OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E667, Docket DMEA-3288 (copper), dated April 2, 1954, with

Kathleen Margaret Mining Company
544½ Second Avenue
Fairbanks, Alaska
and its assignee
Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Albertson-Pettyjohn Copper Prospect and the Kathleen Margaret Claims located in the Talkeetna Mining District, Alaska, during the period January 1, 1955, through December 31, 1961.

In accordance with the Termination Agreement and Annex IV of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated July 1, 1957, indicated accepted costs under the exploration contract amounting to $35,511.10 with the Government's contribution on a 50 percent basis being $17,755.55.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review established no sales subject to the Government's royalty subsequent to the period covered by a prior Royalty Audit Certificate which found the sales subject to the Government's royalty through December 31, 1954, to be $1,124.29. The royalty account as of December 31, 1954, was:

Total Royalty Payable	$56.21
Total Royalty Paid	-0-
Balance of Royalty Due	$56.21

As of December 31, 1961, the royalty account of this project was found to be:

Total Royalty Payable	$56.21
Total Royalty Paid	56.21
Balance of Royalty Due	$ -0-

E. D. Talbert

February 6, 1962

E. D. Talbert, OME Auditor

Idm-E667 Alaska Copper Mines, Inc., Assignee DMEA-3288

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

At the time this exploration project contract was executed the Operator, a partnership consisting of Fred S. Pettyjohn, Jr., and Everett O. Albertson, was in possession of the property (Kathleen Margaret Claims Nos. 1 through 9) by virtue of location notices filed during August 1953. On April 12, 1954, the partners, as individuals and as the K-M Copper Mining Company, leased the property with option to purchase to the Alaska Copper Mines, Inc. Assignment of the contract to the lessee, without releasing the lessor from the terms thereof, was approved by the Government on June 9, 1954. The lessee and assignee is a wholly-owned subsidiary of the Alaska Freight Lines, Inc., 415 Walker Street, Seattle, Washington.

Exploration work under the contract was terminated effective January 1, 1955, under a Termination Agreement dated October 26, 1956. This agreement provides that the Operator, as principal if the producer and as surety if not the producer, shall pay a royalty under the same conditions as if a certification of discovery or development had been made.

The prior Royalty Audit Report and Certificate disclosed only a single September 1954 shipment of production, a bulk sample, during the exploration period. The $56.21 in royalty thereon was collected during April 1957 by offset in settlement of the Operator's final claim for exploration costs.

During 1956 the assignee terminated its lease and option with the assignor. Thereafter, the assignor-partnership organized the MacLaren River Copper Corporation.

The property under this contract subsequently was included in Contract Idm-E1093, Docket DMEA-4738, MacLaren River Copper Corporation, Box 1292, Fairbanks, Alaska, executed on May 29, 1957. The latter contract acknowledges the Government's rights under this prior contract and, without releasing the Operator under this prior contract, provides for repayment under the latter contract of the Government's contribution under both contracts.

In a February 21, 1958, letter (progress report for December 1957) the Operator under the latter contract, over signature of F. S. Pettyjohn, Jr., as general manager, stated 180 tons containing 4.46% copper, .11 oz./ton gold, and .41 oz./ton silver and 190 tons containing 1.03% copper had been stockpiled. However, a November 28, 1958, letter over the signature of Everett O. Albertson, as president, states that only 30 tons of shipping ore were stockpiled and

a reply by Genevieve I. Bannister, secretary-treasurer, to an August 3, 1960, MME Form 63, Request for Information, specifies that the stockpile contains only 30 tons of high-grade ore.

/The following statement was part of an item, probably based on a stock promotion program fostered by Mr. Pettyjohn, which appeared on page 2 of the November 19, 1957, issue of the Anchorage Daily News:

> "As a result the Owners of the mine have been able to go into high grading well in advance of actual operation. Copper ore averaging 30 per cent is shipped in barrels to the smelter. Meanwhile, the Operators are stockpiling ore at the rate of 40 tons a day."/

The Acting Field Officer, Region I, after consultation with E. W. Parsons, a Bureau of Mines engineer, who visited the property on May 17, 1958, has determined that it is reasonable to accept Miss Bannister's and Mr. Albertson's statements and that Mr. Pettyjohn's estimate was an exaggeration.

Under date of September 15, 1961, the MacLaren River Copper Company /sic/ entered into an agreement to sell sixteen mining claims, including the nine under this contract, to Tom Slick, National Bank of Commerce Building, San Antonio, Texas. This agreement provides that the seller will pay the Government's royalty on any production.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The only sale of production from the property under the contract was covered by the prior Royalty Audit Certificate; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

MME Form 22
Dec. 60

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name and Address
Mr. Robert B. Hicks, President
Transworld Resources Corporation
9107 Wilshire Boulevard, Suite 603

Beverly Hills, California

Contracts No.	Docket No.
Idm-E667 & Idm-E103	**DMEA-3288 & DMEA-4738 (Copper)**

Prepared by (Signature)	Date
Donald R. MacLaren	2/ 1/62

Yes	No	
		1. (a) Does the Operator stockpile ore subject to royalty repayment?
		(b) If so, is segregation and identification procedure adequate?
		2. (a) Does the Operator commingle production subject to DMEA or OME royalties with exempt production?
		(b) If so, is 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?
		(b) If so, are adequate records maintained on such material to protect the Government's interest?
		4. Are the assay controls in effect adequate?
		5. Does the manner of disposing of production give the Government its fair royalty returns?
		6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA or OME royalties?
		7. Does the Operator buy from or sell to other Operators?
		*8. Current status of property. (Check one).
☐		Operating.
☐		Inactive.
☐		Abandoned.
		Date of last production if not operating.

Comment on items 1(b), 2(b), 3(b), and 4 to 6, if answer is No:

According to a letter dated Jan. 30, 1962, from J. A. Herdlick, U.S. Bureau of Mines, Chief, Alaska Office of Mineral Resources, Region I, the Kathleen and Margaret Claims have been leased to Tom Slick, Transworld Resources Corp. and that there was no known production during 1961.

84861-60

DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 3288.

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

✓ Interim Royalty Audits 5-3-55
Reports of Royalty Review
Certification of Discovery proceeds in T.A. 10/26/56
Certificate of Audit (Final)
✓ Interim Audit(s) 5-3-55
✓ Report of Review 7-1-57
✓ Termination Notice or Agreement 10/24/56.
Recision Notice
✓ Assignment of Contract
✓ Contract Amendments (latest on top)
✓ Contract with all exhibits and annexes
✓ Owner's Consent to Lien Subordination Agreement
✓ Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

✓ Project summary
✓ Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

✓ Final Field Team Report (Tab) SEE DOCKET NO. DMEA-4738 MACLAREN RIVER
✓ Operator's Final Report
(2R) ✓ Interim Reports
(2R) ✓ Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

Reported Inactive 12/28/59

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

Gerwold
Betty

FIRST ROYALTY AUDIT CERTIFICATE

I have examined the records and sales documents pertaining to the sale of copper and other minerals for the period of April 2, 1954, to December 31, 1954, by the:

Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington

Assignees of the:

Kathleen Margaret Mining Company
544½ Second Avenue
Fairbanks, Alaska

produced from property known as the Albertson-Pettyjohn Copper Prospect (Kathleen Margaret Claims), located on the Maclaren River in the Talkeetna Mining District of the Territory of Alaska, under the terms of Exploration Project Contract No. Ida-2667, Docket No. DMEA-3288, dated April 2, 1954, including Amendments Nos. 1 and 2.

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

The audit disclosed total net sales of copper, gold and silver for this period to be $1,124.29, royalty on which is due the U. S. Government at the contract rate of 5 percent. The royalty due, paid and balance due are as follows:

Total Royalties Due	$56.21
Total Royalties Paid	-0-
Balance of Royalties Due	$56.21

E. P. Talbert, Auditor

May 3, 1955

FIRST ROYALTY AUDIT REPORT

I INTRODUCTION

On May 2, 1955, an audit of royalty payments, applicable to production and sales during the period of April 2, 1954 to December 31, 1954, by the:

Alaska Copper Mines, Inc.
P. O. Box 3965
Seattle 14, Washington

Assignees of the:

Kathleen Margaret Mining Company
544½ Second Avenue
Fairbanks, Alaska

under Exploration Project Contract No. Ida-2667, Docket No. DMEA-3288, dated April 2, 1954, including Amendments Nos. 1 and 2, covering a project of exploration for copper on property known as the Albertson-Pettyjohn Prospect, located on the Maclaren River in the Talkeetna Mining District of the Territory of Alaska.

The pertinent accounting records and sales documents were in the custody of P. P. Barbey, Assistant Treasurer of the Alaska Freight Lines, Inc., 415 Walker Street, Seattle, Washington. The Alaska Copper Mines, Inc., is a wholly-owned subsidiary of the Alaska Freight Lines, Inc. Both Mr. Barbey and Don Zelhweger, Manager of the project, were consulted during the audit, which was made concurrently with an interim audit of the costs claimed under the Exploration Project Contract. These costs are covered by an Interim Audit Report bearing the same date as this report.

II GENERAL INFORMATION

An interim audit of the exploration costs incurred under this contract, covering the project's operations for the period of April 2, 1954 to December 31, 1954, determined the acceptable costs to be $35,511.10 with the Government's 50 percent contractual participation amounting to $17,755.55. The Government, however, has paid to the Operator a total of only $17,117.52, leaving a balance due the Operator of $638.03 for the Government's participation in exploration costs through December 31, 1954. These findings are reported fully in an Interim Audit Report bearing the same date as this report.

No certificate of discovery or development has been issued, but Annex IV of the contract specifies that "The Operator * * * shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of time within which the Government may make such certification, or until the net total amount contributed by the Government without interest is fully repaid, whichever

occurs first; ****." This Annex IV was substituted for a prior Annex II by Amendment No. 2, dated March 30, 1955, but effective April 2, 1954. However, Annex II, which was a part of the original contract, also contained the quoted provision.

Accordingly, the Government is currently entitled to a royalty on all mineral production from the land described in Article 2 and set forth in Annex I of the contract as the Kathleen Margaret Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9 unpatented mining claims as recorded in the Talkeetna Recording Precinct, Talkeetna, Alaska.

As of the date of this audit the Operator had neither submitted copies of smelter returns or other sales documents nor paid any royalties to the Government.

III SCOPE OF AUDIT AND FINDINGS

This audit was for the purpose of determining if there had been any sales of production subject to royalty under the Exploration Project Contract. The extent of the audit and the findings follow.

A. Conference with Field Team

As a result of discussions with the Field Team and a review of the Executive Officer's and the Certifying Officer's files it was disclosed that the Field Team had knowledge of the shipment during September 1954, of about 15 tons of approximately 27 percent copper ore to the American Smelting & Refining Co. The Field Team was aware that the Operator had received $1,124.29 for this shipment, which was produced incidentally to the exploration work, but had not requested either copies of the smelter return or payment of the royalty due the Government.

By memorandum addressed to the Field Team under date of February 16, 1955, the Certifying Officer, L. J. Wilcox, noted this shipment and requested advice as to whether or not royalty was due thereon. The reply was in the form of a copy of a memorandum dated March 7, 1955, addressed to the Executive Officer, S. H. Lerain, by a Mining Engineer, Robert L. Thorne. This memorandum furnished summary advice on the shipment but erroneously indicated that no royalty was due the Government because a certification of discovery or development had not been made.

Interim Reports covering visits to the project on August 20, October 8, October 28 and December 3, by members of the Field Team contained no indications of production from the property. The Field Team advised this auditor that no ore, other than this one shipment of what was considered a bulk sample, had been produced from the property.

B. Audit of Settlement Statements

The audit included a review of the Operator's files pertinent to the Exploration Project Contract. This review disclosed only the one

shipment of ore and the accounting records did not furnish any evidence of any other production, shipments or sales. Furthermore, Don Zellweger, the Manager of the project, advised this auditor that this was the only production made from the property and that it was actually "a sorted sample, which was sent to the smelter primarily for bulk assay purposes."

The single shipment, identified as Lot No. 2334, was covered by a settlement statement, dated October 12, 1954, issued by the Tacoma, Washington, plant of the American Smelting & Refining Company. An abstract of this settlement follows:

Gross Weight		32,027 lbs.		
Less: Containers		1,975 "	30,052 lbs.	
H_2O of 1%			301 "	29,751 lbs.
Contents:	1.085 oz. Gold @	$34.9125		$ 37.88
	15.170 oz. Silver @	.8525		12.93
	4,822 lbs. Copper @	.2695		1,299.53
	Gross			1,350.34
Less: Base Charge @ $13.85			$206.03	
In bbls. @ $1.25 per ton			20.02	226.05
	Net			$1,124.29

Haulage, at the expense of the Operator, was by air to Galena, truck to Anchorage, barge to Seattle and truck to Tacoma.

IV CONCLUSIONS

This audit has confirmed that the Operator did produce, ship and sell minerals from the land under the Exploration Project Contract and, accordingly, there is due the Government a royalty computed as follows:

Total Net Sales	$1,124.29
Royalty Due @ 5%	$ 56.21
Royalty Paid	-0-
Balance Due Government	$ 56.21

These findings were discussed with Don Zellweger, Manager of the project, at the conclusion of the audit.

E. D. Talbert

E. D. Talbert, Auditor

May 3, 1955

DEPARTMENT OF MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Alaska Copper Mines, Inc.
P. O. Box 3365, Seattle 14, Washington
assignee of the
Kathleen Margaret Mining Company
544½ Second Avenue, Fairbanks, Alaska

pertaining to Exploration Project Contract No. Idm-E667, DMFA No. 3288, including Amendment Nos. 1, 2, and 3, and a Termination Agreement dated October 26, 1956, for the period of April 2, 1954, to December 31, 1954, inclusive, covering a project for the exploration of copper on property, known as the Albertson-Pettyjohn Copper Prospect located on the McLaren River in the Talkeetna Mining District of the Territory of Alaska.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, verification of work performed by reference to Field Team reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

all of the costs incurred prior to the January 1, 1955, effective date of the Termination Agreement were covered by an Interim Audit Certificate and Report dated May 3, 1955, issued by this auditor.

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

Total cost as billed by Contractor		$36,705.60
Exceptions:		
Prior to this review	$1,194.50	
Herewith	-0-	1,194.50
Total Accepted Cost		$35,511.10

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Seventeen thousand seven hundred fifty-five and 55/100 Dollars

$17,755.55

is considered valid and proper, provided 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

E. D. Talbert, Auditor

July 1, 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

Greenwald
~~Hagerstrom~~
Betty

INTERIM AUDIT CERTIFICATE

I have examined the records and transactions of the:

Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington

Assignees of the:

~~3264~~

Kathleen Margaret Mining Company 3288
544½ Second Avenue
Fairbanks, Alaska

pertaining to Exploration Project Contract No. Idm-3667, Docket No. DMEA-3288, dated April 2, 1954, including Amendments Nos. 1 and 2, covering a project for the exploration of copper on property known as Albertson-Pettyjohn Copper Prospect located on the Maclaren River in the Talkeetna Mining District of the Territory of Alaska, for the period of April 2, 1954 to December 31, 1954, inclusive.

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			$36,705.60
Exceptions (see Audit Report for details):			
Prior to this audit	$1,200.00		
During this audit	265.44	$1,465.44	
Less: Reinstatement		270.94	1,194.50
Total Accepted Cost			$35,511.10

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Seventeen thousand seven hundred fifty-five and 55/100 Dollars,

$17,755.55

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. Falkert

E. D. Falkert, Auditor

May 3, 1955

INTERIM AUDIT REPORT

I INTRODUCTION

On May 2, 1955, an interim audit (covering operations for the period of April 2, 1954 to December 31, 1954) was made of the records and accounts pertaining to Exploration Project Contract No. Ida-E667, Docket No. DMEA-328P, dated April 2, 1954, including Amendments Nos. 1 and 2, with the:

Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington

to whom the contract had been assigned, with the approval of the Government, by the original contractor:

Kathleen Margaret Mining Company
544½ Second Avenue
Fairbanks, Alaska

This contract covers a project for the exploration of copper on property known as the Albertson-Pettyjohn Copper Prospect located on the MacLaren River in the Talkeetna Mining District of the Territory of Alaska.

Prior to the actual audit of the records, this auditor made a complete review and analysis on April 28, 1955, of the documentation submitted by the Operator in support of the Monthly Report and Voucher Forms MF-104 and retained in the fiscal files of the Bureau of Mines, Alaska District, Region I, near Douglas, Alaska.

The accounts and original records pertaining to this project were in the custody of P. P. Barbey, Assistant Treasurer of the Company, and were located in the offices of the Alaska Freight Lines, Inc., 415 Walker Street, Seattle, Washington. The Alaska Copper Mines, Inc., is a wholly-owned subsidiary of the Alaska Freight Lines, Inc. Both Mr. Barbey and Don Zellweger, Vice President and Manager, were consulted during the audit.

II GENERAL INFORMATION ON RECORDS

The major portion of the estimated costs of this contract are under a provision for contribution by the Government on the basis of agreed unit costs, as they accrue, for units of work actually performed. The major portion of the remainder of the estimates are under the category of independent contracts. Accordingly, it was not considered necessary for the purposes of this audit to examine the Operator's books of account, which are integrated with the parent Corporation's accounts.

The records examined during this audit consisted of the payro. payroll tax returns, freight bills, invoices and canceled checks. The files of these records were maintained in a very inadequate manner and, in the opinion of this auditor, did not fully satisfy the intent of Article 7 (d) of the contract that "The operator shall keep suitable records and accounts of operations, ..." Furthermore, all of the documentation submitted with the monthly Forms MF-104 was quite ambiguous and entirely insufficient as proof as costs incurred under the terms of the contract.

The major portion of the payments applicable to this project were made by checks signed by Don Zellweger and drawn on an account with the First National Bank of Fairbanks. Some few costs of operations were paid by checks signed by P. P. Barbey and drawn on an account with the Peoples National Bank of Washington in Seattle.

III SCOPE OF AUDIT AND FINDINGS

The audit was limited to ascertaining the accuracy, propriety and validity of the costs claimed in the "Totals to Date" column of Form MF-104, Operator's Monthly Report and Voucher, for the period ending December 31, 1954. The findings follow:

(1a) Agreed Unit Costs:

Amendment No. 1, dated August 20, 1954, provides for the participation by the Government in a maximum of 600 feet of drifting and crosscutting at an agreed unit cost of $48.00 per foot for each unit of work actually performed. This 600 feet is exclusive of 187 feet performed prior to the date of the amendment without authorization or approval of the Government. The audit disclosed the following:

Claimed by Operator:			
120'	Crosscut	@ $48.00/ft.	$ 5,760.00
380'	Drift	@ $48.00/ft.	18,240.00
	Total Claimed		24,000.00
Disallowed by Certifying Officer:			
25'	Advance	@ $48.00/ft.	1,200.00
Acceptable Costs:			
475'	Crosscut/Drift	@ $48.00/ft.	$22,800.00

The disallowance by the Certifying Officer was made in accordance with a letter addressed to the Operator by Mr. S. H. Lerain, Executive Officer, DMEA Field Team, Region I, Alaska District, under date of January 7, 1955 and stating:

"Velikanje, Therne and I have made independent map measurements but none of us can stretch the advance to more than 475 feet (after deducting 187 feet required by the contract); therefore we will adjust the current payments to that footage. Before the final settlement is made we will have to make a survey; any indicated adjustments can be made at that time."

The Certifying Officer's disallowance of 25 feet of advance is concurred with by this audit and costs based on 475 feet of advance are tentatively accepted subject to subsequent Field Team verification of the actual satisfactory performance thereof.

(1b) Independent Contracts:

The contract, as changed by Amendment No. 2, provides for a maximum of 569 hours at a maximum rate of $18.00 per hour for the use of one D-8 tractor-dozer in dozing trenches, hauling supplies, and performing road and air-strip work. The rate was to include all costs except freight. The Operator, however, did not procure this equipment by contract, but used two D-8 tractor-dozers which were the property of the parent Corporation, Alaska Freight Lines, Inc. Furthermore, the Cat-operators were carried on the Operator's payroll at various rates of $3.45/hour, $2.055/hour and $650/month. The situation was further complicated by the contemporary use of the equipment on work other than the DMEA project.

During the course of the audit it was found that:

(a) The Operator maintained a log of the bulldozer time and indicated therein the time used on the DMEA project;

(b) The rate per hour charged to the project was considerably less than the $25.00 per hour rate charged to others; and

(c) The actual costs of maintenance and operation, including mechanics and operators' wages, was apparently in excess of the rate of $18.00 per hour claimed.

This last finding could only be made as a result of a general observation of payroll, fuel, parts and other costs, since neither the Operator or the parent Corporation maintained cost accounts covering the operation of this equipment. As an example of the costs involved, there is quoted herewith an invoice dated May 31, 1954, from the Morrison-Knudsen Company, Inc., Anchorage, Alaska, and covering use of one of that Company's tractors in righting one of the Operator's tractor-dozers before the second was brought to the project site:

"Rental D-8 w/dozer 11 days @ $656.75/week	$1,032.02
Plus repairs:	
Mechanics 30 hrs.	121.46
Parts	399.56
15% on labor and parts	78.16
Total	$1,631.20"

The cited invoice covered only 5 hours actual time in use, and that, without an operator. Alaska Freight Lines, Inc., by letter dated September 14, 1954, addressed to the Morrison-Knudsen Company protested these charges and stated:

> "Whenever the Alaska Freight Lines rents its D-8 tractor the charge is $25.00 per hour used, and then only for short periods. This I feel is a fair rate and would certainly agree to such a charge."

Although the work was not done by independent contract and the actual costs incurred cannot be accurately ascertained, the rate of $18.00 claimed appears to be equitable. Furthermore, the Executive Officer of the DMEA Field Team has confirmed the satisfactory performance of the work. Accordingly, this audit has found the acceptable costs under this category to be as follows:

Claimed by Operator:					
Cat No. 1	338.3	hrs.	@	$18.00/hr.	$ 6,089.40
Cat No. 2	365.	"		"	6,570.00
Total	703.3	"		"	12,659.40
Less: Excess over "Allowable Maximum"	134.3	"		"	2,417.40
Net Total	569.	hrs.	@	$18.00/hr.	$10,242.00

(2) Labor and Supervision:

A detailed analysis and verification of the payrolls, the pertinent payroll tax returns, and the applicable canceled checks was made during this audit. In addition to the supervision and sampling wages properly chargeable under the contract and the cat-operators' wages included within the hourly rate for the use of the D-8 tractors under category (1b), the payrolls included the wages of a cook, a carpenter and labor applicable to work not under the DMEA contract.

Labor costs were determined by the audit to be acceptable as follows:

Rene Micheletti	144 hrs. regular			
	66½ "	overtime	@ $2.055/hr.	$500.91
Joe Kelly	64 "	@ $750/mo.	(or $3.125/hr.)	200.00
Total				$700.91

Supervision costs were found to be acceptable as follows:

Joe Kelley	168 hrs.	@ $750/mo. (or $3.125/hr.)	$525.00

Technical Services, acceptable by audit, were as follows:

Don Zellweger	2 hrs.	@ $750/mo. (or $3.125/hr.)	$ 6.25

The salary of Joe Kelly, as supervisor of the project, was prorated between DMEA and other operations on the basis of direct labor hours including the cat-operators' time. This proration resulted in an approximation of 75 percent for the month of June, 1954 and 60 percent for the month of July as the proper share of his salary chargeable to DMEA. However, the July charge includes his time as a sampler as well as a supervisor. The Operator duplicated the amount of the net supervision charge, i. e., $250.00, by including it under both labor and supervision. Accordingly, this audit has disallowed the $250.00 under Labor. An additional allowance by audit of $.91 has been made due to the Operator claiming Misheletti's wages in the amount of $500.00 rather than the correct $500.91 amount.

Actual Supervision costs allocated to the project were $512.50, consisting of 260 hours @ $750/mo. (the equivalent of $3.125/hr.). The Operator, however, has claimed in the "Totals to Date" on the December 1954 MF-104 only for the allowable maximum of $537.60, having concurred with prior disallowances by the Certifying Officer. Since the number of hours of Supervision stated in the contract is also an allowable maximum this audit has disallowed $12.60 under Supervision as the difference between the maximum rate of $3.20/hr. allowed by the contract and the rate of $3.125/hr. actually paid for the allowable maximum of 168 hours.

Don Zellweger's salary of $750.00 per month was actually paid by the parent company and not the operator. He spent two hours in surveying on the project and arbitrarily claimed $5.00/hr. as "a reasonable charge for his services." This audit has disallowed $6.25 as the difference between two hours @ $5.00/hr. claimed and the two hours @ $3.125/hr. actually paid by the Alaska Freight Lines, Inc.

(3) <u>Operating Materials & Supplies;</u>
(4) <u>Operating Equipment;</u>
(5) <u>Initial Rehabilitation & Repairs; and</u>
(6) <u>New Buildings, Improvements, etc.;</u>

None of these categories of cost are applicable to this contract.

(7) <u>Miscellaneous:</u>

The only estimates for this category included in the contract were for:

36 Assays @ $6/each	$216.00
Freight on D-8, Fairbanks to Paxson & return	750.00

No claim was made by the Operator for the cost of Assays. Investigation during the audit disclosed that the laboratory of the Bureau of Mines for Region I, Alaska District, had performed the assay work without cost to the Operator. A Chemical Laboratory Report No. 456, dated October 4, 1954, gives assays on 15 trench samples taken by the Operator. A Chemical Laboratory Report No. 455, bearing the same date, furnishes assay results on 5 trench samples and one outcrop sample taken by Mr. Thorne, Bureau of Mines Engineer.

The Operator's claimed "Totals to Date" on the December, 1954 MF-104 for Freight was $966.00, although he had originally claimed $618.47 for freight from Fairbanks to Paxson and $618.47 for the return freight, a total of $1,236.94. The Operator had reduced his claim in accordance with a letter dated October 4, 1954, addressed to him by the Certifying Officer, wherein it was stated:

> "Although the freight on cats, item 7, is specified as $750.00, the $966.00 has been approved inasmuch as no maximum allowance prevails and the contract includes $216.00 for assays."

The inadequate documents submitted by the Operator to support his original claims aggregating $1,236.94 erroneously stated that the amounts claimed covered two cats. While two cats were used on the project, the costs claimed were actually for the movement of only one cat. The audit disclosed that the $1,236.94 originally claimed was based on a freight bill which disclosed the following:

Weight of a D-8 Cat	30,923 lbs.
Published rate-Fairbanks to Paxson	$2.00 per 100 lbs.

Accordingly this audit has reinstated the amount of $270.94, which represents the difference between the amount of $966.00 allowed by the Certifying Officer and the amount of $1,236.94 determined by this audit to be the acceptable costs for freight.

Other Observations:

The assignment of this contract to the Alaska Copper Mines, Inc., by the Kathleen Margaret Mining Company resulted in a complete change in the anticipated means of performing the work and determining the costs incurred. It was not contemplated by the estimates of costs, included in the contractual "Exhibit A", that the bulldozing would be done other than by subcontract or that any of the work would be performed concurrently with other non-DMEA exploration work and thereby require an apportionment of costs. It appears that good administration would have required the proper amendment of the contract at the time of the assignment.

It was found during the audit that a sale of ore produced from the property under this Exploration Project Contract had been made by the Operator. However, the royalty due the Government (in the amount of $56.21) in accordance with the provisions of Annex IV to the contract has not been paid. This matter is more fully discussed in a First Royalty Audit Report bearing the same date as this audit report.

IV CONCLUSIONS AND RECOMMENDATIONS

The audit disclosed that all costs charged to this project, as adjusted by the disallowances and other audit adjustments and as itemized in the preceding section of this report, are reasonable and proper under the terms of the contract. The audit findings are summarized as follows:

	Totals Dec.31-1954	Corrected Distribution	Disallowed By Audit	Accepted Costs
(1a) Agreed Unit Costs:				
Crosscutting	$ 5,760.00	$24,000.00	$1,200.00	$22,800.00
Drifting	18,240.00			
(1b) Independent Contr.:				
Bulldozing	10,242.00	10,242.00	-0-	10,242.00
(2) Labor & Supv.:				
Labor	960.00	950.00	249.09	700.91
Supervision	537.60	537.60	12.60	525.00
Technical Serv.	-0-	10.00	3.75	6.25
(7) Miscellaneous:				
Freight on Tractor	966.00	966.00	-270.94	1,236.94
Totals	$36,705.60	$36,705.60	$1,194.50	$35,511.10

This contract contained several items of cost expressly designated as "allowable maximums". The status of these allowable maximums, after making adjustments in accordance with this audit, is as follows:

	Allowable Maximum	Acceptable Cost	Balance
Agreed Unit Costs:			
Drifting/Crosscutting	$28,800.00	$22,800.00	$6,000.00
Independent Contracts:			
Bulldozing	10,242.00	10,242.00	-0-
Labor & Supervision:			
Supervision	537.60	525.00	12.60
Surveying & Mapping	384.00	6.25	377.75

This audit has disclosed that the acceptable costs of this project through December 31, 1954, were $35,511.10, with the Government's 50 percent contractual participation being $17,755.55. Inasmuch as the Operator has been paid the sum of $17,117.52, a balance of $638.03 is due the Operator. However, it is recommended that, if the royalty due the Government in the amount of $56.21 is not received within a reasonable time, a deduction be made from the balance due the Operator and payment be effected in the net amount of $580.82 only, with appropriate book adjustments being made to properly reflect the royalty repayments and the accepted costs.

E. D. Talbert

E. D. Talbert, Auditor

May 3, 1955

Docket copy B

Return Lawyer "Appd. Sol. Off."

RECEIVED APR 6 - 1956

Returned Chapman Selfridge Robinson

EXPLORATION PROJECT CONTRACT
ALASKA COPPER MINES, INC., Assignee
DOCKET NO. DMEA-3288

AMENDMENT NO. 3

It is agreed this 21st day of March, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Alaska Copper Mines, Inc., Assignee, that Exploration Project Contract Idm-E667 (Docket No. DMEA-3288), dated April 2, 1954, as amended, is further amended effective January 1, 1955, as follows:

1. (a) Work under the Contract shall be suspended during the period beginning January 1, 1955, and ending not later than June 1, 1956.

(b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government, and the Government shall not contribute to any costs of rehabilitation or repair which, in its opinion, would not have occurred if there had been no suspension of the work.

(c) The Operator at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work and any property in which the Government has an interest.

2. The time fixed for completion of the work in Article 3 of the Contract is extended from "fifteen (15) months" to "three (3) years" from the date of the contract.

3. In Annex IV to Amendment No. 2, the maximum period for the payment of the Government's royalty is extended from "ten years" to "twelve years" from the date of the contract, or until April 2, 1966.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C P Mattendorf
Administrator, Defense Minerals Exploration Administration

ALASKA COPPER MINES, INC.,
ASSIGNEE

By Don Fillmore
Exec. V. Pres.

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TERMINATION AGREEMENT

It is agreed this 26th day of October, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Alaska Copper Mines, Inc., Assignee of Kathleen Margaret Mining Company, a partnership composed of Fred S. Pettyjohn, Jr. and Everett O. Albertson, hereinafter called the "Operator," parties to that certain Exploration Project Contract IDM-667 (sometimes referred to as Idm-M667), Docket No. DMRA-3288, dated April 2, 1954, as amended, hereinafter called the "Contract," that:

1. Effective January 1, 1955, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute to allowable costs incurred prior to said effective date; and shall contribute to allowable costs incurred or to be incurred beginning with said effective date in performing winding-up and settlement actions provided for in the Contract, including (a) the preservation and disposal of property to the cost of which the Government has contributed, and (b) the making and rendering of reports and accounts.

3. Any work or operations prosecuted or costs incurred by the Operator beginning with said effective date, except as otherwise provided in this termination agreement, shall be for the sole account of the Operator without contribution by the Government.

4. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including (a) the disposal of any facilities, buildings, fixtures, equipment, or other items to the cost of which the Government has contributed; and (b) the rendering of the final report and final account.

5. The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government the royalty on minerals mined or produced until April 2, 1966, said royalty payment to be in the same manner and amount and subject to the same conditions provided in the Contract, as if certification of discovery or development had been made, such certification being hereby waived by the Operator.

6. All rights of the Government under the Contract with respect to records, audits, and recovery of any overpayment are preserved.

7. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By C O Mitteudorf
Administrator, Defense Minerals
Exploration Administration

ALASKA COPPER MINES, INC., Assignee

By Don Ellwood

Title Exec. V. Pres.

Indritz 10/23/56
Sawyer
"Approved Only"

Approved
Chambers
Selfridge

FORM AFL 205

OFFICIAL-COPY

ALASKA FREIGHT LINES, INC.

[redacted]

DMEA
RECEIVED
DATE

Seattle, Washington
June 6, 1957

J. A. Herdlick - Acting Executive Officer
Alaska District Region I of U. S. Dept. of Interior
P.O. Box 2688
Juneau, Alaska

RE: Docket # DMEA-3266 (copper)
Alaska Copper Mines Inc.
Contract # IDM-7667

Dear Mr. Herdlick:

Attached herewith please find original and four copies of termination agreement transmitted for signature by us with your letter of June 4, 1957. Please be advised, however, that we have executed the agreement under assumption that it is strictly a form type termination agreement and that the Government will not expect reimbursement of any kind from funds realized from disposal of property belonging to the operator as indicated in paragraph two and four of said agreement.

Our reason for this stand may better be explained by reference to Mr. E. D. Talbert's Interim Audit Certificate of May 3, 1955, where Mr. Talbert states that none of the following catagories of cost are applicable to our contract.

Operating material and supplies.
Operating equipment.
Initial rehabilitation and repairs.
New building and improvement, etc.

In view of the above and considering the fact you are about to enter into a contract for further exploration work on the same property, we cannot foresee any physical demands to wind up this settlement that might be required by the terms of such a termination agreement.

Very truly yours,

ALASKA COPPER MINES, INC.

Don Zellmer
Executive Vice President

DZ;jd

C O P Y

Docket Copy

ASSIGNMENT OF CONTRACT

WHEREAS, Fred S. Pettyjohn, Jr. and Everett O. Albertson, partners, doing business as Kathleen Margaret Mining Company, entered into Exploration Project Contract Idm-5667 (Docket No. DMEA-3288), dated April 2, 1954, hereinafter called the "Contract"; and

WHEREAS, Fred S. Pettyjohn, Jr. and Everett O. Albertson (hereinafter called "Assignors"), own the land which is the subject of the Contract, and by an instrument dated April 12, 1954, leased the land to Alaska Copper Mines, Inc., an Alaska corporation, hereinafter called the "Assignee"; and

WHEREAS, the Assignors desire to transfer their interest in the Contract to the Assignee;

NOW THEREFORE, the Assignors, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee, do hereby assign, transfer, and convey to the Assignee all of their right, title, and interest in the Contract. The Assignors jointly and severally agree to release and hereby release the Government from any and all claims, past, present, or future, arising out of the Contract.

This assignment is subject to the written acceptance by the Assignee of the terms, provisions, and conditions of the Contract, and to the written consent of the Government.

Dated this 9th day of June, 1954.

Fred S. Pettyjohn Jr.
(Fred S. Pettyjohn, Jr.)

Everett O. Albertson
(Everett O. Albertson)

ASSIGNEE'S ACCEPTANCE

The Assignee, Alaska Copper Mines, Inc., hereby accepts the above assignment and agrees to be bound by the terms, provisions, and conditions of the Contract.

Dated this 9th day of June, 1954.

ALASKA COPPER MINES, INC.

By Don Gillespie VP

GOVERNMENT'S CONSENT

The Government, this 9th day of June, 1954, hereby consents to the above assignment without releasing Fred S. Petersjohn, Jr. and Everett O. Albertson from any of the terms, provisions, and conditions of the Contract.

THE UNITED STATES OF AMERICA

By C W Mittendorf
Administrator, Defense
Minerals Exploration
Administration

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EXPLORATION PROJECT CONTRACT
ALASKA COPPER MINES, INC., ASSIGNEE
DOCKET NO. DMEA-3288

AMENDMENT NO. 2

It is agreed this 30th day of March, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Alaska Copper Mines, Inc., Assignee, that Contract Idm-M[illegible] (Docket No. DMEA-3288), dated April 2, 1954, as amended, is further amended effective April 2, 1954, as follows:

1. In Exhibit "A":

(a) Under the Description of the Work, delete the second sentence of the first paragraph and substitute the following:

> Twelve surface trenches shall be excavated, with D-6 or D-8 tractor-dozer, across the outcrop of the vein at, roughly, 100 foot intervals, as shown on the attached map, Figure 2, attached hereto, entitled "Diagram of Proposed Adit and Trenches, Albertson-Pettyjohn Copper Prospect, MacLaren River, Alaska . . . October 1953." The tractor-dozer shall be used also for road work, hauling of fuel and supplies, and for work on the air strip. To the extent that the Government considers reasonable, the time of transportation of the tractor-dozer to and from the site of the project work and for delays are allowable costs of the contract.

(b) Under Independent Contracts, delete "D-7 tractor-dozer" and substitute "D-8 tractor-dozer."

2. Annex II attached to the contract is deleted, and Annex IV attached hereto and made a part hereof is substituted for the royalty provisions of Article 9 of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C P McNeadors
Administrator, Defense Minerals
Exploration Administration

Rubin
Hoffland
Swinnerton
Chamberlin
Selfridge
Johnson

ALASKA COPPER MINES, INC.

By Don Zellweger
Exec. Vice Pres.

JUSTIFICATION FOR AMENDMENT NO. 2

In preparing the contract, the costs of bulldozer-tractor were estimated on the basis of the number of hours required to transport a D-6 or D-7 machine to the project and return, to clear road, to haul fuel and supplies, to trench, to work on the air strip, and unforeseen delays. As trenching was the main item of bulldozer-tractor work only trenching was described in Exhibit "A" of the contract although all the hours estimated for the other incidental work were included under the estimate of costs. The Operator used a D-8 bulldozer-tractor to do the work.

Accordingly, the purpose of the amendment is to express the true intent of the parties at the time when the contract was executed, by adding incidental items of bulldozer-tractor work to the Description of the work in Exhibit "A" and to allow the use of a D-8 bulldozer-tractor at no added cost.

APR 18 1955

ANNEX IV

The following provisions are in lieu of Article 9:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Royalty on production.--The Operator, as principal, if the Operator is the producer, or as surety, if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land,* as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation performed or paid by the

* The word "land" refers to the land described in Article 2 of the Contract.

Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

d. Unsold production.--If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) percent for 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.
>
> (For instance: the royalty on an amount of five dollars ($5.00) per ton, would be one and one-half ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

Docket copy

EXPLORATION PROJECT CONTRACT
ALASKA COPPER MINES, INC.
DOCKET NO. DMEA-3288

AMENDMENT NO. 1

It is agreed this 20th day of August, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Alaska Copper Mines, Inc., Assignee, that Contract Idm-E667 (Docket No. DMEA-3288), dated April 2, 1954, is amended effective April 2, 1954, as follows:

1. In Exhibit "A":

(a) Under "Description of the Work," add the following additional work:

Additional Work

Drift and/or crosscut on the vein from the adit tunnel level for not to exceed 600 feet. The drift shall be timbered as necessary and shall be not less than 5 feet by 7 feet in the clear of timber. (187 feet of crosscut or drift which was driven prior to the date of this amendment is not included.)

(b) Under "Estimated Costs of the Project," add prior to the total at end, the following:

Agreed Unit Cost

The Government will contribute to the costs of the "additional work" (drifting) on the basis of the agreed unit cost set forth below, as the cost accrues, in lieu of the actual costs set forth in Article 6 of the contract form. The agreed unit cost includes all costs of the drifting. The drifting may be performed by independent contractors without reference to the provisions relating to independent contracts and contractors in Articles 4(a) and (b) and 6(a)(1) of the contract form.

600 feet of drifting @ $48.00/ft.	$28,800.00

(c) Under "Estimated Costs of the Project," delete the totals "$12,730.00" and "$6,365.00", and substitute the totals "$41,530.00" and "$20,765.00," respectively.

2. In Article 3 of the contract, delete the period "six (6) months," and substitute the period "fifteen (15) months."

3. In Article 8 of the contract, delete the figures "6,365.00" and "12,730.00", and substitute the figures "20,765.00" and "41,530.00," respectively.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitteudorf
Administrator, Defense Minerals
Exploration Administration

Approved
Brierwood
Chandler
Selfridge
H Johnson

ALASKA COPPER MINES, INC.

By Don Gillespie
Executive Vice Pres.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Territory of Alaska, County of Seldovia Mining District, described as follows:1/ 9 unpatented lode mining claims recorded as Seldovia District Kathleen Margaret No. 1, 2, 3, 4, 5, 6, 7, 8 and 9 - Recorded in Volume 19 on Pages 313, 314, 315, 316 and 317 in September of 1959,

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Kathleen Margaret Mining Co., a partnership composed of Fred T. Pottyohn and Everett O. Albertson and assigned to Alaska Copper Mines, Inc. as operator and lease holder,

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract or any amendment thereof shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract or any amendment thereof there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

(OVER)

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

4. Changes and added provisions [illegible] Contract Dated No. 3303 [illegible] to Alaska Copper Mines, Inc. (Operator) by [illegible] of U. S. Government's Consent dated 9 Aug 1951.

Dated this [illegible] day of [illegible], 195[illegible].

Everett O. Albertson [Seal]

Fred S. Pettyjohn [Seal]

[Seal]

Witness to E. O. Albertson's Signature

Don Zillweger

Paul Zumwalt

T. S. Benson

Witness to Fred S. Pettyjohn Jr.

Arthur J. Sexauer

Don Zillweger

ALASKA COPPER MINES, INC.
P.O. BOX 3365
SEATTLE 14, WASHINGTON

Defense Minerals Administration
RECEIVED
JUN 9 1954

June 7, 1954

Mr. C. C. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Gentlemen:

Kindly accept this transmittal as our formal application to amend the existing DMEA contract, Docket No. DMEA-3288, authorizing surface exploration, which has been recently assigned by permission of your office to the Alaska Copper Mines, Inc.

It is our request that you consider extending the scope of our DMEA contract by amending it to include a "Second Phase of Exploration-at-Depth" by means of drifts and shaft sinking in the vein or mineral shoots predicated upon the exposition of good surface mineral indication at the completion of the trenching program authorized in the original contract. It is understood that all expense accrued in the performance of such a second phase exploration program be shared between DMEA and Alaska Copper Mines, Inc. on a 50-50 basis, using a fair "per-foot-of-advance cost" developed by the attached schedules A, B, C, D, E, and F, and proposed exploration plans.

It is agreed that all work done underground will be performed in a miner-like fashion supervised by DMEA's Juneau Engineering Office. Drifts are to be not less than 5 feet wide by 7 feet high inside of timbers; shaft is to be not less than 4' x 8' inside of timbers. This phase of exploration is to be done on a continuous basis, shutdowns subject only to weather conditions until completed, or mutually abandoned by DMEA and the Alaska Copper Mines, Inc.

Please be advised that two complete copies of this transmittal have been airmailed this date to DMEA Field Team Office, P.O. Box 560, Juneau, Alaska. May we hear from you regarding this request to amend our contract at your earliest possible convenience?

Very truly yours,

ALASKA COPPER MINES, INC.

Don Zellweger

Don Zellweger
Executive Vice President

DZ:rc
Encs.

USA Supply Administration
RECEIVED
JUN 9 1954

EXHIBIT A
PHASE II
EXPLORATION AMENDMENT TO DMEA DOCKET #3288

Proposed Work Program:

1. Erect camp, install equipment and prepare an adit portal on the vein outcrop near the north end of Kathleen-Margaret Claim No. 2. The portal shall be at, or near, the 4,000 feet contour as determined by the aneroid survey of Chapman and Saunders for the map used in support of the original application for this project. (See Plate I, attached.)

2. Drift northerly on the vein not more than 800 feet, as may be decided by joint agreement between the Operator and the Government.

3. Cut a shaft station and sink a vertical shaft 210 feet on the vein (or as nearly on the vein as is practicable) at a point determined by joint agreement between the Operator and the Government. The shaft shall be at least 4 feet x 8 feet inside of timbers.

4. From the shaft bottom (less 10 feet for sump) drift northerly and southerly on vein at least 100 feet in each direction, plus an amount not to exceed the difference between 800 feet and the amount drifted on the adit level. The exact distance in either direction and the total advance, within the above-stated limitations, to be decided by joint agreement between the Operator and the Government.

Total maximum footage to be:

Drifting - 1,000 feet
Shaft Station and Pocket - 4,000 cu. feet (equiv. 114.3' drift)
Shaft - 210 feet (including 10 ft. sump)

All of the workings will be timbered where and as required by ordinary standards of safety and adequate maintenance.

The vein will be mapped and sampled by horizontal channel samples or equivalent at not less than 10 feet linear intervals wherever it is exposed by the workings. Wherever the copper mineralization differs by recognizable and measureable banding within the vein, each section or band will be separately sampled and recorded.

Proposed Costs:

Schedule A -	Estimate of Capitalized Equipment Proposed for Phase II showing allowable Depreciation Expense Chargeable to Phase II Expense	$ 5,618.67
Schedule B -	Estimate of Mine Camp Expense Chargeable to Phase II Expense	10,450.00
Schedule C -	Estimate of Labor Requirements and Costs Chargeable to Phase II Expense	56,640.00
Schedule D -	Estimate of Expendable Material Chargeable to Phase II Expense	10,970.00
Schedule E -	Estimate of Miscellaneous Expenses Not Included in Schedules A, B, C, or D, but Chargeable to Phase II Expense	10,725.00
	Estimate of Total Expense to Complete Phase II Exploration	$ 94,403.67
Schedule F -	Conversion of Phase II Exploration Advance to Equivalent Drifting Footage	1744.3 ft. of Drift
	Conversion of Total Expense Phase II Exploration to Unit Ft. of Drift Cost. (Divide total expense in Schedules A, B, C, D and E by Schedule F)	$ 54.121/ft.
	Conversion of Unit Drift Foot Expense to Unit Shaft Foot Expense (Ratio of 3 to 1)	$162.363/ft.

Summary

The estimated total cost of Phase II Exploration Program developed by Schedules A, B, C, D, and E and converted to a unit cost per foot of advance in Schedule F is to be shared on a basis of 50% by DMEA and 50% by Operators at the developed rates of $54.12 per foot of drifting and $162.36 per foot of shaft sinking. The total amount of this exploration is not to exceed $95,000.00.

ALASKA COPPER MINES, INC.

Don Zellweger
Executive Vice President

SCHEDULE A

ESTIMATE OF CAPITALIZED EQUIPMENT PROPOSED FOR PHASE II
SHOWING ALLOWABLE DEPRECIATION EXPENSE CHARGEABLE TO
PHASE II EXPENSE

Number Required	Item - Description	Cost FOB Seattle, Wash.
1 only	Mod. WH-600D Gardner-Denver 600 CFM Portable Compressor with Cat. Mod. D13000 Diesel Driving Unit	$14,500.00
1 only	Mod. DJTA Joy Drill Jumbo with Automatic Air Motor Driving Hydro Pump, 2 Med. DJA-8 Joy Drills Jibs and 2 TM-350 Joy Drills with LW-6 Feed	6,000.00
1 only	Mod. L-47 Joy Drill with JAL-48 Air Leg	600.00
1 only	Mod. L-57 Joy Drill with Spring Handles	450.00
1 only	Mod. 12-B Eimco Mucking Machine	4,000.00
1 only	35 H.P. Air Driven Single Drum Hoist Complete With Controls and Skip Bucket	6,750.00
4 only	Coeur D'Alene 22 Cu. Ft. End Dump Mine Cars 24 Gauge	2,000.00
1 only	Mod. I-21 Joy Portable Blower, Air Drive with Flexpipe	1,875.00
1 only	Centrifugal Sump Pump - Air Driven	1,500.00
1 only	5000 Watt, 115 Volt AC Light Plant with Gas Engine Drive	1,325.00
1 only	Mod. DC-180 Amp. Lincoln Arc Welder on Mod. 17P Trailer	540.00
1 only	Used GMC 6 X 6 Dump Truck	2,600.00
	Total Cost of Capital Equipment	$42,140.00
First year depreciation expense on capitalized equipment (5 year total depreciation time)		$ 8,428.00
Depreciation expense chargeable to Phase II expense (Estimated at 2/3 of first year)		$ 5,618.67

SCHEDULE B

ESTIMATE OF MINE CAMP EXPENSE CHARGEABLE TO PHASE II EXPLORATION EXPENSE

Number Required	Item - Description	Cost FOB Seattle, Wash.
1 only*	28' x 60' x 14' High Butler Steel Prefab Building	$ 3,200.00
1 only*	12' x 20' x 8' High Butler Steel Building	700.00
1 only*	12' x 12' x 8' High Butler Steel Building	650.00
	Lumber, hardware, flooring, etc. not included in above costs but necessary for complete buildings	1,250.00
2 only	Tents 9' x 12' with Camp Accessories for Temporary Camp During Construction	300.00
1 only	Domestic Water System - Installed	400.00
	Complete Kitchen Equipment - Less Range (12 Men)	200.00
	3 Oil Heaters and 1 Galley Range	450.00
	Bunks and Bedding - 12 Man Bunkhouse	400.00
Erection Time Cost @ $4.25/hr.		1,700.00
Cat and Dozer Time to Prepare Campside @ $20.00/hr.		1,200.00
	Estimated Total Mine Camp Expense	$10,450.00

* Note: No timber available for mine camp use in area.

SCHEDULE C

ESTIMATE OF LABOR REQUIREMENTS AND COSTS CHARGEABLE TO PHASE II EXPLORATION

Number Required	Item - Description	Monthly Rate @ 48 Hr. Week
1 only	Manager and Engineer	$ 850.00
1 only	Working Foreman	700.00
1 only	Swing Shift Working Mine Foreman	650.00
1 only	Master Mechanic	650.00
2 only	Miners @ $600/mo. each	1,200.00
2 only	Helpers @ $550/mo. each	1,100.00
1 only	Camp Cook	550.00
	Clerical and Part-Time Acct. Expense	300.00
	Total	$6,000.00
	Taxes and Insurance Expense @ 12%	720.00
	Contingency Expense @ 6%	360.00
	Est. Total Monthly Labor Expense	$7,080.00

ESTIMATED TOTAL WORKING TIME

Estimated daily progress drifting @ 5' per shift and 2 shifts per 24 hr. cycle - 10'	
Estimated time to drift 1000 ft. and cut shaft station and pocket equiv. to 114.3 drift feet	111.43 days
Loss time allowance	20.57 "
Estimated daily progress sinking shaft @ 4' per 24 hr cycle - 4'	
Estimated time to sink 210 feet shaft	52.5 "
Loss time allowance	15.5
Est. Total Working Time	200.0 days
Est. Total Months of Working, Allowing 25 Working Days Per Month -	8 Months
Total Labor Expense Chargeable Phase II Exp.	$56,640.00

SCHEDULE D

ESTIMATE OF EXPENDABLE MATERIALS CHARGEABLE TO PHASE II EXPLORATION EXPENSE

Items	Cost
Miscellaneous Air and Water Piping	$ 1,200.00
Miscellaneous Air and Water Hoses	200.00
Drill Steel and Bits (Carbide Bits & 8' Steel)	800.00
Miscellaneous Accessories for Drilling Operation	200.00
Underground Hand Tools and Fittings	100.00
1000' 20-Lb. Track - 2,000 Lin. Ft. Rail	1,400.00
Track Belts, Spikes, Ties, Switches, Etc.	350.00
Shaft & Station Timbering Expense	1,500.00
12 Ton Dynamite @ $18.00/CWT.	4,320.00
Blasting Caps and Fuse for 12 Ton Powder	300.00
Repair Shop Hand Tools and Power Tools Not Capitalized (Under $100.00 each)	500.00
First Aid and Safety Equipment	100.00
Estimated Total Cost Expendable Materials	$10,970.00

Bureau of the Mines
Use Minerals Administration
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SCHEDULE E

ESTIMATE OF MISCELLANEOUS EXPENSES NOT INCLUDED
IN SCHEDULES A, B, C, OR D, BUT CHARGEABLE
TO PHASE II EXPLORATION

Item	Cost
Diesel Fuel - Heating @ 23¢/gal.	$ 600.00
Diesel Fuel - Compressor Drive @ 23¢/gal.	1,800.00
Gas Fuel - Truck and Light Plant Operation @ 30¢/gal.	800.00
Freight expense to ship 45 tons of materials from Seattle to mine site via steamship, truck and cat-train method @ $65.00/ton	2,925.00
Freight expense to ship 100 tons of materials from Anchorage to mine site via truck and cat-train @ $40.00/ton	4,000.00
Cat and dozer time necessary to prepare bench for adit portal @ $20.00/hr.	600.00
Estimated Total Miscellaneous Expense	$10,725.00

SCHEDULE F

CONVERSION OF PHASE II EXPLORATION ADVANCE TO EQUIVALENT DRIFTING FOOTAGE

Proposed Drifting Footage	1,000.0 ft.
Est. Shaft Station & Pocket Excavation @ 4,000 cu. ft.	114.3
Proposed Shaft Footage @ 210 ft. (10' Sump)	
Conversion of Shaft Footage to Drifting Footage Using Ratio of 1 Shaft Foot Equiv. 3 Drift Feet	630.0
Total Converted Drifting Feet	1,744.3 ft.

Cost Per Drift Foot (Divide Total Schedules A, B, C, D and E by Total Converted Drifting Feet)	$ 54.12
Cost Per Sink Foot (Ratio 3 to 1)	162.36

Total Drifting Expense (1000 Ft.)	$54,121.00
Total Shaft Station & Pocket Expense @ (114.3)	6,185.92
Total Shaft Sinking Expense (210 ft.)	34,095.60
Total Phase II Exploration Expense	$94,402.52

Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington, D. C.

Reference: Docket No. DMEA 3288
Copper - IDM 667
Kathleen Margaret Mining Co.

Dear Sir:

In compliance with the conditions set forth in DMEA Contract #3288; We respectively request formal permission from your office to assign over our commitment contained therein to the Alaska Copper Mines, Inc., an Alaskan Corp., who signify below their willingness to accept the responsibility of "operator" as contained in DMEA contract #3288 and who have executed a lease operator's arrangement with us effective the 12th of April. We attach herewith a true copy of our lease agreement with the Alaska Copper Mines, Inc., and respectively refer you to qualifying endorsement of this company to perform by DMEA Field Office at Juneau, Alaska.

Very truly yours,

KATHLEEN MARGARET MINING CO.

Fred S. Pettyjohn (Partner)
FRED S. PETTYJOHN

Everett O. Albertson (Partner)
EVERETT O. ALBERTSON

TO: Defense Minerals Exploration Administration
Department of Interior
Washington, D. C.

This statement is to verify that the Alaska Copper Mines, Inc., does herewith agree to all the terms and conditions of DMEA #3288 and will perform the work as "operator" required by the contract if the office of DMEA will formally authorize assignment of this instrument by partners, Pettyjohn and Albertson to Alaska Copper Mines, Inc.

ALASKA COPPER MINES, INC.

Don Zellweger
DON ZELLWEGER, Executive Vice President

— Copy —

MINING LEASE AND OPTION

THIS INDENTURE OF MINING LEASE AND OPTION Made and entered into this 12th day of April, 1954, by and between:

FRED S. (sometimes known as F. S.) PETTYJOHN, JR., and EVERETT O. (sometimes known as E. O.) ALBERTSON, individually and as partners, d/b/a K-M COPPER MINING COMPANY, Parties of the First Part, hereinafter referred to as "Lessors";

and

ALASKA COPPER MINES, INC., a corporation organized and existing under the laws of the Territory of Alaska, Party of the Second Part, Lessee hereunder and hereinafter referred to as "Alaska",

W I T N E S S E T H:

1. Demise of Property:

For and in consideration of the mutual and reciprocal covenants and undertakings of the parties hereto herein agreed by them to be kept and performed, lessors demise and let to Alaska on the terms and conditions hereinafter contained, all of lessors' interest in and to the following described lode mining claims, situate on the "Kathleen Margaret" lode, in the headwaters of the MacLaren River, some twenty (20) miles, more or less, South of Mt. Hayes, in the Talkeetna Mining District, Third Judicial Division, Territory of Alaska, which claims are more particularly described in the location notices thereof, of record in the records of the Talkeetna Precinct at the volume and page herein noted, to-wit:

Kathleen	Margaret	No. 1	Volume	19	Location	Notices	page	313
"	"	No. 2	"	"	"	"	"	313
"	"	No. 3	"	"	"	"	"	313
"	"	No. 4	"	"	"	"	"	314
"	"	No. 5	"	"	"	"	"	315
"	"	No. 6	"	"	"	"	"	315
"	"	No. 7	"	"	"	"	"	316
"	"	No. 8	"	"	"	"	"	316
"	"	No. 9	"	"	"	"	"	317

and

The tunnel site known as "Kathleen Margaret Tunnel" located October 9, 1953, situate approximately 22 miles South of Mt. Hayes, 9 miles North of the mouth of the West Fork, MacLaren River and 2-3/4 miles Northwest of the mouth of the East Fork of the MacLaren River, in said Precinct and Division, and more particularly described in the location notice of record in Volume 20, Location Notices, page 2, in the Records of said Precinct;

aw Office
nd Clasby
nks, Alaska
ter

and

All mining claims, tunnel sites, mill sites, water rights, easements and other interests in land appurtenant to mining, that may be acquired by location (but not by purchase, lease, gift or other manner) by either Lessors or Alaska or any of Alaska's stockholders or associates, during the life of this agreement, adjacent to the mining claims above described and within a distance of one mile from any boundary of any claim hereinabove described; and any and all fractions which may be found to exist upon any survey of the claims demised.

TOGETHER WITH all appurtenances, all and singular the tenements, hereditaments, water rights, ditches, ditch rights, and improvements on the property hereinabove described.

2. Term:

This lease shall commence on the date of the execution of this agreement and shall continue until such time as the further extraction of minerals from said claims shall not be profitable unless sooner terminated or forfeited as hereinafter provided. Alaska shall be the sole judge of whether further operation can be profitable.

3. Rent and Royalty:

The rental reserved unto lessors and agreed to be paid by Alaska shall be a sum equal to the percentages hereinafter stated of the "gross value" of all metals and minerals, extracted from said claims.

Gross Value: The term "gross value" as herein used shall mean the "sales value" of all minerals and metals, less all costs and charges for: ~~shipping from the mine~~, processing (except concentrating at the mine), smelting, refining and marketing (except sales promotion and advertising). The "sales value" of all other metals and minerals shall be deemed to be the quoted market price f.o.b. Smelter in periods of active market, otherwise the actual sales price.

By Ea TSP

Percentages: Royalty shall be payable hereunder as follows:

a) At the rate of 50% of gross value until $10,000.00 in rental shall have been paid; then thereafter

b) At the rate of 12% of gross value until an additional $140,000.00 in rental shall have been paid; and then thereafter

Law Office
Collins and Clasby
Fairbanks, Alaska

c) At the rate of 5% of gross value until an additional $850,000.00 in rental shall have been paid.

Payment: Payment shall be made by Alaska to lessors upon all sales receipts, as received, monthly, and within 60 days of the close of the calendar month in which the receivables are received. Royalty shall be computed upon the percentage of receipts representing "gross value" as above defined to the extent deductible costs are identifiable to the sale. Deductible sales costs not readily or accurately apportionate to each sale shall be deducted on an annual basis. All payments hereunder shall be made to the First National Bank of Fairbanks, or its successor, for disbursal to such person as lessors shall, by written designation filed with said Bank, name; and said Bank shall keep a record thereof for the purpose of determining the payment of maximum royalty herein specified. Bank shall be entitled to deduct from each payment the customary escrow fee therefor.

Minimum Royalty: Alaska shall, nevertheless, so long as the maximum rental hereinafter provided is not thereby exceeded, pay to lessors annually as rental not less then $24,000.00 each calendar year, on the 30th day of the month that is the anniversary of this lease, commencing in the year 1956. Such minimum shall not apply to the first 12 months of this lease. On said date, annually, there shall be due to lessors such sum as, together with the royalties paid during the preceding 12 months shall be necessary to a total of $24,000.00. To the extent that any sum shall thereby become due the same shall be considered an "advance payment" of royalty, credited against the royalty next earned, excepting that no such advance payment shall operate to minimize the minimum royalty herein specified in any future calendar year.

Maximum Royalty: It is specifically stipulated that the whole and entire rental for the entire term of this lease shall be the sum of $1,000,000.00. When Alaska has paid lessors under the terms

of this lease a total of $1,000,000.00 in royalty all rentals hereunder shall be deemed fully paid; and Alaska shall have the continued possession of said property thereafter without rental or cost. Alaska may at any time during the life of this lease pay to lessors the difference between the royalty prior thereto paid and $1,000,000.00 and become thereby relieved of any further obligation to pay rental during the term of this lease.

Records: Alaska shall keep a record of all production, shipping, sales and receipts of sales sufficient to form an adequate basis for the computation of royalty, which records lessors may inspect and copy at any reasonable time. Alaska shall supply lessors with a copy of all smelter returns monthly, as royalty is paid; and a breakdown of the royalty computation on each month's receipts with sales coded to the smelter return applicable thereto to the extent possible without excessive accounting costs. Alaska is not bound to not comingle smeltered ores.

Stockpiles: All ores prepared for shipment and not shipped at the choice of Alaska within 60 days of being so prepared, and all ores smeltered and not sold within 60 days after smelting, shall be considered "stockpiled". For the purpose of computing royalty all such stockpiled ores shall be deemed to have been sold for cash at 75% of the market price or value quoted in the Mining Journal current for the end of said 60 day period, and then included in sales for the computation of current royalty. All such payments shall be credited against royalties earned as the stockpiles are actually sold.

4. Possession and Mining:

Upon the execution of this lease Alaska shall have the right to enter into the property above described and engage in prospecting, drilling, developing and the mining thereof; and Alaska shall thereafter mine said claims in accordance

with accepted mining practices and with due regard for the proper development and preservation thereof as a workable mine.

5. Annual Labor:

It is specifically agreed by the parties hereto that Alaska shall not be liable for the completion of assessment work upon the property hereinabove described for the year ending July 1, 1954. For all subsequent years during the life of this agreement Alaska undertakes and agrees to perform all necessary annual labor and assessment work or improvements as are required by law to preserve the title in lessors to said mining claims and to record proofs thereof not less than 60 days prior to the 1st day of July in each year during the life of this agreement or such other day as may be by law designated as the end of any assessment year applicable to mining claims in the Territory of Alaska. Promptly upon recording such notice Alaska shall transmit a copy thereof to lessors in care of the First National Bank of Fairbanks, Alaska. Any failure in this regard shall entitle the lessors to file intentions to hold said property, if permitted by law, or enter upon said claims for the purpose of performing all required annual labor and record proof thereof.

6. Workman's Compensation Law:

Following the date of his entry on the leased property, Alaska shall comply in all respects with the workman's Compensation Laws of the Territory of Alaska, shall continuously carry all necessary insurance in that behalf, and when required shall furnish lessors suitable evidence thereof. Alaska shall assume all legal responsibility for, and shall save lessors harmless on account of, the injury or death of any person or employee of Alaska upon the leased property, and shall at all times keep posted in a conspicuous place upon said property a notice signed in the name of lessors, which notice shall set forth and state that the property is leased to Alaska and that lessors shall not be liable for the injury or death of any person upon the leased property, or otherwise.

7. Liens:

Following the date of its entry on the demised and leased property Alaska shall keep said property and every part thereof free and clear of any and

all labor and material liens and encumbrances, and at all times shall keep posted in a conspicuous place on said property in the name and on behalf of lessors, a written or printed notice setting forth the fact that said property is leased to and is being operated by Alaska, and that the interest of lessors therein shall not be subject to liens for services, labor, material or supplies rendered, furnished, or used in connection with said property or the mining operations of Alaska hereunder.

8. Inspection:

Alaska shall permit lessors or their authorized agents to enter the leased property at all reasonable times for the purpose of inspecting, surveying, assaying and sampling the same; provided, however, that such entry shall be at the risk of lessors or its agents, and shall in no way interfere with the occupation of said premises by Alaska, its agents, servants, and employees, or in any manner hinder, delay, or interfere with the operations of Alaska.

9. Title:

Lessors covenant and agree with Alaska that at the time of the execution of this lease lessors and the partners constituting lessors are the owners of substantial title to the mining claims hereinabove described and leased herein and that the same are free and clear of any and all former and other grants, bargains, sales, overdue taxes, liens or other encumbrances of any kind; and lessors warrant and agree to defend the quiet and peaceful possession of Alaska to the same under this agreement against all persons lawfully claiming the whole or any part thereof, save and except that lessors shall not be required to defend against illegal or unlawful locations or assertions by third persons but shall give to Alaska every assistance in defending against such locations or assertions. It is further agreed that lessors shall be prepared to convey good and sufficient title to all of the property herein demised to Alaska upon the exercising by Alaska of its option hereinafter contained. It is further agreed that the descriptions of the mining claims hereinabove set forth are good and sufficient descriptions of the claims herein agreed to be demised and if such descriptions are not sufficient lessors will correct such deficiencies.

Should it develop that lessors are unable to deliver clear title to all of the mining claims hereinabove described or should another claimant establish clear title to all or any part of the mining claims hereinabove described then in that event the "maximum" rental price specified in this lease shall be diminished by an amount equal to the ratio that the acreage to which lessors are unable to convey full title bears to the total acreage herein agreed to be conveyed.

10. Surrender:

That Alaska may voluntarily surrender this lease and option at any time by giving to lessors not less than sixty (60) days written notice of such surrender.

11. Assignment:

Alaska may assign or transfer this lease and option or sublet any part of the demised premises without first having obtained lessors' consent.

12. Removal of Machinery:

All machinery and movable personal property, equipment, and buildings, placed upon the property, shall remain the personal property of Alaska though affixed to the realty herein conveyed and upon the termination, release or forfeiture of this agreement may be by Alaska removed from the premises herein conveyed, provided, that such removal shall not result in any undue damage to any portion of the property herein conveyed. The right of removal herein extended may be exercised by Alaska at any time within twelve (12) months from the date of the termination of this agreement and lessors hereby grant to Alaska the right to store, free of charge, all such property subject to removal for said period of twelve (12) months and the right of ingress and egress over the property herein demised for the purpose of removing said personal property. Any personal property not by Alaska removed from the property herein demised within the period of 12 months following the termination of this agreement shall become and remain the property of lessors.

13. Patenting:

Alaska shall have the right at its sole cost and expense to proceed to procure a patent to any or all of the mining claims which in its sole judgment should be patented. In all patent proceedings lessors shall give full coopera-

tion and upon request cause to be used a duly and properly authorised attorney-in-fact to execute any and all documents required to perfect patent. All patents shall be taken in the name of lessors and immediately upon the issuance of patents lessors shall by demand by Alaska execute a warranty deed to the mineral claims so patented and deposit the same with the escrow holder as is required under the option provision of this lease hereinabove stated.

14. Re-locations:

Should Alaska during the life of this agreement find it necessary or advisable to re-locate any of the unpatented mining claims herein demised lessors shall give all necessary documents to properly complete such re-locations.

15. Option to Purchase:

As a part of the consideration of this lease Alaska shall have the sole and exclusive privilege during the life of this agreement to purchase lessors' interests in said mining claims above described for the sum of ONE THOUSAND DOLLARS ($1,000.00), provided that Alaska has prior thereto paid to lessors the full sum of the maximum rental specified in this lease. Lessors undertake and agree upon the execution of this instrument to execute a good and sufficient conveyance of said mining claims and place the same in escrow with the First National Bank of Fairbanks, Alaska, with instructions to said Bank to deliver said deed to Alaska upon the payment by Alaska to said Bank of $1,000.00 at any time after the maximum royalty has been paid as aforesaid. The only time limit on this option shall be that if, after having paid in full the maximum rental under this agreement, Alaska shall thereafter cease mining operations for a continuous period of thirty-six (36) months without having exercised this option, it will thereupon be deemed to have forfeited this right of option, but not necessarily to have forfeited its rights as lessee under this lease.

16. Forfeiture:

In the event Alaska shall breach any of the covenants and conditions of this agreement, excepting by Acts of God, war, strikes, floods, accidents and circumstances beyond its control, it shall be lawful for lessors, their agent or attorney, to declare this lease void and of no effect thereafter and with or without process of law to enter upon and take possession of the leased property; pro-

vided, however, that lessors shall first give Alaska notice in writing of its failure to perform and Alaska shall have sixty (60) days after said notice to remedy said claimed default and if such defaults are not so remedied all rights hereunder shall thereupon cease and terminate.

Upon termination of this contract by forfeiture or by surrender as hereinabove provided Alaska shall have all rights to remove personal property situate upon the demised premises as has been hereinabove provided. Upon forfeiture or surrender Alaska is released of any further obligations under this lease and option, save and except payments of royalty due and accrued to the date of forfeiture or surrender and such rights to damages as may have accrued to lessors upon the date of forfeiture or surrender by reason of the breach of any of the conditions of this lease.

17. Notices: Wherever in this agreement notices are provided to be given such notices shall be deemed to be given to the adverse party when the notice in writing has been delivered to the First National Bank of Fairbanks, Alaska. The parties hereto agree that said Bank is hereby named the agent of both parties for the purpose of receiving notice. It shall be incumbent upon each party individually to supply said Bank from time to time with the current address for the forwarding of notice by the Bank.

Time is of the essence of this agreement and the covenants and conditions hereof shall inure to the benefit of and be binding upon the heirs, personal representatives and assigns of the respective parties hereto and shall run with the land.

This agreement may be simultaneously executed in four counter-parts, each as an original, and when executed and delivered shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals on the day and year hereinabove first written.

In the presence of:

Ralph T Rivers

Joseph D Kelly

Law Office
Collins and Clasby
Fairbanks, Alaska

FRED S. PETTYJOHN (SEAL)
Fred S. Pettyjohn, Jr.

Everett C. Alberteon (SEAL)
Everett C. Alberteon

LESSORS, individually and as co-partners d/b/a K-M Copper Mining Company.

ALASKA COPPER MINES, INC.

By Don Zellweger
Don Zellweger,
Executive Vice President

LESSEE

UNITED STATES OF AMERICA)
) ss.
TERRITORY OF ALASKA)

THIS IS TO CERTIFY That on this 12th day of April, 1954, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn, personally appeared FRED S. PETTYJOHN, JR. and EVERETT O. ALBERTSON, to me known and known to me to be the identical individuals mentioned in and who executed the within and foregoing Mining Lease and Option, and they acknowledged to me that they signed and sealed the same freely and voluntarily for the uses and purposes therein specified.

WITNESS my hand and notarial seal on the day and year in this certificate first hereinabove written.

Ralph J. Rivers
NOTARY PUBLIC In and for the Territory of Alaska. My commission expires: 9-14-55

(SEAL)

Law Office
Collins and Clasby
Fairbanks, Alaska

AF-260
(Jun[redacted]
(Revised Feb. 1952)

DOCKET NO. DMEA 3288

COMMODITY Copper

IDM - 667
Docket Copy

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

EXPLORATION PROJECT CONTRACT[1]

IT IS AGREED this 2 day of April, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Kathleen Margaret Mining Company, a partnership composed of Fred S. Pettyjohn, Jr., and Everett O. Albertson, 544-1/2 Second Avenue Fairbanks, Alaska as set forth in Annexes I, II, & III, attached hereto and made a part hereof, and as follows:

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~~ Territory of Alaska ~~Commonwealth~~ Talkeetna Mining District, described as ~~follows~~[3] set forth in Annex I, hereinafter called "the land,"

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:

None

(*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 60 days from the date of this contract shall commence work on a project of exploration for[5] Copper

in or upon the described land; and shall bring the project to completion within a period of six (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 payments 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 **50** percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $**6,365.00**, which is **50** percent of $**12,730.00**, 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. **See Annex II, substituted for Article 9.**

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. See Annex III, substituted for Article 10.

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.

KATHLEEN MARGARET MINING COMPANY
(Operator)

By *F. S. Pettyjohn Jr.* (Partner)

By *Evert A. Akenston* (Partner)

THE UNITED STATES OF AMERICA

By *O. O. Mittendorf*

Rubin Administrator, Defense Minerals Exploration Administration

Hoffland

Chamler

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]

EXPLORATION PROJECT CONTRACT
KATHLEEN MARGARET MINING COMPANY
DOCKET NO. DMEA-3288

ANNEX I

The land referred to in Article 2 of the contract form consists of the following 9 unpatented mining claims whose location notices are recorded, as below indicated, with the Recorder of Talkeetna Precinct, Territory of Alaska, as shown on map, Figure 1, entitled "Sketch Map of Claims, Albertson-Pettyjohn Copper Prospect, MacLaren River, Alaska, . . . September, 1953," attached hereto and made a part of this contract.

Claim	Volume	Page
Kathleen Margaret No. 1	19	313
" " No. 2	19	313
" " No. 3	19	313
" " No. 4	19	314
" " No. 5	19	315
" " No. 6	19	315
" " No. 7	19	316
" " No. 8	19	316
" " No. 9	19	317

EXPLORATION PROJECT CONTRACT
KATHLEEN MARGARET MINING COMPANY
DOCKET NO. DMEA-3288

ANNEX II

The following provisions are substituted for Article 9 of the contract form:

ARTICLE 9. Repayment by Operator.—a. Certification.—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Royalty on production.—The Operator, as principal, if the Operator is the producer, or as surety, if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or

assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

d. Unsold production.—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

e. Percentages of royalty.—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 for 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.
>
> (For instance: the royalty on an amount of five dollars ($5.00) per ton, would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

f. Lien for payment.—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

g. Notice to purchasers.—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

h. No obligation to produce.—Nothing in this contract is 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.

i. Government not obligated to buy.—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

EXPLORATION PROJECT CONTRACT
KATHLEEN MARGARET MINING COMPANY
DOCKET NO. MMA-3288

ANNEX III

The following provisions are substituted for Article 10 of the contract form:

ARTICLE 10. Assignment, transfer, or lease 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 preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the work described in the contract is fully performed, and until the time within which the Government may make a certification of discovery or development has lapsed without any such certification having been made, and after such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein; nor permit nor suffer any claim, lien, or encumbrance thereon; without the written consent of the Government, unless the Government's contribution has been fully repaid. If the Government makes no certification of discovery or development within the time limited in Article 9, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 9b(1).

EXPLORATION PROJECT CONTRACT
KATHLEEN MARGARET MINING COMPANY
DOCKET NO. DMRA-3288

EXHIBIT "A"

Description of the Work

The purpose of the project is to explore for copper ores. Twelve surface trenches shall be excavated, with D-6 or D-7 tractor-dozer, across the outcrop of the vein at, roughly, 100-foot intervals, as shown on the attached map, Figure 2, attached hereto, entitled "Diagram of Proposed Adit and Trenches, Albertson-Pettyjohn Copper Prospect, MacLaren River, Alaska, . . . October 1953." The trenches shall be trenched to bedrock properly to expose the vein, and shall be carefully hand-cleaned and channel-sampled, and the samples assayed.

A map shall be prepared showing locations of the trenches and the assays noted thereon.

Estimated Costs of the Project
(*Indicates allowable maximum)

1. Independent contracts

Either a D-6 tractor-dozer, 640 hrs.* @ $16.00/hr.* or a D-7 tractor-dozer, 569 hrs.* @ $18.00/hr.* is allowed. The unit price includes all costs of the bulldozing work.	$10,242.00*

2. Labor, supervision, and consultants

Labor for hand-cleaning trenches and channel sampling, 200 hrs. @ $3.00/hr.	600.00
Surveying and mapping	384.00*
Supervision, 168 hrs.* @ $3.20/hr.*	537.60*

3. Operating materials and supplies

None

4. Operating equipment

None

5. Rehabilitation and repairs

None

6. New buildings, improvements, installations

None

7. Miscellaneous

Freight on tractor, Fairbanks to Paxson and return	$750.00	
36 Assays @ $6.00/ea.	216.00	

8. Contingencies

None

Total Estimated Costs (rounded to)	$12,730.00
Government Participation @ 50%	$6,365.00

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

P. O. Box 560
Juneau, Alaska
March 19, 1954

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Application for exploration contract (copper)
Kathleen Margaret Mining Company

Enclosed herewith is the original and three copies of the subject application. Attached to each copy of the application is a copy of a report by Robert M. Chapman, Geological Survey and Robert H. Saunders, Territorial Department of Mines. I am retaining one copy of each for further study because I have not yet had time to analyze the proposal in detail. If it seems necessary I will send some additional comments next week; in the meantime please consider Chapman's report as representing the views of the Field Team. Unless I hear from you to the contrary I will retain the fifth copy of the application for the Field Team files.

