UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated ☒ Cancelled ☐ Withdrawn ☐ DMEA No. 24-3

This is the official contract file of a project closed without certification. It contains all official records of the project arranged in this manner:

Left Side

Certificate of Audit (Final).

Interim Audit(s).

✓ Report of Review.

✓ Closing Letter Written before Am #2

Termination Notice or Agreement.

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.

✓ Schedule of Collections.

✓ Operator's monthly reports and all attachments (latest on top).

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)

Operator's Final Report.

✓ Interim Reports.

✓ On-Site Exam Report(s). (Tab)

Settlement Sheets.

Review of application - not "on-site"

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number ____

Operator's Monthly Reports in folder number ____

Reviewer's Initials and Date EL-1/29/50

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

SUPPLEMENTAL REPORT OF REVIEW

On September 17, 1953, a Report of Review in lieu of a final audit was issued by C. A. Turner, Auditor, as a result of his examination of the Monthly Reports of:

I. W. and Sara E. Purkaypile
P. O. Box 572
Fairbanks, Alaska

pertaining to Exploration Project Contract No. Idm-E353, Docket No. DMEA-2453, including Amendment No. 1, for the period of June 24, 1952 to February 4, 1953 covering a project for the exploration of tin (and incidental gold) on property on Tosimoran Creek and Ash Creek in the Fort Gibbon Mining District of the Territory of Alaska.

The exceptions, aggregating $675.10, taken by this review included $500.00 for supervision costs in excess of the $1800.00 (3 mos. @ $600.00 per mo.) allowable maximum specified in the contract. However, by Amendment No. 2, dated May 26, 1954, the contract was amended to allow one additional month's supervision costs on the premise that:

(1) both the Operator and the Regional DMEA Field Team construed the contractual limitation on supervision as applying only to the monthly rate and not to the number of months; and
(2) the additional supervision was necessary for the performance of the work.

Accordingly, an additional $500.00 for supervision costs is allowed by this supplemental Report of Review.

The findings of the Report of Review are adjusted to read as follows:

Total cost as billed by Contractor	$17,693.73
Less: Salvage proceeds on property	470.50
Net cost as claimed by Contractor	17,223.23
Exceptions	175.10
Total Accepted Costs	$17,048.13

The contract calls for a 90 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Fifteen thousand three hundred forty-three and 32/100 Dollars

$15,343.32

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.

J. L. Chambers
Auditor

July 27, 1954

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

I. W. and Sara E. Purkeypile, (a Partnership)

Fairbanks, Alaska

pertaining to Exploration Project Contract Number Idm 5353 Docket Number DMEA 2453 including amendment Number 1 for the period of June 24, 1952 to February 4, 1953 covering a project for the exploration of tin (and incidental gold).

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, consultation with the Executive Officer DMEA Field Team Region I, and a determination of the reasonableness and propriety of the costs.

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

(a) The administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible additional disallowances thereunder.
(b) The monthly Reports were completely supported by documentary proof of costs incurred under the contract.

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

Total Cost as billed by Contractor		$17,693.73
Less: Salvage Proceeds on Property	(Per Schedule)	470.50
Net Claimed Costs by Contractor		17,223.23
Exceptions (Per Schedule)		675.10
Total Accepted Cost		$16,548.13

The contract calls for a 90 per cent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Fourteen thousand eight hundred ninety three and 32/100 Dollars

-$14,893.32 -

is considered valid and proper.

C. A. Turner, Auditor

September 17, 1953

I. W. and Sara E. Purkeypile

SCHEDULES OF EQUIPMENT PURCHASES, DISALLOWANCES, AND INITIAL REPAIRS AND REHABILITATION

Equipment Purchased

Equipment purchased and charged to the project was sold to I. W. Purkeypile as follows:

1	Pumper 2"	$239.00
1	Suction Hose 2x25	72.00
2	Tents 16x16	110.00
1	Tent 10x12	49.50
		$470.50

An offer to purchase the Government's equity was made by letter January 29, 1953 for $423.45 by I. W. Purkeypile which was accepted by the Executive Officer DMEA Field Team Region I by letter February 4, 1953 as being fair and reasonable.

Disallowances

Supervision	$2,300.00	
Technical Services	250.00	
Total Claimed	$2,550.00	
Proper and allowable Accounting Costs claimed by the Operator in error as		
Technical Services	250.00	
Balance Supervision	$2,300.00	
Supervision on Allowable Maximum- 3 Months @ $600. per month	1,800.00	
Disallowance		$ 500.00
Freight Item Duplicated on October 1952 MF-104 10/11/52 Walt Wigger		175.10
Total Disallowances		$ 675.10

Initial Rehabilitation and Repairs

Items charged to this account by the Operator were an error of distribution in being charged to Initial Rehabilitation and Repairs. They are properly allowable supply items of cost to the project as follows:

3 Tents	$ 160.59
3 Mattresses	27.61
Miscellaneous Camp Supplies	37.55
Total	$ 225.75

Surname
Docket copy

700

FEB 25 1954

Ching
Ellis
Chamberlin

I. W. and Sara E. Purkeypile, a partnership
Box 572
Fairbanks, Alaska

Re: Docket No. DMEA-2453 (Tin)
Contract No. Idm-E353
Toximoran Creek
Fort Gibbon Mining Dist., Alaska

Dear Mr. Purkeypile:

This is with reference to the subject Exploration Contract between you and the Government.

The final report of review of the contract expenditures and the final report of the Field Team have been received and accepted by this Administration. The Operator's monthly report for October, 1952, is hereby accepted in lieu of a final report. Of the total amount of $18,000.00 approved under the contract, the total accepted cost of the project was $16,548.13, 90 percent of which, or $14,893.32, represented the Government's share. There were no unused materials, supplies, or equipment to be disposed of for the joint account of the Operator and the Government. The exploration work was completed in a satisfactory manner.

Because the results of the exploration were unfavorable, it is not our intention to make a certification of discovery or development which would create a lien against the subject property. We are, therefore, closing our books and records with respect to this project. Your attention is called, however, to Article 7 (d) of the Contract which requires the Operator to "keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract".

Your interest in the Exploration Program of the Defense Minerals Exploration Administration and your willingness to participate therein are appreciated.

Sincerely yours,

C. O. Mittendorf / fw

Administrator

MChing/gla
2-23-54
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. A. Renick, Rm. 3061
A.R.Kinkel, Jr. Rm. B-242A, GSA
Code 700 Mr. Ching DMEA Field Team, Region I (2)

R.C.H. 2-25-54

Government's copy

EXPLORATION PROJECT CONTRACT
I. W. and SARA E. PURKEYPILE
DOCKET NO. DMEA-2453

AMENDMENT NO. 2

It is agreed this 26th day of May, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and I. W. and Sara E. Purkeypile, partners, that Contract Idm-E353 (Docket No. DMEA-2453), dated June 24, 1952, as amended, is further amended, effective June 24, 1952, as follows:

Referring to Exhibit "A", "Estimated Costs of the Project," Category "(2) Labor, Supervision, Consultants," the item "1 - Supervisor at $600.00 per month* $600.00*," the time allowance for the supervisor is increased from three months to four months.

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

I W Purkeypile
I. W. Purkeypile (Partner)

By O P Mitchell
Administrator, Defense Minerals Exploration Administration

Sara E. Purkeypile
Sara E. Purkeypile (Partner)

Government Copy

I. W. AND SARA E. PURKEYPILE
P. O. Box 572
Fairbanks, Alaska

Docket No. DMEA 2453 (Tin) Contract No. Idm-E 353

AMENDMENT NO. I

Contract Idm-E353 dated ~~July 5,~~ June 24 1952, between the United States of America and I. W. and Sara E. Purkeypile is hereby amended as follows:

Description of the Work, under Exhibit A., is changed to read as follows:

The object of this exploration project is to determine by churn drilling, the tin (and incidental gold) content of the gravels within the property boundaries of the applicant, on Tesimoran Creek and Ash Creek. This work will consist of about 13 lines of churn drill holes of four or five holes per line, or as many holes and lines that can be drilled under the funds alloted by this contract. The approximate locations of the lines are shown on the attached maps, Figures 2 and 3. The holes are to be about 50 feet apart, and the lines of holes about 1,000 feet apart. Shafts or bulldozed trenches will be made, as directed by official representatives of the Government during field inspection of the project, to check on drilling results.

The number, location, length and depth of holes, shafts, or trenches will be subject to approval by the Government.

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

This amendment is effective as of September 8, 1952, and authorizes trenching done at the specific direction of Field Team representatives who visited the project September 5 to 9, 1952.

April 20, 1953

By C. L. Sainsbury
C. L. Sainsbury, Acting
Executive Officer, Region I.
Defense Minerals Exploration Adm.

I. W. Purkeypile
I. W. Purkeypile

OFFICE OF THE ADMIRAL
Defense Mineral Administration
RECEIVED
APR 27 1953

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

DOCKET NO. DMEA 2453

COMMODITY Tin

Idm-E353

Government's Copy

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

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this 24th day of June, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2]

I. W. and Sara E. Purkeypile, a partnership
Box 572
Fairbanks, Alaska

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 ~~xxxxx~~ Fort Gibbon Mining District, ~~County of~~ of Alaska, described as follows: [3]

See Annex I, attached to and made a part hereof

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~~
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 30 days from the date of this contract shall commence work on a project of exploration for [5] tin (and incidental gold)

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 90 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $16,200.00, which is 90 percent of $18,000.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.* _____

Executed in sextuplicate the day and year first above written.

I. W. and Sara E. Purkeypile

By I W Purkeypile
(Operator)

By Sara E. Purkeypile

THE UNITED STATES OF AMERICA

By O Metcalfe
Acting Administrator, Defense Minerals Exploration Administration

I, _____, certify that I am the _____ secretary of the corporation named as Operator herein; that _____, who signed this contract on behalf of the Operator, was then _____ of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

[CORPORATE SEAL]

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

I. W. AND SARA E. PURKEYPILE
DOCKET NO. DMEA-2453

ANNEX I

The following claims, on which the exploration work will be done, are all contiguous, and are located in Tozimoran Valley 16 miles north from Yukon River at Grant Creek, which point is 30 miles down river from Tanana, Alaska. All recordings are at Tanana, Alaska, in the Fort Gibbon Mining District.

Name of Claim	Location	Date Recorded	Volume	Page
Discovery Bench Association	Tozimoran Creek	Sept. 13, 1939	2	470
No. 1 Below Junie Bench Assoc.	" "	Sept. 13, 1939	2	473
No. 2 " Bench Assoc.	" "	Aug. 14, 1939	(Not indicated)	
No. 1 Above " "	" "	1939	(Lost certificate)	
No. 2 " " "	" "	1939	("	")
Discovery Creek Assoc.	" "	Aug. 14, 1939	2	458
No. 1 Below Creek Assoc.	" "	Aug. 14, 1939	2	458
No. 2 " " "	" "	Sept. 13, 1939	2	472
No. 3 " " "	" "	Aug. 14, 1939	2	460
No. 4 " " "	" "	Aug. 14, 1939	2	460
No. 1 Above " "	" "	Sept. 13, 1939	2	472
No. 2 " " "	" "	July 30, 1943	3	89
Discovery Assoc.	Ash Creek	Aug. 16, 1941	3	50
" "	Slate Creek	Aug. 16, 1941	3	51
" "	Wells Creek	Aug. 16, 1941	3	52
No. 1 Above on	" "	Aug. 16, 1941	3	53

EXPLORATION PROJECT CONTRACT
I. W. AND SARA E. PURKEYPILE
DOCKET NO. DMEA-2453

EXHIBIT "A"

Description of the Work

The object of this exploration project is to determine by churn drilling, the tin (and incidental gold) content of the gravels within the property boundaries of the Applicant, on Tozimoran Creek and Ash Creek. This work will consist of about 13 lines of churn drill holes of four or five holes per line. The approximate locations of the lines are shown on the attached maps, Figures 2 and 3. The holes are to be about 50 feet apart, and the lines of holes about 1,000 feet apart. Several shafts also will be sunk to check-sample the results of churn drilling. The location of these shafts will be determined after drilling results are known. The drill holes shall be from 8 to 20 feet in depth. The Operator shall have assays made.

The number of holes drilled; the number of shafts sunk; and the number of assays made; and the location, direction and extent of all work, shall be subject to the approval of the Government.

Summary of Estimated Costs of the Project

Independent Contracts	$ 00.00	
Labor, Supervision, Consultants	9,225.00	
Operating Materials and Supplies	2,145.00	
Operating Equipment	4,800.00	
Rehabilitation and Repairs	00.00	
New Buildings, Improvements, Installations	00.00	
Miscellaneous	1,830.00	
Total Estimated Cost of Project		$18,000.00
Government Participation @ 90%		$16,200.00

Estimated Costs of the Project
(*Indicates allowable maximum)

(1)	**Independent Contracts**	
	None	
(2)	**Labor, Supervision, Consultants**	
	1 - Laborer @ $425.00 per month	$ 425.00
	1 - Panner @ $450.00 per month	450.00
	1 - Cat driver @ $600.00 per month	600.00
	1 - Driller @ $600.00 per month	600.00
	1 - Cook @ $400.00 per month	400.00
	1 - Supervisor @ $600.00 per month*	600.00*
	Total per month	$3,075.00
	Total Labor, Supervision, Consultants @ $3,075.00 per month for three months	$ 9,225.00
(3)	**Operating Materials and Supplies**	
	Oil and gasoline	750.00
	Groceries	700.00
	Small tools and supplies	500.00
	Two tents and lumber	195.00
		2,145.00
(4)	**Operating Equipment**	
	To be rented:	
	One bulldozer for 3 months	3,600.00
	One 5" Fairbanks drill for 3 months	800.00
		4,400.00
	To be purchased:	
	1 pc., 2" pump and hose	400.00

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Assaying	$ 700.00	
Freight on operating equipment and supplies	1,130.00	$ 1,830.00
Total estimated costs of project		$18,000.00*
Government participation @ 90%		$16,200.00*

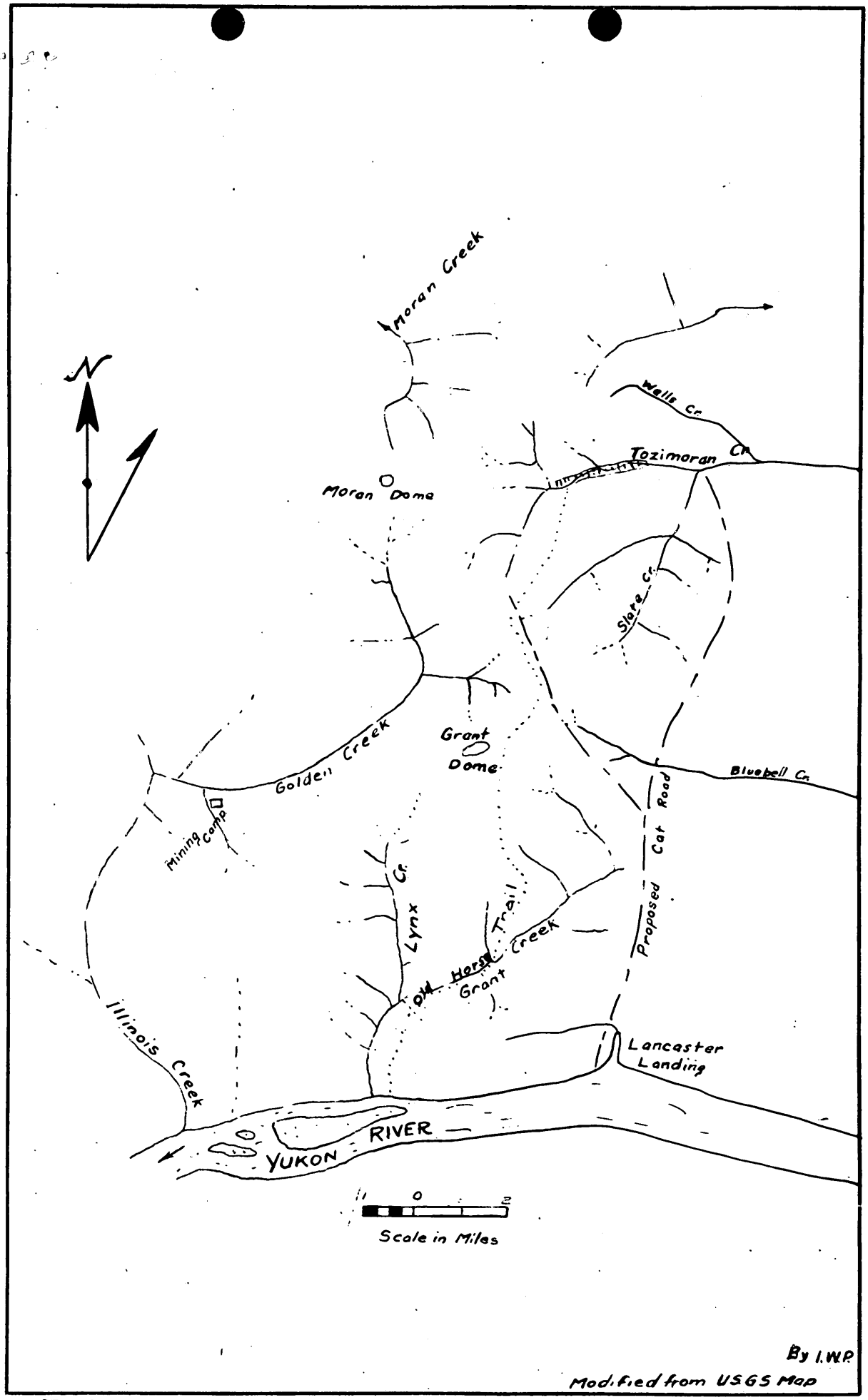


FIG. 2 TOZIMORAN CREEK AREA

.F-103
(1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2453 AMENDED

Date received 5-26-52

Participation

Amended application of

I. W. Purkeypile
Box 572
Fairbanks, Alaska

Name and address of applicant

Date May 24, 1952

FILL IN THIS BLOCK

Date of application May 24, 1952

Estimated cost $18,000

Mineral or metal Tin and gold

Percentage of Government participation 90%

Location of mine Tozimoran Creek near Tanana, Alaska

Date of filing MF-100

DMA Docket Number, if available DMEA-2453 (Tin)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
RECEIVED
MAY 26 1952

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership

*2. If a partnership, state names and addresses of partners. I.W. and Sara E. Purkeypile, Box 572, Fairbanks, Alaska

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not applicable.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. (see attached sheet)

*5. Are you the owner or the lessee of the property? Owner

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None

7. If lessee, attach a copy of the lease and state if it is in good standing. Not applicable

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Not in operation

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? $1,800, Yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. (see attached sheet)
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. (see attached sheet)

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. Same as above

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. (see attached sheet)

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source. (see attached sheet)

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. (see attached sheet)

15. State in detail how the ore could be shipped and how and where milled. (see answer to No. 12)

*16. History: (see attached sheet)
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling	Not in production			
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) (see attached sheet)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. (see attached sheet)

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Tin, placer

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. (see attached sheet)

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. (see attached sheet)

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. (see attached sheet)
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. (see attached sheet)

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By J W Purkeyfile (Signature of authorized official)
May 24, 1952 (Date)	Operator (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Application by I. W. Purkeypile
P. O. Box 572, Fairbanks, Alaska

Form MF-103

4. (a) (b) I. W. Purkeypile, person who will manage the project.

Business experience:
In charge of U.S. Bureau of Indian Affairs station at Selawik, 1928 - 1937, 9 years; trading post at Poorman, 10 years, 1937 - 1951; U. S. Postmaster in both places, 17 years.
Mining experience: Prospecting and mining in Nome area, 1904 to 1911; operating engineer on tin dredge, Anacovick River, at York, Alaska, summer 1914; worked in hydraulic placer mine, Fairhaven Mg. Co., summer 1915; 1917 - 1918, opened up silver-lead mine, Kugruk River.

10. (a) All recordings at Tanana, Alaska, Fort Gibbon Mining Dist. Discovery Bench Association, Recorded Sept. 13, 1939, Vol 2, page 470; No 1 Below, Junie Bench Asso., recorded Sept. 13, 1939, Vol 2, p 473; No 2 Below, Bench Asso., recorded August 14, 1939; No. 1 Above, Bench Asso. Recorded 1939, Vol. 2 (certificate lost). No. 2 Above, Bench Asso. Recorded Vol. 2, 1939 (certificate lost). Discovery Creek Asso., Located June 17, 1939, recorded Aug. 14, 1939, Vol. 2 p 458; No. 1 Below, Creek Asso. located June 18, 1939, recorded Aug. 14, 1939, Vol. 2 p 458; No. 2 Below, Creek Asso., recorded Sept. 13, 1939, Vol. 2 p 472; No. 3 Below, Creek Asso. recorded Aug. 14, 1939, Vol. 2 p 460; No. 4 Below, Creek Asso. recorded Aug. 14, 1939, Vol. 2 p 460; No. 1 Above, Creek Asso. recorded Sept. 13, 1939, Vol. 2 p 472; No. 2 Above, Creek Asso. recorded July 30, 1943, Vol. 3, p 89; (all of the above claims are on Tozimoran proper); Discovery Asso. Ash Creek, recorded Aug. 16, 1941, Vol. 3 p 50; Discovery Asso. Slate Creek, recorded Aug. 16, 1941; Vol. 3 p 51; Discovery Asso. Wells Creek, recorded Aug. 16, 1941, Vol 3 p 52; No. 1 Above, on Wells Creek, recorded Aug. 16, 1941, Vol. 3 p 53; all of these claims are contigious.

12. The property is located 16 miles north from the Yukon River at Grant Creek, which point is 30 miles down river from Tanana. At present we have only a horse trail, but a cat road can be made with little difficulty. Shipping: from bank on Yukon to Nenana by Government river boat; thence on Government R.R. to Seward; thence by S.S. Ship to Seattle; thence to tin smelter in Texas.

13. There is plenty of water during the summer months for any kind of mining.

14. 1 cabin and cache; 1 prospecting boiler, with pipe, fittings, and points complete; almost a complete supply of hand tools, along with windlass, cable, picks and shovels. Also, on the river, a 40 foot power boat which has been used for transportation between Grant Creek and Tanana, for communication and supplies. Tanana is the nearest supply base.

Form MF-103

16. (a) Previous exploration has been done by hand tools only; and not adequate for sinking holes in wet creek bed. Over a period of 11 years we have expended more than $10,000 for such hand-tool exploration. There were several small cuts on Discovery Claim which were taken out before the present owner's time. It seems that the amount of gold didn't pay by old hand methods; and there was no market for the tin at that time which would pay.

(b) There is no property operating nearer than 8 miles. This property, just over the divide, on Golden Creek, has been operating for 10 years. It is a gold placer mine.

(c) Reports by Mining Engineer, Livingston Wright and Geologist, Farrell F. Barnes accompany ~~this~~ previous application.

18. (a) (b) See Reports

(c) Deductions from Livingston Wright's Report:
Block on bench of Discovery Claim, 1000' x 150' contains 150,000 sq. ft. of bedrock; 17¢ per sq. ft. in gold..... $25,500
Tin concentrate .73# per sq. ft., 60%-.338# tin @ $1 per lb.
65,700#..... 65,700
Total value $91,200

19. We were never able to get holes down in the creek valley above the bench block on Discovery (No. 18) on account of water. We were not able to sink holes in the creek valley (and get to bedrock all the way across) nearer than 3 miles below the "bench block". There, the creek came in to the side of the bank and the valley floor was frozen ground, which enabled us to get down by means of a boiler. The holes were from 200' to 150' apart - too far and should be rechecked. The holes were about 8' to bedrock. The center hole, I considered pay - averaging $.60 per sq. yd. in gold and 1½# tin concentrate per yd. Two miles below this place we cross-cut the creek but got no pay. There is a high bench all the way down which has not been explored.

21. The proposed work, as revised, will consist of about 13 lines of churn-drill holes of 4 or 5 holes per line; the approximate locations of the lines to be as shown on the attached sketch map. The holes are to be about 50 feet apart and the lines about 1,000 feet apart. Several shafts will be sunk to check sample the results of churn drilling. The locations and number of shafts cannot be determined in advance of drilling. The drill holes are estimated to range from 8 to 20 feet deep.

22. As we go up the creek from the "bench block" we will be coming nearer to the source of the tin (which undoubtedly is a vein of tin ore) the volume of tin should be greater.

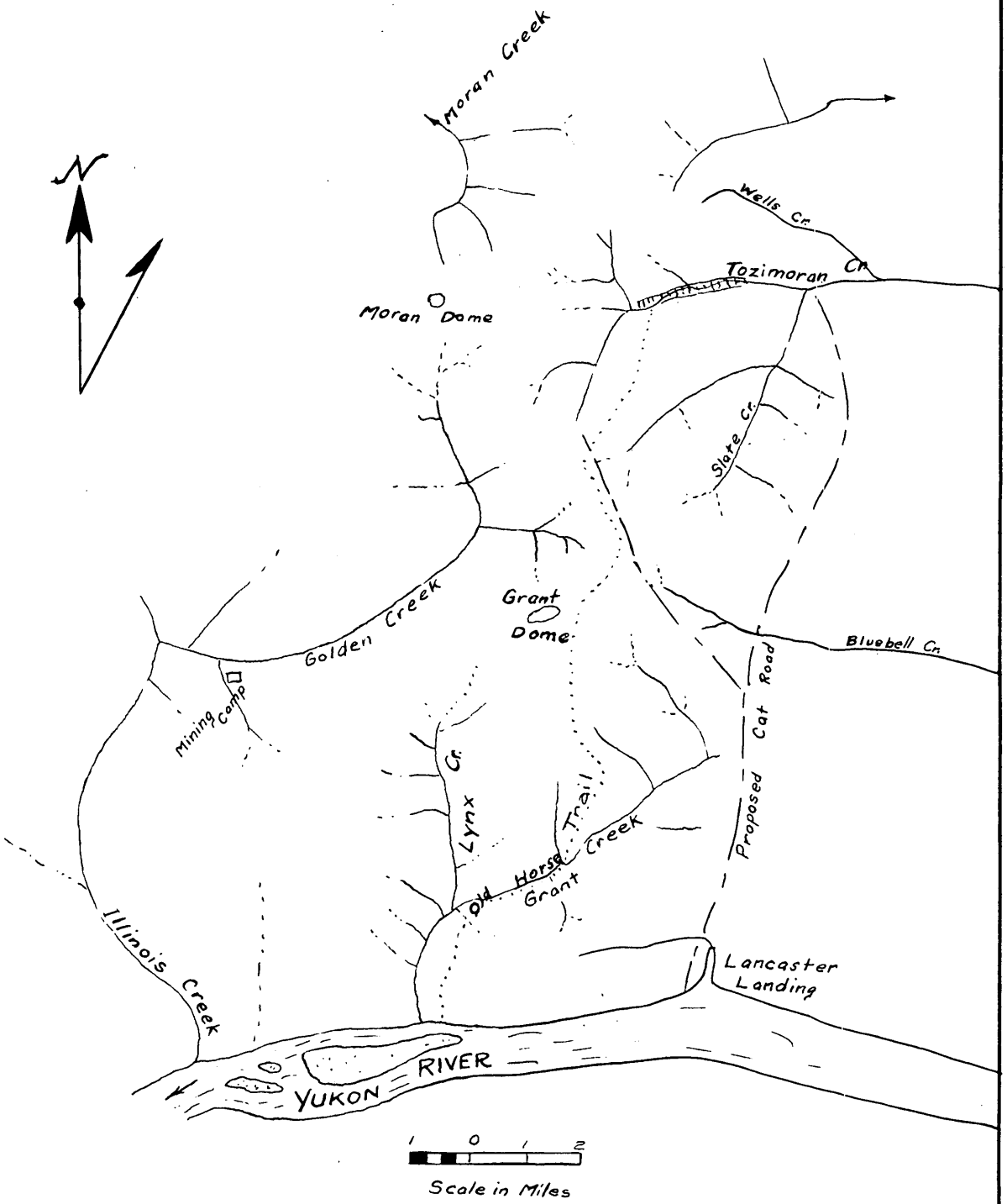
See Report by Geologist, Farrell F. Barnes.

23. (b) As supervisor, I shall keep accurate records of all drill holes and shafts. A log will be kept of all work done. The samples from each operation will be kept separate, and marked according to the operation, drill hole, shaft, etc.

23.

(a)	1 laborer, 1.75 per hr.	1 month	425.00
(b)	1 supervisor,	1 month	600.00
(a)	1 panner, 2.00 per hr.	1 month	450.00
	1 cat driver, 2.50 per hr.	1 month	600.00
	1 driller, 2.50 per hr.	1 month	600.00
	1 cook,	1 month	400.00
		1 month	3070.00
			.....
		3 months	9210.00
(c)	cost of repairs to cabin, labor only		
(d)	two tents and lumber		195.00
(e)	one 2" pump with hose		400.00
(f)	rental for one bulldozer 3 months		3600.00
	rental one complete 5" Fairbanks' drill		800.00
(g)	no rent charges for equipment now owned by operator		
(h)	cost of oil and gas		750.00
	groceries and supplies		1915.00
	freight for cat and drill and supplies to landing and return of cat and drill		1130.00
			18,000.00

24. If this loan can be approved in time we could leave Fairbanks with the outfit about the 1st of June. The boats plan on leaving about that time, and it is not likely that any boats will again be leaving before June 15, if then. It will take about 4 days to the landing where we unload. We will have to make a go-devil there out of logs. We will take the iron with us. Road making will be started at once after the outfit is landed, while go-devil is being made, and other preparations. The first load of supplies should get through to Tozimoran in one week. Drilling should start in about 10 days from the time we land on the river.



By I.W.P.
Modified from U.S.G.S. Map

FIG. 2 TOZIMORAN CREEK AREA

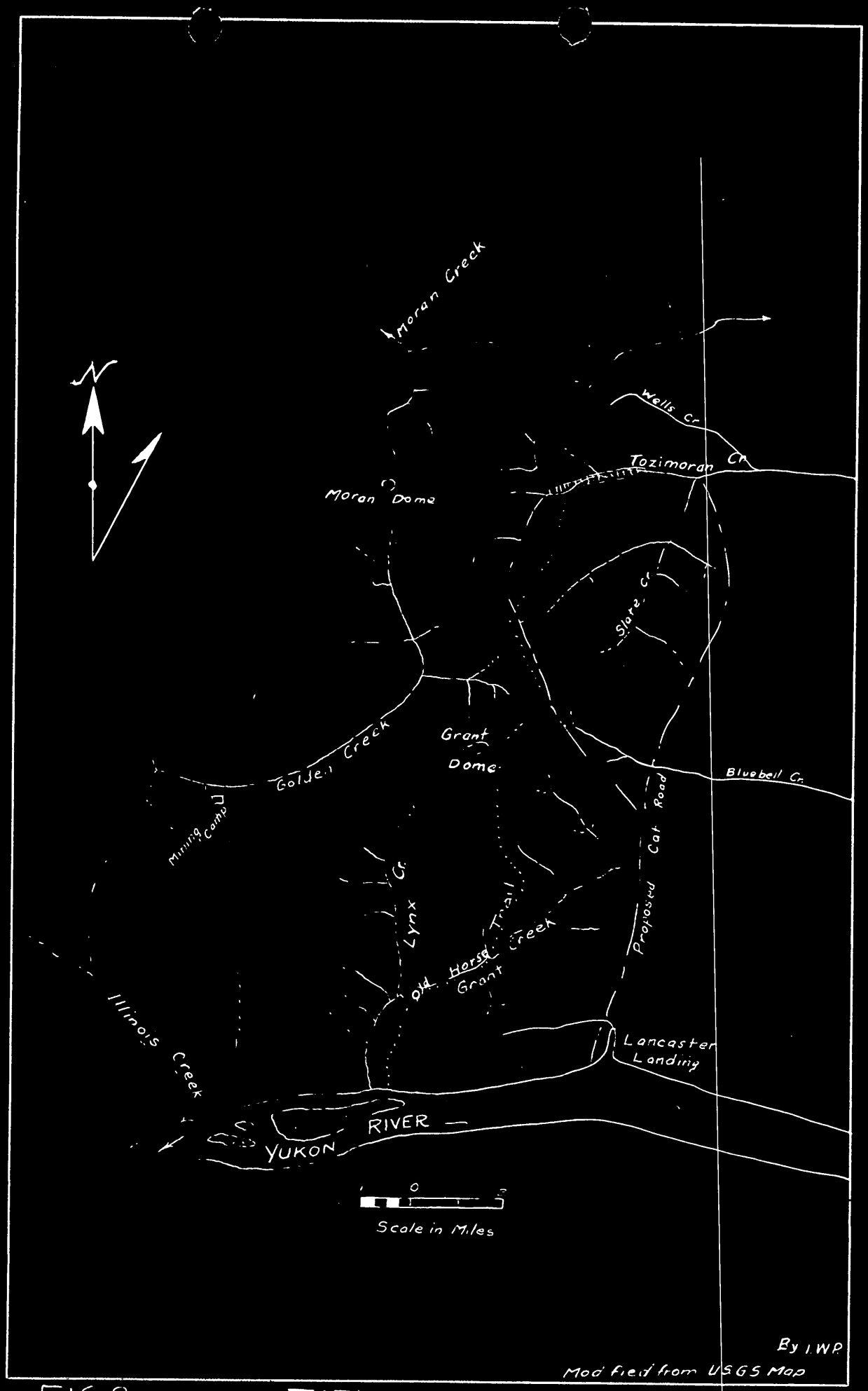


FIG. 2 TOZIMORAN CREEK AREA

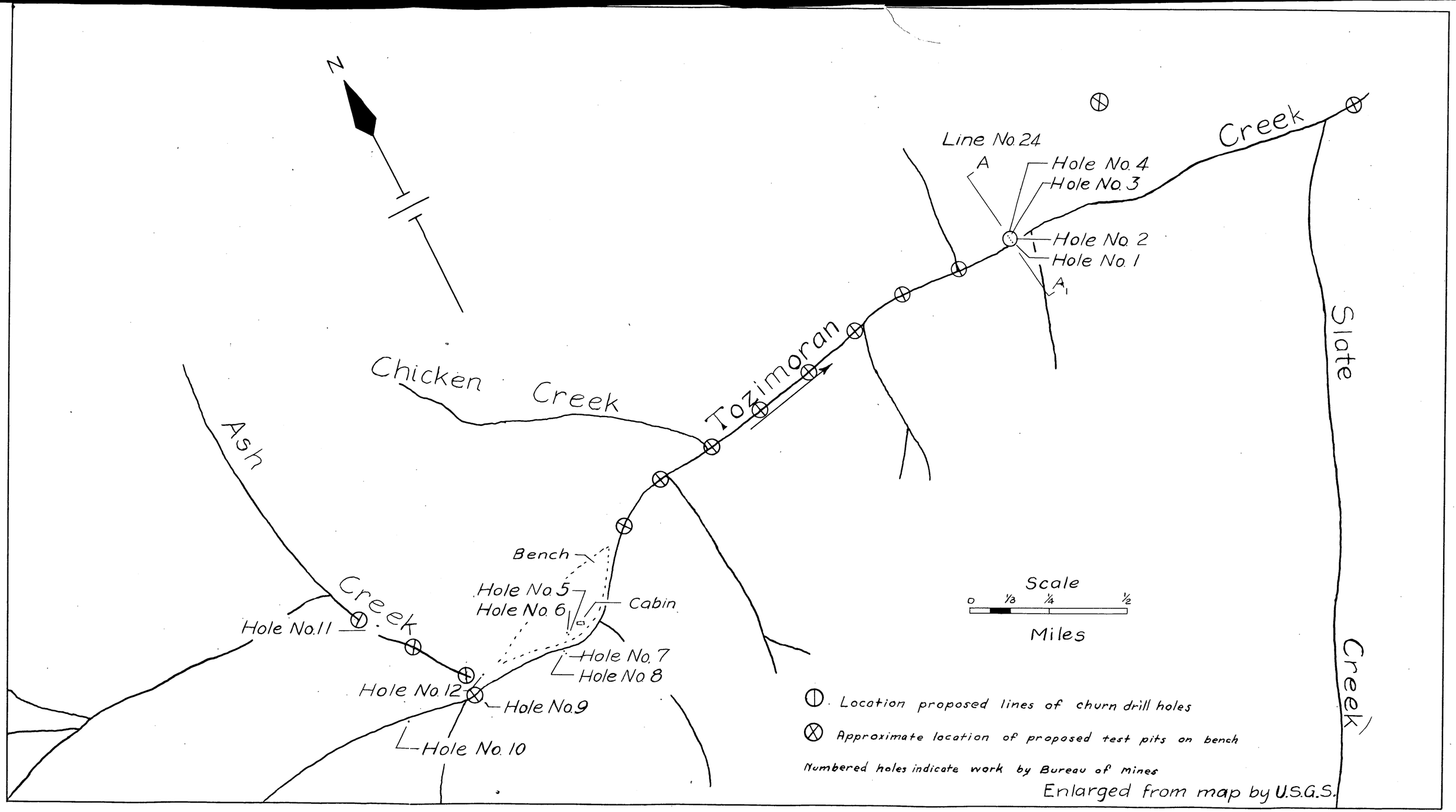


FIG. 3 SHAFT HOLES TOZIMORAN CREEK, ALASKA

DMEA-3401

COPY

Anchorage Alaska
Auhust 28, 1940

Mr. Gus Gelles
Anchorage, Alaska

Dear Sir:

I have completed a brief examination of the mining property held by Messrs. Purkeypile and Weboreis on Moran Creek, 20 miles north of Grant Creek, Alaska, and submit the following report for your information:

Lode tin deposits.

Results of assays of samples from Moran Mountain, thought by Mr. Purkeypile to contain tin, were negative. There is therefore no direct evidence of lode tin in this locality, except as may be inferred from the presence of placer tin on Moran Creek. Tin-bearing veins are characteristically associated with granite. Although there is no trace of granite in the upper basin of Moran Creek, areas of this rock lie a few miles to the southwest and west of this locality, and granite is very probably present at no great depth below Moran Creek. Further prospecting may result in the discovery of tin-bearing lodes, but the scarcity of outcrops makes the searc h a difficult one.

Placer tin deposits.

A body of tin-bearing gravels about 1,000 feet long and averaging 100 feet wide has been blocked out by a series of open cuts across a low bench on upper Moran Creek. According to Mr. Purkeypile these cuts have averaged about 2 to 3 pounds of cassiterite per square foot of bedrock, as well as 50 cents per square foot in gold. This would indicate a deposit of between 100 and 200 tons of placer tin in sight but as none of the cuts reached the inner limit of the gravel deposits considerably more tin may be present in this bench. The depth of over-burden ranges from about 5 feet along the outer edge of the bench to 20 feet or more at the inner end of the longest cut.

Placer tin has been reported as far down Moran Creek as the mouth of Slate Creek, a distance of 2 miles, but this could not be confirmed in the present investigation as all the old prospects had caved in. One prospect hole 25 feet deep is said to have yielded 7 pounds of tin and $1.65 in gold. Most of the prospecting was done on the low benches, as water prevented the sinking of open holes in the immediate valley bottom. Consequently nothing is known of the occurrence of placer deposits at the present stream level.

