. of the Interior
Washington 25, D. C.

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Co.
(Monazite, Rutile, Columbium)

Dear Mr. Talbert:

A letter from Joseph T. Hall of Callahan Zinc-Lead Co., dated July 6, states that Mr. Perry is thought to be enroute east from Montana, but his expected time of arrival in New York is not known. Mr. Salo is also out of town, expected back in New York on July 13. Mr. Hall will advise us as soon as he gets any definite word about Mr. Perry's plans. But it does not look hopeful for making the audit at Aiken on July 16.

Sincerely,

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Region 7

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
JUL 8 1953

July 6, 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Co.
100 Park Avenue
New York, N. Y.

Re: DMEA-2576, Idm-E 392
(monazite, rutile, columbium)

Dear Mr. Salo:

We have received your final voucher and monthly report for the subject exploration contract.

These will be processed at the time of the final audit, which we hope to make about July 16, providing Mr. Perry or someone else is available at Aiken at that time.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/am.
cc:
Beck
Lynch
Opr. Com.
Files

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

July 3, 1953

Mr. E. D. Talbert
Assistant Chief
Contract Administration and Audit Division
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Mr. Talbert:

We will look for you on July 14, and Mr. Beck is prepared to go to Cartersville, Aiken, and other sites if necessary, with you during the rest of that week.

Copy of a letter to Callahan Zinc-Lead Company is attached. Mr. Beck says no one connected with the company is now at Aiken and that only Mr. Perry has access to the records. So it may be that we can't go there this time. I'll advise you as soon as we hear from Mr. Salo.

We have requested your room reservation at the Farragut.

Sincerely,

Robert A. Laurence

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

Enclosure

COPY
mg

July 3, 1953

Mr. E. A. Salo
Treasurer
Callahan Zinc-Lead Co., Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576, Idm-E392
(Monazite-Columbium-Rutile)
Aiken County, South Carolina

Dear Mr. Salo:

The DMEA auditors will be here during the week of July 13, and would like to visit the project office at Aiken, South Carolina, on July 15, 16 or 17, to make the on-site audit of the records of this contract. We would like to complete this so as to close our records on this project.

We have had no word as to when Mr. Perry will return. If he is not going to be in Aiken at that time, would it be possible to arrange for an audit without requiring Mr. Perry's presence?

Very truly yours,

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

RAL/mg
cc
Beck
Lynch
files
Talbert

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

800

JUL 1 1953

see second page DMEA-2576 Callahan Zinc-Lead Co.

AIR MAIL

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

Dear Mr. Lawrence:

Receipt is acknowledged of your letter of June 25, 1953, advising that you have ten completed and terminated contracts requiring final audit or review, on none of which you "are holding final vouchers of fairly large amounts."

According to our records it appears that the final payments on the following six projects have been processed by the regional Certifying Officer:

DMEA-2524,	Ida-F-430	Buchanan & Buchanan
2557	432	Anglin & Elkins
2561	420	Fenton & Fenton
2619	439	A. Ward
2802	499	Murphy Mining Company
2910	513	Davis & Berkmeyer

However, since all six of these contracts are primarily on an agreed unit costs basis, no disallowances are anticipated.

Included in your list of ten projects is DMEA-2345, Ida-F-303, Bess Gaston Mica Miners, for which you state the work under Amendment No. 2 has been completed, but the final MT-104 has not yet been received. Since Amendment No. 2 was not signed until June 8, 1953, it appears that possibly part of this work was performed prior to the issuance of the amendment. If so, the question arises as to whether the Operator was advised informally to proceed with the work with the understanding that the amendment would be forthcoming. In view of this technicality it is suggested that final payment be withheld until a Report of Review is issued.

A preliminary review of the files on DMEA-2375, Ida-F-329, Robinson & West, and DMEA-2416, Ida-F-328, Yancey Mica Miners, indicates the possibility of some disallowances. Therefore, it is suggested that final payments on these two projects be withheld pending issuance of the Reports of Review.

With regard to DMA-2576, Idn-L-392, Callahan Lead-Zinc Company, for which you have been holding the final payment pending a site audit of the Operator's records, the question arises as to the necessity of delaying the audit pending the return of Mr. Perry to the project office at Aiken, South Carolina. If the records are in Aiken would it not be possible to arrange for an audit without requiring Mr. Perry's presence?

I concur with you that, even though the final MF-104 on DMA-1709, Idn-E-321, Hale-Georgia Minerals Company has not been received, an interim site audit may be advisable. Quite possibly the final voucher could then be taken care of by a Report of Review. It appears that most of the questions raised by the preliminary review during my April visit to Knoxville have been eliminated by Amendment No. 3.

In order to make these reviews and audits I am planning to arrive in Knoxville on Tuesday morning, July 14, 1953. One day probably will be sufficient for the reviews, after which I can proceed to Cartersville, Georgia, and Aiken, South Carolina, provided that you are able to make the necessary arrangements for the audits.

If for any reason the timing of this visit is inappropriate, please advise, and suggest a time in the near future that will be satisfactory.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert, Assistant Chief
Contract Administration
and Audit Division

EDTalbert/wb
July 1, 1953

Copy to: Mails & Files
Admr. Reading File
Mrs. Piper
Mr. Houk
Mr. Ellis
Mr. Martin
Mr. Talbert

6/22/53 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 19 1953

June 19, 1953

Memorandum

To: Ernest Wm. Ellis, Chief, Rare and Miscellaneous Metals Division, DMEA, Room 4640

From: R. F. Griffith, Rare and Precious Metals Branch

Re: Monazite, Rutile, Columbium

Subject: Docket No. DMEA 2576, Contract Idm-E392, Horse Creek Placer, Aiken Co., S. C. Callahan Zinc-Lead Co., Inc., 100 Park Ave., New York, N. Y.

The subject final field team report has been reviewed by this office. The following comments are submitted:

This office agrees with the field team recommendation that further exploration of the deposit is not necessary. We feel that the exploration program was carried out in a thorough and efficient manner under the able direction of Mr. Perry. Furthermore, the total yardage and values indicated by this exploration program appear to be sufficient to support a successful dredging operation under present economic conditions.

Compared with similar dredging operations, the total cost (including amortization, dredging, and separation) should not exceed 20 to 25 cents per cu. yd. against an indicated value of readily salable material of 40 to 50 cents per cu. yd. The initial cost of a separation plant was not included in the field team's remarks relative to the initial expense. However, in view of the indicated yardage, which could support a 5,000 cu. yd. per day dredging operation for 12 to 15 years, and the indicated margin of profit, the expenditure of the initial necessary capital seems justified.

copy sent to Mails & Files for Docket

Comments on FT report USGS-USBM

In regard to a certification of discovery, this deposit was actually discovered in the spring of 1952, during the course of a monazite exploration program conducted by the Bureau of Mines for the Atomic Energy Commission. At the request of Mr. Perry, four holes were drilled by the Bureau on lower Horse Creek. Two of the four holes indicated values comparable to those shown in the field team report. Mr. Perry then financed a line of 8 holes, using Bureau equipment and personnel, in the area explored under the subject contract. These holes, P-1 to P-8, were used in the final calculations.

The results of this initial drilling, in 1952, prompted Mr. Perry (through Callahan Zinc-Lead) to apply for DMEA assistance to further explore and extend the limits of the Horse Creek deposit. It is of interest to note that the weighted average monazite content of the entire deposit is in good agreement with the results obtained from the line of holes drilled in 1952.

In view of the exploration work conducted prior to the DMEA project, this office recommends that this contract be certified as a development rather than a discovery.

R. F. Griffith

R. F. Griffith

Enclosure

6/25/53 gla

IN REPLY REFER TO:
G-MD-CNM

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

June 18, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA - 2576 (monazite)

To: E. W. Ellis, Defense Minerals Exploration Administration

From: D. M. Larrabee, U. S. Geological Survey

Applicant: Callahan zinc-lead company, incorporated, 100 Park Avenue, New York City.

Name of property: Horse Creek Placer

Location of property: Aiken County, North Carolina

Date of field team report: June 4, 1953.

Authorship of field team report: W. A. Beck, Mining Engineer, USBM, and H. S. Johnson, Jr., Geologist, USGS.

Field team's recommendation:
1. No further exploration necessary.
2. Discovery should be certified.

Comments: None

Action suggested: Follow field team's recommendation, if the Bureau of Mines feels that material of this grade can be mined economically under the conditions present at this property.

D M Larrabee

D. M. Larrabee

1 copy sent to Mailes & Files for Docket

FILE COPY
SURNAME: Chambers

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

JUN 15 1953

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

Re: Docket No. DMEA-2576
Contract No. Idm-E392
Callahan Zinc-Lead Company

Dear Mr. Laurence:

In making a study of the files of the above-cited contract, it appears that the $3,000.00 contingency item might be considered applicable only to the erection of a building in case one could not be rented, because the preliminary documents and the application call for a contingency for this purpose.

This matter was referred to Mr. Ernest W. Ellis, Chief of the Rare and Miscellaneous Metals Division, for a statement of his intentions because it was his division that prepared the contract. He has made such a statement and I am sending you two signed copies, one to be used for your own files and one to be given to the certifying officer for his files.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosure

JLChambers/wb
June 15, 1953

Copy to: Docket
Admr. Reading File
Mr. Ellis
Mr. Chambers

FILE COPY
SURNAME:
Docket

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

Memorandum for the Record:

From: [illegible] Ellis, Chief:
[illegible] Miscellaneous Metals Division

Subject: Clarification of Contingency Item of $500.00 in Exhibit A of Contract No. [illegible], Order No. [illegible] 1972, Callahan Zinc-Lead Co.

While the application called for a $500.0[illegible] contingency for the erection of a building in case one could not be rented, the contract itself did not limit to so limit this amount. It is the policy of the Base and Miscellaneous Metals Division to include a contingency amount to be used for unforeseen expense of items not definitely as maximum either in [illegible] in the contract form or in the use of an amount. Therefore the $500.00 contingency allowed in Exhibit A may be used for [illegible] items not listed in the contract for which it can be.

[illegible]/[illegible]
6/9/53
cc. to: Adm. Pending File
Docket
Mails & Files
Messrs. Chambers
Ellis

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

JAN 6 1953

June 5, 1953

Memorandum

To: Chairman, Operating Committee, D M E A - Washington

From: Field Team, D M E A - Region 7

Subject: Final Report of Field Team on DMEA-2576, Idm-E392.
Callahan Zinc-Lead Co.

Transmitted herewith are four copies of the above subject final report.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Field Team, Region 7

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

Reviewed by
DMEA OPERATING COMMITTEE
6-12-53
(date)

Final Report of
Field Team

UNITED STATES
DEPARTMENT OF THE INTERIOR

gcb
9/28/53

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT
FIELD TEAM, REGION VII
on

DMEA-2576, Idm-E392
CALLAHAN ZINC-LEAD CO. INC., AIKEN CO. S. C.
(Monazite, Rutile, Columbium)

By

Wm. A. Beck, Mining Engineer
U. S. Bureau of Mines

H. S. Johnson, Jr., Geologist
U. S. Geological Survey

June 4, 1953

Reviewed by
DMEA OPERATING COMMITTEE
6-12-53
(date)

FINAL REPORT
on
DMEA Docket No. 2576, Contract No. Idm-E392
(Monazite - Rutile - Columbium)

CALLAHAN ZINC-LEAD CO., Inc. 100 Park Ave., New York, N.Y.

Horse Creek Placer, Aiken County, S. C.

Exploration conducted in the valley of Horse Creek, Aiken County, South Carolina by the Callahan Zinc-Lead Company has proved a deposit of sand and gravel containing approximately 18,334,000 cubic yards of dredgeable material with the following average heavy mineral content:

Monazite.....	1.5	Lbs.	per	cubic	yard
Rutile	2.6	"	"	"	"
Zircon	4.4	"	"	"	"
Ilmenite.....	6.6	"	"	"	"
Gravel (+4 mesh water-worn quartz)	139	"	"	"	"

Recommendations.-

(a) Further exploration of the deposit isnot considered necessary.

(b) Discovery should be certified as described by the above figures and the areas within the six blocks outlined on the Operator's final map.

(c) Production appears to be economically feasible. However, the initial expense will probably be great as this must include transportation of a dredge from Montana to South Carolina, purchase of additional jigs and other new parts for the dredge, and steps to remove the forest growth from much of the surface of the deposit.

Work on the project began September 2, 1952 and was completed April 30, 1953. Eighty-one 4 and 6 inch churn drill holes were put down, and three 4 by 4 foot test pits were dug to depths of about 15 feet. Material recovered during the drilling was washed in the field laboratory and concentrated on a laboratory Wilfley table. Bulk samples from the test pits were washed and concentrated on a set of Pan American test jigs and further cleaned on the Wilfley table. Concentrates from the drill holes and test pits were sent to Carpco Engineering and Manufacturing Company in Jacksonville, Florida for final assay.

The Operator's description of the deposit and his maps, assay data, and reserve estimates are considered acceptable.

Expenditures for the project were as follows:

(a) Total approved.....$57,593.00
(b) Total cost of project..... *
(c) Government's share of cost.....*
(d) Government's share unexpended.....*
(e) Value of production during operations... none

* Final figures not available until on-site audit has been made. Operator has billed total of $54,634.36, of which Govt. share would be $45,346.52

The Operator has conducted dredging operations in Montana for several years and is considered competent to develop the Horse Creek Placer. Exploration carried on in the course of this project was handled in an efficient manner.

Equipment purchased for this project was as follows:

Sept. 1952	Detecto Scales Inc.		
	1 Model X48300-10 Ind. Dial Scale	$100.00	
	Freight	4.26	$104.26
	El-Tronics, Inc.		
	1-Cat. No. SM-3 Survey meter	195.00	195.00
	Augusta Mill Supply Co.		
	1 - 4M Marlow Pump	130.17	130.17
			$429.43
Oct. 1952	1 Dodge one-ton 1952 Power wagon, express body. Front end winch and power take off. 9.00/20-8 ply tires. Motor No. T137-29039 Serial No. 83929633. Smith Dahl Motors Helena, Montana	$3,409.00	
	1 Used Model CJ2A 1947 jeep. Serial No. 107943 Motor No. J110921. Motor Sales Corp. Augusta, Ga.	750.00	
	Forkey's Machine Shop, Augusta, Ga. for Labor, repairs and material on jeep drill	330.08	
Nov. 1952	1 Harvard Trip Scale #550-5 double beam	22.80	
	1 #20 Hevi-duty Electric Hot plate 110-22 Volt J & H. Berg, 145 Hudson St. N. Y. N.Y.	64.00	

Dec. 1952	1 2' x 3' Model "C" Double deck screen Simplicity Engineering Co. Durand, Mich.	$568.00
Jan. 1953	The Humphrey Investment Co. Denver, Colo. 1 Model 24A, 5-turn Humphreys spiral concentrator, complete with all necessary equipment and attachments for operation	$1,131.65
March '53	1 27H-112" Marlow cent. pump Augusta Mill Supply Co.	356.05
		$7,061.01

Disposition of equipment has not yet been made by Operator.

Wm. A. Beck, Mining Engineer
U. S. Bureau of Mines

H. S. Johnson, Jr., Geologist
U. S. Geological Survey

June 4, 1953

zm

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

June 2, 1953

Mr. Jay L. Chambers, Chief
Contract Administration and
Audit Division - D M E A
Washington 25, D. C.

Re: DMEA-2576, Idm-E392
Callahan Zinc-Lead Co. (Monazite, rutile)

Dear Mr. Chambers:

Reply to your letter of May 19 has been delayed because of my absence from the city. We have not yet heard when Mr. Perry will return, and so cannot say when the audit may be made at Aiken.

Comments on the several questionable items follow:

1. The contract specifies allowable maximum rate of $600 per month, but the total of $2400 is not starred. Because of difficulties of drilling in swampy terrain (see interim report, December 1, 1952, first paragraph), 5 months were required to complete the drilling instead of four, and it was our opinion that the $600 for January is justified, the money to be paid out of the "contingency" item for unforeseen expenses. The $600 for April will probably have to be disallowed.

2. Similarly, rate but not total was starred in the contract. The additional $400 was a justified expense, and should be paid from the "contingency" item.

The need for "extra technical labor" in February is adequately explained in paragraph 3 of the March 16 interim report, and this item should be paid from the "contingencies" item of Amendment No. 1.

3. It was our opinion that at least part of the excess for equipment would be paid out of "contingencies," as the additional items were found to be necessary to the work.

4. Insufficient information here.

5. Insufficient information here.

6. Insufficient information here.

7. Yes. These were necessary expenses, and should be paid out of Phase II, "contingencies."

8. Information here is insufficient.

9, 10. Jeep and pump were necessary. See interim report of December 1, 1952, first paragraph. We would approve these payments as "unforeseen expenses" as explained under item 3 above.

11. No information is available here to show how much, if any, of the $241.79 charged in November to test pits, was for use of power shovel. However, total of $596.46 as shown on MF-104-A for January 1953, is well below the $2100.00 allowed by the contract, which states only that the item is for "digging pits," although it is listed under labor.

12. Insufficient information here.

The Operator was advised immediately upon receipt of his final voucher, that payment would be withheld until after disposition of equipment and final audit by your office.

Sincerely yours,

Robert A. Laurence

Robert A. Laurence,
Executive Officer, DMEA
Field Team, Reg.7

Items to be charged to Contingencies.

Contingency, Phase I, $3000 maximum No, for this month if more available for next.