This is a new discovery which I have not seen but I have talked with the applicants and with Chapman and Saunders about it. I was well impressed with the description given me, with the proposed exploration program, and with the applicants. Both Pettyjohn and Albertson appear to be responsible and capable men.

Except for possible minor changes I recommend that the application be approved and that we try to process it in time to permit moving the equipment over the snow before break-up.

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

Enclosures

cc: C.L.Sainsbury
J.A.Herdlick

Reviewed by
DMEA OPERATING COMMITTEE
3-31-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
P. O. Box 560
Juneau, Alaska

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 24 1954

March 22, 1954

Memorandum:

To: Operating Committee, Defense Minerals Exploration Administration, Washington 25, D. C.

From: Executive Officer, Field Team, Region I

Subject: Application for exploration contract (copper)
E. O. Albertson and F. S. Pettyjohn, Jr.

Under date of March 19, 1954 I forwarded to you the original and three copies of the subject application together with a geologic report by Robert M. Chapman and Robert H. Saunders for the Field Team. I stated that I probably would send you some additional comments this week. These comments based on analyses by Robert L. Thorne, U.S.B.M., by R. S. Velikanje, U.S.G.S., and by me, are as follows:

General data: Satisfactory except that no mention is made of the location of the recording office in which claims are recorded. Applicants are being requested to supply these data.

Exploration program:

1. Program: Trenching, as proposed, is the logical, first-step approach to this problem. It has been laid out as suggested to the operators by me. However, the contract should specify that the vein intersection in each trench should be hand-cleaned and channel-sampled.

   The air-field preparation, by stateside standards, is not allowable but it is necessary to most exploration projects in Alaska.

2. Costs: These appear to be very well estimated insofar as transportation and direct dirt moving costs are concerned but no allowance has been made for hand-cleaning and sampling trenches, for assaying, nor for surveying; these costs might be estimated at about $100 per trench. I suggest, therefore, that we estimate only 12 trenches (at $400 per trench for digging, $100 for cleaning, sampling

assaying, surveying). I am reasonably sure that they would accept a contract on this basis - thereby saving the time that would be needed for a change in the application.

The provision for alternative choice between D-6, at $16.00/ hr. and D-8, at $18.00/hr. (both "fully operated") is satisfactory. The rates are at, or below, current Alaskan rates. We think they should be allowed this margin of choice because either size would be satisfactory but might not be equally available.

The contract makes no allowance for labor. I suggest that we allow 200 hours of labor for hand-cleaning and sampling at $3.00/hr. Or as follows:

Est. trenching time 12 trenches, 25 hrs. ea. @ $16.00/hr. . . .	$4,800.00
Hand-cleaning & sampling 200 hrs. @ $3.00	600.00
Assaying, surveying, mapping .	600.00
	$6,000.00

With the changes suggested above this should be a simple contract to draw up and to administer. A straight "unit cost" job would be somewhat simpler but, in view of the unknown and unpredictable factors (such as depth and character of overburden, perma-frost conditions, weather, etc.) I do not think we should ask for a unit cost job nor do I think the applicants would accept one.

We all are agreed that this project is most desirable and that the contract should be approved as promptly as possible in order to permit taking equipment in over frozen ground.

S. H. Lorain,
Executive Officer
Field Team, Region I

cc: USGS- Sainsbury

544-1/2 Second Avenue

Phone 4070

Kathleen Margaret Mining Company
Fairbanks, Alaska

6 March 1954

Air Mail

U. S. Department of the Interior
Defense Mineral Exploration Administration
Post Office Box 560
Juneau, Alaska

ATTENTION: Mr. S. H. Lorain

Dear Sir:

Transmitted herewith, is the application of the Kathleen Margaret Mining Company in five (5) copies.

We request that this application be processed and confirmed as soon as possible since, in order to reach the subject property it is necessary that the "cat train" be moved across the Mac Laren River, on the ice, prior to breakup. Breakup date is approximately April 20 to May 10th. Breakup could occur any time during that period. It would, therefor, be convenient to move the train from Summit Lake about the 15th of April.

Would you kindly address further correspondence regarding this matter to the above address.

Very truly yours,

KATHLEEN MARGARET MINING COMPANY

By: F. S. Pettyjohn Jr.

RAP:MD

Encls

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. 3288
Metal or Mineral Copper
Date Received
Estimated Cost $12,728
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: _____

(*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 _____

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise _____

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it _____

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

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

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

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

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

5. *The exploration project.*—(*a*) [redacted]e the mineral or minerals for which you wi[redacted] explore .....

.....

(*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 ..... days and be completed within ..... 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?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ....., 195...

.....
(Applicant)

By Everett O. Robertson

F. S. Petty John Jr.

.....

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

S C H E D U L E "A"

1. (a) K-M Copper Mine
544-1/2 Second Avenue
Fairbanks, Alaska

(b) Partnership

(c) Not applicable

(d) Fred S. Pettyjohn, Jr.
Big Delta, Alaska

Everett O. Albertson
Big Delta, Alaska

2. No answer required

3. (a) See attached copies of location certificates

(b) K-M Copper Mine

(c) Owners

(d) Not applicable

(e) No liens or encumbrances

(f) Book and page numbers are on location certificates.

4. (a) No mining or exploration operations have been or are being conducted on the land.

(b) No production and no ore reserves.

(c) The geologic features, mineralization, type of deposit, etc., are described in a report by Robert M. Chapman, U. S. Geological Survey, and Robert H. Saunders, Territorial Department of Mines. A copy of this report will be sent to C. L. Sainsbury, U. S. Geological Survey, Member of DMEA Field Team, Juneau, Alaska.

(d) Covered by above report

(e) " " " "

5. (a) Copper

(b) The work will consist of trenching over the projected apex of the vein. There will be fifteen trenches cutting across the strike of the vein at 100Feet intervals. Each trench will be wide enough to permit the easy handling of a bulldozer in the trench; the estimated width is fifteen feet. The trenches will vary in length from fifty to one-hundred feet; the length will

depend partly upon the regularity of the vein in strike. On the rim of the gulch where the discovery was made, the bedrock outcrop indicates that the first trench will go through about five feet of overburden. Over the total distance to be trenched, the depth of overburden will probably vary from three to ten feet in depth. The average depth to be trenched will be about eight feet.

The attached diagram shows an exploration program consisting of sixteen trenches and a prospect adit. The adit and the northernmost trench are not a part of the program now planned. The fifteen trenches on the Kathleen Margaret No. 1 Claim are the trenches to be included in the present program. The work will start on the southernmost trench fifty to seventy-five feet from the north end of the vein outcrop. The trenching then will follow the vein northward until fifteen trenches have been dug.

The cost of the program will be as follows:

Cost of freighting the tractor from Fairbanks to Paxson	-	$375.00
Cost of freighting the tractor from Paxson to Fairbanks	-	375.00
Hours of bulldozer work:		
Sixty miles of road clearing from Paxson to the prospect 1 mile per hour	- 60 hrs	
Return to end of construction on Denali Highway 30 miles at 2 miles per hour	- 15 hrs	
Hauling fuel and supplies from Denali Highway to prospect 30 miles at 2 miles per hour	- 15 hrs	
Return of Tractor to Paxson at end of contract.		
60 miles at 2 miles per hour	- 30 hrs	
Total hours freighting	120 hrs	
Estimated work on airstrip. The airstrip will be 300 feet by 1,000 feet. It will be built on the gravel flats beside the MacLaren River, where the only work required will be smoothing the surface of the gravel. The Airstrip is necessary because it will provide a means of getting repair parts in to the tractor in case of a mechanical breakdown.	- 25 hrs	

Estimated trenching time 15 trenches at 25 hours each	- 375 hrs	
Estimated work on road to make is passable for tractor	- 75 hrs	
Sub total	- 595 hrs	
Plus 20% to cover delays in trenching	- 120 hrs	
Total Tractor Time	- 715 hrs	
715 hours at $16.00 per hour		$11,440.00
The above hours and rate are estimated for a Tractor similar in size to a D-6, if a D-7 is used the rate will be highes but the hours will be less so that the amount of money will be about the same.		
Supervision - 4 hours per day for 42 days 168 hours at $3.20 per hour		538.00
TOTAL AMOUNT OF PROJECT		$12,728.00
Total Amount of Loan		$6,364.00

5. (c) The work will start within ninety days and be completed within twenty-four months from the date of an exploration project contract.

(d) Edward O. Albertson, in mining educational courses, 2 years have been spent, each year taking the courses of Placer Evaluation together with one semester of night classes in Historical Geology. These courses were taken under Mr. Lang Doheny of the R.F.C., and William Fackler. Mr. Albertson's life work is the operation of dirt moving equipment in the construction of airports, roads, tunnels and all in a supervisory capacity. For 15 years Mr. Albertson has been intimately associated with dire moving operations and for the past several years has been supervisor of road, airport and tunnel construction for the United States Government, at the Army Airport at Big Delta, Alaska. Mr. Albertson's Efficiency Record, with relation thereto should be available upon request.

Mr. Fred S. Pettyjohn, Jr., is a professional prospector and miner and is thoroughly familiar with the entire terrain and geology of the mine to be prospected, being the discoverer thereof. Mr. Pettyjohn's practical mining experience is as follows: Six years prospecting; nine years mining, including four and one half years underground work and two and one half years placer work employed by others, one year self-employed leasing and operating the Dutch Flat Mine (gold and quartz mine and mill) at Winnemucca, Nevada, and one year as part owner of the Big Five Placer Company at Winnemucca, Nevada.

6. (a) The cost of contracting the trenching will be $18.00 per hour for a bulldozer if the Tractor is similiar in size to a Caterpillar D-7, or $16.00 per hour if the Tractor is similar in size to a D-6.

(b) The work will not require close supervision; one of the two owners will be on the property and will be able to devote a few hours each day to checking the progress of the trenching and keeping the trenches in line over the projected apex of the vein. Hours spent in direct supervision of the work will be paid for at the rate of $3.20 per hour.

(c) All materials and supplies will be furnished by the subcontractor.

(d) All equipment will be furnished by the subcontractor.

(e) None

(f) None

(g) Not applicable

(h) None

7. (a) Yes

(b) Money

NOTICE OF TUNNEL SITE

NOTICE is hereby given, that the undersigned, having complied with the requirements of the Mining laws of the United States of America and the Territory of Alaska, and with all local customs, rules and regulations have located and claim, a tunnel site, 3,000 feet in length and 2,200 feet in width, bearing on the KATHLEEN MARGARET LODE, vein or deposit, situated on the Mac Laren River in the Talkeetna Mining District, Territory of Alaska.

The center line of said Tunnel Site to run in an easterly direction from the location monument to strike the KATHLEEN MARGARET LODE.

We, the undersigned, hereby claim all veins, lodes, ledges and all other mineral deposits allowed by law within the said tunnel site.

The name of the tunnel to be the KATHLEEN MARGARET TUNNEL. The names of the locators are F. S. PETTYJOHN, JRS., and E. O. ALBERTSON. The date of location is October 9, 1953. The location monument is situated 22 miles south of Mt. Hayes, 9 miles north of mouth of West Fork, Mac Laren River, 2-3/4 miles northwest of mouth of East Fork Mac Laren River.

The lines of said Tunnel Site, are, beginning at the location monument, on which this notice is posted, the center line extends 3,000 feet in a westerly direction and is marked by stakes set in monuments.

Beginning at the location monument and extending north 1,100 feet to monument No. 2, thence 3,000 feet west to monument No. 3, thence 2,200 feet south to monument No. 4, thence 3,000 feet east to monument No. 5, thence 1,100 feet north to monument No. 1, the location monument. The lines are mared by 4 feet stakes set in rock monuments.

Dated: ~~August~~ October 14, 1953

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Vol. 20
pg. 2

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned has-have* located and claim-x* by right of discovery a quartz or lode claim 1,500 feet in length by 6000 feet in width, along the KATHLEEN MARGARET lode or vein, situate on Discovery Creek, a small tributary of the Mac Laren River at extreme head of said River, in the Talkeetna Mining District, Alaska

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 1 claim.

(2) The name-s* of the locator-s* thereof is-are* Fred S. Pettyjohn, Jr., and Everett O. Albertson

(3) The date of discovery and location thereof is 18 the day of July 1953, 195__.

(4) The discovery post or stake is situate 21-1/2 miles south of Mt. Hayes, 8-1/2 miles north or mouth of West Fork Mac Laren River, 2-1/4 miles northwest of mouth of East Fork Mac Laren River.

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a northerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a southerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - - ; thence in a - - - - - - - - - - direction - - - - - feet~~ ~~to post monument* No. - - - - - - ; thence in a - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated 21st July, 195 3.

/s/ E. O. Albertson

/s/ E. O. Albertson
Locator-s*

Vol 19
pg 313

COPY

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

1 — PRINTED BY JESSEN'S WEEKLY

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____
Recorder.

By _____
Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~was~~ have* located and claim~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on the Mac Laren River in the Talkeetna Mining District, Territory of Alaska.

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 2 claim.

(2) The name-s* of the locator-s* thereof ~~is~~ are* Everett O. Albertson, and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is July 20, 1953, 195__.

(4) The discovery post or stake is situate 21-1/2 miles ~~east~~ ~~north~~ south of Mt. Hayes, 8-1/2 miles north of Mouth of West Fork Mac Laren River, 2-1/4 miles northwest of Mouth of East Fork Mac Laren River.

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a southerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a northerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - direction - - - - - feet~~ ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated 20th July 1953, 195__.

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

Vol. 19
pg 313

C O P Y

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

1— PRINTED BY JESSEN'S WEEKLY

No. _____

Certificate of Location of Lode Mining Claim

_____

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Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

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on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____

Recorder.

By _____

Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~XXX~~ ~~has~~-have* located and claim~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 6000 feet in width, along the KATHLEEN MARGARET lode or vein, situate on a tributary of the Mac Laren River in the Talkeetna Mining District, Territory of Alaska.

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 3 claim.

(2) The name-s* of the locator-s* thereof ~~is~~-are* Everett O. Albertson, and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is August 1, 1953, 195___.

(4) The discovery post or stake is situate 22-1/2 miles south of Mt. Hayes, 9-1/2 miles north of West Fork, Mac Laren River, 3-1/4 miles northwest of mouth of East Fork Mac Laren River

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a southerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a northerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - direction - - - - - feet~~ ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 1, 1953, 195___.

~~XXXXXXXX~~

/s/ F. S. Pettyjohn, Jr.

Locator-s*

Vol 19
pg 313

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NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

1— PRINTED BY JESSEN'S WEEKLY

No. _____

Certificate of Location of Lode Mining Claim

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_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____

Recorder.

By _____

Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~has~~-have* located and claim-~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on a tributary of the Mac Laren River in the Talkeetna Mining District, Alaska

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 4 claim.

(2) The name-s* of the locator-s* thereof is-are* Everett O. Albertson, and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is August 3 , 1953 , 195___.

(4) The discovery post or stake is situate 22-1/2 miles south of Mt. Hayes, 9-1/2 miles north or mouth of West Fork, Mac Laren River, 3-1/3 miles northwest of mouth of East Fork Mac Laren River.

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law,and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a northerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a southerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - direction - - - - - feet~~ ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 3, 1953, 195___.

Vol 19
pg 314

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/s/ F. S. Pettyjohn, Jr.
Locator-s*

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

1— PRINTED BY JESSEN'S WEEKLY

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____
Recorder.

By _____
Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~has~~have* located and claim-~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on atributary of the Mac Laren River, in the Talkeetna Mining District, Territory of Alaska.

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 5 claim.

(2) The name-s* of the locator-s* thereof ~~is~~are* Everett O. Albertson and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is August 5, 1953, 195___.

(4) The discovery post or stake is situate 22-1/2 miles south of Mt. Hayes, 9-1/2 miles north of mouth of West Fork Mac Laren River, 3 miles northwest of mouth of East Fork Mac Laren River

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a northerly direction 1,500 feet to post monument* No. ~~2~~ 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a southerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - -; thence in a - - - - - - - - - - - direction - - - - - feet to post monument* No. - - - - - -; thence in a - - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 5, 1953, 195___.

Vol 19
pg 315

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

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NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____

Recorder.

By _____

Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~has~~have* located and claim~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on a tributary of the Mac Laren River in the Talkeetna Mining District, Territory of Alaska.

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 6 claim.

(2) The name-s* of the locator-s* thereof is-are* Everett O. Albertson and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is August 7, 1953, 195___.

(4) The discovery post or stake is situate 22-1/2 mil s south of Mt. Hayes, 9-1/2 miles north of mouth of West Fork, Mac Laren River, ~~2~~ 3 miles northwest of mouth of East Fork, Mac Laren River.

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a southerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a northerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - - - ; thence in a - - - - - - - - - - direction - - - - - feet~~ ~~to post monument* No. - - - - - - - ; thence in a - - - - - - - - - - direction - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 7, 1953, 195___.

Vol 19
pg 315

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

C
O
P
Y

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____

Recorder.

By _____

Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned has-have* located and claim-s* by right of discovery a quartz or lode claim 1,500 feet in length by 450 feet in width, along the KATHLEEN MARGARET lode or vein, situate on a Tributary of the Mac Laren River in the Talkeetna Mining District, Territory of Alaska

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET NO. 7 claim.

(2) The name-s* of the locator-s* thereof is-are* Everett O. Albertson and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is 9th August 1953, 195___.

(4) The discovery post or stake is situate 22-1/2 miles south of Mt. ~~Hubbs~~ Hayes 9-1/2 miles north of mouth of West Fork, Mac Laren River, 3-1/8 miles northwest of mouth of East Fork Mac Laren River

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a southerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 150 feet to post monument* No. 5; thence in a northerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 150 feet ~~to post monument* No. ; thence in a direction feet to post monument* No. ; thence in a direction feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 9, 1953, 195___.

Vol 19
pg 316

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

C
O
P
Y

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____
Recorder.

By _____
Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~has~~have* located and claim~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on a tributary of the Mac Laren River in the Talkeetna Mining District, Territory of Alaska

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 8 claim.

(2) The name-s* of the locator-s* thereof is-are* Everett O. Albertson and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is 9th August 1953, 195___.

(4) The discovery post or stake is situate 22-12/ miles south of Mt. Hayes, 9-1/2 miles north or mouth of West Fork, Mac Laren River, 3-1/8 miles northwest of mouth East Fork, Mac Laren, River

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a easterly direction 300 feet to post monument* No. 2; thence in a northerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction 300 feet to post monument* No. 5; thence in a southerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - - - ; thence in a - - - - - - - - - - - direction - - - - - - feet to post monument* No. - - - - - - - ; thence in a - - - - - - - - - - - direction - - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 9, 1953, 195___.

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

Vol 19
pg 316

C
O
P
Y

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

_____
Recorder.

By _____
Deputy.

Mail To _____

_____ P. O.

Box No. _____

LODE CLAIM

CERTIFICATE OF LOCATION

Notice is hereby given that the undersigned ~~has~~have* located and claim~~s~~* by right of discovery a quartz or lode claim 1,500 feet in length by 600 feet in width, along the KATHLEEN MARGARET lode or vein, situate on the Mac Laren River in the Talkeetna Mining District

together with all the dips, variations, spurs, and angles, and all veins, lodes, ledges and deposits, the tops or apices of which are within the lines thereof, together with all surface ground embraced within the said lines, said claim being 1,500 feet in length, and 300 feet on each side of the center of said vein or lode, and is particularly described as follows, to-wit:

(1) The name of said claim shall be the KATHLEEN MARGARET No. 9 claim.

(2) The name-s* of the locator-s* thereof ~~is~~-are* Everett O. Albertson and Fred S. Pettyjohn, Jr.

(3) The date of discovery and location thereof is August 15, 1953, 195___.

(4) The discovery post or stake is situate 22-12/ miels south of Mt Hayes, 9-1/2 miles north of mouth of West Fork, Mac Laren River, 3-1/4 miles northwest of East Fork Mac Laren River

and said claim is marked upon the ground by substantial posts, stakes, and monuments, as prescribed by law, and is described as follows: Commencing at the Discovery No. 1 stake monument*; running thence in a Easterly direction 300 feet to post monument* No. 2; thence in a southerly direction 1,500 feet to post monument* No. 3; thence in a westerly direction 300 feet to post monument* No. 4; thence in a " direction ~~1,500~~ 300 feet to post monument* No. 5; thence in a northerly direction 1,500 feet to post monument* No. 6; thence in a easterly direction 300 feet ~~to post monument* No. - - - - - - - , thence in a - - - - - - - - - - direction - - - - - - feet~~ ~~to post monument* No. - - - - - - - , thence in a - - - - - - - - - - direction - - - - - - feet~~ to post monument* No. 1.

The center and end lines of said claim are cut, blazed, and marked with posts or monuments, so that the same can be readily traced.

Dated August 15, 1953, 195___.

Vo. 19
pg 317

/s/ E. O. Albertson

/s/ F. S. Pettyjohn, Jr.

Locator-s*

C
O
P
Y

NOTE: Where two words followed by asterix (*) occur, draw line through word that does not apply.

No. _____

Certificate of Location of Lode Mining Claim

_____

_____

Territory of Alaska,
Fourth Judicial Division, } ss.

Filed For Record At Request Of

_____

on the _____ day of _____

19____, at ____ min. past _____ M.

and recorded in Volume _____

of _____ Page _____

_____ Recording District

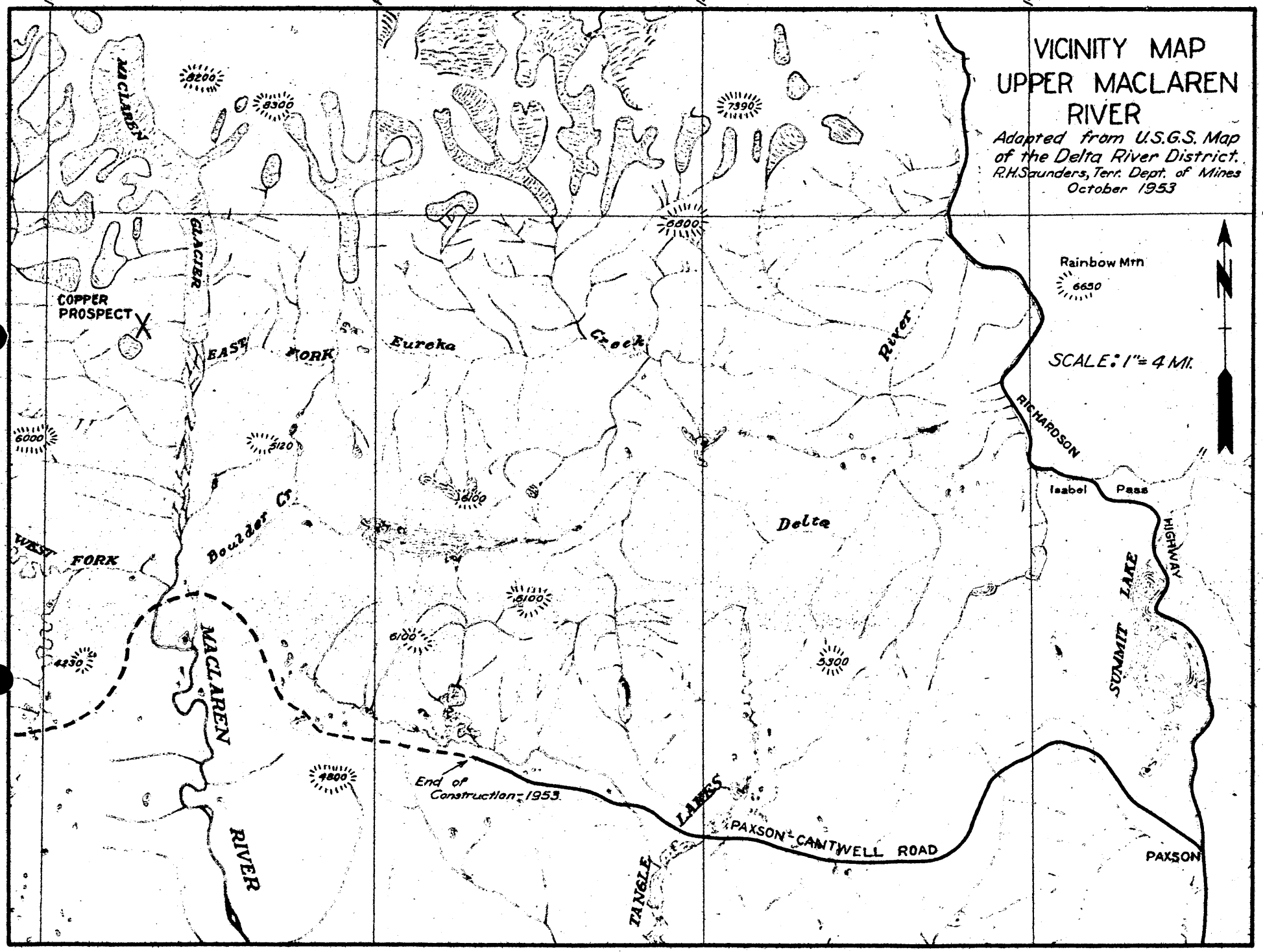
_____
Recorder.

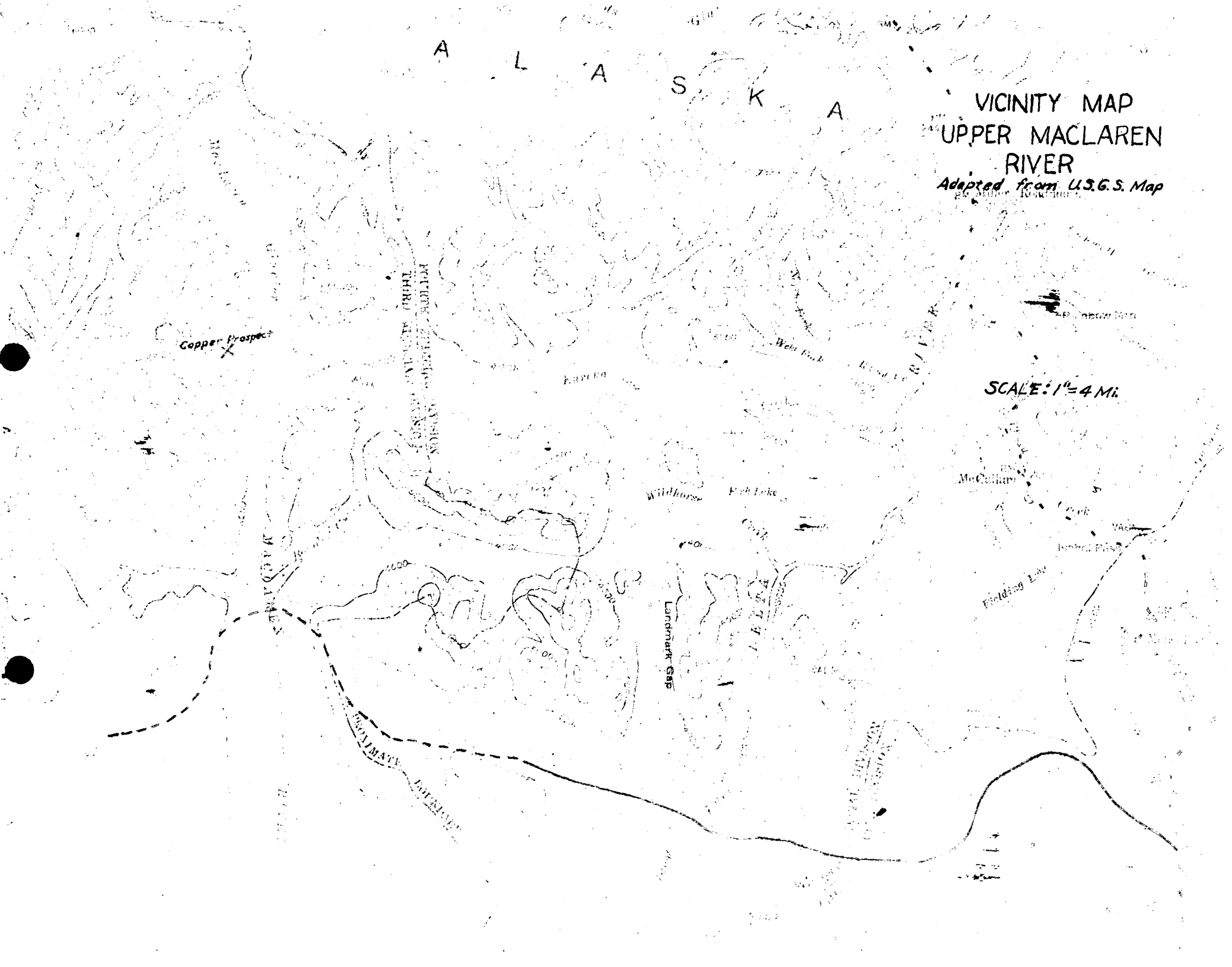
By _____
Deputy.

Mail To _____

_____ P. O.

Box No. _____


VICINITY MAP
UPPER MACLAREN
RIVER
Adapted from U.S.G.S. Map
of the Delta River District.
R.H.Saunders, Terr. Dept. of Mines
October 1953
SCALE: 1" = 4 MI.
146°40'
146°20'
146°00'
145°40'
63°20'
Rainbow Mtn
6630
8200
8300
7390
6800
6000
5120
6100
6100
6100
5300
4230
4800
MACLAREN
GLACIER
COPPER
PROSPECT
EAST FORK
Eureka
Creek
River
Delta
Boulder Cr
WEST FORK
MACLAREN
RIVER
RICHARDSON
Isabel
Pass
HIGHWAY
SUMMIT LAKE
End of
Construction-1953
TANGLE LAKES
PAXSON-CANTWELL ROAD
PAXSON


A L A S K A
VICINITY MAP
UPPER MACLAREN
RIVER
Adapted from U.S.G.S. Map
SCALE: 1" = 4 Mi.
Copper Prospect
Wildhorse
Fish Lake
Landmark Gap
Fielding Lake
MacLaren

NOTE 12/29/61

Map, Fig. 2 removed from application and placed with contract Idm-E667 in lieu of photostat copy of same map removed and transmitted to Transworld Resources Corporation with copy of application this docket

GLAult/per SPHolt

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/28		110
		120
		220

JUN 28 1967

Memorandum

To: The Files

From: Chief, Office of Minerals Exploration

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc., Assignee
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

The contract with Alaska Copper Mines, Inc., Assignee (Idm-E667), was executed April 2, 1954, and was terminated by mutual agreement on October 26, 1956, with a provision that royalty on any production from the property would be paid to the Government until April 2, 1966, or the full amount of the Government's contribution under the contract was repaid, whichever occurred first, in the same manner as though a certification of discovery had been issued. The total accepted costs of the exploration under the contract was $35,511.10, of which the Government's share was $17,755.55. As of December 31, 1961, royalty in the amount of $56.21 on production made for sampling purposes, had been collected by offsetting this amount against the Operator's final voucher, thus leaving an unpaid balance of the Government's contribution in the amount of $17,699.34.

The contract with the MacLaren River Copper Corporation (Idm-E1093), was executed May 29, 1957, covering the same claims as contract Idm-E667, Annex II of contract Idm-E1093, contains a provision which deletes the requirement for certification of a discovery under this contract and substitutes therefor a requirement for the repayment of the combined amounts of the Government's contribution under both contracts. By Amendment No. 1, to contract Idm-E1093, the repayment period for the combined amounts of the two contracts expires May 29, 1968.

Operator	Mine	Production
Zenda Gold Mining Co. See page 7, Bureau of Mines Information Circular 7878 Present owners Ralph Lemen and H. G. Gabrielson. Patent has been applied for on the claims. Present state of patents not known.	Cape Mountain	None
Wren, Waskey, and Wolfe) Moneta Porcupine) Wren recorded the assessment work on these claims for 1960. No assessment work has been recorded for 1961.	Red Top	None
Alaska Metals Alaska Metals, Box 965, Fairbanks, Alaska, Mr. Anderson, Vice-President of the Company recorded assessment work in 1961.	Gilmore Dome	None
MacLaren River Copper Corp. (Lease by Tom Slick, Transworld Resources Corp.	Kathleen Margaret	None

Best regards,

Sincerely yours,

J. A. Herdlick
Chief, Alaska Office of
Mineral Resources, Region I

c
o
p
y

The total accepted costs of the exploration under contract Idm-E1093 was $1,728.00 of which the Operator's share was $864.00. A Report of Royalty Review dated February 2, 1962, indicates that no royalty had been paid or was due on production under this contract through December 31, 1961.

The total amount of the Government's contribution under both contracts remaining unpaid is $18,563.34.

A small stockpile estimated at about 30 tons of mineralized material derived from drifting was reported under contract Idm-E667. The apparent grade of this material is too low and the quantity too small to permit shipment at a profit. Consequently, it has no commercial value at the present time.

Reports from the field and the Operator indicate that no production has been made from the property under the two contracts since the date of the first contract (April 2, 1954), other than the test shipment in September 1954 on which royalty was paid.

Therefore, since the repayment period under contract Idm-E667 has expired and the account for this contract is under contract Idm-E1093, the record under contract Idm-E667 is considered closed.

Frank E. Johnson

cc: Director's reading file
Division file
Economic Geology file
OME files DMEA-3288 and DMEA-4738
OME reading file
OME Region I

FEJohnson/bih 6/28/67

MMS Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
6/27/68		110
		220

AIRMAIL

Mr. Warren A. Taylor
Director
MacLaren River Copper Corp.
212 Norland Building
P. O. Box 200
Fairbanks, Alaska 99701

JUN 7

Re: MMMA-4738 (Copper)
MacLaren River Copper Corp.
Kathleen-Margaret Claims 1-10, inclusive
Talkeetna Mining District, Alaska
Contract Idm-21093

Dear Mr. Taylor:

By the terms of the subject Exploration Project Contract, as amended, all minerals mined or produced from May 29, 1957, to May 29, 1968, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

Cy for 3288

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
Branch of Budget and Finance
OME docket
OME Reading File
OME Region I
130

GLAult/a 6-27-68

PROJECT SUMMARY REPORT

By: J. W. Alt October 20, 1959

1. Docket No. DMEA-3288 (Copper)
   Contract No. Idm-E667

   Operator - Alaska Copper Mines, Inc., Assignee of the
   Kathleen Margaret Mining Company
   P. O. Box 3365
   Seattle 14, Washington

   Assignment of Contract - dated June 9, 1954

   Property - Kathleen-Margaret Claims
   Talkeetna Mining District, Alaska

   Operator's Property Rights - Lessee

   Mining Lease and Option - dated April 12, 1954
   Owner's Consent to Lien - dated November 10, 1954

2. Contract, Form MF-200 (June 1951) dated April 2, 1954

   The purpose of the project is to explore for copper ores. To excavate twelve surface trenches at approximately 100-foot intervals.

Estimated Costs of the Project

(*Indicates allowable maximum)

1. Independent contracts

Either a D-6 tractor-dozer, 640 hrs.* @ $16.00/hr.* or a D-7 tractor-dozer, 569 hrs.* @ $18.00/hr.*	$10,242.00*

2. Labor, supervision, and consultants

Labor - 200 hrs. @ $3.00/hr.	600.00
Surveying and mapping	384.00*
Supervision - 168 hrs.* @ $3.20/hr.*	537.60*

7. Miscellaneous

Freight on tractor	750.00
36 assays @ $6.00/ea.	216.00
Total Estimated Costs (rounded to)	$12,730.00
Government Participation @ 50%	$ 6,365.00

Amendments -

No. 1 - Agreed August 20, 1954; effective April 2, 1954.

Adds to the description of work.
Allows for 600 feet of drifting and/or crosscutting @ $48.00/ft. (Agreed Unit Cost) $28,800.00
Under "Estimated Costs of the Project", delete the totals $12,730.00 and $6,365.00, and substitute the totals $41,530.00 and $20,765.00, respectively.

No. 2 - Agreed March 30, 1955; effective April 2, 1954.

Changes the description of the work and also the size of the bulldozer.

No. 3 - Agreed March 21, 1956; effective January 1, 1955.

Suspends work from January 1, 1955, to not later than June 1, 1956.
Completion time extended from 15 months to 3 years.
Royalty payment period extended from 10 years to 12 years.

Work Completed

12 bulldozer trenches at a total cost of	$12,711.10
475 feet of drifting @ $48.00/ft.	22,800.00
Total Cost of the Project	$35,511.10

Final Reports -

Operator's final report, dated November 8, 1956, received November 19, 1956.

Field Team final report, dated September 1959, received September 28, 1959.

Work under the terms of the contract was started in June 1954.

The contract was mutually terminated, effective January 1, 1955.

3. Audit - Report of Review, made in lieu of final audit, dated July 1, 1957.

Total cost as billed by Contractor	$36,705.60
Exceptions	1,194.50
Total Accepted Cost	$35,511.10
Government Participation @ 50%	$17,755.55

4. Certification of Discovery - The termination agreement contains a pseudo-certification.

5. Comments -

Before any work was one, the contract was assigned to the Alaska Copper Mines, Inc., a wholly owned subsidiary of Alaska Freight Lines, Inc. Work done by Alaska Copper Mines, Inc. was done in a workmanlike manner. Financial reverses compelled the Operator to relinquish its lease and terminate the project.

The Operator at its own expense completed 125 feet of raise, 8 diamond drill holes, and 13 long holes for a total footage of 1,407 feet. ? meaning

The largest and richest vein, as determined from the surface, is about 10.5 feet thick and the best exposure of the vein is about 180 feet above and on the north side of Discovery Creek. The discovery outcrop shows excellent copper values and the width and tenor of the vein appears to be fairly uniform along most of the exposures. Trenches bulldozed to the north of the outcrop showed either that the vein was discontinuous on strike and irregular in width or that several veins were present. Samples taken from the vein exposed in trenches show low to nil copper values.

The downward extension of the discovery outcrop was explored by a crosscut and drift driven from an adit. The crosscut found a quartz vein 18 feet wide which showed poor copper values. A raise about 125 feet long was driven from the crosscut on the quartz vein. The raise penetrated nearly barren rock throughout most of its length.

The downward extension of the vein below the adit level was tested by drilling, but the results are questionable because of the apparent haphazard methods of drilling and sampling used by the Operator. The drilling shows that the vein extends at least 150 feet below the adit level. Samples from the drilling, the adit level, and the surface indicate a decrease in grade with depth.

Later a contract for this property was granted to the MacLaren River Copper Corporation, Docket No. DMEA-4738 (Contract No. Idm-E1093).