Recommendations.

Development work to date has proven the presence of placer tin and gold in workable quantities and location on a low bench within a few miles of the head of Moran Creek, and there is some evidence that similar deposits of equal or greater value occur several miles downstream. The geologic setting is favorable for the extensive occurrence of both bench and creek deposits. This property is therefore judged to be sufficiently promising to justify an extensive program of prospecting to determine the extent and richness of the deposits. As a drill would be necessary to prospect the creek bottom the entire area could probably best be prospected by drilling, perhaps supplemented by open cuts at favorable places on the benches.

Very truly yours,

Farrell F. Barnes
Geologist, The Alaska Railroad

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2453

Date received 3-28-52

Participation

J. W. Purkeyfile
Box 572
Fairbanks, alaska

Name and address of applicant

Date March 18, 1952

FILL IN THIS BLOCK

Date of application March 18, 1952 Estimated cost 30,000

Mineral or metal Tin and gold Percentage of Government participation 90%

Location of mine Tozimoran Creek, alaska
Near Tanana

Date of filing MF-100 DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 28 1952

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership - J.W. and Sara E. Purkeyfile
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property? owner
6. If owner, state what claims, liens, or encumbrances, if any, are against the property. none
7. If lessee, attach a copy of the lease and state if it is in good standing. —

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. not operating
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? 3,000 - yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. Same as above

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled. Tin smelter, Texas. See No-12

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

Has not been in production by present owners

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly. See Report

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Tin

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)

By Joe Purkeyfile
(Signature of authorized official)

March 18, 1952
(Date)

Operator
(Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Application by I. W. Purkeypile
P.O. Box 572, Fairbanks, Alaska

Form MF 103

4. (a) (b) I.W.Purkeypile, person who will manage the project.

Business experience: ~~Prospecting in Nome area~~
In charge of U.S. Bureau of Indian Affairs station at Selawik, 1928 - 1937, 9 years; trading post at Poorman, 10 years,1937 -,1951; U. S. Postmaster in both places, 17 years. Mining experience: Prospecting and mining in Nome area, 1904 to 1911; operating engineer on tin dredge, Anacovick River, at York,Alaska, summer 1914; worked in hydraulic placer mine, Fairhaven Mg. Co., summer 1915; 1917 - 1918, opened up silver-lead mine, Kugruk River.

10. (a) Discovery; No.1 Below ; No.2 Below; No. 3 Below; No. 4 Below; Discovery Association, Slate Creek; No.1 Above; No.2 Above; Discovery Ash Creek; No.1 and No.2 Above on Ash Creek, all on Tozimoran and tributaries, and all contiguous.
(b) same as (a)

12. The property is located 16 miles north from the Yukon River at Grant Creek, which point is 30 miles down river from Tanana. At present we have only a horse trail, but a cat road can be made with little difficulty. Shipping: ~~ship~~ from bank on Yukon to Nenana by Government river boat; thence on Government R.R. to Seward; thence by S.S. Ship to Seattle; Thence to tin smelter in Texas.

13. There is plenty of water during the summer months for any kind of mining.

14. 1 cabin and cache; 1 prospecting boiler, with pipe, fittings, and points complete; almost a complete supply of hand tools, along ~~wi~~ with windlass,cable, picks and shovels. Also ,on the river, a 40 foot power boat which has been used for transportation between Grant Creek and Tanana, for communication and supplies. Tanana is the nearest supply base.

16. (a) Previous exploration has been done by hand tools only; and not adequate for sinking holes in wet creek bed. Over a period of 11 years we have expended more than $10,000 for such hand-tool exploration. There were sever al small cuts on Discovery Claim which were taken out before the present owner's time. It seems that the amount of gold didn't pay by old hand methods; and there was no market for the tin at that time which would pay.
(b) There is no property operating nearer than 8 miles. This property, just over the divide, on Golden Creek, has been operating for 10 years. It is a gold placer mine.
(c) Reports by Mining Engineer, Livingston Wright and Geologist, Farrell F. Barnes accompany this application.

Form MF* 103

No. 18 (a) (b) See Reports

(c) Deductions from Livingstonxx Wright's Report:

Block on bench of Discovery Claim, 1000' x 150' contains 150,000 sq. ft. of bedrock; 17¢ per sq ft in gold $25,500

Tin concentrate .73# per sq ft.,60%-.338# tin @ $1 per lb. 65,700# 65,700

Total value $91,200

No. 19. We were never able to get holes down in the creek valley above the bench block on Discovery (No. 18) on account of water. We were not able to sink holes in the creek valley(and get to bedrock all the way across) nearer than 3 miles below the "bench block" . There, the creek came in to the side of the bank and the valley floor was frozen ground, which enabled us to get down by means of a boiler. The holes were from 200' to 150' apart-too far and should be rechecked. The holes were about 8' to bedrock. The center hole, I considered pay - averaging $.60 per sq yd in gold and 1½# tin concentrate per yd. Two miles below this place we cross-cut the creek but got no pay. There is a high bench all the way down which has not been explored.

No. 21. The proposed work would be to start in the valley bottom, near the upper end of the #bench block", with a line of holes about 25' apart; then up stream a line of holes about every 400' until we find no more tin. Between the lines of holes will be cuts made with the bulldozer to check the drilling, where it is advisable. The"bench block" is about 3 miles from the head of the creek. On claim No.2 below, about 1 mile below the bench block , a line of holes across the bench about 50' apart. This would determine whether the high benches below carry tin. If time permits, aline of holes across valley on No. 4 Below, near the mouth of Slate Creek. It will take about 4 months to complete the proposed exploration.

No. 22. As we go up the creek from the "bench Block" we will be coming nearer to the sourc e of the tin (which undoubtly is a vein of tin ore) the volume of tin should be greater.

See Report by Geologist, Farrell F. Barnes.

No. 23.	(a)	1	laborer - 1.75 per hr. approx. per month	$425.00
		1	panner and rocker man 2.00 per hr. "	450.00
		1	cat driver,bulldozer man,driller 2.50 "	600.00
		1	cook ... . per Mo	400.00
	(b)	1	supervisor .....".."	600.00
			Wages for 1 mo.	2475.00
			4 months	9,900.00
	(c)		Cost of repairs to log cabin	45.00
	(d)		Two tents and lumber	195.00
	(e)		1 bulldozer, fully equiped, blade and hoist	15,000.00
	(f)		Rent for drill, 4 months	500.00
			1 2" pump with hose	400.00
	(g)		No rent charge for equipment now owned by operator	
	(h)		Freight, cat and supplies, Fairbanks to Grant	700.00
			Fuel oil and gas	750.00
			Groceries and miscellaneous supplies	2000.00
			cost for 4 months	$29,400.00

4323

R. I. 4323

AUGUST 1948

UNITED STATES
DEPARTMENT OF THE INTERIOR
J. A. KRUG, SECRETARY

BUREAU OF MINES
JAMES BOYD, DIRECTOR

REPORT OF INVESTIGATIONS

INVESTIGATION OF THE TOZIMORAN CREEK TIN PLACER DEPOSITS, FORT GIBBON DISTRICT, ALASKA

BY

BRUCE I. THOMAS AND W. S. WRIGHT

R.I. 4323,
August 1948.

REPORT OF INVESTIGATIONS

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

INVESTIGATION OF THE TOZIMORAN CREEK TIN PLACER DEPOSITS FORT GIBBON DISTRICT, ALASKA[1]

By Bruce I. Thomas[2] and W. S. Wright[3]

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INTRODUCTION AND SUMMARY

The occurrence of tin-bearing gravels along Tozimoran Creek in central Alaska has been known for a number of years.

1/ The Bureau of Mines will welcome reprinting of this paper, provided the following footnote acknowledgment is used: "Reprinted from Bureau of Mines Report of Investigation 4323."

2/ Mining engineer, Bureau of Mines, Fairbanks, Alaska.
3/ Mining engineer, Bureau of Mines, Juneau, Alaska.

In September 1944 the Bureau of Mines investigated an area approximately 1,000 feet long and 200 feet wide along Tozimoran Creek to determine the cassiterite content of the stream gravels, which are about 4 feet deep and covered by 3 feet of overburden. Nine trenches and two shafts were excavated, from which samples of the underlying gravels were taken.

This report contains a discussion of sampling methods and tables giving the results of analyses.

ACKNOWLEDGMENTS

Special acknowledgment is extended to Martin Webories and I. W. Purkeypile, the owners, who contributed their services and furnished housing and various small tools to expedite the exploratory work.

LOCATION AND ACCESSIBILITY

Tozimoran Creek is in central Alaska at approximately 65° 20' north latitude and 153° west longitude. (See fig. 1.) The headwaters of Tozimoran Creek are accessible from the mouth of Grant Creek, a tributary on the north side of the Yukon River 30 miles downstream from Tanana. A tractor trail extends 4 miles up Grant Creek to the Fisher and Fisher mine; from there, a pack trail about 12 miles long follows a ridge into the headwaters of Tozimoran Creek, as shown in figure 2. With some relocation and a considerable amount of work, this trail could be made into a passable tractor road.

The closest settlement is Tanana, which is approximately 40 airline miles southeast of Tozimoran. Tanana has a population of about 150 people - 50 whites and 100 Indians. It has two general stores, a roadhouse, an airfield capable of accommodating large airplanes, a Territorial school, a government-operated hospital, and a church.

Freight is brought in from the coast by railroad to Nenana, thence by river boat to Tanana, and thence to Grant Creek. In winter travel is dog team or airplane. Planes land on the ice on Yukon River at the mouth of Grant Creek. In summer pontoon-equipped airplanes land on the river, or wheel-equipped planes land on a gravel bar in the center of the river 3 miles below the mouth of Grant Creek.

PHYSICAL FEATURES AND CLIMATE

Tozimoran Creek is a northeast-flowing tributary of the Tozitna River about 12 miles long, and in its upper bed flows in a narrow alluvium-filled valley. The region is one of considerable relief; most of the ridges attain an altitude of more than 2,000 feet, whereas the domes rise to more than 3,000 feet. The tin deposit lies near the headwaters of the creek at an altitude of approximately 800 feet.

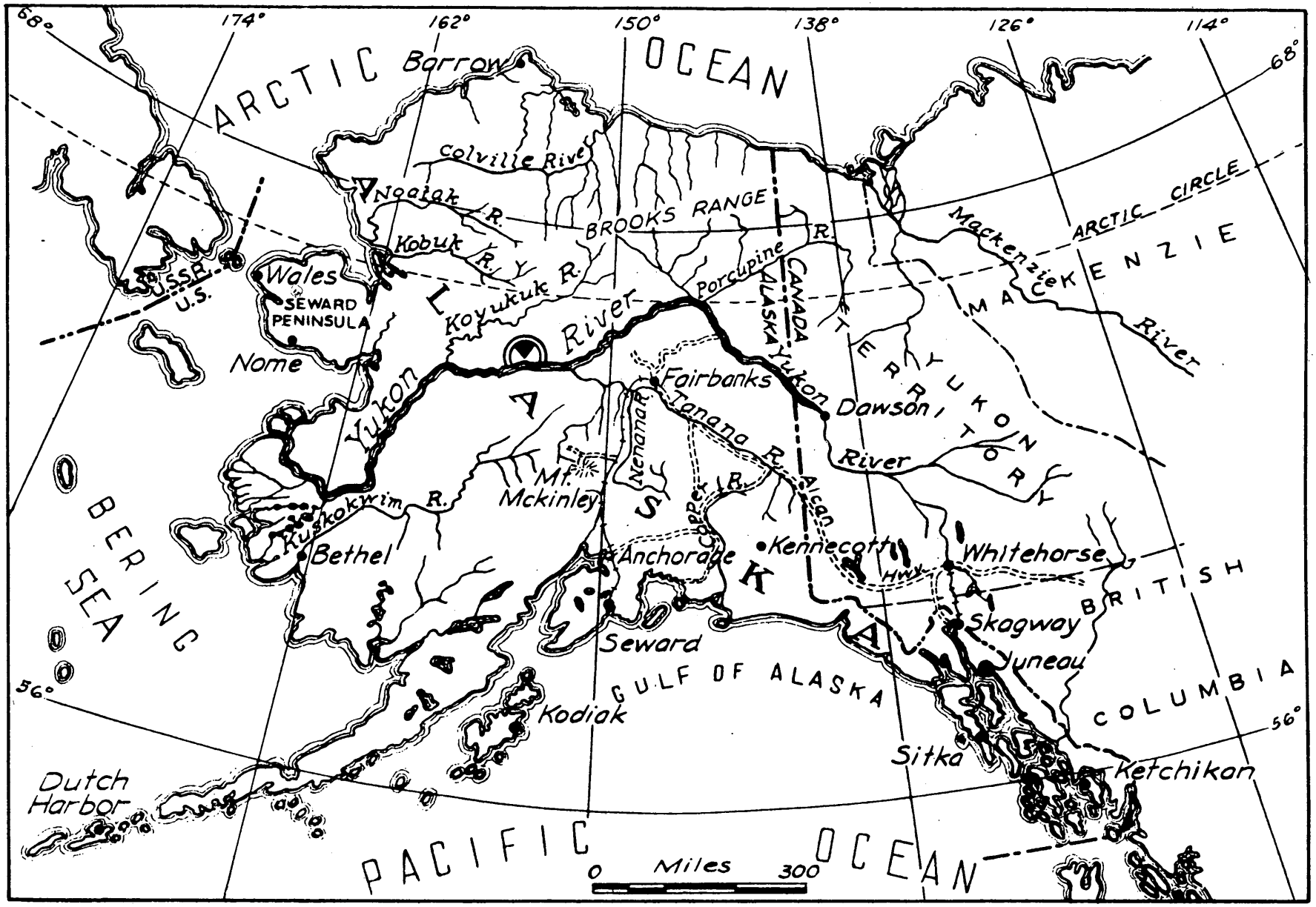

Figure 1. - Index map showing location of Tozimoran Creek.

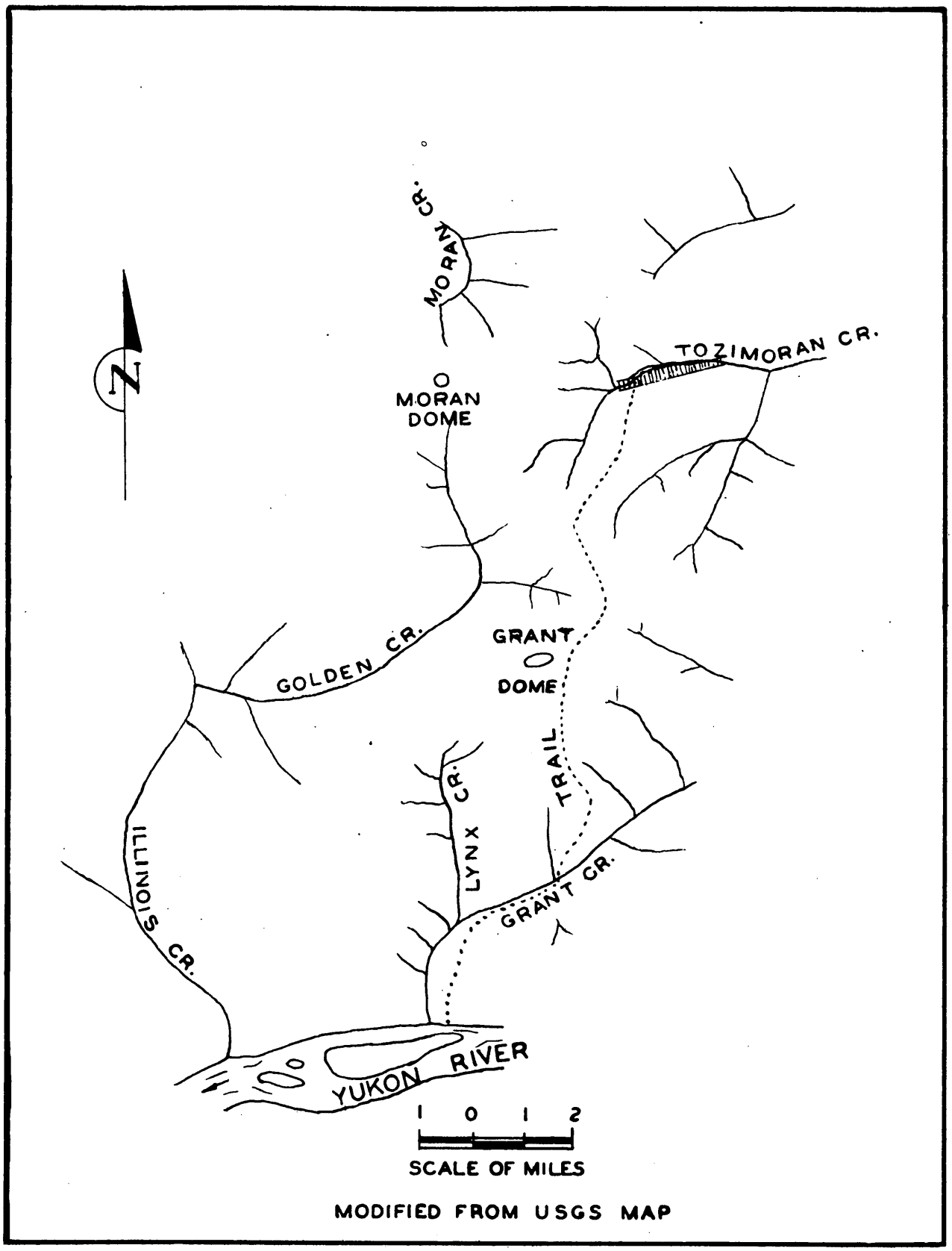

Figure 2. - Tozimoran Creek area, Alaska.

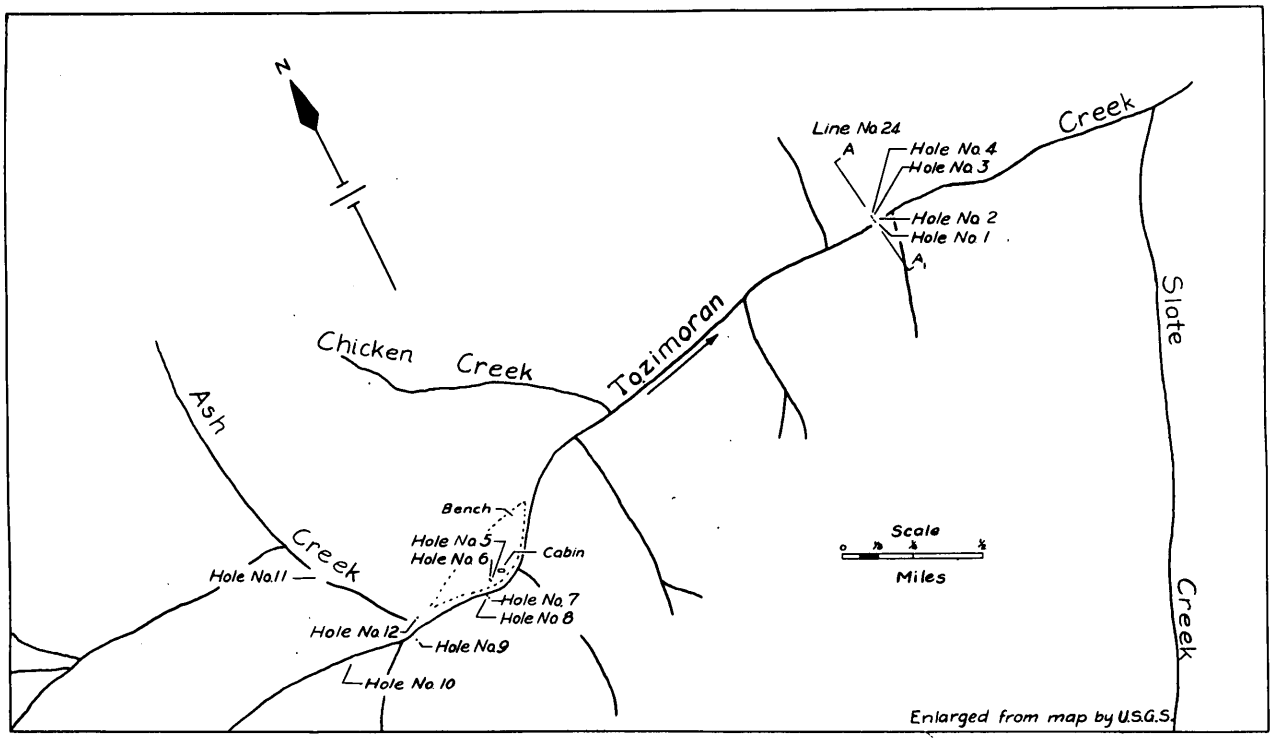

Figure 3. - Shaft holes, Tozimoran Creek, Alaska.

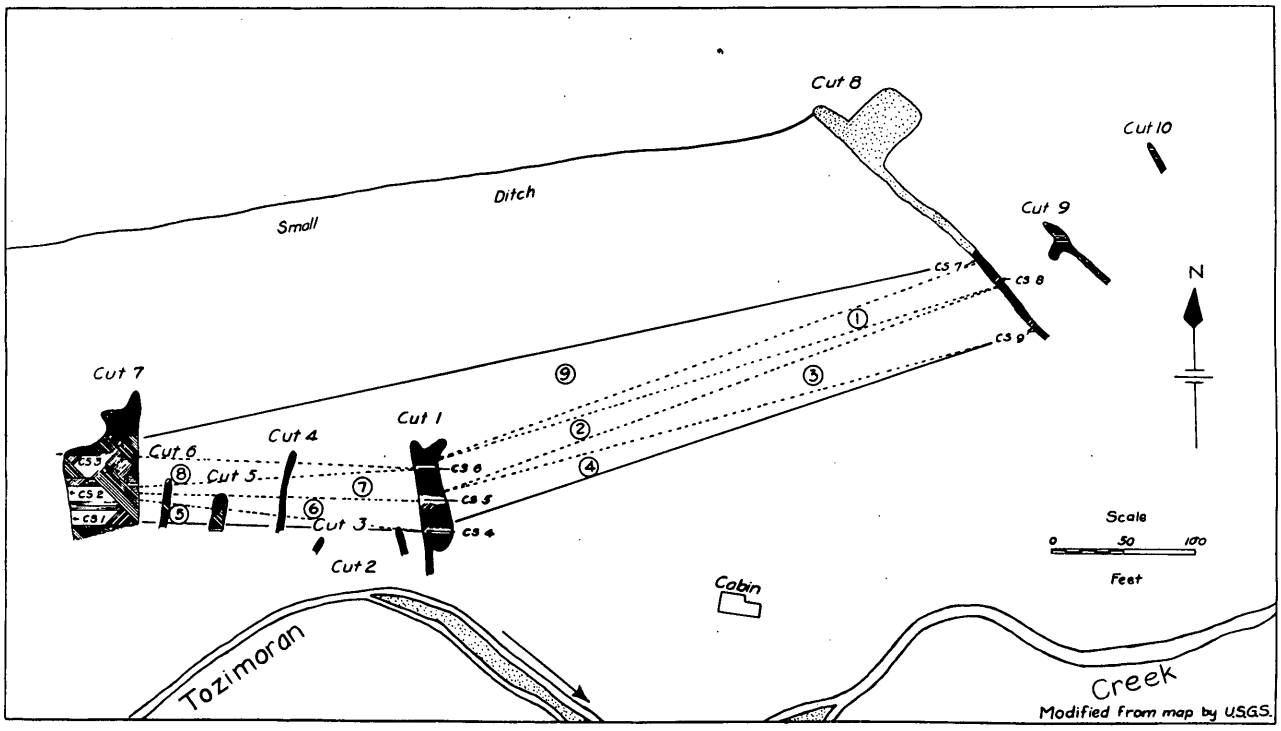

Figure 4. - Old open cut workings on bench, Tozimoran Creek, Alaska.

The climate of the region is typical of central Alaska; winters are long and cold and summers short and relatively warm. The temperature ranges from minus 70° F. in winter to 90° F. or higher in summer, and the annual mean is about 23° F. A large portion of the alluvial deposits is permanently frozen, as the surface thaws only a few feet during the summer. However, in places on Tozimoran Creek circulating ground water has thawed the ground for a considerable distance from the present stream banks.

The valley floor is covered by brush and an occasional stand of small spruce suitable for mine and camp use. The ridges rise well above timber line and are barren except for scattered patches of scrubby brush.

HISTORY AND PRODUCTION

Placer gold was discovered on Tozimoran Creek in 1902; many prospectors and miners visited the district since the discovery of gold, but not enough of this metal was found to warrant mechanized mining. Up until 1938, prospecting in the area was intermittent. Claims were staked, allowed to lapse, and were then restaked by others. During this period a small amount of hand mining was done on a left-limit bench of Tozimoran Creek 2,000 feet downstream from Ash Creek, a headwater tributary (see fig. 3).

Since 1938, the upper tin-bearing portion of Tozimoran Creek has been held by two partners, who have carried on intermittent handmining on the bench and at various times prospected on various parts of the creek.

The total production for the creek has probably been not more than a few ounces of gold and a few hundred pounds of tin.

PROPERTY AND OWNERSHIP

Eighteen 40-acre association placer claims covering the tin-bearing area are held by partners I. W. Purkeypile, of Fairbanks, Alaska, and Martin Webories, of Tanana, Alaska. All these claims are recorded at the Fort Gibbon recording office at Tanana, Alaska.

WATER SUPPLY

Tozimoran Creek contains enough water for a small placer mining operation. During low stages it is estimated that approximately 400 miner's inches of water flows through the tin-bearing area. Water measurements made by the Bureau of Mines during a high stage show a flow of 4,200 miner's inches in the vicinity of the tin deposit.

One small ditch excavated several years ago supplies water for hand-mining on the bench. This ditch is too small to furnish water for a mechanized operation.

OCCURRENCE OF DEPOSITS

The principal tin-bearing area on Tozimoran Creek is a bench 1,000 feet long and 200 feet wide on the north side of Tozimoran Valley downstream from the mouth of Ash Creek (see fig. 3). Tin, in the form of cassiterite, and gold are found in the gravels on this bench. Small amounts of tin and gold occur in the gravels of the valley floor downstream from the bench.

The hills on the south side of the valley rise steeply, but to the north they slope more gently, indicating the presence of a higher bench. This latter bench begins near the confluence of Ash and Tozimoran creeks and extends 3 miles down Tozimoran Valley.

The bedrock in the tin-bearing area of the bench and in the valley floor consists of quartz mica schist and appears to have a fairly even surface.

There are no known tin lode deposits in the district, and the exact source of the placer tin has not been determined.

CHARACTER OF DEPOSITS

The tin-bearing gravels on the bench are about 4 feet deep and are covered with muck to an average depth of 3 feet. Along the margins of the bench the muck and gravels are thawed, but back from the margins both are permanently frozen. The muck, consisting of organic matter, some fine sand, and clay is overlain by a thin mantle of moss. The gravel is fairly coarse and contains many boulders over 2 feet in diameter. Very little clay is found in the upper portions of the gravel, but near bedrock a considerable quantity is found.

The gravel in the valley floor is also overlain with moss and muck. The muck is frozen, but the underlying gravels are thawed. Along the outer rim of the valley some of the gravel is frozen, but this condition seems to exist only along the margins of the alluvium. Unlike the bench gravel, considerable clay is found in the upper portions as well as near bedrock. The size of material is comparable to that found on the bench.

On the bench cassiterite, associated with gold and the heavy minerals magnetite and limonite, is concentrated in the gravels 2 feet above bedrock, but in the valley floor these minerals are sparsely disseminated in the upper gravels and concentrated in the last 5 feet above bedrock. In no case do these minerals appear to penetrate the bedrock for more than 6 inches.

The cassiterite is 1/16 to 1-1/2 inches in diameter; however, the largest percentage is found in the smaller sizes.

SAMPLING

During the preliminary examination, two methods of sampling were used. Channel samples were cut through exposed pay sections of gravel in open cuts on the bench, and shaft holes were sunk in the gravel of the valley floor.

Channel Sampling

Nine channel samples were cut at convenient locations along the banks of the open cuts on the bench (see fig. 4). Prior to cutting samples all sloughed material was cleaned away from the face of the banks to expose virgin gravel. Small samples were panned from various depths in the gravel to determine the pay horizon. When the pay horizon had been established, the barren upper gravel was excavated and a channel was cut through the pay horizon only.

Each channel was measured after it was cut. All material cut from the channel was weighed, and a loose volume measurement was made. The entire sample was run through a rocker, from which a concentrate was recovered. Gold was extracted from the concentrate and weighed, and the remaining concentrate was weighed and analyzed for its tin content.

Table 1 is a summary of tin-concentrate analyses, and table 2 is a compilation of channel sampling data.

TABLE 1. - Summary of tin concentrate analysis from channel samples

Sample	Percent tin	Sample	Percent tin
C.S. 1	45.37	C.S. 5	27.82
2	57.13	6	51.83
3	62.26	7	60.11
4	32.29	8	15.40
		9	23.85

TABLE 2. - Calculated tin and gold content

Sample	Depth, feet			Depth pay horizon, feet	Measured volume loose, cubic feet	Calculated volume, cubic feet	Weight of sample, pounds	Weight of tin concentrate, grams	Weight of gold, mg.
	Muck	Gravel	Bedrock						
1	1.0	4.5	0.5	3.0	4.8	4.32	529	156.2	143.18
2	3.0	4.0	.5	2.5	1.4	1.60	149	59.9	122.03
3	3.0	4.5	.5	3.1	2.2	1.86	207	196.5	214.40
4	1.0	3.5	.5	3.0	1.9	1.68	213	22.8	32.51
5	3.0	4.5	.5	3.9	3.0	2.81	348	36.9	4.68
6	4.0	5.0	.5	3.1	2.0	1.54	231	37.5	126.30
7	2.0	2.5	.5	2.0	1.3	.96	126	51.6	19.02
8	3.5	1.5	.6	2.1	2.4	1.26	265	13.0	7.55
9	1.5	1.0	.8	1.3	1.0	.78	115	16.1	2.27

Shaft Sampling

Two shaft holes 50 feet apart on line 24, 1-1/2 miles below the bench, were sunk in a narrow portion of the valley floor. A small section of the valley floor was frozen sufficiently to permit sinking open shaft holes at this location. An attempt was made to sink two more holes in order to crosscut the valley at this point, but ground water prevented attaining a depth over 4 feet, so they were abandoned.

A small prospect boiler was used during thawing of frozen muck and gravel. The pay gravels were washed in a rocker, and the gold was extracted from the recovered concentrate. The remaining concentrate was weighed and then analyzed for tin content. Table 3 is a summary of tin concentrate analyses.

TABLE 3. - Summary of tin concentrate analyses from shaft-hole samples

Hole	Percent tin
3	52.16
4	49.02

The pay gravel was extracted in sections approximately 2 feet deep. The material from each section was measured in a volume bucket, and the size of the hole at each section was measured with a tape. In order to recover all the cassiterite, the pay gravel was washed through the rocker twice.

The logs of each shaft hole are shown in tables 4 and 5.

TABLE 4. - Log of shaft holes, Tozimoran Creek, Alaska
Hole 3, line 24

Depth, feet	Measured volume loose, cubic feet	Calculated volume, cubic feet	Weight of tin concentrate, grams	Weight of gold, mg.	Remarks
1			0		Moss
3			0	0	Frozen muck; some sand top of gravel 5.0 ft.
6			0	0	Frozen fine gravel and sand.
10			0	0	Frozen coarse gravel; some clay schist and quartz.
11			0	0	Frozen, coarse gravel, sand, and some clay.
12	21.24	12.4	120	91.29	Frozen, coarse gravel, much clay, some sand.
13	22.42	10.8	69	46.32	Frozen, coarse gravel, much clay many small boulders.
16.2	35.40	27.0	431	323.30	Top bedrock 16.0 ft; bedrock decomposed schist.
16.5			0	0	Decomposed schist (gray color).
	79.06	50.2	620	460.91	

Depth:	Moss.....	1.0
	Muck.....	4.0
	Gravel.....	11.0
	Bedrock.....	0.5
	Total	16.5

TABLE 5. - Log of shaft holes, Tozimoran Creek, Alaska
Hole 4, line 24

Depth, feet	Measured volume loose, cubic feet	Calculated volume, cubic feet	Weight of tin concentrate, grams	Weight of gold, mg.	Remarks
1					Moss.
5.5					Frozen muck; top gravel 5.5 ft.
11.2			0	0	Frozen medium gravel and sand.
13.2	30.68	25.1	163	160.04	Frozen, coarse gravel; some sand and clay.
15.2	23.60	13.9	57	24.55	Frozen, coarse gravel, and much clay.
17.0	21.24	15.8	310	237.00	Frozen, coarse gravel; many boulders and much clay.
17.6	24.78	15.6	204	34.25	Frozen, coarse gravel; many boulders and much clay; top bedrock 17.7 ft.
18.2			0	0	
	100.3	70.4	734	455.84	

Depth:	Moss.....	1.0
	Muck.....	4.5
	Gravel.....	12.1
	Bedrock.....	0.6
	Total	18.2

Attempts were made to sink shaft holes at eight other locations on upper Tozimoran Creek and its upper tributaries, but excessive ground water prevented reaching bedrock (see fig. 3). One of these shaft holes, near the mouth of Ash Creek, was sunk 12 feet before it was abandoned. Table 6 lists each shaft hole and shows the depths attained.

TABLE 6. - Depths of abandoned shafts

Hole	Depth abandoned, feet
1	4.5
2	4.0
5	4.0
6	5.0
7	6.0
8	6.5
9	4.5
10	3.5
11	3.0
12	12.0

Channel-Sample Summary

The examination indicated a tin-bearing area approximately 650 feet long and 80 feet wide, which constitutes a portion of the bench below Ash Creek. The sampled block averages 0.731 pound tin and 0.0228 ounce gold per cubic yard. Table 7 is a summary of channel-sample results.

TABLE 7. - Summary channel-sample results

Sample	Depth mining section, feet	Pounds tin per cubic yard	Ounces gold per cubic yard	Depth muck section, feet
C.S. 1	5.5	0.536	0.01390	1.0
2	5.0	.630	.02950	3.0
3	5.5	2.190	.05030	3.0
4	4.5	.170	.00950	1.0
5	5.5	.150	.00090	3.0
6	6.0	.400	.03300	4.0
7	3.5	1.100	.00860	2.0
8	2.5	.079	.00390	3.5
9	2.0	.190	.00140	1.5

The tin content of gravel in the valley floor below the bench was not estimated. The two shaft holes (numbers 3 and 4, at line 24) were in a narrow portion of the valley. The results of the sampling from these two holes do not indicate the presence of a paystreak. Table 8 is a summary of shaft-hole sampling results.

TABLE 8. - Summary of shaft hole sampling results

Hole	Depth mining section, feet	Pounds tin per cubic yard	Ounces gold per cubic yard	Depth muck section, feet
3	12.0	0.197	0.0031	5.0
4	13.1	.146	.0029	5.5

R. I. ____ September 1947

I. W. Purkeypile - Box 572 Fairbanks, Alaska

UNITED STATES
DEPARTMENT OF THE INTERIOR
J. A. Krug, Secretary

BUREAU OF MINES
James Boyd, Director

REPORT OF INVESTIGATIONS

TOZIMORAN CREEK TIN PLACER DEPOSITS

FORT GIBBON DISTRICT, ALASKA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 28 1952

By

Bruce I. Thomas and W. S. Wright

R. I. _____
September 1947.

REPORT OF INVESTIGATIONS

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

TOZIMORAN CREEK TIN PLACER DEPOSITS FORT GIBSON DISTRICT, ALASKA1/

By Bruce I. Thomas2/ and W. S. Wright3/

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1/ The Bureau of Mines will welcome reprinting of this paper, provided the following footnote acknowledgement is used: "Reprinted from Bureau of Mines Report of Investigation_____."

2/ Mining engineer, Bureau of Mines, Fairbanks, Alaska
3/ Mining engineer, Bureau of Mines, Juneau, Alaska

R.I. ____

INTRODUCTION

Cassiterite has been known to be present in the gravels of Tozimoran Creek for many years. During the past years the many gold miners that visited the area recovered small amounts of this mineral in their sluice boxes. However, no particular attention was given to the cassiterite until the advent of the last war. An acute shortage of tin caused by the curtailment of foreign imports made it necessary to try and develop domestic sources of this metal.

The placer deposits of Tozimoran Creek were examined during the summer of 1940 by Livingston Wright, a consulting mining engineer. In the summer of 1942 the Federal Geological Survey sent a party1/ into the area to examine the cassiterite-bearing deposits and to determine if the area might be a possible source of tin. Results obtained by the Geological Survey prompted the Bureau of Mines to conduct a preliminary examination in the area during August and September 1944. This work, under the direction of the senior author, was to determine whether there was evidence of a sufficient amount of tin to warrant the expenditure of funds on a detailed exploration program.

There are no active mining operations on Tozimoran Creek. In the past, Mr. Martin Weberics and his partner, Mr. I. W. Turkeypile carried on a small hand-mining program for gold.

ACKNOWLEDGMENTS

This paper is one of many reporting various aspects of the Bureau of Mines program initiated in August 1939 by passage of the Strategic Minerals Act, the scope of which was greatly expanded by subsequent legislation.

1/ Gates, Robert R., Preliminary Report on Tin Deposits of the Tozimoran Creek Area, Alaska. Geological Survey, 1942.

In its program of investigation of mineral deposits the Bureau of Mines has as its primary objective the more effective utilization of our mineral resources to the end that they make the greatest possible contribution to national security and economy. The Mining Branch, Lowell B. Moon, Chief, conducts preliminary examinations, performs the actual investigative work and prepares the final report. The Metallurgical Branch, Oliver C. Ralston, Chief, analyzes samples and performs beneficiation tests.

The Alaska Division, Mining Branch, is under the direction of R. S. Sanford, Acting Division Chief.

Special acknowledgment is extended to Martin Sebories and I. W. Purkeypile, the owners, who contributed their services and furnished housing facilities and various small tools in order to expedite the exploratory work.

LOCATION AND ACCESSIBILITY

Tozimoran Creek is located in central Alaska at approximately 65° 20' north latitude and 153° west longitude. (See fig. 1). The head-waters of Tozimoran Creek are accessible from the mouth of Grant Creek, a tributary on the north side of the Yukon River, 30 miles downstream from Tanana. A tractor trail extends 4 miles up Grant Creek to the Fisher and Fisher Mine; from there a pack trail about 12 miles long follows a ridge into the head-waters of Tozimoran Creek, as shown in fig. 2. With some relocation and considerable amount of work this trail could be made into a passable tractor road.

The closest settlement is Tanana, which is approximately 40 airline miles southeast of Tozimoran. Tanana has a population of about 150 people; 50 whites and 100 Indians. It has two general stores, a roadhouse, an airfield capable of accommodating large airplanes, a Territorial school, a government-operated hospital, and a church.