Supervision, extra month	$600.00
Laboratory technician, extra month	400.00
Jeep, and repairs, etc.	1,080.00
Pump, Augusta Supply Co.	130.17
Extra on vibrating screen ?	168.00
Extra on platform scales?	44.26

Contingency, Phase II, $1200 maximum

Tuscaloosa expenses and freight	510.86	OK
"Extra Technical Labor" February	118.00	no

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Room 13, Post Office Building
Knoxville 2, Tennessee

May 21, 1953

Memorandum

To: Mr. Jay L. Chambers, Chief
Contract Administration and Audit Division
Washington 25, D. C.

From: Acting Executive Officer, DMEA, Region VII

Subject: Final Audit, DMEA-2576, Idm-E392
Callahan Zinc-Lead Company, Inc. (rutile, monazite, etc.)

Reference is made to our memo of May 13 on the subject audit. Today we received a letter from the operators in which they stated:

> "We believe the audit of the exploration expenditures should be made in Aiken where all of the bills, cancelled checks, etc. are located. However, Mr. Perry is out West for the next three or four weeks working in connection with the project and will not return to Aiken until the end of that time. Our present plan is that upon Mr. Perry's return, I would meet with your auditor in Aiken to go over all accounts. As soon as Mr. Perry knows when he will return, I shall write to you so that we can make an appointment with your auditor."

We will notify you upon receipt of word that they are ready for an auditor at Aiken, South Carolina.

Wm. A. Beck

Wm. A. Beck

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 25 1953

FILE COPY
SURNAME:

800
Talbert
Chandler

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

MAY 19 1953

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

Re: Idm-E392, DMEA-2576
Callahan Zinc-Lead Company

Dear Mr. Laurence:

Receipt is acknowledged of your memorandum dated May 13, 1953, advising that the final MF-104 for the referenced project had been received and requesting a final audit of the project at an early date. You state further that you will notify me, as soon as you are advised by the Operator, whether the final audit should be made in the project office in Aiken, South Carolina, or in the Company's office in New York City.

In the event that the audit is to be made in New York City it will probably be best to perform this audit prior to the anticipated audit of the Hale-Georgia project, so that the findings may be discussed with you when the auditor comes to Knoxville on the latter audit. If the audit is to be made in Aiken, it is suggested that arrangements be made for both the Callahan Zinc-Lead and Hale-Georgia audits during the one trip to Knoxville.

In reviewing the forms MF-104 and contract files preparatory to this audit a number of questionable items have been noted. Your comments on these matters would be appreciated as being of considerable assistance in the audit. These items follow:

1. "Allowable maximums" of $2,400 under the original contract and $1,200 under Amendment No. 1 were established for the cost of a Superintendent. The forms MF-104 for September, 1952, to March, 1953, inclusive, indicate payments of $4,200 and possibly the April MF-104 contains an additional charge.

2. Likewise, "allowable maximums" of $1,600 and $1,100, respectively, were established for a Laboratory Technician. This cost apparently is included under the Labor charges on the MF-104, and possibly is in excess of the "allowable maximums". Also, a charge of $118.00 for "Extra technical labor for shaft" was made in February.

3. An "allowable maximum" of $5,040 was established for the purchase of equipment. Through March a total charge of $7,094.59 has been made.

4. By the terms of the contract the item of "General Repairs for all equipment $900" is an "allowable maximum". The forms MF-104 through March indicate a charge of $1,108.22 all incurred in September the first month of the project operation.

5. The original contract provided for $950.00 for moving equipment and crew from Montana to Aiken, South Carolina. The forms MF-104 through March show charges of $1,667.74, of which amount possibly only the September charge of $647.20 is proper.

6. The original contract made no provision for living expenses or per diem. Such costs were provided, however, for the additional work by Amendment No. 1, effective February 1, 1953. The Operator has charged a total of $5,096.00 for per diem through March and only $1,462.00 of this amount was for the months of February and March.

7. Through January total charges of $196.99 for "Freight on sand to Tuscaloosa" and $313.87 for "Expenses re Tuscaloosa" are claimed. Since such costs were not contained in the estimates for Phase II, may it be presumed that you approve them as applicable to the estimate of $1,200 for "Contingencies"?

8. Total costs through January of $36,077.81 were claimed by the Operator. Since only a relatively small amount of the charge may be applicable to Phase II, there is a possibility that the "allowable maximum" of $30,760.00 for Phase I may have been exceeded.

9. A copy of a letter dated October 15, 1952, from the Operator, accompanying the September MF-104, indicates the purchase of a pump from the Augusta Mill Supply Co. Exhibit "A", which, incidentally, is practically an exact copy of the Operator's application, did not indicate this requirement.

10. The narrative accompanying the October MF-104 states that a used jeep with power take-off and equipped with tripod, tools, etc., required in conjunction with the 4" drill, was purchased. Likewise, this item was not listed in the Exhibit "A". It may be your intention to approve this item, as well as the pump mentioned in 9 above, under the "maximum allowable" item of $3,000

for Contingencies. The application and subsequent correspondence indicate, however, that this $3,000 was to provide for building a laboratory if a suitable building could not be rented.

11. The narrative accompanying the November MF-104 indicates the Phase II pit work was performed by power shovel rather than hand labor as anticipated by the contract. Neither the narrative nor the MF-104 disclose whether a charge was made for this shovel. Can you furnish any pre-audit information on this item?

12. An "allowable maximum" of $640.00 for depreciation allowance was established by the contract. Through March a total charge of $916.65 has been made by the Operator.

Any information you may be able to furnish on the above items will be helpful to the auditor in planning and performing an audit which has all the appearances of being rather complicated.

In view of the possibility of disallowances, as well as the Government's equity in purchased equipment and unexpended supplies, it is requested specifically that payment of the final MF-104 be withheld until completion of the audit.

Sincerely yours,

SIGNED

Jay L. Chambers, Chief
Contract Administration
and Audit Division

J.H.
5-19-53

EDTalbert/ama
May 19, 1953

Copy to: Mails and Files
Admr. Reading File
Mr. Ellis
Mr. Chambers

DI—17

SPECIAL

GPO 16—61180-1

5/15/53

Please note:

2 copies of Operator's final report given to DMEA Mails & Files, one set for docket (to be noted by Mr. Chambers) and one set to be sent to Region VII.

~~Three~~ set~~s of the report are in the top drawer of the left-hand file cabinets (in back).~~

1 set to Mr. Griffith, Bur. Mines
2 sets with Contract file.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13, POST OFFICE BLDG.
WASHINGTON 25, D. C.
KNOXVILLE 2, TENN.

May 13, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 15 1953

Memorandum

To: Mr. Jay L. Chambers, Chief, Contract Administration and Audit Div.

From: Executive Officer, D M E A - Region 7

Subject: Final Audit, DMEA-2576, Idm-E392, Callahan Zinc-Lead Co. (rutile, monazite, etc.)

We have received the Operator's monthly report and voucher, in the amount of $4,639.97, for the final month's work on the subject exploration contract. Operator's final geologic and engineering report has not been received, but is promised within the next few days. Disposal of equipment and supplies has not yet been made. We are holding this final voucher until the equipment has been sold and final audit has been made by your office.

Therefore, we would like to request a final audit of this project at an early date. It was placed on a site-audit basis at the beginning, so that there is no documentary support of expenditures in the local office. We have written to the Operator inquiring whether the final audit should be made at the project office in Aiken, South Carolina or at the Company's office in New York City, and will notify you as soon as we receive an answer.

Robert A. Laurence

Robert A. Laurence

5/14/53 gla

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 14 1953

May 13, 1953

Mr. E. W. Ellis
Defense Minerals Exploration Administration
Room 4640, Interior Building
Washington, D. C.

Re: Docket DMEA 2576
Contract IDM-E392

Dear Sir:

We are delivering under separate cover, five copies of the final Engineering Report as provided for in our contract. One additional copy has been delivered to the D.M.P.A. office. This report is made up of three separately bound sections; (1) the report itself, (2) Supplement "A" containing map and cross sections, and (3) Supplement "B" containing assay reports.

This report is complete as to data and computations, with the exception that the original drill logs, which have been supplied as available with each monthly report, have not been reproduced in the final report.

All work in the field has been completed. At the suggestion of the D.M.P.A. some additional assays are being run as to columbium, tantalum and rutile, and the returns from these will be submitted when available.

All equipment has been stored in or at the building we have rented as laboratory and is being properly cared for until it is decided what final disposition shall be made of it.

Yours very truly,

Owen H. Perry

Henderson Hotel
Aiken, South Carolina

OHP:ns
CC: Mr. Julian
Mr. Laurence
Callahan Zinc-Lead Co.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 73, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

May 13, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 15 1953

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Co.Inc.,
100 Park Avenue
New York 17, N. Y.

Re: DMEA02576, Idm-E392

Dear Mr. Salo:

This will acknowledge receipt of your April Monthly Report and Voucher. We are holding this until after receipt of your final geologic and engineering report, disposal of equipment and supplies purchased for the project and completion of the final audit and review.

In your letter of May 11 you state that Mr. Perry will present the final report in Washington within the next few days. This should be sent to this office.

Please advise me when an audit of your account can be made and if it should be made in Aiken, South Carolina or in your office in New York.

Very truly yours,

Robert A. Laurence,
Executive Officer, DMEA
Region 7

RAL/xm
cc:
Beck
Lynch
Qtr. Com.
Files

Excerpt from:

FINAL REPORT
FIELD TEAM, REGION VII
on
DMEA-2576, Idm-E392

Callahan Zinc-Lead Co., Inc., Aiken Co., S. C.
(Monazite, Rutile, Columbium)

Equipment purchased for this project was as follows:

Sept. 1952	Detecto Scales Inc.		
	1 Model X48300-10 Ind. Dial Scale	$100.00	
	Freight	4.26	$104.26
	El-Tronics, Inc.		
	1-Cat. No. SM-3 Survey meter	195.00	195.00
	Augusta Mill Supply Co.		
	1 - 4M Marlow Pump	130.17	130.17
			$429.43
Oct. 1952	1 Dodge one-ton 1952 Power wagon, express body. Front end winch and power take off. 9.00/20-8 ply tires. Motor No. T137-29039 Serial No. 83929633. Smith Dahl Motors Helena, Montana	$3,409.00	
	1 Used Model CJ2A 1947 jeep. Serial No. 107943 Motor No. J110921. Motor Sales Corp. Augusta, Ga.	750.00	
	Forkey's Machine Shop, Augusta, Ga. for Labor, repairs and material on jeep drill	330.08	
Nov. 1952	1 Harvard Trip Scale #550-5 double beam	22.80	
	1 #20 Hevi-duty Electric Hot plate 110-22 Volt J & H. Berg, 145 Hudson St. N.Y. N.Y.	64.00	
Dec. 1952	1 2' x 3' Model "C" Double deck screen Simplicity Engineering Co. Durand, Mich.	568.00	
Jan. 1953	The Humphrey Investment Co. Denver, Colo. 1 Model 24A, 5-turn Humphreys spiral concentrator, complete with all necessary equipment and attachments for operation	1,131.65	
March '53	1 27H-112" Marlow cent. pump Augusta Mill Supply Co.	356.05	
			$7,061.01

Disposition of equipment has not yet been made by Operator.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 3, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 18 1953

March 17, 1953

AIR MAIL SPECIAL

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region 7

Subject: DMEA-2576, Idm-392, Callahan Zinc-Lead Co., Interim Report. (Monazite, Columbite, Rutile)

Attached are 4 copies of the subject interim report.

Please note the recommendation in the last paragraph. If there is not agreement with this recommendation, please advise us at the earliest possible time.

In agreement. [illegible]

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Field Team, Region 7

Wm. A. Beck

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

zm

INTERIM REPORT

DMEA-2576, (Monazite-Columbite - Rutile)
Callahan Zinc-Lead Co., Inc. (An Arizona Corp)
100 Park Ave., New York 12, N.Y.

HORSE CREEK PROSPECT, Aiken, County, S. C.
Contract Idm-E392

The project was visited by H. S. Johnson on March 11, 1953. Work had been completed on the first test shaft and was nearing completion on the second (see Amendment No. 1, dated Feb. 2, 1953). Blinding of well point screens has retarded progress in shaft sinking, and costs are running about twice what had been expected. Mr. Owen H. Perry stated that he did not believe four shafts could be completed without exceeding the budget allowed under Amendment No. 1. He believes that the information obtained in three shafts will be sufficient to provide a good check on drilling results, and he plans to recommend that the fourth shaft be eliminated rather than exceed the allotted funds. The DMEA Field Team feels that nothing is to be gained by pressing for completion of the fourth shaft against adverse conditions and high costs which would cause total expenditures to exceed the amount allotted for the project.

The first test shaft was put down at the site of drill hole F-1 N. This hole was drilled with the four inch drill to a depth of 15 feet. The 4 x 4 foot test shaft was sunk to a depth of 10 feet at which point blinding of well point screens by clay necessitated bottoming the shaft. Good samples were obtained to this depth which was well into the pay zone. The sand from the shaft was first passed through a Pan American Jig and the concentrates then up-graded on a small Wilfley Table. Results for monazite were very close to those obtained from the drill hole samples.

The first test shaft was in low ground and considerable water was encountered at a very shallow depth. The pay zone is for the most part a clean sand that is extremely permeable. The well points function satisfactorily in this type material. However, considerable amounts of white kaolin occur in the sand at several places in the section, and each of these clayey layers supports a small perched watertable. As the well points are pushed downward into the clayey layers, the kaolin blinds the screens so that it is very difficult to lower the water table sufficiently to sink the shaft to the desired depth. The Griffin Well Point Corporation had a man on the job for a week trying to overcome this obstacle, but he had very little success. Twelve days were required to set up the well points, construct the windless, and sink the shaft to the 10 foot depth where water conditions forced the work to stop. This was considerably longer time than was thought would be necessary; and, accordingly, the cost for the shaft was about twice the original estimate.

The second test shaft was put down at the site of drill hole K-5N. This was a six inch hole drilled to a depth of 20 feet. At the time of Johnson's visit, the shaft at this point had been sunk to about 12 feet, and water conditions were making the work very difficult. It was decided to try to bottom the shaft at 15 feet which is through the main pay zone. About 10 days were necessary to get the shaft down 12 feet. As in the first test shaft, the blinding of well point screens was the prinicpal reason for slow progress. Again the cost for the shaft will come to about twice the original estimate according to Mr. Perry.

The third test shaft has been started at the site of drill hole O-10N, a six inch hole that extended to a depth of 20 feet. Mr. Perry says he will try to sink this shaft to 17 1/2 feet. Bad working conditions and high costs are to be expected.

If a fourth shaft is desirable it is to be located at the site of drill hole C-1 N. This is a four inch hole drilled to a depth of 25 feet in low ground. Bad working conditions and high costs are to be expected in this shaft also.

In view of the excessively high cost per foot of shaft, Mr. Perry doubts that the fourth shaft can be completed without exceeding the amount alloted under Amendment No. 1 of the contract. He feels that three shafts will provide sufficient information to check drill results, and he plans to recommend a cessation of work after the third shaft is completed rather than exceed the project's budget.

The DMEA Field Team feels that the Callahan Zinc-Lead Company has made every effort to put down the test shafts in the face of adverse working conditions. Nothing is to be gained by pressing for completion of the fourth shaft at extra expense, and the Company should be allowed to eliminate the fourth shaft if they desire to do so. Work on the project is proceeding on this basis.

O.K.

March 16, 1953

Robert A. Laurence
R. A. Laurence, U. S. G. S.
Executive Officer, Region 7

Wm. A. Beck
Wm. A. Beck, U. S. B. M.

H. S. Johnson
H. S. Johnson, U. S. G. S.

zm

FILE COPY
SURNAME:

Ellis
Selfridge

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

MAR 11 1953

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville, 02, Tennessee

Re: Docket No. DMEA-2576
(Monazite, columbium, rutile)
Callahan Zinc-Lead Company, Inc.
Aiken County, South Carolina
Exploration Project Contract Idm-2392
Amendment No. 2

Dear Mr. Laurence:

Enclosed are the "Field Team's Copy" and "Finance Office Copy" of Amendment No. 2, dated March 2, 1953, which has been signed by Mr. Wittendorf and Mr. E. A. Salo, Secretary-Treasurer of the Company.

Sincerely yours,

George C. Selfridge

3/11/53

(216)

Chairman, Operating Committee

Enclosures 2

ALL MEMBERS:

G. E. Hodges (216)
Member, Bureau of Mines

D. M. Lemmon (216)
Member, Geological Survey

GLAult/a
3-9-53
cc to: Adm.Reading File
Operating Committee
Docket
Messrs. E.J.Carlson, Rm. 3619
J.J.Norton, Rm. G-232 GSA
Ellis
DMEA-Field Team, Region VII

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

OFFICE OF THE TREASURER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 6 1953

March 5, 1953

Mr. C. O. Mittendorf, Administrator
Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-2576
(Monazite, columbium, rutile)
Aiken County, South Carolina
Exploration Project Contract Idm-E392

Dear Mr. Mittendorf:

I am returning to you, duly signed, the requested five copies of Amendment No. 2 to Exploration Project Contract Idm-E392 which were enclosed with your letter of March 2 to me.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:ns
Enc.

3-6-53

FILE COPY
SURNAME:

Chandler
Thayer
Hedges
Selfridge

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

MAR 2 1953

BW

Mr. L. A. Salo
Treasurer
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, N. Y.