<u>Ore Reserves for both Contracts</u>

Drifting and drilling in the area beneath the discovery outcrop has shown that the one known ore shoot extends to a depth for over 250 feet; it may be as much as 60 feet long, 300 feet in vertical extent, and 10 feet wide, which would contain 15,000 tons of indicated and inferred ore with a grade of 3.5 per cent copper.

As there is but one final Field Team report for this contract (Contract No. Idm-E667, Docket No. DMEA-3288) and for the MacLaren River Copper Corporation (Contract No. Idm-E1093, Docket No. DMEA-4738), it is contained in the MacLaren River Copper Corporation docket.

JWAlt/GMcC

J. W. Alt

cc: Docket (Original)
Director's Read. File
Frank E. Johnson
Chron

DMEA Form 17
Feb. 58

DEFE[illegible] MINERALS EXPLORATION ADMINIST[illegible]ION

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator (Formerly Kathleen-Margaret Mining Co.) ALASKA COPPER MINES, INC.		Actual Cost	x
State Territory of Alaska		Agreed Unit Cost	x
Final Report of Audit		Commodity	Docket No. DMEA-3288
Final Report of Review	X	Copper	Contract No. Idm-E667

Operation	Authorized by Contract and Amendments		Completed		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting	600' @ $48.00	$28,800.00	475'	$22,800.00	$22,800.00
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Trenching by Dozer and Freight		11,478.94		11,478.94	~~12,711.10~~ 11478.94
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Trenching Labor & Supervision		1,251.06		1,232.16	1232.16
Totals		$41,530.00		$35,511.10	* $35,511.10

* Net cost total must agree with final report of audit or review.

Prepared by W. P. Klugescheid/er Date 4/2/58

31390

☒ Audited 7/1/57. WO[illegible] ANALYSIS SHEET - DMEA PROJECT Report & Review ☒ Actual Cost

☒ Certified 10/26/56. Funds [illegible] Analysis as of 4/15/55. *☒ Agreed Unit Costs

Incl. Voucher for December 1954

Name ALASKA COPPER MINES, INC. (Formerly Kathleen-Margaret Mining Co.) Docket No. 3,288

State TERRITORY OF ALASKA Commodity COPPER Idm-E No. 667

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting *	600' @ 48.00	$28,800.00	475'	$22,800.00	$22,800.00
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation Trenching by Dozer and Freight.		11,478.94		11,478.94	12,711.10
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Trenching Labor & Supervision		1,251.06		1,232.16	1,232.16
Totals		$41,530.00		$35,511.10	$35,511.10

Contract dated: June 9, 1954.

Checked ↑ Audit ↗

Amend. #3 - Reason: Jan 1, 1955 - June 1, 1956 (Monthly Cost: 12 yrs.), Completion time 3 years. Expires 3, 1966.

Termination Agreement dated - Oct. 26, 1956.

Prepared by W. P. Klugescheid.

71626

E-667
3288

Alaska Copper Mines, Inc. — Alaska —

* maximum allowable.

Trenching by Bulldozer. 640 hrs @ 16.00/hr.	$10,242.00 *
Freight on Dozer	750.00
	$ 10,992.00
36 Assays @ 6.00	216.00 *
Labor for Hand Cleaning Trenches 200 hrs @ 3.00	600.00
Supervision 168 hrs @ 3.20	538.00 *
Surveying & mapping.	384.00 *
Agreed Unit Costs	
600' Drifting @ 48.00	28,800.00
	$ 41,530.00

Dec. 1954

Corrected to Audit.

475' audit	Spent	audit 22,800.00
~~500'~~ Drifting & Crosscutting @ 48.00		~~$ 24,000.00~~
		12,711.10
Trenching (Bulldozer)		~~12,705.60~~
Freight on Dozer, was actually 966.00		

Audit	
525.00	537.60 Supervision
10,242.00	10,242.00 Dozer
1,236.94	966.00 Freight
700.91 + 6.25	960.00 Labor

10242.00
1236.94
1232.16
12711.10

$ 5,511.10

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION I

January 30, 1962

Mr. D. R. MacLaren
Acting Field Officer
Office of Minerals Exploration, Region I
South 157 Howard Street
Spokane 4, Washington

Dear Mac:

Bob Thorne checked with the State offices concerned and came up with the following information on the mines listed in your letter of January 23rd. We have no official record of production during 1961 from any of the properties listed and have heard of no significant developments other than those noted.

Operator	Mine	Production
DeCoursey Mountain Mining Co. Alaskan Mines and Minerals Co. owned by Decoursey-Brewis Minerals, see Dec. 1961 issue, "Mining Engineering," p. 1337, company owns both Red Devil Mine and DeCoursey Mountain Mine.	DeCoursey Mountain	None
Earl H. Pilgrim Earl R. Pilgrim and Co. P. O. Box 1896, Fairbanks, Alaska, still owner and operator--presently rebuilding mill.	Stampede Antimony	None
Tillicum Mining Co. George Roberts, President, 1940 Second Ave., Ketchikan, Alaska.	Casmano Point Assessment done 1961.	None
U.S. Tin Corp. Lenhart J. Grothe of Red Devil, Alaska purchased the Lost River Mine at a GSA sale August 9, 1960. Title transferred in October or November 1960	Lost River	None

(Note: Thermofax copy sent in from OMX R-I filed in DMEA-2742 DeCoursey)

Orig

No. 157 Howard Street
Spokane 4, Washington
February 16, 1962

Memorandum

To: Chief, Fiscal Section, Division of Administrative Services, Office of the Secretary, Washington, D. C.

From: Acting Field Officer, OME, Region I

Subject: DMEA-3288 (Copper)
Kathleen Margaret Mining Company
544½ Second Avenue
Fairbanks, Alaska
and its assignee
Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington
Contract Ida-2667

There is enclosed a Report of Royalty Review dated February 6, 1962, for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Albertson-Pettyjohn Copper Prospect and the Kathleen Margaret Claims located in the Talkeetna Mining District, Alaska, during the period January 1, 1955, through December 31, 1961.

This Report of Royalty Review is for record purposes only and no copy has been provided for the Operator.

D. R. MacLaren

Enclosure

MLSmelser:mls
cc: CAADiv., OME
✓ OME; CPF
Reading copies to:
Nolan
Hobbs
Guild

2/19/62

gla-500

220

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

FEB 6 - 1962

Memorandum

To: Acting Field Officer, Region I

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc., Assignee
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

The original and one copy each of Reports of Royalty Review covering the subject contracts are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original of each to the Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.; and
(b) One copy of each for your files.

These Reports of Royalty Review are made for record purposes only; therefore, no copies for the Operators are provided.

As evidence of your concurrence, copies of your memoranda transmitting the original reports to the Fiscal Section should be furnished this Division. If for any reason you do not concur, all copies of the reports should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 2-6-62

cc:
Docket - DMEA-3288
Director's Reading File
CA & A Division
Mr. Rothrock

43683

Amendment No. 1, dated February 28, 1958, DMEA-4738.

Notice of Default Exploration Project Contract, MacLaren River Copper Corporation--DMEA-4738, dated April 10, 1959.

Report of Review, dated September 1, 1959, DMEA-4738.

Sincerely yours,

George Fumich, Jr.

Director

Enclosures

Copy to: Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corp.
P. O. Box 1292
Fairbanks, Alaska

SPHolt/gla
12-29-61
cc to: Director's Reading File
Region I (2)
Docket D MEA-3288
Docket DMEA-4738
Code 500

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

JAN 16 1962

Memorandum

To: Acting Field Officer, Region I

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna District, Alaska
Contract Idm-E1093

This Division is preparing a Report of Royalty Review on each of the subject contracts. Accordingly, your submission of an original and three copies of a joint MME Form 22, Check Sheet of Examining Engineer, will be appreciated.

The files indicate that the only production to date from the claims under these contracts consisted of a bulk sample shipped in 1954 and a small stockpile accumulated from drift work during the latter part of 1957. The stockpile was the subject of correspondence during a period of August to November 1960.

Please confirm or correct the foregoing by an appropriate statement under item 8 of MME Form 22.

EDTalbert/ama 1-16-62

cc:
Docket - DMEA-3288
Director's Reading File
CA & A Division

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/29	Holt	500
	Mirsowski	500
1/11/62	Sadler	140
		140
1/12	Tolbert	800
1/12	Selfridge	120
"	Johnson	110
1/12	Fenwick	100
		220

JAN 12 1962

Mr. Robert B. Hicks
President
Transworld Resources Corporation
9107 Wilshire Boulevard, Suite 603
Beverly Hills, California

INTERIOR DEPT.
JAN 8 - 1962
SOLICITOR

RECEIVED
JAN 8 1962
ASSOC. SOLICITOR
MINERAL RESOURCES

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

Having received with your letter of December 22, 1961, a copy of an agreement showing transfer of rights in the land of the subject contracts from MacLaren River Copper Corporation to Tom Slick (whom you state is the owner of the Transworld Resources Corporation), we are now able to comply with the request in your letter of November 3, 1961, and enclose copies of the following:

Application (Form MF-103) Docket DMEA-3288, including five pages comprising Schedule "A" and Notice of Tunnel Site, Fig. 2, and transmittal letter of March 6, 1954, from the Kathleen Margaret Mining Company.

Termination Agreement, dated October 26, 1956, Docket DMEA-3288, paragraph 5 of which contains a royalty agreement.

Letter, dated April 17, 1957, from F. S. Pettyjohn, Jr., president, MacLaren River Copper Corporation.

Letter, dated April 25, 1957, from F. S. Pettyjohn, Jr., president, MacLaren River Copper Corporation.

Contract No. Idm-E1093, Docket DMEA-4738, dated May 29, 1957, including Annex I, Annex II, Exhibit A (two pages), Plate II, and Fig. 1.

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/21	Holt	500
	Brown	500
12/22	Selfridge	120
		110
		100
		220

DEC 2 2 1961

Mr. Robert B. Hicks
President
Transworld Resources Corporation
9107 Wilshire Boulevard, Suite 603
Beverly Hills, California

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

Careful search of all of our records concerning the subject contracts does not reveal any document showing a transfer of MacLaren River Copper Corporation's rights in the land of the contract to Mr. Tom Slick, as suggested in your letter of November 20, 1961, might be the case.

As we have not yet received from MacLaren River Copper Corporation copies of an instrument showing transfer of any rights in the lands of the contracts from MacLaren River Copper Corporation to Transworld Resources Corporation (or to Mr. Tom Slick), we are still unable to comply with your request until such documents are received.

Sincerely yours,

George Fumich, Jr.

Director

Copy to: Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corporation
P. O. Box 1292
Fairbanks, Alaska

SPHolt/gla 12-21-61
cc to: Director's Reading File
Region I (2) w/2 cys incoming letter
Docket DMEA-3288
Docket DMEA-4738
Code 500

43683

TRANSWORLD

Resources CORPORATION

9107 WILSHIRE BLVD., SUITE 603
BEVERLY HILLS, CALIFORNIA
TRemont 8-1934

[redacted]

2000 NATIONAL BANK OF COMMERCE BLDG.
SAN ANTONIO, TEXAS
CAPITOL 7-5031

PLANT
BOX 9, HESPERIA, CALIFORNIA

Beverly Hills
November 20, 1961

OFFICIAL FILE COPY
O. M. E
RECEIVED NOV 22 1961

DATE	INITIALS	CODE
11/22	[illegible]	800
"	Grissold	500
11/23	Hoet	500
		220

Mr. George Fumich, Director
U.S.Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alask
Contract Idm-E1093

Dear Mr. Fumich:

Regarding your letter of November 16th, the agreement made by MacLaren River Copper Corporation was with Mr. Tom Slick who has assigned the administration of this project to Transworld Resources Corporation, a company owned by Mr. Slick.

I wonder if your file would show that MacLaren River Copper Corporation's rights have been transferred to Mr. Slick instead of Transworld Resources Corporation.

Very truly yours,

Robert B. Hicks

Robert B. Hicks
President

RBH:en

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/15	Holt	500
	Arnold	500
		120
		110
		100
		220

Mr. Robert B. Hicks
President
Transworld Resources Corporation
9107 Wilshire Blvd., Suite 603
Beverly Hills, California

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

We have your November 3 letter concerning copies of certain documents pertaining to the subject contracts. ~~You have not correctly stated the Government's position previously outlined.~~

~~We stated in our letter of December 19, 1960, that we could furnish copies of the documents you requested as soon as we received copies~~ of an instrument showing transfer of any rights in the land from the Operator, MacLaren River Copper Corporation, to Transworld Resources Corporation.

~~To date we have not received from MacLaren River Copper Corporation the copies of instrument requested and, accordingly,~~ are not able to comply with your request until such documents are received.

Sincerely yours,

Director

cc: Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corporation
P. O. Box 1292
Fairbanks, Alaska

SPHolt/gla
11-15-61
cc to: Director's Reading File
Docket DMEA-3288
Docket DMEA-4738
Region I (2) w/2 cys incoming letter
Code 500

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/16	Holt	500
	Griswold	500
11/16	Selfridge	120
"	Jordan	110
11/16	Fumich	100
		220

NOV 1 6 1961

Mr. Robert B. Hicks
President
Transworld Resources Corporation
9107 Wilshire Blvd., Suite 603
Beverly Hills, California

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

We have your November 3 letter concerning copies of certain documents pertaining to the subject contracts. You have been misinformed regarding material which has been sent us. So far we have received no copies of an instrument showing transfer of any rights in the land from the Operator, MacLaren River Copper Corporation, to Transworld Resources Corporation.

Hence we are not able to comply with your request until such documents are received.

Sincerely yours,

George Fumich, Jr.

Director

cc: Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corporation
P. O. Box 1292
Fairbanks, Alaska

SPHolt/WRGriswold/gla
11/15/61
cc: Director's Reading File
Docket DMEA-3288
Docket DMEA-4738
Region I (2) w/2 cys incoming letter
Code 500

43683

TRANSWORLD

Resources CORPORATION

9107 WILSHIRE BLVD., SUITE 603
BEVERLY HILLS, CALIFORNIA
TRemont 8-1984

~~412 SOUTH HILL STREET ROOM 1205
LOS ANGELES 13, CALIFORNIA
MADISON 5-7314~~

2000 NATIONAL BANK OF COMMERCE BLDG.
SAN ANTONIO, TEXAS
CAPITOL 7-5031

PLANT
BOX 9, HESPERIA, CALIFORNIA

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 6 1961

DATE	INITIALS	CODE
11/6	[illegible]	800
"	~~[illegible]~~	500
"	Hoet S.P.H	500
		220

Beverly Hills
November 3, 1961

Mr. George C. Selfridge, Acting Director
Depart of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMEA-3288 (Copper) and DMEA-4738 (Copper)

Alaska Copper Mines, Inc.
IDM-E667 IDM-1093 MacLaren Riv.

Dear Sir:

In your letter of December 19, 1960 you stated that upon receipt, from the MacLaren River Copper Corporation, of instruments properly refering to the Government's right to royalty that your office would gladly furnish free of charge copies of the following documents:

(1) The application complete with map.
(2) Contract Idm-E1093 complete with map.
(3) Notice of default.
(4) Letter setting forth royalty obligations of Operator.
(5) Report of review.
(6) Termination agreement and report of review of contract Idm-E667.

I have been advised that the Government's position has been clarified and that you have all the information required. Would you please forward to this office the documents listed above.

Very truly yours,

Robert B. Hicks

Robert B. Hicks
President

RBH:en
cc: H.Hanson
T.Slick
E.Gesick

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/19	GCS	120
		800
	ADS	500
	Finance	
12/19	CAC	270

DEC 19 1960

AIR MAIL

Mr. Robert B. Hicks
Transworld Resources Corporation
417 South Hill Street, Room 1256
Los Angeles 13, California

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

Reference is made to your letter of December 8, 1960, with enclosure, addressed to the Office of Minerals Exploration, Spokane, Washington.

Article 2(c) of contract Idm-E1093 requires that the Operator refer to the Government's right to royalty in any instrument transferring any of his rights in the land and that he furnish the Government two copies of such instrument. Upon receipt of said copies from the MacLaren River Copper Corporation, to which we are sending a copy of this letter, we shall gladly furnish free of charge copies of the following documents:

(1) the application complete with map,

(2) contract Idm-E1093 complete with maps,

(3) notice of default,

(4) letter setting forth royalty obligations of Operator,

(5) report of review, and

43683

(6) termination agreement and report of review of contract Idm-E667.

This material will set forth the status of the contracts and the land included thereunder. For copies of any additional material, there would be a charge dependent upon the number of copies requested. Naturally, as inter-Government correspondence and reports are considered confidential and for Government use only, we could not furnish copies of any such material.

Sincerely yours,

/s/ George C. Selfridge

Acting Director

GCSelfridge/hb (12/19/60)

Copy to: Docket DMEA-3288
Docket DMEA-4738
Director's File
Director's Reading File
Region I (2)
G. C. Selfridge

Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corp.
P. O. Box 1292
Fairbanks, Alaska

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
December 13, 1960

OFFICIAL FILE COPY
O. M. E
RECEIVED DEC 13 1960

DATE		
12/16	Cee	210
		120
12/16	Cee	~~80.0~~
	Previous	500
		220

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Enclosed are three Thermofax copies each of a letter dated December 8, 1960, from Robert B. Hicks of Transworld Resources Corporation, an authorization from the MacLaren River Copper Corporation to give Transworld a copy of the DMEA contract, and my reply to Mr. Hicks.

To copy all the material requested by Mr. Hicks would be not only time consuming but rather costly. I suggest that he be sent a copy of the contract, the amendment, Notice of Default, and the Report of Review as a start, and that he be told that he can see the file in this office and make copies of any additional information which he may wish.

I have twice requested MacLaren River for a copy of the lease to Transworld or Tom Slick and am enclosing three copies of my third request. ← not attached. 12/16/60

Attached. Come in separately. gla.

D. R. MacLaren

Enclosures

cc: CPF
Director
Econ. Geol.
B&FM

Mre (3)

OFFICIAL FILE COPY
O. M. E
RECEIVED [illegible] 1960
DATE

12/16 Cee 210
12/16 [illegible] 800
4 - [illegible] 500
220

So. 157 Howard Street
Spokane 4, Washington
December 13, 1960

Air Mail

Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corp.
P. O. Box 1292
Fairbanks, Alaska

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4758 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Miss Bannister:

We have just received a letter from Robert B. Hicks of Transworld Resources Corporation in which he states: "Recently our Company completed a lease-purchase agreement with the MacLaren River Copper Corporation."

In accordance with Article 2(c) of the contract, will you please send us two copies of the lease-purchase agreement.

Sincerely yours,

D. R. MacLaren
Acting Field Officer, OME
Region I

cc: ✓OME(3)
Director
Econ. Geol.
B&FM
CFF

So. 157 Howard Street
Spokane 4, Washington
December 13, 1960

Air Mail

Mr. Robert B. Hicks
Transworld Resources Corporation
417 South Hill Street, Room 1256
Los Angeles 13, California

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Mr. Hicks:

This office is not authorized to furnish the information requested in your letter of December 8, 1960. Therefore, I am forwarding your letter and the authorization from the MacLaren River Copper Corporation to our Washington office for their consideration and reply.

Sincerely yours,

D. R. MacLaren
Acting Field Officer, OME
Region I

cc: OME(3) w/cys incoming
CPF
Director
Econ. Geol.
B&FM

TRANSWORLD

Resources CORPORATION

417 South Hill Street Room 1206
Los Angeles 13, California
MADISON 5-7514

2000 National Bank of Commerce Bldg.
San Antonio, Texas
CAPITOL 7-8081

Plant
Box 9, Hesperia, California

Los Angeles
December 8, 1960

Office of Minerals Exploration
157 Howard Street
Spokane 4, Washington

Dear Sirs:

Recently our Company completed a lease purchase agreement with the Maclaren River Copper Corporation.

The officers of the corporation informed us that a D.M.E.A. loan for the Kathleen-Margaret claims had been granted but that it had been cancelled by the D.M.E.A. due to non-conformance to the contract by the Maclaren River Copper Corporation.

The data regarding this loan is almost completely absent from the Maclaren River Copper Corporation files. We need copies of all correspondence; including the loan application with maps, reports and assays as well as all other pertinent data between the Maclaren River Copper Corporation and the D.M.E.A.

Enclosed herewith is an authorization from the Maclaren River Copper Corporation, signed by the president and secretary, for the D.M.E.A. to furnish the data requested to Transworld Resources Corporation.

Please advise us as soon as possible if you can have the information copied and mailed to us.

Very truly yours,

/S/ Robert B. Hicks

Robert B. Hicks

RECEIVED
DEC 9 1960
Via air mail

RBH:en
encl.
cc: Maclaren River Copper Corp.
John D. Shaw

We the undersigned, President and Secretary of MaClaren River Copper Corporation, hereby certify that the Directors of said corporation at a regular meeting thereof authorized the O. M. E. officials at Spokane, Washington to deliver copies of all documents, reports, assays and all other pertinent data respecting the copper mine of said corporation to Tom Slick of National Bank of Commerce, San Antonio, Texas or to Transworld Recourses, Inc. of Hesperia, California.

In witness whereof we have hereunto set our hands and the official seal of said corporation this 15 day of November, 1960.

(S) W. E. Buckhorn
President

(S) Genevieve D. Bainister
Secretary

RECEIVED
DEC 9 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 14 1960

DATE	INITIALS	CODE
11-14	gad	VVO
11/14	[illegible]	800
	aef	500
		220

So. 157 Howard Street
Spokane 4, Washington
November 9, 1960

Air Mail

Memorandum

To: E. D. Talbert, Acting Chief
Contract Administration and Audit Division

From: Acting Field Officer, Region I

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

In further reference to your memorandum of August 3, 1960, MME Form 63, Request for Information, which we mailed to the MacLaren River Copper Corporation September 19, 1960, has just been returned. The form, signed by Genevieve I. Bannister, Secretary-Treasurer, indicates a change of address to Box 1292, Fairbanks, Alaska.

Under item 1 appears the statement: "Lease to Tom Slick, San Antonio, Texas, nearing completion." I will write to Miss Bannister requesting that she send us a copy of the lease when it is completed.

Item 2(A) states that no ore has been shipped since October 1957, which date I had inserted. Item 2(B) states that the stockpile contains 30 tons of high-grade ore, no concentrates and no "other." On the back of the form Miss Bannister has written:

> "I do not know who was responsible for the large estimate on the stockpiled ore, but exaggeration was a weakness of Mr. Pettyjohn. However we have had estimates made by several reliable mining men, and in their opinion 30 tons of stockpiled ore meets their figures. Since the canyon below is well covered with ore and mineral I believe erosion may have been responsible for some loss."

In his letter of November 28, 1958, to the Executive Officer, Everett O. Albertson, then president, mentions: 30 tons of shipping ore. E. W. Parsons of the Bureau of Mines and E. M. MacKevett, Jr., of the Survey visited the property May 17, 1958. A statement in the last paragraph on page 2 of their report appears to support Miss Bannister's statement that " * * * exaggeration was a weakness of Mr. Pettyjohn"; they state:

> "Under the previous president, Fred S. Pettyjohn, there seems to have been a stock promotion program which included television advertising in which factual data were misrepresented to such an extent that Phil Holdsworth, Commissioner, Territorial Department of Mines, notified the company to be careful."

I have talked to Parsons to try and clear up the conflicting statements. He points out that his last visit to the property was about 2½ years ago, but as nearly as he can remember there was only one small stockpile of ore. While he is reluctant at this time distance to estimate how much ore might have been in the stockpile then, he doubts that it was much more than 30-40 tons. He also points out that the mine is 15 miles from the highway and can only be reached by weasel when the streams are frozen; that to ship profitably by truck would demand a much higher grade material than mine and drill hole samples indicate, unless the purpose of a shipment were to make mill tests.

In view of the foregoing, I believe it is reasonable to accept the statements of Miss Bannister and Mr. Albertson that the stockpile contains no more than 30 tons of "selected shipping ore" or "high grade" ore and that no shipments have been made. I also believe that Mr. Pettyjohn's estimate is most probably exaggerated. Before a computation of royalty due the Government is made, as provided in Article 6(d) of the contract, it will be necessary to determine the grade of the 30 tons. In my letter to Miss Bannister, I will request the grade.

D. R. Maclaren

cc: CMR(2)
MRF
CFF
Robbs

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 14 1960

DATE	INITIALS	CODE
11-14	gad	VVO
		800
"	alt	500
		220

So. 157 Howard Street
Spokane 4, Washington
November 9, 1960

Air Mail

Miss Genevieve I. Bannister
Secretary-Treasurer
MacLaren River Copper Corp.
P. O. Box 1292
Fairbanks, Alaska

Re: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

Dear Miss Bannister:

Thank you for returning the Request for Information and your note on the back of the form.

When it is executed, we would appreciate receiving two copies of the lease to Tom Slick, in accordance with the terms of Article 2(c) of the contract. The Government's right to royalty, which is provided for by a pseudo-certification in Article 10(b) and Amendment No. 1, continues until May 29, 1968.

We would also appreciate knowing the grade of the 30 tons on the stockpile.

Sincerely yours,

D. R. MacLaren
Acting Field Officer, OME
Region I

cc: CAAA Div.
OME(2)
DRF
CPF
Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
October 14, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 17 1960

DATE	INITIALS	
10-17	gad	vvo
10/19	[illegible]	800
		220

Memorandum

To: E. D. Talbert, Acting Chief
Contract Administration and Audit Division

From: Acting Field Officer, Region I

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4738 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

In reference to your memorandum of August 3, 1960, regarding ore shipments from the subject property, a letter dated October 3, 1960, from Everett O. Albertson, formerly president of MacLaren River Copper Corporation, a copy of which was forwarded to you on October 4, 1960, states that there has been no ore shipped from the property. A letter dated October 12, 1960, from J. A. Herdlick, Chief, Alaska Office of Mineral Resources, Region I, U. S. Bureau of Mines, a copy of which is enclosed, confirms this statement.

Albertson says that the property is in process of being leased to Transworld Resources Corp., and Herdlick reports that it has been leased to Trans-World Enterprises. I will write Albertson again if I do not hear further by the end of the month and will keep you informed.

D R MacLaren
D. R. MacLaren

So. 157 Howard Street
Spokane 4, Washington
October 14, 1960

Air Mail

Mr. J. A. Hardlick, Chief
Alaska Office of Mineral Resources
Region I
U. S. Bureau of Mines
P. O. Box 2688
Juneau, Alaska

Dear Jerry:

Again, many thanks for the report on the rest of the certified Alaska projects.

The project I am most concerned about is the Maclaren River Copper Corporation. Albertson wrote to Al February 21, 1958, stating that stockpiled outside the drift was 180 tons containing 4.46 percent copper, 0.11 ounce gold, and 0.41 ounce silver per ton, and 190 tons containing 1.03 percent copper. Then on November 28, 1958, he wrote Al again stating that "at this time we have 30 tons of selected shipping ore awaiting the trucks." Since then, we had heard nothing further, but as long as no shipment has been made, we have no royalty claim.

I hope I'll be seeing you at the Northwest Mining Convention in December.

Sincerely yours,

D. R. Maclaren
Acting Field Officer, GMK
Region I

cc: GMK(3)
GFP
[illegible]

EXTRA COPY
O. M. E
RECEIVED OCT 17 1960

DATE	INITIALS	CODE

October 12, 1960

Mr. D. R. MacLaren
Acting Field Officer, OME
Region I
South 157 Howard Street
Spokane 43, Washington

Dear Mac:

Ray Maloney and Bruce Thomas have reported on the following OME projects:

DeCoursey Mountain Mining Co. - No activity during 1960 but some work is planned after January 1, 1961.

Wren, Waske and Wolfe (Moneta Porcupine) (Red Top) - No activity; property said to have been taken over by Sunshine Mining Co.

MacLaren River Copper Corp. - Neither production nor shipment of ore since February 1958. Trans-World Enterprises (of which Tom Slick of the "Slick Oil" interests, San Antonia, Texas is the principal stockholder) has a lease on the property. Royalty is 10 percent on gross production. During the past summer an access road and a new airfield were constructed.

Earl R. Pilgrim - No production or development; Earl is presently engaged in constructing a road to the mine.

Alaska Metals - None of the officers of this concern could be contacted but the wife of one of them confirmed that there had been no production or activity since July 1959.

Tillicum Mining Co. - Not contacted but no evidence or report of activity at Caamano Point prospect.

I think the above completes the reports on projects listed in your letter of August 17th.

RECEIVED
Via
OCT 13 1960
Air Mail
U.S. C.S.
SPOKANE, WASH.

Sorry this has taken so long but the engineers are only now returning from their projects and have not had prior opportunity to contact the various operators.

Sincerely yours,

J. A. Herdlick
Chief, Alaska Office of
Mineral Resources, Region I

JAHerdlick:mj

CC: Wright
Bishop
Thorne
File 001.446

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 12 1960

DATE		
8/19	Cet	506 225

No. 157 Howard Street
Spokane 4, Washington
August 10, 1960

REGISTERED--RETURN RECEIPT
AIR MAIL

Mr. Everett H. Albertson, President
Maclaren River Copper Corporation
P. O. Box 2053
Fairbanks, Alaska

file

Re: MMA-3088 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Ida-2067
and
MMA-4738 (Copper)
Maclaren River Copper Corp.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Ida-11093

Dear Mr. Albertson:

In reviewing our files on the subject MMA dockets we note that in your letter dated February 21, 1958, addressed to A. L. Weissenborn you stated that 1[illegible] tons containing 4.46 percent copper, 0.11 oz./ton gold, and 0.41 oz./ton silver and that 190 tons containing 1.05 percent copper had been stockpiled outside the drift. In your letter of November 2[illegible], 1958, also to Mr. Weissenborn you state that "at this time we have 30 tons of selected shipping ore awaiting the trucks."

Will you please advise us whether this stockpiled ore or any other ore from the Kathleen Margaret claims has been sold and if so what was the amount and grade of the ore sold and to whom was it sold.

Under Annex II of the contract the Government is entitled to a percentage royalty on the net proceeds of any ore sold from this property.

An early reply will be appreciated.

Sincerely yours,

A. R. Maclaren
Acting Field Officer, OME
Region I

[illegible] Albert[illegible]

[illegible] Audit Div., OME

OME(2); DRE

MME Form 7
(10-58)

DMEA-3288

OFFICIAL FILE COPY

Date	Surname	Code
8/2	Fisher	800
	Hriowitz	500
8/3	Selfridge	120
8/3	gad	220
		~~225~~

AUG 3 1960

Memorandum

To: Acting Field Officer, Region I

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E667
and
DMEA-4733 (Copper)
MacLaren River Copper Corporation
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract Idm-E1093

The Washington office files disclose that one shipment of production from this property was made in 1954 during the time exploration was being conducted under contract Idm-E667. According to my royalty audit report dated May 3, 1955, the manager of the project indicated that it was "a sorted sample, which was sent to the smelter primarily for bulk assay purposes". Royalty amounting to $56.21 applicable to the value of this sample lot was subsequently collected by offset against the Operator's final voucher. This is the only royalty received to date.

In a letter to Mr. Weissenborn dated February 21, 1958, F. S. Pettyjohn, Jr., General Manager, MacLaren River Copper Corporation, stated that 180 tons containing 4.46 percent copper, 0.11 oz./ton gold, and 0.41 oz./ton silver, and 190 tons containing 1.03 percent copper had been stockpiled from a drift. Apparently, little or no work has been done on the property since the diamond drilling under contract Idm-E1093, but our record is not clear on this point.

If this stockpiled ore or any other production from the property has been sold, the Government is entitled to a percentage royalty on the net proceeds. If the production has not been sold but remains in a stockpile, it appears that consideration should be given to computation of the royalty due to the Government as provided in Article 6(d) of contract Idm-E1093.

43683

Your advice with respect to the foregoing matters will be sincerely appreciated. The information is needed for the preparation of a Report of Royalty Review indicating the current royalty status of these contracts.

CEFisher/ama
August 2, 1960

Copy to: Docket - DMEA-3288
Director's Reading File
CA & A Division

SEE DOCKET NO. DMEA-4738 (Contract No. 1093)
MAC LAREN RIVER COPPER CORPORATION
FOR COPY OF FINAL FIELD TEAM REPORT

F.I. Final
Report

So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE CODE
7/22 C 220
7/22 800
7/22 500

July 15, 1957

Mr. Fred S. Pettyjohn, Jr., President
MacLaren River Copper Corporation
P. O. Box 4001
College, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret claims
Talkeetna Mining District, Alaska
Contract No. Idm-8667 (Terminated)

Dear Mr. Pettyjohn:

With reference to our conversation regarding the work remaining under the old contract (Idm-8667) at the Kathleen Margaret property, after studying the files, it appears to me quite certain that by virtue of the Termination Agreement the funds remaining in the previous contract have been wiped out and are no longer available for your use. Therefore, any drifting that you do on the Kathleen Margaret vein would have to be on your own account.

I am sorry this is the situation, but it appears certain that this is the case.

I enjoyed very much the opportunity of visiting the property with you.

Sincerely,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

P. S. With reference to your new contract on the same claims, (Docket DMEA-4738, Contract Idm-E1093), it is noted that the starting date under Article 1(a) has been left blank. Would you please inform us of the date so that we can put it on our copies of the contract before we make final distribution. Please insert the same date on your copy.

cc: DMEA (2)
USBM (2)
USBM (AD)
MacKevett (Anchorage)
Edna Swyers (Juneau)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/2	Talbert	800
7/2	C	220
7/3	WRB	500

JUL - 2 1957

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Dear Mr. Weissenborn:

Enclosed are the originals and two copies of Reports of Review for the following terminated exploration project contracts, which were administered by the former Alaska District of Region I:

Contract	Docket	Operator
Idm-E667	DMEA-3288	Alaska Copper Mines, Inc.
668	3246	Ryder Mines, Incorporated
857	3831	Moneta Porcupine Mines, Ltd.

If you concur with the facts stated in these reports, which have been prepared in accordance with letters of the DMEA Field Team, Alaska District, confirming the acceptable performance of the work, the original and one copy of each should be forwarded to the Authorized Certifying Officer (L. J. Wilcox, P. O. Box 2688, Juneau, Alaska) and one copy of each should be retained in your files. If for any reason a report does not have your concurrence, please return the original and both copies to this Division with your comments.

According to the records of this Division the status of these project accounts is as follows:

Contract	Proper Govt. Participation	Paid To Operator	Balance Due Operator
Idm-E667	$17,755.55	$17,755.55	$ -0-
668	1,219.67	1,219.67	-0-
857	21,798.75	21,765.00	33.75

As it is understood that the DMEA financial records of the Alaska District will be transferred from Juneau to Spokane, copies of this letter are being sent for information purposes to both Mr. L. J. Wilcox, the Authorized Certifying Officer in Juneau, and Mrs. Dorothy F. Long, the Authorized Certifying Officer in Spokane.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb 7-2-57

cc to: Docket (3)
Admr. Reading File
Mr. Chambers
L. J. Wilcox
D. F. Long

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/18	Talbert	800
6/18	ZWZ	220
6/18	WRG	500

JUN 18 1957

Mr. J. A. Herdlick
Acting Executive Officer
DMEA Field Team, Region I
Alaska District
P. O. Box 2688
Juneau, Alaska

Re: Docket DMEA-3288, Contract Idn-F667
Alaska Copper Mines, Inc.

Docket DMEA-3246, Contract Idn-F668
Hyder Mines, Inc.

Docket DMEA-3831, Contract Idn-F857
Hemeta Porcupine Mines Limited

Dear Mr. Herdlick:

It appears from the records of this Division that a Report of Review in lieu of a final audit is in order for each of the referenced terminated contracts. However, before such reports may be issued, it is required that this Division have a communication from you setting forth, for each of the projects, the information specified in my January 9, 1957, memorandum to all DMEA auditors, subject: Instructions on the Release of Audits and Reports of Review, copies of which were forwarded to the Field Team for compliance by the Operating Committee's letter of January 17, 1957.

Your cooperation in submitting the required communications would be appreciated.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

EDTalbert/wb
June 18, 1957

Copy to: Docket (3)
Admr. Reading File
L. J. Wilcox, Reg. I, Alaska Dist.
Mr. Chambers

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1957

DATE	INITIALS	CODE
6/13	JWH	220
6/14	WHR	500

P. O. Box 2688
Juneau, Alaska

June 10, 1957

Memorandum

To: Operating Committee, DMEA, Department of the Interior, Washington 25, D.C.

From: Alternate Acting Executive Officer, Alaska District, Region I.

Subject: Docket No. DMEA-3288 (copper)
Alaska Copper Mines Inc.,
Contract No. Idm-E667
Termination Agreement.

Enclosed are signed Government, Docket and Division copies of the subject termination agreement with the Operator's letter of transmittal attached.

J. A. Herdlick

J. A. Herdlick

Enclosure-2

cc: Velikanje
Wilcox

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
P. O. Box 2688
Juneau, Alaska

DATE		CODE
6/6	JAH	220
6/7		800
6/7		500

June 4, 1957

Mr. Don Zellweger,
Executive Vice-President,
Alaska Copper Mines, Inc.,
P. O. Box 3665,
Seattle 24, Washington.

re: Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.,
Contract No. Idm-E667

Dear Mr. Zellweger:

A "Termination Agreement" on the above contract has been held by this office pending a decision by the new company as to what additional work (if any) they might wish to do under the old contract.

The present operator has proposed a new drilling program and a new contract has been submitted for his approval. Before the new contract can be signed by the present operator it is necessary that the enclosed "Termination Agreement" be executed by Alaska Copper Mines Inc., therefore it will be appreciated if you will sign all copies of the enclosed "Agreement", retain the "Operator's" copy and return the others to this office.

Yours sincerely,

J. A. Herdlick

J. A. Herdlick,
Acting Executive Officer,
Alaska District,
Region I.

cc: Operating Committee
Fred S. Pettyjohn Jr.
Velikanje

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
P. O. Box 2688
Juneau, Alaska

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 16 1957

DATE	INITIALS	CODE
5/16	C	220
5/16		800
5/16		500

May 13, 1957

Mr. F. S. Pettyjohn, Jr.,
Maclaren River Copper Corp.,
Box 4001,
College, Alaska.

Docket

re: Docket No. DMEA-3288 (copper)
Maclaren River Copper Corp.
Contract No. Idm-E667

Dear Mr. Pettyjohn:

I have just received your letter of May 10 regarding your concern about DMEA action on your proposal for diamond drilling.