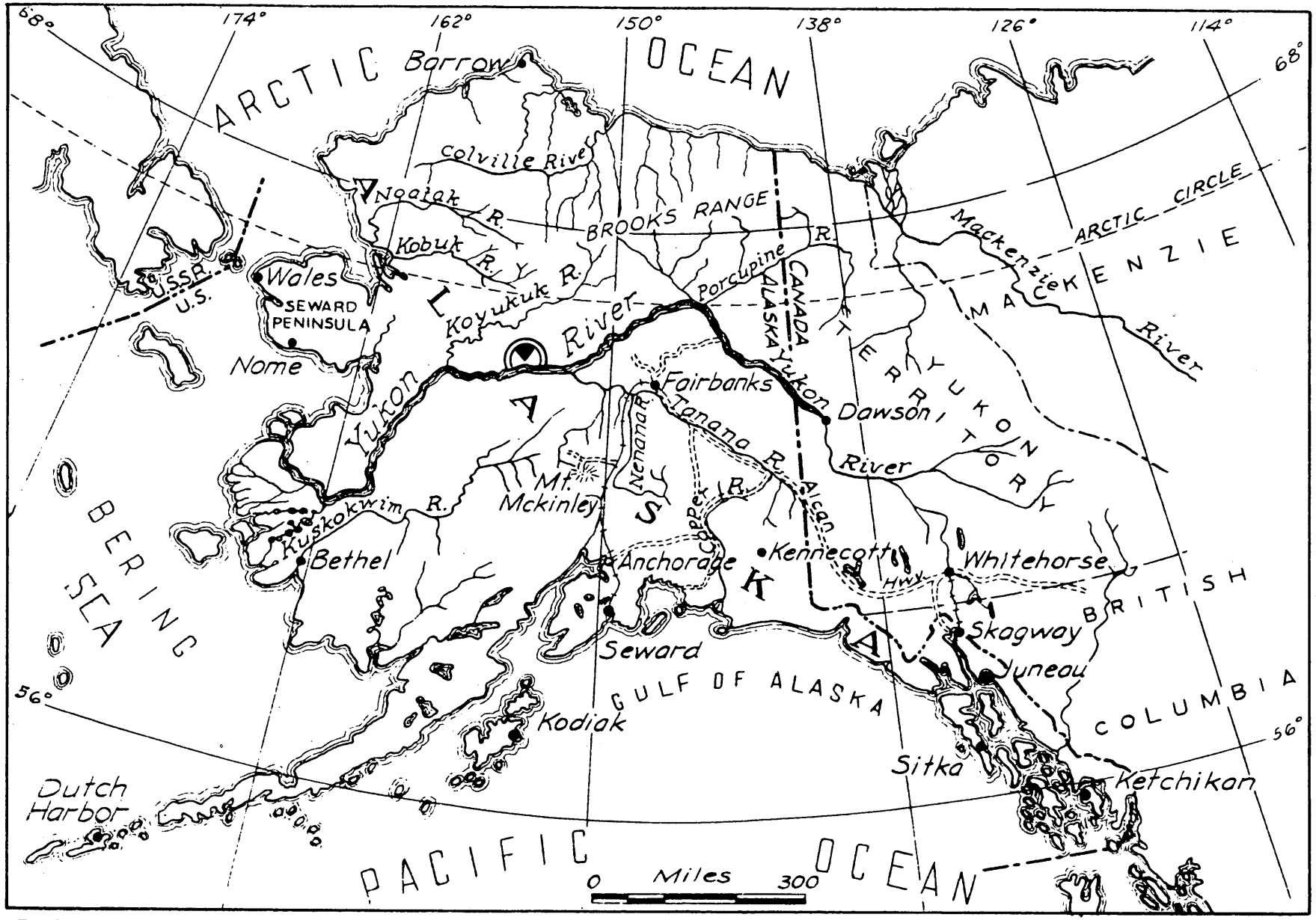
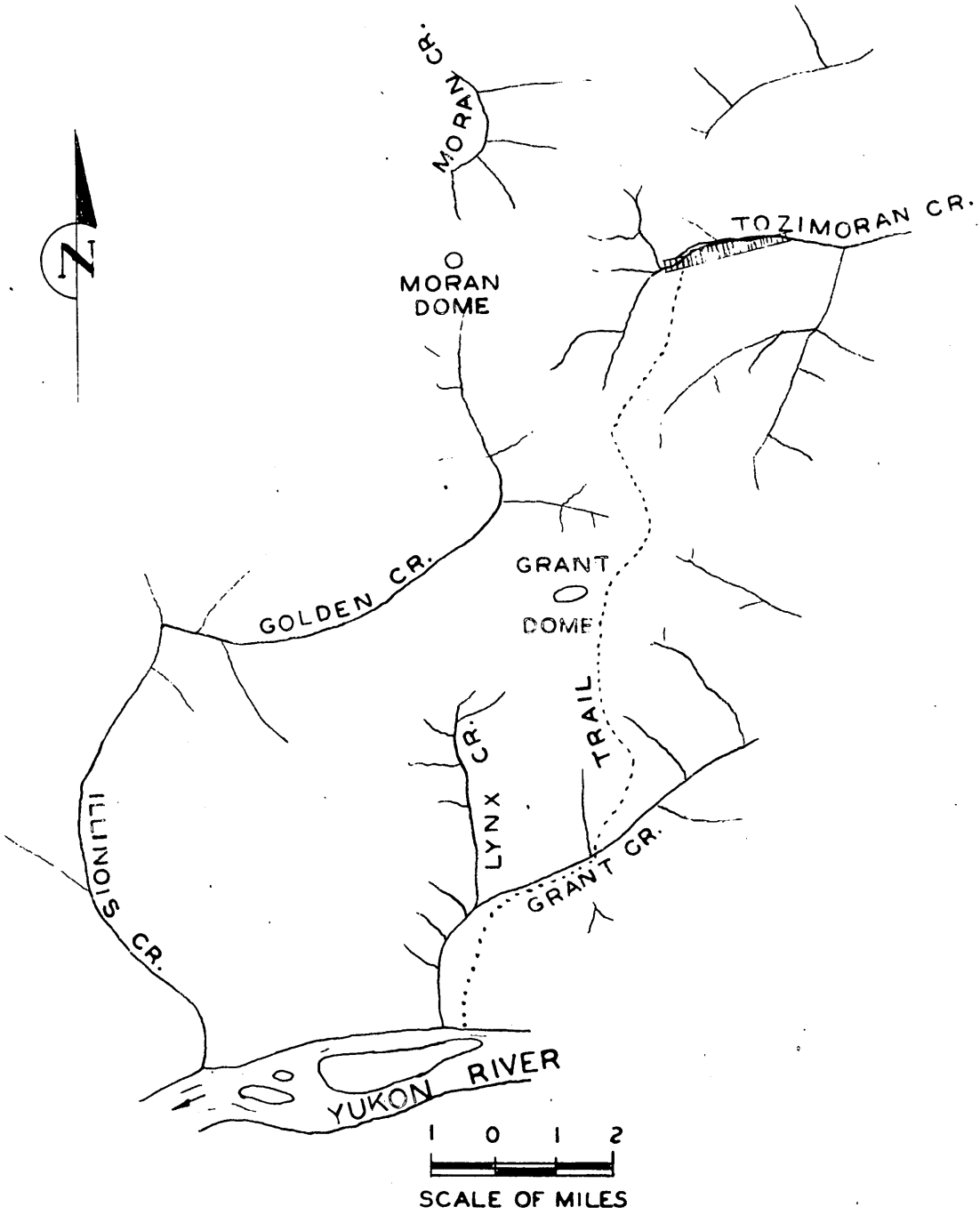


FIG. 1 INDEX MAP SHOWING LOCATION OF TOZIMORAN CREEK



MODIFIED FROM USGS MAP

FIG. 2 TOZIMORAN CREEK AREA, ALASKA

Freight is brought in from the coast by railroad to Nenana, thence by river boat to Tanana, and thence to Grant Creek. In the winter time travel is by dog team or airplane. During the winter planes land on the ice on Yukon River at the mouth of Grant Creek. In the summer time, pontoon-equipped airplanes land on the river or wheel-equipped planes land on a gravel bar in the center of the river 3 miles below the mouth of Grant Creek.

PHYSICAL FEATURES AND CLIMATE

Tenimorman Creek is a northeast flowing tributary of the Tenitna River, about 12 miles in length and in its upper portion flows in a narrow alluvium-filled valley. The region is one of considerable relief; most of the ridges attain an elevation of more than 2,000 feet while the domes rise to more than 3,000 feet. The tin deposit lies near the headwaters of the creek at an elevation of approximately 800 feet.

The climate of the region is typical of central Alaska, having long, cold winters and short, relatively warm summers. The extremes in temperature are from minus 70 degrees F. in winter to 90 degrees F. or higher in summer, with an annual mean temperature of about 23 degrees Fahrenheit. A large portion of the alluvial deposits are permanently frozen as the surface thaws only a few feet during the summer. However, on Tenimorman Creek circulating ground water has in places thawed the ground for a considerable distance away from the present stream banks.

The valley floor is covered by brush and an occasional stand of small spruce suitable for mine and camp use. The ridges rise well above timber line and are barren, except for scattered patches of scrubby brush.

HISTORY AND PRODUCTION

Placer gold was discovered on Tozimoran Creek in 1902; many prospectors and miners visited the district since the discovery of gold, but not a sufficient amount of this metal was ever found to warrant mechanized mining. Up until the year 1938 intermittent prospecting was conducted in the area. Claims were staked, allowed to lapse and then restaked by others. During this period a small amount of hand mining was done on a left limit bench of Tozimoran Creek 2,000 feet downstream from Ash Creek, a headwater tributary (see fig. 3).

Since the year 1938 the upper tin-bearing portion of Tozimoran Creek has been held by two partners. These partners have carried on an intermittent hand-mining program on the bench, and at various times prospected on various parts of the creek.

The total production for the creek has probably not been more than a few ounces of gold and a few hundred pounds of tin.

PROPERTY AND OWNERSHIP

Eighteen forty-acre association placer claims covering the tin-bearing area are held by partners I. N. Purkeypile of Fairbanks, Alaska, and Martin Egberies of Tanana, Alaska. All those claims are recorded at the Fort Gibbon recording office at Tanana, Alaska.

WATER SUPPLY

There is sufficient water in Tozimoran Creek for a small placer mining operation. During low stages it is estimated that approximately 400 miner's inches of water flows through the tin-bearing area. Water measurements made by the Bureau of Mines during a high stage, show a

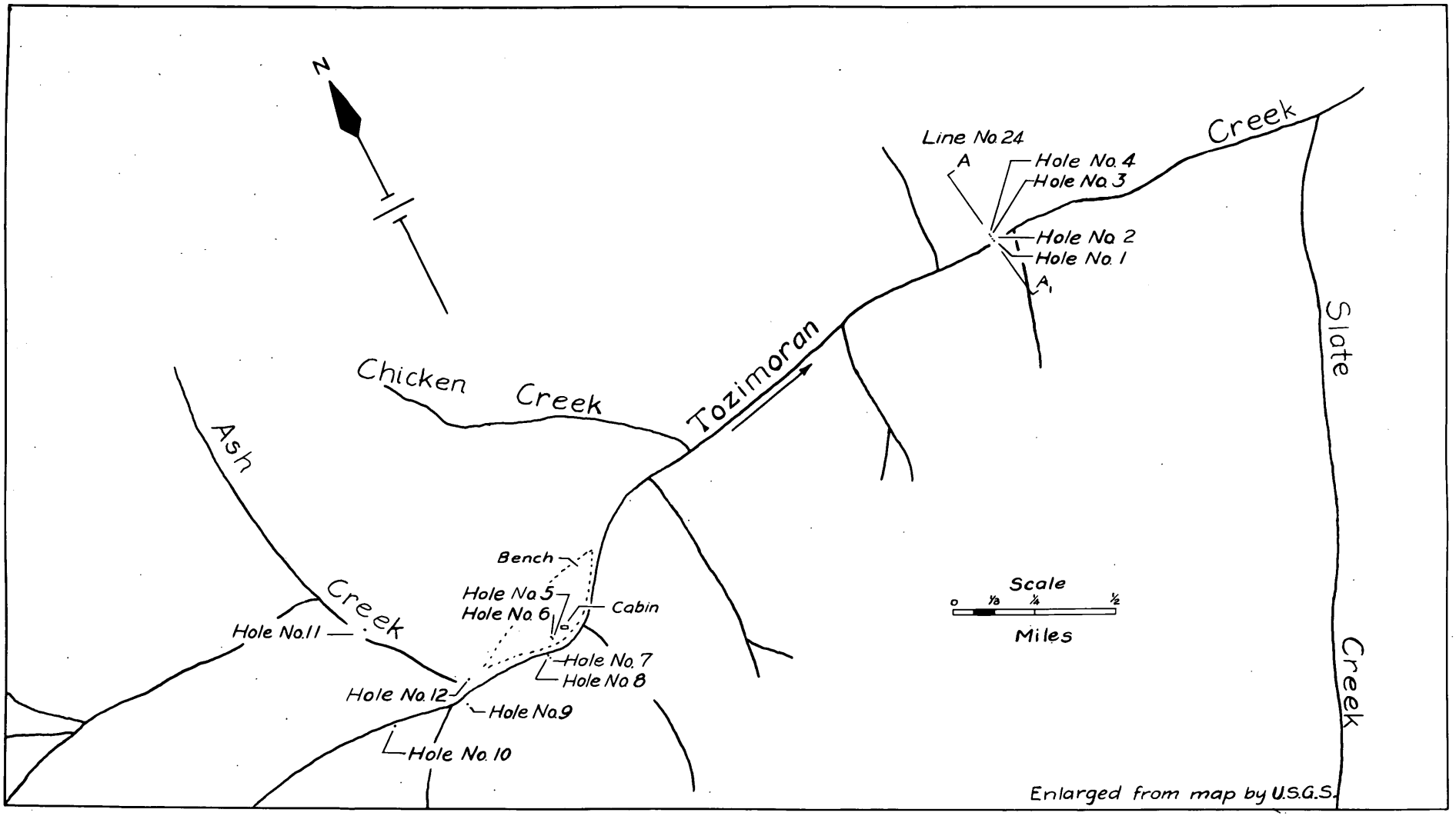


FIG. 3 SHAFT HOLES TOZIMORAN CREEK, ALASKA

flow of 4,200 miner's inches in the vicinity of the tin deposit.

One small ditch, excavated several years ago, supplies water for hand-mining operations on the bench. This ditch is too small to furnish water for a mechanized operation.

OCCURRENCE OF DEPOSITS

The principal tin-bearing area on Toximoren Creek is a bench, 1,000 feet long and 200 feet wide, located on the north side of Toximoren Valley downstream from the mouth of Ash Creek (see fig. 3). Tin, in the form of cassiterite, and gold are found in the gravels on this bench. Small amounts of tin and gold occur in the gravels of the valley floor downstream from the bench.

The hills on the south side of the valley rise steeply; but to the north they slope more gently, indicating the presence of a higher bench. This latter bench begins near the confluence of Ash and Toximoren creeks and extends three miles down Toximoren Valley.

The Bedrock in the tin-bearing area of the bench and in the valley floor consists of quartz mica schist. The bedrock appears to have a fairly even surface.

There are no known tin lode deposits in the district, and the exact source of the placer tin has not been determined.

CHARACTER OF DEPOSITS

The tin-bearing gravels on the bench are about 4 feet deep, and are covered with muck an average depth of 3 feet. Along the margins of the bench the muck and gravels are thawed, but back from the margins both are permanently frozen. The muck, consisting of organic matter, some fine sand, and clay is overlain by a thin mantle of moss. The gravel is fairly coarse

and contains many boulders over 2 feet in diameter. Very little clay is found in the upper portions of the gravel, but near bedrock a considerable quantity is found.

The gravel in the valley floor is also overlain with moss and muck. The muck is frozen, but the underlying gravels are thawed. Along the outer rim of the valley some of the gravel is frozen, but this condition seems to exist only along the margins of the alluvium. Unlike the bench gravel considerable clay is found in the upper portions as well as near bedrock. The size of material is comparable to that found on the bench.

On the bench cassiterite, associated with gold and the heavy minerals magnetite and limonite, is concentrated in the gravels two feet above bedrock, but in the valley floor these minerals are sparsely disseminated in the upper gravels and concentrated in the last 5 feet of bedrock. In no case do these minerals appear to penetrate the bedrock for more than 6 inches.

The cassiterite is 1/16 to 1-1/2 inches in diameter; however, the largest percentage is found in the smaller sizes.

SAMPLING

During the preliminary examination two methods of sampling were used. Channel samples were cut through exposed pay sections of gravel in open cuts on the bench, and shaft holes were sunk in the gravel of the valley floor.

Channel Sampling

Nine channel samples were cut at convenient locations along the banks of the open cuts on the bench (see fig.4). Prior to cutting samples all sloughed material was cleaned away from the face of the banks to expose virgin gravel. Small samples were panned from various depths in the gravel to determine the pay horizon. When the pay horizon had been established,

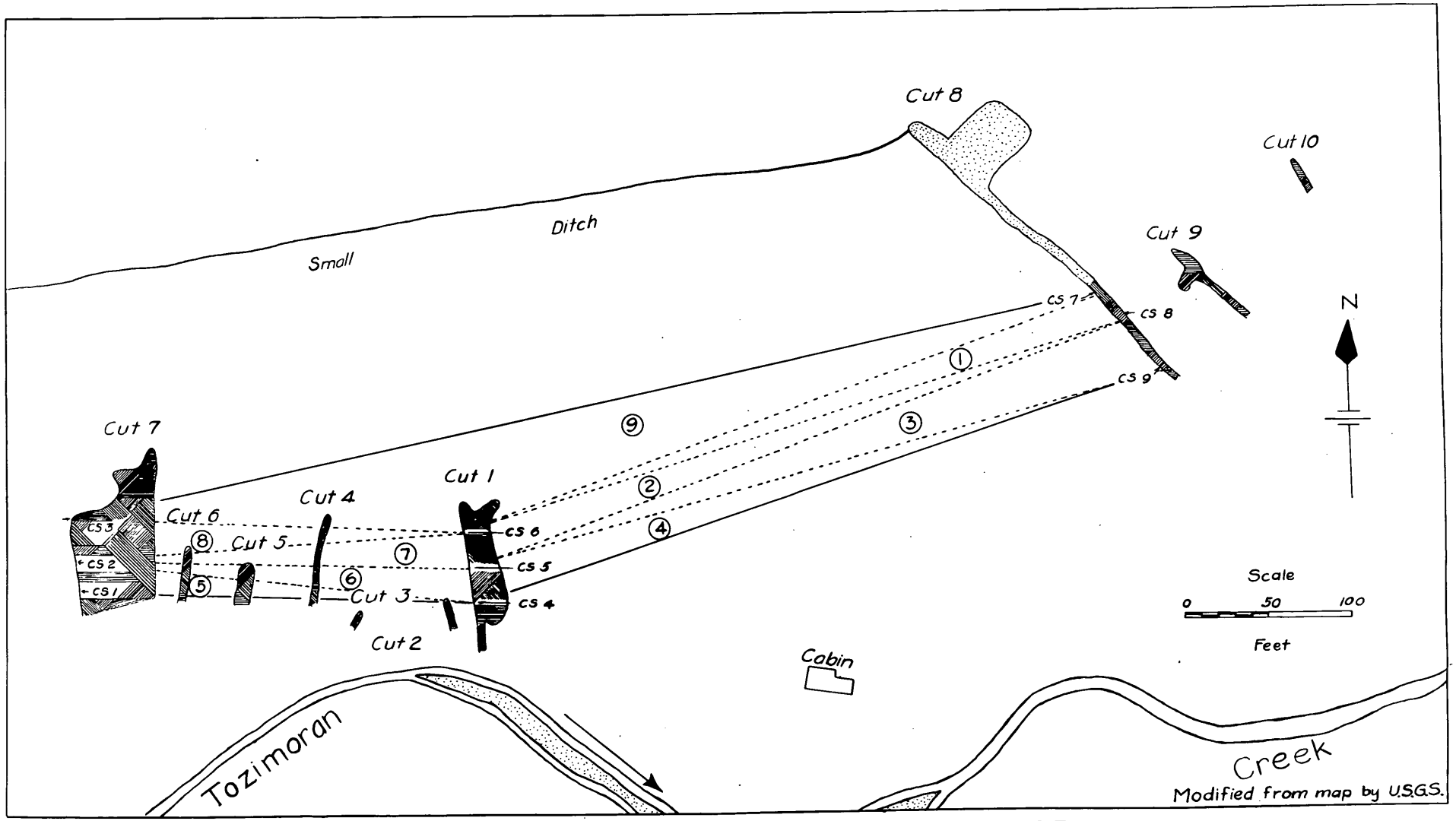


FIG. 4 OLD OPEN CUT WORKINGS ON BENCH TOZIMORAN CREEK, ALASKA

the barren upper gravel was excavated and a channel was cut through the pay horizon only.

A measurement was made of each channel after it was cut. All material cut from the channel was weighed and a loose volume measurement was made. The entire sample was run through a rocker from which a concentrate was recovered. The gold was extracted from the concentrate and weighed, and the remaining concentrate was weighed and analyzed for its tin content.

Table 1 is a summary of tin concentrate analyses and Table 2 is a compilation of channel sampling data

TABLE 1

Summary of tin concentrate analysis from channel samples

Sample Number	Percent Tin	Sample Number	Percent Tin
C.S. 1	45.37	C.S. 5	27.82
2	57.13	6	51.83
3	62.26	7	60.11
4	32.29	8	15.40
		9	23.85

TABLE 2

Calculated tin and gold content

Sample Number	Depth Muck	Depth Gravel	Depth Bedrock	Depth Pay Horizon	Measured Volume Loam / Cubic Feet	Calculated Volume / Cubic Feet	Weight of Sample / Pounds	Weight of Tin concentrate / Grams	Weight Gold / Mgs.
1	1.0	4.5	0.5	3.0	4.8	4.32	529	156.2	143.18
2	3.0	4.0	0.5	2.5	1.4	1.60	149	59.9	122.03
3	3.0	4.5	0.5	3.1	2.2	1.86	207	196.5	214.40
4	1.0	3.5	0.5	3.0	1.9	1.68	213	22.8	32.51
5	3.0	4.5	0.5	3.9	3.0	2.81	348	36.9	4.68
6	4.0	5.0	0.5	3.1	2.0	1.54	231	37.5	126.30
7	2.0	2.5	0.5	2.0	1.3	0.96	126	51.6	19.02
8	3.5	1.5	0.6	2.1	2.4	1.26	265	13.0	7.55
9	1.5	1.0	0.8	1.3	1.0	0.78	115	16.1	2.27

Shaft Sampling

Two shaft holes 50 feet apart, on line 24, 1-1/2 miles below the bench, were sunk in a narrow portion of the valley floor. A small section of the valley floor was frozen sufficiently to permit sinking open shaft holes at this location. An attempt was made to sink two more holes in order to cross cut the valley at this point, but ground water prevented attaining a depth of over four feet so they were abandoned.

A small prospect boiler was used during the thawing of frozen muck and gravel. The pay gravels were washed in a rocker and the gold extracted from the recovered concentrate. The remaining concentrate was weighed and then analyzed for tin content. Table 3 is a summary of tin concentrate analyses.

TABLE 3

Summary of tin concentrate analyses from shaft hole samples

Hole Number	Percent Tin
3	52.16
4	49.02

The pay gravel was extracted in sections approximately two feet in depth. The material from each section was measured in a volume bucket, and the size of the hole at each section was measured with a tape. In order to recover all the cassiterite the pay gravel was washed through the rocker twice.

The logs of each shaft hole are shown in tables 4 and 4A.

TABLE A

Hole No. 3 — Log of Shaft Holes, Tenderfoot Creek, Alaska — Line No. 24

Depth in Feet	Measured Volume Loose Cubic Feet	Calculated Volume Cubic Feet	Weight Tin Conc. Grams	Weight Gold Mgs.	Remarks
1			00		Moss
3			00	00	Frozen Muck - some sand top of gravel 5.0'.
6			00	00	Frozen, fine gravel and sand
10			00	00	Frozen coarse gravel - some clay schist and quartz.
11			00	00	Frozen, coarse gravel, sand and some clay.
12	21.24	12.4	120	91.29	Frozen, coarse gravel, much clay some sand.
13	22.42	10.8	69	46.32	Frozen, coarse gravel, much clay many small boulders.
16.2	35.40	27.0	431	323.30	Top bedrock 16.0' - bedrock decomposed schist
16.5			00	00	Decomposed schist - (gray color)
TOTALS	79.06	50.2	620	460.91	

Depth - Moss	1.0
Muck	4.0
Gravel . . .	11.0
Bedrock . .	0.5
Total	16.5

TABLE 4A

Hole No. 4 — Log of Shaft Holes, Tenimgan Creek, Alaska — Line No. 24

Depth in Feet	Measured Volume Loose Cubic Feet	Calculated Volume Cubic Feet	Weight Tin Cons. Grams	Weight Gold Mgs.	Remarks
1					Moss
5.5					Frozen muck - top gravel 5.5'
11.2			00	00	Frozen medium gravel and sand
13.2	30.68	25.1	163	160.04	Frozen, coarse gravel, some sand and clay.
15.2	23.60	13.9	57	24.55	Frozen, coarse gravel - and much clay
17.0	21.24	15.8	310	237.00	Frozen, coarse gravel - many boulders and much clay.
17.6	24.78	15.6	204	34.25	Frozen, coarse gravel - many boulders and much clay - top bedrock 17.7'
18.2			00	00	
TOTALS	100.3	70.4	734	455.84	

Depth - Moss 1.0
Muck 4.5
Gravel . . . 12.1
Bedrock . . 0.6
Total 18.2

Attempts were made to sink shaft holes at 8 other locations on upper Tenimoren Creek and its upper tributaries, but excessive ground water prevented reaching bedrock (see fig. 3). One of these shaft holes, near the mouth of Ash Creek, was sunk 12 feet before it was abandoned. Table 5 lists each shaft hole and shows the depths attained.

TABLE 5

Depths of abandoned shafts

Hole Number	Depth Abandoned
1	4.5
2	4.0
5	4.0
6	5.0
7	6.0
8	6.5
9	4.5
10	3.5
11	3.0
12	12.0

Channel Sample Summary

The examination indicates a tin-bearing area approximately 650 feet long and 80 feet wide, which constitutes a portion of the bench below Ash Creek. The sampled block averages 0.731 pound of tin and 0.0228 ounce of gold a cubic yard. Table 6 is a summary of channel sample results.

TABLE 6

Summary channel sample results

Sample Number	Depth Mining Section Feet	Pounds Tin a Cu. Yd.	Ounces of Gold a Cubic Yard	Depth Muck Section Feet
C.S. 1	5.5	0.536	0.01390	1.0
2	5.0	0.630	0.02950	3.0
3	5.5	2.190	0.05030	3.0
4	4.5	0.170	0.00950	1.0
5	5.5	0.150	0.00090	3.0
6	6.0	0.400	0.03300	4.0
7	3.5	1.100	0.00860	2.0
8	2.5	0.079	0.00390	3.5
9	2.0	0.190	0.00160	1.5

The tin content of gravel in the valley floor below the bench was not estimated. The two shaft holes numbers 3 and 4, at line 24, were in a narrow portion of the valley. (~~see fig. 6~~). The results of the sampling from these two holes does not indicate the presence of a paystreak. Table 7 is a summary of shaft-hole sampling results.

TABLE 7

Summary of Shaft Hole Sampling Results

Hole Number	Depth Mining Section Feet	Pounds Tin a Cu.Yd.	Ounces of Gold a Cubic Yard	Depth Rock Section Feet
3	12.0	0.197	0.0031	5.0
4	13.1	0.146	0.0029	5.5

I W Purkeypile
Box 572 - Fairbanks, Alaska

BY ONE TO PLACER PROPERTY

KNOWN AS THE

TOKLOKAT CREEK

TICKLER
LIVINGSTON WRIGHT
MANSFIELD MILLS, MASS.

THIS PROPERTY IS ADJACENT THE
[illegible] OF
GEORGE GROVER
[illegible], ALASKA.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 28 1952

YUKON - KOYUKUK DISTRICT

Tozimoran Section:

Tozimoran Creek lies in an unmapped area about 20 miles north and west of Tanana on the Yukon River and is in the Rampart quadrangle.

External Conditions:

The Tozimoran is about 12 miles long and flows N. 80 degrees E. in a deep, broad valley to its junction with the Tozitna River. Two transportation routes are available for this creek. The usual route is by wagon road which follows Grant Creek to a point about 4 miles north of the Yukon and then by a 16 mile trail passable to pack animals to a temporary camp near the head of Tozimoran. The other route is by shallow draft boat up the Tozitna River from the Yukon to the mouth of the Tozimoran, a distance reported to be about 40 miles by water but only about 25 miles in an air line. No landing field is available at this creek.

The surrounding country is quite rugged and many of the hills attain an elevation of about 3000 feet. The Ray Mountains to the northeast reach an elevation of 6000 feet, but the Kokrine Hills to the west are considerably lower.

The freeze-up and break-up occur earlier and later, respectively than in the Ophir and Poorman sections, and consequently the operating season is somewhat shorter. The annual precipitation is reported to be greater than that for the Yukon-Tanana region to the south.

Stands of birch, spruce and tamarack of a size suitable for mining and building purposes occur locally in the valley, and there is an ample supply of small timber for domestic purposes. The summits of the neighboring ridges and hills are above timber line at this latitude which is only about 70 miles south of the Arctic Circle.

The Tozitna River flows a large volume of water and, at the time of the examination, at least 150 miner's inches were running in Tozimoran Creek at a point 3 miles below the head.

/

History:

It is reported that gold was discovered in this creek about 1908, but no ground rich enough to work was opened at that time. Intermittent prospecting appears to have been carried on with more or less indifferent success, and claims were frequently allowed to lapse and were restaked by other prospectors. Within the past two years the upper creek valley has been taken up by the present owners, and staking downstream by the same parties is still being carried on. The present plan is to cover the creek throughout its length.

Geology:

During the last glacial period ice sheets interfered with the existing drainage system in this area and caused the flooding of many of the creek valleys. The economic effect of this, as regards mining, has been the deposition of from 25 to 75 feet of silt above the gold bearing gravels on the lower Tozimoran Creek. As drainage was re-established, the creek cut into bedrock deeply so that at present the original pay streak remains locally on benches and elsewhere has been entirely eroded and distributed through the creek gravels.

No positive evidence was found that the creek had been subject to the direct action of the ice, so that the pay streak probably was not destroyed at that time.

Where exposed, the bedrock is schist which carries discontinuous veins and seams of quartz. In general appearance it resembles strongly the Birch creek schist which forms the bedrock of the Fairbanks area, and on this basis it is possible that slate, limestone and quartzite beds may underlie some sections of Tozimoran. The occurrence of greenstone in the gravels indicate that beds or intrusions of this rock are present.

Areas of granite intrusions occur in the general area and probably

underlie the schists in the creek. Mineralizing solutions given off by these intrusions were the probable source of the tin, gold and lead found in the creek, but no veins of either tin or gold were noted. The sulfide of lead, galena, was observed at two points.

The exposures of gravel which is medium in size and iron stained, range in thickness from a foot or so to a maximum of 9 feet.

In the upper section of the creek, the bench and creek gravels are overlain by muck, which at one place reaches a thickness of 18 feet. As the thickness of gravel under this muck was 6 feet, the ratio was 3 to 1. The lower section of the creek, in part at least, has a heavy overburden of very fine silt.

The gold, which is fairly coarse and dull yellow in color, and the cassiterite, occur for the most part in a two or three foot section just above and in bedrock, although low values are distributed throughout the entire gravel section, but nothing is known definitely of the grade or distribution of values in the creek gravels.

Development:

Very little development has been accomplished during the history of the creek, and such pits as were put down at various times have caved and are now inaccessible. Several small open cuts on a bench three miles below the head of the creek, and occasional pits over a distance of a further four miles indicate that prospecting results were not especially encouraging. At one cut (referred to in the sampling data as the old cut) about 4000 square feet of bedrock were cleared, but the results were reported to be disappointing. The unusually large amounts of cassiterite present probably contributed to this condition by the clogging of the riffles in the sluice boxes.

Recently, 3000 feet of old ditch have been repaired and a new cut ground sluiced to bed rock on the same bench.

Sampling:

Seven complete samples were taken in the new cut and two samples representative of the gold and tin pay section were taken in the old cut. The individual fractions were rocked and panned, and the gold recovered weighed after amalgamation and acid treatment. The cassiterite recovered from each sample was weighed, and a composite sample was put through a ⅛ inch screen. The two products resulting were weighed and assayed separately for tin and iron to obtain information regarding the possibilities of marketing all the cassiterite as recovered and the feasibility of producing cheaply a smaller tonnage of higher grade material.

The interval between the samples in the new cut was 25 feet, so that a 175 foot section is represented. The two samples in the old cut were taken at convenient points.

The sampling data are set forth in the following table:

Tozinoran Creek Samples (New Cut)

No.	Position With Reference to Bed Rock	Area of Cut Square Feet	Volume of Cut Cubic feet	Gold Dot. Mgms.	Assumed Fineness	Black Tin Dot. Lbs.
2 A	2 to 4	2	4	7		
B	0 to 2	2	4	39		
C	0.5 to 0	2	1	69		
2	0.5 to 4	2	9	115	900	1.0
4 A	1.5 to 4.5	2	6	54		
B	0 to 1.5	2	3	28		
C	1 to 0	2	2	104		
4	1 to 4.5	2	11	286	900	0.5
6 A	2.5 to 5.5	1.5	4.5	4		
B	0 to 2.5	1.5	3.75	232		
C	1 to 0	1.5	1.5	170		
6	1 to 5.5	1.5	9.75	406	900	0.14
8 A	2 to 4.5	1.5	3.75	3		
B	0 to 2	1.5	3	68		
C	1 to 0	1.5	1.5	82		
8	1 to 4.5	1.5	8.25	153	900	0.9

4

(Cont. Tosimoran Creek Samples) (New Cut)

No.	Position With Reference to Bed Rock	Area of Cut Square Feet	Volume of Cut Cubic Feet	Gold Det. Mgms.	Assumed Fineness	Black Tin Det. Lbs.
10A	1.5 to 4.5	2	6	7		
D	0 to 1.5	2	3	100		
C	-1 to 0	2	2	190		
10	-1 to 4.5	2	11	296	900	0.2
12A	0 to 4	1.5	6	125		
D	-1 to 0	1.5	1.5	225		
12	-1 to 4	1.5	7.5	460	900	4.2
14A	0 to 2.0	2.5	5			
B	-1 to 0	2.5	2.5	6		
14		2.5	7.5	6	900	Trace

Tosimoran Creek Samples (Old Cut)

20A	-0.5 to 2	1.0	2.5	6	900	
22A	-0.5 to 1.5	1.5	3	502	900	

The above data are calculated to values and amounts per cubic yard and per square foot of bedrock, as shown below.

Tosimoran Creek Samples (New Cut)

Sampling Results

Gold Values Per Cubic Yard Dollars	Per Square Foot of Bed Rock Dollars	Black Tin Amounts Per Cubic Yard Pounds	Per Square Foot of Bed Rock Pounds	Location Left Limit Bench New Cut
0.25	0.06	2.0	0.5	0
0.70	0.14	1.2	0.3	0
1.12	0.27	0.4	0.1	0
0.60	0.10	2.0	0.6	0
0.75	0.15	0.5	0.1	0
1.06	0.31	16.1	2.0	0
Trace	Trace	Trace	Trace	

Tosimoran Creek Samples (Old Cut)

Sampling Results

Trace	Trace	Left Limit Bench Old Cut
0.52	0.32	0

The samples are too few in number to justify the calculation of the average value of the section, as their principal value lies in showing the range of values, the distribution of values in the gravel and bedrock, and the close relationship between the gold and the black tin.

In the rocking of the samples, clay derived from the decomposition of the bedrock gave some trouble, but it is too small in amount to cause undue interference in sluicing. The cassiterite gave the greatest trouble in handling the samples, but amalgamation easily effected a separation of the gold from the tin.

Conclusion:

The Ophir section contains a probable yardage of gold bearing gravel in the lower sections of the creeks and the adjacent river gravels sufficient to make an attractive dredging proposition from this viewpoint, but the probable grade of the gravels, from 35¢ to 45¢ per cubic yard, and the apparent lack of continuity of the pay streak, indicates that over the life of the operation the property would be but a marginal producer.

The other possibility in this section, the working of the few remaining bench pay streaks and local enrichments, offers a doubtful net profit from very limited operations.

It is not recommended that active work be undertaken in this section at the present time, but developments should be watched.

So little information and data could be obtained on the Poorman section that no definite conclusions can be reached at this time beyond the fact that the cost of providing an ample water supply would require a considerable yardage of rich gravel to even meet amortisation charges on this development. As a rule ground that has been drifted in the past can be dredged at a profit today, providing that the operating factors are suitable for this method of mining. On this basis, Poorman Creek would probably be an attractive prospect if the cost of necessary water could be held within reason. At present, it is inadvisable to consider taking over the property.

Sosimoran Creek, due to the lack of prospecting and development data, can be considered merely a prospect at this time. Gold values on the benches, as shown by sampling, appear attractive but could be duplicated in the other sections examined and under conditions more favorable to lower operating costs.

The assay returns on the placer cassiterite in this creek give, for the material larger than ⅛", 52.5% tin and 2.93% iron, and for the material less than ⅛" in size the tin assay is 60.6% and the iron run 1.94%. The respective weights, expressed as percentages, were 70.2 and 29.8, giving an average result for all the material of 57.6% for the tin and 2.61% for the iron. The iron content, which, if too high, is penalized by the smelter, in this case is contained mainly in the rock particles associated with the cassiterite, and could be reduced to 1.75%, or less, by milling. The 2.61% average, however, would probably be acceptable without penalty. Sulphur, arsenic and copper, the other impurities subject to penalty, were not determined as they do not appear to be present in appreciable amounts.

Tin concentrates assaying 50% tin, or, roughly, 74% cassiterite, can be made from these gravels as a by-product from mining the gold. However, a penalty is usually applied for concentrates running less than 60% tin, which is the usual grade of Bolivian concentrates. Malayan concentrates run considerably higher in tin content, and placer tin from Tin City, Alaska, run better than 70%. It is difficult to see how there would be any market for the Sosimoran Creek tin except at a heavy discount from the market price unless foreign tin supplies were cut off. The cassiterite, then, becomes a liability in that it increases the cost of recovering the gold and, under ordinary conditions, is valueless.

Further work on this creek should not be considered unless a profitable market for tin concentrates of the grade and composition available be assured. Under normal market conditions it is certain that there would not be any profit in shipping tin concentrates from this section.

Respectfully submitted,

Livingston Blight.