Re: Docket No. DMEA-2576
(Monazite, columbium, rutile)
Aiken County, South Carolina
Exploration Project Contract DMEA-392

Dear Mr. Salo:

Reference is made to your letter of February 6, 1953, enclosing photostat of agreement dated December 31, 1952, pertaining to the Blackmon property. In order to include this tract of land in the above contract, we have drawn Amendment No. 2, six copies of which are enclosed. The amendment has been signed for the Government.

If this amendment meets with approval, kindly have all of the copies signed by a duly authorized representative of the company. The "Operator's Copy" should be retained for your files and the remaining copies returned to this office.

Sincerely yours,

C. O. Mittendorf (for) J.N. 3/2/53

Administrator

Enclosure

DWEllis/gla 2-24-53
cc to: Adm. Reading File
Operating Committee
Docket
Messars. E.J.Carlson, Rm. 3649
J.J.Norton, Rm. G-232
Ellis
DMEA PT-Region VII (2)

2/17/53 gla

PERRY & SCHROEDER MINING CO.
26 WEST SIXTH AVENUE
HELENA, MONTANA

February 14, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
FEB 16 1953

Mr. E. W. Ellis
D. M. E. A.
Interior Building, Room 4640
Washington, D. C.

DMEA-2576

Dear Mr. Ellis:

The Callahan Zinc-Lead Company office in New York have advised that you do not know the location of the D. B. Blackman ground.

You will find the location marked on our last map, lying across the creek from Clearwater Village and adjoining to the right of the ground of A. Burdo.

Yours very truly

O. H. Perry

ohp/egb

2/10/53 gla

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

OFFICE OF THE TREASURER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 6 1953

February 6, 1953

Mr. E. W. Ellis
Defense Minerals Exploration Administration
New Interior Building
Room 4640
Washington, D. C.

Re: DMEA-2576, IDM-E392

Dear Mr. Ellis:

As you know, under our contract No. 2576 we are carrying an exploration program near Aiken, South Carolina along with Owen H. Perry, his two sons and The Goldfield Consolidated Mines Co. In the past you have been sent copies of the various leases and agreements on the land upon which the exploration project is being carried out. Recently, Mr. Perry negotiated another contract and we are enclosing a photostatic copy of this contract which is dated December 31, 1952, and is between Alex B. Perry and Charles O. Perry on one part, and D. B. Blackmon on the other part.

This is sent to you so that your files will be complete in this matter.

Very truly yours,

CALLAHAN ZINC-LEAD COMPANY, INC.

E. A. Salo

E. A. Salo
Treasurer

EAS:mat
encl.
CC:CHPerry - Aiken

RECEIVED
FEB 10 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

STATE OF SOUTH CAROLINA :
:
COUNTY OF AIKEN :

THIS AGREEMENT, made and entered into this 31 day of December, 1952, by and between D. B. Blackmon, a widower, living in Langley Township, Aiken County, South Carolina, as party of the first part and Alex B. Perry and Charles Owen Perry whose mail address is 26 West 6th Avenue, Helena, Montana, as parties of the second part:

W I T N E S S E T H :

In consideration of Ten Dollars ($10.00) in cash in hand paid by the parties of the second part to the party of the first part as well as other good and valuable considerations moving between the parties, the receipt and adequacy of which are hereby acknowledged, the party of the first part does hereby grant to the parties of the second part the exclusive right and option to purchase so much of the following described tracts of lands, as they may elect to purchase as is hereinafter defined. Said tracts of land may be described as follows:

(1) That tract or parcel of land situated now or formerly in School District No. 29, Langley Township, Aiken County, South Carolina, containing fifteen (15) acres more or less, being a part of the George D. Powell Home place bounded on the North by Big Horse Creek and on the South by the right of way of Southern Railway Company, and on the East by lands of W. A. Moss and being a part of that tract of land deeded to S. I. Busbia by the Master of Aiken County on May 2, 1932, which said deed is recorded in Masters Title Book 57 at page 159 in the office of the Clerk of Court of Aiken County.

(2) All that certain tract or parcel of land situated in Aiken County, South Carolina, and situated on the South side of the right of way of the Southern Railway Company containing sixty-nine and eighty-five one hundred (69.85) acres and being bounded on the North by the right of way of the Southern Railway Company, East by the Old Pine Log public road, South by lands now or formerly of Lincoln Burdo, West by the right of way of the Southern Railway Company and lands of Burdo, this being the same property that was deeded to D. B. Blackmon by S. C. Chavious by deed dated Jan. 24th., 1946, and recorded in deed book 99 page 161 in the office of the Clerk of Court of Aiken County.

Should this option be exercised the parties of the second part are to elect to buy only the so-called swamp portion of said tracts of land and a fringe or border of the highlands or farmed lands bordering on said swamp portion and following its contour and having a depth of not more than two hundred feet.

Together with all and singular the above described lands, their waters and water rights and any other rights appertenant to said lands or any part thereof.

The terms and conditions of this agreement are as follows:

1. The option price shall be Two hundred ($200.00) Dollars per acre payable one-half within twelve months from the date of this instrument, and the balance twelve months thereafter.

2. At any time during said twenty-four month period the party of the first part, upon the request in writing by the parties of the second part, shall promptly execute and acknowledge and deliver to the Farmers & Merchants Bank of Aiken, South Carolina, a good and sufficient deed conveying said optioned property by good and merchantable title, free of leins, to the parties of the second part, with a copy of this contract, which shall be taken by said bank as escrow directions for delivery of said deed to the parties of the second part upon full payment of the option price as herein provided, otherwise such deed to be returned to the party of the first part by said bank upon expiration of this agreement.

3. Beginning with the date hereof the parties of the second part shall have the right to go upon said land to test the same for its content of sand, gravel, or other valuable minerals or products by sinking drill holes or test pits therein, using therefor efficient and experienced equipment and crew, but they shall not mine nor remove such products in commercial quantities from the land until the option price is paid in full.

4. Any thing to the contrary notwithstanding the parties of the second part may at any time abandon this option agreement upon written notice of such abandonment to the party of the first

part and upon such abandonment the parties of the second part shall be under no further obligations save as follows.

5. If the parties of the second part shall abandon this option before paying the option price, they shall fill all test holes and pits made by them and shall repair any fences, bridges, or other improvements that may have been damaged by them, and shall pay for any part of a growing crop damaged or destroyed by them at the price of a matured crop. The parties of the second part shall have thirty (30) days from the date of notice of abandonment to remove all machinery, equipment, buildings or other property they may have placed on said land.

6. Any notice herein to be given shall be in writing and shall either be personally served upon the party to whom the notice is to be given or mailed by first class registered mail with postage fully prepaid and if given to the party of the first part shall be addressed to him at Augusta, Ga. R4, Box 233C or if given to the parties of the second part shall be addressed one copy to O. H. Perry, 126 West 6th Avenue, Helena, Montana and one copy to Henderson, Salley & Cushman 813 Laurens Street, Aiken, South Carolina or to such other post office as the parties may designate and any such notice shall be mailed at a U. S. Postoffice in either the State of South Carolina or the State of Montana, and shall be considered as given when so mailed.

7. It shall be the duty of the party of the first part to retire all liens on the property as they accrue, including the lien of any existing mortgage or mortgages and of any taxes due by the landowner. Should the party of the first part fail therein the party of the second part may pay off said liens and deduct the amount or amounts thereof from the option price to be paid to the party of the first part. This paragraph shall enure to the benefit of the heirs, executors, administrators or assigns of the parties of the second part and shall bind the heirs, executors, administrators or assigns of the party of the first part.

8. This instrument is executed in triplicate originals of which this is Original No. 1.

IN WITNESS WHEREOF, the parties have hereto set their hands and seals this 31st day of December, 1952.

WITNESS:

J W Blackmon

E. S. Henderson

As to Party of the First Part

D. B. his X mark Blackmon

PARTY OF THE FIRST PART

Alex B. Perry

Charles Owen Perry

by Owen Perry atty in fact.

PARTIES OF THE SECOND PART

E. S. Henderson

Margaret Powell

As to Alex B. Perry

E. S. Henderson

Margaret Powell

As to Charles Owen Perry

STATE OF SOUTH CAROLINA :

COUNTY OF AIKEN :

Personally appeared before me J. W. Blackmon who, being duly sworn, says that he was present and saw D. B. Blackmon, sign, seal and deliver the foregoing instrument and that he with E. S. Henderson witnessed the execution thereof.

J W Blackmon

SWORN to before me this 1 day of January, 1953.

E. S. Henderson L.S.

NOTARY PUBLIC FOR S. C.

STATE OF ~~CALIFORNIA~~ South Carolina :

COUNTY OF Aiken :

Personally appeared before me Margaret Powell who, being duly sworn says that he was present and saw Alex B. Perry by Owen H. Perry, atty in fact sign, seal and deliver the foregoing instrument and that he with E. S. Henderson witnessed the execution thereof.

Margaret Powell

SWORN to before me this 31 day of December, 1952.

E. S. Henderson L.S.

NOTARY PUBLIC FOR ~~CALIFORNIA~~ South Carolina

STATE OF ~~OKLAHOMA~~ South Carolina :

COUNTY OF Aiken :

Personally appeared before me Margaret Powell who, being duly sworn says that he was present and saw Charles Owen Perry by Owen L. Perry Atty in fact sign, seal and deliver the foregoing instrument and that he with E. S. Henderson witnessed the execution thereof.

Margaret Powell

SWORN to before me this

21 day of December, 1952.

E. S. Henderson L.S.

NOTARY PUBLIC FOR ~~OKLAHOMA.~~ South Carolina

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 6 1953

INTERIM REPORT

DMEA-2576 (Monazite-Columbite-Rutile)
Callahan Zinc-Lead Co. Inc. (An Arizona Corp).
100 Park Avenue, New York 12, N.Y.

HORSE CREEK PROSPECT, Aiken County, S. C.
Contract Idm-E 392

The project was visited on January 29, 1953. Drilling had been completed, but some of the laboratory work was still in process. Mr. Munzenrider was on hand and informed me that Mr. Perry had gone to Washington to try to obtain additional funds for further testing work.

If money is available, plans are to dig several test pits and run the bulk samples through a flow sheet consisting of Pan American jigs, DorrClone separators, and Humphreys spirals. The operators think this further work is necessary to determine what can be done with the Horse Creek placer under mining conditions.

From data submitted with the December Progress Report, it seems that the proposed test shafts and further laboratory work are justified.

Several apparent discrepancies between the map and laboratory data submitted with the November monthly progress report were discussed with Mr. Munzenrider. It appears that these were due largely to a change in method of calculating pay zones and monazite percentages. Some of the revised figures were placed on the map, but the changes were not made on the laboratory reports submitted to us. Mr. Munzenrider says it is his intention to go over all the data assembled during the drilling and that he will submit to us a summary of any revisions made.

Henry S. Johnson, Jr.
H. S. Johnson, Jr.
U. S. Geological Survey.

zm

705 FILE COPY
SURNAME:

Ellis
Selfridge

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

BY

FEB 5 1953

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville, 02, Tennessee

Re: Docket No. DMA-2770
(Monazite, columbium, rutile)
Callahan Zinc-Lead Company, Inc.
Aiken County, South Carolina
Exploration Project Contract IDM-3392
Amendment No. 1

J.C. 2/5/52

Dear Mr. Laurence:

Enclosed are the Field Team's copy and Finance Office's copy of executed Amendment No. 1 to the above-captioned contract.

Due to the fact that additional work was deemed necessary at subject project and in order to save time, we phoned Mr. Beck last week with respect to drawing up this amendment in Washington without prior referral to the Field Team. We believe Mr. Beck informed you of our telephone discussion regarding this proposed additional work and that you will find the amendment as executed in proper order.

The "Operator's Copy" was handed to the company's representative in Washington together with a transmittal letter dated February 3, 1953, a copy of which was transmitted to you under separate cover.

EMEllis/gla 2-3-53
cc to: Adm, Reading File
Operating Committee
Docket
Messrs. E.J.Carlson, Rm. 3649
J.J.Norton, Rm. G-232
Ellis Chambers
DMEA-FT, Region VII
Enclosures 2

Sincerely yours,

George C. Selfridge

(GHB)

Chairman, Operating Committee

APPROVED:

Jo. H. Hedges (GHB)
Member, Bureau of Mines

A. R. Kinkel, Jr. (GHB)
Member, Geological Survey

700 FILE COPY
SURNAME:

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

February 3, 1953

Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. Idm-2570
(Monazite, columbium, rutile)
Aiken County, South Carolina
Exploration Project Contract Idm-E392
Amendment No. 1

Gentlemen:

We hand you herewith your signed "Operator's Copy" of Amendment No. 1 to the above-captioned contract. This amendment provides for additional work at the estimated total cost of $19,633.00.

Kindly note that the effective date of said amendment is February 1, 1953. Also you will note that Article 3 of the contract is amended to provide for the completion of the project within nine months from the date of said contract instead of six months.

Sincerely yours,

E. W. Ellis (for) P.H. 2-3-53

Administrator

Attachment
EWEllis/gla 2-3--53
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. E.J.Carlson, Rm. 3649
J.J.Norton, Rm. G-232 GSA
Ellis
DMEA Field Team, Region VII (2)

700

FILE COPY
SURNAME:

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

Ellis
Hedges
Kinkel
Selfridge

Renewed by Dmea opw. 2-2-53.

February 2, 1953

cae 2/5/53

Memorandum

FEB 5 1953

To: Operating Committee

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Amendment providing additional funds
Callahan Zinc-Lead Company, Inc.
Docket No. DMEA-2576
Contract No. Idm-E392

J.C. 2/5/53

Funds approved for subject contract are exhausted. To date 32 holes have been drilled, having a total depth of some 1700 feet. In addition, pit samples were secured and laboratory and assaying work was performed. However, due to the marshy condition of the sand, the pit samples could only be taken to an average depth of 7-1/2 feet, whereas bedrock is close to 25 feet in depth.

This amendment provides for additional work under the contract necessary to the proper determination of tonnages, recoverable values and the economics of the project. The work will consist of sinking four timbered shafts to bedrock after first unwatering the area in the immediate vicinity of the shaft site. The four samples procured therefrom, which will probably average 15 to 20 tons each, will be accurately measured and weighed, following which concentration tests will be made and all the products kept separately in bins, then sampled and assayed. The concentrate will be assayed for all of its component parts. Some of the assays will be for monazite only and others for monazite, rutile and columbium -- hence the difference in the cost of the various sample lots.

I have cleared this proposed amendment by phone with a Field Team representative of Region VII. Therefore, it will not be necessary to refer the matter to the Field as they are in accord with this additional work. Also, I have had a conference with two local Geological Survey commodity members, one Bureau of Mines commodity member and Applicant's representative who is in active charge of the work. It is the consensus of opinion that the work as outlined by this amendment is quite necessary. In addition, since DMPA may be called upon for a substantial loan to bring the property into production if a Certificate of Discovery is issued (which appears likely), I have cleared with representatives of that agency as to the need of this additional work.

If the Operating Committee and Mr. Mittendorf approve of this amendment, I will phone the authorized representative of subject Operator, who is in New York, and doubtless said representative will come to Washington to sign the amendment, after which the various copies will be distributed in the usual order. A letter conveying the Field Team's copy will draw attention to the clearance by telephone regarding the additional work.

Because the work is continuing, but with funds practically exhausted and some of the crew is from Montana, it is highly desirable not to have any gap in the work. That is why the Legal Division thought it advisable to use the effective date as of February 1, 1953. However, the extension of the contract from six months to nine months should give ample time for completing this additional work.

Ernest W. Ellis

EWEllis/gla 1--30-53

cc to: Adm. Reading File
Operating Committee
Docket
Mr. Ellis

1/30/53 gla

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

January 30, 1953

Memorandum

To: Ernest William Ellis, DMEA Member,
Columbium-Tantalum; Monazite Commodity Committee, Room 4640

From: Robert F. Griffith
Rare and Precious Metals Branch

Re: Monazite, Rutile, Columbite

Subject: Amendment to Docket DMEA 2576, Contract No. IDM E-392,
Callahan Zinc-Lead Company, Inc. Horse Creek Placers,
Aiken County, South Carolina

In view of past experience in the evaluation of monazite placers by churn-drilling methods, this office believes that the 82 churn-drill holes are sufficient to evaluate properly the subject deposit with respect to monazite tenor. However, the information to be gained in regard to the tenors of the other minerals; the large, bulk, samples available from shafts for pilot-plant tests; and the checks on the conversion factor from weight to volume and the accuracy of the churn-drill results, appear to justify the sinking of check shafts. ?

Since DMPA considers that the check shafts are necessary before a production loan can be granted, this office concurs with the recommendation that the subject amendment be approved.

R. F. Griffith

R. F. Griffith

Attachment

2/4/53 gla

IN REPLY REFER TO:

G-MD-CNM

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

January 30, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 3 1953

Memorandum

To: Ernest W. Ellis, Defense Minerals Exploration Administration

From: Ralph E. Van Alstine, Geological Survey

Subject: Proposed amendment to contract under DMEA-2576 (monazite-columbium-rutile), Callahan Zinc-Lead Co., exploration of Horse Creek prospect, Aiken County, South Carolina.

The additional work (estimated cost $19,433) proposed in the applicant's letter of January 26, 1953 to DMEA, which was reviewed and discussed today with you, the applicant's representative (O. H. Perry), R. F. Griffith of the Bureau of Mines, and W. C. Overstreet of the Geological Survey, seems desirable. The results of the exploration work already completed have been considered favorable in terms of possible sources of monazite, rutile, ilmenite, and gravel, and DMPA, which evidently will be approached for a loan, is reported by the applicant as having decided that the drilling results must be supported by the shaft work to be of definite value. In addition, the check of the drilling results by the four proposed shafts here may be useful in evaluating the results of drilling similar placer deposits elsewhere.