Your proposal was sent to Washington on April 29, 1957 but I have not had any word from them since then. I assume that they are preparing a contract or a counter-proposal; at this moment I have no idea which but I will send them a copy of this letter so that they will know of your anxiety. I realize that it is time to start moving if you are to do anything this summer.

My only reaction to your proposal was that your cost was too high. Mr. Herdlick had already discussed this with you; therefore you were aware of our opinion before you submitted your proposal. I am pretty sure that DMEA will propose a lower unit cost if they go along at all.

Yes I am planning to take off in my new cruiser early in July and I am looking forward to it. It will seem good to get out of a swivel chair and back into the field. My only worry is with respect to how the old bones (and muscles) will "take it".

Yours sincerely,

S. H. Loraine,
Executive Officer,
Alaska District,
Region I.

cc: Operating Committee
Velikanje
Herdlick

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

P. O. Box 2688
Juneau, Alaska

November 15, 1956

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D. C.

From: Executive Officer, Alaska District, Region I.

Subject: "Final Report" by Operator
Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.
Contract No. Idm-E667

Enclosed is an original and three copies of a "Final Report" by Mr. Zellweger. This is in response to my recent request for a final report from the company. I had not expected to get any real report from them so it appears that I am not being disappointed.

In view of the fact that a new organization probably will take over the contract and continue with it, I suggest that we abandon further pressure on Mr. Zellweger. The new company organization includes Earl Beistline, who is Dean of the School of Mines at the University of Alaska, consequently I think that we can hope for a satisfactory final report when the contract is closed out finally.

S. H. Lorain

Enclosure-1

cc: Velikanje
Wilcox

RECEIVED
NOV 19 1956
D.M.E.A.

Wash.

November 8, 1956

To: United States Department of the Interior
Defense Mineral Exploration Administration
Washington 25, D. C.

From: Alaska Copper Mines, Inc.

Subject: Final Report by Operator, Re Dockett, #DMEA-3288, (copper), Alaska Copper Mines, Inc., Contract #IDM-E667

The subject mentioned contract covers two phases of exploration work on the MacLaren River copper property. The first phase, surface trenching, has been completed by the Alaska Copper Mines and inspected by DMEA Field Team. The second phase contracts for a maximum of 600 feet of drifting and crosscutting at a certain level (locally termed the 3800 level). Of this second phase, 475 feet of drifting and crosscutting was completed by the end of the mining season of 1954. This work was examined and mapped by DMEA Field Team during the 1955 season. However, prior to examination of the second phase, it was concluded at a December, 1954, meeting in Juneau, attended by the writer and your representatives, that additional drifting on this level would prove unfruitful based upon the facts exposed at the most northerly crosscut.

Knowing in advance that any other type of exploration work would be outside the scope of our DMEA contract, this company decided to do some long hole drilling on the 3800 level during the 1955 season. The results of long hole drilling prompted our decision to explore further and at greater depth by means of diamond drilling. At the end of the 1955 mining season, we had accomplished approximately 2,000 feet of drilling, the log of which was made available to your Field Office.

To conclude this final report of exploration, we wish to advise that having reached the limit of our exploration budget, we feel the results of our work to be a disappointment. We should qualify our feelings, however, by stating that in our opinion, to date the facts obtained are not conclusive one way or the other.

Don Zellweger

Don Zellweger
Executive Vice President
Alaska Copper Mines, Inc.

DZ:rj

File Copy
Surname
Griswold
Selfridge
Johnson

500

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

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P. O. Box 2688
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

This is with reference to your memorandum of October 31, covering the cited project. We have no objection to holding the matter open for a reasonable period, as you suggest.

A termination agreement was sent to you under date of October 31, which you can hold pending until the project status is clarified. If the new company should decide to do further work, all copies of the termination agreement should then be returned to us.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

WRGriswold/er 11/8/56

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
P. O. Box 2688
Juneau, Alaska

October 31, 1956

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D.C.

From: Executive Officer, Alaska District, Region I.

Subject: Proposed assignment of contract
Docket No. DMEA-3288 (copper)
Alaska Copper Mines Inc.
Contract No. Idm-E667

Since our recent correspondence concerning the preparation of a termination agreement for the subject contract, we have been informed that the original locators have organized a new company to resume exploration of the deposit and that they plan to apply for a DMEA contract.

We have advised the principals of the new company that we think the subject contract could be transferred to them by assignment and, perhaps, amended to permit additional work. As yet we have not received a definite proposal from the new company but it appears almost certain that we will; therefore I suggest that no further action be taken toward termination of the contract until we have had a chance to assess the proposal.

S. H. Lorain

cc: Velikanje

File Copy
Surname

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

Chambers
Swanson
Selfridge
Matthews

OCT 29 1956

Mr. S. M. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P.O. Box 2688
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

Referring to your letter of October 10, covering the cited contract, we are enclosing the original and five copies of a Termination Agreement which have been signed by the Government. You will note that a clause having the effect of a certification is included in the agreement. Two extra copies are enclosed for the use of the Field Team.

If the agreement meets with your approval, kindly present it to the Operator for signature and, when completed, distribute the copies in the usual manner. Otherwise, and if any proposed change should lie beyond your delegated authority, please return all copies to us with your recommendations.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SHB)

Enclosures

WRGriswold/er 10/25/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

Frank D. Lamb
Member, Bureau of Mines (SHB)

Thor H. Kiilsgaard
Member, Geological Survey (SHB)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

October 25, 1956

Memorandum for the Files

From: Chief, Base Metals Division

Subject: Justification of the Termination Agreement for Docket No. DMEA-3288, Alaska Copper Mines, Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. Idm-E667, Copper.

The subject project has been an unexpected disappointment. Outcrops were highly promising, showing interesting copper values over good widths, but underground work of crosscutting, drifting and diamond drilling showed almost a complete absence of ore. One company financed hole, from a DMEA drift, did intersect a little ore showing.

We are advised that the Operator is short of funds and in no shape to continue with the work. However, it appears safe to say that the work done to date has quite thoroughly disproven the target, at least as being anything of significant importance; hence, it appears logical to terminate the contract.

W. R. Griswold

WRG/er
Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

October 17, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Chief, Base Metals Division

Subject: Preparation of Mutual Termination Agreement for Docket No. DMEA-3288 (Copper), Alaska Copper Mines, Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. 1dm-2667

Will you kindly prepare a mutual termination agreement for the cited contract, to be effective as of January 1, 1955. A pseudo-certification clause should be included.

W. R. Grimsold

W. R. Grimsold

WRG/er

Copy to: Docket
Base Metals Div.
Chron.

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

P. O. Box 2688
Juneau, Alaska

October 10, 1956

Mr. George C. Selfridge, Chairman
Operating Committee
Defense Minerals Exploration Admin.
Department of the Interior
Interior Building
Washington 25, D. C.

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Contract No. Idm-E667

Dear Mr. Selfridge:

Your letter of October 4 evidently crossed my letter of October 5 to you. Yes, I agree that a termination agreement would be a good way to wind up the project; the unexpended balance is about $6,000 (government plus operator). About $550 is being withheld.

There might be some question about certification because the discovery of the one ore shoot was, of course, made before DMEA and the underground ore intersections were made by company-financed diamond drilling after DMEA work had been stopped. On the other hand, the ore shoot would have been intersected by DMEA crosscuts and drifts if the work had been done as we intended; furthermore, the DMEA drifts provided th e base for the drilling which did intersect the ore shoot. Personally, I would be in favor of certification, but there might be a legal question.

We will try to work up a Field Team report within the next month.

Yours sincerely,

S. H. Lorain
Executive Officer
Alaska District, Region I

cc: Velikanje

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

P. O. Box 2688
Juneau, Alaska

October 5, 1956

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D. C.

From: Executive Officer, Alaska District, Region I

Subject: Status of Project
Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Contract No. Idm-E667

The enclosed copy of a letter from Mr. Zellweger is self-explanatory.

We will try to get a final report out of Mr. Zellweger, but, at the best, I expect it to be a long and painful process. When (or if) we get it, it won't amount to much.

We will work up a final Field Team report when time permits.

S. H. Lorain

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
OCT 9 1956

P. O. Box 2688
Juneau, Alaska

October 5, 1956

Mr. Don Zellweger, Vice President
Alaska Copper Mines, Inc.
P. O. Box 3665
Seattle 24, Washington

re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Contract No. Idx-E667

Dear Mr. Zellweger:

Thank you for your prompt reply to my inquiry about the status of your interest in the referenced project.

Action on closing out the project was not actually initiated until now, even though (as mentioned in my letter of last May) DMEA always postpones any such arbitrary actions as long as possible.

Probably you know that a percentage of your last payment was withheld pending final settlement. One of the contract requirements for final settlement is a "final report" by the operator. If you will send us this report (in quintuplicate), we will then make a final audit and settlement.

We had, of course, heard about the financial losses suffered by Alaska Freight Lines; consequently we were not surprised that you dropped the option on Maclaren Copper. I want you to know that we were very sorry to hear about the losses and that we hope the company will be able to recuperate in the near future; it has given a much needed service to Alaska.

Yours sincerely,

S. H. Lorain
Executive Officer
Alaska District, Region I

cc: Wilcox
Operating Committee - DMEA

File Copy
Surname
Selfridge
Griswold

500

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

OCT - 1956

Mr. S.H. Lorain
Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines
Post Office Box 2688
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

We have your letter of September 20, covering the cited project. If there is little expectancy of work being resumed under the contract it would seem best to wind it up by means of a mutual termination agreement. Such an agreement would contain a clause having the effect of a certification to protect the Government's interest.

Kindly advise us as to your recommendations along this line.

Reviewed by
DMEA OPERATING COMMITTEE
10-3-56
(date)

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

WRGriswold/er 10/2/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

P.S. We would also appreciate having your comments regarding possible certification.

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

P. O. Box 2688
Juneau, Alaska

RECEIVED
SEP 24 1956

September 20, 1956

Mr. George C. Selfridge, Chairman,
Operating Committee,
Defense Minerals Exploration Admin.,
Department of the Interior,
Interior Building,
Washington 25, D. C.

re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.,
Contract No. Idm-E667

Dear Mr. Selfridge:

In reply to your inquiry about the present status of the referenced project, we must admit that all we know is what we get by rumor; the company itself appears to be defunct or at least, inoperative.

You may be aware that the parent company, Alaska Freight Lines, Inc.,Co. has been in serious financial troubles because of heavy losses taken on freighting contracts to the DEW Line. We have heard that they have dropped their option on the Kathleen Margaret claims but we have no official confirmation to that effect.

We will try again to get a reply from the company.

Yours sincerely,

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

File Copy
Surname

Selfridge
F. E. Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

AUG 28 1956

Mr. S. H. Lorain
Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines
Post Office Box 2688
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

Will you please advise us as to the status of the cited project, Amendment No. 3 provided for a recess until June 1, 1956.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

FRANK D. LAMB
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

WRGriswold/er 8/27/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

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

RECEIVED
APR 9 - 1956

P. O. Box 2688
Juneau, Alaska

April 6, 1956

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D.C.

From: Executive Officer, Alaska District, Region I.

Subject: Amendment No. 3, Docket No. DMEA-3288, (copper), Alaska Copper Mines, Inc.,(Assignee), Contract No. Idm-E667.

Enclosed is the "Government's copy", the "Docket copy", and the "Division copy" of the subject amendment; the "Field Team copy" and the "Finance Office copy" have been retained in this office; the "Operator's copy" has been retained by the Operator. All copies have been signed by Mr. Don Zellweger, Executive Vice-President, Alaska Copper Mines, Inc.

S. H. Lorain

Enclosure-1

cc: Velikanje
Wilcox

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

P. O. Box 2688
Juneau, Alaska

March 30, 1956

Mr. Don Zellweger,
Vice President,
Alaska Copper Mines, Inc.,
P. O. Box 3365,
Seattle 14, Washington.

re: Docket No. DMEA-3286 (copper)
Alaska Copper Mines
Contract No. Tdm-F667

Dear Mr. Zellweger:

I am enclosing six copies of proposed "Amendment No. 3" to the referenced contract. This amendment is to provide for suspension of operations during the winter months.

If you have no objections to the amendment please sign all copies, retain the "Operator's copy" for your files, and return the other copies to me.

Yours sincerely,

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

Enclosure-1

cc: Velikanje
Wilcox
Operating Committee

File Copy
Surname
Griswold
Chambers
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

MAR 22 1956

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P.O. Box 2688
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

Referring to your letter of March 5 covering the cited project, we are enclosing the original and five copies of Amendment No. 3. Two extra copies of the amendment are enclosed for use of the Field Team.

If the amendment meets with your approval, please present it to the Operator for signature and distribute the copies in the usual manner. If you are not in accord with the terms of the amendment, and the proposed change should lie beyond the range of your delegated authority, please return all copies to us with your comments.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)
~~XXXXX/XXXX~~
W.R. Griswold/er 3/19/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

Enclosures

APPROVED:

/s/ Robert W. Geehan (GCS)
Member, Bureau of Mines

W. P. Williams (GCS)
Member, Geological Survey

W.C.S.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

March 19, 1956

Memorandum for the Files

From: W. R. Griswold, Chief, Base Metals Division

Subject: Docket No. DMEA-3288, Alaska Copper Mines, Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. Idm-E667, Copper.

Amendment No. 3 is a simple recessing proviso, though there is some doubt as to project work being resumed. No "pseudo certification" clause is included, since we believe the project can be certified, though in general, results have been disappointing.

Costs, to January 1, 1955, have been $36,705.60, of a total allotted sum of $41,530.00.

W R Griswold
W. R. Griswold

WRG/er

Copy to: Docket
Base Metals
Chron.

File Copy
Surname

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

March 14, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Chief, Base Metals Division

Subject: Preparation of Amendment No. 3 for Docket No. DMEA-3288, Alaska Copper Mines, Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. Idm-E667, Copper.

Will you kindly prepare an Amendment No. 3 to the cited contract which will allow a recess period from January 1, 1955 to June 1, 1956.

The period for work completion, set by Amendment No. 1 as 15 months, should be extended to three years from date of contract, or April 2, 1957.

The repayment period should be extended to 11 years from contract date, or April 2, 1965.

W. R. Griswold
W. R. Griswold

WRG/er
Copy to: Docket
Base Metals
Chron.

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

P. O. Box 2688
Juneau, Alaska

March 5, 1956

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D.C.

From: Executive Officer, Alaska District, Region I.

Subject: Request for recess Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.,
Contract No. Idm-E667

Enclosed is an original and 3 copies of a letter from Don Zellweger, Executive Vice-President, Alaska Copper Mines, Inc., in which he makes a formal request for a recess until June 1, 1956. If this meets with your approval I assume that your legal staff will draw up a suitable amendment.

I have informed you of the recent correspondence with Mr. Zellweger regarding a possible resumption of exploration work at the referenced project. A letter just received from Mr. Zellweger informs me that he has been so busy with the trucking operations of the Alaska Freight Lines, Inc., which is handling a large part of the freight to the big DEW line construction work in the Arctic that he has not had time to make any plans with regard to Maclaren Creek copper. He states that as soon as he is able to give it some study he will decide whether they will ask for additional DMEA assistance or make a request that the project be terminated.

S. H. Lorain

cc: Velikanje
Wilcox

February 28, 1956

S. H. Lorain, Executive Officer
D.M.E.A. Alaska District
P.O. Box #560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Contract No. Idm-E667

Dear Sir:

The Alaska Copper Mines, Inc. respectfully requests a recess for all work performed under their existing DMEA Contract No. Idm-E667 until June 1st, 1956.

It is subsequently understood that if this recess is authorized, the Alaska Copper Mines will at that time ask for additional DMEA assistance or ask to close out the Contract.

It is our present feeling that the exploration drilling done, at our expense, last season uncovered sufficient mineral content to warrant additional exploration and if we are financially able to allocate funds for this work we intend to do so.

Respectfully yours,

Don Zellweger

Don Zellweger, Exec. Vice President
ALASKA COPPER MINES, INC.

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

RECEIVED
FEB 10 1956

P. O. Box 560
Juneau, Alaska

February 7, 1956

George C. Selfridge,
Chairman, Operating Committee,
Defense Minerals Exploration Admin.,
Department of the Interior,
Interior Building,
Washington 25, D. C.

re: Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.
Contract No. Idm-E667

Dear Mr. Selfridge:

Pursuant to your letter of January 30 I have written to Mr. Zellweger; a copy of the letter is enclosed. Also I am enclosing two prints of the map and a copy of the letter from Mr. Zellweger to which I have referred.

I must admit to some dereliction in the matter of this contract but it has been so very difficult to keep Mr. Zellweger "on the beam" that we have gotten a bit discouraged with the project. Zellweger seems to mean well but just doesn't get around to doing what he is supposed to do. Furthermore he has a lot of money behind him and just enough knowledge of mining to make him a bit "bullheaded" about doing the wrong thing.

We will keep you informed of developments.

Yours sincerely,

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

Enclosure-3

cc: Velikanje

It seems to me that, before any great amount of additional work is done, we should have a "life size" look at the vein on the tunnel level. This could be done most cheaply by driving south from the raise until the south end of the ore shoot is found. This would permit accurate sampling and observation of the nature of the vein; also it would determine the length of the oresheet on that level. Then, if it looked good enough, we would be in a good position to do some systematic drilling from your main adit opposite the ore shoot. The holes should be spaced systematically and directed approximately at right angles to the vein. Probably a minus 45 degree hole and a minus 60 degree hole should be drilled from each station. That would take us down about 200 or more feet below the level and might justify another adit at a lower level.

D.M.E.A. has no set requirements with regard to core recovery except that reasonable skill be exercised and that cores be systematically boxed, recorded, and sampled. Sludges should be saved and, if core recovery is less than about 85%, the sludges should be assayed and weighed against core.

Please let us know your reaction to the above suggestions and if you have any alternative proposal.

Yours sincerely,

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

Enclosure-1

cc: Selfridge
Velikanje
Herdlick

-C-O-P-Y-

Seattle Office: P.O. Box 3365, Seattle 14

November 14, 1955

S. H. Lorain, Executive Officer
Alaska District, Region I, DEMA
P. O. Box 560
Juneau, Alaska

RECEIVED
FEB 10 1956

Dear Mr. Lorain:

In compliance with your letter of November 4, we are attaching herewith a list of assay results obtained from samples of drilling sludge and core. If this list of assays seems inadequate as compared to the amount of footage drilled, we might explain that the assaying was done at the mine and only those samples showing important mineral content by hand panning were considered. Core recovery was practically nil whenever drilling into mineralized quartz and in each instance the vein material was so friable that even sludge recovery was poor due to slime loss where sulfide fines were floated away by the oil and grease mixture in the drilling water. Copper assaying by the rapid cyanide method was done at the mine. No facility was available there for running gold or silver assays. Periodic control assays were made at the Department of Mines Laboratory in Fairbanks; these assays ran from .14 per cent to .19 per cent in copper higher than the corresponding mine-run assay.

From the above explanation we feel safe in concluding that the assay results are conservatively lower than the true copper content of the body drilled.

Please be advised that at this time we are undecided as to what our exploration program will be next season and would appreciate any advice you may care to give. Would DMEA consider participation in additional drilling? If so, what are their requirements with regard to assaying, core saving, hole location, etc. Personally I can see little value in drifting further north on the same level, however, I would welcome your comment.

Very truly yours,

ALASKA COPPER MINES, INC.

/s/ Don Zellweger

Don Zellweger, Vice President

DZ:lr
Encl.

-C-O-P-Y-

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
FEB 10 1956

P. O. Box 560
Juneau, Alaska

February 7, 1956

Don Zellweger,
Alaska Copper Mines, Inc.,
P. O. Box 3365,
Seattle 14, Washington.

re: Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.,
Contract No. Idm-E667

Dear Mr. Zellweger:

I must apologize for not having replied, before now, to your letter of last November 14. I planned on seeing you when I was in Seattle during early December but, when I called, your office told me that you were absent in the east. When I got back to Juneau I just kept putting it off.

The other day I received a letter from DMEA in Washington which urges that you ask, officially, for a recess until a given time next spring if you have any idea of asking for additional DMEA assistance. Otherwise we should close out the contract.

Before I went to Seattle our staff prepared a map, based on data from Bob Chapman and from you. This map, a copy of which is enclosed, shows the results of your last season drilling; I had a copy with me in Seattle for the purpose of discussing the possibility of an additional program.

Although your samples all are good with respect to width and grade, several of them do not line up very well on either dip or strike; this suggests erratic metallization. The most nearly consistent results are from the vicinity of the downward projection of the original discovery outcrop. Samples 5, 6, 10, 11, 3, 4, 12, 13 seem to be reasonably consistent as to strike and dip if we assume minor changes of dip from the outcrop downward. Taken together with the outcrop, these indicate an oreshoot at least 60 feet long, 160 feet deep, and 10 to 20 feet wide. Without any information as to core recovery or as to the method of handling your sludges (if they were saved) the assays can be considered to be indicative only. Nevertheless the assays do suggest fair values.

File Copy
Surname
Selfridge
Griswold
Mattenson

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

500

JAN 3 0 1956

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

Referring to the cited contract, we have had no information since receiving a copy of your October 21, 1955 letter to the Operator. We realize that no work could be expected until next season, but kindly advise this Operator again that it should take proper steps to effect a project recess and a continuation of the period allowed for work completion.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/6)

APPROVED:

/s/ Robert W. Geehan (2/6)
Member, Bureau of Mines

Thor H. Kiilsgaard (2/5)
Member, Geological Survey

WMGriswold/er 1/27/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.L.

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
OCT 24 1955

P. O. Box 560
Juneau, Alaska

October 21, 1955

Mr. Don Zellweger,
Alaska Copper Mines,
P. O. Box 3365,
Seattle 14, Washington.

Re: Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.

Dear Mr. Zellweger:

Bob Velikanje tells me that you probably will not be asking for any DMEA participation this season but he is not sure whether you plan to resume the DMEA program next season. I would appreciate your writing me about your plans in this respect.

If you do not plan to resume the program we will want to take steps toward closing it out officially. If you plan to resume the program next season we will have to make an official amendment to that effect. The Operating Committee of DMEA has told me that they would be agreeable to a recess until next year but, in order to prepare the amendment, we will need to have a statement as to your intentions and as to the date on which you plan to resume.

With best wishes,

Yours sincerely,

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

cc: Velikanje
Operating Committee
Files - Maclaren Copper

SHL:ma

File Copy
Surname

Trimmed
Selfridge
Fitzsimons
Mitchell

500

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

OCT 3 - 1955

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-8667

Dear Mr. Lorain:

We have the September 21 letter of Mr. R. S. Velikanje covering the cited project.

We have no objection to the DMEA project being delayed by diamond drilling on company account, but a proper recessing amendment should be prepared covering the suspension of work. You are therefore authorized to prepare such an amendment, covering the time interval from the date DMEA work was stopped until such date as you believe work under the contract can be resumed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GB)

APPROVED:

/s/ Robert W. Geehan (GB)
Member, Bureau of Mines

N. E. Nelson (GB)
Member, Geological Survey

WRGriswold/er 9/28/55
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Chron.

P.G.B.

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

P. O. Box 2659
Juneau, Alaska
September 21, 1955

Mr. George C. Selfridge
Chairman
Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District
Contract No. Idm-E667

Dear Mr. Selfridge:

This is in reply to your letter of September 7 to Mr. S. H. Lorain.

I visited the subject property August 3 and 4 at which time the Operator was just starting a diamond drilling project. This drilling is not under DMEA, but the evidence gained from it will be used to determine the most plausible action to be taken with the remaining DMEA funds.

I hope to visit the property again about mid October to obtain all the information gained by the drilling for evaluation and use in recommending future DMEA action. I suggest that DMEA wait until the diamond drilling information is available and evaluated before deciding what course to follow.

For your information I am enclosing Thermo Fax copies of office memorandums from Robert M. Chapman, U.S.G.S., on the subject matter.

Sincerely yours,

R. S. Velikanje

R. S. Velikanje
Acting Executive Officer
DMEA Field Team
Region I (Alaska District)

[redacted]

RECEIVED

SEP 1938

[redacted]

[redacted] - altered quartz [redacted] copper
[redacted] - quartz [redacted]
[redacted] - quartz [redacted]
[redacted] - mostly [redacted]
[redacted] - quartz [redacted] of sulfide
[redacted] - gossan

The gold recovery in the quartz was one pour, but the sluices show [redacted] and borniite.

[redacted] is noteworthy. A small piece of ore showed even enlargement [redacted] in a gossan. The [redacted] was predominantly calcareous.

[redacted] Mile #3, bearing [redacted] 35° E., -45°, located between longitudes [redacted] and 2, was then staked.

[redacted] have the earlier notes with him, but he gave me the [redacted] from memory.

[redacted] #2, [redacted] 35°. [redacted] the quartz [redacted] [redacted] the [redacted] of the [redacted] [redacted] [redacted] #2 - [redacted]

[redacted] #2 - [redacted] the [redacted] side.

[redacted] #2 - [redacted]

[redacted]

UNITED STATES GOVERNMENT

[illegible]

Date: September 8, 1[illegible]

[illegible]

[illegible]

Mr. Hellinger was in today and gave us the latest information on the diamond drilling at [illegible] Mines.

Diamond drill hole #3 was drilled from station 4 on a bearing of S. 7[illegible]W., -[illegible]°, and length [illegible] feet. It cut greenstone 0-[illegible] feet, barren quartz with some greenstone 21-23 feet, and greenstone with some calcareous material [illegible] feet.

Diamond drill hole #4 was drilled from a point 20 feet S. of station 5 on a bearing of S.75°E., -5°, and length 44 feet. It cut greenstone 0-13 feet, barren quartz with some greenstone 13-27 feet, and greenstone 27-44 feet.

Diamond drill hole #5 was drilled from the same point as #4 on a bearing of N. 17°W., 0°, and length 44 feet. It cut greenstone 0-31 feet, and broken greenstone and water (fault zone?) from 31-44 feet.

Diamond drill hole #6 was drilled from the same point as #3 on a due west bearing, 0°, and a length of 27 feet (still drilling). Only greenstone has been cut.

Hellinger plans to put in down holes under D.D.H. #3 and 4. This would recommend if he has the money, although the flat holes showed only traces of copper in the quartz vein. His other plan was to extend D.D.H. #3 a total length of about 500 feet to get under trench 8. I told him that this didn't seem like a good plan, considering the small and small amount of information he might get. D.D.H. #6 might explore the same section of ground in about 100-200 feet. I also suggested drilling the projection of the trench 8 zone on the [illegible] side. D.D.H. #6 to one another he might expect to find the [illegible]

File Copy
Surname
Griswold
Selfridge
Montenegro

500

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

SEP 7 1955

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-R667

Dear Mr. Lorain:

Will you kindly advise us as to the present status of the cited project, giving any recommendations you might have referring to it.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (S/S)

APPROVED:

P. F. Yopes (S/S)
Member, Bureau of Mines

/s/ N. E. Nelson (S/S)
Member, Geological Survey

WRGriswold/bjl (9/2/55)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Pennington
Mr. Kiilsgaard
Chron.

R.C.S.

Mr. Griswold

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

Betty

MAY 17 1955

Mr. D. H. Lorain
Executive Officer, Alaska District
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

DMEA-3288

Dear Mr. Lorain:

Enclosed are the originals and three copies of the Interim Audit Certificates and the originals and two copies of the Interim Audit Reports covering the following Exploration Project Contracts:

Project	Contract	Operator
DMEA-1856	Idm-F 143	Admiralty-Alaska Gold Mining Co.
" 2599	" 389	Earl R. Pilgrim
" 2742	" 540	DeCourcey Mountain Mining Co., Inc.
" 3288	" 667	Alaska Copper Mines, Inc.

The originals and one copy of each of the above Certificates and the original of each of the above Reports are for the files of the District Finance Officer. One copy of each of the Certificates and Reports are for your files. One copy of each of the Certificates and Reports should be forwarded to the respective Operators.

The status of payments by the Government under these contracts, after consideration of the audit findings, may be stated as follows:

Contract	Amount of Audit Certificate	Payments To Date	Balance Due Operator
Idm-F 143	97,851.32	(96,351.15	1,500.17
" 389	41,114.61	41,189.26	(74.65)
" 540	31,300.00	26,154.38	5,345.62
667	17,755.55	17,117.52	638.03

Relative to these balances due the Operators your attention is invited, in particular, to the auditor's recommendations in Section IV, Conclusions and Recommendations of the applicable audit reports. Also, it should be noted that the audit reports covering contracts Idm-F389 and Idm-F667 specifically state that the findings under the "agreed unit costs" provisions of the contracts are subject to verification by the DMEA Field Team of the satisfactory performance of the number of units of work tentatively accepted by the auditor.

There also are enclosed the original and two copies each of the First Royalty Audit Certificates and Reports covering the following Exploration Project Contracts:

Docket	Contract	Operator
DMA-2741	Idm-E599	DeCourcey Mountain Mining Co., Inc.
" 3208	" 667	Alaska Copper Mines, Inc.

The original of each of these Certificates and Reports is for the files of the District Finance Officer. One copy of each of the Certificates and Reports is for your files. One copy of each of the Certificates and Reports should be forwarded to the respective Operators with a request for payment of the balances due the Government.

All of these audits were performed by Mr. Talbert during his recent visit to your district. It appears that these audits, together with a Report of Review in lieu of final audit covering Docket No. DMA-2942, Contract No. Idm-E564, Alaska Tin Corporation, and an advisory audit memorandum covering Docket No. DMA-1901, Contract No. Idm-E204, Alaska Metals Mining Co., both of which were released by Mr. Talbert while in your office, complete all of the audit work presently required in the Alaska District of Region I.

I wish to take this opportunity to express my appreciation for the courtesies and cooperation extended to Mr. Talbert by you and your associates during his visit to the Alaska District.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosures

EDTalbert/wb
May 17, 1955

Copy to: Mails & Files
Admr. Reading File
Mr. Wilcox
Mr. Selfridge
Mr. Chambers
Mr. Martin
Mr. Ellis
Mr. Griswold

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

P. O. Box 560
Juneau, Alaska

April 12, 1955

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Region I.

From: Executive Officer, Alaska District, Region I.

Subject: Amendment No. 2,
Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc., Assignee.

Enclosed herewith are the "government", "division", and "docket" copies of the subject amendment. The "operator's copy" has been retained by the Operator; the "finance office copy" and the "field team copy" has been retained by this office. All copies have been signed by the Operator.

The Operator states that he plans to resume operations as soon after the first of May as conditions permit.

S. H. Lorain,
Executive Officer,
Alaska District,
Region I.

Encl.-1

cc: Velikanje

File Copy
Surname
Crawford
Talbot
Selfridge
Jefferson
Wallendorf

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

MAR 3 0 1955

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Alaska District
Bureau of Mines, P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Lorain:

We have been advised that a technical error exists in the cited contract.

In the application, the Operator cited the need of using a dozer-tractor for excavating trenches across the vein outcrop.

In delineating the estimated necessary "rental hours" which would be required, the Operator listed as follows for a D6 tractor:

60 miles of road clearing	60 Hrs.
Return to end of construction	15 "
Hauling fuel and supplies	15 "
Return of tractor at end of contract	30 "
Trenching time	375 "
Delays and unforeseen	120 "
Work on airstrip	25 "
Total	640 Hrs

(Another item of 75 hours was listed which was disallowed)

The Operator stated that if a D7 tractor was used instead of a D6, the hourly rate would be greater but the number of hours correspondingly less.

R.C.S.

In the preparation of this contract, under "Description of the Work", we cited the use of a dozer-tractor for trenching, since trenching was the prime purpose of the project, other jobs to be performed by the dozer being merely necessary incidentals. However, the Contract Administration and Audit Division now advises us that we were in error, that in our Work Description we should have noted the necessity for doing the other jobs also. They state that without such recitation they cannot approve payment for tractor-dozer hours other than actual trenching.

Therefore, the enclosed Amendment No. 2 has been prepared, which directly details the various items for which tractor-dozer rental is allowable. Will you please present the original and five copies of the amendment to the Operator for signature, and explain why such an amendment is required.

Sincerely yours,

George C. Selfridge (JHB)

Chairman, Operating Committee

Enclosures

WRGriswold/er 3/28/55

APPROVED:

J. H. Hedges (JHB)

Member, Bureau of Mines

E. L. Newcomb (JHB)

Member, Geological Survey

Copy to: Docket
Admr R. File
Op. Committee
BaseMetals
Mr. M. E. Volin, USBM
Mr. Kiilsgaard, USGS
Chron.

File Copy
Surname

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

March 29, 1955

Memorandum

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3288 (Copper), Alaska Copper Mines Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. Idm-8667

Attention: Mr. H. C. Rubin

Referring to the attached Amendment No. 2, it has been suggested that inasmuch as we are preparing an amendment to the contract, it would be well to nullify the abandonment proviso contained in the contract under Article 10.

This, assuming you believe it can properly be done.

W. R. Griswold
W. H. Griswold

WRG/er

Copy to: Docket
Base Metals
Chron.

March 16, 1955

Memorandum

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3268, Alaska Copper Mines Inc., Kathleen Margaret Claims, Talkeetna Mining District, Alaska, Contract No. Idm-E667, Copper.

We have been advised by the Contract Administration and Audit Division that a technical error exists in Exhibit "A" of the cited contract.

In the application, the Operator cited the need of using a dozer-tractor for excavating trenches across the vein outcrop.

In delineating the estimated necessary "rental hours" which would be required, the Operator listed as follows for a D6 tractor:

60 miles of road clearing	60 Hrs.
Return to end of construction	15 "
Hauling fuel and supplies	15 "
Return of tractor at end of contract	30 "
Trenching time	375 "
Delays and unforeseen	120 "
Work on airstrip	25 "
Total	640 Hrs

(Another item of 75 hours was listed which was disallowed)

The Operator stated that if a D7 tractor was used instead of a D6, the hourly rate would be greater but the number of hours correspondingly less.

In the preparation of this contract, under "Description of the Work", we cited the use of a dozer-tractor for trenching, since trenching was the prime purpose of the project, other jobs to be performed by the dozer being merely necessary incidentals. However, the Contract Administration and Audit Division now advises us that we were in error, that in our Work Description we should have noted the necessity for doing the other jobs also. They state that without such recitation they cannot pay for tractor-dozer hours other than actual trenching.

Therefore, will you please prepare an amendment to Exhibit "A" of the contract which will add the following sentence to the first paragraph:

> "The tractor-dozer will also be used for road work, hauling of fuel and supplies, and work on airstrip, with allowances for delays and for tractor return".

It so happened that the Operator actually used a D8 tractor-dozer, instead of a D7, so will you please also amend the "Independent Contracts" to allow a D8 tractor-dozer, 569 hours at $18.00.

W. R. Griswold

W. R. Griswold

WRG/er

Copy to: Docket
Region I, Alaska District (2)
Base Metals
Mr. J. Chambers
Chron.

3248

500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

P. O. Box 560
Juneau, Alaska

January 7, 1955

Mr. Don Zellweger, Vice Pres.,
Alaska Copper Mines, Inc.,
P.O. Box 3365,
Seattle 14, Wash.

Dear Mr. Zellweger:

Your letter of January 4th and the MF-104s have just been received; thanks for the prompt reply. As noted in a P.S. to my letter of last week, your Van Dyke print was received just as my letter was being signed; we will make some prints and some copies of your letter to constitute your progress report for the Washington office.

Velikanje, Thorne and I have made independent map measurements but none of us can stretch the advance to more than 475 feet (after deducting the 187 feet required by the contract); therefore we will adjust the current payments to that footage. Before the final settlement is made we will have to make a joint survey; any indicated adjustments can be made at that time.

The results of your long-hole drilling from "Switch No. 1" plus the better assays toward the top of your raise suggest that the outcrop ore may rake to the south; furthermore, I note that, Chapman's latest sketch shows the outcrop discovery to be about 80 feet south of the crosscut. In view of all this we think that, by far, the best next step in exploration would be to drift south from the crosscut to below and beyond the discovery outcrop. Even though we may be sure that the vein does not continue as far as the road, there could well be a 50 to 100 or 150 foot oreshoot of high grade ore in this area. If that much ore could be found it would be worth sinking on - who can say what might develop at depth.

I note that, according to the various maps that have been submitted, the face of your main drift may be anywhere from 30 to 100 feet east of the vertical downward projection of the ore

indications that were found in trenches 3, 4, 5; therefore I would say that we should do some exploration to the west of the main drift between "Switch No. 2" and the face. First, however, it is important that we make an accurate transit survey to tie in the trenches with the tunnel; there seems to be no agreement between the several maps that have been submitted.

We are very glad to hear that you plan to continue the project next spring. I hope that, next season, I will have a chance to get out in the field and to pay you a visit.

Yours sincerely,

S. H. Lorain, Executive Officer,
Field Team, Region I.

cc: Velikanje
Wilcox
Operating Committee, DMEA
Chapman

OFFICE OF THE ADMINISTRATOR

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

3

P.O. Box 560
Juneau, Alaska

December 31, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Admin., Department of the Interior, Washington 25, D. C.

From: Executive Officer, Region I

Subject: Amendment No. 1
Docket No. DMEA-3288
Contract Idm-E667
Alaska Copper Mines, Inc.

Enclosed herewith are the "Government","Docket" and "Division" copies of the subject contract. These copies have been signed by the Operator.

The "Operator's Copy" has been retained by the Operator; the "Filed Team" and "Finance Office" copies have been retained by this office.

As explained in a preceding letter, the manager ("Executive Vice President") did not want to sign until he had a chance to talk this over with his head office in Seattle; evidently they have decided to accept the contract.

S. H. Lorain, Executive Officer
Field Team, Region I

Encl. 1 (in trip.)

File Copy
Surname

Guiaured
Chrnyer
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

OCT 19 1954

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Bureau of Mines
P.O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines Inc.
Kathleen Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-2667

Dear Mr. Lorain:

As recommended in your letter of September 3, we are enclosing the original and five copies of Amendment No. 1 to the cited contract, which allows for 600 feet of drifting on the vein.

Please note the attached memorandum from the Acting Assistant Solicitor, in which he stipulates that a new Owner's Consent to Lien is required.

In view of the enclosed memorandum from Acting Assistant Solicitor, the amendment has been made to provide only for work done after the initial 187 feet. The allowed unit cost of $48.00 per foot is somewhat less than requested by the Operator, its estimate of costs included an unwarranted amount of supervision and equipment for a small project of this nature.

No provision has been made at this time for work from surface in the area of the northern trenches. At a later date, and dependent upon results from the drifting, we should be able to lay out a more comprehensive work schedule, if it should then appear warranted.