Northfield Mills, Massachusetts

DMEA-1453

COPY

Anchorage, Alaska
August [illegible], 1940

Mr. Gus Gelles
Anchorage, Alaska

Dear Sir:

I have [illegible] brief [illegible] on the [illegible] property, held by Messrs. [illegible], located north of Grant Creek, [illegible] for your information:

Lode tin deposits.

As a result of [illegible] by Mr. [illegible], there is no direct evidence of lode tin in place. There is however no direct evidence of lode tin in place, but it may be inferred from the presence of placer tin in Grant Creek. Tin-bearing veins are characteristically [illegible]. Although there is no trace of granite in the vicinity of Ocean Creek, area of this rock [illegible] this locality, [illegible] very [illegible] at no great depth below Norman Creek. Further prospecting may result in the discovery of tin-bearing lodes, but the capacity of [illegible] is the search a difficult one.

Placer tin deposits.

A body of tin-bearing gravels [illegible] long and averaging [illegible] feet [illegible] has been blocked out by [illegible] of open cuts across a low bench [illegible]. According to Mr. [illegible] these cuts have [illegible] per square foot of bedrock, [illegible] feet [illegible]. This would indicate a [illegible] of [illegible] than in situ but as none of the other [illegible] of the gravel deposits contain any more tin than [illegible] in this bench. The depth of over-burden ranges from [illegible] along the outer edge of the bench to [illegible] feet [illegible] of the longest cut.

Placer tin has been reported [illegible] Ocean Creek as the mouth of Slate Creek, a [illegible], but this could not be confirmed in the present investigation [illegible] prospects have been [illegible]. One prospect hole [illegible] to have yielded 7 pounds of tin and $1.60 in gold. Most of the prospecting was done on the low benches, as other [illegible] of open cuts in the immediate valley bottom. [illegible] nothing is known of the occurrence of placer [illegible] at the [illegible] levels.

Recommendations.

Development work to date has proven the presence of placer tin and gold in workable quantities and locations on a low bench within a few miles of the head of Moran Creek, and there is some evidence that similar deposits of opal or jade may occur several miles upstream. The geologic setting is favorable for the extensive occurrence of both placer and creek deposits. This property is therefore judged to be sufficiently promising to justify an extensive program of prospecting to determine the extent and richness of the deposits. As a first step it will be necessary to prospect the creek bottom in the vicinity of the claims, probably best by prospecting by panning, perhaps supplemented by work with pans or rockers on the favorable places on the benches.

Very truly yours,

Farrell F. Barnes
Geologist, The Alaska Railroad

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2453

Date received 3-28-52

Participation

G. W. Purkeyfile
Box 572
Fairbanks, alaska

Name and address of applicant

Date March 18, 1952

FILL IN THIS BLOCK

Date of application March 18, 1952

Estimated cost $30,000

Mineral or metal Tin and gold

Percentage of Government participation 90%

Location of mine Tozi Moran Creek, Alaska
Near Tanana

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 28 1952

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership
*2. If a partnership, state names and addresses of partners. G.W. and Sara E. Purkeyfile Box 572 Fairbanks alaska
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. —
*4. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property? yes
6. If owner, state what claims, liens, or encumbrances, if any, are against the property. none
7. If lessee, attach a copy of the lease and state if it is in good standing. —

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. not operating
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? 3,000 — yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. Same as above

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled. Tin smelter, Texas, See No. 12

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

Has not been in production by present owners

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Tin

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)

By J W Purkeypile
(Signature of authorized official)

March 18, 1952
(Date)

Operator
(Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

For [illegible]

4. (a) [illegible] 1. [illegible] the subject.

Business [illegible]: Prospecting [illegible]
In [illegible] station at [illegible], 1[illegible] - 1907, [illegible] years; training [illegible] at [illegible], 10 years, 1907 - 1911; [illegible] 17 years.
Mining experience: Prospecting and mining in [illegible] area, 1904 to 1911; operating engineer on tin dredge, Whitewater River, at York, Nash, summer 1914; [illegible] Fairbanks [illegible], summer 1915; 1917 - 1921, [illegible] Silver-Lead Mine, Flight River.

10. (a) Discovery; No. 1 [illegible]; No. [illegible]; No. [illegible]; No. [illegible]; Discovery Association, [illegible]; No. 1 [illegible]; [illegible]; Discovery Ash Creek; No. 1 and No. [illegible] on Tox Moran on tributaries, on all contiguous.
(b) same as (a)

11. The property is located 16 [illegible] miles north from the Yukon River at Grant Creek, which point is [illegible] miles [illegible] River from Tanana. At present [illegible] only [illegible] trail, but a [illegible] can be made with little difficulty. Shipping: mail from [illegible] on [illegible] to [illegible] by Government river boat; [illegible] to [illegible]; [illegible] to [illegible]; [illegible] to the [illegible] in Texas.

13. There is plenty of [illegible] for mining the [illegible] of mining.

14. [illegible] mining [illegible]; [illegible] boiler, [illegible], fittings, and points complete; [illegible] of hand tools, along with [illegible], [illegible], [illegible], [illegible] and rivets, a 40 foot power boat which has been used for transportation between Grant Creek and Tanana, for communication and supplies. Tanana is the nearest [illegible].

16. (a) Previous exploration has been done by hand tools only; and not adequate for sinking holes in set or [illegible]. Over a period of 11 years we have expended more than 10,000 for such hand-tool exploration. There were several [illegible] on discovery, [illegible] which were taken out before the present owner's time. It seems that the amount of gold didn't pay by old hand methods; also there was no market for the [illegible] that time [illegible] pay.
(b) There is [illegible] property operating nearer than [illegible]. The property, just [illegible], on which [illegible], has been [illegible] operating for 10 years. It is a going [illegible].
(c) Reports of mining engineer, Livingston Wright and geologist, Farrell F. Barnes accompany this [illegible] application.

Form MF- 105

No. 1 (a) (b) [illegible]

(c) Deductions from Livingstonix Freight's Report:
Block on bench of Discover, Claim, 10[illegible]' x 15[illegible]' contains 150,000 s. ft. of bedrock; 17, per sq ft in gold ..... [illegible],500
Tin concentrate .75, per s. ft.,60%-.[illegible] tin [illegible] per lb.
65,7[illegible] ..... 65,7[illegible]
Total value [illegible]

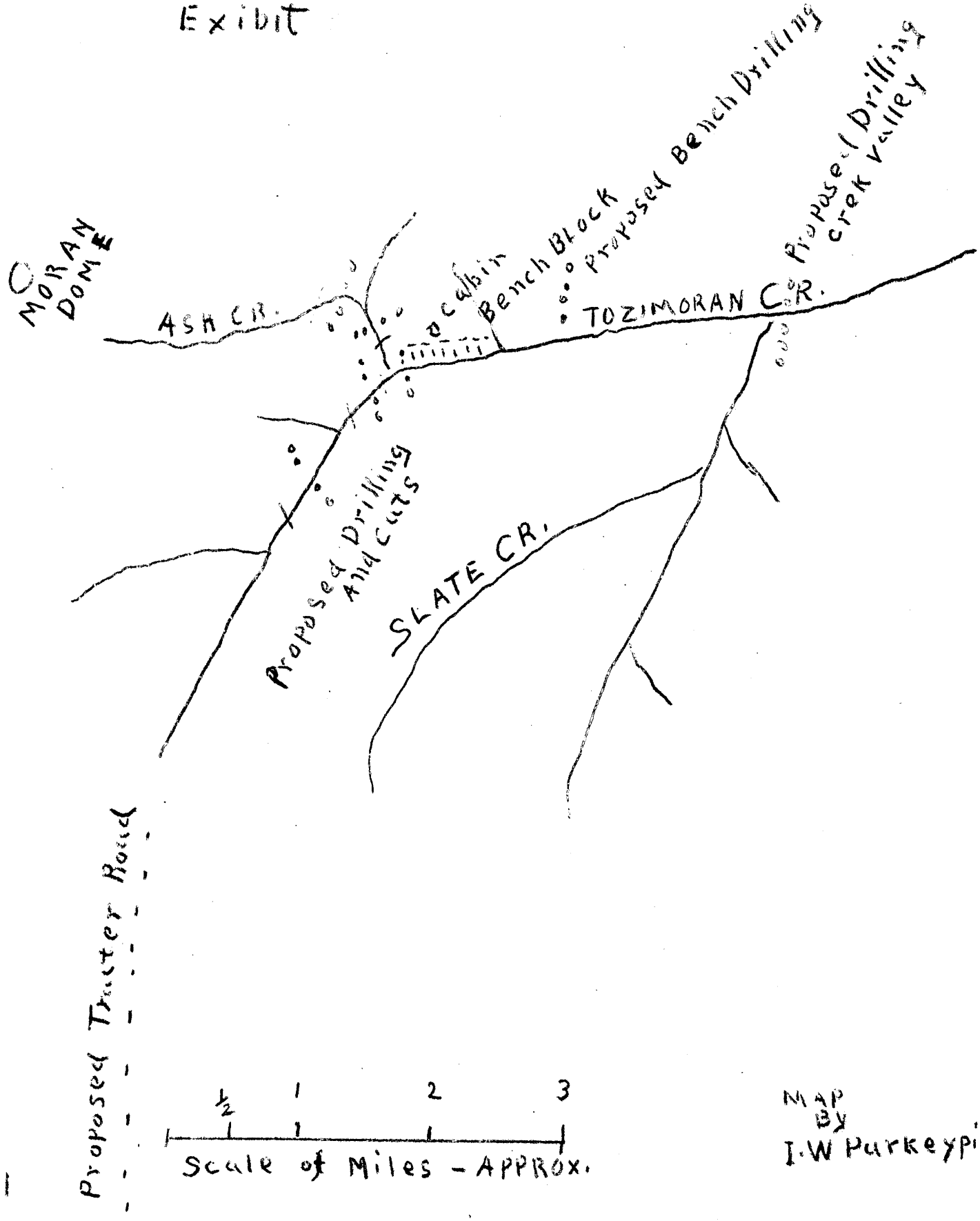
No. 1[illegible]. We were never able to get holes down in the creek valley above the bench block on Discovery (No. 1[illegible]) on account of water. We were not able to sink holes in the creek valley(and get to bedrock all the way across) nearer than [illegible] below the "bench block" . There, the creek came in to the side of the bank and the valley floor was frozen ground, which enabled us to get down by means of a boiler. The holes were from 20' to 150' apart- too far and should be rechecked. The holes were about [illegible]' to bedrock. The center hole, I considered pay - averaging .60 per s. yd in gold and 1[illegible] tin concentrate per yd. The holes below this [illegible] cross-cut the creek but got no pay. There is a high bench all the way down which has not been explored.

No. [illegible]1. The proposed work would be to start in the valley bottom, near the upper end of the "bench block", with a line of holes about 20' apart; then up stream a line of holes about every 400' until we find no more tin. Between the lines of holes will be cuts made with the bulldozer to check the drilling, where it is advisable. The "bench block" is about [illegible] miles from the head of the creek. On claim No. [illegible] below, about 1 mile below the bench block , a line of holes across the bench about 50' apart. This would determine whether the high benches below carry tin. If time permits, a line of holes across valley on No. [illegible] below, near the mouth of Slate Creek. It will take about 4 months to complete the proposed exploration.

No. 22. As we go up the creek from the "bench block" we will be coming nearer to the source of the tin (which undoubtly is a vein of tin ore) the volume of tin should be greater.
See report by Geologist, Carroll F. Bates.

No. [illegible]. (a) 1 laborer - 1.[illegible] per hr. approx. per month [illegible]
1 miner and driver [illegible] per hr. 450.00
1 cat driver,bulldozer man,driller .50 " 600.00
1 cook ... [illegible] 40[illegible].00
(b) 1 supervisor ..... [illegible]
ages for [illegible]. 475.00
.....
4 [illegible] [illegible],300.[illegible]
(c) Cost of [illegible] to log cabin ..... [illegible]
(d) [illegible] ..... 1[illegible].00
(e) 1 bulldozer, fully equipped, [illegible] 10,[illegible]
(f) Rent for drill, 4 months ..... [illegible]
1 [illegible] ..... [illegible]
(g) No rent charge for equipment [illegible] operator
(h) Freight, cat [illegible] lines, Fairbanks to [illegible] 700.00
Fuel [illegible] 700.00
Groceries and miscellaneous [illegible] 200.[illegible]
cost for [illegible] 8[illegible],400.00

FORM MF 103
NO. 22
Exibit



MAP BY
I.W Purkeypile

OMEA-2453

COPY

Anchorage, Alaska
August 2[illegible], 1940

Mr. Gus Gelles
Anchorage, Alaska

Dear Sir:

I have completed a brief examination of the mining property held by Messrs. Purkeypile and [illegible]orels on Moran Creek, 20 miles north of Grant Creek, Alaska, and submit the following report for your information:

Lode tin deposits.

Results of assays of samples from Moran Mountain, thought by Mr. Purkeypile to contain tin, were negative. There is therefore no direct evidence of lode tin in this locality, except as may be inferred from the presence of placer tin on Moran Creek. Tin-bearing veins are characteristically associated with granite. Although there is no trace of granite in the upper basin of Moran Creek, areas of this rock lie a few miles to the southwest and west of this locality, and granite is very probably present at no great depth below Moran Creek. Further prospecting may result in the discovery of tin-bearing lodes, but the scarcity of outcrops makes the search a difficult one.

Placer tin deposits.

A body of tin-bearing gravels about 1,000 feet long and averaging 100 feet wide has been blocked out by a series of open cuts across a low bench on upper Moran Creek. According to Mr. Purkeypile these cuts have averaged about 4 to 5 pounds of cassiterite per square foot of bedrock, as well as 50 cents per square foot in gold. This would indicate a deposit of between 100 and 200 tons of placer tin in sight but as none of the cuts reached the inner limit of the gravel deposits considerably more tin may be present in this bench. The depth of over-burden ranges from about 5 feet along the outer edge of the bench to 20 feet or more at the inner end of the longest cut.

Placer tin has been reported as far down Moran Creek as the mouth of Slate Creek, a distance of 5 miles, but this could not be confirmed in the present investigation as all the old prospects had caved in. One prospect hole 25 feet deep is said to have yielded 7 pounds of tin and $1.65 in gold. Most of the prospecting was done on the low benches, as water prevented the sinking of open holes in the immediate valley bottom. Consequently nothing is known of the occurrence of placer deposits at the present stream level.

Recommendations.

Development work to date has proven the presence of placer tin and gold in workable quantities and location on a low bench within a few miles of the head of Moran Creek, and there is some evidence that similar deposits of equal or greater value occur several miles downstream. The geologic setting is favorable for the extensive occurrence of both bench and creek deposits. This property is therefore judged to be sufficiently promising to justify an extensive program of prospecting to determine the extent and richness of the deposits. As a drill would be necessary to prospect the creek bottom the entire area could probably best be prospected by drilling, perhaps supplemented by open cuts at favorable places on the benches.

Very truly yours,

Farwell F. Barnes
Geologist, The Alaska Railroad

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2453

Date received 3-28-52

Participation

J. W. Purkeyfile
Box 572
Fairbanks, Alaska

Name and address of applicant

Date March 18, 1952

FILL IN THIS BLOCK

Date of application March 18, 1952

Estimated cost $30,000

Mineral or metal Tin and gold

Percentage of Government participation 90%

Location of mine Tozimoran Cr.
Near Tanana, Alaska

Date of filing MF-100

DMA Docket Number, if available

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 28 1952

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership - JW and Sarah Purkeyfile

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.

*5. Are you the owner or the lessee of the property? owner

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. none

7. If lessee, attach a copy of the lease and state if it is in good standing. —

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. not operating

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? 3000 - Yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. Same as above

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled. Tin Smelter, Texas - See No 12

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

Has not been in operation by present owners

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly. See Report

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Tin

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company) By J. W. Parkerfield (Signature of authorized official)

(Date) Operator (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Application by I. . Purkeypile
P.O. Box 57?, Fairbanks, Alaska

Form MF 103

4. (a) (b) I. .urkey ile, erson ho will manage the project.

Business experience: ~~Prospecting in Nome area~~
In charge of U.S. Bureau o. Indian Affairs station at Selawik, 1928 - 1937, 9 years; trading post at Noorman, 10 years, 1937 - 1951; U. S. Postmaster in both places, 17 years.
Mining experience: Prospecting and mining in Nome area, 1904 to 1911; operating engineer on tin dredge, Anacovick River, at York, Alaska, summer 1914; worked in hydraulic placer mine, Fairhaven Mg. Co., summer 1915; 1917 - 191?, opened up silver-lead mine, Kugruk River.

10. (a) Discovery; No.1 Below ; No. elow; No. 3 Below; No. Below; Discovery Association, Slate Creek; No.1 Above; No. Above; Discovery Ash Creek; No.1 and No. Above on Ash Creek, all on Tozimoran and tributaries, and all contiguous.
(b) same as (a)

12. The property is located 16 mil s north from the Yukon River at Grant Creek, which point is 30 miles down river from Tanana. At present we have only a horse trail, but a cat road can be made with little difficulty. Shipping: ~~xxxx~~ from bank on Yukon to Nenana by Government river boat; thence on Government R.R. to Seward; thence by S.S. Ship to Seattle; thence to tin smelter in Texas.

13. There is plenty of water during the summer months for any kind of mining.

14. 1 cabin and cache; 1 prospecting boiler, with pipe, fittings, and points complete; almost a complete supply of hand tools, along ~~xx~~ with windlass, cable, picks and shovels. Also, on the river, a 40 foot power boat which has been used for transportation between Grant Creek and Tanana, for communication and supplies. Tanana is the nearest supply base.

16. (a) Previous exploration has been done by hand tools only; and not adequate for sinking holes in wet creek bed. Over a period of 11 years we have expended more than $10,000 for such hand-tool exploration. There were several small cuts on Discovery claim which were taken out before the present owner's time. It seems that the amount of gold didn't pay by old hand methods; and there was no market for the tin at that time which would pay.
(b) There is no property operating nearer than 5 miles. This property, just over the divide, on Golden Creek, has been operating for 10 years. It is a gold placer mine.
(c) Reports by Mining Engineer, Livingston Wright and Geologist, Farrell F. Barnes accompany this application.

Form MF* 103

No. 18 (a) (b) See Reports

(c) Deductions from Livingston~~x~~ Wright's Report:

Block on bench of Discovery Claim, 1000' x 150' contains 150,000 sq. ft. of bedrock; 17¢ per sq ft in gold $25,500

Tin concentrate .73# per sq ft.,60%-.53# tin @ $1 per lb. 65,700# 65,700

Total value $91,200

No. 19. We were never able to get holes down in the creek valley above the bench block on Discovery (No. 18) on account of water. We were not able to sink holes in the creek valley(and get to bedrock all the way across) nearer than 3 miles below the "bench block" . There, the creek came in to the side of the bank and the valley floor was frozen ground, which enabled us to get down by means of a boiler. The holes were from 200' to 150' apart-too far and should be rechecked. The holes were about 8' to bedrock. The center hole, I considered pay - averaging $.60 per sq yd in gold and 1½# tin concentrate per yd. Two miles below this place we cross-cut the creek but got no pay. There is a high bench all the way down which has not been explored.

No. 21. The proposed work would be to start in the valley bottom, near the upper end of the "bench block", with a line of holes about 25' apart; then up stream a line of holes about every 400' until we find no more tin. Between the lines of holes will be cuts made with the bulldozer to check the drilling, where it is advisable. The"bench block" is about 3 miles from the head of the creek. On claim No.2 below, about 1 mile below the bench block , a line of holes across the bench about 50' apart. This would determine whether the high benches below carry tin. If time permits, aline of holes across valley on No. 4 Below, near the mouth of Slate Creek. It will take about 4 months to complete the proposed exploration.

No. 22. As we go up the creek from the "bench Block" we will be coming nearer to the source of the tin (which undoubtly is a vein of tin ore) the volume of tin should be greater.
See Report by Geologist, Farrell F. Barnes.

No. 23. (a)	1	laborer - 1.75 per hr. approx. per month	$425.00
	1	panner and rocker man 2.00 per hr. "	450.00
	1	cat driver,bulldozer man,driller 2.50 "	600.00
	1	cook ... . per mo	400.00
(b)	1	supervisor ... ." .."	600.00
		Wages for 1 mo.	2475.00
		4 months	9,900.00
(c)		Cost of repairs to log cabin	45.00
(d)		Two tents and lumber	155.00
(e)		1 bulldozer, fully equiped, blade and hoist	15,000.00
(f)		Rent for drill, 4 months	500.00
		1 2" pump with hose	400.00
(g)		No rent charge for equipment now owned by operator	
(h)		Freight, cat and supplies, Fairbanks to Grant	700.00
		Fuel oil and gas	750.00
		Groceries and miscellaneous supplies	2000.00
		cost for 4 months	$29,400.00

SECRETARY TO THE OPERATING COMMITTEE
DEFENSE MINERALS EXPLORATION ADMINISTRATION
INTERIOR BUILDING
WASHINGTON 25, D. C.

Standard Form No. 1044—Revised
Form approved by Comptroller General U. S.
June 25, 1936

C O P Y

SCHEDULE OF COLLECTIONS

Schedule No. J-3

Sheet No. 1 of 1

Department of the Interior (Department or Establishment) Defense Minerals Exploration Administration (Bureau or Office)

Station 14-23-010

Received by Paul D. Banning, Chief Disbursing Officer (Name) (Title) at Juneau, Alaska (Station)

Period December 1953 (Month or quarter ended) D. O. Symbol No. 1323

Date Received	Receipt Number	Name of Remitter	Detail Description of Purpose for Which Collections Were Received	Amount	Fund to be Credited (Symbol and title in full)
12/7/53	#1	I. W. Purkeypile Check on Bank of Fairbanks -- No. #	Overpayment of voucher made under Contract Idm-E 353, Month of October 1952. Duplicate invoice-Walt Wigger in the amount of $175.10; 90% Government participation $157.59	157.59	14X4401 Revolving Fund, Defense Production Act, Interior
			Total,	$157.59	

Received December 10, 1953, subject to collection.

Paul D. Banning
Chief Disbursing Officer
(Disbursing clerk or accountable officer)

By /s/ Marian D. Keller

Forwarded December 8, 1953

By
Lawrence J. Wilcox (Name)
Title Authorized Certifying Officer

Certificate of Deposit No. 23 416 dated Dec. 10, 1953

U. S. GOVERNMENT PRINTING OFFICE 10—1790

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1952 Docket No. DMEA 2453 Contract No. E-353
Operator's Name I.W. & Sara E. Purkeypile Minerals Tin
Address
Contract Amount, $ 18,000.00 Government Participation: 90% Amount, $ 16,200

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor	-	4,905.63	4,905.63		4,905.63	4,905.63
Supervision	600.00	1,700.00	2,300.00	600.00	1,700.00	2,300.00
Technical Services	50.00	200.00	250.00	50.00	200.00	250.00
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Fuel Gas and Oil	(349.09)	791.90	442.81	(349.09)	791.90	442.81
Truck Groceries	(17.06)	986.77	969.71	(17.06)	986.77	969.71
Tools & Supplies	18.71	272.81	291.52	18.71	272.81	291.52
(4) Operating Equipment:						
Rental	592.85	3545.41	4138.26	592.85	3,545.41	4,138.26
Purchase		314.11	314.11		314.11	314.11
Depreciation						
(5) Initial Rehabilitation and Repairs		225.75	225.75		225.75	225.75
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	3.20	13.32	16.52	3.20	13.32	16.52
Payroll Taxes		1299.00	1299.00		1,299.00	1,299.00
Liability Insurance		305.23	305.23		305.23	305.23
Freight	975.50	1259.69	2235.19	975.50	1,259.69	2,235.19
(8) Contingencies (specify):						
TOTALS	1874.11	15819.62	17693.73	1,874.11	15,819.62	17,693.73

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 11/7/52 *Payee I. W. & Sara E. Purkeypile

Per Ray Bopler Title Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1,263.25

Signature Lucerne P. Wiese
(Authorized Certifying Officer)

Date 5-19-53 Vou. No. DMEA-44
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. ..... in accordance with the terms of the contract.

Signature ..... Title ..... Date .....

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature ..... Title Executive Officer, Alaska Field Team Section I Date 5-18-53

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1952 Docket No. DMEA 2453 Contract No.
Operator's Name I. W. & Sara E. Purkeypile Minerals Tin
Address Fairbanks, Alaska

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	ft.	937.05	-	8090.45	499	16.21		
Churn								
Auger								
Stripping								
Trenching	ft.	468.53	-	4875.26	250	19.50		
Test Pits								
Roads and Trails	mi.	468.53	-	4188.16	21	199.44		
TOTAL DISTRIBUTED COSTS		1874.11		17153.87				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased				314.11				
Initial Rehabilitation and Repairs				225.75				
New Buildings, Improvements, etc.								
TOTAL COSTS		1874.11		17693.73				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 11/8/52 Operator I. W. & Sara E. Purkeypile

Per Ray Gohler Title Accountant

REMARKS:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

I. T. AND SARA E. FUNKEYPILE
CONTRACT Idm-L-353

Pursuant to letter from Executive Officer, Region I, dated March 31, 1953 and reply from the Chairman, Operating Committee, final payment is being made on the above-mentioned contract.

The monthly NF-104s and supporting documents have been examined and found to be accurate. Although the attached NF-104 indicates that a total of $225.75 was expended on "Initial Rehabilitation and Repairs", this was an error in distribution. The $225.75 represents the purchase of tents, mattresses and small miscellaneous camp supplies and should have been charges as "Operating Materials and Supplies". All purchases shown in this category were made during the month of July 1952; invoices for which are a part of Bureau Voucher DMA-7, B. O. Voucher No. 23 2988, paid September 3, 1952, accounts of Paul D. Manning, Symbol 1223.

Final payment is computed as follows:

October 1952 NF-104 (Approved for payment - 90% of $1,874.11)	$ 1,686.70
Less property purchased by contractor:	
1 ea. Pump, 2 PAF, Jeager 2", Ser. F112763, Wisconsin Engine AEN——239.00	
1 ea. Hose, suction 2 x 25—— 72.00	
2 ea. Tents, 16 x 16 @ 55.00—110.00	
1 ea. Tent, wall 10 x 12——— 49.50	
470.50	
90% Government participation	423.45
Net payment	1,263.25

Form DMEA-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 5 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Sept., 1952 Docket No. DMEA 2453 Contract No. E-353
Operator's Name I. W. & Sara E. Purkeypile Minerals Tin
Address Fairbanks, Alaska
Contract Amount, $ 18,000.00 Government Participation: 90 % Amount, $ 16,200.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor	1519.33	3386.30	4905.63	1519.33	3386.30	4905.63
Supervision	600.00	1100.00	1700.00	600.00	1100.00	1700.00
Technical Services	125.00	75.00	200.00	125.00	75.00	200.00
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
~~Gas & Oil~~ Pipe	81.18	710.72	791.90	81.18	710.72	791.90
~~Groceries~~ Track	283.99	702.78	986.77	283.99	702.78	986.77
Tools & Supplies	.50	272.31	272.81	.50	272.31	272.81
(4) Operating Equipment:						
Rental	1450.00	2095.41	3545.41	1450.00	2095.41	3545.41
Purchase		314.11	314.11		314.11	314.11
Depreciation						
(5) Initial Rehabilitation and Repairs		225.75	225.75		225.75	225.75
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		13.32	13.32		13.32	13.32
Payroll Taxes	1299.00		1299.00	1299.00		1299.00
Liability Insurance	197.73	107.50	305.23	197.73	107.50	305.23
Freight	1053.36	206.33	1259.69	1053.36	206.33	1259.69
(8) Contingencies (specify):						
TOTALS	6610.09	9209.53	15819.62	6610.09	9209.53	15819.62

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 12/20/52 *Payee I. W. & Sara Purkeypile
Per Ray Jenler Title Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 5,949.08

Signature Lawrence Shiro
(Authorized Certifying Officer)

Date 11-4-52 Vou. No. DMEA-19
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. ..... in accordance with the terms of the contract.

Signature ..... Date .....

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Bureau of Mines

Signature ..... Title Regional Director Date 11-4-52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form 7-F-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 5 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept. 1952 Docket No. 2653 DMEA Contract No. 7in
Operator's Name I. W. & Sara E. Puckey Pile Minerals
Address Fairbanks, Alaska

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	ft.	2203.36	132	7153.40	499	14.33		
Churn								
Auger								
Stripping	ft.	4406.73	250	4406.73	250	17.63		
Trenching								
Test Pits	ea.			3719.63	21	177.12		
Roads and Trails								
		6610.09		15279.76				Total Costs Authorized by Contract
Total Distributed Costs				314.11				
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				225.75				
New Buildings, Improvements, etc.								
		6610.09		15819.62				
Total Costs								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Oct. 6, 1952 Operator I. W. & Sara E. Puckey Pile

Per Ray Sohlen Title ~~Supervisor~~ Accountant

Remarks: Trenching consisted of bulldozing out 2 old cuts to bedrock - thereby clean straight walls were available for sampling.

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

C
O
P
Y

Narrative Report for September 1952
Tozimoran Creek

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 25 1952

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

Dear Mr. Lorain:

We put down 7 more drill holes, making 32 in all. We also cleaned out two old cuts on the bench. Twelve samples were taken from these cuts. Six pans were rocked for each sample.

I have all the samples with me, and waiting to hear from your office where to send them for assaying.

We broke camp on the 15th and finished moving to the river on the 16th. On the 17th I took the crew to Tanana, where they left for their respective homes. We waited on the beach until the 22nd before Black came along to pick up machinery and outfit. We arrived in Fairbanks with out boat Oct. 2nd. Black arrived the next day.

Mr. Chapman and Mr. Smith and Mr. Hulbert were at our camp for 5 or 6 days. I appreciated their assistance very greatly.

I will be glad to give any further information that you might want to know.

Yours very truly,

-s-

I. W. Purkeypile

October 6, 1952

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

DMEA-12
9/26/52

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1952 Docket No. DMEA 2453 Contract No. Idm E. 391

Operator's Name I. W. and Sara E. Purkeypile Minerals Tin

Address incidently gold

Contract Amount, $ 18,000 Government Participation: 90 % Amount, $

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor	2591.17	795.13	3386.30	2,591.17	795.13	3,386.30
Supervision	700.00	400.00	1100.00	700.00	400.00	1,100.00
Technical Services	75.00		75.00	75.00		75.00
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
~~xxx~~ Gas & Oil		710.72	710.72		710.72	710.72
~~xxxx~~ Groceries	699.28	3.50	702.78	699.28	3.50	702.78
Tools & Supplies	83.76	188.55	272.31	83.76	188.55	272.31
(4) Operating Equipment:						
Rental	1630.00	465.41	2095.41	1,630.00	465.41	2,095.41
Purchase		314.11	314.11		314.11	314.11
Depreciation						
(5) Initial Rehabilitation and Repairs		225.75	225.75		225.75	225.75
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		13.32	13.32		13.32	13.32
Payroll Taxes						
Liability Insurance		107.50	107.50		107.50	107.50
Freight	5.48	200.85	206.33	5.48	200.85	206.33
(8) Contingencies (specify):						
TOTALS	5784.69	3424.84	9209.53	5,784.69	3,424.84	9,209.53

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9/12/52 *Payee I W + Sara E Purkeypile

Per Ray Fowler Title Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 5,706.00

Signature
(Authorized Certifying Officer)

Date 9/26/52 Vou. No.

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E353 in accordance with the terms of the contract.

Signature [illegible] Title Chief, Mining Div. Reg. 1 Date 9/22/52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Regional Director Date 9/30/52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1952 Docket No. DMEA 2453 Contract No.
Operator's Name I. S. [illegible] Sara C. Purkeypile Minerals Tin
Address Box 572, Fairbanks Incidentally Gold

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	feet	4550.00	307	4550.00	307	13.48		
Auger								
Stripping								
Trenching								
Test Pits	miles	038.55	3	3719.53	21	177.12		
Roads and Trails								
TOTAL DISTRIBUTED COSTS		5704.69		8269.67				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		—		314.11				
Initial Rehabilitation and Repairs		—						
New Buildings, Improvements, etc.		—		265.75				
TOTAL COSTS		5704.69		9209.53				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 9/17/52 Operator I. S. & Sara C. Purkeypile

Per [illegible] Title Accountant

REMARKS:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

PROGRESS REPORT

by

I. W. Parkeypile

Tanana, Alaska
September 2, 1952

Mr. S. H. Lorain
Regional Director
U. S. Bureau of Mines
Juneau, Alaska

Dear Mr. Lorain:

This is a summary of our work done up to September 1st -

25 holes drilled all with casing

365 feet of drilling

I have kept the concentrates for every hole. I believe there was some tin in every hole except one, which we couldn't finish until we repaired some more casing. The concentrates from each hole weighed from 5 grams to 25 grams with about an average of 7/10 cubic foot volume.

The Black Navigation Company notified me that I will have to have the outfit back to the river by September 20. This makes it a little shorter time than I had figured.

It seems the accountant has been slow sending in the reports and accounts. As far as I know the Government has not paid in to the bank as of now.

Hoping things will work out all right.

Yours very truly,

s/I. W. Parkeypile

Drill Holes Tazimaroan Cr and Cash Cr.

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

Bu. Vou. No. DMEA-7
Sch. No.
P. O. No.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of JULY 1952 Docket No. DMEA ~~2543~~ 2453 Contract No. 1am E353
Operator's Name I. W. AND SARA E. PURKEYPILE Minerals TIN
Address BOX 572 FAIRBANKS, ALASKA ACCESSORY GOLD
Contract Amount, $ 18,000.00 Government Participation: 90 % Amount, $ 16,200.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor	1030.26		1030.26	795.13		795.13
Supervision	400.00		400.00	400.00		400.00
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
~~xxxx~~ Gas & Oil	710.72		710.72	710.72		710.72
Track Groceries	591.18		591.18	3.50		3.50
Tools & Supplies	188.55		188.55	188.55		188.55
(4) Operating Equipment:						
Rental	465.41		465.41	465.41		465.41
Purchase	314.11		314.11	314.11		314.11
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	225.75		225.75	225.75		225.75
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	13.32		13.32	13.32		13.32
Payroll Taxes						
Liability Insurance	107.50		107.50	107.50		107.50
Freight	206.33		206.33	206.85		206.85
(8) Contingencies (specify):						
TOTALS	4253.13		4253.13	3,424.84		3,424.84

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8/19/52 *Payee I. W. & SARA E. PURKEYPILE

Per Lary Sohler Title Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3,084.36

Signature
(Authorized Certifying Officer)

Date 8/27/52 Vou. No.
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. ..... in accordance with the terms of the contract.

Signature ..... Title ..... Date .....

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Exec Officer Field Team Date Aug 25, 1952

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1952 Docket No. DMEA ~~2543~~ 2453 Contract No.

Operator's Name I. W. AND SARA E. PURKEYPILE Minerals Tin

Address BOX 572 FAIRBANKS, ALASKA ACCESSORY GOLD

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	MILES	3713.27	18	3713.27	18	206.29		
TOTAL DISTRIBUTED COSTS		3713.27						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		314.11						
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.		225.75						
TOTAL COSTS		4253.13						

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8/18/52 Operator I. W. AND SARA PURKEYPILE

Per Kay Fowler Title Accountant

REMARKS: Cat and all equipment and supplies arrived on beach at Lancaster, July 26, at 12:30 PM. Made ½ mile road that afternoon. Next 2 days made 4 mile road thru thick timber to high ground. Next day first load went thru to Tesimoran.

NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

C
O
P
Y

I. W. Purkeypile
Box 572, Fairbanks or
Tanana, Alaska
August 5, 1952

LETTER OF PROGRESS

Mr. S. H. Lorain
Regional Director
B of M, Juneau, Alaska

Dear Mr. Lorain:

The last week in June, I spent in scouting out a cat road to Tosimoran. I flew over the route and walked over some of it. I was 4 days on moran creek locating best way to get into it.

I had a hard time getting cat and drill also it was difficult to find a driller and panner. Then after we got everything we had to wait on Black for over a week.

Perhaps if I give you the notes from my diary it will fullfill the purpose of this letter.

July 18 . . . Drill and cat loaded on barge - loaded our boat, "Lancaster" - all the crew aboard (except driller who flew to Tanana) - left Fairbanks 7PM.

July 19 . . . Arrived Nenana 12 noon - talked with Captain Black, regarding transportation of our outfit - left 3 PM.

July 20 . . . Travelling down Tanana

July 21 . . . Arrived at Lancaster Creek . . made camp.

July 22 . . . Brushed out road, looked for logs for go-devil.

July 23 . . . Got out logs . . went to Grant for fish and flour.

July 24 . . . Working on go-devil - waiting on Black.

July 25 . . . Working on go-devil - running out of food - waiting on Black.

July 26 . . . Raining hard - started for Tanana to get food and find out what had become of Captain Black - met Black boat half ways and turned back. Unloaded barge and started to make road - still raining hard.

July 27 . . . Made road thru 2 miles thick timber - boys working on go-devil - very stormy.

July 28 . . . Made 2 miles more road thru thick timber - boys finished go-devil.

July 29 . . . Left river with first thru load - arrived Tozimoran cabin 9 PM.

July 30 . . . Started putting up camp - made 1½ miles road up the creek.

July 31 . . . Cat - men and I left for river - made some road on way back - boys stayed to put up camp.

This is the 5th that I am writing this letter. We have the first line brushed out and the drill set for the first hole. There are 3 essential bolts missing on the drill tower, so we cant work the drill until we go to Tanana and get them. The men will be doing necessary work in preparation for the drilling.

Yours very truly,

I. W. PURKEYPILE

(Addition to previous letter 8/5/52)

C
O
P
Y

You will receive the other reports in a few days from Mr. Ray Kohler, Fairbanks.

Send money, to pay bills, to acct. -: I. W. or Sara E. Purkeypile, Bank of Fairbanks.
Ray Kohler to be notified when such fund is paid in.

JWP

At Tanana Aug. 7:

If you send any of your men in to Tozimoran, it would save them a hard trip if you have them fly over our camp and drop a note. I will then send the cat and go-devil to meet them at Lancaster or on the divide if they land at Golden - the divide is 5 mi. from Golden camp up Golden creek.

We will not be back to Tanana until about the 3rd of Sep.

JWP

August 28, 1952

I. W. and Sara E. Purkeypile
Box 572
Fairbanks, Alaska

THROUGH: Boulet & Kohler
P. O. Box 607
Fairbanks, Alaska

Dear Mr. Purkeypile:

We are returning a copy of your MF-104 for the month of July 1952 with the approved amounts shown under the columns "For Government Use Only".

The following adjustments were made in your account:

Item 2 - Labor: Your pay roll has been approved in the net amount only. Withholding taxes may be claimed when they are paid the Collector of Internal Revenue and Alaska Tax Commission. At that time, the amounts should be listed in Item 7 under Pay Roll Taxes. Board deductions are not reimbursable since the Government is participating in the purchase of groceries.

Item 3 - Groceries: We are deducting invoices from Fairbanks Wholesale Meat & Locker Supply in the amount of $43.82 since the extensions on the invoice total $44.82; Northern Commercial Co. in the amount of $549.34 since invoice is not itemized. These invoices may be submitted on a subsequent voucher when corrected and itemized bills are obtained.