Ralph E. Van Alstine

Ralph E. Van Alstine

700 FILE COPY
SURNAME:

Ellis

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

January 29, 1953

B.W.

N.S. in R.V.L.

Memorandum

To: General Counsel

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Amendment providing additional funds
Callahan Zinc-Lead Company, Inc.
Docket No. DMEA-2576
Contract No. Idm-E392

Funds approved for subject contract are exhausted. This amendment provides for additional work under the contract necessary to the proper determination of tonnages, recoverable values and economics. I have cleared this proposed amendment with a Field Team representative of Region VII by phone; consequently, it will not be necessary to refer the matter to the Field as they are in accord with this additional work. It is the consensus of opinion that the work as outlined by this amendment is necessary.

Because part of the crew is from Montana and therefore cannot be laid off without pay, it is highly desirable that the amendment be executed at the earliest possible moment in order that there may be no gap in the work and proper and just payment therefor.

I would like very much to be able to present this to the Operating Committee not later than Wednesday, February 4.

Ernest Wm. Ellis
Ernest Wm. Ellis gla

EWEllis/gla
Copies to: Docket
Mr. Ellis

DRAFT
EWEllis/gla
1/29/53

EXPLORATION PROJECT CONTRACT

Callahan Zinc-Lead Company, Inc. (An Arizona Corp.)
100 Park Avenue, New York 12, N. Y.

HORSE CREEK PROSPECT, Aiken County, S. C.

Contract Idm-E392
Docket No. DMEA-2576

AMENDMENT NO. 1

Exploration Project Contract Idm-E392, Docket No. DMEA-2576, dated August 27, 1952, between the United States of America and Callahan Zinc-Lead Company, Inc., is hereby amended as follows, effective as of the date of said contract:

Description of the Work

The work to be done is in addition to the work presently accomplished under the contract. It consists of sinking four (4) timbered shafts (tightly laced) of the approximate dimensions ~~8~~4x5x25 foot depth, the purpose of which is to obtain accurate volume samples to bedrock for the purpose of estimating tonnages and checking the commodity recoveries by concentration and assaying. Two (2) of the four (4) shafts are to be sunk adjacent to 6-inch drill holes and two (2) are to be sunk adjacent to 4-inch drill holes. The location of the four (4) shafts is to be mutually agreeable to both the Applicant and the Government.

Prior to the sinking of each shaft it will be necessary to unwater the immediate area of the selected shaft site by means of well drill-points attached to a header which in turn is directly connected to an undewatering pump.

At the completion of each shaft and the obtaining of the known volume sample therefrom, the Operator shall take

See final form Amend. No. 1

proper steps to safeguard the shafts from roaming animals or human beings so that no suit is likely to ensure from damages caused by neglect.

Additional concentration equipment, sample bins and a suitable building are to be installed for the purpose of a complete metallurgical investigation of the four (4) volume samples obtained from the four (4) shafts.

Estimated Cost of the Project
(*Indicates Allowable Maximum)

(1) Independent contracts

None

(2) Labor, Supervision, Consultants

	Total Shifts	Rate/ 8 hrs.	Total	
Shaft Labor	120	$16.00	$1,920.00	
Pump Operators	120	12.00	1,440.00	
Jetting & Moving Points	20	16.00	320.00	
Truck Driver	40	12.00	480.00	
Laboratory ~~Technicians~~	~~2 mos.~~	~~550/mo.~~	~~1,100.00*~~	
Technician	2 mos.	550/mo.	1,100.00*	
Operators	100	16.00	1,600.00	
Helpers	80	12.00	960.00	
←Superintendent	2 mos.	600.00	1,200.00*	
←Living Expenses	240	7.00	1,680.00	
				$10,700.00

(3) Operating materials and supplies

Pump fuel, 3600 gals. @ 28¢ per gal.	$1,008.00	
Shaft Timber, 1000 bd. ft. @ $100.00 per shaft	400.00	
Small Tools	100.00	
Electric Power	50.00	
		1,558.00

(4) Operating Equipment

To be purchased

None

(4) Operating Equipment (Continued)

To be rented

Well point equipment		
2 months @ $650.00 per mo.	$1,300.00	
Freight	200.00	
		$1,500.00

To be furnished by Operator

Test jigs, rent	None	
Freight	$ 150.00	
Mechanical Sampler, rent	None	
		150.00

(5) Rehabilitation and Repairs

None

(6) New buildings, Improvements, Installations

Installation of jigs, spirals, sampler, bins, etc.	$2,125.00	
		2,125.00

(7) Miscellaneous

Outside laboratory and Assaying:		
20 samples @ $30.00 each	$ 600.00	
4 conc. samples @ $100.00 each	400.00	
12 composites @ $50.00 each	600.00	
		1,600.00

(8) Contingencies

Unforeseen expenses	2,000.00
Estimated Total Cost	$19,633.00
Government participation at 83%	$16,295.39

SUMMARY

Estimated cost of work in original contract	$37,960.00*	
Estimated cost of work in Amendment No. 1	19,633.00	
Total estimated cost of project		$57,593.00
Government participation @ 83%		$47,802.19

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

OFFICE OF THE VICE PRESIDENT

January 26, 1953

Docket No. D M E A 2576
Contract No. I D M E392

Defense Minerals Exploration Administration
Washington, D. C.

Attention: Mr. E. W. Ellis

Gentlemen:

Funds available under this contract will be exhausted early in February, 1953. Due to certain physical difficulties cost of work has been higher than originally contemplated. It was originally believed that all drilling could be done with the standard six inch drill furnished by operator. Swamp conditions made it impossible to use the six inch drill on nearly half the holes drilled. It was necessary to purchase a jeep and install on it a four inch drill furnished by operator. The cost of this equipment plus the additional labor required resulted in increased overall costs. In order to complete the exploration job on the project additional funds will be required and we include herewith a summary of funds originally provided and additional funds required.

All work done to date indicates the presence of a commercial deposit containing monazite, rutile, ilmenite, zircon, columbite and tantalite, and possibly other valuable minerals with values as good or better than originally indicated. Work accomplished to date is listed below.

1. Prior to the present DMEA contract eight holes making up one cross section of the property were drilled, cores were concentrated at the U. S. B. M. laboratory in Shelby, N. C. and a petrographic analysis made at the Raleigh Laboratory. A composite of all concentrates were sent to the Carpco Engineering Co. and an electrostatic and electromagnetic separation was made which checked with the Raleigh analysis of the U. S. B. M.
2. Under the present contract twelve additional cross sections have been drilled across the property at intervals of about 2,000 feet or less, made up of 82 drill holes having a total depth of 1701.2 feet. A laboratory set up on the property and cores from this work were concentrated and the pounds of concentrate per ton computed and also by radiometric determination the pounds of monazite per ton computed.

radioactive zircon?

3. A bulk sample (20 tons) from pits at four different locations along the property was dug and was shipped by rail to Tuscaloosa laboratory of the U. S. B. M. An engineer and our concentrator foreman were sent to Tuscaloosa and with the help of the U. S. B. M. men the bulk sample was concentrated on jigs and spirals to prove the recoverability of the values present. Petrographic work was done by the Bureau to evaluate the results obtained. Results of this work accompany the December monthly report.
4. The concentrate from Tuscaloosa was cleaned on the table in the laboratory on the project and sent to Carpco Engineering Co. to be separated electrostatically and magnetically to establish that a marketable grade of product could be made. These separations and assays are not yet entirely complete. A determination as to columbium will be possible from this large amount of concentrates.
5. The concentrates from one cross section of drill holes (7 holes) were sent to the Carpco laboratory for separation to establish the distribution of all values by actual weight from each of the individual holes. The report of this work accompanies the December report. It was found however the small size of these samples did not permit a columbium determination. The values as indicated from the drilling to date by radiometric analysis of table concentrates are equal to or higher than the preliminary indications.

The drilling program as planned is completed as of this date and apparently no further drilling will be necessary.

Because of the use of both the large and the small drill it was decided that the compositing of concentrates from entire cross sections as originally conceived should not be undertaken until one line of holes were assayed individually. Therefore the concentrates of the seven holes on the G line were sent to the Carpco Engineering laboratory in December and the results were received only today. The samples from all the drill holes have been concentrated and radiometric determination of monazite content has been made as shown on our laboratory logs. These concentrates are all carefully stored in the laboratory on the project waiting for final compositing and the separation and assaying by Carpco in the light of what is learned from these first assays of Carpco's. This work is yet to be done before final assay returns of the drilling can be had.

Furthermore while the results to date are in quantitative form, we believe they can be considered as no more than qualitative results until some accurate shaft sampling is completed and is available as a basis for interpreting data assembled to date. Physical conditions required the drilling of four inch holes as mentioned above. Experience with four inch drilling in gold placer work has indicated that the results from these smaller samples must be more carefully checked than are the six inch samples. In order to check the four inch drilling with the six inch drilling and also to check both sizes of drills against an accurately measured volume of material we propose to put down to bed rock a minimum of four shafts, two over holes drilled with the six inch drill and two over holes drilled with the four inch drill.

This evaluation of drill results by shafting several drill holes is standard practice in all placer work. While we had hoped to avoid the extra cost of such work on this project by sending a pit sample to Tuscaloosa the unavoidable use of the four inch drill we believe now makes this work imperative for accurate evaluation of all work to date.

You have been furnished with progress reports, including drill logs and laboratory logs. Included with the report for December 1952 is a report on the results of test work on bulk samples from pits as was planned originally which was carried out at the Tuscaloosa station of the Bureau of Mines, and a priliminary summary of petrographic work done by the Tuscaloosa laboratory.

As you may know, the applicants hope to apply to the D. M. P. A. for a capital loan to help equip this project for production if the sampling work proves successful. For this reason the D, M. P. A. was contacted to determine that the sampling methods used by us met with their approval and that the results would be accepted by them so as to avoid any further cost of sampling. Mr. Homer Mann and Mr. Robert Waskey, of the D. M. P. A.; Mr. H. M. Kline, of the U, S. B. M.; and Mr. Mahoney and Mr. Perry, the applicants were present at a meeting held in Washington in the middle of December.

The decision at the above meeting was that the computed values as shown by drilling must be supported by exact shaft work to be of definite value. The favorable results shown by the drilling to date justify this additional expense, to make the job of sampling complete. Therefore, a very careful job of jigging and spiraling must be done to give laboratory accuracy to this work on which all the results of the project depend. All necessary equipment is on hand but careful and complete installation of equipment, providing accurate control of feed and product, and head sampling, with bins, etc. for all materials including tailings, will then be necessary.

Investigation has been made of two possible methods of getting shafts down in such wet, sandy ground. Ordinary shafting methods are not possible because of the running in of both water and sand. The choice lays between driving a sheet piling caisson to the clay bed rock and de-watering inside the caisson before and during excavation; or de-watering a small area with a surrounding ring of well points and putting the shaft down by ordinary placer methods using wood timbering. The conclusion reached is that the latter method will be the most practical and economical.

Following is our estimate of costs to complete the entire job.

Total amount authorized under present contract	$ 37,960.00
Expenditures to December 31, 1952	29,183.78
Funds as of January 1, 1953	$ 8,776.22
Estimated expenditures in January	8,000.00
Funds remaining as of January 31, 1953	$ 776.22

Estimated Costs to Finish Work

1. Independent Contracts, none

2. Labor Supervision; Consultants:

	Total Shifts	Rate	Total
Shaft Labor	120	$16.00	$ 1920.00
Pump Operators	120	12.00	1440.00
Jetting & Moving Points	20	16.00	320.00
Truck Driver	40	12.00	480.00
Laboratory			
Technician	2 months	550/month	1100.00 *
Operators	100	16.00	1600.00
Helpers	80	12.00	960.00
Superintendent	2 months	600.00	1200.00 *
Living Expenses	240	7.00	1680.00
			~~$10500.00~~ 10,700

3. Operating Materials & Supplies

Pump fuel, 3600 gal. @ 28¢	$ 1008.00
Shaft Timber, 1000 bd. ft. @ $100 per shaft	400.00
Small Tools	100.00
Electric Power	50.00
	$ 1558.00

4. Operating Equipment

Purchased	None	
To be rented		
Well point equipment		
2 months @ $650	$1300.00	
Freight	200.00	
Total		$1500.00
To be furnished by operator		
Test jigs, rent	none	
Freight	$ 150.00	
Mechanical Sampler, rent	none	
Total		$ 150.00

5. Rehabilitation & Repairs None

6. New buildings and installations

Installation of jigs, spirals sampler, bins, etc.	$2,125.00	$2125.00

7. Miscellaneous

Outside laboratory; and Assaying

20 samples @ $30	=	$600	
4 conc. samples @ $100	=	400	
12 composites @ $ 50	=	600	$1600.00

8. Contingencies	$2000	$2000.00	
TOTAL		~~$19433.00~~	19,633.00

TOTALS

1. Independent Contracts		None	
2. Labor & Supervision		$10,500.00	$10,700.00
3. Operating Materials & Supplies		1,558.00	
4. Operating Equipment			
a. To be purchased - none			
b. To be rented - $1500.00			
c. To be furnished by operator	$150.00	1,650.00	
5. Rehabilitation, etc.		None	
6. New installations		2,125.00	
7. Miscellaneous		1,600.00	
8. Contingencies		2,000.00	
Total		~~$19,433.00~~	$19,633.00

59%
16,295.39

We, therefore, request that our contract be amended to provide these additional funds to finish this work.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

R F Mahoney
Cas

R. F. Mahoney
Vice-President

RFM:bb/mt

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 8 1953

INTERIM REPORT

DMEA-2576 (Monazite-Columbium-Rutile)
Callahan Zinc-Lead Co. Inc., (An Arizona Corp.)
100 Park Avenue, New York 12, N.Y.

HORSE CREEK PROSPECT, Aiken County, S. C.
Contract Idm-E392

This prospect was visited on the morning of January 5, 1953. Mr. Perry and Mr. Munzenrider had not returned from a trip to New York, so I was not able to get a satisfactory explanation of the apparent discrepancies in some of the data presented on the map, cross-section, and laboratory reports which accompanied the November progress report. Mr. Fred Davis, who was in charge during Munzenrider and Perry's absence, said he thought the differences were due to a change made recently in the method of calculating pounds of monazite per ton of sand. In any case a discussion with Munzenrider is desirable, and I left word with Davis that I would pay another visit to the project about the third week of January.

Drilling and laboratory work appears to be going smoothly. Rain during December caused water to rise in the swamp adjacent to Horse Creek, and drilling had to be restricted to the higher ground during this period. Several more holes were completed on the B and C lines, and F, H, and S lines were started. Work is progressing at the rate of about one hole per day. Victor Cote, drill foreman, estimated that they had about one more month of drilling to finish the job and said that most of this will be in rough swamp. The jeep-mounted drill was used during December and will probably be the only rig used during the rest of the project.

January 6, 1953

Henry S. Johnson, Jr.
H. S. Johnson, Jr.
U. S. Geological Survey

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

Room 13, Post Office Building
Knoxville, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 8 1953

January 5, 1953

Memorandum

To: Operating Committee, D M E A - Washington

From: Robert A. Laurence, Executive Officer, DMEA - Region 7

Subject: DMEA-2576, Idm-E392, Callahan Zinc-Lead Co., Inc. (Monazite-Columbium-Rutile)

Enclosed are three copies of a letter received by the subject Company in regard to the questionable location of Holes M-9 north, M-10 north, M-11 north, and O-11 north. One copy of this letter is being sent to the Regional Finance Officer.

There are also enclosed three photos taken by Mr. Perry which point out the difficulties in moving equipment into the swamp.

Robert A. Laurence
Robert A. Laurence

C O P Y C O P Y

VILLAGE MANAGEMENT CORPORATION

Langley-Bath-Clearwater

Langley, South Carolina

December 3, 1952

Mr. Owen Perry
Perry-Schroeder Mining Company
c/o Henderson Hotel
Aiken, South Carolina

Dear Mr. Perry:

This is to confirm that your drill holes M 9 north, M 10 north, M 11 north and O 11 north are located on our property and is covered under the lease between us.

Yours very truly,

SEMINOLE MILLS

David Levy (Signed)
Agent

Certified True Copy

s/
Owen H. Perry

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

INTERIM REPORT

DMEA-2576 (Monazite-Columbium-Rutile)
Callahan Zinc-Lead Co., Inc. (An Arizona Corp).
100 Park Ave., New York 12, N.Y.

Horse Creek Prospect, Aiken Co., S.C.
Contract Idm-E392

The above project was visited on December 1, 1952 by the under signed. The drilling is going along satisfactorily, although slow. This is due to the swampy terrain in which they are now drilling. It was found impossible to get the big drill into these locations so a drill was constructed on a four wheel drive jeep and they are able to get well into the swamp at present. They do, however, have to move the drill on 2" planks. The drill is constructed from material that they had for the hand operated Empire drill and recovers a 4-inch core. Under favorable conditions they will drill a hole a day. However, they have not averaged that, as during the month of November only 16 holes were drilled. This was partly due to being flooded out for about 5 days by the Mill people opening the gates of the dam up above to make some needed repairs and the water came up higher than they anticipated.

It was pointed out to Mr. Perry that on the map accompanying his October Monthly Report four holes apparently were outside the outline of the project, three on the M-Line and one on the N-line. Mr. Perry stated that the outline shown on the map is the outline of the swamp area and not the outline of the leased land. He stated that he will get a letter from the Seminole Mills stating that these holes are on land covered in their lease. The holes are located on the slope down to the swamp and not in the swamp proper. An amendment may be needed to cover this situation.