Sincerely yours,

George C. Selfridge (JHB)

Chairman, Operating Committee

Enclosures 2

WRGriswold/er 10/13/54 (re-written)

Copy to: Docket
Admr. R. File
Base Metals
Op. Committee
Mr. Kiilsgaards, USGS
Mr. C. H. Johnson, USBM
Chron.

APPROVED:

J. H. Hedges (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

R.C.G.

File Copy
Surname Griswold
Chronologic

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. S. R. Lorain, Executive Officer
DMEA Field Team, Region I
Bureau of Mines
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3268 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claim
Talkeetna Mining District, Alaska
Contract No. Idm-M667

Dear Mr. Lorain:

As recommended in your letter of September 3, we are enclosing the original and five copies of Amendment No. 1 to the cited contract, which allows for 600 feet of drifting on the vein.

Please note the attached memorandum from the Acting Assistant Solicitor, in which he stipulates that a new Owner's Consent to Lien is required.

Since you had recommended that the initial work of crosscutting be for the Owner's account, the amendment has been made to provide only for work done after the initial 187 feet. The allowed unit cost of $48.00 per foot is somewhat less than requested by the Operator, its estimate of costs included an unwarranted amount of supervision and equipment for a small project of this nature.

No provision has been made at this time for work from surface in the area of the northern trenches. At a later date, and dependent upon results from the drifting, we should be able to lay out a more comprehensive work schedule, if it should then appear warranted.

Sincerely yours,

Enclosures 2

Chairman, Operating Committee

APPROVED:

WRGriswold/er 10/12/54 (re-written)
Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Kiilsgaards, USGS
Mr. C. H. Johnson, USBM
Chron.

Member, Bureau of Mines

Member, Geological Survey

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

October 11, 1954

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. R. Griswold

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3288, Alaska Copper Mines, Inc.
Contract Idm-E667 (copper)

Reference is made to my memorandum of October 1 to you through Mr. Griswold with respect to allowing 187 feet of drifting which was performed by the Operator prior to the date of the amendment.

Pursuant to oral instructions this day from Mr. Griswold, We have rewritten Amendment No. 1 eliminating this 187 feet of work from allowable work for contribution by the Government.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments 8

JLHofflund/emd
Copy to: DMEA Docket
Solicitor's docket
W. R. Griswold (2)
H. C. Rubin
J. L. Hofflund
chron.

R.C.H.

Government's copy

EXPLORATION PROJECT CONTRACT
ALASKA COPPER MINES, INC.
DOCKET NO. DMEA-3288

AMENDMENT NO. 1

It is agreed this 20th day of August, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Alaska Copper Mines, Inc., Assignee, that Contract Idm-E667 (Docket No. DMEA-3288), dated April 2, 1954, is amended effective April 2, 1954, as follows:

1. In Exhibit "A":

(a) Under "Description of the Work," add the following additional work:

Additional Work

Drift and/or raise on the vein from the adit tunnel level for not to exceed 600 feet. The drift shall be timbered as necessary and shall be not less than 5 feet by 7 feet in the clear of timber. (187 ft. of raise drift [illegible] is not included)

(b) Under "Estimated Costs of the Project," add prior to the totals at end, the following:

Agreed Unit Cost

The Government will contribute to the costs of the "additional work" (drifting) on the basis of the agreed unit cost set forth below, as the cost accrues, in lieu of the actual costs set forth in Article 6 of the contract form. The agreed unit cost includes all costs of the drifting. The drifting may be performed by independent contractors without reference to the provisions relating to independent contracts and contractors in Articles 4(a) and (b) and 6(a)(1) of the contract form.

600 feet of drifting @ $48.00/ft.	$28,800.00

DMEA Docket copy
Surname: Rubin

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

INTERIOR DEPT.
OCT 4 - 1954
SOLICITOR

October 1, 1954

Memorandum

To: The Administrator, DMEA
Through: Mr. W. R. Griswold

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3288 (Copper), Alaska Copper Mines, Inc., Contract Idm-E667

Attached is Amendment No. 1 to the above-described contract, prepared as requested in a memorandum dated September 29 from the Chief of the Base Metals Division.

It should be noted that the Amendment is retroactive to the date of the contract (April 2, 1954). The Operator had completed 187 feet of drifting prior to the Field Team examination and submission of the request for an amendment to add 600 feet of drifting to the project work. The Field Team recommends that the Government participate in the costs of this 187 feet of drifting, but there is no evidence to the effect that such work was informally approved in advance by the Field Team. In fact, the evidence is to the contrary - that had the Field Team known in advance of the Operator's plan to drift, it would have recommended that the drifting be started about 100 feet east of the point where the Operator started drifting. In our view, there does not appear to be any consideration for the Government to contribute to the costs of the first 187 feet of drifting.

An Owner's Consent to Lien is required because the contract is being increased in amount by Amendment No. 1 and the assignor-partnership (Kathleen Margaret Mining Company), owners of the land, have not consented to such an amendment in the assignment of the DMEA contract.

HCRubin
~~JLHofflund~~/emd

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Copy to: DMEA Docket
Solicitor's Dkt.
W.R.Griswold(2)

\hments 8

J.L.Hofflund H.C.Rubin chron.

File Copy
Surname

Griswold
Kiilsgaard
Hedges
Selfridge
Johnson

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

TELETYPE

WHGriswold/er, Rm 4058, Ext. 3669
Base Metals Div., DMEA

XXXXXXXXXXXX XXXXXXXXXXXX
XXXXXXXXXXX XXXXX XXXXX XX

14X4.01(01) Revolving Fund,
Defense Production Act, Interior (allocated
Working Fund to Office of the Secretary)

Date: OCT 1 1954

To: S. H. Lorain, Executive Officer, DMEA Field Team, Region I, Juneau, Alaska

Reurtt Docket DMEA 3288, Alaska Copper Mines, Inc., Contract Ida-B677.

Amendment being prepared to add 600 feet of drifting to present contract.

George C. Selfridge (by GCS)
Chairman, Operating Committee

(Written 9/30/54)
Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
~~XXXXXXXXXXXXXXXX~~
Mr. Kiilsgaard, Rm 5227
Mr. C. H. Johnson (USBM)
Accounts
Chron.

R.C.S.

File Copy
Surname

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

MS in RR September 29, 1954

Memorandum

To: Acting Assistant Solicitor, DMEA

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3288, (Copper), Alaska Copper Mines, Inc., Kathleen Margaret Claims, Takeetna Mining District, Alaska, Contract No. Idm-E677

Will you kindly prepare an Amendment No. 1 to the cited contract which will:

Add to Exhibit "A"

600 feet of drifting on the vein from the adit tunnel level.

Cost of additional work.

Agreed Unit Cost

600 ft of drifting @ $48.00 $28,800.00

Total contract cost is increased from $12,730.00 to $41,530.00 Government participation is increased from $6,365.00 to $20,765.00

Amendment should be effective as of original contract date May 2, 1954.

Completion period should be extended to 15 months.

W. R. Griswold

W. R. Griswold

WRGriswold/er 9/29/54

Copy to: Docket
Base Metals
Chron.

S 204

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SEP 27 21 41 '54

RADIO COMMUNICATIONS SE

Defense Minerals Administ
RECEIVED
SEP 28 1954

FM S H LORAIN EXEC OFFICER FIELD TEAM REGION 1 JUNEAU ALASKA

TO OPER COMMITTEE DEFENSE MINERALS ADMIN EXPL INTERIOR BLDG WASHDC

MINES GRNC

HAS ANY ACTION BEEN TAKEN ON REQUEST FOR ADDITIONAL EXPLORATION DOCKET DMEA-3288 KATHLEEN MARGARET PER FIELD TEAM MEMO SEPTEMBER THIRD QUERY

CFN DMEA-3288

28/0208Z

IN REPLY REFER TO:

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

September 16, 1954

Re: DMEA-3288
Alaska Copper Mines, Inc.
(Kathleen-Margaret Property)
Takeetna District, Alaska

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of Field Report

The Field Team recommends further assistance be granted on basis of preliminary trenching and sampling results. The new work would consist of 600 feet of drifting on southern ore structure and 50 feet of winzing or 500 feet of diamond drilling on the less promising, northern ore structure.

Following the completion of 13 trenches, the applicant began an adit level at approximately a 3,920' elevation. This drift on August 20, 1954, had been advanced 187 feet with the operator's own funds. In the Field Team proposal, this drift work would be participated in by the Government under a retroactive provision in the contract.

Sufficient trenching and sampling have been done to indicate a significant zone of copper mineralization in the area between the discovery monument and the end of trench #5. However, the geological description of exposures in the northern trenches does not appear to justify further exploration in the area at the present time.

I recommend the proposed 600 foot adit be approved and that the footage completed at the time of effective contract date be made retroactive for Government participation. From the field reports there is a strong suggestion that the geology of the ore structure may prove to be complex due to faulting and cross fracturing. If possible, the Field Team should inspect the drifting before the entire 600 feet is completed. A change in heading may be needed as development progresses.

E. L. Newcomb

E. L. Newcomb

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

Defense Minerals A
RECEIVED
OCT 20 1954

September 14, 1954

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3288 (Copper) Alaska Copper Mines, Inc., Kathleen-Margaret Prospect

I have reviewed the summary and recommendations of the Field Team, September 9, 1954, based on examination and reports by Barker (August 27) and Thorne (September 1). It appears to me that the proposal to explore the showings near the end of the No. 1 Claim by means of an adit is sensible and well justified. Considering the discontinuous nature of the vein as exposed by trenching, the adit has been started far enough below the outcrop.

Testing the more northerly showings either by two shallow shafts, or by diamond drilling, should tell whether they are worth further attention, and that part of the proposal also appears justifiable.

C. H. Johnson

C. H. Johnson

Copy to - Mr. Newcomb, USGS
Minerals Division
C. H. Johnson
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
September 3, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration

From: Alaska Field Team, Region I

Subject: Proposed additional exploration
Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.
(assigned from Kathleen-Margaret Mining Co.)

Enclosed herewith is an original and three copies each of memoranda from Fred Barker, Geological Survey, and R. L. Thorne, Bureau of Mines, describing the geology and sampling results obtained from an inspection of the subject project on August 19 and 20, 1954. Plan maps and sections accompany the memorandum by Thorne.

Robert M. Chapman, Geological Survey, accompanied the party as senior representative for the Geological Survey; he conferred with Thorne and concurred in the conclusions and recommendations made by Thorne. This summary, and the recommendations based on it, is being prepared by the Executive Officer, Field Team, Region I, in the absence of the Geological Survey member.

Summary of results of trenching program:

1. The work was performed in a manner that is satisfactory to the Field Team.

2. The work disclosed a faulted or echeloned vein structure about 350 feet long and about 5 to 10 feet wide. One segment (the "Discovery" outcrop) of this structure has been exposed throughout a strike length of about 50 feet, a dip length of about 24 feet, and a width of about 8 feet of medium high grade to high grade copper mineralization; the other segments are of comparable width but the copper content of their outcrops is much lower. However, the high grade segment is on a steep hillside where erosion has been rapid and oxidation almost negligible. On the other hand, the low grade segments are on a relatively flat hilltop where oxidation has been nearly complete and where evidences of strong leaching are abundant.

3. Beginning about 300 feet north of the north end of the first vein structure, the trenching operations exposed another structure (or a faulted or echeloned extension of the first structure) which appears to be continuous throughout a strike length of at least 400 feet; the trenching operations did not definitely find either end of it. This outcrop is about 5 feet to 10 feet wide, contains about 0.2 to 0.5 percent copper and is iron stained throughout its exposed length; its metal content is completely oxidized and may have been strongly leached.

4. The southerly (350 foot) structure gives strong evidence of containing badly faulted copper deposits of minable width and grade; the northerly (400 foot) structure is of minable length and width but the evidence for commercial metal content is weak. Both structures deserve additional exploration.

Recommendations:

1. Drift from the lowest practical tunnel site on the ~~east~~ north bank of Discovery Creek approximately 600 feet northerly to intersect and drift along the downward projections of the ore exposed by the trenching operations on the southerly (350 foot) ore structure.

   (Note: Because of slow communications and because of the excessive cost that would be involved in laying off and rehiring his crew, the operator had, at his own risk, already completed 187 feet of the proposed drift when the examination was made. This drift was started at the lowest practicable elevation but about 100 feet farther west than would have been recommended by the Field Team. The Field Team recommends that government participation be made retroactive (on a unit basis) to the beginning of the drift but that the operator be required, at his own expense, to crosscut easterly to and along the downward projection of the "Discovery Outcrop".)

2. Simultaneously with recommendation No. 1 (weather permitting) sink 25 foot winzes at the two sample locations on the northerly structure or do an equivalent amount of diamond drilling at unit costs as follows:

   Winzes: 50 feet @ $100.00 . . . . . $5,000.00
   Diamond Drilling: 500 feet @ $10.00. . . . $5,000.00

(Note: The alternative of winzing is given because Mr. Alfred Ghezzi, owner of Alaska Freight Lines and of Alaska Copper Mines, Inc. has expressed himself as unwilling to participate in diamond drilling operations. The Field Team thinks that two 25 foot winzes probably would give substantial evidence with regard to surface leaching.)

3. Contingent upon the results of Recommendations No. 1 and No. 2, drift an additional 800 feet northerly to and along the downward projection of the northerly (400 foot) ore structure.

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines Member

cc: Geological Survey
R. L. Thorne
R. M. Chapman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGION I

OFFICE OF REGIONAL DIRECTOR

September 1, 1954

560

P. O. BOX 2891
JUNEAU, ALASKA

Memorandum

To: Field Team, Region I, Alaska

From: Robert L. Thorne, Mining Engineer, U. S. Bureau of Mines, Region I

Subject: Stage II, Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E677

D.M.E.A. representatives examined the new exploration on the Kathleen-Margaret claims on August 19 and 20, 1954. Field Team representatives were Robert Chapman and Fred Barker, Geologists of the U. S. Geological Survey and Robert L. Thorne, Engineer of the Bureau of Mines.

The open cut exploration has indicated two zones of mineralization with lengths of 350 feet and 400 feet, respectively. The 350 foot strike length of mineralization starts just above the discovery notice on the Kathleen-Margaret No. 1 claim. Check sample No. 6 was taken across a central 4 foot width of ore near the bottom of the lowest hand excavation approximately 50 feet down slope from samples 14, 15, and 16 in the Kathleen-Margaret report. Sample 6 contained 16.1 percent of copper over the 4 foot width and had 2 feet of weaker mineralization on the west and 4 of lean quartz on the east.

Sample 1, taken in trench 1 across a 16-inch normal width of mineralization and wall rock, contained 9.5 percent copper. This sample was located approximately 140' north of Sample 6 and 100 feet north of Samples 14, 15, and 16.

Sample 2, taken in trench 2 across 5 feet of crushed and leached quartz and greenstone, contained 1.1 percent copper. Sample 2 was taken 85 feet north of Sample 1.

Samples 3 and 4 were taken in trench 3 approximately 60 feet north of Sample 2. Sample 3 was taken across 2.6 feet of leached crushed quartz on the west side of the vein and contained 1.0 percent copper. Sample 4 was started 6 feet east of Sample 3 and consisted of pitted quartz containing some carbonate stain and some remnants of bornite. The 3 foot sample-width assayed 1.5 percent copper.

Mineralization in this ore shoot was exposed for an additional 70 feet to the north by cross trench 4 and longitudinal trench 5.

The strike of the mineralization differs some in each exposure and the individual segments indicate possible east west offsets of as much as 50 feet. There is a possibility that the east west trending valley of Discovery Creek and a depression (seen in aerial photographs) running east west just north of the site of trench 7 are indications of faulting and were this so, the irregular vein structure could be explained by openings developed along tension fractures between the faults.

The vein was not found in trench 7 which exposed approximately 200 feet of bedrock in its 250 foot length.

Mineralization was again exposed in trench 8 approximately 300 feet north and offset more than 150 feet to the west. Trench 8 follows the mineralization and exposes it for slightly less than 100 feet. Some malachite stain shows in a test pit on the mineralized zone which in its exposed length has a 2 to 5 foot width.

In trench 9, along the approximate strike of the mineralization in trench 8, a heavily iron-stained zone of gouge and altered rock was sampled across an 8 foot width. This sample (5) was from near the top of a test pit which had been filled by heavy rain. This leached gouge-like material contained 0.2 percent copper. This zone is exposed for 40 feet by trenches 9 and 11 and is approximately 300 feet strike distant from the exposed mineralization in trench 8.

Trench 10, located west of the line of strike and 100 feet north, did not expose any copper mineralization.

Trench 13 is located on the Kathleen-Margaret No. 2 claim, approximately 200 feet south of the discovery cut. Bedrock has been exposed to a depth of 2 to 10 feet for a distance of 400 feet along this steep bank. No strong copper mineralization was found in the cut. Some weak chalcopyrite mineralization was found west of the strike dip projection of the mineralization in trenches 1 through 5 and a little chalcopyrite was found east of the projection of the discovery cut ore. The average cross section of this trench would be triangular, 30 feet by 12 feet, or representing 6-2/3 cubic yards of excavation per foot of length or 2700 cubic yards.

An adit was started from trench 13 on July 12, 1954 and had been advanced 187 feet by August 20th. The portal is situated 207 feet lower in elevation than the mineralization exposed in trench 3. The gouge zone sampled in trench 9 and 11 is approximately 100 feet higher than the mineralization in trench 3. Using the elevations shown on the map of the proposed adit and trenches, the portal would be at approximately the 3,920-foot elevation suggested by the Operating Committee in their letter of August 18, 1954. As yet,

no copper mineralization has been exposed by the adit.

Mr. Chapman, representing the Geologic Survey in this inspection trip, expressed the opinion, which is concurred in by the writer, that the strong copper mineralization exposed in the discovery cut combined with the evidence of continuation in the trenches justifies recommendation of the second stage of the exploration.

The representative of the Field Team would have preferred to have the adit start on the strike dip projection of discovery ore lens rather than in an intermediate position between that and the strike dip projection of the mineralization in trenches 1 through 5. The operator chose this position because he considered the discovery lens to be a displaced segment due to slipping or fault movement. There is some justification for this belief and the information on the discovery ore can still be obtained by a short crosscut from the present drift face.

The operation is being carried on in a very workmanlike manner. The adit is 5 feet by 7 feet in the clear and is well timbered where necessary. Track is of 25-pound rail on a 0.75 percent grade.

The first bush airstrip put in at the property was considered inadequate by the pilots so a new site was selected and grading natural stream and glacial wash has produced one of the best bush airfields in the Territory. The runway is 4800 feet long and is nearly level.

The access road up Discovery Creek (used to bring the mining and bulldozing equipment up to the property) had to be abandoned due to summer flood conditions in the glacial creek. A jeep road has been bulldozed up the slope to within 100 feet in elevation and 300 yards in distance from the portal. Men are hauled to and from camp at 3100 elevation to the road end by jeep.

A good adequate camp has been established for the operation.

Robert L. Thorne

Robert L. Thorne
Mining Engineer
U. S. Bureau of Mines
Region I

cc: Operating Committee, DMEA - 4
U. S. Geological Survey - 2
S. H. Lorain
J. A. Herdlick

File Copy
Surname
Griswold
Martin
K Johnson
Whitehorn

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

500

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Bureau of Mines
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
Kathleen Margaret Claims
Takeetna Mining District, Alaska
Contract No. Idm-E677

Dear Mr. Lorain:

We have our copy of your letter of August 3 to the cited Operater, wherein we note that an examination is being made to appraise the results of the trenching program.

Therefore, it appears advisable to hold up action on the pending application for additional work until we have the results of such examination. In this connection, if underground work appears warranted, we would suggest dropping the level of the proposed adit from an elevation of 4,020 feet to about 3,920 feet elevation, which would still leave the adit portal some 80 feet above the creek bottom. In this manner we would avoid driving such a shallow adit and would perhaps avoid the necessity of winzing, at least at the present time.

For your information we are enclosing two copies each of memorandums by C. H. Johnson, USBM, dated August 2, 1954, and R. D. Trace, USGS, dated July 28, 1954.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (26)

WRGriswold/er 8/17/54

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Gildersleeve
Mr. C. H. Johnson
Chron.

Enclosures 2

APPROVED:

J. H. Hedges
Member, Bureau of Mines (26)

D. M. Larrabee
Member, Geological Survey (26)

V

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FM EXEC OFFICER ALASKA FIELD TEAM REGION JUNEAU ALASKA

TO GEORGE C SELFRIDGE CHAIRMAN OPERATING COM DEFENSE MINERALS

EXPLORATION ADMIN WASHDC
MINES GRNC

REURTEL ALASKA COPPER MINES DOCKET DMEA-3288 OPERATOR REPORTS NINE

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MINERALIZATION UNQUOTE WE PLAN JOINT BUREAU-SURVEY EXAMINATION WITHIN

UT TWO WEEKS

DMEA-3288
05/1917Z

File Copy
Surname
Hedges
Selfridge
Mettendorf

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

T E L E T Y P E

WRGriswold/bjl, Rm. 4058, Ext. 3669

Base Metals, DMEA, Interior

14X4401(01) Revolving Fund, Defense Production Act, Interior(Allocated Working Fund to Office of Secy)

Date:

To: S. W. Lorain, Executive Officer, DMEA Field Team, Region I, Juneau, Alaska

Reurmemo July 16, application for expanded exploration Contract Idm-E667, Alaska Copper Mines, Inc., Docket DMEA-3288. Please advise results to date covering work of trenching and sampling under present contract.

George C. Selfridge
Chairman, Operating Committee

(written 8/3/54)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Gildersleeve
Mr. C. H. Johnson
Chron.

R.C.H.

XXXXXXXXXXXXXXXXXX
P. O. Box 560
Juneau, Alaska
August 3, 1954

Grewold
Betty

Mr. Don Zellweger
c/o Alaska Freight Lines
525 Third Avenue
Anchorage, Alaska

Re: Docket No. DMEA-3288
Alaska Copper Mines, Inc.

Dear Mr. Zellweger:

I have just received your letter of June 28 with the 104's and invoices for the month of June; these are being sent to the finance office for audit and payment.

I wish to call your attention to the fact that your 104A does not show the number of units completed nor the cost per unit. I realize that the only units mentioned in the contract are "trenches" but the Washington office of D.M.E.A. is very particular about having the units stated on the 104A because that really is the only basis for payment. Inasmuch as you do state in your progress narrative that you have completed nine trenches, I am authorizing payment but I am enclosing some extra 104A's which I would appreciate your completing and returning as substitutes for the 104A's submitted with your June reports - you could consider each trench as a "unit".

We note your request for an early examination, consequently we now are arranging to send in a team consisting of a representative from the Bureau of Mines and a representative from the Geological Survey to appraise the results of the trenching program. We cannot state the exact time of arrival but it will be as soon as we can make the arrangements for both men to get away together.

I am sorry that I will not be able to get in there myself because of other commitments by the Department but we will send R. L. Thorne to represent the Bureau and Mr. Chapman to represent the Survey.

Yours sincerely,

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

Enclosures

cc: Operating Committee, DMEA
R. S. Velikanje

cc: J. A. Herdlick
L. [illegible] Wilcox

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

August 2, 1954

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3288 (Copper) Alaska Copper Mines, Inc.-IDME-667

I have reviewed the field team report dated July 16, 1954 which recommends Stages II, III, and IV for the above-named project.

In view of the very promising original showing reported by the Geological Survey, it seems to me it would be desirable to have a second stage of exploration approved in advance subject to the judgment of the field team. However, in such a raw prospect as this, I think this second stage should be less specific than as described in Item 2 of the field team report. It might be that a shaft or a crosscut adit would serve the purpose better than the long and rather shallow drift adit proposed in Item 2. This will depend on what the trenching (Stage I) shows up. In any event, it seems likely that some underground work is going to be needed before this prospect could be completely written off the books, and it would be desirable to get this going if possible, without the interruption of a winter season.

I see no necessity for the approval at the present time of Stages III and IV.

C. H. Johnson

C. H. Johnson

Copy to - Mr. Newcomb, USGS
Minerals Division
C. H. Johnson
Files

CIRC. 332

GEOLOGICAL SURVEY CIRCULAR 332

THE KATHLEEN-MARGARET (K-M) COPPER PROSPECT ON THE UPPER MACLAREN RIVER ALASKA

Prepared in cooperation with the Department of Mines, Territory of Alaska.

RECEIVED
JAN 4 1957
D.M.E.A.

UNITED STATES DEPARTMENT OF THE INTERIOR
Douglas McKay, Secretary

GEOLOGICAL SURVEY
W. E. Wrather, Director

GEOLOGICAL SURVEY CIRCULAR 332

THE KATHLEEN-MARGARET (K-M) COPPER PROSPECT ON THE UPPER MACLAREN RIVER, ALASKA

By Robert M. Chapman and Robert H. Saunders

Prepared in cooperation with the Department of Mines, Territory of Alaska.

Washington, D. C., 1954

Free on application to the Geological Survey, Washington 25, D. C.

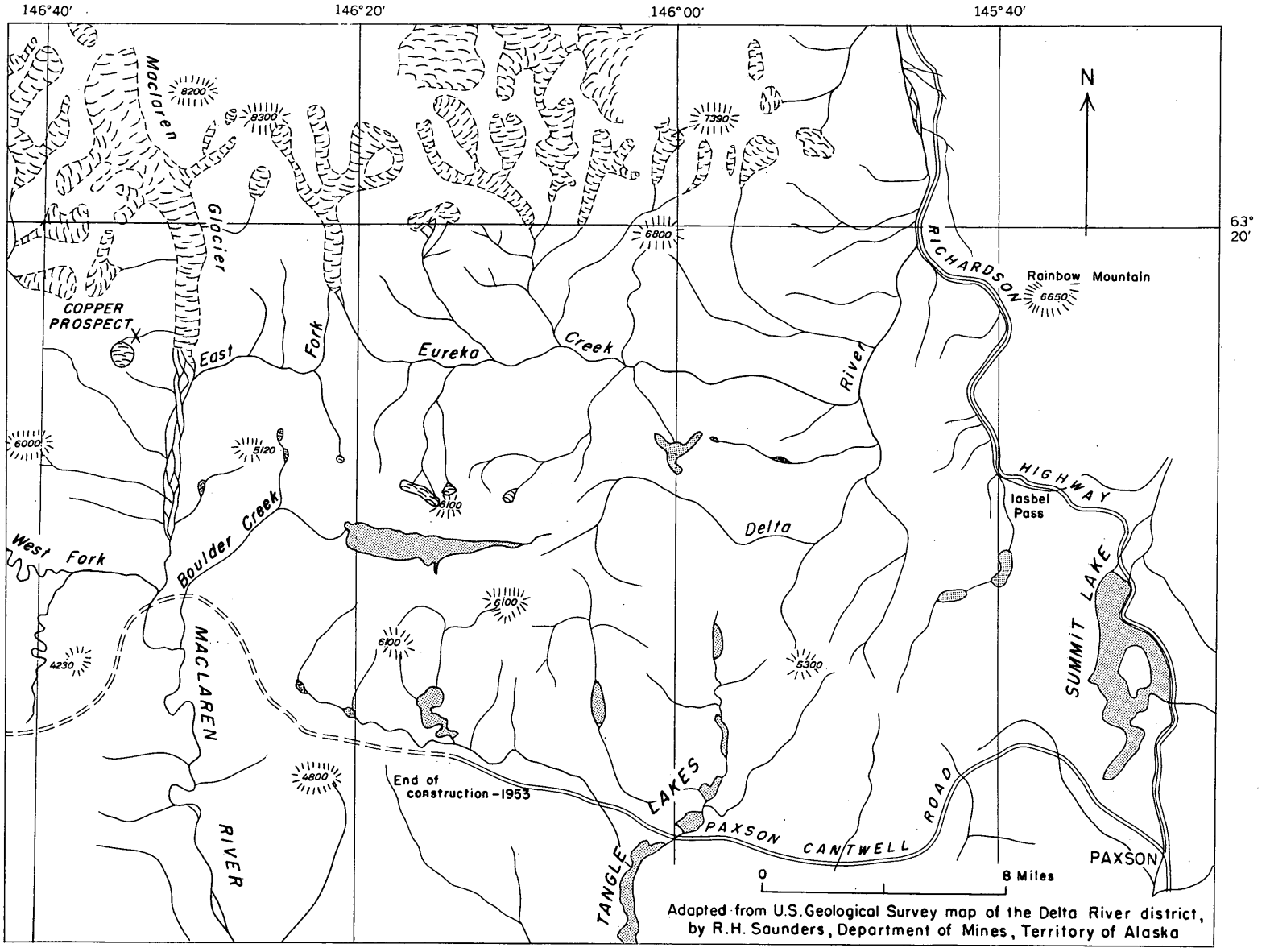

Figure 1.—Map of upper Maclaren River, Alaska.

THE KATHLEEN-MARGARET (K-M) COPPER PROSPECT ON THE UPPER MACLAREN RIVER, ALASKA

By Robert M. Chapman and Robert H. Saunders

CONTENTS

	Page
Abstract	1
Introduction	1
Location and accessibility	1
Physical features and climate	2
Property and ownership	2
Geology and mineral deposits	2
Geology	2
Mineral deposits	4
Sampling and assays	5
Conclusion and recommendations	5
Literature cited	5

ILLUSTRATIONS

	Page
Figure 1. Map of upper Maclaren River, Alaska	Faces page 1
2. Sketch map of claims showing Albertson-Pettyjohn copper prospect, Maclaren River	3

TABLE

	Page
Table 1. Analyses of six samples assayed by the Department of Mines Assay Office at College, Alaska	5

ABSTRACT

The Kathleen-Margaret (K-M) prospect is in the Mount Hayes quadrangle on the west side of the Maclaren Glacier about 25 miles south of the peak of Mount Hayes. The proposed route of the Denali Highway is about 9 miles south of the prospect.

Several veins have been discovered on the prospect, but only one appears to be minable. The vein is about 10.5 feet thick; it strikes N. 3°-4° E. and dips 70°-90° W. Along its east wall there is a zone of nearly barren quartz 1.5 to 2 feet thick. The richest ore, samples from which have assayed 30 to 45 percent copper, is confined to a zone about 1.5 to 2 feet thick adjacent to the nearly barren zone. Assays of samples from the remainder of the vein, about 7 feet thick, have ranged from 3.5 to 12.5 percent copper.

INTRODUCTION

In 1950 E. O. Albertson and F. S. Pettyjohn, Jr., of Big Delta, Alaska, formed a partnership and prospected the vicinity of Chistochina, a gold-placer district on the south slope of the Alaska Range about 20 miles east of the Richardson Highway. From Chistochina they gradually worked westward until they reached the Maclaren River drainage. In 1952 Pettyjohn discovered an outcrop of a copper-bearing vein on the west side of the Maclaren Glacier.

From August 11 to 14, 1953, the copper-bearing outcrops and adjacent area were examined by R. M. Chapman of the U. S. Geological Survey and R. H. Saunders of the Department of Mines, Territory of Alaska. This report is written from notes taken during that examination and from information furnished by Albertson and Pettyjohn.

LOCATION AND ACCESSIBILITY

The Kathleen-Margaret (K-M) copper prospect is in the Mount Hayes quadrangle at latitude 63°17' N. and longitude 146°35' W. By U. S. Geological Survey classification, it is in the upper Susitna valley district of the Cook Inlet region and by the U. S. Bureau of Mines classification, the prospect is in the Valdez Creek subdistrict of the Cook Inlet-Susitna region. The claims lie on the west side of the Maclaren Glacier about 25 miles south of the peak of Mount Hayes. A glacial stream flows along the lower part of the west side of the glacier; it is fed by eastward-flowing tributaries that head in icefields on the ridge west of the glacier. The main outcrop is in the north wall of the gulch that has been eroded by Discovery Creek, named by Albertson and Pettyjohn, the first tributary upstream from the terminus of the glacier. This outcrop is at an altitude of 4,100 feet.

The prospect is about 9 miles north of the proposed route of the Denali Highway between Paxson and Cantwell. The highway is now under construction. The extent of the road at the end of the 1953 working season is shown on figure 1. By the end of 1954 the road probably will be completed as far as the Maclaren River.

An access road from the prospect to the Denali Highway would be 9 to 10 miles long. The flood plain of the Maclaren River probably would provide the best route for the first 7 or 8 miles of the access road. The flood plain consists mostly of coarse well-drained gravel and it appears that the building of a road on the gravel would require little more than clearing boulders from the roadway. A mile or two south of the prospect the road would leave the flats and would be built on the lower slopes on the west side of the river. This part of the road would be more difficult to build, but there are no obstacles that would make the cost of construction prohibitive.

After the necessary roads are built, the prospect will be 50 miles from Paxson, 245 miles from Valdez, and 450 miles from Seward by road. Shipping over the Alaska Railroad would require a truck haul of 105 miles to Cantwell; the distance by rail from Cantwell to Seward is 320 miles.

There are only a few small lakes within 10 miles of the copper prospect, and the nearest lake that is suitable for use by small pontoon-equipped aircraft is situated near the west bank of the Maclaren River about 2.5 miles south of the terminus of the Maclaren Glacier and about 5 miles south of the prospect. Several large lakes, 12 to 20 miles southeast of the prospect area, would be suitable for larger pontoon aircraft.

A landing field large enough for multiengine aircraft could be constructed on the braided flood plain of the Maclaren River. Many stretches of the alluvial gravel between Cottonwood Creek and Maclaren Glacier are nearly smooth and clear enough in their natural state to serve as a landing strip. If a permanent strip is built on the flood plain, it will be necessary to raise the level of the runway surface and possibly to build protective dikes to prevent flooding during extreme high water stages, as channel shifting is frequent in the braided channel areas.

The prospect can be reached conveniently by small pontoon aircraft from one of the lakes along the Richardson Highway to the small lake on the west side of the Maclaren River. Pontoon planes are available for charter at Summit and Meier Lakes.

PHYSICAL FEATURES AND CLIMATE

The upper Maclaren River area is a part of the rugged glaciated south slope of the Alaska Range. The altitudes range from about 3,000 to 8,000 feet and the copper-bearing veins are exposed at altitudes of 3,800 to 4,100 feet. The mountain slopes are predominantly steep, and the average relief is about 2,000 feet. The main Maclaren River valley and the other large valleys are wide, flat floored, typical glacial valleys, and the smaller tributary valleys are either small glacial valleys with moderate gradients, or small, sharp postglacially eroded valleys with gradients steep enough to produce cascades and small waterfalls. Many of the small glacial hanging valleys are connected to the main valley by a postglacial notch in their lip. Discovery Creek is an example of this.

There are several glaciers in the vicinity of the copper prospect. The large Maclaren Glacier is about 10 miles long and occupies the head of the main Maclaren valley. A number of cirque glaciers and small icefields, remnants of larger tributary glaciers, are present at altitudes of 5,000 feet and higher in the peaks between the Maclaren River and the West Fork.

A flow of water adequate for the needs of a camp and mining operations is available during the summer months from any of the small streams that are fed by snowfields and glaciers. In addition to the melt water, precipitation is frequent in this area during the summer, according to Pettyjohn's report and the writers' experience during the field examination. The Maclaren River carries a large volume of water, but much of its upper course is braided, and fordings with tractors and other equipment can be made in the braided stretches if reasonable care is used.

The area within several miles of the copper prospect and the Maclaren Glacier is devoid of timber. The vegetation consists of scrub willows and alders in the main valley floor and in a few protected valleys, and low brush and small tundra plants, mosses, and lichens on the slopes and mountains. Timberline in this part of the Alaska Range is at an altitude of 2,500 to 3,000 feet. It is reported that some spruce timber of usable size can be obtained on the Maclaren River about 9 miles south of the terminus of the Maclaren Glacier, but most of the timber would have to be hauled from greater distances.

The climate in this area is moderately severe. Weather records for 7 years between 1914 and 1944 taken at Paxson, about 36 airline miles east-southeast of the copper prospect, show 18.36 inches mean annual precipitation, most of which falls during the period of June through September. The snowfall ranges from about 10 to 22 inches per month during the period from October through April. Written records, and personal observations indicate that cloudy skies and strong winds are common. The mean temperature at Paxson is 25.3° F. The mean maximum temperature during June, July, and August is about 65° F, and during December and January is about 8 degrees. The mean minimum temperature is about 37° F during June, July, and August, and about -12° F during December and January.

PROPERTY AND OWNERSHIP

The two owners have staked 10 claims to cover the veins that they have discovered. The claims are designated Kathleen-Margaret Nos. 1 to 10. The locations of the claims are shown on figure 2. Each claim is owned jointly by the two partners. The location certificates are recorded in the records of the U. S. Commissioner at Talkeetna, Alaska.

GEOLOGY AND MINERAL DEPOSITS

Geology

Little time was available for general study of the rock formation during the visit to the copper prospect, and only the rock exposed in the immediate area of the prospect was examined. The formations have been generally defined and mapped by Moffit (1912) and distant observations and examination of aerial photographs confirm his reconnaissance mapping.

The country rock in which the copper-bearing quartz veins occur is chiefly a green diabasic lava.