Item 7 - Freight: The $5.48 charge listed on the Northern Commercial Co. grocery invoice is accepted since the invoice was deleted in its entirity.

The "Totals Previously Reported" column on your August MF-104 should reflect the approved totals on the current month's voucher.

Very truly yours,

L. J. Wilcox, Chief
Administrative Division

Attachments

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

DOCKET COPY

Supplement to
Project Summary Report
dated February 16, 1954

By: Michael Ching July 30, 1954

Re: Docket No. DMEA-2453 (Tin)
Contract No.Idm-E353
I. W. and Sara E. Purkeypile
Tozimoran Creek
Fort Gibbon Mining District, Alaska

As a result of Amendment No. 2, dated May 26, 1954, items 2 and 3 of the Project Summary Report should be revised as follows:

2. Contract dated June 24, 1952.

Work authorized:

13 lines of churn drill holes- 4 or 5 holes per line.
Several shafts to check drill holes.
Total cost of project - $18,000.00
Government participation @ 90% - $16,200.00

Amendments -

No. 1, dated April 20, 1953 - Bulldozer trenches may be used in place of shafts to check drill holes.

No. 2, dated May 26, 1954 - Under "Estimated Costs of the Project," time allowance for the supervisor is increased from three to four months.

Work completed:

	Costs
a) 19 miles tractor road from landing to Tozimoran Creek and drill sites	$ 4,188.16
b) 32 churn drill holes totaling 488 feet	8,090.45
c) 2 Bulldozer trenches- 250 feet	4,875.26
Total	$17,693.73
Less exceptions and salvage proceeds	645.60
Net cost	$17,048.13
Government participation at 90%	$15,343.32

Project work was begun July 26, 1952, and terminated September 17, 1952.

3. Audit - Report of Review dated September 17, 1953.

Total cost as billed by contractor	$17,693.73
Less: Salvage proceeds	470.50
Net claimed costs by contractor	$17,223.23
Exceptions	175.10
Total Accepted Cost	$17,048.13
90% Government participation	$15,343.32

Michael Ching

Michael Ching

DOCKET COPY

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

February 16, 1954

Project Summary Report

By: Michael Ching

1. Docket No. DMEA-2453 (Tin)
Contract No. Idm-E353

Operator: I. W. and Sara E.Purkeypile
Box 572, Fairbanks, Alaska

Property: Tozimoran Creek, Fort Gibbon Mining District, Alaska.

Operator's Property Rights -

Owner of 16 mining claims in Tozimoran Valley, recorded at Tanana, Alaska.

2. Contract dated June 24, 1952.

Work authorized:

13 lines of churn drill holes - 4 or 5 holes per line.
Several shafts to check drill holes.
Total cost of project - $18,000.00
Government participation @ 90% - $16,200.00

Amendments:

No. 1, dated April 20, 1953 - Bulldozer trenches may be used in place of shafts to check drill holes.

Work completed:

		Costs
a)	19 miles tractor road from landing to Tozimoran Creek and drill sites	$4,188.16
b)	32 churn drill holes totalling 488 feet	8,090.45
c)	2 Bulldozer trenches - 250 feet	4,875.26
	Total	$17,693.73
	Less exceptions and salvage proceeds	1,145.60
	Net cost	$16,548.13

Project work was begun July 26, 1952, and terminated September 17, 1952.

3. Audit - Report of Review dated September 17, 1953.

Total cost as billed by contractor	$17,693.73
Less: Salvage Proceeds	470.50
Net claimed costs by contractor	$17,223.23
Exceptions	675.10
Total Accepted Cost	$16,548.13
90% Government participation	$14,893.32

4. No certification recommended by Field Team.

5. Comments -

The isolated location and rugged terrain of the project area imposed supply and transportation problems which were instrumental in limiting the efficiency of operations. The contract was executed too late for the Operator to take full advantage of the working season and last minute efforts to secure the required equipment resulted in the rental of unsatisfactory units. Because of these operational difficulties the work completed amounted to considerably less than that outlined by the contract, while the final cost approached that of the original estimate. However, the Operator prosecuted the work diligently and to the best of his ability.

The object of the project was to test the tin and gold content of placer gravels along Tozimoran and Ash Creeks by churn drilling, test pits or bulldozer trenches. The alluvial deposits of muck, clay, sand, and gravel are relatively thin, averaging about 12 feet and rarely exceeding 20 feet. The ground is frozen irregularly and only to a limited extent. The bedrock consists chiefly of quartzite and schists.

The use of a poorly-functioning sand pump in connection with the churn drilling resulted in poor sample recoveries, and consequent undervaluation of the areas drilled. However, the results appear to have been sufficiently conclusive to demonstrate that deposits of commercial value do not occur in these areas.

Channel samples taken from two old trenches cleared by bulldozing, indicate that the block of ground between them is of workable grade. There are indications, however, that some of the sampling by the Operator was improperly done. Furthermore, the resulting assays from one trench were much higher than those obtained from the same trench some years previously by representatives of the Bureau of Mines and the Geological Survey.

The following table summarizes the results of the tests. Values shown represent averages for each line of holes or for each bulldozer cut.

Line	No. Holes	Value of Sn Content @ $1.00 per lb. Per Sq. Ft. Ground	Value of Sn Content @ $1.00 per lb. Per Cu. Yd.	Value of Gold Per Sq. Ft. Ground	Value of Gold Per Cu. Yd.
1	2	$ .013	$ .028	$ -	$ -
2	2	.004	.010	-	-
3	1	.025	.044	-	-
9	2	.001	.002	-	-
10	4	.053	.131	-	-
13	9	.012	.030	-	-
14	4	.028	.081	-	-
Bulldozer cut 7		.725	3.172	.520	2.177
Bulldozer cut 8		.250	1.818	.140	.876

Due to the questionable reliability of above results, the wide spacing of the samples and the incomplete coverage of theproject area, the examining geologist considered it impractical to attempt to estimate ore reserves on this property.

Cassiterite is present on both Ash Creek and upper Tozimoran Creek but the bedrock source of the mineral has not been localized.

From experience gained on the project the most effective sampling procedure in this type of shallow ground appears to be bulldozer trenching rather than drilling.

Michael Ching

Michael Ching

Copies to:

Docket (original)
Adm. Reading File
Operating Committee
Code 700
Mr. Ching

[X] Audited

[ ] Certified

W[illegible] ANALYSIS SHEET - DMEA PROJECT

Analysis as of 12-2-54
Incl. Voucher for Oct., 1952

[X] Actual Cost

[ ] Agreed Unit Costs

Name I.W. & Sara E. Purkeypile

Docket No. 2453

State Alaska

Commodity Tin

Idm-E No. 353

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling - Churn (Specify)	Unspecified 488	8,090.45	488	8,090.45	7981.60
Surface Excavation		4,875.26		4,875.26	4875.26
Underground Excavation					
Roads and Trails		4,188.16		4,188.16	4,188.16
Operating Equipment Purchased		400.00		314.11	3.11
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)		446.13		50.65	
Totals		18,000.00		17,518.63	17,048.13

Prepared by Michael Ching

XXXXXXXXXXXXXXXXX
P. O. Box 560
Juneau, Alaska
August 12, 1954

I. W. and Sara E. Purkeypile
P. O. Box 572
Fairbanks, Alaska

Re: Docket No. DMEA-2453

Dear Mr. Purkeypile:

Attached is your copy of the D.M.E.A. auditor's "Supplemental Report of Review" on the Tesimeram Creek tin exploration project. This report includes the additional $500.00 for supervision allowed by Amendment No. 2, dated May 26, 1954 and indicates that you are no longer under obligation to repay that amount to the Government.

Very truly yours,

ALASKA FIELD TEAM, REGION I

J. A. Herdlick
For and in the absence of

S. H. Lorain, Executive Officer
Bureau of Mines Member

R. S. Velikanje
For and in the absence of

C. L. Sainsbury
Geological Survey Member

Attachment

cc: Operating Committee, DMEA - 2
U.S. Geological Survey
Administrative Division, USBM
S. H. Lorain

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
P. O. Box 560
Juneau, Alaska

Subj.: I. W. and Sara F. Purkeypile
Docket No. DMEA-2453
Contract No. Idm-F353

Dear Mr. Lorain:

Reference is made to Amendment No. 2, dated May 26, 1954, to the subject contract.

In accordance therewith it has been necessary to supplement the Report of Review dated September 17, 1953, issued by C. A. Turner, Auditor. The original and two copies of the Supplemental Report of Review dated July 27, 1954 are enclosed herewith for distribution in accordance with DMEA Circular 19, Supplement No. 4.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
July 28, 1954

Copy to: Docket
Admr. Reading File
Mr. Turner
Mr. Chambers

R.C.G.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
July 21, 1954

MEMORANDUM

To: Operating Committee, Defense Minerals Exploration Administration

From: Executive Officer, Alaska Field Team, Region I

Subject: Amendment No. 2
Docket No. DMEA-2453 (tin)
I.W. and Sara E. Purkeypile

Enclosed herewith are the "Government", "Docket", and "Division" copies of the subject amendment. The "Operator's Copy" has been retained by the Operator, the "Field Team" and "Finance Office" copies have been retained here.

All copies have been signed by the Operator.

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

Enclosures

cc: R.S. Velikanje

6/14/54 gla

XXXXXXXXXXXXXXX
P. O. Box 560
Juneau, Alaska
June 11, 1954

Mr. I. W. Purkeypile
P. O. Box 572
Fairbanks, Alaska

Re: Docket No. DMEA-2453 (tin)
I.W. and Sara E. Purkeypile

Dear Mr. Purkeypile:

Thank you very much for your good letter of May 25 and your invitation to visit you at Tozimoran Creek sometime before July 10. I would like very much to go, or send someone, but we are kept so busy with the active DMEA, Bureau of Mines, and Geological Survey projects that I doubt if we will be able to make the grade. In any case, we will be very much interested to learn from you something about the results that you obtained this summer.

I am happy to be able to tell you that finally we have been able to obtain an amendment to take care of the fourth month of supervisory work at the referenced project. I am enclosing herewith an orginal and five copies of "Amendment No. 2" for your signature. Please affix the signature of the partners to each copy, retain the copy marked "Operator's Copy" in the upper right hand corner, and return the other copies to this office.

With best wishes,

Yours sincerely,

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

cc: Operating Committee, DMEA
C.L. Sainsbury

SHL/ch

FILE COPY
SURNAME:

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

Ching	MC
Ellis	EWE
Rubin	
Talbot	

Rewritten by:

Mr. S. H. Lorain
Executive Officer
DMEA Field Team, Region I
Post Office Box 560
Juneau, Alaska

Re: Docket No. DMEA-2453 (Tin)
I. W. and Sara E. Purkeypile
Tozimoran Creek
Fort Gibbon Mining District,
Alaska
Contract Idm-E353

Dear Mr. Lorain:

In response to your memorandum to the Operating Committee dated March 18, recommending an amendment to the contract to authorize supervision required for and performed under the contract, there is attached an Amendment No. 2, executed by the Administrator.

After execution by the Operator of the amendment, regular distribution should be made of the copies.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures 6

Approved:

J. H. Hedges

Member, Bureau of Mines

D. M. Barrabee

Member, Geological Survey

Copy to: Docket
Admin Reading File
Operating Committee
Mr. A. Renick, Rm. 3624
Mr. B. Gildersleeve,
Rm. B242-A, GSA
Mr. Ellis
Mr. Hofflund
Mr. Rubin
Chron.
Pending

MChing:HCRubin:ep 5-24-54

R.C.S.

FILE COPY
SURNAME:

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

140

Rewritten by

Ching
Ellis
Rubin

mc
EWE

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA-2453 (Tin)
Contract No. Idm-E353
I. W. and Sara E. Purkeypile
Toximoran Creek
Fort Gibbon Mining District,
Alaska

Dear Mr. Lorain:

In response to your memorandum to the Operating Committee dated March 18, recommending an amendment to the contract to authorize supervision required for and performed under the contract, there is attached an Amendment No. 2.

The final figures pertaining to the cost of the subject project including Amendment No. 2 are as follows:

Total Accepted Cost	$17,048.13
Government participation at 90 percent	15,343.32

After execution by the Operator of the amendment, regular distribution should be made of the copies.

MChing/HCRubin/emd
5/14/54

Sincerely yours,

Chairman, Operating Committee

Enclosures 6

Approved:

Member, Bureau of Mines

Member, Geological Survey

Copies to: Docket
Adm. R. File
Op. Comm.
E. W. Ellis (2)
A. Renick, Rm. 3624
B. Gildersleeve, Rm. B242-A GSA
J. L. Hofflund
H. C. Rubin
chron.
pending

rewritten 5-24-54
HCR/ef

EXPLORATION PROJECT CONTRACT
I. W. and SARA E. PURKEYPILE
DOCKET NO. DMEA-2453

Justification for Amendment No. 2

Article 5 of the printed contract form provides:

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

In Exhibit "A" the rate per month for a supervisor was indicated as an allowable maximum but the number of months for supervision was not indicated as an allowable maximum.

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

The additional supervision was necessary for the performance of the work. If the Operator or the Field Team had supposed that an amendment of the contract might have been required to cover the additional supervision, such an amendment would have been entered into before the extra supervision was performed.

Do not attach to Amendment

[illegible]

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

P. O. Box 560
Juneau, Alaska
March 18, 1954

MEMORANDUM

To: George C. Selfridge, Chairman
Operating Committee

From: S. H. Lorain

Subject: Overpayment to Contractor
Docket No. DMEA-2453
I. W. Purkeypile

The attached copy of a letter from Mr. Purkeypile is self-explanatory. I am wondering if there is anything that we can do to correct this situation other than to require Mr. Purkeypile to repay the $450.00.

I must admit that the contract technicality which makes an "allowable maximum" out of an "estimate" was misinterpreted by me and I certainly don't think that Mr. Purkeypile could be expected to understand it. The fact that the $600.00 monthly rate was starred as an allowable maximum whereas other items of labor, supervision and technical services were not starred, is even more conducive to confusion and misinterpretation.

I know that the additional sum for supervision was claimed in good faith and that services were performed therefor. I also know that repayment of this amount by Mr. Purkeypile would impose a substantial hardship on him. Could not this be corrected by a retroactive amendment?

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

Enclosure

cc: C.L.Sainsbury
L.J.Wilcox

C
O
P
Y

I.W.Purkeypile
Box 572
Fairbanks, Alaska

Mr. L. J. Wilcox
Chief, Administrative Division
Bureau of Mines, Region I
P.O.Box 560
Juneau, Alaska

Dear Mr. Wilcox:

I received your letter of February 15 a few days ago, in which you asked for a check of $450.00 to pay the so-called overpayment. I have not got that much money in the bank.

It seems to me strange that the D.M.E.A. Field Team wasn't able to do something about that unfair and unjust Audit Report of the over-zealous Mr. Turner. The double payment of the $175.10 was a mistake which I corrected. Mr. Kohler wrote you a letter just as soon as the mistake was discovered.

My final voucher for the extra month, along with the other vouchers, was O.K.ed and paid. It must have been considered fair and just at that time.

That extra month was fully taken up with business belonging to the project. I might also add that there was considerable expense which I took upon myself, all belonging to the project. Such expense as putting my river boat in good order, which was used to take freight and the crew down the river; the crew back to Tanana; and your personnel back and forth from Landing to Tanana. There was also the trip to Tozimoran, prior to putting on the crew, to stake out the cat road, which took 10 days. This was all a part of the project but the Government was not asked to pay any part of these expenses.

I urge that you call for a re-examination and a reconsideration of the contract.

If I must have to pay this $450.00 I will need time to do so.

Yours very truly,

s/ I.W. Purkeypile
March 9, 1954

cc: J.A.Herdlick
S.H.Lorain
C.L.Sainsbury

C
O
P
Y

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RR UEPDA

DE UKJC 148A

R 0918497

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 09 1954

FM L J WILCOX CHIEF ADMIN DIV BUR MINES JUNEAU ALASKA

TO C O MITTENDORF OPERATING COMMITTEE DEFENSE MINERALS EXPLORATION

ADMIN INTERIOR BLDG WASHDC
MINES GRNC

REURTEL THIS DATE CONTRACT IDM E 353 CMM I W AND SARA E PURKEYPILE

PD OPERATOR WAS OVERPAID IN THE AMOUNT OF $607.59 CMM HOWEVER $157.59

WAS COLVECTED IN DECEMBER 1953 PD THIS OFFICE HAS CONTACTED THE

OPERATOR REGARDING THE $450.00 OVERPAYMENT

FN IDM E I W E $607.59 $157.59 1953 $450.00
09/1857Z

9Z

RS 3 0 6

DEPT. OF ARMY, TAGO
RECEIVED
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RADIO COMMUNICATIONS SEC

MAR 9 1954

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

MAR 10 1954

Withdrawn - see telegram from Region I correcting their previous telegram - and stating that the overpayment has been billed

Mar 9, 1954

I. W. and Sara E. Purkeypile
P. O. Box 572
Fairbanks, Alaska

Re: Docket No. DMEA-2453 (Tin)
Contract No. Idm-E353
Tozimoran Creek
Fort Gibbon Mining Dist., Alaska

Dear Mr. Purkeypile:

Reference is made to my letter of February 25, 1954 in regard to the above-cited project.

It has come to my attention that the audit report of this project disclosed that the amount reimbursable to you under the terms of the contract have been certified as $14,893.32. Our records also show that the Government paid you the total of $15,500.91, which, of course, is $607.59 overpayment. Will you please send a check for this overpayment to Mr. S. H. Lorain, Executive Officer, DMEA Field Team, Region I, P. O. Box 560, Juneau, Alaska, or make arrangements with him for liquidating this amount due the United States Government.

Sincerely yours,

C. Mittendorf

Administrator

FILE COPY
SURNAME:

Chambers
Chiang
Filing

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Approx: 14X3923.970 Working Fund, DMEA
Date: March 8, 1954
To: Mr. S. H. Lorain, Executive Officer, DMEA Field Team, Region I, P. O. Box 560, Juneau, Alaska

Your teletype March 5, 1954 on I. W. Pushmypile overpayment, DMEA-2453, Idm-K353. It appears that the Operator was overpaid in an amount of $607.59 and not $450.00 as per your wire. Washington office is requesting Operator to make payment to you. Copy of letter being forwarded.

C. O. Mittendorf

C. O. Mittendorf, Administrator

JLChambers/wb
March 8, 1954

Copy to : Docket
Admr. Reading File
Mr. Ellis
Mr. Chambers

R.L.E.
3-8-54

R 3400

DEPT. OF ARMY, TWX
RECEIVED
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R 051639Z

FM L J WILCOX CHIEF ADMIN DIVISION BUREAU OF MINES JUNEAU ALASKA

TO C O MITTENDORF ADMIN DEFENSE MINERAL EXPLORATION ADMIN INTERIOR

BLDG WASHDC

INT GRNC

REFERENCE LETTER TO PURKEYPILE DATED FEB 25 CONCERNING CLOSING OF

CONTRACT NO. IDM-E353 PD OUR ACCOUNTS HAVE EXCEPTION OF 45.00 AGAINST

THIS OPERATOR CMM WHICH HE HAS FAILED TO ACKNOWLEDGE

CFN PURKEYPILE 25 NO IDM-E353 45.00

05/1852Z

FILE COPY
SURNAME:

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

DEC 7 - 1953

Talbert
Chambers
Murphy
Ellis
Rubin
Larrabee
Selfridge
Kinkel
Whitenton

Mr. S. H. Lorain
Executive Officer
DMA Field Team, Region I
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMA-2453 (Fin) OR
Contract No. Ida-2353
I. W. & Sara L. Purkapile
Tonizona Creek, Alaska

Dear Mr. Lorain:

Reference is made to your letter of November 24, 1953, requesting the Operating Committee's decision on the propriety of the DMA auditor's disallowance of $500.00 for Supervision costs claimed in excess of the allowable maximum provided under the referenced Exploration Project Contract.

While it is true that only the monthly rate for Supervision was designated by an asterisk in the Exhibit "A" of the contract as being an allowable maximum, Article 6 (2) of the contract itself expressly provides:

"The requirements and related estimated costs for supervision and technical services are allowable maximums."

This means that the number of positions, the rates of compensation, the period of employment, and the total estimated costs for these two subcategories of costs are allowable maximums, and, in accordance with Article 5 of the contract "any excess therein will be for the sole account of the Operator in which the Government will not participate."

The Exhibit "A" estimates for Supervision, which by the terms of the contract are allowable maximums, provide for one Supervisor $600.00 per month for three months. The Operator claimed Supervision costs in the amount of $2,300.00 (1 month @ $500.00 and 3 months @ $600.00), whereas the maximum in which the Government may participate is $1,800.00 (3 months @ $600.00). It, therefore, appears that the auditor's disallowance of $500.00 is proper under the terms of the contract.

Sincerely yours,

George C. Selfridge (JHB)
Chairman, Operating Committee

APPROVED:

J. H. Hedges (JHB)
Member, Bureau of Mines

D. M. Larrabee (JHB)
Member, Geological Survey

EDTalbert/wb 12-4-53

R.C. 12-8-53

Copy to: Docket, Admr. Reading File, Operating Committee, Region I Field Team, Mr. Renick, Room 3061, Mr. Kinkel, Rm. 4234, GAA, Mr. Ellis, Mr. Chambers, Mr. Turner

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

Department of the Interior
Defense Minerals Administration
Received
DEC 30 1953

P. O. Box 560
Juneau, Alaska
November 24, 1953

W. S. Martin, Acting Chairman
Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

re: Docket No. DMEA-2453
Contract Idm-E353
I. W. and Sara E. Purkeypile

Dear Mr. Martin:

The D.M.E.A. auditor's Report of Review of the subject contract disallows $500.00 as being in excess of the allowable maximum provided for Supervision by the contract. This exception was the subject of a telephone conversation with the auditor on October 13, 1953 and a letter on October 14, a copy of which was forwarded to the Operating Committee at that time; an extra copy of this letter is attached for ready reference.

The Field Team believes that the interpretation of the contract as set forth in the attached letter is correct or at least just. The operator actually expended considerably more time than claimed in accumulating equipment, making advanced preparations for and winding up the project. Since the rate of pay per month allowed for supervision, the total amount of the contract and the Government's contribution were the only items specifically designated as allowable maximums, we do not understand why the estimated time or the total estimated for supervision should also be considered an allowable maximum -- particularly since the total amount estimated for labor and supervision combined was not exceeded.

If the auditors interpretation is correct, the operator will be subjected to financial hardship which will be due partly to a misinterpretation of the wording of the contract by this office.

No! Now from contract specifics "the requisite & related estimated costs for supervision" are allowable maximums.

A decision by your office as to the intent of the contract will be greatly appreciated.

Very truly yours,

C. L. Sainsbury

C. L. Sainsbury, Alternate Executive Officer
Alaska Field Team, Region I

Enclosure

cc: S.H.Lorain
C.L.Sainsbury
J.A.Herdlick
L.J.Wilcox

Bureau of Mines, Finance Section

E. N. Terry

PBS 3527 2520

November 24, 1953

L. J. Wilcox, Bureau of Mines, Juneau, Alaska

Re amount released on Contract IDME 353. Difference of $607.59 represents exceptions according to the "Report of Review" made by the Contract and Audit Division, D.M.S.A. Steps must be taken to recover this amount as soon as possible from the contractors, I. W. and Sara E. Purkeypile. Copies of the above mentioned "Report of Review" have been sent to Mr. Lorain.

Kenfield Bailey

EHSmith:jm

Copy to: Mr. J. F. Chambers, Room 2612
Mrs. Terry
Audits
Files

FILE COPY
SURNAME: 800

Talbert

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

OCT 29 1953

Mr. Charles A. Turner
DMEA Auditor
1201 North Division Street
Spokane 2, Washington

Re: Idm-2353, DMEA-2453
I. W. and Sarah E. Purkeypile

Dear Mr. Turner:

Receipt is acknowledged of your letter of October 22, 1953, transmitting three copies of the Report of Review covering the above-cited Exploration Project Contract.

The revised Report is acceptable and regular distribution may be effected.

Sincerely yours,

(Signed) E. D. Talbert

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

WBorovies/wb
October 28, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers

R. C. S.
10-29-53

B

Operating Committee

xxxxxxxxxxxxxxxxxxxx

P. O. Box 560
Juneau, Alaska
October 14, 1953

C. A. Turner, Auditor
Defense Minerals Exploration Administration
c/o U. S. Bureau of Mines
1201 North Division Street
Spokane 2, Washington

re: Docket No. DMEA-2453
I. W. and Sara E. Parkeypile

Dear Mr. Turner:

Reference is made to your telephone conversation of yesterday with regard to possible overpayment of $750 for "Supervision and Technical Services" to the operators referenced above.

You question, specifically the following:

Item	Amount				
	July	Aug.	Sept.	Oct.	Total
Supervision	$400	$700*	$600	$600	$2300
Technical Services	- -	75	125	50	250
	$400	$775	$725	$650	$2550

* Includes $100 back due for July

I have checked the vouchers and find that the $250 charged to "Technical Services" actually was paid for accounting services; consequently the amount should have been charged to "Miscellaneous". Although accounting is a form of technical service I think that the item is intended by DMEA to mean engineering services. Furthermore no specific contract allowance was made for either engineering services or accounting services. It is my opinion that the $250 should be distributed to "Miscellaneous" for which there is no "allowable limit".

The "allowable limit" for supervision is $600 per month but the contract does not specify an allowable limit as to the total cost of supervision. The time for completion is "estimated" at three months but not limited to three months. Furthermore I would point out that the contract total estimate for "Labor, Supervision, and Technical Services" is $9, 225.00 but the total charge for these items (including the $250 charge for accounting) is $7,455.63.

In view of the above I am of the opinion that the payments, as made, are entirely in order.

Yours sincerely,

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

cc: Operating Committee
C. L. Sainsbury
L. J. Wilcox

Docket

800

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

OCT - 6 1953

Mr. Charles A. Turner
DMEA Auditor
1201 North Division Street
Spokane 2, Washington

Re: Idm-2353, DMEA-2453
I. W. and Sara E. Purkeypile

Dear Mr. Turner:

Enclosed herewith for certain revisions are the three copies of your Report of Review covering the referenced project.

In the second paragraph of the Report delete the words:

"who accepted the costs of the project as being reasonable and proper."

and substitute in lieu thereof the standard phraseology:

"and a determination of the reasonableness and propriety of the costs."

It is your responsibility, as an auditor, to make this determination based upon an examination of the Forms MF-104 and the supporting documents, an audit of the charges against the contract provisions and schedules, and consultation with the Executive Officer or other members of the Field Team.

In reason (a), under the third paragraph of the Report, insert the word "additional" between the words "possible" and "disallowances". Since you have taken a disallowance during your review, the suggested revised wording is applicable.

It appears possible that disallowances in addition to the one you have taken are in order. The "Totals to date" column of the final MF-104 indicates $2,300.00 for Supervision and $250.00 for Technical Services. The contract's Exhibit "A" provides only for 1 supervisor @ $600. per mo. for 3 months and nothing for technical services. By the terms of the contract, Article 5 (2), "The requirements and related estimated costs for supervision and technical services are allowable maximums." This means that the number of positions, the rates of compensation, the period of employment, and the total estimated costs for these two sub-categories are all "allowable maximums". Accordingly, unless the indicated overcharge of $500.00 for supervision and the charge of $250.00 for technical services are due to improper distribution, these amounts should be disallowed.

THR 10-6-53

The final MF-104 also indicates a charge of $225.75 for Initial Rehabilitation and Repairs. However, in a letter dated March 31, 1953, to the Operating Committee from the Executive Officer, it is stated that "this was simply an error in distribution by Mr. Purkeypile." In order to complete our records on this item please advise by letter the proper distribution of these costs.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
October 6, 1953

Copy to: Docket
Admr. Reading Fil
Mr. Chambers

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

DEPARTMENT OF THE INTERIOR
Interior Library Association
RECEIVED
OCT 2 1953

Sorrento Hotel
Seattle - Washington
September 29, 1953

Mr. Jay L. Chambers, Chief
Contract Administration and Audit Division
Defense Minerals and Exploration Administration
Interior Building
Washington 25, D. C.

Dear Mr. Chambers:

I am enclosing herewith report in triplicate of review for the I. W. Purkeypile and Sara E. Purkeypile Contract, Idm E 353, Docket No. DMEA 2453.

Yours very truly,

C. A. Turner DMEA Auditor

CAT:RG
Encl.

July 8, 1953

Memorandum

To: Hazel Berry, Operating Committee

From: Grace L. Ault, Rare and Misc. Metals Division

Subject: Amendment to contract

Docket No. DMEA-2453 (Tin), Contract No. Idm-E353
I. W. and Sara E. Purkeypile

Amendment No. 1, dated April 20,1953, to the above contract, signed by Mr. C. L. Sainsbury, Acting Executive Officer, Region I, and the Operator, I. W. Purkeypile, has been reviewed by Mr. Ellis, and is satisfactory.

/s/
Grace L. Ault

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
June 3, 1953

DEPARTMENT OF THE INTERIOR
FIELD TEAM, ALASKA
JUN 8 1953

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Signed copies of Amendment No. I Docket No. DMEA-2453 (tin)
I. W. and Sarah E. Purkeypile.

Pursuant to your request we have obtained Mr. Purkypile's signature to the ammendment.

The "Government Copy", "Division Copy", and "Docket Copy" are enclosed herewith.

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines, Member

C. L. Sainsbury
Geological Survey, Member

Enclosure

cc: C. L. Sainsbury

SHL:mjm

6-8

FILE COPY
SURNAME:

Docket
Murphy
Ellis
Zeppler
Selfridge
Kirkland
Kleinsorg

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

JUN 1 1953

Mr. E. F. Lorain
Executive Officer
DMA Field Team, Region I
P. O. Box 550
Juneau, Alaska

Re: Docket No. [illegible]-2453 (Tin)
Contract No. Adm-353
I. [illegible] and Grab [illegible] Marbelpile
Tasingerm Rock, Lusa

Dear Mr. Lorain:

Reference is made to your letter of May [illegible], 1953, in regard to Amendment No. 1 and the $225.75 incorrectly charged to "Rehabilitation and Repairs" on form DF 1[illegible] of the captioned contract.

We refer you to our letter dated [illegible], 1953, which states that the Operating Committee approved the amendment; however, the original and the three copies of the amendment enclosed in said letter should be signed by the Operator.

Concerning the incorrect charge to "Rehabilitation and Repairs", Mr. J. I. Chambers, of the [illegible], Contract Administration and Audit Division, agrees that the readjustment of this item, by the field, is acceptable without the signature of the Operator.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

GCS

6-1-53

APPROVED:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, [illegible]

EFMurphy/dl
5-27-53
cc to: Adm. Pending File
Operating Committee
Docket
Messrs: Chambers
A.Renick, Rm. 3061
A.R.Kinkel, Rm. 4234 GSA
Ellis
Murphy
DMA Field Team, Region I (2)

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

P. O. Box 560
Juneau, Alaska
May 22, 1953

MEMORANDUM

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

From: S. H. Lorain

Subject: Final Payment, Docket No. DMEA-2453 (tin)
I. W. & Sara E. Purkeypile

Enclosed herewith are two copies of MF-104 and MF-104A for the month of October, 1952 which was the last month during which the project was active. Also enclosed are two copies of a final financial statement prepared by the Finance Officer for Region I.

Payment on this voucher has been withheld pending disposal of equipment and pending approval (subject to final audit) by the Washington office.

A final report on this project already has been submitted, consequently the project is finished except for site audit.

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines Member

C. L. Sainsbury
Geological Survey Member

cc: C.L.Sainsbury

Enclosures

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

P. O. Box 560
Juneau, Alaska
May 7, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 11 1953

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Amendment to permit expenditures for trenching
Docket No. DMEA 2453 (tin)
I. W. and Sara E. Purkeypile

Pursuant to Mr. Selfridge's letter of April 15 "Amendment No. 1" was prepared by C. L. Sainsbury, as acting executive officer, confirming the authorization for trenching given to Mr. Purkeypile by the DMEA examination team which visited the property during the progress of the project last summer.

When I was in Washington recently I was discussing this project with Mr. Ellis who gave me to understand that such an amendment would have to be signed by the operator. Before making the final payment I would like to know whether the amendment, as already prepared, is adequate or whether we will have to prepare the amendment for Mr. Purkeypile's signature. Also I would like to know whether it is necessary to do anything about the $225.75 incorrectly charged to "Rehabilitation and Repairs" on the form MF-104. In other words is it necessary to get a signed readjustment for this item or will the statement of the Field Team be adequate?

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

cc: C.L.Sainsbury
L. J. Wilcox

FILE COPY
SURNAME:

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

Ellis
Chambers
Reference
Boring
Selfridge
Robinson
Whitehouse

Mr. S. H. Lorain
Executive Officer
DMEA Field Team
Region I
P. O. Box 560
Juneau, Alaska

MAY 7 1953

Re: Docket No. DMEA-2453 (Tin)
Contract No. Idm-R353
I. W. and Sara M. Purkeypile
Tozimoran Creek, Alaska

Dear Mr. Lorain:

This will acknowledge receipt of Amendment No. 1 of the captioned completed contract.

It is noted that said amendment was signed only by Mr. Bainsbury as Acting Executive Officer, and not by the Operator. However, since the amendment is to legalize work previously accomplished, which work was verbally agreed to by the Field Team, it is acceptable for the records.*

We are returning the Operator's copy should you deem it advisable to forward to him. You will note the date of the contract was substituted for the date of commencing the work and suggest that your copy and the Finance Officer's copy be corrected in accordance with the proper date.

EWEllis/gla 4-30-53

cc to: Adm. Reading File
Operating Committee
Docket
Mr. Chambers
Mr. Ellis
Legal Division
DMEA Field Team, Region I

Enclosure 4

APPROVED:

J. E. Boyer

Member, Bureau of Mines (SVG)

A. R. Mitel, Jr.

Member, Geological Survey (SVG)

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SVG)

5-7-53

*P.S. We are returning the original and three copies of Amendment No. 1. Kindly have same signed by the Operator and return the "Government Copy", "Docket Copy" and "Division Copy" to Washington.

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

Mr. [illegible] F. Lorain
Executive Officer
DMEA Field Team
Region I
P. O. Box 560
Juneau, Alaska

MAY 5 1953

Re: Docket No. DMEA-2453 (Tin)
Contract No. 1dm-E353
I. W. and Sara L. Markeypile
Tosimoran Creek, Alaska

J. C. 5/4/53

Dear Mr. Lorain:

This will acknowledge receipt of Amendment No. 1 of the captioned completed contract.

It is noted that said amendment was signed only by Mr. Rainsbury as Acting Executive Officer, and not by the Operator. However, since the amendment is to legalize work previously accomplished, which work was verbally agreed to by the Field Team, it is acceptable for the records. *

We are returning the Operator's copy should you deem it advisable to forward to him. You will note the date of the contract was substituted for the date of commencing the work and suggest that your copy and the Finance Officer's copy be corrected in accordance with the proper date.

Sincerely yours,

George C. Selfridge

(JHB)

Chairman, Operating Committee

Enclosure 4

APPROVED:

J. H. Hedges

Member, Bureau of Mines (JHB)

A. R. Kinkel, Jr.

Member, Geological Survey (JHB)

*P.S. We are returning the original and three copies of Amendment No. 1. Kindly have same signed by the Operator and return the "Government Copy", "Docket Copy" and "Division Copy" to Washington.

Ellis
Legal Division
DMEA Field Team, Region I

DMEllis/ls
1-30-53
cc to: Adm. Reading File
Operating Committee
Docket
Chambers
Kearns

4/29/53 gla

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~
P. O. Box 560
Juneau, Alaska

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 27 1953

April 22, 1953

Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Exploration Adm.
Washington 25, D. C.

DMEA Docket No. 2453
Contract Idm-E353
I. W. & Sara E. Purkeypile

Dear Mr. Selfridge:

In view of the comment of the Deputy Administrator in his letter of April 14 to Mr. Lorain, I am taking the liberty of sending a formal amendment to the subject contract to legalize Mr. Purkeypile's charges against trenching.

Although the trenching done was overly ambitious, it was done at the direction of the examining DMEA team, and therefor should be an allowable cost of the project.

I trust this amendment meets with your approval. It certainly will facilitate the auditing of the contract.

Very truly yours,

ALASKA FIELD TEAM, REGION I.

C. L. Sainsbury

C. L. Sainsbury, Acting
Executive Officer
Geological Survey Member

J. A. Herdlick

J. A. Herdlick, Acting
Bureau of Mines Member

cc: Herdlick

Enclosures (4)

FILE COPY
SURNAME:

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

APR 15 1953

Chambers
Ellis
Selfridge
Kleinkauf
Mitchell

Mr. S. H. Lorain
Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

Re: Contract No. Ida-8383
Docket No. DMEA-8453 (T2m)
I. W. and Sara F. Purkeypile

Dear Mr. Lorain:

Reference is made to your letter of March 31, 1953, in regard to the final payment to the contractor for work completed under the above-cited project.

Our Audit Division has carefully checked the Operator's Forms MF-364 as submitted for the period July 1, 1952, through the month of September, 1952. The Division also took into consideration the statement prepared by Mr. L. J. Wilson, Chief of your Administrative Division, in regard to project payments.

In replying to your request that final payment be made to the Operator prior to an audit, I wish to call your attention to the fact that any disallowances made on project payments would be entered by the General Accounting Office as a suspension against the certifying officer's account. On the face of the submitted information there appears to be only one item in question, and that is $285.75 charged for Rehabilitation and Repairs. You explained this item as an error in distribution on the part of the Operator, which it appears to be. This Administration under the circumstances will not object to a final payment to the Operator on the provision that any disallowances made in the final audit will be collected from the Operator by your office.

In cases of this kind the disallowances, if any, are usually small. Therefore, you and your certifying officer may desire to hold a smaller amount than is represented now on the final voucher.

Sincerely yours,

Lorenz G. Selfridge

Chairman, Operating Committee

APPROVED:

J. E. Kerrigan

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

JLChambers/ab - 4/9/53

Copy to: Docket
Admr. Reading File
Operating Committee
Region I
Messrs. Kinkel, Resick, Selfridge
Ellis, Chambers

NOTE

April 14, 1953

Mr. S. H. Lorain

Re: Docket No. DMEA-2453, Contract Idm-M353
I. W. and Sara E. Purkeypile

Referring to memorandum dated March 23, 1953 from the Chief, Administrative Division, Region I, to you, attached to your letter of March 31, 1953 to the Operating Committee, I note there is a question of amending the contract to provide for payment of trenching not authorized under the terms of the contract, but which was done at the suggestion of the Field Team representatives.

In order to avoid the possibility of the cost of trenching being disallowed by our auditors, it is suggested that an amendment be executed to confirm the approval given by the Field Team representatives for doing this work, before payment on the final voucher is made.