During the month a bulk sample consisting of 18 tons was sent to the U. S. Bureau of Mines laboratory at Tuscaloosa, Alabama for testing. Two of the Callahan laboratory men are at Tuscaloosa to aid in the work. The sample was a composite taken from the following four locations: On the "P" line midway between holes P-1 and P-3, at hole G-4, at Hole K-5N and at hole M-10N.

December 1, 1952

Wm. A. Beck, USBM

H. S. Johnson, Jr. USGS

zm

FILE COPY
SURNAME:

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

Room 13, Post Office Building
Knoxville, Tennessee

November 24, 1952

Mr. E. A. Sale, Treas.
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, N.Y.

Re: DMEA-2576, Idm-8392
(Monazite-Columbium-rutile)

Dear Mr. Sale:

Your Monthly Progress Report and Voucher for October with supporting documents has been received in this office and is being forwarded to our Finance Officer in Norris, Tennessee for processing today.

In your transmittal letter to Mr. Griffith you mentioned enclosing four invoices covering equipment costing more than $50.00. Upon receipt in this office the invoice for the fourth item (J. H. Berg & Co., for laboratory equipment) was missing. The total of the other three items amounts to $4,489.08. The difference between this amount and the $4,575.88 charged to operating equipment purchased on the MF-104 is $86.80. It is assumed that this is the amount of the Berg invoice. We are, therefore, deducting this amount from that item. This may be reclaimed on your next voucher by submission of a certified copy of the Berg invoice.

The totals on the MF-104 will now read as follows: Item (4) Operating Equipment, (Purchase) $4,489.08; $439.43 and $4,918.51. Grand Totals $11,117.88, $4,602.20 and $15,720.08. Please correct your reports to coincide with ours.

Very truly yours,

Wm. A. Beck, for R. A. Laurence
Executive Officer, DMEA-Reg.7

WAB/mm
cc:
Laurence
Lynch
Norris
Files-2

10/22/52 gla

Henderson Hotel
Aiken, South Carolina
October 20th, 1952

Mr. E. W. Ellis
DMEA
Room 4640 New Interior Bldg.
Washington, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 22 1952

Dear Mr. Ellis:

RE: DOCKET NO. DMEA 2576
CONTRACT IDM-E392

I am enclosing a copy of my letter to Mr. Thoenen at the Tuscaloosa Station of the USBM. Mr. H. M. Kline of the Bureau suggested when I was in Washington that we might well use some of the equipment at the Tuscaloosa Station in the second phase of our testing operation, and at that time phoned Mr. Thoenen who was agreeable to the idea. We have arrived at some idea of what we want to get done and how and have sketched it in the enclosed letter to him.

With the equipment that is available at Tuscaloosa, we may well make some saving in the cost of the second phase of our sampling or at least get much more full information than would be possible in the field. It may be that the entire second phase can be carried on there.

I have determined that the freight on a carload of sand will be approximately $2.50 per ton delivered to Tuscaloosa. The digging and hauling would be no greater than if we set up the equipment here.

I trust that if this plan works out well with the Tuscaloosa Station it will not need any amendment to our contract to work it this way, since it is not only approved by the Bureau of Mines but is their suggestion. It is understood, of course, that the total cost is to be held within the contract estimate.

Yours,

Owen H. Perry.

OHP:mer
COPY TO: Callahan Zinc & Lead Co.
Goldfields Consolidated Mines
Mr. H. M. Kline

Henderson Hotel
Aiken, South Carolina
October 20th, 1952

United States Bureau of Mines
Tuscaloosa, Alabama

ATTENTION MR. THOENEN:

Dear Mr. Thoenen:

RE: DOCKET NO. DMEA-2376
CONTRACT NO. IDM-E392

I have thought it wise before contacting you further as to handling a bulk sample of Horse Creek sands at your laboratory, to get a better idea of our material and our deposit from the work here. We now have done enough work to get a fair idea of both and have arrived at the tentative flow sheet that I have enclosed herewith.

I find that we can ship by rail a 40 ton carload of sample at about the same cost as hauling a few tons by truck, and unless there are unexpected difficulties at your plant in handling this larger amount, we would like to ship a carload whether we find it necessary to use it all or not.

As to the timing of the job, we would like very much to send some of our personnel to Tuscaloosa to help in the work, specifically one engineer and also a man who has had long experience in operating jigs and tables and who has worked for us for many years. Before we can do this, we must break in other men to take their place here in the sampling. This may require another three weeks or more, during which time the sample could be shipped to and unloaded at Tuscaloosa and a portion of it put through the preliminary four mesh screening. If this program should involve labor and expense that cannot properly be borne by your laboratory, we, of course, stand ready to take up such costs. A saving in over all time and expense would be made if this preliminary work could be done before our men arrived.

As to the flow sheet enclosed, we have based the four tons per hour feed on the understanding that you have a single cell 24" x 24" Bendelari jig. If this is a double cell jig, the volume of feed should be doubled.

As to the fine screen, we would hope that you will have a mechanical or vibrator machine with from 10 to 16 mesh screens available and an area of up to four square feet. This will give us some idea of screen capacity for our operation and would give the proper volume of feed directly to the jig. As you know, a steady and uniform feed is essential to the successful operati

of either the jig or the spiral, so a mechanical feeder of the right capacity would help, though the correct regulation of feed for this screening-jigging operation can be done by hand.

Since the jig does not have sufficient capacity to feed the spiral directly, we must stockpile the jig concentrates and run the spirals later, again with a mechanical feeder if possible.

It is probable that a high grade concentrate cannot be made with one pass through the spirals. We will no doubt have to resort to a second and perhaps a third stage spiral concentration as is being done at the Trail Ridge and Jacksonville operations on similar material. This, however, is only a matter of stockpiling the concentrates, as the same equipment will be used in each stage.

We have taken over the Bureau's method of using a Geiger counter to determine the monazite content of our concentrates radiometrically, using this as an indicator of the approximate grade of concentrate we have produced since there is no ready method of determining columbite or rutile content. You are, no doubt, familiar with this and have a counter in your laboratory and perhaps a supply of some known monazite with which to calibrate the instrument. As to this, we are using a pound of Big Creek, Idaho monazite we were able to get from Mr. Griffith in Raleigh. He may have more of the same material if none is on hand at Tuscaloosa.

There is one other material we will also need. You probably have the usual steel shot bedding for the jig. We have found this material too heavy for jigging minerals of the density of monazite, rutile, etc., and have been obliged to use something with a sp. gr. about the same, or a little less than, the values we are recovering, in this case hematite being about right. If the jig screen has 1/8" apertures or slots the bedding material should be particles of 3/16" to 1/4" in diameter and should be rounded by giving it slight "attrition grind" in a small mill without balls so that it will not interlock and will leave the maximum of interstices in the bed. A couple of hundred pounds of hard hematite ore crushed to minus two mesh plus four mesh will do the job and it could be rounded in your ball mill after we get there.

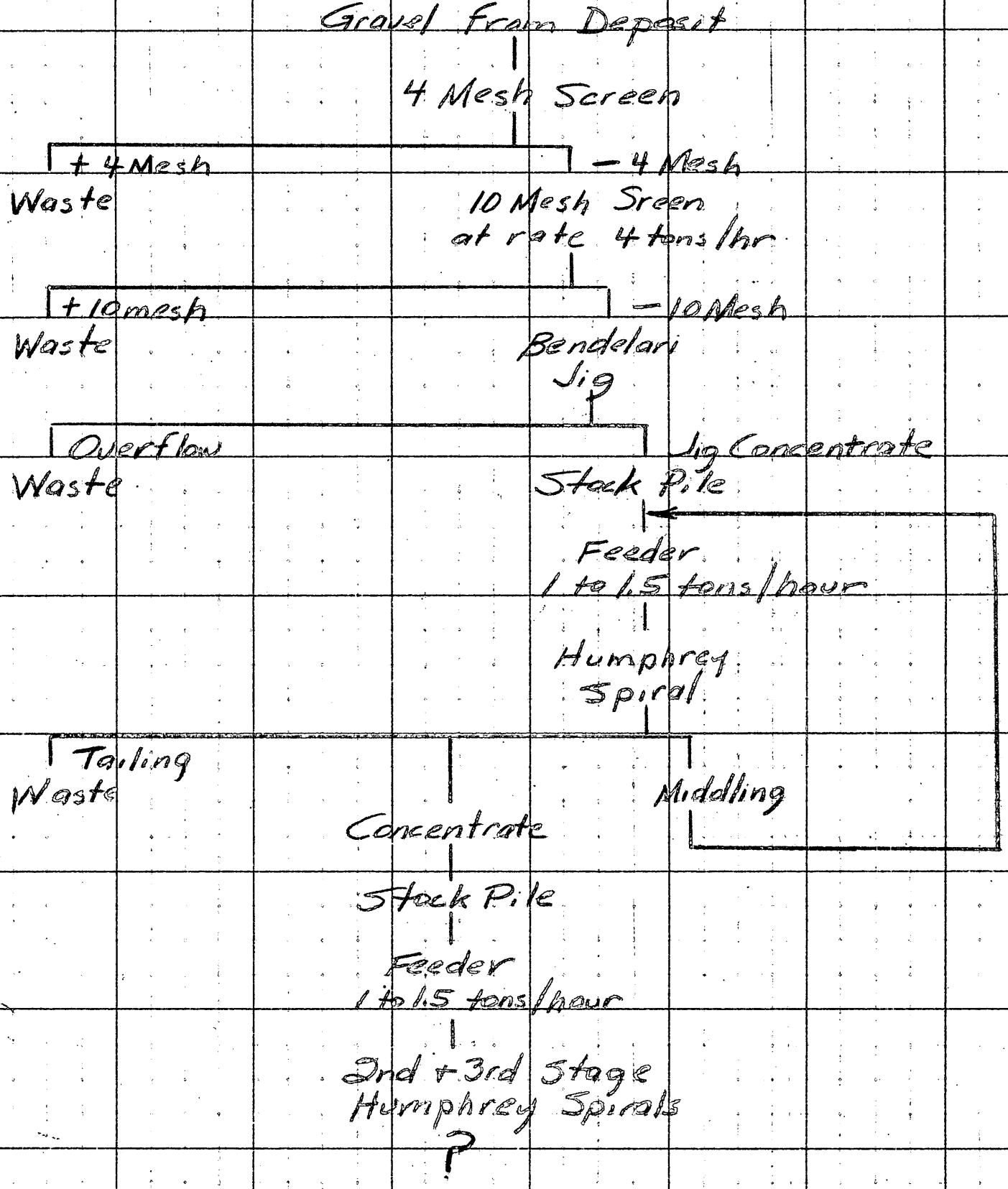
I have written you instead of phoning so that you can give some thought to our ideas and perhaps adjust them to your conditions before anything further is done. Please phone me at the Henderson Hotel in Aiken, S. C. Phone 9-2531 at your convenience. As I am usually in the field during business hours, please call me after 7:00 P.M.

Yours,

Owen H. Perry.

OHP:mer
CC: Mr. H. M. Kline
Mr. E. W. Ellis - Callahan Zinc Lead
Goldfields - Mr. Homer Mann

H[illegible]se Creek Monazite [illegible] Placer
Suggested Flow Sheet.
Based on 1 cell 24"x24" Bendelari Jig



INTERIM REPORT

DMRA-2576 (Monazite-Columbium-Rutile)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 17 1952

Callahan Zinc-Lead Co., Inc. (An Arizona Corp.)
100 Park Avenue, New York 12, N. Y.

Horse Creek Prospect, Aiken County, S. C.

Contract Idm-E392

The above project was visited on October 13 and 14, 1952. Churn-drill exploration began on October 4. As of October 13, five holes had been completed, a total depth of 119 feet. The field laboratory setup had been completed, and drill samples were being concentrated. Evaluations had not been completed.

The project work is being conducted as efficiently as can be expected, considering the starting of a new job and the difficulty experienced in gaining access to drill sites located in swampy ground.

No specific recommendations are submitted at this time.

In the period October 4-14, five 7-1/2-inch churn-drill holes, totaling 119 feet in depth, were completed to bedrock, (a white, kaolimitic-micaceous clay).

The following equipment has been installed and was operating in the field laboratory:

1. A small Wilfley concentrating table with hydraulic cone feeder, launders, and cutters.

2. A 250-pound-capacity dial scale and a small balance scale for weighing original samples and concentrates.

3. A 1000-watt hot plate for drying samples.

4. A Model SM-3 Eltronics Geiger counter for determining the percentage of monazite in the concentrates.

5. Necessary tubs and riddles for wet-screening the drill samples have been purchased, and tables and work benches have been constructed.

The bulk of the samples had been concentrated at the time of the visit, but since the mineral content of the concentrates had not been estimated, no evaluation results were obtainable.

At the request of Mr. Owen H. Perry, under whose direction this project is being conducted, a pound of monazite was obtained from the U. S. Bureau of Mines, Raleigh, North Carolina, station for use as radiometric standards. The field Geiger counter method employed by the U. S. Bureau of Mines to determine the percent of monazite in black-sand concentrates was demonstrated to Mr. Munsenrider, engineer of the examining company.

The initial drilling has shown that it is not possible to gain access with a truck-mounted churn drill to those drill sites which are located in the swampy ground that borders the present stream. In order to complete the lines of holes, the company plans to use a hand-operated Empire drill for the swampy terrain. This drill recovers a 4-inch core. If labor is not available, another alternative is to use a sled-mounted airplane churn drill. The truck-mounted drill will be used wherever possible.

The work is being performed in a capable and efficient manner. Methods developed by the Special Minerals Investigations Branch of the U. S. Bureau of Mines in the successful development of the Idaho monazite fields are being employed by this company.

Robert F. Griffith

Robert F. Griffith
Mining Engineer
U. S. Bureau of Mines

October 16, 1952

C O P Y

CALLAHAN ZINC-LEAD CO.
100 Park Avenue
New York, N. Y.

October 15, 1952

Mr. Robert F. Griffith
U. S. Bureau of Mines
Box 5185
Raleigh, North Carolina

Re: DMEA-2576, Idm-E392

Dear Mr. Griffith:

Enclosed are five copies of Form MF-104 "Operator's Monthly Report and Voucher," and five copies of Form MF-104A, "Operator's Unit Cost and Progress Report," and the Progress Report for the Aiken Project. Also enclosed is a certified copy of the September payroll, certified by E. A. Burkhalter, Public Accountant of Aiken, South Carolina.

In his letter of September 30th to us, Mr. Robert A. Laurence, stated that the requirement of Documentation of monthly vouchers for our contract is waived except for invoices or purchase order for equipment cost $50.00 or over, and for certified copies of payrolls. We are, therefore, enclosing original invoices covering equipment costing more than $50.00. These invoices are as follows, (1) Augusta Mill Supply Co. for a pump, (2) El-Tronics, Inc. for a Survey Meter, (3) Detecto Scales, Inc. for a dial scale.

After the enclosed reports have been processed will you please send the check to Callahan Zinc-Lead Company, Inc. marked for the attention of the writer.

If you have any questions in connection with the enclosed report, please write me at the above address.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

S/s E. A. Salo
Treasurer

EAS:mat
encl.

Copied by sm.
Norris-3
Griffith-1
Beck - 1

INTERIM REPORT

DMEA-2576 (Monazite-Columbium-Rutile)

Callahan Zinc-Lead Co. Inc., (An Arizona Corp.
100 Park Avenue, New York 12, N.Y.

Horse Creek Prospect, Aiken County, S. C.

Contract Idm-E392

The writers accompanied by Owen H. Perry and John M. Munsenrider visited the above project on September 30, 1952.

The men and equipment had arrived from Montana and the laboratory equipment was being installed in a building near Clearwater. Mr. Perry was given a supply of Monthly Report forms and was instructed in making them out. Drilling was expected to start in a few days.

Mr. Perry stated that Mr. M. H. Kline of the Rare and Precious Minerals Division of the Bureau of Mines in Washington suggested that a bulk sample of about 20 tons be sent to the Bureau Laboratory at Tuscaloosa, Alabama for beneficiation tests. Arrangements have been made with Mr. J. R. Thoenen, Chief, Minerals Technology Division, Region VII to do this work. Samples will be taken from sand and gravel pits that are now open.

Wm. A. Beck, USBM

Robert F. Griffith, USBM

Oct. 6, 1952

zm.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 8 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Room 18, Post Office Building
September 30, 1952
Knoxville, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1952

Mr. E. A. Salo, Treasurer
Callahan Zinc-Lead Co. Inc.,
100 Park Avenue
New York 17, N. Y.

Re: DMEA-2576, Idm-E 392

Dear Mr. Salo:

As requested in your letter of September 26, the requirement of documentation of monthly vouchers for the subject contract is waived except for invoices or purchase orders for equipment cost $50.00 or over, and for certified copies of payrolls. In the case of equipment purchases of $50.00 or more, either original or certified copies or certified transcripts of invoices or payrolls will be satisfactory.

Before payment of the final voucher can be made, under this arrangement, it will be necessary for a Government Auditor to make an on-site audit. Intermittent on-site audits may also be necessary, but as the job is to be completed within 6 months it is unlikely that more than one such intermittent audit will be necessary.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region 7

RAL/im
cc:
Beck
Chambers-Washington
Lynch
Opr. Com.
Files

COPY

COPY

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1952

CALLAHAN ZINC-LEAD COMPANY, INC.