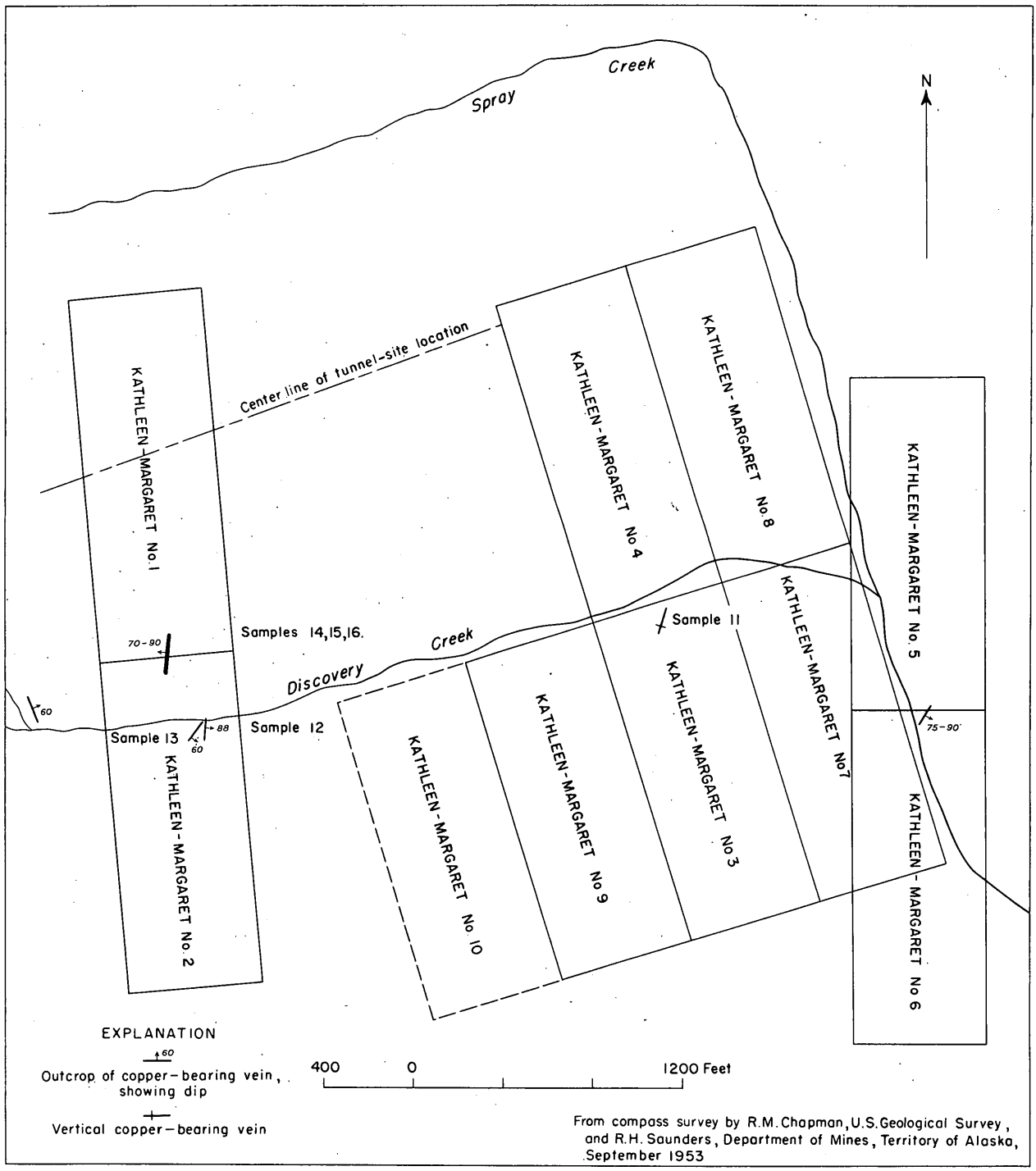

Figure 2. —Sketch map of claims showing Albertson-Pettyjohn copper prospect, Maclaren River, Alaska.

Moffit assigned a late Carboniferous or early or middle Triassic age to this unit, which is exposed in a west-trending range of low mountains that lies between Summit Lake and the Susitna River. Capps (1940, pl. 2) shows the same unit as pre-Cretaceous (Mesozoic). As described by Moffit (1912, p. 29-30):

"The rocks consist largely of diabase and locally are amygdaloidal. They are associated with argillites, tuffs, and tuffaceous conglomerates in a number of places and are intruded by diabases and by dikes of less basic, light-colored porphyritic rock. Intrusions of peridotite have taken place in the Tangle Lakes vicinity, and probably also in other places, for boulders of this character were found in some of the younger conglomerates near the glacier at the head of the east fork of Maclaren River. The lava flows have been deformed in the general folding of the region so that steep dips are common, and schistosity is occasionally developed."

Apparently the oldest rocks in the area lie east of the Maclaren Glacier and northeast of the copper prospect. These rocks, correlated by Moffit with the Chisna formation of Mendenhall (1905), lie in a west-trending belt on the south side of the Alaska Range. This formation extends eastward from the Maclaren Glacier to the Summit Lake area, but has not been recognized west of the Maclaren valley. The Chisna formation was not examined in the field, but Pettyjohn reports that he found no mineralization in the parts of it that he prospected. As described by Moffit (1912, p. 27-28), the formation consists of quartzite, tuffaceous beds, and metamorphosed limestone containing associated granular intrusives. Many of the weathered surfaces of this formation have a rusty red color that is particularly conspicuous.

Rocks of probable Triassic age include limestone, conglomerate, and thick units of slate having intercalated basic igneous flows or intrusives, all of which are cut by granular intrusives of dioritic or related compositions. These rocks are exposed on the west side of Maclaren valley about 2.5 miles north of Discovery Creek, and they form an outcrop belt that extends west-southwestward from this point. Triassic rocks apparently are not exposed in the area between the Maclaren River and the Richardson Highway.

The Jurassic rocks, as described by Moffit, consist of gray quartz diorite and hornblende diorite that in part show well developed cleavage and schistosity. They occur as dikes, sills, and large, irregular, intrusive masses. Several small masses of Jurassic rocks were mapped by Moffit (1912, pl. 11) on both sides of the Maclaren valley in the area just north of the copper prospect. An igneous mass of batholithic size lies in the Susitna River drainage about 5 to 12 miles west of the Maclaren Glacier.

The geologic mapping of this region is of the general reconnaissance type. Additional reconnaissance and semidetailed geologic mapping of the south slope of the Alaska Range between the Richardson Highway and the Alaska Railroad should be done to provide basic geologic and economic data.

Mineral deposits

Several quartz veins bearing bornite and chalcopyrite with malachite surface alteration occur in the vicinity of Discovery Creek, a western tributary of the Maclaren River near the terminus of the Maclaren Glacier (fig. 2). The largest and richest vein is located on the steep north slope of Discovery Creek about 3,200 feet upstream from the mouth. This vein is about 10.5 feet thick, strikes N. 3°-4° E., and dips 70°-90° W. Mineralized talus from this vein can be traced down the slope to Discovery Creek and downstream in the creek gravel. The best exposure of the vein is near the top of the slope about 180 feet above the bottom of the valley. It is from this outcrop, which had been dug out for sampling and examination, that the authors obtained samples. The vein crops out at several places down the slope within a vertical distance of about 80 feet, and the width and mineralization appear to be fairly uniform throughout this distance. The richest ore, samples from which have assayed 30 to 45 percent copper, is confined to a zone about 1.5 to 2 feet thick within the vein. Assays of samples from an adjacent zone about 7 feet thick have ranged from 3.5 to 12.5 percent copper. Appreciable amounts of silver and traces of gold also are present in the samples from both zones. The gold content seems to be higher in the lower grade copper bearing material than in the rich zone.

Two small quartz veins about 30 feet apart containing bornite and chalcopyrite with malachite surface alteration crop out on the south side of Discovery Creek about 200 feet downstream from the 10.5-foot thick vein. These veins are 0.75 to 1.0 foot thick. Several barren quartz veinlets associated with them are 1 to 2 inches thick. One vein strikes N. 35°E. and dips 60° south. Samples taken from widths of 0.75 foot in these veins assayed 1.58 percent copper (sample 12) and 2.95 percent copper (sample 13) with only traces of gold and silver. The bedrock in this zone is a highly fractured, dark grayish-green flow(?) rock and includes light apple-green pods and small dikes that are composed largely of epidote(?). Thin, sheared zones of blackish-green serpentine and/or chlorite are associated with the quartz veins. Some brick-red iron staining is present in this fractured zone.

A small quartz vein, banded with bornite and calcite, crops out on the south side of Discovery Creek about 1,000 feet above the mouth. Chalcocite, chalcopyrite, and epidote have been identified in other specimens from this vein. This vein, which is 0.4 foot thick, strikes N. 15°-20° E., and is vertical, apparently continues northeastward for at least 100 feet to another small vein outcrop. Sample 11, taken across the width of the vein, assayed 1.33 percent copper, a trace of gold, and no silver or nickel. Albertson and Pettyjohn reported that their sample from this vein showed 2 percent copper and a trace of nickel.

Another small quartz vein is exposed on a rock knob on the east side of Spray Creek about 600 feet downstream from Discovery Creek. This vein strikes N. 30° E. and dips 75°-90° southeast. It contains traces of copper minerals and has some greenish-black serpentine streaks and pockets and some epidote within the quartz.

A quartz vein bearing some chalcopyrite and bornite with malachite surface staining is exposed in

a small gully tributary to Discovery Creek about 600 feet upstream from the 10.5-foot vein. The quartz vein is 3 to 5 inches thick and can be traced laterally for at least 20 feet. The rock exposed in the gully has slumped, but the vein appears to strike N. 20° W. and to dip 60° north.

Minor amounts of malachite are found on weathered exposures of the copper-bearing veins, but azurite occurs only rarely. Chrysocolla has been identified in at least one sample that was collected by the owners.

In addition to the above-mentioned veins that were examined by the writers, Pettyjohn reports that there are several copper-bearing veins about 2.5 miles southwest of Discovery Creek on the slopes of Cottonwood Creek valley. Several specimens from veins are reported to assay 0.5 to 1.5 percent copper, and one piece of float assayed 40.85 percent copper. Samples from a 51-inch thick quartz vein near the high-grade float had copper assays ranging from nil to 1.43 percent. The 51-inch vein reportedly is cut off at one end by a fault. Pettyjohn plans further prospecting in the Cottonwood Creek and West Fork area. Pettyjohn also reports that he found no metallization on the east side of the Maclaren valley or on the west side north of Spray Creek.

SAMPLING AND ASSAYS

Six samples taken during the field examination were assayed by the Department of Mines Assay Office at College, Alaska, and the results of the assays are shown in table 1. The sampling points are shown on figure 2.

Table 1.—Analyses of six samples assayed by the Department of Mines Assay Office at College, Alaska

Sample no.	Width sampled (feet)	Ounces per ton		Copper (percent)
		gold	silver	
11	0.40	([1])	([2])	1.33
12	.75	([1])	([1])	1.58
13	.75	([1])	([1])	2.95
14	2.00	([1])	([2])	.27
15	1.75	([2])	2.55	30.45
16	7.00	0.18	1.20	8.99

[1]Trace.
[2]Nil.

Samples 14, 15, and 16 are rough channel samples that were taken across the uppermost outcrop of the main 10.5-foot vein. Sample 14 represents a band of barren quartz 2 feet wide on the east side of the vein. Sample 15 represents a band of "high grade" adjacent to the barren quartz; it ranges in width from 1.5 to 2 feet. The high-grade band consists mostly of bornite and contains minor amounts of chalcopyrite and quartz probably with a few other minerals. The remainder of the vein, represented by sample 16, ranges from 6.5 to 7.5 feet in width. It consists of quartz impregnated with bornite and chalcopyrite. The three bands in the vein appear to be consistent in width. The vein is exposed at several points over a distance of about 150 feet on the slope.

Samples 11, 12, and 13 were tested for nickel; none was present. The owners reported that there was a trace of nickel in a sample that they took from the vein from which sample 11 was taken. The owners have taken several samples across the high-grade band in the main vein. All have assayed more than 40 percent copper. Samples taken by the owners from the 7-foot band of quartz, bornite, and chalcopyrite on the west side of the vein have assayed from 3.5 to 12.5 percent copper.

CONCLUSION AND RECOMMENDATIONS

The 10.5-foot bornite-chalcopyrite-quartz vein on Discovery Creek is worthy of further exploration. The tenor and the apparent downdip continuity of the vein indicate a minable deposit if the vein has sufficient continuity along its strike. Unfortunately the ridge top to the north of Discovery Creek is completely covered by vegetation, and no surface indications of the vein or bedrock can be found without trenching or underground exploration.

In addition to exploration of the 10.5-foot vein, further prospecting is recommended in the Discovery Creek area and the westward extension of the outcrop belt of basaltic lavas. The headwaters of Cottonwood Creek and the West Fork are a virtually unknown area, and the basaltic lava formation continues westward to the Susitna River. Moffit (1915, p. 76) points out that a vein of chalcopyrite was found on Butte Creek, just west of the Susitna River, and that copper-bearing minerals have been found in the lava flows between Butte and Wachana Creeks and the Susitna River.

LITERATURE CITED

Capps, S. R., 1940, Geology of the Alaska Railroad region: U. S. Geol. Survey Bull. 907.

Mendenhall, W. C., 1905, Geology of the central Copper River region, Alaska: U. S. Geol. Survey Prof. Paper 41.

Moffit, Fred H., 1912, Headwaters of the Gulkana and Susitna Rivers, Alaska: U. S. Geol. Survey Bull. 498.

_____1915, The Broad Pass region, Alaska: U. S. Geol. Survey Bull. 608.

INT.-DUP. SEC., WASH., D.C. 61527

IN REPLY REFER TO:

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

July 28, 1954

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION for expanded exploration contract DMEA-3288 (copper)

To: W. R. Griswold, Defense Minerals Exploration Administration
From: R. D. Trace, U. S. Geological Survey
Applicant: Alaska Copper Mines, Inc.
Name of property: Kathleen-Margaret Claims
Location of property: Talkeetna mining district, Alaska (see Geol. Survey Circular 332)
Date of Field Team report: July 16, 1954
Authorship of Field Team report: Chapman and Saunders
Field Team's recommendation: Approval of application on basis of three (II, III, and IV) successive stages, following the initial stage (I) now in progress. Each successive stage contingent upon results of prior stage. Field Team asks for approval in advance of stages II, III, and IV, thus permitting quick decision regarding contingent stages to be made at field level.
Comments: We doubt that a detailed and complete exploration program can be planned prior to obtaining the results of the trenching program of stage I.
ACTION RECOMMENDED: Obtain results of stage I before planning further exploration.

RD Trace
R. D. Trace

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
July 16, 1954

MEMORANDUM

To: Operating Committee, Defense Minerals Exploration Administration

From: Alaska Field Team, Region I

Subject: Application for expanded exploration contract
Docket No. DMEA-3288 (copper)
Alaska Copper Mines, Inc.
(Kathleen-Margaret Mining Co.)

Pursuant to your request of June 17 the Field Team has reviewed the subject application. We have noted your comments to the effect that the proposed program is overly ambitious as applied to a raw prospect but that you would consider a program set up by stages. We had already advised the operator that we could not recommend a program such as he proposes except on the basis that you suggest; therefore, we think that the operator expected the work to be on a stage-by-stage basis. We do note that the applicant set up his entire new proposal as "Stage II." We think that his Stage II could be broken down logically into Stage II, Stage III, and Stage IV as follows:

Exploration Program

Stage II:

Item 1: Erect camp, install equipment,

Item 2: Prepare a portal at the vein outcrop near the 4,000 foot map contour and drift northerly on the vein to the limit of strong mineralization or to a distance of 800 feet, whichever is less.

Stage III:

Item 1: At the northerly extremity of the drift described in Stage II, Item 2, or at some more southerly point that is agreed upon jointly by the Operator and by the Government, prepare a shaft station and pocket of minimum practical size - the estimated excavation to be approximately 4,000 cubic feet of rock.

Item 2: Sink a vertical shaft to a depth of 200 feet and sink an additional 10 feet to serve as a sump. This shaft should be on the vein if the vein proves to be vertical and if the ground in the vein is strong enough to support a shaft.

Item 2A: (alternative to be decided upon jointly by the Operator and the Government): Crosscut northerly from the 3,800 foot contour to intersect the downward projection of the vein at a point considered to be most favorable by the Operator and by the Government. Government participation in this crosscut would be on the basis of the agreed unit cost of drifting but will not exceed the total agreed participation in Items 1 and 2 (Stage III) above.

Item 3: From the shaft bottom, crosscut to the vein (if necessary) and drift on the vein in either or both directions a distance of 200 feet less the length of the crosscut (if any) from the shaft.

Stage IV:

Item 1: Drift northerly or southerly (or both) on the vein on the 200 foot level an additional distance not to exceed the difference between 800 feet and the length of the drift on the upper adit level (Stage II, Item 2).

The workings are to be surveyed accurately and mapped. The vein will be sampled by channel samples at not more than 5 foot intervals (unless longer intervals are expressly permitted by the Government) wherever it is exposed by the workings. Wherever the copper mineralization differs by recognizable and measurable banding within the vein, each section or band will be sampled separately and recorded. All sample locations will be tied to permanent survey points by measurement and will be properly recorded on maps.

Costs

We have checked the applicant's cost estimates and consider them to be somewhat lower than can be expected. Nevertheless, these costs could be attained by highly efficient operation; therefore, we recommend that they be accepted on a unit cost basis as proposed. On that basis, the costs of the various stages would be as follows:

Stage II:

Item 1: No direct cost to Government.

Item 2: Drifting 800 feet @ $54.12 . . . . $43,296.00 (max)

Total Stage II $43,296.00

Stage III:

Item 1: Shaft station (equiv. 114.3 ft. drift) . . $ 6,185.92

Item 2: Shaft 210 feet @ $162.36 . . . . . 34,095.60

Item 3: 200 ft. drift and crosscut @ $54.12 10,824.00

Total Stage III $51,105.52

Stage IV:

Item 1: Unused balance Stage II, Item 2 - - - - -

Total Stage II, III, IV . . . $94,401.52

The Operators

According to information supplied by Mr. Don Zellweger, Executive Vice President, Alaska Copper Mines, Inc. is a wholly-owned operating subsidiary of Alaska Freight Lines, Inc. which is a relatively small but, apparently, highly successful freight line operating aline of sea going barges between Seattle and Valdez; these barges transfer their loads to heavy trucks which transport from Valdez to interior Alaska points. The Alaska Freight Lines is trying to establish a mining operation which will provide it with back-haul tonnage to Seattle.

The mining operation will be under the direct supervision of Mr. Zellweger who is a graduate mining engineer of limited mining experience but with considerable business experience as one of the executives of Alaska Freight Lines, Inc. We think that the supervision will be as capable as could be expected from an "independent" operation of this size.

The Deposit

The ore deposit and its environment have been described in considerable detail by Robert M. Chapman, Geological Survey, and Robert H. Saunders, Territorial Department of Mines; their description has been published as "Geological Survey Circular 332". Inasmuch as Mr. Chapman has represented the Field Team on this investigation, his report will constitute our description of the deposit; extra copies for submission with this memorandum are not available to the Field Team but should be obtainable in Washington.

The ore exposure, obviously, is no more than a raw prospect but its dimensions, metal content, and manner of occurrence indicate that it may possibly have considerable strength and continuity; its exploration should be undertaken with caution but with a program that could be expanded rapidly if early results fulfill the promise of the outcrop.

Recommendations

The Field Team recommends that the subject application be approved on the basis of three successive stages following the initial stage now in progress; the initiation of each successive stage to be contingent upon Government approval which would be based on the results of preceding stages.

It is the opinion of the Field Team that the program, as proposed, should be approved in advance subject to quick decisions at field level. This will permit continuity and economy of operation and will insure the possibility of establishing underground operations while weather conditions permit.

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines Member

R. S. Velikanje for C. L. Sainsbury
R. S. Velikanje
Geological Survey Member

cc: R.S. Velikanje
J.A. Herdlick

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
P. O. Box 560
Juneau, Alaska
June 25, 1954

MEMORANDUM

To: Operating Committee, Defense Minerals Exploration Administration, Washington D. C.

From: Executive Officer, Alaska Field Team, Region I

Subject: Assignment of contract
Docket No. DMEA-3288 (copper)
Kathleen-Margaret Mining Co.

Enclosed herewith are the "Government", "Docket", and "Division" copies, with signatures, of the assignment of the subject contract to Alaska Copper Mines, Inc. and of its acceptance by Alaska Copper Mines, Inc.

The "Operator's Copy" has been retained by the operator; the "Field Team Copy" and the "Finance Office Copy" have been retained in this office.

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

Enclosures

cc: R.S. Velikanje
Don Zellweger
L.J. Wilcox

File Copy
Surname

Selfridge
JB Johnson

UNITED STATES 500
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Air Mail

Mr. A. H. Lorain
Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

JUN 17 1954

Re: Contract No. DMEA-3233 (Copper)
Alaska Copper Mines, Inc.
(Kathleen Margaret Mining Company)
Kathleen Margaret Claims
Seldovia Mining District, Alaska
Contract No. Idm-7667

Dear Mr. Lorain:

We are enclosing a copy of our reply to a letter dated June 7, from Alaska Copper Mines, Inc., referring to its application for amplification of the cited contract.

It would appear that its proposed work program is overly ambitious, as applied to a property which is at present only a raw prospect. However, perhaps it might be considered if the proposed work was broken into successive stages, each contingent upon favorable results of the preceding phase.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JB)

WRGriswold/bjl (6/15/54)

Enclosure

APPROVED:

J. H. Hedges
Member, Bureau of Mines (JB)

Philip W. Guild
Member, Geological Survey (JB)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Kinkai Gildersleeve
Mr. Bishop
Chron.

File Copy
Surname

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

Griswold
Hedger
Guild
Selfridge
K Johnson

Air Mail

JUN 17 1954

Mr. Don Zellweger
Executive Vice President
Alaska Copper Mines, Inc.
P. O. Box 3365
Seattle 14, Washington

Re: Docket No. DMEA-3288 (Copper)
Alaska Copper Mines, Inc.
(Kathleen Margaret Mining Company)
Kathleen-Margaret Claims
Talkeetna Mining District, Alaska
Contract No. Idm-E667

Dear Mr. Zellweger:

This will acknowledge receipt of your letter of June 7, in which you make application for an amendment amplifying the cited contract.

On June 10, we forwarded to our Juneau field office a proper assignment of this contract to your company by the Kathleen Margaret Mining Company. Obviously, until we have received the signed copies of such assignment, we cannot give consideration to your present application. However, we presume that the matter will be cleared in the near future and then, after receipt of the Field Team recommendations, we will be in a position to give consideration to your application.

Sincerely yours,

C. O. Mittendorf (fw)
Administrator

WRGriswold/bjl (6/15/54)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Gildersleeve
Mr. Bishop
Region ~~II~~ I (2)
Chron.

R.C.S.

File Copy
Surname

Rubin
Hofflund
Griswold
Talbot
Selfridge
H Johnson
Wittendorf

140

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

JUN 10 1954

Mr. S. H. Lorain
Executive Officer
DMEA Field Team, Region I
Post Office Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288—Copper
Kathleen Margaret Mining Co.
Albertson-Pettyjohn Prospect
Talkeetna Mining District
Contract Idm-E667

Dear Mr. Lorain:

In response to your memorandum dated May 28 recommending the assignment of the subject contract to Alaska Copper Mines, Inc., we have prepared the enclosed assignment forms for your use.

Payment of all vouchers due under the contract after the date of execution of the assignment should be made to the Assignee, Alaska Copper Mines, Inc.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures 6

Copy to: Docket
Admin. Reading File
Operating Committee
Mr. C. H. Johnson, B/M (3621)
Mr. B. Gildersleeve, USGS
B-242-A, GSA
Mr. Griswold (2)
Mr. Hofflund
Mr. Rubin
Chron.
Pending

Approved:

J. H. Hedges (JHB)
Member, Bureau of Mines

T. P. Thayer (JHB)
Member, Geological Survey

HCRubin:ep 6-8-54

R.C.S.

3.48

(500)

JUNE 8, 1954

FROM: S. H. LORAIN, EXECUTIVE OFFICER, DMEA, JUNEAU, ALASKA

TO: DON ZELLWEGER, ALASKA FREIGHT LINES INC. P. O. BOX 3365, SEATTLE 14, WASH.

GR MINES_____

TELEGRAM FROM WASHINGTON STATES ASSIGNMENT OF CONTRACT WILL BE APPROVED BUT APPARENTLY REQUIRES SIGNING OF A SPECIAL FORM BY YOU AND KATHLEEN-MARGARET. FORM IS BEING SENT AIR MAIL. MEANWHILE YOU MAY PROCEED WITH WORK.

S. H. Lorain
Executive Officer

cc: Operating Committee, DMEA
Sainsbury

File Copy
Surname

Griswold
Mr. Selfridge
Mr. Johnson
Mr. Weitendorf

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

JUN - 8 1954

T E L E T Y P E

WRGriswold/bjl, Rm. 4058, Ext. 3669

XXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXX

Base Metals Div., DMEA, Interior

14X4401(01) Revolving Fund
Defense Production Act, Interior (allocated
Working Fund to the Office of the Secy.

Date:

To : S. H. Lorain, Executive Officer, DMEA Field Team, Region I, Juneau, Alaska

Reurlet May 28, Docket DMEA-3288, Kathleen-Margaret Mining Company, Contract Idm-F667. We have construed your letter as recommending approval of assignment and are airmailing forms for execution by Operator and assignee. Meanwhile, if our assumption is correct, assignee may proceed with work.

George C. Selfridge
Chairman, Operating Committee (2HB)

(written 6/7/54)

Copy to: Docket
Admr. R. File
O p. Committee
Base Metals
Mr. Bishop
Mr. Gildersleeve
Chron.

File Copy
Surname

500

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

N.S. in R.R.

June 4, 1954

Memorandum

To: Acting Assistant Solicitor, DMEA

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3288, Kathleen-Margaret Mining Company, Contract No. Idm-E667

Please note the May 28 letter from Mr. Lorain, in which he requests telegraphic advice regarding the assignment of this contract to the Alaska Copper Mines, Inc. Kindly inform us as to the question he raises so that we may wire him accordingly.

W. R. Griswold

W. R. Griswold

WRGriswold/bjl

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
May 28, 1954

MEMORANDUM

To: Operating Committee, Defense Minerals Exploration Administration, Washington D.C.

From: Executive Officer, Alaska Field Team, Region I

Subject: Exploration Contract
Docket No. DMEA-3288 (copper)
Contract No. Idm-667
Kathleen-Margaret Mining Co.
(Alaska Copper Mines Inc.)

Inclosed herewith are the "Government", "Docket", and "Division", copies of the subject contract. The "Operator's" copy has been retained by Alaska Copper Mines, Inc.; the "Finance Office" and "Field Team" copies have been retained here.

Attached to each copy of the contract is a request from the Kathleen-Margaret Mining Company for transfer of the contract to Alaska Copper Mines, Inc., an agreement by Alaska Copper Mines, Inc. to the proposed transfer, and a copy of the lease and option taken by Alaska Copper Mines, Inc. on the property of the Kathleen-Margaret Mining Company.

If these documents are satisfactory to DMEA please advise me by telegraph so that we can give a "go ahead" to the operators. If not please advise, as quickly as possible, what additional documents will be required.

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

Enclosures

cc: C.L. Sainsbury
L.J. Wilcox

XXXXXXXXXXXXXXXXXX
P. O. Box 560
Juneau, Alaska
May 28, 1954

Mr. Don Zellweger
c/o Alaska Freight Lines, Inc.
P. O. Box 768
Fairbanks, Alaska

re: Docket No. DMEA-3288
(copper) Contract Idm-667
Kathleen-Margaret Mining
Company

Dear Mr. Zellweger:

This will acknowledge receipt of your letter of May 24 with five copies of the referenced contract, five copies of an assignment from Kathleen-Margaret Mining Company to Alaska Copper Mines, Inc., and one copy of a lease and option to Alaska Copper Mines, Inc. from Kathleen-Margaret Mining Company.

We have prepared additional copies of the lease and option which, with the contract and assignment, are being forwarded to the Washington office of DMEA today.

I am requesting Washington to advise us by telegraph if the assignment is satisfactory. As soon as we receive clearance from Washington we will notify you by telegraph.

Yours sincerely,

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

cc: Operating Committee, DMEA
C. L. Sainsbury
L. J. Wilcox
SHL/he

File Copy
Surname

Hofflund
Farrater
Hedges
Martin
Mitchenoy

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

APR 27 1954

WRGriswold/bjl, Rm. 4058, Ext. 3669

Base Metals Div., DMEA, Interior

14X4401(01) Revolving Fund, Defense Production Act, Interior (allocated Working Fund to the Office of the Secy.)

q TELETYPE

Date:

To: S. H. Lorain, Executive Officer, DMEA Field Team, Region I, Juneau, Alaska

Reur radiogram April 28, Docket No. DMEA-3288, Kathleen Margaret Mining Company. If pending contract has not been signed and is not now in effect, Alaska Copper Mines, Inc., should file an application for a contract, and show in the application its interest in the land. If the pending contract has been executed and is in effect, the Operator should request permission of the Government to assign the contract to Alaska Copper Mines, Inc., and should explain what interest the assignee will have in the land.

W. S. Martin
ACTING Chairman, Operating Committee (SAA)

~~Dakeix~~
Written 4/28/54)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
J. L. Hofflund
Accounts
Mr. Bishop
Mr. Kinkel
Chron.

R.C.h.

140

FILE COPY
SURNAME:

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

N. S. in P.A.

April 28, 1954

Memorandum

To: Chief, Base Metals Division

From: Chief Counsel

Subject: Docket No. DMEA-3288, Kathleen Margaret Mining Company

In your memorandum for me of April 28 you inquire concerning the proper procedure with respect to a proposed assignment of the exploration contract and transfer of the land. I suggest that you reply to Mr. Lorain's teletype as follows:

> "If the pending contract has not been signed and is not now in effect, Alaska Copper Mines, Inc., should file an application for a contract, and show in the application its interest in the land. If the pending contract has been executed and is in effect, the Operator should request permission of the Government to assign the contract to Alaska Copper Mines, Inc., and should explain what interest the assignee will have in the land."

J. L. Hofflund

J. L. Hofflund
Chief Counsel

JLHofflund/emd
Copy to : Docket
Adm. R. File
J. L. Hofflund
chron.

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

500

April 28, 1954

Memorandum

To: Chief Counsel

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3288, Kathleen Margaret Mining Company partnership composed of Fred S. Pettyjohn, Jr., & Everett O. Albertson

Under date of April 2, a contract was mailed to Mr. S. H. Lorain, Executive Officer, Region I, to be forwarded to the Applicants for signature. I presume such contract was signed, although no signed copies have as yet been returned to this office.

We have now received the attached teletype from Mr. Lorain stating that the Applicants (who are owners of the land covered by the project) have granted an option to Alaska Copper Mines, Inc., of Seattle and that this company wishes to take over the contract. We have no objection to such a transfer.

In that Mr. Lorain requests telegraphic advice as to the proper procedure, will you kindly advise us.

W. R. Griswold

W. R. Griswold

WRGriswold/bjl

Copy to: Docket
Base Metals
Chron.

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FM S H LORAIN BUR MINES JUNEAU ALASKA

TO C O MITTENDORF ADMIN DEFENSE MINERALS EXPLORATION ADMIN WASHDC

MINES GRNC

ALASKA COPPER MINES INC OF SEATTLE HAS ACQUIRED OPTION ON K M COPPER DEPOSIT AND WISHES TO TAKE OVER CONTRACT DOCKET 3288 PREPARED FOR ALBERTSON AND PETTYJOHN PD PLEASE ADVISE BY WIRE THE BEST PROCEDURE

CFN 3288
27/0133Z

EU 0206Z

INTERIOR
APR 27 1954
SECRETARY'S
MAIL CENTER

208808

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

Crawford
Betty

April 26, 1954

Docket

Memorandum

To: Operating Committee, Defense Minerals Ex ploration Administration

From: Executive Officer, Region I

Subject: Proposed Contract, Docket DMEA-3288, K-M Copper Mine, Albertson and Pettyjohn

The contract for the proposed trenching program at the subject project was forwarded to the applicants on April 6 but I have had no reply from them.

A few days ago I received a telephone call from Mr. Don Zellweger of the Alaska Freight Lines Company to the effect that his company has taken an option on the property and that, in consequence, the locaters are now out of the picture. Obviously this does not constitute an official denial of the contract but I think that you should be informed of the situation.

Mr. Zellweger made tentative overtures for a DMEA contract with Alaska Freight Lines but his proposal was for development purposes which I explained could not be undertaken by DMEA. I suggested to him the possibility of a preliminary trenching contract to be followed later by deep exploration if warranted but I have not had any reaction to that.

S. H. Lorain
Executive Officer

xxxxxxxxxxxxxxxxxx

P. O. Box 560
Juneau, Alaska
April 6, 1954

Griswold
Betty

Docket

Mr. Robert A. Parrish
Attorney at Law
544½ Second Avenue
Fairbanks, Alaska

re: Docket No. DMEA-3288
Kathleen-Margaret Mining Company

Dear Mr. Parrish:

I am enclosing, herewith, six copies of Contract Idm-667 which provides for government participation with the Kathleen-Margaret Mining Company in the exploration project referenced above. If the contract is satisfactory to the principals please have them sign all copies, retain the copy which is marked "Operator's Copy" in the upper right-hand corner, and return the other copies to me.

Inasmuch as all copies already have been signed by the Administrator, D.M.E.A., the contract will be in effect (as of April 2, 1954) as soon as they are signed by the operators.

You will note that some minor changes in the cost estimates and allowances have been made in order to provide for the proper cleaning, mapping and sampling of the trenches. These changes were made on the initiative of the Field Team in order to save the time needed for referring back to the applicants; if they are not satisfactory, or if there is any question about them or about other phases of the contract, we will be happy to try to straighten them out.

Yours sincerely,

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

Enclosures

cc: Operating Committee, DMEA
C. L. Sainsbury

FILE COPY
Surname

Griswold
Chairman
Selfridge
Mr. Lemon
Mr. Wallentof

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

APR 2 1954

T E L E T Y P E

WRGriswold/bjl,Rm.4058,Ext.3669

Base Metals Div., DMEA

14X4401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to Office of Secy.)

Date:

To: S. H. Lorain, Executive Officer, DMEA Field Team, Region I, Juneau, Alaska

Reurlet March 22, Docket DMEA-3288, Kathleen Margaret Mining Company. Copies of signed contract, prepared according to your recommendations, being mailed to you. You may advise applicants.

George C. Selfridge

Chairman, Operating Committee

Written 4/1/54

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals (DMEA)
Accounts
Mr. ~~Ethan~~ Bishop
Mr. Kinkel
Chron.

R.C.B.

FILE COPY
SURNAME

Griswold
Chambers
Selfridge
Jr Jr Mason

500

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

APR 2 1954

Mr. S. H. Lorain
Executive Officer
DMEA Field Team, Region I
Bureau of Mines
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-3288 (Copper)
Kathleen Margaret Mining Company
Albertson-Pettyjohn Prospect
Talkeetna Precinct, Alaska

Dear Mr. Lorain:

Referring to your letter of March 22, regarding the cited application, we are enclosing the original and five copies of the contract, signed by this office for the Government, which we believe have been prepared in accordance with your recommendations.

If you approve of the contract please present it to the Applicants for signature and, when signed, distribute the copies in the usual manner. If you do not approve and if any proposed changes should lie beyond the range of your delegated authority, please return all copies to this office with your comments.

Sincerely yours,

George C. Selfridge (JHB)
Chairman, Operating Committee

Enclosures 6

WRGriswold/bjl (4/1/54)

APPROVED:

J. H. Hedges
Member, Bureau of Mines (JHB)

D. M. Larrabee
Member, Geological Survey (JHB)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Bishop
Mr. Kinkel
Chron.

R.C.S.

FILE COPY
SURNAME:

Rubin

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

March 30, 1954

Memorandum

To: The Administrator
Through: Mr. W. R. Griswold

From: Chief Counsel

Subject: Kathleen Margaret Mining Company, Docket No. DMEA-3288 (Copper)

Attached in satisfactory legal form for execution is a contract covering the above-described project, subject to the attachment of the maps referred to therein.

J. L. Hofflund

J. L. Hofflund
Chief Counsel

Attachments

HCRubin:ep

Copy to: Docket
Mr. Griswold
Mr. Hofflund
Mr. Rubin
Chron.

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

March 26, 1954

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3288 (Copper) K-M Copper Mine

I have reviewed the above named application and understand you have a memorandum from Lorain approving the recommendation in the accompanying report by Chapman and Sanders, also that you talked with Sainsbury about it, and that he urged prompt and favorable consideration. I believe the information in the report justifies a small exploration project, and that the trenching (not the adit) is a good way to begin. Obviously, our field men should try to watch the job closely enough to stop it or re-direct it as required.

The application is returned herewith. I should, however, like to have a copy of the Chapman-Sanders report for the Bureau of Mines file, if one can be spared.

C. H. Johnson
C. H. Johnson

Attachment

Copy to - Mr. Newcomb, GSA
Minerals Division
Base Metals Branch
Files

Cedarwood

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

MAR 2 6 1954

Adams - x2017

DMEA, Dep't of Interior

14X3923.970 Working Fund

Interior, DMEA

Kathleen-Margaret Mining Co.
544-1/2 Second Ave.
Fairbanks, Alaska

Ref. our letter March 22. Copy of Field Team Report inadvertantly included with copy of application form MF-103. Please return copy of Field Team Report immediately.

C. O. Mittendorf (for)

C. O. Mittendorf
Administrator, DMEA

cc: Docket
Adm. Reading File
R. E. Adams

REAdams/hhr 3/26/54

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

(00)

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=Int'l Letter Telegram

VLT=Int'l Victory Ltr.

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REFER DMEA 3288 K M COPPER MINE CLAIM LOCATION NOTICES WERE RECORDED IN TALKEETNU PRECINCT ALASKA=

ROBERT A PARRISH ATTY AT LAW=

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 26 1954

DMEA 3288=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

MAR 26 6 40 AM '54
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

19 MAR 25 PM 6 13
OLY

IN REPLY REFER TO:

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

March 25, 1954

Re: DMA-3288
Kathleen-Margaret Claims
Talkeetina District
Alaska
12,728
Copper

Memorandum

To: Mr. W. R. Griswold

From: E. L. Newcomb

Subject: Recommendation for approval

The applicant requests assistance to explore along the strike of a prominent copper vein zone, by bulldozing 15 transverse trenches on the Kathleen-Margaret No. 1 claim.

The field team recommends the proposed work be approved.

An examination report by Robert M. Chapman, USGS, and Robert H. Saunders, Territorial Department of Mines, indicates that further exploration on the property is warranted.

Strong copper mineralization occurs in a prominent quartz vein about 10.5 feet wide which strikes north and dips vertically. Several outcrops occur on the south slope of the ridge, but talus covers a large part of the vein. The best exposure of the vein is about 180 feet above Discovery Creek. The richest ore occurs in a 1.5-2-foot zone which assays 30-45 per cent copper. Assays of a 7-foot zone adjacent to this high grade ore range from 3.5-12.5 per cent copper. The chief copper minerals are bornite and chalcopyrite with small amounts of malachite very common on weathered surfaces.

Though outcrops are limited along the strike of the vein, the present exposures indicate that further exploration is justified geologically.

I recommend that the proposed trenching project be approved.