FEJ

Deputy Administrator

FEJohnson/bih

cc to: Docket
Admr. Reading File
Region I
Mr. Ellis - r-4640
Mr. Johnson r-4624

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D.C.~~
P. O. Box 560
Juneau, Alaska
April 13, 1953

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 17 1953

MEMORANDUM

To: Operating Committee, Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Final Report on Field Operations Docket No. DMEA 2453 (tin) I. W. and Sara E. Purkeypile

Enclosed herewith are four copies of the subject report as prepared by Robert M. Chapman, U. S. Geological Survey. This report has been checked carefully by the Field Team and by the staff of the Bureau of Mines. We have received Mr. Purkeypile's written statement that he is in agreement with the conclusions set forth in the report.

The Field Team is of the opinion that, although tin recoveries by the operator undoubtedly were poor, the results of the drilling are sufficiently conclusive to demonstrate that commercially valuable deposits of placer tin do not occur on the part of Tozimoran Creek that was tested by the project. Furthermore it is most unlikely that better deposits will be found downstream from the area that was tested.

At first glance it might appear that the wide discrepancy shown by a comparison of the results obtained from drill hole "H-1", "Line Cut 7" and channel samples No. 5 from "Cut 7" would indicate that the actual tin content of the gravels was very much higher than the values recovered by drilling. Further analysis revealed, however, that the channel sampling of sample No. 5 (which was performed by Purkeypile) was improperly done. This same trench had been sampled some years previously by representatives of the Bureau of Mines and the Geological Survey; their results were essentially in agreement with the drill hole results obtained by Purkeypile.

DMEA Operating Committee
4-22-53
(date)

The most important positive results of the project consist of additional indications that the principal bedrock source of tin is toward the head of Ash creek.

Alaska Field Team, Region I

C. L. Sainsbury

C. L. Sainsbury, Acting Executive Officer, for and in the absence of S. H. Lorain, Executive Officer

Enclosures

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

FINAL REPORT ON THE TOZIMORAN CREEK PLACER TIN EXPLORATION PROJECT, FORT GIBBON DISTRICT, ALASKA

Final Fld Tin Rpt.

DMEA DOCKET NO. 2453, TIN

OPERATORS I.W. AND SARA E. PURKEYPILE

by

Robert M. Chapman, U. S. Geological Survey

Fairbanks, Alaska

February 1953

4-22-53

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SUMMARY

The exploration work carried out on upper Tozimoran Creek and Ash Creek with this DMEA loan tested less than half of the area of placer ground that was designated in the contract. Due to an unavoidably late start about half of the working season was lost. The sample recovery from the drill holes probably was incomplete, and as a result an accurate evaluation of the tin and gold content of the placer ground cannot be made. Only the portion of the block of ground in the vicinity of Cuts 7 and 8 can be regarded as adequately tested.

The Tozimoran Creek area is not easily accessible and poses a number of operational problems. Under the circumstances as much work as could be expected was accomplished by the operator.

Standard drilling procedure for thawed ground was used, and the driller and helpers apparently did their work carefully. However, the best drilling equipment was not available to the operator in mid-season when the project was approved, and the quality of the results suffered accordingly.

The bedrock and placer geology are summarized in this report and on the accompanying maps. The sample data, assays, and value calculations are shown in detail in Tables 1 and 2. The results do not indicate an economically workable deposit, but it is emphasized that these results probably do not represent the true tin and gold content of the placer ground.

The status of expenditures and equipment are summarized, and the recommended disposition of the equipment is indicated. The total cost of the project to the government is $15,500.91.

INTRODUCTION

Tozimoran Creek, a tributary of the Tozitna River, lies about 25 airline miles west northwest of Tanana and about 12 airline miles north of the Yukon River. The block of ground that was to be explored by this project is on the upper part of Tozimoran Creek between Slate and Ash Creeks (see map Figure 1).

The area is one of considerable relief. The valleys are steep-walled, and the creek gradients are moderately steep. The valley bottoms and slopes are covered by spruce, birch, poplar, and alder, which form a dense growth in areas that have not been cut or burned. The higher ridge tops are barren or covered with low brush and scrub trees. The volume of water in Tozimoran Creek is adequate for placer mining throughout the working season.

Tozimoran Creek is not easily accessible. It can be reached by tractor and foot trails from several points on the Yukon River, a distance of about 18 miles (see map Figure 1). The nearest air field is on Golden Creek and about 10 miles distant. It is a small field suitable only for small single-engine aircraft piloted by skillful bush pilots. The problem of supply in this area is a major one. Basic supplies can be obtained in Tanana and

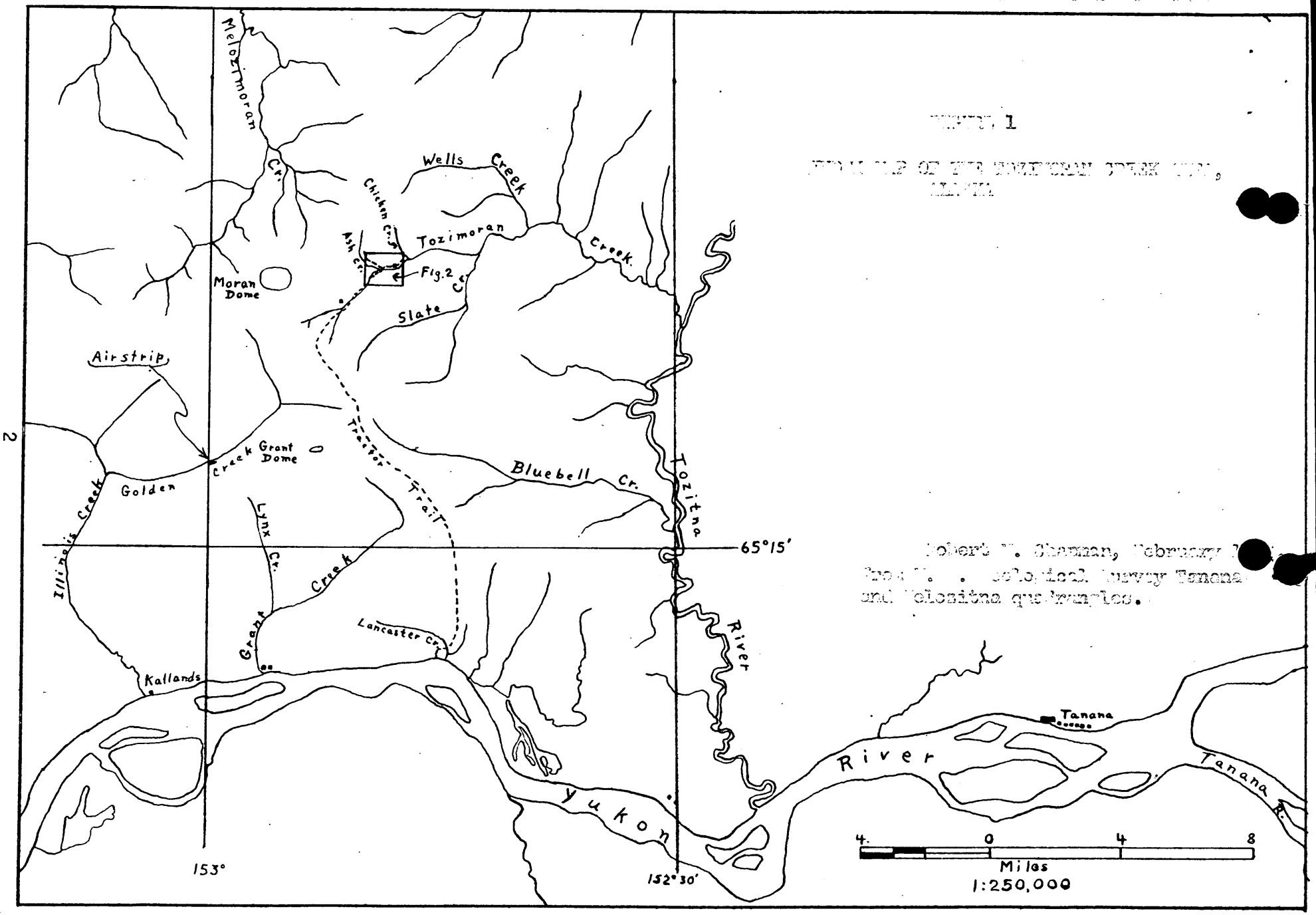


FIGURE 1

[illegible] OF THE [illegible] CREEK [illegible], ALASKA

Robert W. Sherman, February [illegible] Geological Survey Tanana [illegible] and Tolositna quadrangles.

freighted in by river boat and tractor. Tanana, however, is a small village, and stocks and variety of supplies are limited, and many items must be ordered from Fairbanks, which often entails transportation delays. Bush plane service between Fairbanks and Tanana is excellent and frequent, but river boat trips are infrequent and irregular.

This area has been examined previously by Livingston Wright, private mining engineer, in 1939; by F. F. Barnes, geologist for the Alaska Railroad, in 1940; by Robert R. Coats, U. S. Geological Survey, in 1942; by Robert M. Chapman, U. S. Geological Survey, in 1943; and by Bruce I. Thomas, U. S. Bureau of Mines, in 1944. This report is based primarily upon the exploratory work of Mr. I. W. Purkeypile in 1952 and the field examination made September 5-8, 1952 by Robert M. Chapman, geologist, and Richard G. Smith, geologic field assistant, of the Geological Survey, and James H. Hulbert, mining engineer, of the Bureau of Mines.

WORK ACCOMPLISHED

Mr. Purkeypile received word in a letter dated June 27, 1952 that his project had been approved. The contract was officially begun on July 5. The personnel and equipment were assembled in Fairbanks and Tanana, and the personnel arrived via his boat at Lancaster Creek on the Yukon River on July 21. The equipment, which had been shipped from Fairbanks via river barge, arrived on July 26. Clearing of a tractor road to Tozimoran Creek was begun on July 26, and approximately 19 miles of road, including that on Tozimoran and Ash Creeks, was made. Much of the road was cleared through a dense growth of large timber. The first load of equipment was hauled over this road to Tozimoran Creek on July 29. A camp, including a cook tent, storage tent, and 3 tents for personnel was set up about 2000 feet downstream from the mouth of Ash Creek.

Drilling was begun on August 6 and 32 drill holes, totaling 488 feet, (see map Figure 2) were completed by September 14. Two old open cuts (Cuts 7 and 8) were cleared out with the bulldozer to obtain a fresh exposure of the bench gravel. A sampling plan for these cuts was laid out by Hulbert and Chapman, and 12 channel samples of the gravel section and top 6 inches of bedrock were taken as shown on Figures 4 and 5. These samples were concentrated by rocking and panning.

The termination date for the project was determined by the date of the last available up river barge transportation on the Yukon River, as the bulldozer and drill had to be returned to Fairbanks before rental on them could be terminated. The camp and equipment were dismantled and packed, and the return trip to the Yukon was made on September 15 and 16. The personnel were returned to Tanana via Purkeypile's boat on the 17th, and those bound for Fairbanks continued by plane from Tanana. Purkeypile returned to Lancaster Creek for the loading of equipment. The river boat and barge arrived several days later than expected and picked up the equipment on the 22nd. Purkeypile arrived in Fairbanks with his boat on October 1, and the river boat and barge arrived on the 2nd.

GEOLOGY

The bedrock in the immediate vicinity of the block of ground outlined for exploration is chiefly quartzite, quartz-mica schist, and quartz-chlorite schist with a few lenses of marble and dolomitic marble interbedded. This rock unit is probably correlative with the pre-Cambrian Birch Creek schist of the Yukon-Tanana region. Basic igneous rocks that have been metamorphosed to schist, and biotite granite are two other common rock types that occur in adjacent areas. Lenticular veins of milky quartz are very common in the schist, but they are not known to contain metallic minerals. Two minor deposits of galena are reported by Purkeypile, but their exact mode of occurrence is not known. One, from which 600 pounds of galena is said to have been produced, is located in a prospect pit on the west bank of Ash Creek close to the mouth. All of the galena is reported to have been mined out. The other, a small show, is located on the south valley slope of Tozimoran Creek just uphill from the 1952 campsite.

The presence of placer cassiterite and gold in the creek and bench gravels on Tozimoran Creek is known from previous prospecting and geological work. Ash, Chicken, Slate, and Wells Creeks have not been systematically prospected, but some placer gold is reported to occur on these creeks. Ash Creek is the only one of these tributaries on which the presence of placer cassiterite has been proven. The alluvial deposits of muck, clay, sand, and gravel on Tozimoran Creek above Slate Creek are relatively thin. They probably average about 12 feet in thickness and rarely exceed 20 feet. The distribution of frozen ground within the muck and gravel section is apparently very irregular according to data noted on the drilling logs. Many of the holes both in the creek bottom and on the benches are entirely in thawed ground, and none of them are entirely in frozen ground. The frozen ground appears to occur in layers or lenses that vary in thickness and have limited or irregular lateral extent.

The gravel is moderately coarse, but boulders exceeding 10 inches in diameter are rare. Little clay is present, but locally the schist bedrock is decomposed to a sticky, gumbo-like clay. This was noted particularly in hole 2, line 9 where this clay was encountered from 12-16 feet. It was so sticky that 2 days were required to pull the casing from it.

Detailed study and mapping and more drilling, test pitting, or geophysical work would be required in order to accurately delineate the terraces or benches on Tozimoran Creek. Previous workers have suggested that several sets of terraces are present, and such seems to be the case. The terraces are discontinuous longitudinally, having been partly cut away by stream channel shifting of Tozimoran Creek during the geologic past. As shown in Hole 5, Line 11, some parts of topographic terraces are not underlain by gravel. In the lines of holes shown on Figure 3 the gravel benches coincide with the topographic benches.

DRILLING PROCEDURE

Standard drilling procedure for thawed ground was used. Casing was driven ahead of the drill and pump, and reasonable care was supposedly taken to leave a safe amount of material in the bottom of the casing to prevent loss or gain from the bottom of the hole. During all but the last week of drilling a sand pump, which did not function perfectly, was in use. When a better pump was finally received recovery tests were made with both pumps in one of the last holes drilled. The old pump recovered 2 of 5 lead shot from the hole, and the new pump in the same hole recovered the remaining 3 shot. The driller also ran a recovery test on a medium-sized cassiterite nugget that he dropped into the hole. He was unable to recover either the nugget or broken pieces of it with either pump, even after drilling the hole into bedrock.

It seems very likely that complete recovery of the tin and gold was not obtained from any of the drill holes. In addition to the recovery tests mentioned above, a comparison of the assay results of the drill hole and bulldozer cut samples also indicates this. Cut 7, Hole 1 is located within 30 feet of Cut 7, Sample 5, and these samples produced 0.34 oz. and 16.4 oz. of tin per square foot respectively. No other drill holes are close enough to the cuts to make valid comparisons, but a comparison of the bench drill hole samples in lines 13 and 14 with the Cut 7 and 8 samples shows a vast difference in values.

SAMPLES AND EVALUATION

The material recovered from the drill holes was panned down to a heavy concentrate by the operator in the field. A split was made of the coarse size from the sand size material in most of the samples. The samples taken during August were cleaned of magnetic iron by Mr. Purkeypile, but he was advised by Hulbert and Chapman to leave the magnetic material in the remaining samples and to have all such work done in the laboratory.

The two old open cuts, 7 and 8, that were worked previous to 1942 were cleared by the bulldozer to obtain a fresh exposure of unmined ground in the walls. A sampling plan for these cuts shown in Figures 4 and 5, was outlined by Hulbert and Chapman. A channel sample of 6 level full standard pans (approximately equal to 1 cubic foot of material) was taken from the gravel and top 6 inches of bedrock at each point. Each of these samples were taken and concentrated with rocker and pan by the driller and an assistant.

The concentrates from the drill holes and cuts were weighed and assayed by the U. S. Bureau of Mines laboratory in Juneau, Alaska. The results are shown in Tables 1 and 2. Tin determinations were made on all samples. Gold assays were made on individual samples from 2 of the drill holes and on each of the open cut samples (except for one which was broken and one which was missing). Mr. Purkeypile had not separated the small

quantities of gold in most of the drill hole samples, and the laboratory lumped all of the gold from drill hole and cut samples and assayed it as a unit.

Due to the limited knowledge of the extent, variation, and tenor of the creek and bench alluvial deposits, the widely spaced sampling, and the questionable reliability of the concentrates recovered from the drill holes, it would be difficult and probably misleading to attempt to compute reserve estimates for the large area of ground that was tested by this exploration project. Several competent placer mining engineers, with whom I discussed this problem, concurred in this opinion.

The assay results and calculated values for each sample are presented in detail in Tables 1 and 2. In summary, the following averages indicate that the major portion of the tested ground could not be worked profitably. However, it should be emphasized that the drill hole samples undoubtedly do not give a true picture of the gold and tin content of the placer deposit, and that no reliable correction factor can be applied to these samples.

Averages of tin content per square foot, using value of $1.20 per pound for tin---

Ash Creek, Line 1	- $0.015
" " " 2	- 0.005
" " " 3	- 0.030
" " Lines 1, 2, 3	- 0.017
Tozimoran Creek, Line 9	- 0.001
" " " 10, Holes 1, 2, 3, 4	- 0.006
" " " 13	- 0.014
" " " 14, Holes 1, 2, 2A, 3	- 0.033
" " Cut 7	- 0.87
" " " 8	- 0.30

Averages of tin and gold content per square foot---

Tozimoran Creek, Cut 7	- $1.39
" " 8	- 0.44

Total weight of gold from all samples	-734.26 mg.
Total weight of pure gold from all samples	-614.2 mg.
Fineness of gold	-835.

TABLE 1

Analysis of drill hole samples

1 Line	2 Hole	3 Type of sample	4 Sn %	5 Weight of sample in grams	6 Total weight of sample in grams	7 Total weight of Sn in grams	8 Total 1% of Sn in sample	9 Thickness of moss & barren ground in ft.	10 Thickness of mining section in ft.	11 Volume of drill hole in mining section in cu. ft.	12 Sn per sq. ft. in grams	13 Sn per cu. yd in grams	14 Sn per sq. ft in oz.	15 Value Sn per sq. ft. at $1.20 lb.	16 Gold Weight in mg.
1	1	conc.	15.8	1.62	32.17	.867	2.69	4.0	14.0	2.94	4.13	7.96	0.15	0.01	
		sand	2.0	30.55											
1	2	conc.	23.8	4.85	27.45	1.606	5.85	3.0	12.0	2.52	7.65	17.21	0.27	0.02	
		sand	2.0	22.60											
2	1	conc.	7.4	1.73	26.93	.337	1.25	2.0	13.0	2.73	1.60	3.33	0.06	0.004	
		sand	0.83	25.20											
2	2	conc.	7.0	2.05	25.65	.450	1.75	1.0	11.0	2.31	2.14	5.26	0.08	0.006	
		sand	1.3	23.60											
3	1	conc.	15.0	9.65	78.15	2.269	2.90	3.0	14.5	3.04	10.80	20.15	0.38	0.03	
		sand	1.2	68.50											
9	1	conc.	0.65	4.17	55.77	.052	0.09	0.5	15.5	3.25	0.25	0.43	0.01	0.001	9[illegible]
		sand	0.05	51.60											
9	2	conc.	0.6	13.75	13.75	.082	0.6	5.0	8.0	1.68	0.39	1.32	0.01	0.001	
10	1	conc.	33.0	2.81	21.11	1.641	7.77	9.0	6.0	1.26	7.31	35.16	0.28	0.02	
		sand	3.9	18.30											
10	2	conc.	11.2	17.02	17.02	1.906	11.2	1.0	12.0	2.52	9.08	20.42	0.32	0.02	
10	3	conc.	31.0	3.30	23.75	1.493	6.29	1.5	10.5	2.20	7.11	18.32	0.25	0.02	
		sand	2.3	20.45											
10	4	conc.	60.4	18.75	38.60	15.295	39.62	1.0	12.0	2.52	72.33	163.88	2.57	0.19	
		sand	20.0	19.85											
10	5	conc.	3.2	0.70	0.70	.022	3.2	2.0	9.5	1.99	0.10	0.30	0.003	0.00	
13	1	conc.	13.7	14.55	14.55	1.557	13.7	1.0	14.0	2.94	7.41	14.30	0.26	0.02	

TABLE 1
(con't)

1 Line	2 Hole	3 Type of sample	4 Sn %	5 Weight of sample in grams	6 Total weight of sample in grams	7 Total weight of Sn in grams	8 Total lb. of Sn in sample	9 Thickness of moss & barren ground in ft.	10 Thickness of mining section in ft.	11 Volume of drill hole in mining section in cu. ft.	12 Sn per sq. ft in grams	13 Sn per cu. yd in grams	14 Sn per sq. ft in oz.	15 Value Sn per sq. ft. at $1.20 lb.	16 Gold Weight in mg.
13	2	conc. sand	15.2 0.9	7.65 64.85	72.50	1.746	2.41	2.5	11.5	2.41	0.31	19.56	0.29	0.02	
13	3	conc. sand	6.0 0.63	8.40 91.60	100.0	1.021	1.08	2.5	8.5	1.78	5.15	16.40	0.18	0.01	
13	4	conc. sand	0.03 1.1	35.40 10.95	46.35	0.131	0.28	2.5	7.5	1.57	0.62	2.25	0.02	0.001	
13	5	conc.	10.5	12.54	12.54	1.317	10.5	8.0	7.0	1.47	6.27	24.19	0.22	0.02	3.31
13	6	conc. sand	0.79 0.13	25.55 35.40	60.95	0.248	0.41	6.0	7.0	1.47	1.18	4.56	0.04	0.003	
13	7	conc. sand	11.6 0.48	17.00 65.60	82.60	2.287	2.77	5.0	11.0	2.31	10.89	26.73	0.38	0.03	
13	8	conc.	0.32	7.85	7.85	0.025	0.32	11.0	6.0	1.26	0.12	0.54	0.004	0.00	
13	9	conc.	20.00	6.85	6.85	1.370	20.00	1.0	14.0	2.94	6.52	12.58	0.23	0.02	
14	1	conc. sand	8.9 0.63	48.0 245.5	293.50	5.819	1.98	2.0	11.0	2.31	27.71	68.01	0.98	0.07	
14	2	conc. sand	18.1 0.56	12.65 19.85	32.50	2.401	7.39	3.5	6.5	1.36	11.43	47.67	0.40	0.03	
14	2A	conc. sand	5.7 0.45	15.00 45.25	60.25	1.059	1.76	2.5	9.5	1.99	5.04	14.37	0.18	0.01	
14	3	conc. sand	6.9 0.52	19.30 88.40	107.70	1.791	1.66	2.5	14.5	3.04	8.53	15.91	0.30	0.02	
14	4	conc. sand	2.1 0.63	8.35 1.82	10.17	0.187	1.84	0.5	14.5	3.04	0.89	1.66	0.03	0.002	

TABLE 1
(con't)

1 Line	2 Hole	3 Type of sample	4 Sn %	5 Weight of sample in grams	6 Total weight of sample in grams	7 Total weight of Sn in grams	8 Total 1% of Sn in sample	9 Thickness of moss & barren ground in ft.	10 Thickness of mining section in ft.	11 Volume of drill hole in mining section in cu. ft.	12 Sn per sq. ft in grams	13 Sn per cu. yd in grams	14 Sn per sq. ft in oz.	15 Value Sn per sq. ft. at $1.20 lb.	16 Gold Weight in mg.
14	5	conc.	0.3	12.00	12.00	0.036	0.3	0.5	10.5	2.20	0.17	0.44	0.006	0.00	
14	6	no sample						1.0	7.0	1.47					
Cut 7	1	conc. sand	33.6 1.7	3.60 47.15	50.75	2.011	3.96	11.0	4.5	0.94	9.58	57.76	0.34	0.03	
Cut 7	2	conc.	3.8	17.30	17.30	0.657	3.80	15.0	9.0	1.89	3.13	9.39	0.11	0.01	
Cut 8	1	conc.	1.05	34.30	34.30	0.360	1.05	18.0	5.0	1.05	1.71	9.26	0.06	0.005	

Explanation of Table 1

3 - Type of sample --
Conc. - Heavy concentrate of panned and sorted coarser material from drill holes. Separated in field by operator.
Sand - Heavy concentrate of panned fine material from drill holes. Separated in field by operator.

4 - Sn % --
Percentage of tin from assay report of U. S. Bureau of Mines laboratory in Juneau, Alaska.

5 - Weight of sample in grams --
Weight reported by U. S. Bureau of Mines laboratory.

7 - Total weight of Sn in grams --
Weight of tin calculated from values in columns 4 and 5.

8 - Total % of Sn in sample --
Percentage of tin calculated from values in columns 6 and 7.

9 - Thickness of moss and barren ground in ft. --
Thickness measurements taken from operator's field logs. This section of overburden is barren of pay.

10 - Thickness of mining section in ft. --
Thickness measurements taken from operator's field logs. The mining section includes the pay-bearing sand and gravel and the top foot of bedrock.

11 - Volume of drill hole in mining section in cu. ft. --
Calculations based on 0.52 ft. diameter of cutting edge of drill shoe and 0.21 sq. ft. area of hole.

12 - Sn per sq. ft. in grams --
Tin per sq. ft. of bedrock calculated from weight in column 7 and area of drill hole.

13 - Sn per cu. yd. in grams --
Tin per cu. yd. of mining section calculated from weight in column 7 and volume in column 11.

14 - Sn per sq. ft. in oz. --
Tin per sq. ft. of bedrock calculated from weight in column 12 using 1 gram equal to 0.0353 ounce.

15 - Value Sn per sq. ft. at $1.20/lb. --
Value calculated from weight in column 14 and value of $0.075 per ounce for tin.

16 - Gold weight in mg. --
Weight of gold reported by U. S. Bureau of Mines laboratory. Only 2 samples separated by operator in field.

TABLE 2

Analysis of bulldozer cut samples

1 Location	2 Sample No.	3 Type of sample	4 Weight in grams	5 Weight of Sn in grams	6 Sn %	7 Thickness of barren ground in ft.	8 Thickness of mining section in ft.	9 Volume of sample in cu. ft.	10 Area in sq. ft.	11 Sn per sq. ft in grams	12 Sn per cu. yd in grams	13 Sn per sq. ft in oz.	14 Value of Sn per sq.ft at $1.20 lb	15 Gold weight in mg.	16 Gold weight per sq. ft. in mg.	17 Value gold per sq. ft.	18 Value gold and Sn per sq. ft.
Cut 7	1	Conc. 6 pans	31.90	15.663	49.1	1.	2.5	1.	0.4	39.16	422.90	1.38	0.10	3.35	8.38	0.0079	0.108
Cut 7	2	"	27.35	11.165	51.1	3.	4.5	1.	0.22	50.75	301.46	1.79	0.13	34.2	155.45	0.1461	0.276
" 7	3	"	165.60	97.704	59.0	2.	6.5	1.	0.15	651.36	2638.01	22.99	1.72	351.2	2341.33	2.2008	3.921
" 7	4	"	131.30	90.728	69.1	1.	4.5	1.	0.22	412.40	2449.66	14.56	1.09	48.65	221.14	0.2079	1.298
" 7	5	"	88.72	51.103	57.6	2.	5.5	1.	0.18	492.89	1379.78	17.40	1.31	8.55	47.50	0.0447	1.355
" 7	Grab	Conc. 1 pan	29.50	18.172	61.6			0.166			2943.81			55.80			
Cut 8	1	Conc. 6 pans	98.35	54.584	55.5	2.	1.5	1.	0.66	82.70	1473.77	2.92	0.22	17.0x	25.76	0.0242	0.244
" 8	2	"	69.20	38.475	55.6	2.	3.5	1.	0.285	135.00	1038.83	4.77	0.36	25.15	88.25	0.0830	0.443
" 8	3	"	95.00	51.870	54.6	2.5	4.5	1.	0.22	235.77	1400.49	8.32	0.62	62.05	282.05	0.2651	0.885
" 8	4	"	65.52	29.943	45.7	3.	5.5	1.	0.18	166.35	808.46	5.87	0.44	5.0*	27.78	0.0261	0.466
" 8	5	"	19.60	4.978	25.4	3.5	4.5	1.	0.22	22.63	134.41	0.80	0.06	39.20	178.18	0.1675	[illegible]28
" 8	6	"	46.00	21.620	47.0	4.	4.5	1.	0.22	98.27	583.74	3.47	0.26	36.85	167.50	0.1575	0.418
" 8	7	"	49.70	12.326	24.8	6.	4.5	1.	0.22	56.03	332.80	1.98	0.15	56.35	256.14	0.2408	0.391

x - No sample received by Bureau of Mines, weight taken from operator's field record.

* - Vial broken, weight taken from operator's field record.

Explanation of Table 2

3 - Type of sample --

Conc. 6 pans - Heavy concentrate from channel sample cut from gravel and top 6 inches of bedrock in wall of bulldozer cut. Six level full standard pans of gravel and bedrock, approximately equal to 1 cu. ft., were concentrated in a rocker and pan by the operator.

Columns 4, 5, 6 --

Same as in Table 1.

7 - Thickness of barren ground in ft. --

Measurements taken by operator in field. Note that they do not agree in all cases with measurements made by Chapman and Hulbert.

8 - Thickness of mining section in ft. --

Measurements taken by operator in field. Note that they do not agree in all cases with measurements made by Chapman and Hulbert.

9 - Volume of sample in cu. ft. --

Based upon the reasonable assumption that 6 level full standard pans contain 1 cu. ft. of gravel and bedrock.

10 - Area in sq. ft. --

Area represented by sample, calculated from figures in columns 8 and 9.

11 - Sn per sq. ft. in grams --

Tin per sq. ft. calculated from weight in column 5 and area in column 10.

12 - Sn per cu. yd. in grams --

Tin per cu. yd., from weight in column 5 multiplied by 27.

13 - Sn per sq. ft. in oz. --

Tin per sq. ft. of bedrock calculated from weight in column 11 using 1 gram equal to 0.0353 ounce.

14 - Value of Sn per sq. ft. at $1.20/lb. --

Value calculated from weight in column 13 and value of $0.075 per ounce for tin.

15 - Gold weight in mg. --

Weight of gold reported by U. S. Bureau of Mines laboratory.

16 - Gold weight per sq. ft. in mg. --

Calculated from weight in column 15 and area in column 10.

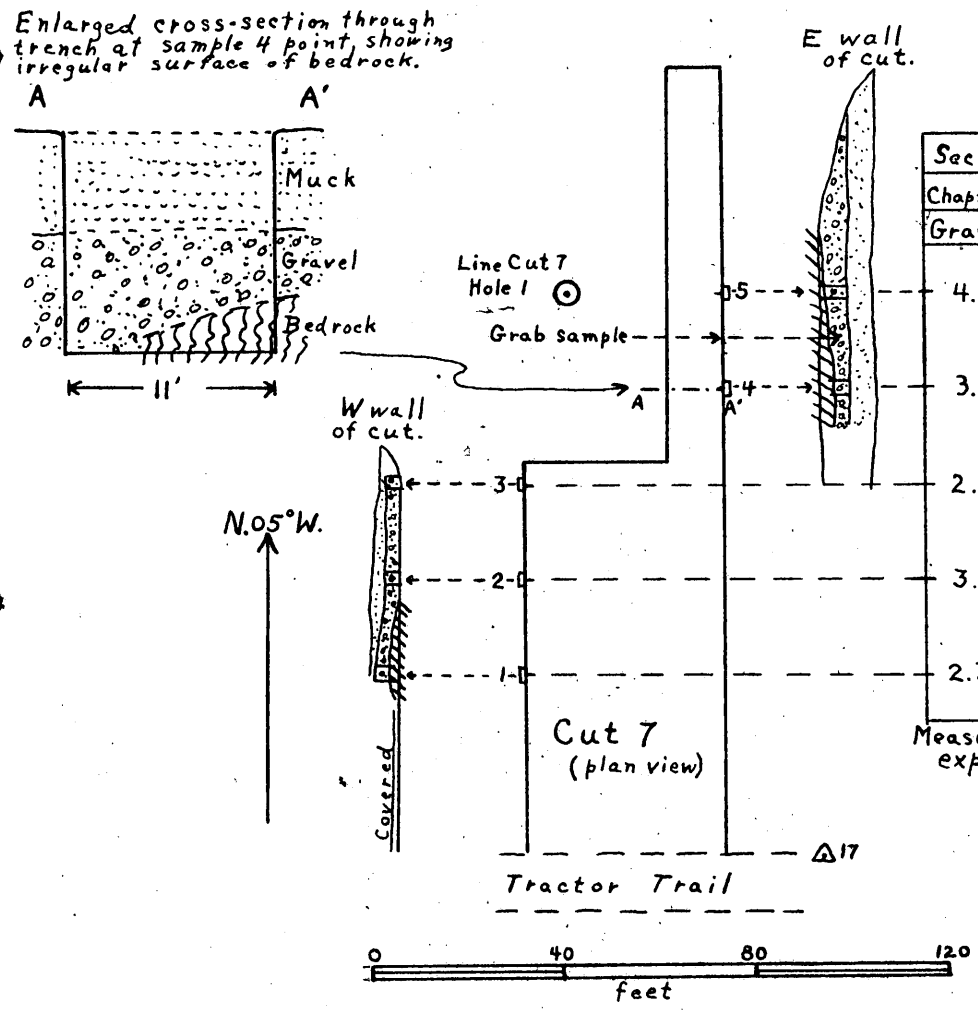
17 - Value gold per sq. ft. --

Value of gold per sq. ft. calculated from weight in column 16 and value of $0.00094 per mg. of gold that is 835 fine. Fineness determined by U. S. Bureau of Mines laboratory on combined sample of all gold recovered from cut and drill samples.

18 - Value gold and Sn per sq. ft. --
Total of amounts in columns 14 and 17.

FIGURE 4

MAP OF CUT 7 SHOWING SAMPLE LOCATIONS AND GEOLOGY



Section thickness in feet			
Chapman & Hulbert		Driller	
Gravel	Muck	Gravel	Muck
4.3	5.0+	5.	2.
3.4	5.0	4.	1.
2.4+	1.0−	6.	2.
3.0	2.5+	4.	3.
2.3	0.5+	2.	1.

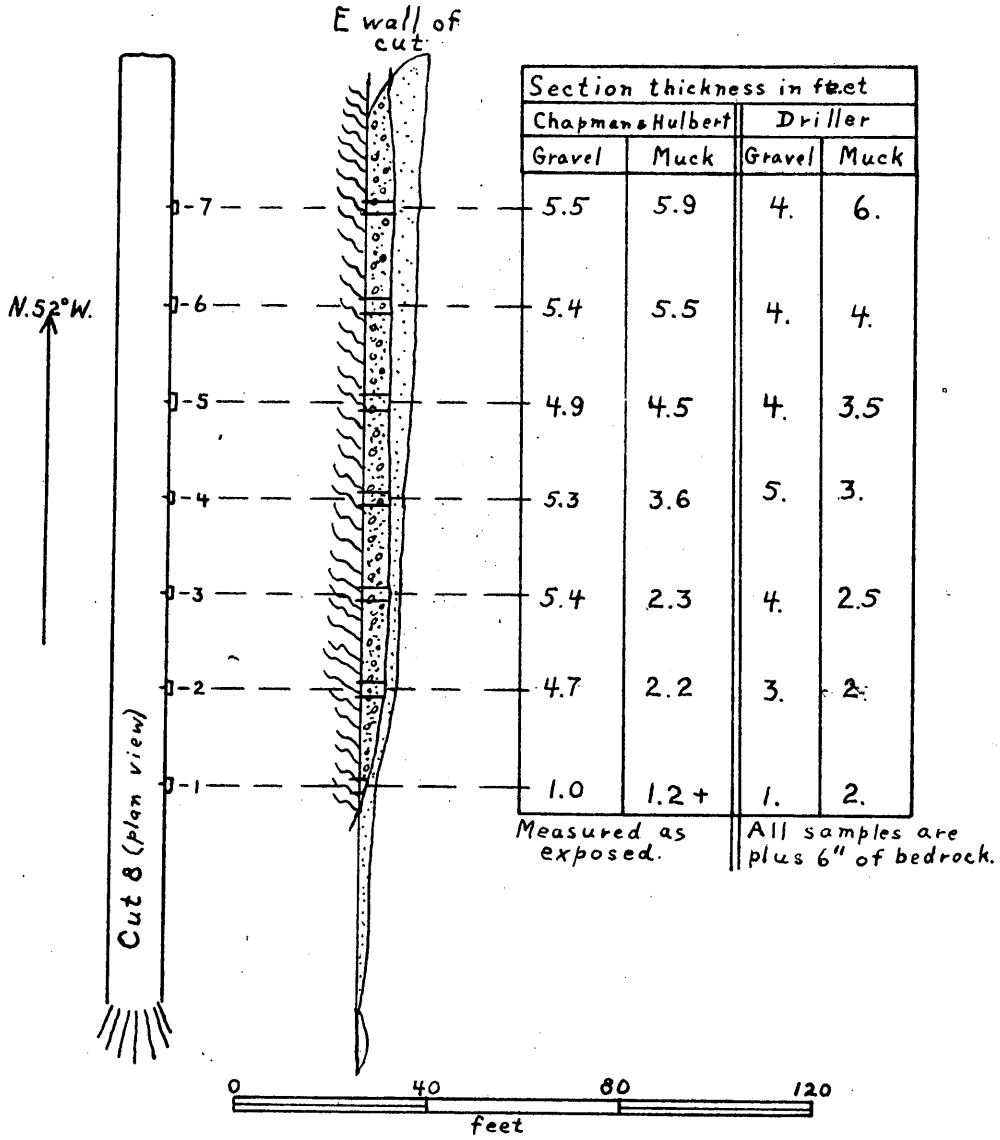
Measured as exposed.

All samples are plus 6" of bedrock.

R. W. Chapman, U. S. Geol. Survey
J. F. Hulbert, U. S. Bur. Mines
Sept. 1952.
Compiled February 1953.

FIGURE 5

MAP OF PIT 8 SHOWING SAMPLE LOCATIONS AND GEOLOGY



Section thickness in feet			
Chapman & Hulbert		Driller	
Gravel	Muck	Gravel	Muck
5.5	5.9	4.	6.
5.4	5.5	4.	4.
4.9	4.5	4.	3.5
5.3	3.6	5.	3.
5.4	2.3	4.	2.5
4.7	2.2	3.	2.
1.0	1.2 +	1.	2.

Measured as exposed.

All samples are plus 6" of bedrock.

R. M. Chapman, U. S. Geol. Survey
J. C. Hulbert, U. S. Bur. Mines
Sept. 1958.
Compiled February 1959.

EFFICIENCY OF OPERATIONS

The rate of accomplishment of the preliminary work, drilling, and bulldozer cut sampling was good. Considering the operational difficulties in this area, as much work was completed as could be expected. Both the terrain and isolated location make it difficult to move equipment and maintain supply.

The exploration project as outlined in the contract could have been completed in a full season of work. It was most unfortunate that delays in the processing of the application made it impossible for Mr. Purkeypile to begin operations before July. In mid-season it was difficult to rent good equipment, as most drills and bulldozers were already in use. Also the project was forced to terminate early in order to return the rented equipment to Fairbanks on the last available boat. It would have been practical to begin this project in late May and to continue work until some time in October.