100 Park Avenue

New York 17, N. Y.

September 26, 1952

Mr. Robert A. Laurence
Department of the Interior
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville, Tennessee

Re: DMEA-2576, Idm-E392

Dear Mr. Laurence:

Thank you for your letter of September 19 enclosing a supply of Forms MF-104 and MF-104A.

As our project is just an exploration project we do not feel there is enough work available to hire a full time accountant. We therefore do not expect to have purchase orders, copies of which you state must be certified. We do not expect to receive invoices covering all of our purchases as some of these purchases will be made locally for the numerous small items required for the project and most likely will be paid for by cash instead of by check. We therefore request that you waive the provision requiring copies of purchase orders or invoices. We will, of course, have available here in New York after the project is completed, all of the necessary information, if you wish an audit made covering this project. We can, however, give you a certified copy of the payrolls. We hope you can see your way clear to assist us in this matter.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

s/ E. A. Salo
Treasurer

EAS:JT
cc: Mr. Owen H. Perry.

Copied by zm.
9/30/52

Loc

Washington, D. C.
September 18, 1952

U. S. Bureau of Mines

Tuscaloosa, Alabama

Attention: Mr. Thoenen

Reference: Docket No. DMEA-2576
Contract No. IDM-E392

Dear Mr. Thoenen:

In line with Mr. H. M. Kline's telephone call yesterday, to which I was a third party in his office, I wish to confirm the plan suggested by Mr. Kline that we haul to Tuscaloosa a quantity of from five to ten tons of the sand from Big Horse Creek, which we will be sampling for Monazite, beginning about the first of October.

Mr. Kline's idea is that early in the program a fairly sizeable quantity of concentrates be made available for further examination to identify the minerals present and also to further assure ourselves of their proper separation by practical commercial methods.

Of particular interest is the content of Columbium which has been identified in smaller samples which have not given enough material to properly evaluate this mineral.

It is our idea at the present time that in actual production the material will be put across a Placer Type jig that is similar to the Bendelari which you have at Tuscaloosa. The first or rough concentration will be made in this stage. It is at present expected that the second and third-stage concentrations will be accomplished with Humphreys Spirals, as is being done at the Trail Ridge and Jacksonville operations.

In the operation being planned it does not seem practical to use Wilfley tables, because of their small capacity. Further, it does not seem practical at present to use the Humphreys Spiral in the rougher circuit as is done at Trail Ridge. However, other flow sheets than the one now planned may well be looked into, if your equipment at Tuscaloosa makes it possible.

As arranged by Mr. Kline, I will get in touch with you

by telephone some time after the 6th of October when you have returned to Tuscaloosa.

Yours,

O. H. Perry

OHP/s

Owen H. Perry
Henderson Hotel,
Aiken, S. C.

Dictated but not read by
Mr. Perry

Cc to: Mr. Frank Mahoney
Mr. E. W. Ellis
Mr. H. M. Kline
Mr. E. A. Julian

Washington, D. C.
September 18, 1952

U. S. Bureau of Mines
Regional Office
Room 13, Post Office Building
Knoxville, Tennessee

Attention: Mr. Robert A. Laurence

Reference: Docket No. DMEA-2376
Contract No. IDM-E392

Dear Mr. Laurence:

To keep you posted as to our progress I am writing to let you know that the crew moving from Montana is expected to arrive in Aiken, S. C., on Monday, September 22. Perhaps a week will be required to set up a laboratory and equipment and get things ready to go; so that it is probable that no drilling can be undertaken before the week of September 29. We leave it to your good judgment as to when Mr. Beck will arrive. I will be staying at the Henderson Hotel in Aiken, where he can contact me by phone in the evenings, as it is likely that I shall be out in the field during business hours.

Yours,

O. H. Perry

Owen H. Perry
Henderson Hotel,
Aiken, S. C.

OHP/s

Dictated but not read by
Mr. Perry

Cc to: Mr. Frank Mahoney
Mr. E. W. Ellis

9/8/52 gla

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

Room 13, Post Office Building
Knoxville 2, Tennessee

September 3, 1952

Mr. R. F. Mahoney, Vice President
Callahan Zinc-Lead Company, Inc.,
100 Park Avenue
New York, N. Y.

Re: DMEA-2576, Contract Idn-E392
(Monazite-Columbium-Rutile)

Dear Mr. Mahoney:

We have received a copy of the subject contract, for your exploration project in Aiken County, South Carolina.

Will you please advise me when you plan to begin work on this contract, and let me know who will be in charge of field operations for you, also where he can be contacted. Mr. Wm. A. Beck of the U. S. Bureau of Mines, representing this office, will want to pay a visit to the project at the start of operations.

The telephone number of this office is 2-7787, and Mr. Beck's office phone is 5-5376.

Very truly yours,

Robert A. Lawrence
Executive Officer, DMEA
Region 7

RAL/km
cc:
Beck
Lynch
Kline
Opr. Com.
Files

FILE C
SURNAM

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

AUG 29 1952

Mr. R. . Mahoney, Vice President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576
Contract No. Ism-1392
(Monazite-Columbium-Rutile)
Aiken County, South Carolina

Dear Mr. Mahoney:

Enclosed please find the Operator's copy of the above-captioned contract. Said contract is dated August 27, 1952, and has been duly executed.

Sincerely yours,

Signed

Acting Administrator

Enclosure

EWEllis/gla 8-27-52
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. E. J. Carlson, Rm. 1347
J. J. Norton, Rm. G-232 GSA
Ellis
DMEA Field Team, Region VII (2)

700 FILE COPY
SURNAME:

Ellis

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

AUG 29 1952

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Bld.
Knoxville, 02, Tennessee

Re: Docket No. MEA-2576
Contract No. Idm-8392
(Monazite-Columbium-Rutile)
Aiken County, South Carolina

Dear Mr. Laurence:

Enclosed are the Field Team's and Finance Officer's copies of the above-captioned contract, duly executed. The Operator's copy has been forwarded to Mr. R. V. Mahoney, Vice President, Callahan Zinc-Lead Company, Inc., 100 Park Avenue, New York 17, New York.

Please note that the 4-wheel drive truck is entered in the contract to be purchased. The Applicant represents that it was unable to rent this equipment for the project.

Columbium has now been added to the contract as assays reported after the filing of the application reveal the presence of columbium. However, the amount of the Government's participation was retained at 83% of the total of the contract as originally agreed upon, and this is acceptable to the Operator.

Sincerely yours,

R.H. 8-29-52

V. F. Feller (JHB)

Enclosures-2

ACTING Chairman, Operating Committee

APPROVED:

S. M. Lemmon (JHB)
Member, Geological Survey

C. H. Johnson (JHB)
Member, Bureau of Mines

EWEllis/gla 8-27-52
cc to: Adm. Reading File
Opr. Committee
Docket
Messrs. E. J. Carlson, Rm. 1347
J. J. Norton, Rm. G-232 GSA
Ellis
DMEA Field Team, Region VII

CALLAHAN ZINC-LEAD COMPANY, INC.
100 PARK AVENUE
NEW YORK 17, N.Y.
OREGON 9-1300

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 27 1952

OFFICE OF THE VICE PRESIDENT

August 25, 1952

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Attention: Mr. Ernest William Ellis, Chief
Rare & Misc. Metals Division

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Aiken County, South Carolina

Dear Mr. Ellis:

Herewith the original and 5 copies of the proposed captioned contract signed by myself as Vice-President and by the Secretary of this Corporation.

It is our understanding that the contract will be signed by the administrator and the date entered and a copy of the contract returned to us.

Yours very truly,

CALLAHAN ZINC-LEAD COMPANY, INC.

R. F. Mahoney

R. F. Mahoney
Vice-President

RFM:mat
encl. (6)

CALLAHAN ZINC-LEAD COMPANY, INC.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-2576

EXHIBIT "A"

Description of the Work

The purpose of the work is to explore by churn drill, the gravel lying along and contiguous to Horse Creek in Aiken County, South Carolina. The area to be explored begins at the crossing of the new Savannah River Project Highway and extends up Horse Creek in a northeasterly direction for a distance of approximately five (5) miles.

The drilling pattern will be to drill on line across the deposit and the drill-lines will be approximately 500 to 1,000 feet apart according to the terrain. The interval between holes on each line will be 100 to 200 feet also according to local conditions. Total footage to be drilled is estimated at approximately 3,300 feet.

A small laboratory is to be installed for the concentration of the bulk samples taken from each hole. The resultant concentrates are to be sent to a commercial laboratory for separation and analysis of the various constituent minerals.

Estimated Costs of the Project

(1) Independent contracts - None.

(2) Labor, Supervision, Consultants.

	Total Shifts	Rate/8 hrs.	Total
Driller	90	$20.00	$1,800.00
Helper	"	12.00	1,080.00
Sampler	"	12.00	1,080.00
Weigher (laboratory)	"	14.00	1,260.00
Operator "	"	14.00	1,260.00
Helper "	"	12.00	1,080.00
Truck driver "	"	12.00	1,080.00
1 laboratory technician @ $400/mo.-4 mos.			1,600.00
1 Superintendent @ $600/mo.-4 mos.			2,400.00
Total			$12,640.00

(3) Operating materials and supplies.

Gasoline 20 gals. per day - 90 days, or 1,800 gals. @ 30¢ per gal.	$ 540.00
Tires, oil, maintenance for trucks	600.00
Small hand tools, shovels, picks, buckets, tubs, bags, etc., all for drill and laboratory	900.00
Electric power, water, lights	190.00
Total	$ 2,230.00

		Total
(4) **Operating Equipment.**		
To be purchased:		
Four-wheel-drive truck		$ 4,300.00
Geiger counter		200.00
Vibrating screen		250.00
Laboratory balance		80.00
Platform scales		60.00
	Total	$ 4,890.00
To be rented:		
None		
To be furnished by Operator:		
Drilling machine	$3,200.00	
Drilling tools	1,300.00	
Drilling pipe and sieves	300.00	
Drilling truck mounting	2,200.00	
Wilfley table and mounting	700.00	
Pickup truck	1,900.00	
	$9,600.00	
Use allowance 1/60 per month for 4 months		$ 640.00
(5) **Rehabilitation and Repairs.**		
General Repairs for all equipment		$ 900.00
Moving equipment and crew to project		950.00
	Total	$ 1,850.00
(6) **New buildings, Improvements, Installations.**		
Rental 4 months @ $60		$ 240.00
Repairs, lights, water, etc.		150.00
Building bins, work benches, etc.		200.00
	Total	$ 590.00
(7) **Miscellaneous.**		
Payroll taxes		$ 660.00
Employees liability insurance		810.00
Accounting		800.00
Analytical work		2,500.00
	Total	$ 4,770.00

	Total
(8) Contingencies.	
Suitable building for laboratory may not be available at the time in which case a temporary building is necessary	$3,000.00

Summary of Total Estimated Cost of Project

Labor and Supervision	$12,640.00	
Materials and Supplies	2,230.00	
Equipment to be purchased	4,890.00	
Equipment to be Furnished by Operator	640.00	
Rehabilitation	1,850.00	
Buildings (rental & repairs)	590.00	
Miscellaneous	4,770.00	
Contingency	3,000.00	
ESTIMATED TOTAL COST		$30,610.00
GOVERNMENT PARTICIPATION AT 83%		$25,406.30

FILE COPY
SURNAME:

Ellis
Mutt

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

Mr. Frank Mahoney, Vice President
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Aiken County, South Carolina

Dear Mr. Mahoney:

In accordance with our telephone conversation on August 21, we are enclosing the original and five copies of the proposed captioned contract for your signature.

Kindly have your signature certified to by the Secretary or Assistant Secretary of the corporation and affix the corporate seal, all in accordance with the form at the end of the contract. Upon the return of the original and five copies of the signed contract to this office, the contract date and number will be added and the contract will be submitted to the Administrator for his signature, following which your copy will be returned to you.

The contract as drawn up, is in accordance with an understanding with Mr. Owen Berry, your representative. I trust you will find it in order.

Sincerely yours,

signed 8/22/52

Ernest W. Ellis, Chief
Rare and Misc. Metals Division

Enclosures

EWEllis/jla 8-21-52
cc to: Adm. Reading File
Docket
Messrs. E. J. Carlson, Rm. 1347
J. J. Norton, Rm. G-232 GSA
Ellis
DMEA Field Team, Region VII (2)

700
FILE COPY
SURNAME:

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

Ellis
Shum
Gammon
Selfridge

August 19, 1952

Memorandum

To: Chairman, Operating Committee

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Docket No. DMEA-2576
(Monazite-Columbium-Rutile)
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

The subject proposed contract was held up for some two months pending certain leases. These leases have now been acquired and applicant is anxious to get started by the first of September. Applicant's representative, Mr. Owen Perry, is now in Montana getting his equipment and crew ready. Mr. Perry understands that no expenditures made prior to the contract date will be permitted under the contract.

One item, i.e. 4-wheel truck - $4300.00, is said by Mr. Perry to be absolutely necessary due to the marshy terrain on which the work is to be performed. An attempt was made to procure such a truck on a rental basis, but applicant states they were unable to obtain this equipment on that basis.

Due to the short period of time left in which applicant desires to commence operation, it is suggested that the procedure below be followed:

1. Submit the contract to the Operating Committee.

2. If the contract is approved by the Operating Committee, submit the contract to Mr. Mittendorf for review and signing if he so desires.

3. Since applicant has signified its willingness to come to Washington for execution of the contract, have applicant's representative and Secretary (with seal) come to Washington for signing.

4. Distribute copies of the contract.

Ernest Wm. Ellis

EWEllis/gla
cc to: Adm. Reading File
Docket
Mr. Ellis

CALLAHAN ZINC-LEAD COMPANY
100 Park Avenue
New York City

August 7, 1952

Docket No.
DMEA-2576

Defense Minerals Exploration Administration
Washington, D. C.

(Attention of E. W. Ellis)

Gentlemen:

We have been carrying forward the laboratory phase of our project, and since our application was filed (June 6th) have developed some facts that we believe justify the amending of our application and the extending of the sampling work. We have found that the samples taken to date show a content of a columbium mineral (apparently columbite) of about 0.1 lbs. per cu.yd. Further, we have separated a concentrate of this from the other minerals by usual gravity methods (Wilfley table) and shown, in a preliminary way, that the separation is commercially practical. This mineral then amounts in value to about 25¢ per cu.yd. of material mined as shown by this preliminary work.

Because the columbite is present in such small percentages the drill cores, which are suitable in sampling for the other minerals present, are not large or bulky enough to give accurate returns on the columbite. We therefore believe that pit samples or bulk samples must be taken, in addition to the drill samples. This is the usual practice in placer sampling for gold or other high value metals.

We propose that these pit samples be taken at 1000 ft. intervals or less, as are the proposed drill cross sections, the location to be determined by the terrain. The method of taking these samples, whether by pick and shovel or by dragline, trencher or other power machine will also have to be suited to the condition of the terrain. Such machines are available for rent in the area. Hand pitting has in the past cost us about $5.00 per ft. or about $6.00 per cu.yd. of sample.

In addition to this we will need a set of test jigs and a test spiral for concentrating these bulk samples. This equipment we understand is available for rent in Denver or in San Francisco.

Our estimate of additional funds needed is as follows:—

Digging 14 pits @25 cu.yds @$6 per cu.yd.		$2100.	
~~Mechanical Screen (purchase)~~		~~400.~~	
Test jigs rental 4 months	$400		
Transportation	150	550.	
Test spirals rental 4 months	400		
Transportation	250	650.	
Concentrating and laboratory 25 days @$30 (Lubber power, ~~& supplies~~)		750.	
Outside laboratory work			
Electrostatic and magnetic separations 25 days @ $50.00 per day (Carpco)		1250.	
Assaying 14 Columbium-tantalum determination @$50.00(Ledoux)		700.	
Contingencies 20%		~~1280.~~	1200
Total		~~$7680.~~	7200 *

We wish to amend our original application to permit this additional sampling work.

Yours,

CALLAHAN ZINC-LEAD COMPANY

By

7

CARPCO ENGINEERING AND MANUFACTURING

Consulting Engineers - Manufacturers - Designers

JACKSONVILLE 6, FLORIDA

ADDRESS MAIL TO
P. O. Box 3272

PLANT LOCATION
HAINES AT 32ND STREET

July 15, 1952

Mr. Owen H. Perry
c/o Callahan Zinc-Lead Co.
100 Park Avenue
New York, N. Y.

Dear Mr. Perry:

With reference to our telephone conversation of yesterday you will find enclosed two samples which are the table products from the ilmenite fraction obtained from the composites of your heavy mineral sample.

The table heavies represented 1.8 percent of the table ilmenite fraction.

Very truly yours,
CARPCO ENGINEERING AND MANUFACTURING

R. V. Spencer

RVS/e

R. V. Spencer

SM-4-61 F.&K. INC.

LEDOUX & COMPANY,
(Inc.)

ENGINEERS, CHEMISTS AND ASSAYERS

SPECTROSCOPISTS

REPORT OF ANALYSIS

No. 578499 A [illegible] July 22, 1952

Our analysis of the sample of Ilmenite Concentration Tails

From Callahan Zinc-Lead Co., Inc.

Marked: 7/15/52
No.287-3 Tabled Light from Ilmenite fraction L. C. composite by RUS
No.287-4 Tabled heavies from Ilmenite fraction L. C. composite

and submitted to us, shows:

By Spectrographic Qualitative Examination:

	Light	Heavies
Tantalum - - - -	0.02%	0.20%
Columbium - - -	0.08%	Medium-Light
Titanium - - -	Medium	Medium

Note: Titanium determination by Spectrograph in the presence of considerable iron is unsatisfactory.