E. L. Newcomb
E. L. Newcomb
Geologist

Atomic Energy Commission
Oak Ridge, Tennessee
RECEIVED
APR 2 1954

ON-SITE Report

Levelset

THE K-M COPPER PROSPECT ON THE UPPER MACLAREN RIVER, ALASKA

(DOMEA-3288)

Joint report by

Robert M. Chapman
U. S. Geological Survey
College, Alaska

Robert H. Saunders
Territorial Department of Mines
College, Alaska

March 1954

Removed by DMEA Operating Com. 3-31-54

2 1954

CONTENTS

Page

Abstract 1

Introduction 1

Location and accessibility 2

Physical features and climate 4

Property and ownership 6

Geology and mineral deposits 7

Geology 7

Mineral deposits 9

Sampling and assays 12

Conclusions and recommendations 13

References 15

ILLUSTRATIONS

Figure 1 - View of upper outcrop of 10.5-foot copper-bearing vein on Discovery Creek 16

Figure 2 - A portion of the 10.5-foot vein showing the rich zone of bornite-chalcopyrite ore 16

Figure 3 - View looking north up Maclaren Glacier from a point near mouth of Discovery Creek 17

Plate 1 - Vicinity map of upper Maclaren River

Plate II - Sketch map of claims showing Albertson-Pettyjohn copper prospect, Maclaren River, Alaska.

ABSTRACT

The K-M copper prospect is in the Mt. Hayes quadrangle on the west side of the Maclaren Glacier about 25 miles south of the peak of Mt. Hayes. The proposed route of the Denali Highway is about 9 miles south of the prospect.

Several veins have been discovered on the prospect, but only one appears to be minable. The vein is about 10.5 feet thick; it strikes N. 3-4°E. and dips 70-90°W. Along its east wall there is a zone of nearly barren quartz 1.5 to 2 feet thick. The richest ore, samples from which have assayed 30 to 45 percent copper, is confined to a zone about 1.5 to 2 feet thick adjacent to the nearly barren zone. Assays of samples from the remainder of the vein, about 7 feet thick, have ranged from 3.5 to 12.5 percent copper.

INTRODUCTION

In 1950 Mr. E. O. Albertson and Mr. Fred S. Pettyjohn, Jr., both of Big Delta, Alaska, formed a prospecting partnership and began prospecting in the vicinity of Chistochina, a gold-placer district on the south slope of the Alaska Range about 20 miles east of the Richardson Highway. From Chistochina they gradually worked westward until they reached the Maclaren River drainage. In 1952 Mr. Pettyjohn discovered an outcrop of a copper-bearing vein on the west side of the Maclaren Glacier.

On August 11 to 14, 1953, the copper-bearing outcrops and adjacent area were examined by Robert M. Chapman of the U. S. Geological Survey and Robert H. Saunders of the Territorial Department of Mines. This report is written from notes taken during that examination and from information furnished by Albertson and Pettyjohn.

LOCATION AND ACCESSIBILTY

The K-M copper prospect is in the Mt. Hayes quadrangle at 63° 17' N. latitude and 146° 35' W. longitude. It is in the Valdez Creek subdistrict of the Cook Inlet-Susitna region (U. S. Bureau of Mines classification). The claims lie on the west side of the Maclaren Glacier about 25 miles south of the peak of Mt. Hayes. A side-glacial stream flows along the lower part of the west side of the glacier; it is fed by eastward-flowing tributaries that head in ice fields on the ridge west of the glacier. The main outcrop is in the north wall of the gulch that has been eroded by Discovery Creek, named by Albertson and Pettyjohn, the first tributary upstream from the terminus of the glacier. This outcrop is at an altitude of 4,100 feet.

The prospect is about 9 miles north of the proposed route of the Denali Highway between Paxson and Cantwell, which is now under construction. The extent of the road at the end of the 1953 working season is shown on plate I. By the end of 1954 the road probably will be completed as far as the Maclaren River.

An access road from the prospect to the Denali Highway would be 9 to 10 miles long. The flood plain of the Maclaren River probably would provide the best route for the first 7 or 8 miles of the access road. The flood plain consists mostly of coarse well-drained gravel, it appears that the building of a road on the gravel would require little more than clearing boulders from the roadway. A mile or two south of the prospect the road would leave the flats and climb the lower slopes on the west side of the river; this part of the road would be more difficult to build, but there are no obstacles that would make the cost of road-building prohibitive.

After the necessary roads are built, the prospect will be 50 miles from Paxson, 245 miles from Valdez, and 450 miles from Seward by road. Shipping over the Alaska Railroad would require a truck haul of 105 miles to Cantwell; the distance by rail from Cantwell to Seward is 320 miles.

There are only a few small lakes within 10 miles of the copper prospect, and the closest lake that is suitable for use by small pontoon-equipped aircraft is located near the west bank of the Maclaren River about 2.5 miles south of the terminus of the Maclaren Glacier and about 5 miles south of the prospect. There are several large lakes 12 to 20 miles southeast of the prospect area that would be suitable for larger pontoon aircraft.

A landing field large enough for multi-engine aircraft could be constructed on the braided flood plain of the Maclaren River. Many

stretches of the alluvial gravel between Cottonwood Creek and Maclaren Glacier are nearly smooth and clear enough in their natural state to serve as a landing strip. If a permanent strip is built on the flood plain, it will be necessary to raise the level of the runway surface and possibly to build protective dikes to prevent flooding during extreme high water stages, as channel shifting is frequent in the braided channel areas.

At present the best way to reach the prospect is by small pontoon aircraft from one of the lakes along the Richardson Highway to the small lake on the west side of the Maclaren River. Arthur Smith at Summit Lake and C. P. McMahan at Meier Lake both fly pontoon planes that can be chartered for this trip.

PHYSICAL FEATURES AND CLIMATE

The upper Maclaren River area is a part of the rugged glaciated south slope of the Alaska Range. The altitudes in the area range from about 3,000 to 8,000 feet above sea level, and the copper-bearing veins are exposed at altitudes of 3,800 to 4,100 feet. The mountain slopes are predominantly steep, and the average relief is approximately 2,000 feet. The main Maclaren River valley and the other large valleys are wide, flat-floored, typical glacial valleys, and the smaller tributary valleys are either small glacial valleys with moderate gradients, or small, sharp post-glacially eroded valleys with gradients steep enough to produce cascades and small waterfalls. Many of the small glacial hanging valleys are connected to the amin valley by a post-glacial notch in their lip. Discovery Creek is an example of this.

There are several glaciers in the vicinity of the copper prospect. The large Maclaren Glacier is about 10 miles long and occupies the head of the main Maclaren valley. A number of cirque glaciers and small icefields, remnants of larger tributary glaciers, are present at altitudes of 5,000 feet and higher in the peaks between the Maclaren River and the West Fork.

A flow of water adequate for the needs of a camp and mining operations is available during the summer months from any of the small streams that are fed by snow fields and glaciers. In addition to the melt water, precipitation is frequent in this area during the summer, according to Pettyjohn's report and the writers' experience during the field examination. The Maclaren River carries a large volume of water, but much of its upper course is braided, and fordings with tractors and other equipment can be made in the braided stretches if reasonable care is used.

The area within several miles of the copper prospect and the Maclaren Glacier is devoid of timber. The vegetation consists of scrub willows and alders in the main valley floor and in a few protected valleys, and low brush and small tundra plants, mosses and lichens on the slopes and mountains. Timber line in this part of the Alaska Range is at an altitude of 2,500 to 3,000 feet. It is reported that some spruce timber of usable size can be obtained on the Maclaren River about 9 miles south of the terminus of the Maclaren Glacier, but most of the timber would have to be hauled from greater distances.

The climate in this area is moderately severe. Weather records for 7 years between 1914 and 1944 taken at Paxson, about 36 airline miles east-southeast of the copper prospect, show 18.36 inches mean annual precipitation, most of which falls during the period of June through September. The snowfall is fairly heavy from October through April, ranging from 10 to 22 inches per month. Written records, and personal observations indicate that cloudy skies and strong winds are common. The annual mean temperature at Paxson is 25.3 degrees. The mean maximum temperature during June, July, and August is about 65 degrees, and during December and January is about 8 degrees. The mean minimum teperature is about 37 degrees during June, July and August, and about -12 degrees during December and January.

PROPERTY AND OWNERSHIP

The two owners have staked ten claims to cover the veins that they have discovered. The claims are designated Kathleen-Margaret Numbers 1 to 10. The positions of the claims are shown on plate II; claim No. 10 was staked after the examination was made. Each claim is owned jointly by the two partners. The location certificates are recorded in the records of the U. S. Commissioner at Talkeetna, Alaska.

GEOLOGY AND MINERAL DEPOSITS

Geology

Little time was available for general study of the rock formation during the visit to the copper prospect, and only the rock exposed in the immediate area of the prospect was examined. The formations have been generally defined and mapped by Moffit (1912) and distant observations and examination of aerial photographs confirm his reconnaissance mapping.

The country rock in which the copper-bearing quartz veins occur is chiefly a green diabasic lava. Moffit assigned a late Carboniferous or early or middle Triassic age to this unit, which is exposed in a west-trending range of low mountains that lies between Summit Lake and the Susitna River. Capps (1940, pl. 2) shows the same unit as pre-Cretaceous (Mesozoic). As described by Moffit (1912, p. 29-30).

> "The rocks consist largely of diabase and locally are amygdaloidal. They are associated with argillites, tuffs, and tuffaceous conglomerates in a number of places and are intruded by diabases and by dikes of less basic, light-colored porphyritic rock. Intrusions of peridotite have taken place in the Tangle Lakes vicinity, and probably also in other places, for boulders of this character were found in some of the younger conglomerates near the glacier at the head of the east fork of Maclaren River. The lava flows have been deformed in the general folding of the region so that steep dips are common, and schistosity is occasionally developed."

Apparently the oldest rocks in the area lie east of the Maclaren Glacier and northeast of the copper prospect. These rocks, correlated by Moffit with the Chisna formation of Mendenhall (1905), lie in a west-trending belt on the south side of the Alaska Range. This formation extends eastward from the Maclaren Glacier to the Summit Lake area, but has not been recognized west of the Maclaren valley. The Chisna formation was not examined in the field, but Mr. Pettyjohn reports that he found no mineralization in the parts of it that he prospected. As described by Moffit, (1912,p. 27-28) the formation consists of quartzite, tuffaceous beds, and metamorphosed limestones with associated granular intrusives. Many of the weathered surfaces of this formation have a rusty red color that is particularly conspicuous.

Rocks of probable Triassic age include limestone, conglomerate, and thick units of slate with intercalated basic igneous flows or intrusives, all of which are cut by granular intrusives of dioritic or related compositions. These rocks are exposed on the west side of Maclaren valley about 2.5 miles north of Discovery Creek, and they form an outcrop belt that extends west-southwestward from this point. Triassic rocks apparently are not exposed in the area between the Maclaren River and the Richardson Highway.

The Jurassic rocks, as described by Moffit, consist of gray quartz diorite and mornblende diorite that in part show well developed cleavage and schistosity. They occur as dikes, sills, and large,

irregular, intrusive masses. Several small masses of Jurassic rocks were mapped by Moffit (1912, pl. 11) on both sides of the Maclaren valley in the area just north of the copper prospect. An igneous mass of batholithic size lies in the Susitna River drainage about 5 to 12 miles west of the Maclaren Glacier.

The geologic mapping of this region is of the general reconnaissance type. Additional reconnaissance and semi-detailed geologic mapping of the south slope of the Alaska Range between the Richardson Highway and the Alaska Railroad should be done to provide both basic geologic and economic data.

Mineral deposits

Several quartz veins bearing bornite and chalcopyrite with malachite surface alteration occur in the vicinity of Discovery Creek, a western tributary of the Maclaren River near the terminus of the Maclaren Glacier (see map pl. II). The largest and richest vein is located on the steep north slope of Discovery Creek about 3,200 feet upstream from the mouth. This vein is about 10.5 feet thick, and strikes N. 3-4° E., and dips 70-90° W. Mineralized talus from this vein can be traced down the slope to Discovery Creek and downstream in the creek gravel. The best exposure of the vein is near the top of the valley slope about 180 feet above the bottom of the valley; it is from this outcrop, which had been dug out for sampling and examination, that the authors obtained samples. The vein crops out at several places down the slope within a vertical

distance of about 80 feet, and the width and mineralization appear to be fairly uniform throughout this distance. The richest ore, samples from which have assayed 30 to 45 percent copper, is confined to a zone about 1.5 to 2 feet thick within the vein. Assays of samples from an adjacent zone about 7 feet thick have ranged from 3.5 to 12.5 percent copper. In addition appreciable amounts of silver and traces of gold are noted in the samples from both zones. The gold content seems to be higher in the lower grade copper bearing material than in the rich zone.

Two small quartz veins about 30 feet apart containing bornite and chalcopyrite with malachite surface alteration crop out on the south side of Discovery Creek about 200 feet downstream from the 10.5-foot thick vein. These veins are 0.75 to 1.0 foot thick and have several 1 to 2 inch thick barren quartz veinlets associated with them. One vein strikes N. 35° E. and dips 60° south. Samples taken from widths of 0.75 foot in these veins assayed 1.58 percent (sample No. 12) and 2.95 percent (sample No. 13) copper with only traces of gold and silver. The bedrock in this zone is a highly fractured, dark grayish-green flow(?) rock and includes light apple-green pods and small dikes that are composed largely of epidote (?). Thin, sheared zones of blackish-green serpentine and/or chlorite are associated with the quartz veins. Some brick-red iron staining is present in this fractured zone.

A small quartz vein, banded with bornite, and calcite, crops out on the south side of Discovery Creek about 1000 feet above the mouth. Chalcocite, chalcopyrite, and epidote have been identified in other specimens from this vein. This vein, which is 0.4 foot thick, strikes N. 15-20° E., and is vertical, appears to continue northeastward for at least 100 feet to another small vein outcrop. A sample (No. 11) taken across the width of the vein assayed 1.33 percent copper, a trace of gold, and no silver or nickel. Albertson and Pettyjohn reported that their sample from this vein showed 2 percent copper and a trace of nickel.

Another small quartz vein is exposed on a rock knob on the east side of Spray Creek about 600 feet downstream from Discovery Creek. This vein strikes N. 30° E. and dips 75-90° southeast. It contains traces of copper minerals and has some greenish-black serpentine streaks and pockets and some epidote within the quartz.

A quartz vein bearing some chalcopyrite and bornite with malachite surface staining is exposed in a small gully tributary to Discovery Creek about 600 feet upstream from the 10.5-foot vein. It is 3 to 5 inches thick and can be traced laterally for at least 20 feet. The rock exposed in the gully has slumped, but the vein appears to strike N. 20° W. and to dip 60° north.

Minor amounts of malachite occur on weathered exposures of the copper-bearing veins, but azurite occurs only rarely. Chrysocolla has been identified in at least one sample that was collected by the owners.

In addition to the above mentioned veins that were examined by the writers, Mr. Pettyjohn reports that there are several copper-bearing veins about 2.5 miles southwest of Discovery Creek on the slopes of Cottonwood Creek valley. Several specimens from veins are said to assay 0.5 to 1.5 percent copper, and one piece of float assayed 40.85 percent copper. Samples from a 51-inch thick quartz vein close to the high grade float had copper assays ranging from nil to 1.43 percent. The 51-inch vein reportedly is cut off at one end by a fault. Pettyjohn plans further prospecting in the Cottonwood Creek and West Fork area. Pettyjohn also reports that he found no metallization on the east side of the Maclaren valley or on the west side north of Spray Creek.

SAMPLING AND ASSAYS

Six samples taken during the field examination were assayed by the Territorial Department of Mines Assay Office at College, Alaska, and the results of the assays are shown in table I. The sampling points are shown on plate II.

Table I

Sample No.	Width sampled	Ounces per ton gold	silver	Percent copper
11	0.40 ft	Tr	Nil	1.33
12	0.75	Tr	Tr	1.58
13	0.75	Tr	Tr	2.95
14	2.00	Tr	Nil	0.27
15	1.75	Nil	2.55	30.45
16	7.00	0.18	1.20	8.99

Samples No. 14, No. 15, and No. 16 are rough channel samples that were taken across the uppermost outcrop of the main 10.5-foot vein. Sample No. 14 represents a band of barren quartz 2 feet wide on the east side of the vein. Sample 15 represents a band of "high grade" adjacent to the barren quartz; it varies in width from 1.5 to 2 feet. The high grade band sonsists mostly of bornite and contains minor amounts of chalcopyrite and quartz probably with a few other minerals. The remainder of the vein, represented by sample No. 16, varies from 6.5 to 7.5 feet in width; it consists of quartz inpregnated with bornite and chalcopyrite. The three bands in the vein appear to be consistent in width. The vein is exposed at several points over a distance of about 150 feet on the slope.

Sample No. 11, No. 12, and No. 13 were tested for nickel; none was present. The owners reported that there was a trace of nickel in a sample that they took from the vein from which sample No. 11 was taken. The owners have taken several samples across the high grade band in the main vein; all of these have assayed more than 40 percent copper. Samples taken by the owners from the 7-foot band of quartz, bornite, and chalcopyrite on the west side of the vein have assayed from 3.5 to 12.5 percent copper.

CONCLUSION AND RECOMMENDATIONS

The 10.5-foot bornite-chalcopyrite-quartz vein on Discovery Creek is worthy of further exploration. The tenor and the apparent down-dip continuity of the vein indicate a minable deposit if the vein has

sufficient continuity along its strike. Unfortunately the ridge top to the north of Discovery Creek is completely covered by vegetation, and no surface indications of the vein or bedrock can be found without trenching. Several types of exploratory work could be done on this vein, depending upon the amount of money and equipment available:

1 - Bulldozer trenching at intervals on the strike of the vein on the ridge top north of Discovery Creek.

2 - Diamond drilling on the ridge top to intersect the strike projection of the vein at relatively shallow depth.

3 - Driving an adit on the vein on the north slope of Discovery Creek.

4 - Hand trenching on the slope above and below the outcrop to test the vertical extension of the vein.

In addition to prospecting the 10.5-foot vein, additional prospecting of the Discovery Creek area and the westward extension of the outcrop belt of basaltic lavas should be carried on. The headwaters of Cottonwood Creek and the West Fork are a virtually unknown area, and the basaltic lava formation continues westward to the Susitna River. Moffit (1915,p. 76) points out that a vein of chalcopyrite was found on Butte Creek, just west of the Susitna River, and that copper bearing minerals have been found in the lava flows between Butte and Wachana Creeks and the Susitna River.

REFERENCES

Capps, S. R., 1940, Geology of the Alaska Railroad region; U. S. Geol. Survey Bull. 907.

Mendenhall, W. C., 1905, Geology of the central Copper River region, Alaska; U. S. Geol. Survey Prof. Paper 41.

Moffit, Fred H., 1912, Headwaters of the Gulkana and Susitna Rivers, Alaska; U. S. Geol. Survey Bull. 498.

Figure 1

View of upper outcrop of 10.5-foot copper-bearing vein on Discovery Creek.

Figure 2

A portion of the 10.5-foot vein showing the rich zone of bornite-chalcopyrite ore. This zone is 1.75 to 2 feet wide.

Figure 3

View looking north up Maclaren Glacier from a point near mouth of Discovery Creek.

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

March 22, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region I

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA - 3288 K-M Copper Mine

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

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

March 22, 1954
Subject: DMEA-3288
Re: Exploration Assistance
K-M Copper Mine

K-M Copper Mine
514-1/2 Second Ave.
Fairbanks, Alaska

Dear Sirs:

The receipt of your application dated March 6, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

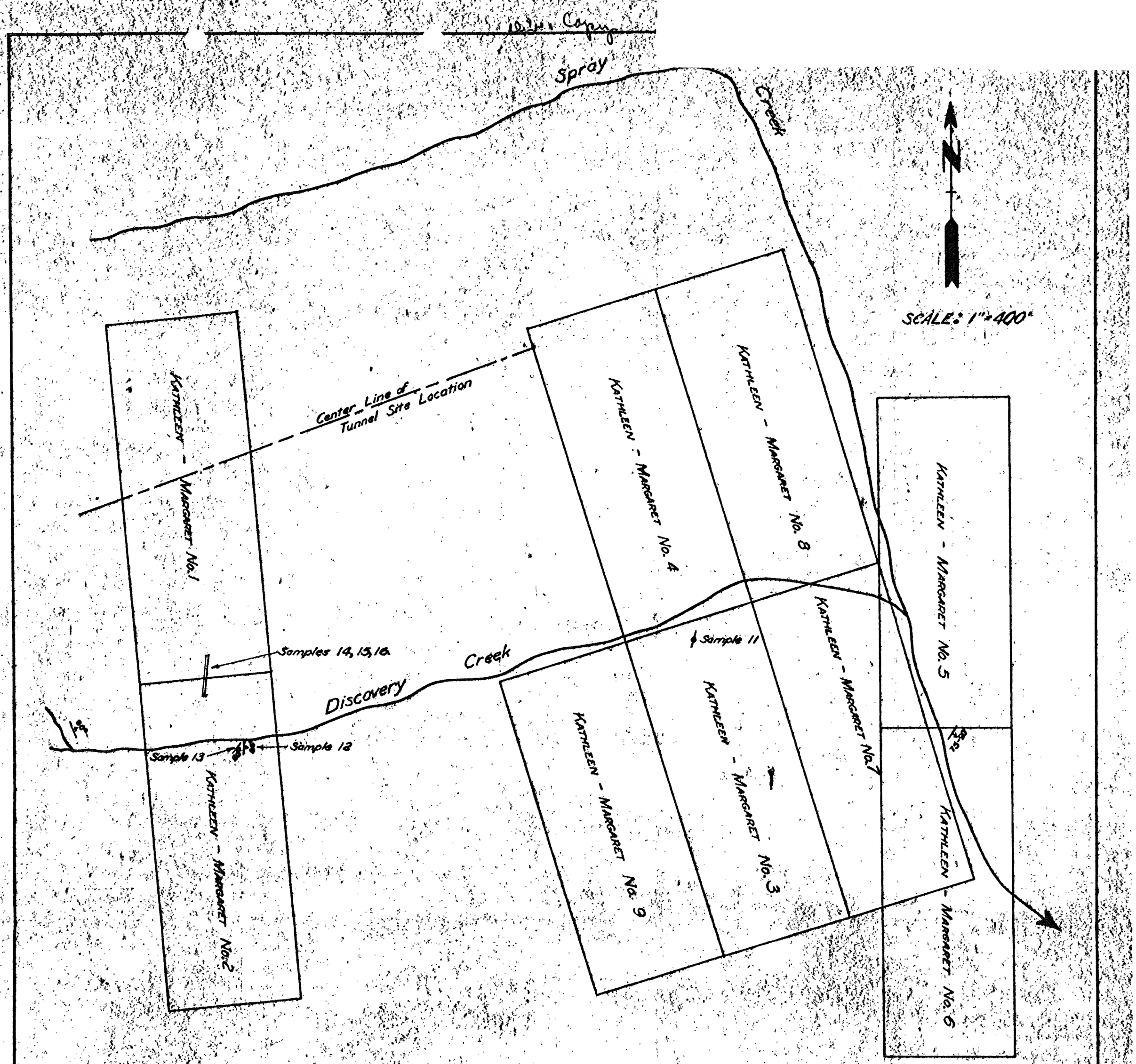
Your application has been assigned Docket Number DMEA-3288 and referred to the Base Metals Division.

Kindly refer to DMEA-3288 in any future correspondence relating to your application.

Sincerely yours,

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

NOTE: Only four copies of the application form are required by the DMEA. The fifth copy is therefore being returned for your files.



SKETCH MAP OF CLAIMS
ALBERTSON-PETTYJOHN COPPER PROSPECT
MacLaren River, Alaska

/ - Outcrop of copper-bearing vein.

From compass survey by R.M. Chapman, U.S. Geological Survey, and R.H. Saunders, Alaska Terr. Dept. of Mines.
Drawn by R.H. Saunders
September, 1933

Fig. 1 DMEA 3288

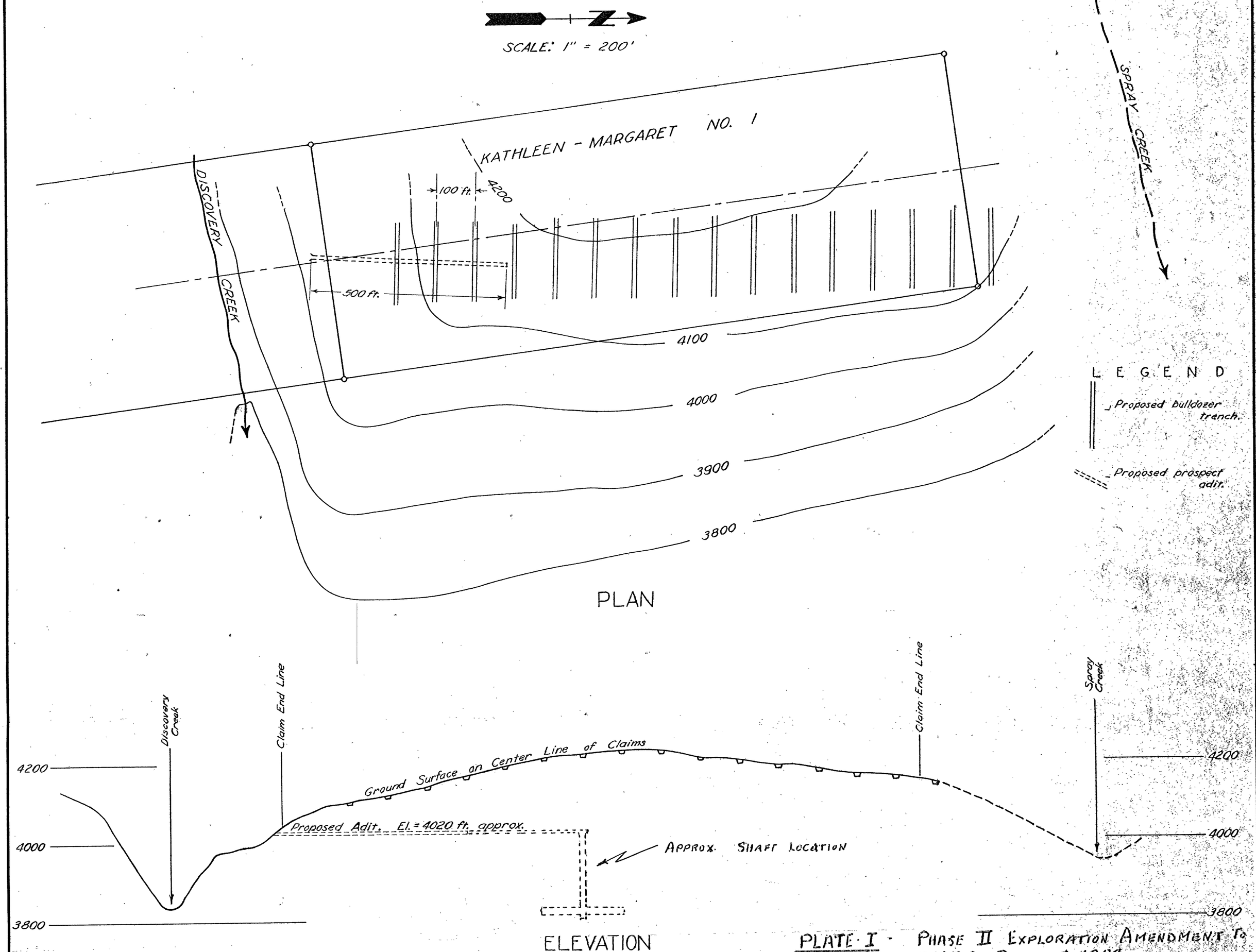


PLATE I - PHASE II EXPLORATION AMENDMENT TO D.M.E.A. DOCKET # 3288

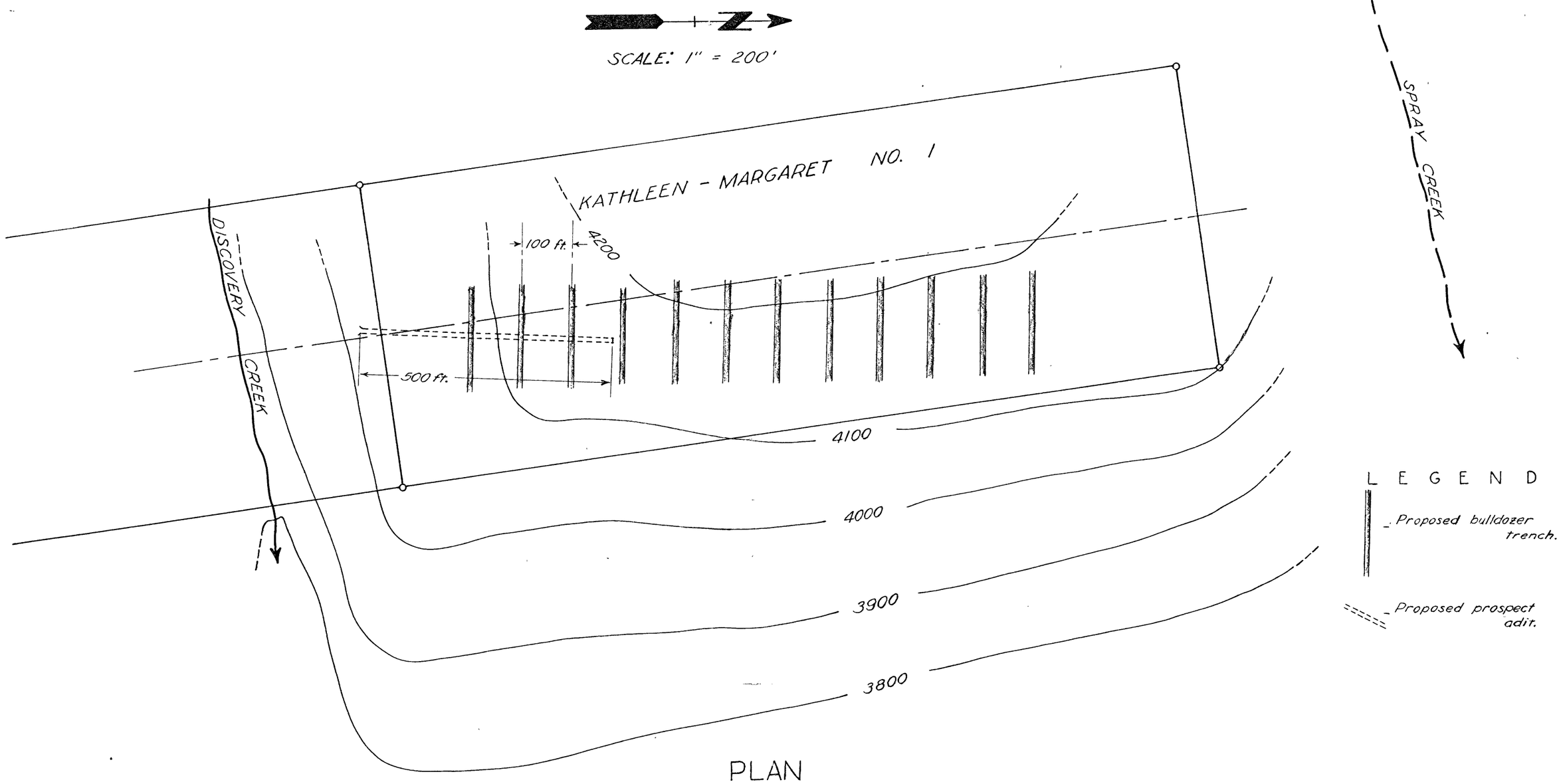
DIAGRAM OF PROPOSED ADIT AND ~~TRENCHES~~ SHAFT

ALBERTSON-PETTYJOHN COPPER PROSPECT

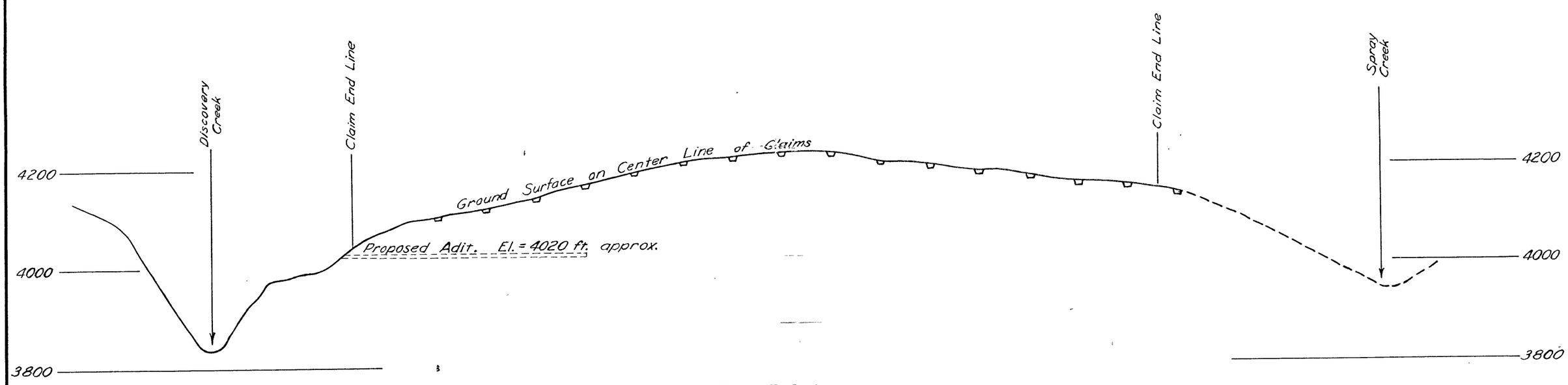
MacLaren River, Alaska

Elevations by aneroid based on assumed elevation of 3100 ft for camp near foot of MacLaren Glacier. Surveyed by R.M. Chapman, U.S. Geological Survey, and R.H. Saunders, Alaska Terr. Dept. of Mines. October 1953
Drawn by R.H. Saunders

Plate I



PLAN



ELEVATION

DIAGRAM OF PROPOSED ADIT AND TRENCHES

ALBERTSON-PETTYJOHN COPPER PROSPECT

MacLaren River, Alaska

Elevations by aneroid based on assumed elevation of 3100 ft for camp near foot of MacLaren Glacier. Surveyed by R.M. Chapman, U.S. Geological Survey, and R.H. Saunders, Alaska Terr. Dept. of Mines.

Drawn by R.H. Saunders *October 1953*

Fig. 2 DMEA 3288

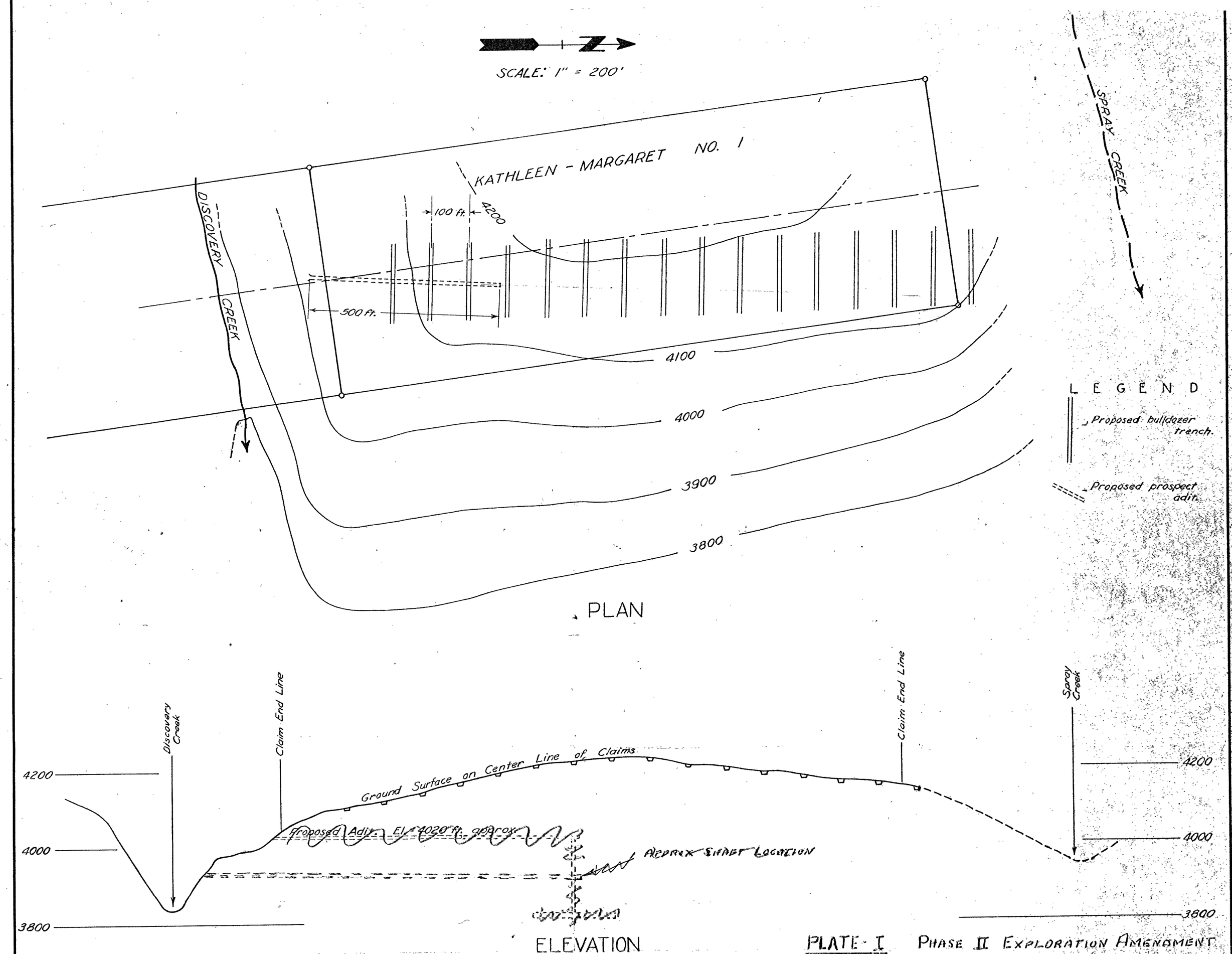


PLATE - I PHASE II EXPLORATION AMENDMENT TO D.M.E.A DOCKET #3288

DIAGRAM OF PROPOSED ADIT AND ~~TRENCHES~~ SHAFT

ALBERTSON-PETTYJOHN COPPER PROSPECT

MacLaren River, Alaska

Elevations by aneroid based on assumed elevation of 3100 ft for camp near foot of MacLaren Glacier. Surveyed by R.M. Chapman, U.S. Geological Survey, and R.H. Saunders, Alaska Terr. Dept. of Mines. October 1953

Drawn by R.H. Saunders

Plate I