Either an early season start or the purchase rather than rental of a bulldozer would have enabled the operator to have completed considerably more work and would have made for a more efficient operation. It is also suggested that greater efficiency and safety would be possible on projects in such remote areas if the operator is equipped with a radio transmitter so that he could maintain contact to arrange supply and transportation.

EXPENDITURES

The total allowable cost of the project as approved in the contract is $18,000.00, and the government's portion is 90 percent or $16,200.00. The final accounting submitted by Mr. Purkeypile shows a total expenditure of $17,693.73, of which the government's share is $15,924.36. This leaves $275.64 of the government's share unexpended. No tin or gold were produced during the exploration operations.

EQUIPMENT PURCHASED FOR THE PROJECT

Item	Cost
1 Pump, 2 PAF Jaeger 2", Serial P 142763, Wisconsin engine AEN	$239.00
1 Hose, suction, 2x25	72.00
2 Tents, 16x16, @ $55.00	110.00
1 Tent, 10x12	49.50
3 Mattress, cotton, @ $8.95	26.85
Total	$497.35

All of the items of equipment except the mattresses would have some resale value. In view of the condition and cost of the mattresses, it is recommended that they be written off as of no value. The rest of the equipment cannot be sold for a reasonable price in Fairbanks at this time of the year, as the demand for such items of mining and camping equipment

is very slight during the winter months when most operations are closed. Mr. Purkeypile would prefer to take the items at their original purchase price and keep them for possible future use. Deducting the mattresses, the cost is $470.50, of which the government's share is $423.45.

Thus the total cost of this project to the government is $15,924.36 less $423.45 or $15,500.91.

CONCLUSIONS

1 - A large area of placer ground downstream from Line 14 remains untested.
2 - The results of the test drilling on Tozimoran and Ash Creeks are inconclusive, due to the fact that there is reason to think that full recovery of tin and gold was not obtained.
3 - The samples from Cuts 7 and 8 indicate that the block of bench gravel between these cuts probably could be worked economically.
4 - Cassiterite is present on both Ash Creek and Tozimoran Creek above Ash Creek, and the bedrock source of the placer cassiterite has not been localized.
5 - No well defined paystreaks can be outlined as a result of the drilling.

RECOMMENDATIONS

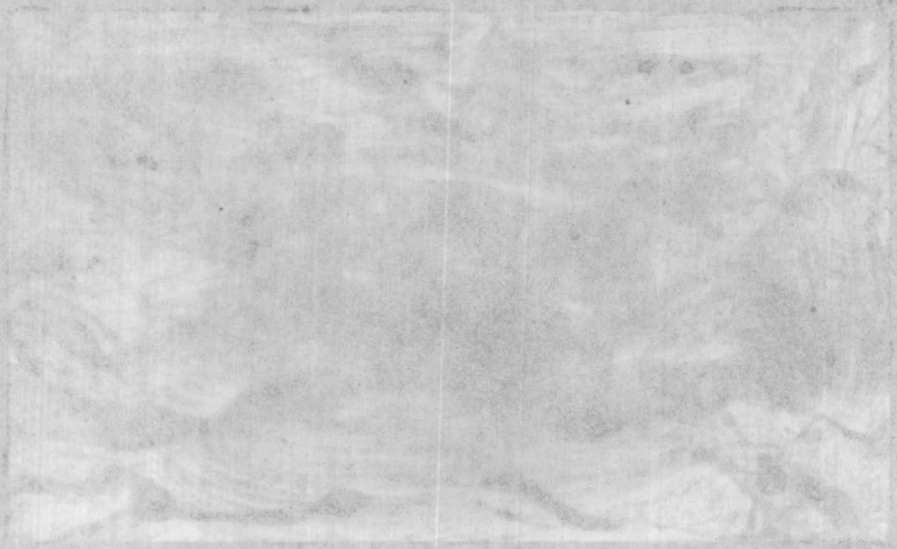
1 - On the basis of the completed exploration work and the results of the assays on the samples obtained, a discovery has not been made. Samples from Line 10, Hole 4 and from Cuts 7 and 8 are the only ones that show promise of an economically workable concentration of cassiterite.
2 - Further testing would be necessary to determine whether the remainder of the explored block of ground could be worked profitably. Samples should be taken from bulldozer trenches or test pits immediately adjacent to some of the drill holes in order to determine whether or not the drill hole samples give a true picture of the tin and gold content of the ground.
3 - If check sampling of the drill holes showed significantly higher tin and gold content, then further sampling on Tozimoran Creek upstream from Line 9 and downstream from Line 14 would be warranted. If further sampling is done in this shallow ground, bulldozer trenching rather than drilling is recommended.
4 - An experienced placer mining engineer should be available for frequent consultation in the field if further exploration is done.

FIGURE 6

Looking upstream toward Moran Dome from point on bench near cabin, Tozimoran Creek.

Looking down Ash Creek from ridge near the head and showing headwaters of Tozimoran Creek.

Looking upstream toward Lower Dove from point on bench near cabin, Toxaroman Creek.



Looking down ash creek from ridge near the head and shoaling headwaters of Toxaroman Creek.

FIGURE 7

Drill hole line 13 looking south from near hole 8.

Fairbanks churn drill in operation on Tozimoran Creek.

FIGURE 7

Drill hole line 13 looking south from near hole 6.

Fairbanks chain drill in operation on Pearlstone Creek.

BIBLIOGRAPHY

1. Chapman, Robert M., and Hulbert, James H., Interim report on the field inspection of the Tozimoran Creek placer tin project, Docket No. DMEA 2453 tin: DMEA report, September 15, 1952.

2. Coats, Robert R., Preliminary report on tin deposits of the Tozimoran Creek area, Alaska: U. S. Geological Survey "red cover" report (unpublished) 1943.

3. Thomas, Bruce I., and Wright, W. S., Investigation of the Tozimoran Creek tin placer deposits, Fort Gibbon District, Alaska: U. S. Bureau of Mines R. I. 4323, August 1948.

Line - 1
Hole - 1
Elevation - 835'
Drilling date and time - 8/13/52, ?

Summary

Moss	- 1.0
Muck	- 3.0
Sand & Gravel	- 13.0
Bedrock	- 1.5
Total	- 18.5'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1', sand 1'	0.05	none	none
2-4	Fine gravel	0.05	some	"
4-6	" "	0.1	"	"
6-8	Gravel	0.1	"	"
8-10	Gravel 1', black muck 1'	0.05	none	"
10-12	Black muck	0.1	"	"
12-14	Gravel	0.15	some	"
14-16	"	0.05	"	"
16-18.5	Gravel 1', bedrock 1.5'	0.05	none	"

Remarks - 1-5' frozen

Line - 1
Hole - 2
Elevation - 835'
Drilling date and time - 8/14-15/52, 10¼ hrs.

Summary

Moss	- 1.0
Muck	- 2.0
Sand & Gravel	- 11.0
Bedrock	- 2.0
Total	- 16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 1', muck 2', sand 1'	0.05	none	none
4-6	Sand & gravel	0.05	"	"
6-8	" "	0.05	"	"
8 -10	" "	0.1	"	"
10-12	Medium gravel	0.1	some	"
12-14	" "	0.05	"	"
14-16	Bedrock	0.1	none	"

Remarks - none

Line - 2
Hole - 1
Elevation - 872'
Drilling date and time - 8/16/52, $4\frac{1}{4}$ hrs.

Summary

Moss	- 1.0
Muck	- 1.0
Sand & Gravel	- 12.0
Bedrock	- 2.0
Total	- 16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 1', Muck 1', sand 2'	0.1	little	none
4-6	Sand & gravel	0.1	some	"
6-8	" "	0.05	"	"
8-10	" "	0.05	none	"
10-12	" "	0.05	some	2 colors
12-14	" "	0.05	"	2 "
14-16	Hard bedrock	0.05	none	none

Remarks - none

Line - 2
Hole - 2
Elevation - 872'
Drilling date and time - 8/17/52, $4\frac{1}{4}$ hrs.

Summary

Moss	- 1.0
Sand & gravel	- 10.0
Bedrock	- 2.0
Total	- 13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1', sand 1'	0.05	some	none
2-4	Sand & gravel	0.05	"	1 color
4-6	" "	0.1	little	none
6-8	Fine sand & quartz rock	0.1	"	2 colors
8-10	" " " "	0.1	"	1 color
10-12	" " " "	0.1	none	none
12-13	Hard bedrock	0.05	"	"

Remarks - Bedrock is a hard schist with quartz

Line - 3
Hole - 1
Elevation - approximately 905'
Drilling date and time - 8/18/52, 5 hrs.

Summary

Moss	- 1.0
Muck	- 2.0
Sand & Gravel	- 13.5
Bedrock	- 4.0
Total	20.5'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 1', muck & sand 3'	0.1	none	none
4-6	Sand & gravel	0.1	little	"
6-8	Gravel	0.1	some	"
8-10	"	0.05	"	"
10-12	"	0.05	"	1"color
12-14	Gravel & sand	0.1	little	none
14-16	" "	0.05	"	"
16-18	Bedrock & sand	0.05	none	"
18-19	Bedrock	0.05	"	"
19-20	"	0.05	"	"

Remarks - none

Line - 11
Hole - 5
Elevation - 807'
Drilling date and time - 9/8-9/52, 6 hrs.

Summary

Moss	- 0.5
Muck & Ice	- 11.5
Bedrock	- 1.0
Total	- 13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 0.5', muck 1.5'	0.0	none	none
2-4	Ice	0.0	"	"
4-6	Muck	0.0	"	"
6-7	Muck and Ice	0.0	"	"
7-8	Muck	0.0	"	"
8-9	"	0.0	"	"
9-10	Muck and Ice	0.0	"	"
10-11	" "	0.0	"	"
11-12	Muck	0.0	"	"
12-13	Hard bedrock	0.01	"	"

Remarks - 2-11' frozen. This hole is just off the upstream end of a bench and all of the gravel has been washed away.

Line - 9
Hole - 1
Elevation - 843'
Drilling date and time - 8/19/52, 6 hrs.

Summary

Moss	- 0.5
Sand	- 0.5
Gravel & Sand	- 14.0
Bedrock	- 4.0
Total	19.0'

Depth in feet	Character of material	Measured Volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss, sand, gravel, and large boulders	0.1	very little	none
4-6	Medium gravel	0.1	little	"
6-7	" "	0.05	"	"
7-9	Sand	0.05	"	"
9-11	"	0.05	"	"
11-13	Sand & silt	0.05	"	7 colors
13-15	" "	0.05	"	10 "
15-17	Silt & 2' bedrock	0.1	none	6 "
17-19	Soft bedrock	0.2	"	none

Remarks - Gold 11-17', 16 mgs. Ground unfrozen

Line - 9
Hole - 2
Elevation - 840'
Drilling date and time - 8/20/52, 5¼ hrs.

Summary

Moss	- 0.5
Angular rock	- 3.5
Gravel	- 8.0
Clay	- 4.0
Total	16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', angular rock 3'+	0.05	none	none
4-6	Gravel	0.05	very little	"
6-8	"	0.1	" "	"
8-10	"	0.1	" "	"
10-12	Gravel 1.5'+, angular rock	0.1	" "	"
12-14	Gumbo clay	0.1	none	2 colors
14-15	" "	0.2	"	none
15-16	" "	0.1	"	"

Remarks - The gumbo clay was so sticky that 2 days were required to pull the casing from it. Ground unfrozen

Line - 10
Hole - 1
Elevation - 825'
Drilling date and time - 8/9-10/52, 11 hrs.

Summary

Moss	- 1.0
Muck & Talus	- 7.0
Gravel	- 6.0
Bedrock	- 2.0
Total	- 16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1', muck and talus 1'	0.1	none	none
2-4	Talus	0.1	"	"
4-6	"	0.1	"	"
6-8	"	0.1	"	"
8-10	Fine sand	0.1	½ teaspoonfull	"
10-12	" "	0.1	"	"
12-14	" "	0.1	some	"
14-16	Bedrock	0.2	"	"

Remarks - 2-4' frozen

Line - 10
Hole - 2
Elevation - 823'
Drilling date and time - 8/7-8/52, ?

Summary

Moss	- 1.0
Sand	- 1.0
Sand & Gravel	- 10.0
Bedrock	- 2.0
Total	- 14.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1'; sand 1'	0.1	none	none
2-4	Sand and gravel	0.1	"	"
4-6	" "	0.1	"	"
6-8	" "	0.1	"	"
8-10	" "	0.1	"	"
10-12	Sand and some gravel	0.1	"	"
12-14	Bedrock	0.1	"	"

Remarks - 0-1.5' frozen

Line - 10
Hole - 3
Elevation - 823'
Drilling date and time - 8/10-11/52, 7 hrs.

Summary

Moss	- 1.0
Muck & Sand	- 1.0
Sand & Gravel	- 9.0
Bedrock	- 2.0
Total	- 13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1'; muck & sand 1'	0.1	none	none
2-4	Sand ?	0.1	some	"
4-6	Coarse sand	0.1	"	"
6-8	" "	0.05	"	"
8-10	" "	0.05	"	"
10-13	Gravel 1'; bedrock 2'	0.1	very little	"

Remarks - none

Line - 10
Hole - 4
Elevation - 823'
Drilling date and time - 8/11-12/52, 8 hrs.

Summary

Moss	- 1.0
Sand	- 3.0
Gravel	- 8.0
Bedrock	- 1.5
Total	- 13.5'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1'; sand 1'	0.1	none	none
2-4	Sand	0.1	some	"
4-6	Fine gravel	0.2	"	"
6-8	Gravel	0.15	--	"
8-12	"	0.1	very little	"
12-13	Bedrock	0.05	heavy	"
13-13.5	"	0.05	"	"

Remarks - Cassiterite concentrate 4-13' weighed 19 grams. One of best tin concentrates encountered. Frozen from 2-7'

Line - 10
Hole - 5
Elevation - 821'
Drilling date and time - 8/12/52, 3½ hrs.

Summary

Moss	- 1.0
Sand	- 1.0
Gravel	- 8.5
Bedrock	- 2.5
Total	- 13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss & Sand	0.05	none	none
2-4	Loose gravel	0.1	"	"
4-6	" "	0.1	"	"
6-8	" "	0.1	"	"
8-10	" "	0.1	"	"
10-12	Gravel 0.5'; bedrock 1.5'	0.1	"	3 colors
12-13	Bedrock	0.05	"	2 "

Remarks - Gold weighed 15 mgs. Ground unfrozen

Line - 13
Hole - 1
Elevation - 766'
Drilling date and time - 8/23/52, 8 hrs.

Summary

Moss	- 0.5
Muck	- 0.5
Gravel	- 13.0
Bedrock	- 1.0
Total	- 15.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', muck 0.5', gravel 3'	0.1	little	none
4-6	Gravel	0.1	some	"
6-8	"	0.2	"	"
8-10	"	0.1	"	"
10-12	"	0.1	"	1 color
12-14	"	0.1	little	2 "
14-15	Soft bedrock	0.2	none	none

Remarks - Hole site changed twice due to large rocks near surface

Line - 13
Hole - 2
Elevation - 766'
Drilling date and time - 8/24/52, 6 hrs.

Summary

Moss	- 0.5
Muck	- 2.0
Gravel	- 10.5
Bedrock	- 1.0
Total	- 14.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', muck 2', gravel 0.5'	0.05	very little	none
4-6	Gravel	0.15	" "	"
6-8	"	0.1	some	"
8-10	"	0.1	"	"
10-12	"	0.15	little	"
12-14	Soft bedrock	0.1	"	4 colors

Remarks - 2-7' frozen

Line - 13
Hole - 3
Elevation - 766'
Drilling date and time - 8/24-25/52, 7 3/4 hrs.

Summary

Moss	- 0.5
Muck	- 2.0
Sand & Gravel	- 7.5
Bedrock	- 2.0
Total	- 12.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 0.5' muck 2.0'	0.05	none	none
2-4	Muck 0.5', sand & gravel 1.5'	0.15	little	"
4-6	Sand & gravel	0.2	some	"
6-8	" "	0.2	"	1 color
8-10	" "	0.2	"	none
10-12	Hard bedrock	0.1	none	"

Remarks - none

Line - 13
Hole - 4
Elevation - 767'
Drilling date and time - 8/25-26/52, 5 1/4 hrs.

Summary

Moss	- 0.5
Muck	- 2.0
Sand & Gravel	- 6.5
Bedrock	- 1.0
Total	- 10.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', muck 2', and sand 1.5'	0.1	none	none
4-6	Gravel	0.1	little	"
6-8	"	0.05	some	"
8-10	Gravel 1', hard bedrock 1'	0.1	none	"

Remarks - none

Line - 13
Hole - 5
Elevation - 770'
Drilling date and time - 8/26/52, 4 1/2 hrs.

Summary

Moss	- 0.5
Muck & Sand	- 7.5
Gravel	- 6.0
Bedrock	- 1.0
Total	- 15.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 0.5', muck 1.5'	0.1	none	none
2-4	Muck 0.5', muck & sand 1.5'	0.05	very little	"
4-6	Muck & sand	0.05	none	"
6-8	" "	0.05	"	"
8-10	Gravel	0.1	very little	"
10-12	"	0.1	" "	1 color
12-14	"	0.1	little	none
14-15	Bedrock	0.2	none	"

Remarks - 4-8' frozen muck and sand. 8-14' frozen gravel. Bedrock unfrozen.
Weight of gold 5 mgs.

Line - 13
Hole - 6
Elevation - 785'
Drilling date and time - 8/26-27/52, 5 hrs.

Summary

Moss	- 1.0
Muck & Talus	- 5.0
Sand & Gravel	- 6.0
Bedrock	- 4.0
Total	- 16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1', muck & talus 1'	0.1	none	none
2-4	Muck & talus	0.1	"	"
4-6	" "	0.1	some	"
6-8	Sand & talus	0.05	"	"
8-10	Sand & gravel	0.1	"	1"color
10-12	" "	0.2	"	1 "
12-14	Bedrock	0.1	"	1 "
14-16	"	0.1	none	none

Remarks - Thawed streak down part way; could not make water measurement.

Line - 13
Hole - 7
Elevation - 793'
Drilling date and time - 8/27/52, 3 hrs.

Summary

Moss	- 1.0
Talus & Sand	- 7.0
Gravel	- 7.0
Bedrock	- 1.0
Total	- 16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Moss 1', sand & talus 2'	0.05	none	none
3-5	Sand & talus	0.05	"	"
5-7	" "	0.1	some	"
7-9	Talus 1', sand & gravel 1'	0.1	very little	"
9-11	Sand & gravel	0.1	some	"
11-13	" "	0.15	"	1 color
13-15	" "	0.1	"	none
15-16	Bedrock	0.15	"	none

Remarks - Large pieces of cassiterite that seemed to be lighter than old channel tin. Sand is heavy. Ground unfrozen. No water. Weight tin concentrate 17 gr.

Line - 13
Hole - 8
Elevation - 814'
Drilling date and time - 8/28/52, 3 3/4 hrs.

Summary

Moss	- 1.0
Sand	- 7.0
Sand & Gravel	- 3.0
Sticky clay & Talus	- 5.0
Total	16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-5	Moss 1', sand 4'	0.05	none	none
5-7	Sand	0.05	"	"
7-9	Sand, talus, & gravel	0.1	very little	"
9-11	Sand & gravel	0.1	" "	"
11-12	Sticky clay & talus	0.1	none	"
12-14	" " "	0.1	"	"
14-16	" " "	0.1	"	"

Remarks - Not enough casing to reach bedrock. 11-16' apparently ground up talus and clay

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Line - 13
Hole - 9
Elevation - 827'
Drilling date and time - 9/7-8/52, 8½ hrs.

Summary

Moss	- 0.5
Muck	- 0.5
Gravel	- 13.0
Bedrock	- 2.0
Total	16.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Moss 0.5', muck 0.5', sand & gravel 2'	0.05	Trace	none
3-5	Gravel	0.1	"	"
5-7	"	0.1	very little	"
7-9	Clay & sand	0.1	none	"
9-10	Gravel	0.1	trace	"
10-11	"	0.1	"	"
11-12	"	0.1	"	"
12-13	"	0.1	"	"
13-14	"	0.1	"	"
14-15	Gravel & bedrock	0.1	"	2 colors
15-16	Soft bedrock	0.1	none	1 color

Remarks - none

Line - 14
Hole - 1
Elevation - 745'
Drilling date and time - 8/28-29/52, 5 1/4 hrs.

Summary

Muck & Sand	- 2.0 ±
Gravel	- 10.0 ±
Bedrock	- 1.0
Total	- 13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Muck, sand & gravel	0.1	little	none
3-5	Gravel	0.1	"	"
5-7	"	0.2	some	"
7-9	"	0.2	"	1 color
9-11	"	0.1	"	5 colors
11-12	"	0.15	"	3 "
12-13	Bedrock	0.1	none	none

Remarks - 3-8' frozen. Weight of gold about 20 mgs. Vein of quartz and pyrite in bedrock.

Line - 14
Hole - 2
Elevation - 746'
Drilling date and time - 8/29-30/52, 4 hrs.

Summary

Moss	- 0.5
Muck	- 3.0
Gravel	- 5.5
Bedrock	- 1.0
Total	- 10.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 0.5', and muck 1.5'	0.05	none	none
2-4	Muck 1.5' and gravel 0.5'	0.05	some	"
4-6	Gravel	0.1	"	"
6-8	"	0.1	"	4 colors
8-10	Gravel 1', hard bedrock 1'	0.2	very little	none

Remarks - Hit a large quartz boulder at 10'. Unable to keep water out.

Line - 14
Hole - 2A
Elevation - 746'
Drilling date and time - 8/30/52, 4 hrs.

Summary

Moss	- 0.5
Muck	- 2.0
Gravel	- 8.5
Bedrock	- 2.0
Total	13.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', muck 2.0' sand 1.5'	0.1	none	none
4-6	Sand & gravel	0.05	very little	"
6-8	Gravel	0.1	some	"
8-10	"	0.1	"	"
10-12	Gravel 1', soft bedrock 1'	0.1	very little	"
12-13	Soft bedrock	0.1	none	"

Remarks - 0-11' mostly frozen. Bedrock unfrozen

Line - 14
Hole - 3
Elevation - 748'
Drilling date and time - 8/30-31/52, 5 3/4 hrs.

Summary

Moss	- 0.5
Ice	- 2.0
Gravel & Sand	- 13.5
Bedrock	- 1.0
Total	17.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', gravel 3.5'	0.1	little	none
4-6	Ice	0.0	none	"
6-8	Muck & sand	0.05	"	"
8-10	Sand	0.05	"	"
10-12	Gravel	0.1	some	"
12-14	"	0.3	little	"
14-16	"	0.1	some	2 colors
16-17	Bedrock	0.1	none	none

Remarks - Frozen except near bedrock. Water measurement 2.7 cu. ft. volume of hole

Line - 14
Hole - 4
Elevation - 762'
Drilling date and time - 8/31 & 9/6/52, 4 3/4 hrs.

Summary

Moss	- 0.5
Clay	- 4.0
Sand & Gravel	- 9.5
Bedrock	- 1.0
Total	15.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', sand 3.5'	0.05	none	none
4-6	Sticky clay	0.1	little	"
6-8	" "	0.1	some	"
8-10	Sand & gravel	0.15	trace	"
10-12	" "	0.1	"	1 color
12-14	Gravel	0.05	"	none
14-14.5	Bedrock	0.02	none	"
14.5-15	"	0.01	"	"

Remarks - none

Line - 14
Hole - 5
Elevation - 774'
Drilling date and time - 9/6/52, 4 hrs.

Summary

Moss	- 0.5
Sand, clay, & gravel	- 9.5
Bedrock	- 2.0
Total	12.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Moss 0.5', sand & gravel 2.5	0.05	none	none
3-5	Clay & gravel	0.15	trace	"
5-7	Clay & sand	0.15	none	"
7-8	" "	0.1	"	"
8-9	" "	0.1	"	"
9-10	" "	0.1	trace	"
10-11	Bedrock	0.1	none	"
11-12	"	0.1	"	"

Remarks - none

Line - 14
Hole - 6
Elevation - 787'
Drilling date and time - 9/7/52, 2 3/4 hrs.

Summary

Moss	- 0.5
Muck	- 0.5
Gravel	- 6.0
Bedrock	- 3.0
Total	10.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Moss 0.5', muck 0.5', gravel 2'	0.05	none	none
3-5	Gravel	0.1	trace	"
5-7	Clay & sand	0.1	none	"
7-8	Bedrock	0.1	"	"
8-10	"	0.1	"	"

Remarks - none

Line - Cut 7
Hole - 1
Elevation - 815'
Drilling date and time - 9/11-12/52, 8 hrs.

Summary

Moss	- 1.0
Muck and Angular rock	- 1.0
Gravel and Muck	- 9.0
Gravel and Sand	- 3.5
Bedrock	- 3.5
Total	18.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-2	Moss 1', muck & angular rock 1'	0.05	none	none
2-4	Gravel & muck	0.05	"	"
4-6	" "	0.05	"	"
6-8	" "	0.1	"	"
8-9	" "	0.02	"	"
9-11	" "	0.1	"	"
11-12	Gravel	0.1	trace	"
12-13	Sand	0.1	"	"
13-14	Sand	0.05	some	"
14-15	Gravel 0.5', bedrock 0.5'	0.1	"	1 color
15-16	Bedrock	0.1	none	none
16-17	"	0.1	"	"
17-18	"	0.1	"	"

Remarks - First hole on which new sand pump was used. Tested with 5 shot -- old pump recovered 2; new pump recovered them all. A 1 oz. piece of cassiterite was put into hole and neither pump recovered any part of it after 1.5' of drilling.

Line - Cut 7
Hole - 2
Elevation - 837'
Drilling date and time - 9/12-13/52, 8 hrs.

Summary

Moss	- 0.5
Muck & Sand	- 12.0
Sand	- 8.0
Gravel	- 2.5
Bedrock	- 2.0
Total	25.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-3	Moss 0.5', gravel 2.5'	0.05	none	none
3-5	Frozen muck	0.0	"	"
5-7	Ice & muck	0.0	"	"
7-9	" "	0.0	"	"
9-11	Frozen muck & sand	0.0	"	"
11-13	" " "	0.02	"	"
13-14	" " "	0.02	"	"
14-15	" " "	0.02	"	"
15-16	Frozen sand	0.02	"	"
16-17	" "	0.1	little	"
17-18	" "	0.1	trace	"
18-19	" "	0.1	"	"
19-20	" "	0.05	"	"
20-21	" "	0.1	none	"
21-22	" "	0.05	"	"
22-23	" "	0.05	"	"
23-24	Angular rock, bedrock?	0.1	"	"
24-25	Bedrock	0.1	"	"

Remarks - none

Line - Cut 8
Hole - 1
Elevation - 850'
Drilling date and time - 9/13-14/52, 5 hrs.

Summary

Moss	- 0.5
Muck & Sand	- 11.5
Talus	- 4.0
Sand & Gravel	- 4.0
Bedrock	- 3.0
Total	23.0'

Depth in feet	Character of material	Measured volume loose in cu. ft.	Cassiterite content	Gold content
0-4	Moss 0.5', muck 3.5'	0.0	none	none
4-6	Muck	0.0	"	"
6-8	"	0.0	"	"
8-10	Muck & sand	0.1	"	"
10-12	" "	0.1	"	"
12-14	Angular rock, talus	0.1	"	"
14-16	" " "	0.05	"	"
16-18	Sand & gravel	0.1	trace	"
18-20	" "	0.1	"	"
20-21	Bedrock	0.05	"	"
21-22	"	0.05	very little	"
22-23	"	0.05	none	"

Remarks - none

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 4-7-53

REFERRED TO:

1. ~~Berry 4624~~
2. Mr. Ellis, Rm. 4640
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record
..... Comment	of .....
..... Conference	..... Referring
..... Consideration	to .....
..... Filing	..... Reply for signa-
..... Instructions	ture of .....
..... Investigation	..... Rewriting
..... Initials	..... Signature
..... Mailing	..... Suggestions
..... Previous correspondence	..... Your information

REMARKS: Grace: Should think Chambers should see this. Hazel
I have placed a copy of Mr. Lorain's memo in file, but only one copy of Wilcox's memo Mar.23 recd. Do you want to refer this original copy and attachment to Mr. Chambers?
gla

Check (X) before the items needing attention.

ROBERT E. ADAMS
Initials of sender.

GPO 16—63815-1

Bw

4/8/53 gla

OFFICE OF THE ADMINISTRATOR

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

P. O. Box 560
Juneau, Alaska
March 31, 1953

MEMORANDUM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1953

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

From: S. H. Lorain

Subject: Final settlement

re: Docket No. DMEA 2453 (tin)
I. W. and Sara E. Purkeypile

Mr. Purkeypile has agreed to purchase the supplies and equipment on hand at cost. He would like very much to obtain the balance of his final cash settlement which will amount to $1,263.25 after deduction of $423.45 for the government equity in the supplies and equipment. Inasmuch as Mr. Purkeypile, undoubtedly, is in need of this money, and inasmuch as a site audit will not be made until next summer at the earliest, we urge that immediate settlement be permitted.

Enclosed herewith is a letter from our administrative officer in which he expresses the opinion that the provisions of the contract have been complied with and that the accounts are in order.

In our opinion Mr. Purkeypile made a conscientious, and generally successful, effort to comply with the terms of the contract. Because of a faulty pump his drill recoveries were not dependable but, after careful analysis, we think that they are sufficiently indicative to demonstrate that the placer ground does not have commercial value. The work did, however, give strong indications that the principle source of lode tin is drained by Ash Creek rather than by Tozimoran Creek; this ties in with the occurrence of tin on Melozimoran Creek which is across the divide from the head of Ash Creek.

The letter from the administrative officer states that the contractor's vouchers list an expenditure of $225.75 on "rehabilitation and repairs" for which no provision was made in the contract. This was simply an error in distribution by Mr. Purkeypile. There was nothing at the property to "rehabilitate", consequently it would not have been possible to spend any money for that purpose.

The trenching work referred to by the administrative officer was done at the request of our examination team during their visit to the property. Because of the isolation of the property and of the necessity for quick decision, it was necessary that the examination team act on their own initiative without prior approval. We are of the opinion that this expenditure should be approved.

The final report on the property has been prepared and is receiving final review in this office; it will be forwarded to Washington in the near future.

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines Member

C. L. Sainsbury
Geological Survey Member

Enclosure

cc: C. L. Sainsbury

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGION I

560

OFFICE OF
REGIONAL DIRECTOR

P. O. BOX 2000
JUNEAU, ALASKA

March 23, 1953

MEMORANDUM

To: Executive Officer, Alaska Field Team, Region I

From: Chief, Administrative Division, Region I

Subject: I. W. and Sara E. Purkeypile, Contract Idm - E-353

Work under this contract was completed in October 1952 and the final MF-104 submitted this office on November 7, 1952. Documents supporting the voucher have been checked and found to be in order. The total amount of the contract is $18,000.00; $17,693.73 has been expended. Total amounts expended, by items, have been checked and it appears that allowable maximums specified in the contract were not exceeded. We have found only one questionable item in this respect. The estimated amounts listed under Exhibit A of the contract shows "none" for Rehabilitation and Repairs, although this amount has not been indicated as an allowable maximum. The contractor's vouchers indicate that $225.75 was spent on "Rehabilitation and Repairs". On the other hand, this may have been an error in distributing the costs on the 104 since this amount represents the purchase of tents, mattresses and small tools and supplies.

Mr. Herdlick has commented that the MF-104a carries a $4,875.26 cost for trenching, although no trenching is authorized under the terms of the contract. He further points out that the trenching was done at the suggestion of the Field Team representatives. It was Mr. Herdlick's thought that the Field Team might amend the contract to include this operation.

The contractor has offered to purchase the non-expendable property at cost. This will be at an expense of $423.45 to him and may be deducted from his final payment.

Since the contractor is anxious to receive this final payment, we are submitting this information to you with the suggestion that the Contract Administration and Audit Division

be approached on the possibility of approving this voucher for payment, subject to post-audit by that Division, rather than withhold payment pending their prior approval.

Recently, a similar approval was given for final payment on Contract Idm-E-338, Alaska Copper Corporation on the basis that (1) the total amount expended by the Government was comparatively small (2) all documentation was checked by the Region I Executive Officer and certifying officer and found to be in order and (3) it will be several months before the Audit Division can send a man to Alaska to make the audit.

L. J. Wilcox, Chief
Administrative Division

cc: C. L. Sainsbury

FILE COPY
SURNAME:

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

DEC 30 1952

Mr. [illegible] H. [illegible]rain
Executive [illegible]ffi[illegible]cer
[illegible] Field [illegible]eam, [illegible]ion 1
P. [illegible]. Box 299[illegible]
Juneau, [illegible]

Re: Docket [illegible]-2453 ([illegible]
Contract [illegible]o. Id[illegible]-353
[illegible] and [illegible] [illegible]arkepile
[illegible]osimoran [illegible]reek, [illegible]

Dear [illegible]r. [illegible]orain:

Receipt is acknowled[illegible]ed o[illegible] your letter of [illegible]ecember [illegible], 1952, in regard to the completion of the above referenced project.

Upon fin[illegible]l completion of an exploration project which is not to be certifie[illegible], a letter of completion will be addressed to the [illegible]perator by the [illegible]ashington [illegible]ffice and over the [illegible]dministrator's signature. In order that such a letter may be formulated it will be necessary for the regional [illegible]ffice to supply the following information:

1. [illegible]tatement of final disposition of equipment (in accordance with the provisions of [illegible] circular [illegible], or a waiver. If any of the equipment is waived, that, too, should be shown.

2. [illegible]tatement as to whether the [illegible] was in accordance with the terms of the contract. If it varies in any [illegible]ubstantial part not covered by [illegible] executed amendment, that, too, should be outlined.

3. [illegible]inal report from the [illegible]perator.

4. [illegible]inal report of the field team.

5. [illegible]ny important factors not brought out in the four points enumerated above which you consider essential for the records.

Matters pertaining to the audit certificate will be made a part of the Washington letter. Also to be included will be a paragraph which will [illegible]r[illegible] to the operator's attention the fact that financial and other records of the project must be retained by the operator for a period of three years in accordance with the contract.

In your letter of December 2, you state that in your opinion the operator would be unable to prepare an accurate final report other than the narrative submitted. In view of the fact that members of the field staff made an examination shortly before the project was completed, the field staff report will be acceptable in lieu thereof.

Sincerely yours,

Frank E. Johnson

Chairman, Service Committee

Ellis/pla/jem
12/22/52
cc to: Docket
Messrs. J. Henlock-Rm. 3061
A. R. Kinkel-Rm. 4234
Ellis Chambers
Cor. Com.
Field Off., Reg. I

J. H. Hedges

Member, Area Committee

A. R. Kinkel, Jr.

Member, Area Field Survey

F.N. 12-30-52

MF-50

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 12-11-52

REFERRED TO:

1. Mr. Ellis
2. Code 700
3.
4.

FOR:

	Action		Recommendation
	Approval		Record of
	Comment		Referring to
	Conference		Reply for signature of
	Consideration		Rewriting
	Filing		Signature
	Instructions		Suggestions
	Investigation	X	Your information
	Initials		
	Mailing		
	Previous correspondence		

REMARKS: As per our telephone conversation of today. (Letter from Mr. Lorain dated 12-2-52 is attached)

Check (X) before the items needing attention.

Jay L. Chambers
Initials of sender.

GPO 16—63815-1

Noted sla

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

Memorandum December 11, 1952

To: Administrator

From: Jay L. Chambers, Chief
Contract Administration and Audit Division

Subject: Proposed Letter to Mr. S. H. Lorain re Docket No. DMEA-2453, Contract Idm-E353, I. W. and Sare E. Purkeypile

Reference is made to your reference slip dated December ~~5~~ 2, 1952, by which you transmitted a letter from Mr. S. H. Lorain, Executive Officer, Alaska Field Team, Region I, for my comment. Your note stated that Mr. Ellis may wish to prepare a reply. I therefore have drafted a suggestive reply which Mr. Ellis may want to use in formulating the final letter.

Attachment

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 12/5/52

REFERRED TO:

1. ~~Mr. Mittendorf Rm. 4624~~
2. Mr. Chambers Code 800
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS:

Comment?

Check (X) before the items needing attention.

ROBERT E. ADAMS
Initials of sender.

GPO 16—63815-1

BW

Ellis will
wish to prepare
reply —
Note that Lorain
desires specific
instructions re
our talk this
morn —

Am

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

P. O. Box 2990
Juneau, Alaska
December 2, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 5 1952

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Operator's report for October 1952

re: Docket No. DMEA-2453 (tin)
I. W. and Sara E. Purkeypile

Enclosed herewith are two copies each of the MF-104 for October and the October "narrative".

I think that Mr. Purkeypile intended the narrative to be a final report for which, obviously, it is inadequate. I doubt if he would be able to prepare an adequate report. However, shortly before the field work was terminated, a joint examination was made by the Geological Survey and Bureau of Mines. If the report on that examination were modified, slightly, to bring it up to date, and suitable conclusions added, would it be acceptable as a final technical report?

Mr. Purkeypile has submitted his final (November) voucher but several adjustments will have to be made before final payment. Will you please advise me promptly if any special formalities are required before final settlement is made. Of course we understand that financial matters, including disposition of equipment, must be adjusted but I cannot find any specific instructions with regard to "normal" termination of a project.

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

Enclosures

cc: C. L. Sainsbury

C
O
P
Y

REPORT, SUMMER OPERATIONS AT TOZIMORAW CREEK
FOR OCTOBER, 1952

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

Dear Mr. Lorain:

This month will include the final bills, and as far as I know all the bills are now in, and will be included in the October Report, which will be sent in by the accountant, Mr. Kohler. The total amount comes just under $18,000.

We were able to accomplish what we did mostly because we were fortunate to have a good crew and a little more luck on our side than bad luck. Although we did have some bad luck at times. Once when we were about half way to the river, a bolt had come out of the transmission case loosing all the oil. We were able to nurse it to the river as we had along some extra oil. When we got to Tanana we went to the CAA and found they had the same kind of a cat, D7, and were able to get the special kind of bolts. I doubt if we would have been able to work much longer with it as it started to develop more troubles.

The drill was far from being in good condition, but the only one that we could get at the time; and, by the way, the cat was the only one available. When we discovered that the sand pump was faulty, we sent right away for a new one. It was almost a month before we got it, after most of the drilling had been done. In fact it was used only on the last three holes, which were above the pay streak on the bench.

On Drill Log No. 1 Hole Above Cut 7 you will see a note describing the tests made with the two pumps - the old pump and the new pump. I asked the driller what recovery, in his opinion, had we been getting. He looked at me solemnly and said that he didn't think it would be more than 50% and maybe not that much. All in all, we did the best we could with what we had to do with.