High 10-100%. Medium 1-10%. Low 0.1-1%. Trace less than 0.1%.

To Callahan Zinc-Lead Co., Inc.

LEDOUX & COMPANY, Inc.

[signature]

SM-4-51 F.&K. INC.

LEDOUX & COMPANY,
(Inc.)

ENGINEERS, CHEMISTS AND ASSAYERS

SPECTROSCOPISTS

JUN 26 1952

T

REPORT OF ANALYSIS

No. 677544

June 25, 1952

Our analysis of the sample of SAND

From Callahan Zinc Lead Co., Inc.

Marked: as below

and submitted to us, shows:

By Spectrographic Estimation:

Mark	Tantalum	Columbium
Sample #263-4 Ilmenite Fraction	Trace	Low
263-5 Rutile "	none	Trace
263-6 Monazite "	none	Trace
263-7 Staurolite "	none	none
263-8 Quartz & Ziron "	none	none

* * *

High 10-100%. Medium 1-10%. Low 0.1-1%. Trace less than 0.1%.

To Callahan Zinc Lead Co., Inc.

LEDOUX & COMPANY, Inc.

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

June 27, 1952

Memorandum

To: F. L. Knouse

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Docket No. DMEA-2576 (Monazite,Rutile)
Callahan Zinc-Lead Company, Inc.

(1) A proposed draft of the contract has been sent to the Executive Officer of Region VII for comments. No Field Team examination is necessary (see letter of June 23).

(2) Applicant was requested by letter of June 26 to send in a copy of an executed lease on both the Arthur Burdo land and the United Merchants and Manufacturers Corporation holdings. By telephone conversation from New York with Owen Perry, representing the applicant, he stated that possibly the lease could not be obtained on the Arthur Burdo tract; however, he would bring the executed lease on the United Merchants tract this coming week. If the Arthur Burdo tract lease is not obtained, then it should be red-lined out on the maps presently prepared for attachment to the contract.

(3) On receipt of the missing lease or leases, the land descriptions should be drawn up and made a part of the contract under "Appendix".

(4) If the Field Team comments are not received shortly, possibly it would be well to telephone the Executive Officer as this company is most anxious to get started in the very near future.

(5) I explained by phone to Mr. Perry that we had reduced the laboratory technician's salary from $600 per month to $400.00 and the superintendent's salary from $900 to $600. I also explained that the amount of $4,890.00 for equipment to be purchased would be purchased under the contract instead of the company purchasing and depreciating this equipment on a 1/60th a month basis as was shown in the application. The way I have drawn it up is desired by the applicant. ~~Any~~ Government participation will be at the rate of 83% based on equal rating of monazite and rutile, which actually would amount to 82-1/2%, but was made out in favor of monazite to arrive at the whole figure. The changes enumerated in this paragraph are acceptable to the Applicant.

(6) Mr. Owen Perry should be in your office sometime during the week of June 30.

FILE COPY
SURNAME:
700

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

JUN 27 1952

Mr. L. F. Mahoney, Vice Pres.
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

Re: Docket No. DMA-2576
(Monazite-Rutile)
Horse Creek Area
Aiken County, South Carolina

Dear Mr. Mahoney:

Before drawing up a contract on the above captioned project, if such is recommended, it will be necessary to have a copy of an executed lease on the Arthur Hardo land that is to be drilled and likewise on the United Merchants and Manufacturers Corp. land. These areas are considered as part of said project as is shown in the application and accompanying map.

This is necessary since the land description must be shown in the contract and made a part thereof.

Upon receipt of these documents we will continue at once to process your application.

Sincerely yours,

Signed S.W. 6-27-52

Vernon W. Ellis, Chief
Rare and Inc. Metals Division

EWEllis/jem
6/26/52
cc to: Adm. Reading File
Docket
Messrs. LJCarlson-1347
PLeis-~~k216~~ GSA G-232
~~MadxNelsonxk216xG34~~
JJNorton-GSA G-232
Ellis
Field Team, Region VII

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

Room 13 Post Office Building
Knoxville 2, Tennessee

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 30 1952

June 26, 1952

Mr. Frank E. Johnson, Chairman
Operating Committee
Defense Minerals Exploration Admin.
Dept. of the Interior
Washington 25, D. C.

Re: DMEA-2576 (Monazite - Rutile)
Callahan Zinc-Lead Co., Inc.
Horse Creek Area, Aiken County, South Carolina

Dear Mr. Johnson:

Mr. Beck and I have read and discussed the proposed contract on the subject application, sent with your letter of June 23.

We understand that costs on another contract with the same applicant were quite high, and therefore suggest that this contract be let on the short form.

We note that drillers are to be paid $20 per shift, whereas drillers on similar work in Florida (DMEA-2286) were set up in the contract at $75.60 per week and actually received $50.00 per week. If these proposed wages are based upon the prevailing high wages in the Savannah River area, due to the presence of the large A.E.C. Project there, they are presumably justified.

We do not understand the item of $950 for moving crew and equipment to the project. Does this represent transportation from Idaho? Is not equipment and labor available nearer to the project? (*) No - not at all

We also wonder about the adviseability of purchasing expensive items like a $4300 truck and a $3000 laboratory building for a 4-month job. Could not the truck be rented, and a less expensive temporary building be built?

Please advise Callahan to let this office know when they expect to start work so we can visit the property before they get too far along.

Should this office handle this job or should we request Mr. M. H. Kline to have his men follow it?

Wm. A. Beck

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

Robert A. Laurence

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

FILE COPY
SURNAME:

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

AIR MAIL

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville, 01, Tennessee

JUN 28 1949

Re: Docket No. DMA-2576 (Monazite - Rutile)
Callahan Zinc-Lead Company, Inc.
Horse Creek Area,
Aiken County, South Carolina

Dear Mr. Laurence:

A copy of the above-captioned application has been forwarded to you. In view of the fact that the Bureau of Mines has a knowledge of this area through former drillings by the Bureau of Mines and others, it is the consensus of opinion that the application will not require a Field Team examination.

However, we are enclosing a proposed contract and our estimate of the cost thereof. We are doing this in order that you may make any comments you deem necessary prior to the writing of the contract. By doing so, we may save considerable time in drawing up the contract.

The lease on the United Merchants & Manufacturers Corporation holdings and that of Arthur Bardo's ground are expected to arrive shortly and the entire land description will be made a part of the final contract as soon as these leases are received. You will note that the salary of the laboratory technician has been reduced from $600.00 to 400.00 per month and the superintendent's salary from $900.00 to 600.00 per month. Furthermore, at the time of filing the application by Mr. Owen R. Perry he was not aware that the equipment could be purchased but was under the impression that it had to be purchased by the Applicant and treated at a depreciation rate of 1/60th of the total value per month. It is their desire and our approval, that the purchase amount of said equipment be made a part of the contract as it is in most all contracts. Therefore, taking this item into consideration and the possible contingency of the cost of the laboratory building and deleting some $2,000.00 of salary, the total amount of the contract we now propose to execute is changed from $25,0[illegible]6.00, the amount of the application, to 30,610.00.

Because the over-all values of monazite and rutile are not known, and since monazite is on a 90-10% participation basis, and rutile on a 75-25% participation basis, we have proportioned the two commodities, giving a slight edge to the monazite, thus arriving at a participation basis of 83%.

The applicant is financially competent; therefore, since no Owner's Consent to Lien is obtainable these will be waived and Applicant will guarantee repayment according to the contract.

If you are in accord with the costs and will so state, we will then be able to draw up the contract as soon as we have the completed lease agreements on that area not presently covered.

Sincerely yours,

cc
6/23/52

(signed) FRANK H. JOHNSON
(JHB)
Chairman, Operating Committee

APPROVED:

J. H. Hedges
(JHB)
Member, Bureau of Mines

D. M. Lemmon
(JHB)
Member, Geological Survey

EWEllis/gla 6-20-52
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. E.J.Carlson, Rm. 1347
J.J.Norton, Rm. G-232 GSA
Ellis

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. DEA 2576

COMMODITY Monazite-Columbium-Rutile

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Callahan Zinc-Lead Company, Inc., (an Arizona Corporation)
100 Park Avenue
New York 17, N.Y.

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Carolina, County of Aiken, described as follows: [3]

See Appendix 1

the Operator represents and undertakes: [4]

(*a*) ~~That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

(*b*) That the Operator is a lessee, in possession and entitled to possession, ~~and the Owner's Consent to Lien is attached.~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within Forty five days from the date of this contract shall commence work on a project of exploration for [5] Monazite-Columbium-Rutile

in or upon the described land; and shall bring the project to completion within a period of 6 months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—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.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payment in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 83 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $31,506.80, which is 83 percent of $37,960.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* _____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Callahan Zinc-Lead Company, Inc.
(Operator)

By _____
Acting Administrator
Defense Minerals Exploration Administration

By _____

I, _____, certify that I am the _____ secretary of the corporation named as Operator herein; that _____, who signed this contract on behalf of the Operator, was then _____ of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

CALLAHAN ZINC-LEAD COMPANY, INC.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-2576

EXHIBIT "A"

Description of the Work

Phase I

The purpose of Phase I is to explore by churn drill, the gravel lying along and contiguous to Horse Creek in Aiken County, South Carolina. The area to be explored begins at the crossing of the new Savannah River Project Highway and extends up Horse Creek in a northeasterly direction for a distance of approximately five (5) miles.

The drilling pattern will be to drill on line across the deposit and the drill-lines will be approximately 500 to 1,000 feet apart according to the terrain. The interval between holes on each line will be 100 to 200 feet also according to local conditions. Total footage to be drilled is estimated at approximately 3,300 feet.

A small laboratory is to be installed for the concentration of the bulk samples taken from each hole. The resultant concentrates are to be sent to a commercial laboratory for analysis of the various constituent minerals.

Estimated Cost Phase I of the Project
(*-Allowable Maximum)

(1) Independent contracts - None.

(2) Labor, Supervision, Consultants.

	Total Shifts	Rate/8 hrs.	Total
Driller	90	$20.00	$1,800.00
Helper	"	12.00	1,080.00
Sampler	"	12.00	1,080.00
Weigher (laboratory)	"	14.00	1,260.00
Operator "	"	14.00	1,260.00
Helper "	"	12.00	1,080.00
Truck driver "	"	12.00	1,080.00
1 laboratory technician @ $400/mo.-4 mos.			1,600.00
1 Superintendent @ $600*/mo.-4 mos.			2,400.00
Total			$12,640.00

(3) Operating materials and supplies.

Gasoline 20 gals. per day - 90 days, or 1,800 gals. @ 30¢ per gal.	$ 540.00
Tires, oil, maintenance for trucks	600.00

	Total
Small hand tools, shovels, picks, buckets, tubs, bags, etc., all for drill and laboratory	900.00
Electric power, water, lights	190.00
Total	$2,230.00

(4) Operating Equipment.

To be purchased:

Four-wheel-drive truck	$4,300.00
Geiger counter	200.00
Vibrating screen	400.00
Laboratory balance	80.00
Platform scales	60.00
Total	$5,040.00*

To be rented:

None

To be furnished by Operator:

Drilling machine	$3,200.00
Drilling tools	1,300.00
Drilling pipe and sieves	300.00
Drilling truck mounting	2,200.00
Wilfley table and mounting	700.00
Pickup truck	1,900.00
	$9,600.00

Use allowance 1/60 per month for 4 months	$ 640.00*

(5) Rehabilitation and Repairs.

General Repairs for all equipment	$ 900.00
Moving equipment and crew to project	950.00
Total	$1,850.00

(6) New buildings, Improvements, Installations.

Rental 4 months @ $60	$ 240.00
Repairs, lights, water, etc.	150.00
Building bins, work benches, etc.	200.00
Total	$ 590.00

(7) Miscellaneous.

Payroll taxes	$ 660.00
Employees liability insurance	810.00
Accounting	800.00
Analytical work	2,500.00
Total	$4,770.00

	Total
(8) Contingencies.	$3,000.00*

Summary of Total Estimated Cost of Phase I

Labor and Supervision	$12,640.00	
Materials and Supplies	2,230.00	
Equipment to be Purchased	5,040.00*	
Equipment to be Furnished by Operator	640.00*	
Rehabilitation	1,850.00	
Buildings (rental & repairs)	590.00	
Miscellaneous	4,770.00	
Contingency	3,000.00*	
ESTIMATED TOTAL COST		$30,760.00*
GOVERNMENT PARTICIPATION AT 83%		$25,530.80*

Phase II

This phase of the work will only be undertaken after sufficient drilling and sampling have been done to indicate its need. It may begin before Phase I work is completed or immediately after said work is completed and upon mutual agreement of the Government and the Operator.

Estimated Cost of Phase II

(1) Independent contracts - None.

(2) Labor, Supervision, Consultants.

Digging 14 pits, 25 cu. yds. each, @ $6 per cu. yd.	$ 2,100.00*
Laboratory work 25 days @ $30/day	750.00

(3) Operating materials and supplies. None

(4) Operating Equipment.

To be Purchased:

None

To be Rented:

Test jigs including freight	$ 550.00
Test spirals " "	650.00

To be furnished by Operator:

None

(5) Rehabilitation and Repairs. - None

(6) New buildings, Improvements, Installations. - None

(7) Miscellaneous.

Outside laboratory work-	
Electrostatic & magnetic seperations-	
25 days @ $50.00 per day (Carpco)	$1,250.00
Assaying 14 Columbium-tantalum	XXXXXX
determination @ $50.00 (Ledous)	700.00
(8) Contingencies	1,200.00
Est. Cost Phase II	$7,200.00*
Govt. Participation @ 83%	$5,976.00*

CALLAHAN ZINC-LEAD COMPANY, INC.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-2576

EXHIBIT "A"

Phase I

Description of the Work

The purpose of ~~the work~~ Phase I is to explore by churn drill, the gravel lying along and contiguous to Horse Creek in Aiken County, South Carolina. The area to be explored begins at the crossing of the new Savannah River Project Highway and extends up Horse Creek in a northeasterly direction for a distance of approximately five (5) miles.

The drilling pattern will be to drill on line across the deposit and the drill-lines will be approximately 500 to 1,000 feet apart according to the terrain. The interval between holes on each line will be 100 to 200 feet also according to local conditions. Total footage to be drilled is estimated at approximately 3,300 feet.

A small laboratory is to be installed for the concentration of the bulk samples taken from each hole. The resultant concentrates are to be sent to a commercial laboratory ~~for separation and~~ for analysis of the various constituent minerals.

Estimated Costs of the Project

(1) Independent contracts - None.

(2) Labor, Supervision, Consultants.

	Total Shifts	Rate/8 hrs.	Total
Driller	90	$20.00	$1,800.00
Helper	"	12.00	1,080.00
Sampler	"	12.00	1,080.00
Weigher (laboratory)	"	14.00	1,260.00
Operator "	"	14.00	1,260.00
Helper "	"	12.00	1,080.00
Truck driver "	"	12.00	1,080.00
1 laboratory technician @ $400/mo.-4 mos.			1,600.00
1 Superintendent @ $600/mo.-4 mos.			2,400.00
Total			$12,640.00

(3) Operating materials and supplies.

Gasoline 20 gals. per day - 90 days, or 1,800 gals. @ 30¢ per gal.	$ 540.00
Tires, oil, maintenance for trucks	600.00
Small hand tools, shovels, picks, buckets, tubs, bags, etc., all for drill and laboratory	900.00
Electric power, water, lights	190.00
Total	$ 2,230.00

		Total
(4) **Operating Equipment.**		
To be purchased:		
Four-wheel-drive truck		$ 4,300.00
Geiger counter		200.00
Vibrating screen		~~250.00~~ 400
Laboratory balance		80.00
Platform scales		60.00
	Total	~~$ 4,890.00~~ *
		5,040.00 *
To be rented:		
None		
To be furnished by Operator:		
Drilling machine	$3,200.00	
Drilling tools	1,300.00	
Drilling pipe and sieves	300.00	
Drilling truck mounting	2,200.00	
Wilfley table and mounting	700.00	
Pickup truck	1,900.00	
	$9,600.00	
Use allowance 1/60 per month for 4 months		$ 640.00 *
(5) **Rehabilitation and Repairs.**		
General Repairs for all equipment		$ 900.00
Moving equipment and crew to project		950.00
	Total	$ 1,850.00
(6) **New buildings, Improvements, Installations.**		
Rental 4 months @ $60		$ 240.00
Repairs, lights, water, etc.		150.00
Building bins, work benches, etc.		200.00
	Total	$ 590.00
(7) **Miscellaneous.**		
Payroll taxes		$ 660.00
Employees liability insurance		810.00
Accounting		800.00
Analytical work		2,500.00
	Total	$ 4,770.00

	Total
(8) Contingencies. ~~Suitable building for laboratory may not be available at the time in which case a temporary building is necessary~~	$3,000.00 *

Phase I

Summary of Total Estimated Cost of ~~Project~~

Labor and Supervision	$12,640.00	
Materials and Supplies	2,230.00	
Equipment to be purchased	5,040 ~~4,890.00~~ *	
Equipment to be Furnished by Operator	640.00	
Rehabilitation	1,850.00	
Buildings (rental & repairs)	590.00	
Miscellaneous	4,770.00	
Contingency	3,000.00	
ESTIMATED TOTAL COST		30,760.00 * ~~$30,610.00~~
GOVERNMENT PARTICIPATION AT 83%		25,530.80 * ~~$25,406.30~~

Phase II

25 530.80
5976
31 506.80

Phase II

This phase of the work will only be undertaken after sufficient drilling and sampling have been done to indicate its need. It may begin before Phase I work is completed or immediately after said work is completed and upon mutual agreement of the Government and the Operator.

Estimated Cost of Phase II

(1) Independent contracts. - None

(2) Labor, Supervision, Consultants.

Digging 14 pits, 25 cu. yds. each, @ $6 per cu. yd. $2100 *

Laboratory work 25 days @ $30/day 750

(3) Operating materials & supplies. - none

(4) Operating Equipment.

To be purchased:

None

To be rented:

Test jigs including freight 550

Test spirals " " 650

To be furnished by operator

None

(5) Rehab. & Rep. : None

(6) None — — None

(7) Miscellaneous.

Outside laboratory work -

Electrostatic & magnetic separations -

(copy from 1st Qtr Rep. 7) 1250.00

700.00

(8) Contingencies 1200.00

Est. cost Phase II $7200.00

Govt. Pay 83% $5976.00

6/23/52 gla

IN REPLY REFER TO:

G-MD-PLW

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

June 19, 1952

Memorandum

To: E. W. Ellis, Chief
Rare and Miscellaneous Metals Division
Defense Minerals Exploration Administration

From: P. L. Weis
Mineral Deposits Branch
U. S. Geological Survey

Subject: DMEA-~~2535~~ 2576 (Monazite)

This will serve to confirm our telephone conversation of June 18, in which I stated that I would not insist on an examination of the property by the field team at this time, provided that information now available to the Bureau of Mines appeared to indicate that the applicant's drilling program is acceptable as described in the application.

Paul L. Weis

Paul L. Weis

6/18/52 gla

IN REPLY REFER TO:

G-MD-PLW

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

June 16, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2576 (Monazite).

To: E. W. Ellis, Rare and Miscellaneous Metals Division, DMEA.
From: P. L. Weis, U. S. Geological Survey.
Applicant: Callahan Zinc-Lead Company, Inc.
Name of property: No Name.
Location of property: Aikins County, South Carolina.
Estimated cost of project: $25,046.00.
Summary of applicant's proposal:

(1) Sampling, by churn drill or placer drill holes, the holes to be 200 feet apart on a series of lines running across the property at 1,000-foot intervals.

(2) Concentration of the samples in a laboratory, and analysis of the concentrates.

Sources of information on applicant's property:

Applicant states that the U. S. Bureau of Mines has done some drilling in this area as a part of the Savannah River project. The U. S. Geological Survey has no information on the property.

Comments: None.

RECOMMENDATION: Examination by the field team. Not necessary

Paul L. Weis
Paul L. Weis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAIL SECTION
JUN 17 1952

6/16/52 gla

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

June 12, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 13 1952

Memorandum

To: Ernest Wm. Ellis, Chief
Rare & Misc. Metals Division
Room 4070

From: E. J. Carlson, Special Minerals Investigation Branch

Subject: Docket #2576, submitted by Callahan Zinc-Lead Company, Inc. for exploration on Horse Creek in Aiken County, South Carolina.

The enclosed docket and maps for the exploration of Horse Creek, have been reviewed. The mineral content of the gravels in this deposit appear to be of sufficient tenor to warrant an exploration loan. The four holes drilled by the Bureau, near the lower end of this stream system, indicate that a fair content of monazite, rutile, ilmenite and zircon is present in the gravels of that stream system.

A study of the exploration costs was made and appear to be reasonable for churn drill exploration and sample concentration. The only exception may be the 4 month's salary for a superintendent. Considering that only one drill will be used in exploration, the engineer & laboratory technician should also be able to handle what supervision is necessary.

It is recommended that the application be approved, with only the above change made in item 6. b. "Labor and Supervision".

Edwin J. Carlson
EDWIN J. CARLSON

Attachment

EXPLORATION

Subject: DMEA-2576
Re: Exploration Loan
June 10, 1952

Mr. R. F. Mahoney
Callahan Zinc-Lead Company, Inc.
100 Park Avenue
New York 17, New York

My dear Mr. Mahoney:

This will acknowledge receipt of your application dated June 6, 1952, for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2576 and referred to the Rare and Miscellaneous Metals Division.

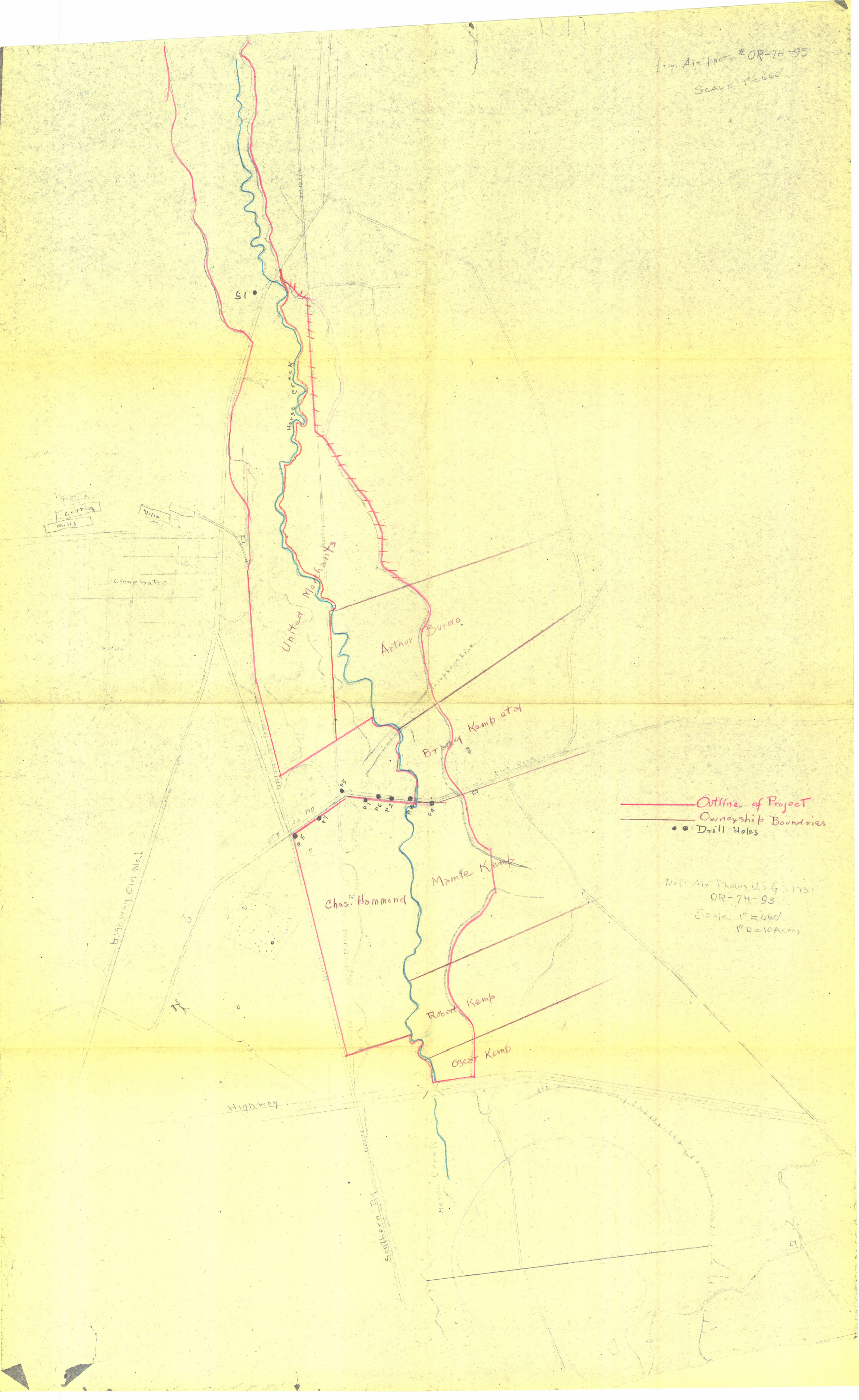
Kindly refer to DMEA-2576 in any future correspondence relating to your application.

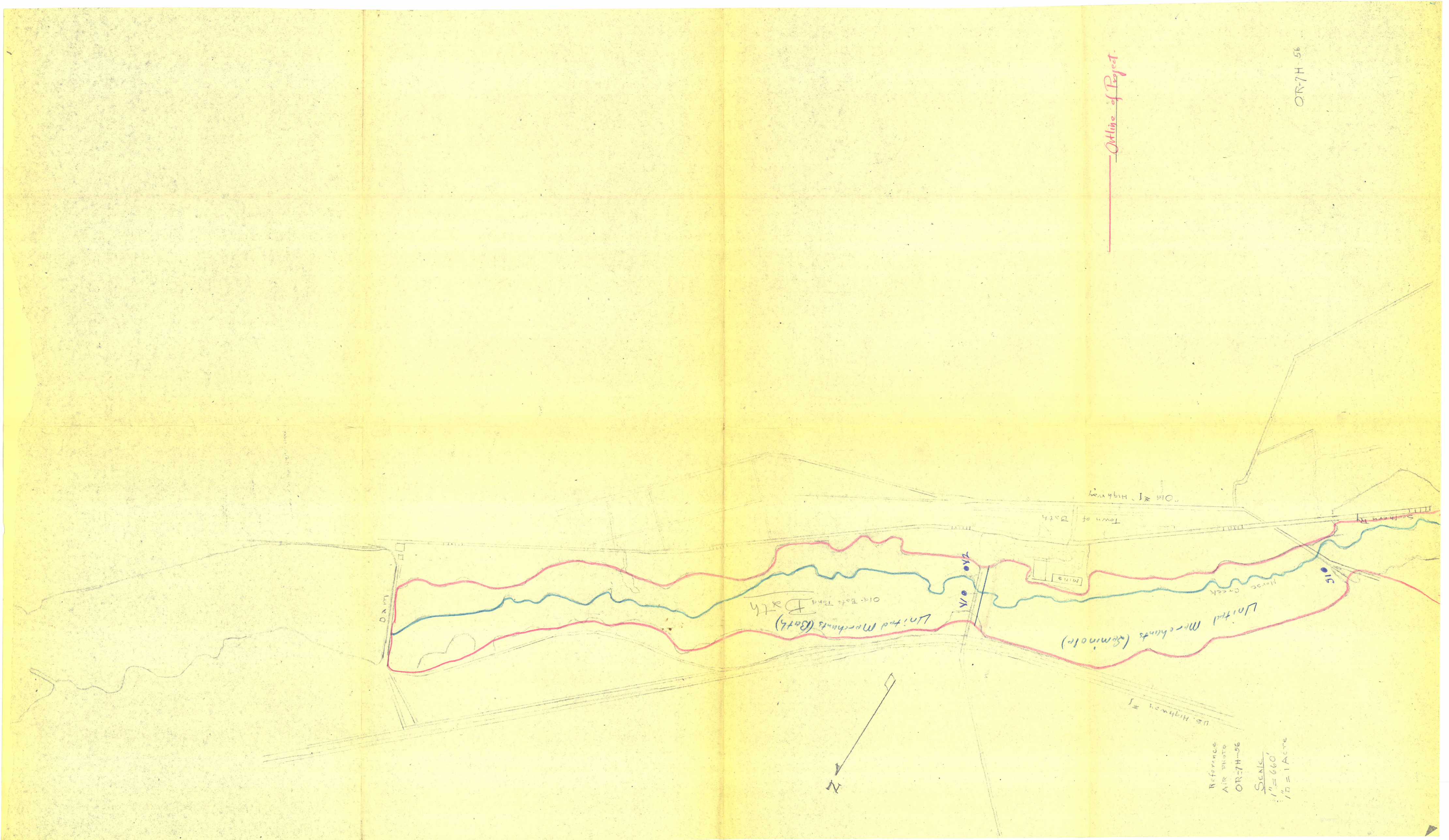
Sincerely yours,

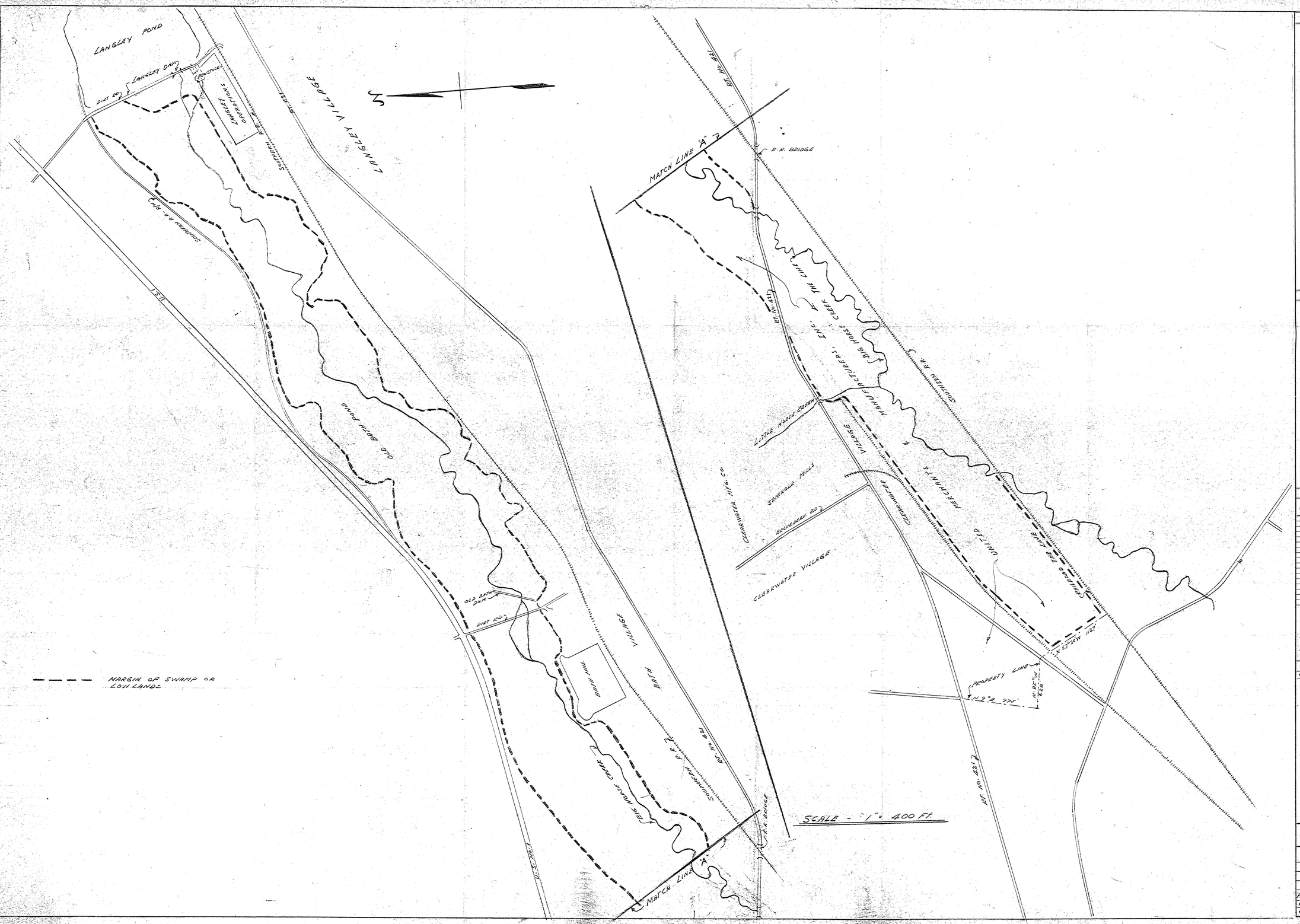
ROBERT E. ADAMS

Robert E. Adams
Administrative Officer

7862


from Air Photo #OR-7H-95
Scale 1"=660'
S1
Horse Creek
Cotton Mills
Mills
Clearwater
United Merchants
Arthur Burdo
Telephone Line
Brady Kemp et al
Dirt Road
P1
P2
P3
P4
P5
P6
P7
Outline of Project
Ownership Boundries
Drill Holes
Mamie Kemp
Chas. M. Hammond
Ref: Air Photos U.S.G.S. 1950
OR-7H-93
Scale: 1" = 660'
1" □ = 10 Acres
Robert Kemp
Oscar Kemp
Highway Old No. 1
Highway
Southern Ry
Horse Creek


Outline of Project
OR-7H-56
Reference
Air Photo
OR-7H-56
Scale
1" = 660'
1" = 1 Acre
U.S. Highway #1
United Mercantile (Geminator)
United Mercantile (Bath)
Old Bath Town
Horse Creek
Mills
Dam
Town of Bath
Old #1 Highway
Southern Ry
N



— NOTES —

— REFERENCE DRAWINGS —

— PRINTS ISSUED —

ISSUE	No.	MILL APPROVAL	No.	DES. CO. APPROVAL	No.	WITH REPORTS	No.	ENG. DEPT.

— REVISIONS —

REV.	DATE	DESCRIPTION	BY	CH.

UNITED MERCHANTS LABORATORIES, INC.
ENGINEERING DEPARTMENT
601 WEST 26th STREET, NEW YORK 1, N. Y.

HORSE CREEK VALLEY

MARGINAL OUTLINE OF LOWLANDS INTERPOLATED FROM AERIAL PHOTOS

HORSE CREEK VALLEY — SOUTH CAROLINA

BY: L.S.A.	CH.	PROJ. No. 278	
SCALE: 1"=600 FT.	APPR.	DATE: 7/22/52	269-11