I am not sure that I described the last three drill holes or whether I put them on the last map that I sent in.

Hole No. 1 Above Cut 7 is about 30' up hill from the last sample taken in that cut. Hole No. 2 is 199' above Hole 1, same line. The hole above Cut 8 was 150' above or up hill from the last cut sample which was sample (7).

C
O
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The books and accounts will be left at the office of Boulett & Kohler for a reasonable period of time for inspection by any duly authorized official.

The balance of the fuel oil and gasoline not used was turned over to Black Navigation Co. and applied on freight of cat, drill, etc., coming up stream.

The pump and tents are stored at our place here at Hamilton Acres. We will take care of this property until further instructions. The balance of the camp outfit was furnished by us, and consisted of such items as stoves, beds, tools, kitchen ware, and dishes.

As this is the last report for the season, unless there is further information wanted, I still hope it won't be the last report.

Yours very truly,

s/I. W. Purkeypile

October 31, 1952

P.S.: The samples were taken to the airport and sent by Pan American some time ago.

C
O
P
Y

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

P. O. Box 2990
Juneau, Alaska
October 7, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

MEMORANDUM

To: Chairman, Operating Committee
Defense Minerals Exploration Administration

From: S. H. Lorain

Subject: Report for August 1952

re: Docket No. DMEA-2453 (tin)
I. W. Purkeypile

Enclosed herewith are two copies each of MF-104, MF-104A, narrative report, map from operator, and report of examination by Robert M. Chapman and James H. Hulbert.

You will note that, at the time of the examination (September 5 - 8), the season's work was nearly completed. Although the examiners were critical of the preparations for the project they appeared to be well pleased with the amount of work completed and with the manner in which the work was performed.

The results of the work cannot be assessed with any confidence until assays have been obtained. If, as the examiners surmise, no appreciable amount of tin was discovered the project should be terminated. On the other hand, the existence of an appreciable tin content in either fork above the confluence of Ash Creek with Tozimoran Creek may justify further work in an attempt to discover the lode source even though a placer pay channel is not indicated.

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

Enclosures

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

INTERIM REPORT ON THE FIELD INSPECTION OF THE TOKLAT-CRAN CREEK PLACER TIN PROJECT, DOCKET NO. DMEA 2453 TIN.

BY

Robert M. Chapman, U. S. Geological Survey

and

James H. Hulbert, U. S. Bureau of Mines

Fairbanks, Alaska

September 15, 1952

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Recommendations	1
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Work accomplished by the operator	3
Comments on progress of the work	4
Drilling and sampling procedures	4
Equipment and personnel	5
Operator's plans for completion of project	6

ILLUSTRATIONS

Figure 1 — Map of the upper Tesimoran Creek area showing location of drill lines and cuts.

Figure 2 — Map of drill lines, drill holes, and cuts.

SUMMARY

The Tozimoran Creek placer tin project (Docket No. DMEA 2453 Tin) was examined jointly by representatives of the Geological Survey and Bureau of Mines. The drilling and sample locations were surveyed and all phases of the operation were examined and discussed with the operator, Mr. I. N. Purkeypile.

The operator had completed 28 churn drill holes, 2 bulldozer cuts, and approximately 19 miles of tractor road between July 26 and September 8. Considering the difficult terrain and remote location this is a satisfactory amount of work accomplished. The techniques used and samples obtained are in general satisfactory, although the quality and completeness of the equipment are not entirely adequate.

The drilling and camp personnel seem to be capable and conscientious workers, but the project sorely lacks adequate technical supervision. It is most unfortunate that a competent placer mining engineer was not assigned to this work at the start to advise on the procurement of equipment and supplies and to make periodic field checks on the drilling program. The limited geological information available on this area and the flexibility of the exploration program make it very important that a competent engineer and/or geologist who is familiar with placer deposits be in close contact with the work from the start. At the time the DMEA representatives were able to visit the property only about 7 working days in the season remained, and they were able only to lay out a limited program to make the best use of this short time.

The samples collected prior to September 8 were examined in the field, but no definite statement of actual value is warranted until assays are obtained. A preliminary evaluation indicates that no commercial deposit of cassiterite and gold has been proven. It should also be recognized that due to a late season start the program could not be completed and that the block of ground on Tozimoran Creek below line 14 and near Slate Creek remains entirely untested.

RECOMMENDATIONS

A drilling project such as that carried on at Tozimoran Creek should have a placer mining man to supervise at the beginning. Care should be taken in gathering a complete drilling outfit in good condition, such as extra casing, apparatus for taking water and volume measurements, a sand pump in good working condition, and if possible a spare pump. Equipment should be complete and, due to isolation, spare parts should be on hand.

A cut off value for drill holes should be established before field work is started. In this case it would be wise to pick the most desirable locations to crosscut the valley with churn drill holes. For example line ten should show whether or not there is a pay streak in either Ash or Tozimoran Creek. If pay holes are encountered one should drill up Ash or Tozimoran Creek. If no pay holes were encountered on line ten a wise move would be to move down stream below the mouth of Slate Creek and follow the same procedure. Such a plan would without doubt give a clear picture of the tin and gold possibilities.

CONCLUSIONS

The drilling completed at the date of this report does not indicate the presence of a paystreak; though more information will be obtained after assays and drill hole calculations are made.

The concentrates from the drill holes appear to contain other minerals besides tin and in this case all concentrates should be brought into Fairbanks. No definite values per square foot or per cubic yard can be obtained until assays are completed.

Due to the fact that the exploration program as outlined in the contract could not be completed in the short season, the large area of ground on Tozimoran Creek downstream from line 14 and in the vicinity of Slate Creek has not been tested. Previous information on this block of ground is meager and is limited to 2 test pits (3 and 4) sunk by Bruce I. Thomas of the Bureau of Mines in 1944 (1) and to several prospect pits near the mouth of Slate Creek that were sampled by the Geological Survey party in 1942 (2). The results obtained on samples taken from these pits indicate a low grade tin-gold content, although these limited data are not a representative test sampling.

FIELD INSPECTION

The Tozimoran Creek project was examined jointly by the Geological Survey and the Bureau of Mines. Robert M. Chapman, geologist, and Richard G. Smith, geologic field assistant, of the Geological Survey, flew to Tanana and traveled down the Yukon River to the mouth of Lancaster Creek with Mr. Purkeypile in his boat. The trip of about 13 miles from the Yukon River to the camp on Tozimoran Creek was made in about 7 hours via caterpillar tractor. Four days, September 5 through 8, were spent on field work in the area. James H. Hulbert, mining engineer, of the Bureau of Mines flew to the small landing field on Golden Creek and walked about 10 miles to the camp, arriving on the afternoon of September 5. All 3 men returned to Tanana via tractor and boat on September 9.

The overall scope of the project, detailed plans, costs, operational and engineering problems, sampling, and work to be accomplished in the remaining time were investigated and discussed with Mr. Purkeypile. An instrument survey of the drill holes and sampling localities was made, and a plan for sampling and drilling during the remaining 6 days of the season was outlined, discussed, and mutually agreed upon. A Geiger counter check of the drill hole samples and some of the rocks in the area was made by Smith, and no radioactivity was detected.

---

(1) Thomas, Bruce I., and Wright, J. S., Investigation of the Tozimoran Creek tin placer deposits, Fort Gibbon District, Alaska; U. S. Bureau of Mines R.I. 4323, August 1948.

(2) Coats, R. R., Preliminary report on tin deposits of the Tozimoran Creek area, Alaska; U. S. Geological Survey, Strategic Minerals Investigations report (unpublished) 1943.

WORK ACCOMPLISHED BY THE OPERATOR

Mr. Furlongpile received word that his project had been approved (Docket No. DMA 2453 Tin) in a letter dated June 27, 1952. The copies were signed July 5, and he started his pay on July 7.

The personnel arrived via his boat at Lancaster Creek on the Yukon River on July 21. The equipment was landed at Lancaster by river barge on July 26. Construction of a cat road to Tenimerum Creek was started on the 26th, and approximately 19 miles of road, including that on Tenimerum and Ash Creeks, has been made. Much of this route has been cleared through heavy timber. The first load of equipment was hauled over this road to Tenimerum on July 29. A camp, including a cook tent, storage tent, and 3 tents for personnel, was set up.

Drilling was begun on August 6 at 3:00 P. M. The following drill holes were completed by September 6.

Line	Hole	Depth	Line	Hole	Depth
1	1	13.5 ft.	13	4	10 ft.
1	2	16	13	5	15
2	1	16	13	6	16
2	2	13	13	7	16
3	1	20.5	13	8	16
7	1	19	13	9	-
9	2	16	14	1	13
10	1	18	14	2	10
10	2	14	14	2A	13
10	3	13	14	3	17
10	4	13.5	14	4	-
10	5	13.5	14	5	-
13	1	15	14	6	-
13	2	14			
13	3	12			

The weights of cassiterite and gold recovered from these holes are omitted pending the assay reports.

Two old open cuts (Cuts 7 and 8) were cleared by the dozer to obtain more information about the channel on the bench. The total time spent on these trenches was 7 hours, most of which time the cat would have been idle. Mr. Madge, the driller, will supervise the sampling of these trenches, which work should be completed by the time that the cat has returned from the Yukon. Several bent samples were taken from these cuts by Mr. Hulbert.

COMMENTS ON PROGRESS OF THE WORK

The rate of accomplishment of the churn drilling has been very good. By September 8th 24 churn drill holes, averaging between 10 and 20 feet in depth, had been completed in a period of 33 days. Two bulldozer trenches, 126 and 189 feet long, had been made in Cuts 7 and 8.

Approximately 13 miles of cat road was made from the mouth of Lancaster Creek to the campsite and drilling locations on Tosimoran Creek. About one mile of cat road was cleared on Ash Creek. Heavy timber, swampy ground augmented by incessant rains, and some steep grades made this a rather difficult task.

In view of the fact that a drill and cat in the best of condition could not be obtained during mid-season when the contract was approved the overall amount of work done is considered to be good. The steep valley slopes, the swampy valley floor, and the patches of heavy timber make this a difficult area in which to move a cat and drill. The unusually large amount of rainfall this season made the ground very soggy and made cat travel more difficult than usual.

The problem of supply in this remote area is a major one. The closest air field is on Golden Creek about 20 miles from the Tosimoran camp, and operations from this field are impossible for large single-engine planes, and risky for even the smallest planes. Thus most supplies must be obtained in Tanana and carried in by boat and tractor. As Tanana is a small village the stocks of supplies are limited, and many items must be ordered from Fairbanks, which often entails transportation delays.

DRILLING AND SAMPLING PROCEDURES

Mr. Parkeypile was fortunate in employing Henry A. Hodge, a driller who was employed by Bruce I. Thomas of the Bureau of Mines on the Morelock Creek placer tin drilling project in 1943. The drilling procedures are standard for thawed ground, which has been encountered in all holes with the possible exception of two. The drilling has been carried into bedrock until concentrates no longer appear in the panning.

The operator has no equipment for taking water measurements of frozen holes, however, this equipment has not been needed so far.

All concentrates from the drill holes have been saved and placed in bottles. Each bottle has been clearly labeled with the line and hole number and the weight of concentrate. The bottles are stored in a metal container. Iron concentrates have been removed from most of the samples with a magnet by Mr. Parkeypile. He was advised by us to leave all concentrates in the samples and to have all such work done in Fairbanks or by an assay office.

There was some question as to the efficiency of the sand pump that was in use, and another one had been ordered. According to Mr. Purkeypile, tests of recovery were made with brass filings and they were recovered, although no note of this was made in the drill logs. He was advised to make some tests with buck shot and to enter the results in the drill logs. The new pump was in Tanana on September 9, and it was to be put in use as soon as Purkeypile returned to Tozimoran.

No shafts have been sunk to check-sample the results of the churn drilling. If time permits, a test drill hole will be sunk as close as possible to the sampled area in one of the bulldozer trenches.

EQUIPMENT AND PERSONNEL

Joint government-operator property

1 Jaeger 2 inch pump, gas (Serial No. P11,2763), with 25 feet of suction hose and strainer.
2 Army tents, canvas, 16'x16'.
1 Army tent, canvas, 10'x12'.
3 Mattresses.
3 Galvanized tubs.
3 Go-devils.
Lumber, all used in tent frames, tables, go-devils, etc.
Surplus oil and gasoline (to be returned or applied on subsequent return shipping costs).

Rental property

1 D-7 cat with 11 foot blade.
1 5 inch Fairbanks drill, complete, with 20 feet of casing.

Operator's property furnished

2 Tents.
1 40 foot river boat.
Small hand tools.
All camp equipment, stoves, dishes, chairs, etc.

Personnel

1 - I. A. Purkeypile, supervisor.
2 - Mrs. I. A. Purkeypile, cook.
3 - David Purkeypile, dover operator and mechanic.
4 - Henry A. Budge, driller.
5 - Fred Babbitt, driller's helper to September 1.
6 - Henry Sommers, driller's helper from September 4.
7 - Noah Napouk, panner.

Both Henry Mudge and David Purkeypile deserve special mention for their handling of the drill, motor, and cat. Due to the fact that the operation could not be started until late in the season there was very little choice of rental equipment and the drill, drill motor, and cat, although not in the best of condition, were the only ones available on such short notice. In an area that is as remote from supply as Tozimoran Creek the skill and ingenuity of these men has been invaluable to the maintenance of this machinery.

The cost estimates for wages in the contract are based on a 40 hour week. All of the personnel are working 10 hours per day and 7 days per week, which will greatly exceed the labor cost estimates.

OPERATOR'S PLANS FOR COMPLETION OF PROJECT

The chief factor in determining the termination date for the project is the last available up river barge transportation on the Yukon River, as the cat and drill must be returned to Fairbanks before rental can be terminated. Purkeypile must have his equipment at the Yukon River by September 20 to meet the last boat of the season. It is estimated that about 4 days will be required to move the equipment and personnel from Tozimoran Creek to the Yukon River. Thus September 15 will be the last day for exploration work on Tozimoran.

It is unfortunate that approval was not obtained soon enough so that work could have been started early in the season, as the work outlined in the contract could not possibly have been completed between late July and September 15. With this in mind, the following program that would make the best use of the remaining 6 days was mutually agreed upon:

1 - A line of drill holes about ¼ mile downstream from Ash Creek and roughly 100 feet upstream from Cut 7 to test the left limit bench of Tozimoran Creek at the upstream end. The position of the remaining holes will be determined by the results obtained in the first hole drilled about 100 feet north of the creek. This first hole was still in muck at 11 feet on September 9, and it is likely that the bench gravels may be cut away at this point. It was suggested that if such proved to be the case, the remaining holes should be drilled close to Cut 7 where gravels are known to be present.

2 - A series of 5 samples from the gravel section in Cut 7, and 7 samples from the gravel section in Cut 8 will be collected and concentrated by rocking and panning. Bulldozer trenches were made, at the suggestion of the Field Team representatives, to clean out these old cuts, and excellent sections for sampling are available in the walls of the trenches. It was estimated that most of this work could be accomplished while the cat was absent from the property and the drill could not be moved to the next location.

3 - If time permits a drill hole will be sunk close to Cut 7 or 8. The results of the recovery of tin and gold in this hole can be checked with the samples recovered in the rocker and pan concentrates from the cuts.

4 - The proposed work downstream from line 11 will be abandoned, due to the amount of time involved in moving the drill and personnel so far from the present camp.

Mr. Purkeypile plans to freight all of the camp and other equipment and personnel from Toximoran Creek to the Yukon River between September 15 and 20. The heavy equipment will be shipped via river barge to Fairbanks for storage and/or disposal. The surplus gasoline and oil probably can be turned over to the operator of the barge in part payment of the shipping charges. The personnel will be returned to Tanana and Fairbanks on Purkeypile's boat.

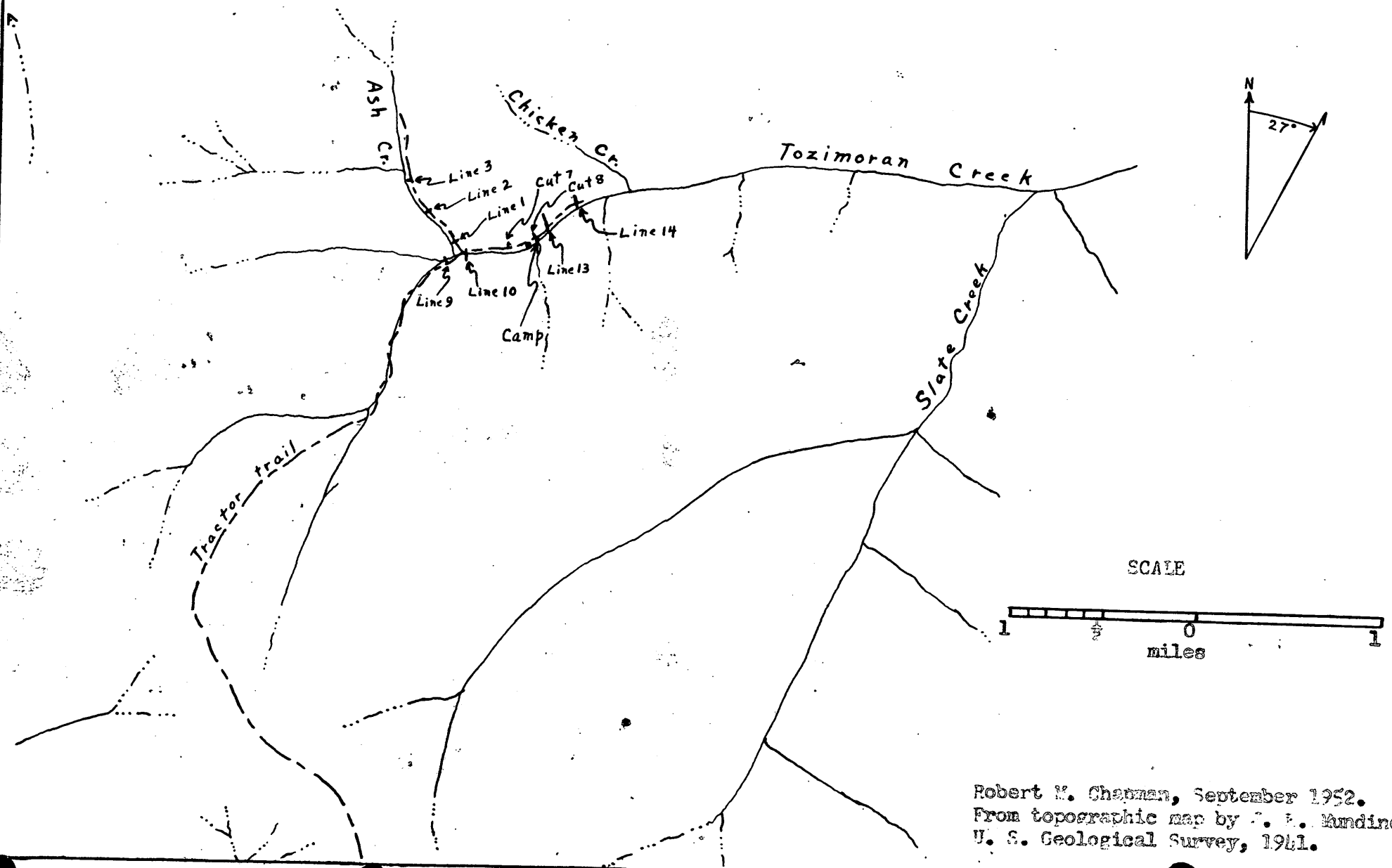
Purkeypile will bring all of the samples and concentrates to Fairbanks and arrangements will be made to have them assayed.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION
ADMINISTRATION

FIGURE 1

MAP OF THE UPPER TOZIMORAN CREEK AREA SHOWING LOCATION OF DRILL LINES AND CUTS



Robert M. Chapman, September 1952.
From topographic map by [illegible] Mundine,
U. S. Geological Survey, 1941.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D. C.~~
P. O. Box 2990
Juneau, Alaska

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 12 1952

TO: Field Team, Region I. D.M.E.A. September 6, 1952

FROM: C. L. Sainsbury

SUBJECT: Interim report by inspecting geologists.

IV. D.M.E.A. Docket No. 2453, tin, I W. Purkeypile, Box 572 - Fairbanks, Alaska. Property at Tozimoran Creek. Contract Idm-E 553

Although this property was not visited, Mr. R. H. Chapman, Geologist-in-charge at Fairbanks, passed on the following information: Mr. Purkeypile has informed him that the program will not be completed this summer owing to the late start. The cat which is on a rental basis must be removed not later than September 15, in order to catch the last river boat to return it to the owner.

Mr. Chapman will accompany a party of Trace Elements geologists to the general area of Tozimoran Creek in early September, and will visit the exploration if possible. A detailed report will be submitted.

C. L. Sainsbury, Acting
Executive Officer, Region I.

cc: T. P. Thayer

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~

P. O. Box 2990
Juneau, Alaska
August 29, 1952

Mr. Frank E. Johnson, Chairman
Coordinating Committee
Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

Re: Docket No. DMEA-~~8543~~ 2453
I. W. and Sara E.
Purkeypile

Dear Mr. Johnson:

Enclosed herewith are two copies of the MF-104 report and narrative for the month of July 1952.

Yours sincerely,

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

cc: E. A. Youngberg

FILE COPY
SURNAME:

200

Adams
F. Johnson

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

Mr. S. H. Lorain
Executive Officer
Region I
Bureau of Mines
P. O. Box 2990
Juneau, Alaska

Dear Mr. Lorain:

There is transmitted herewith the Finance Office's copy of contract Idm-E353, Docket No. DMEA 2453, I. W. and Sara E. Purkeypile, a partnership.

Ordinarily this copy of the contract would be transmitted by the Bureau of Mines Fiscal Office, however, in accordance with a new circular being prepared, the Finance Officer's copy will be distributed by the Executive Officer at the time a copy is retained for his files, and a copy forwarded to the operator.

The DMEA circular covering this change will be issued shortly.

Sincerely yours,

7/18/52

(signed) FRANK E. JOHNSON (fw)

Frank E. Johnson
Acting Administrator
Defense Minerals Exploration
Administration

Enclosure
READams/meb
7-17-52
cc to: Adm.Reading File
Mails & Files Br.

So

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~

Box 2990
Juneau, Alaska
July 9, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 14 1952

Mr. C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

Re: Docket No. DMEA 2453 - tin
I. W. and Sara E. Purkeypile

Dear Mr. Mittendorf:

Enclosed herewith are the "Docket", "Government", "Division", and "Finance Office" copies of the subject contract; they have been signed by the operator. The Field Team copy is being retained in this office. The "operator's" copy has been retained by him.

Mr. Purkeypile reports that he is assembling his outfit at Fairbanks and expects the boat to take him and his outfit down the river within a few days.

Yours sincerely,

S. H. Lorain
Regional Director, Region I

cc: E. A. Youngberg
U. S. Geological Survey
Juneau, Alaska

FILE COPY
SURNAME:

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

JUN 2 4 1952

C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration
Administration

COLLECT

I. W. PUSKEYPILE
BOX 572
FAIRBANKS, ALASKA

REURTEL JUNE 18 EXPLORATION CONTRACT DOCKET DMEA-2453 FORWARDED TO EXECUTIVE OFFICER LORAIN, REGION I, TODAY TO OBTAIN YOUR SIGNATURE.

C. O. Mittendorf (fw) cc 6/24

C. O. MITTENDORF

HFKeller/jem
cc to: Adm. Reading File
Docket
Ellis
Keller
Field Team, Region I (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON

June 23, 1952

Memorandum

To: Executive Officer, Region I

From: DMEA Operating Committee

It will be necessary to insert in the contract in the space provided under Article 3 the number of days from the date of the contract in which work shall commence.

FILE COPY
SURNAME:

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

JUN 24 1952

Mr. [illegible] Lorain
Executive Officer
DMEA Field Team, Region I
P. O. Box 2990
Juneau, Alaska

Re: Docket No. [illegible]-2453 (Min)
L. [illegible] and Sara [illegible] Turkeypile
Fairbanks, Alaska

Dear Mr. Lorain:

We are enclosing six copies of a proposed contract in the above captioned exploration project.

If you are in agreement with the contract as drawn up, and it is acceptable to the applicant, then kindly have the six copies of the contract signed by both partners of the applicant partnership. Please return four marked copies to this office, deliver the operator's copy to him and retain the other copy for your files.

Because of the limited operating season, and in response to telephone inquiry dated June 17 from Mr. L. [illegible] Turkeypile, we have wired him that the contract has been forwarded to you for the purpose of obtaining his signature.

Incerely yours,

(signed) FRANK E. JOHNSON (JHB)

Chairman, Operating Committee

Concurred:

J. H. Reagan (JHB)
Member, Bureau of Mines

T. P. Thayer (JHB)
Member, Geological Survey

J. Keller/jem
6/23/52
cc to: Adm. Reading File
Docket
Messrs. A. Henick-3061
E.T. McKnight-4204 GSA
Ellis Keller
Opr. Committee
Field Team, Region I

FILE COPY
SURNAME:

140

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

June 20, 1952

Memorandum

To: Acting Administrator

Through: E. W. Ellis

From: Chief Counsel

Subject: I. W. and Sara E. Purkeypile — Contract Docket No. DMEA-2453

There is attached, in satisfactory legal form for execution, a contract covering the above-described project, subject to the attachment of the maps, Figures 2 and 3, referred to in the description of the work.

J. L. Hofflund

J. L. Hofflund
Chief Counsel

Attachments
~~JLHofflund~~/
HCRubin/bjl

Copy to: Mails & Files
J. L. Hofflund
H. C. Rubin
~~Ck~~ E. W. Ellis
Chron.

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

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=Int'l Letter Telegram

VLT=Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

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C O MISHENDORF ACTING ADMINISTRATOR=

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SEASON GROWING SHORTER URGENT THAT DEFINITE INFORMATION BE GIVEN RE DMEA 2453 REPLY COLLECT=

J W PURKEYPILE

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 23 1952

Re 7500

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ADDSE UNKN UEMA/MEANS NOTHING
TO THEM-- GET BETTER ADDS 816A FL

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

U.S. JUN 18 AM 6 0

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BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

JUN 18 AM 8 46

U.S. JUN 18 AM 8 47

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 2990
Juneau, Alaska
June 9, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 12 1952

Mr. Frank E. Johnson, Chairman, Operating Committee
Defense Minerals Exploration Administration
Interior Building
Washington 25, D.C.

Re: Docket No. DMEA-2453 (Tin)
I. W. Purkeypile
Tozimoran Creek, Alaska

Dear Mr. Johnson:

I have just received your letter of June 3 and a copy of the subject application. I note the request for a prompt comment and recommendation.

The application, as submitted by Mr. Purkeypile, is exactly the same as the proposed revision which was prepared in this office and returned to Mr. Purkeypile for his consideration and submission with such changes as he chose to make. Evidently he was satisfied with our revision.

Although the revision was made in cooperation with the Geological Survey member of this team, we are in the unfortunate position of being between changes of the Geological Survey member. In other words the Survey member who cooperated on the revision of this application is being moved to the States and is being replaced by another man who is being transferred from the States. Naturally Mr. Twenhofel, the present incumbent, does not want to commit the Survey with regard to any new applications that will have to be administered by his successor. Inasmuch as Mr. Youngberg, the new Survey member of the Field Team, has not arrived we are in the position of not being able to make a unanimous Field Team recommendation. I understand also that the Geological Survey has taken the position that its representatives cannot approve a project until the representative has made a personal examination, unless there is an up to date report on the project by a member of the Geological Survey. Although the Survey has a reasonably up to date report on this project I have no way of knowing whether Mr. Youngberg will accept the data contained therein as being adequate base for his opinion. If we have to wait until Mr. Youngberg arrives and gets settled and then makes a trip to Tozimoran Creek I am afraid that the summer will be too far gone to leave time for an adequate field program. I am afraid that we will just have to hold the application in abeyance until we see what Mr. Youngberg's position will be.

My personal attitude toward this proposal places it as a borderline case. The fact that the commodity is tin and that it is an area in which little or no tin prospecting has been done is definitely in its favor. On the other hand we are dubious of Mr. Purkeypile's ability to keep accurate records of his results and it will be difficult for us to have a man constantly on the job; in fact I do not, at this time, know just where we could find the necessary personnel who could be spared from other work. After weighing the foregoing considerations my personal recommendation would be in favor of the application but, as I have already stated, I cannot speak for the Geological Survey in this matter.

Except for our personal knowledge of Mr. Purkeypile's qualifications my personal opinion on this project is based entirely on the Bureau of Mines Report of Investigations No. 4323 and on the Geological Survey Report by Farrell F. Barnes. No amount of additional field investigation could produce any additional data unless more digging were done. If your committee could approve or disaprove the contract without waiting for a unanimous Field Team opinion, prompt action might be attainable; otherwise we will have to hold the application in abeyance until Mr. Youngberg reaches a decision.

Yours sincerely,

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

cc: Wm. Twenhofel

6/5/52 gla

IN REPLY REFER TO:

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

June 5, 1952

Memorandum

To: Mr. E. Wm. Ellis, DMEA

From: Erwin J. Lyons, USGS

Subject: Recommendation for approval of Docket DMEA-2453.

Re: Docket DMEA-2453
I. W. Purkeypile,
Fairbanks, Alaska
Exploration grant, $18,000
Tin

The original application was reviewed by E. T. McKnight who, in his memorandum of April 9, 1952 to E. W. Ellis, stated that he believed exploration by drilling to be geologically sound, but that the bulldozer trenching would not be feasible.

The applicant, following the suggestion of the field team, has submitted a revised application in which he proposes to explore the creek by about 13 lines of churn drill holes. The lines will be about 1,000 feet apart and there will be 4 or 5 holes per line with the holes about 50 feet apart. Several shafts will be sunk to check the churn drilling. Total cost of the project is estimated at $18,000.

It is recommended that this amended project be approved.

Erwin J. Lyons

Erwin J. Lyons,
Geologist

FILE COPY
700 SURNAME:

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

JUN 3 1952

Mr. [illegible] Corain
Executive Officer, Region I
DMEA Field Team
Bureau of Mines
P. O. Box 299
Juneau, Alaska

Re: Docket No. [illegible]-2453 (Tin)
[illegible] Murkeypile
Cosimoran Creek, Alaska

Dear Mr. Corain:

We are enclosing for your files a copy of the amended subject application. As Mr. Murkeypile sent six copies directly to this agency we rather don't that we complied with your request and send a copy to you.

We would appreciate your comments and recommendations on this new application at your earliest convenience so that if the project is to be approved the applicant can take advantage of the present operating season.

Sincerely yours,

(Signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration
Administration

HFKeller/jem
5/29/52
cc to: Adm. Reading File
Docket
Messrs. A.Denick-3061
E.T.McKnight-4204
Ellis Keller
Opr. Committee
Field Team, Region I

APPROVED:
J. H. Hedges
Member, Bureau of Mines
D. M. Lemmon
Member, Geological Survey

FILE COPY
SURNAME:
700

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

AIR MAIL

JUN 3 1952

Mr. T. W. Purkeypile
Box 572
Fairbanks, Alaska

Re: Docket No. DMA-2453 (Am)
Dolmoran Creek, Alaska

Dear Mr. Purkeypile:

We wish to acknowledge receipt of six (6) copies of your amended application dated May 24, 1952, which you forwarded directly to this office. A copy is being transmitted to Mr. [illegible] Lorsin, Executive Officer, Field Team, Region I, P. O. Box 2200, Juneau, Alaska. We shall continue processing your application as rapidly as possible so that if a contract is granted you will be able to take advantage of the summer season.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

JFKeller/gls/jem
6/2/52
cc to: Adm. Reading File
Docket
Messrs. Arenick-3061
F.T.McKnight-4204 GSA
Ellis Keller
Field Team, Region I (2)

5/12/52 gh

ON-SITE Report

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY - 2 1952

DMEA FIELD TEAM REPORT - REGION I

Docket No. DMEA 2453 - Tin
Tozimoran Creek, Alaska
I. W. Purkeypile
P. O. Box 572
Fairbanks, Alaska

The subject docket, letter of transmittal, and memoranda by Abbot Renick and Edwin T. McKnight, have been reviewed by the Field Team, Region I, and by members of the DMEA staff who are acquainted with, or have knowledge of, the applicant and his property. In addition the reports by the Bureau of Mines[1/] and the Geological Survey[2/] dealing with the Tozimoran Creek placers were studied in detail, and the private reports accompanying the application were scrutinized. The following paragraphs are the evaluation by the Field Team of the application:

The applicant mentions no work done subsequent to the Bureau of Mines project of 1944; therefore, it is assumed that this report describes the latest work, and that nothing could be gained by a field examination at this time. Furthermore, the existing reports are detailed enough to appraise the applicant's proposal.

The Field Team agrees that some additional exploration of the Tozimoran Creek tin deposits is justified, but that the exploration should be modified along the lines suggested by Renick and McKnight. A letter to the applicant outlining the suggested changes and recommendations of the Field Team is attached to the Field Team Report, and is made an integral part of the Field Team's recommendation to Washington.

Mr. Renick's suggestion that the large amount of magnetite associated with the placer tin may provide a method of preliminary outlining of pay channels by a magnetometer survey is being considered. The Territorial Department of Mines has been requested to give consideration to a geophysical survey of the deposit by either magnetic or resistivity methods. It is doubtful if the cost of private geophysical survey could be absorbed in the amount of the loan as recommended by the Field Team.

1/ Thomas, Bruce I., and Wright, W. S., Investigation of the Tozimoran Creek tin placer deposit, Fort Gibbon District, Alaska: Bureau of Mines Report of Investigations 4323, 1948 (and confidential section in Bureau of Mines files).

2/ Coats, Robert R., Preliminary report on tin deposits of the Tozimoran Creek area, Alaska: U. S. Geological Survey War Minerals Investigations report, 1942.

Reviewed by
DMEA OPERATING COMMITTEE

5-9-52
(date)

The applicant, Mr. I. W. Purkeypile, is known to several members of the Bureau of Mines staff as an old-time prospector with abundant energy and considerable ability. His ability to obtain accurate and dependable drill samples, however, and to record all pertinent data is questionable. An exploration contract should specify that a competent placer sampler, or driller-sampler, acceptable to the Field Team, be hired to insure accurate sampling data.

If the applicant will modify his proposal to conform to the recommendations suggested in the attached letter to him, the Field Team recommends that an exploration contract of $18,000.00 be drawn up and signed, or delivered to the Field for signature. Of the $18,000.00 approximately $6,000.00 would be allowed for rental of a bulldozer and to the establishment of a camp, and $12,000.00 for drilling, sampling and test shafting. The Field Team believes this amount to be sufficient to determine the total possible reserves, and their grade, at the Tozimoran Creek placer.

Field Team, Region I

W. S. Twenhofel

W. S. Twenhofel, Alternate Executive Officer

Robert L. Thorne

R. L. Thorne, Alternate, Bureau of Mines

Attach.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D.C.~~
P. O. Box 2990
Juneau, Alaska

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY - 2 1952

April 28, 1952

Mr. I. W. Purkeypile
P. O. Box 572
Fairbanks, Alaska

Re: Docket No. 2453 (Tin)
Tozimoran Creek, Alaska

Dear Mr. Purkeypile:

Your application for an exploration loan at Tozimoran Creek has been referred, by the Washington office of DMEA, to the Field Team with the request that it be evaluated and modified by consultation between you and the Field Team in order to incorporate changes recommended by the Washington officials of DMEA.

After a detailed analysis of the several reports available, the Field Team believes that further exploration of the Tozimoran deposit is desirable, provided that the cost of such exploration can be made to conform with the indicated possibilities of the deposit.

At present, your application is in such form that a detailed contract could not be drawn up which would be acceptable to Washington. The major point to be considered is the expenditure of $15,000.00 for a bulldozer in an exploration contract of $30,000.00. Obviously, the major portion of an exploration loan must be devoted to exploration, and there appears little likelihood of approval of your loan if one-half the total amount is to be used to purchase a bulldozer. We suggest that you modify your proposal to use shafts to check drill results, and to provide for rental of a bulldozer for freighting (and for possible standby use for moving the drill during the drilling program if it is absolutely necessary). If the use of a bulldozer for freighting will require extensive trail building, then some other means of moving equipment should be considered such as pack animal or air drop. We believe an expenditure of about $6,000.00 for transportation and preparatory work would be justified, but not more.

To complete the revision and detailing of your application so that Washington will be able to draw up a complete contract, we suggest the following changes (Item numbers refer to questions in MF-103):

Item 10 (b). The legal description of the claims must include the recording office, and the book and page on which the recordings are entered.

Reviewed by
DMEA OPERATING COMMITTEE
5-9-52
(date)

Item 21. The proposed exploration must be described briefly but concisely. Your description is brief but not very concise. This is to be expected when you realize that you are contracting with the Government to do a certain job in a certain way. We suggest that the drilling program consist initially of reconnaissance by lines of holes spaced 1,000 feet apart (50 feet between holes in each line) to cover the creek bottom between the downstream end of the bench and the lower line of shafts. If this initial program indicates economic amounts of tin, the more favorable areas could be drilled with holes spaced closer, and the mouths of the streams above the high bench could be drilled to point up the source of the tin. Perhaps one or two of the upper benches (above creek level) could also be drilled. Check testing should be done by shafts, as the Field Team (and Washington officials) do not consider bulldozer trenching a practical or satisfactory method of checking drilling results.

Item 23 (b). In order to assure accurate results and records in the detail needed to appraise a possible discovery, the Government will require assurance that the supervisor or some responsible employee be experienced in sampling, surveying and such other phases of placer evaluation as is necessary to obtain complete and accurate data on the work.

Item 23 (e). As already stated, the purchase of a bulldozer is not justified. A reasonable rental will be allowed, and such rental should be determined and noted under 23 (f).

Item 23 (f). The drill rental estimate appears low. If you have a firm commitment on this item, the size and make of the rig should be stated. If necessary equipment (casing, tools, etc.) is not included such equipment should be itemized and placed under Item 23 (e). If a bulldozer is to be used for freighting, the rental should be determined and noted.

Item 24. A time schedule should be set up detailing the estimated time required to secure and freight equipment and supplies, and to show the amount of drilling expected in feet per shift and per month.

If you wish to modify your application to incorporate these changes, and to lower the amount of the loan to around $18,000.00, the Field Team feels that they can recommend your loan on the basis of geologic and sampling data already available. Favorable results from the reconnaissance drilling may justify further aid. We will be most happy to assist you in any way possible to get your loan approved in time to complete the project this summer.

I am including additional forms, MF-103, if you desire to make these changes. If you wish you may send one form back to us with the changes

incorporated, and we can review it before submitting it to Washington.

Sincerely yours,
Field Team, Region I

W. S. Twenhofel, Alternate Executive Officer, DMEA

Enclosures

FILE COPY
SURNAME:
700

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

AIR MAIL

Mr. I. W. Turkeypile
Box 572
Fairbanks, Alaska

Re: Docket No. DMA-2453 (Tin)
Tozimoran Creek, Alaska

Dear Mr. Turkeypile:

Your application for assistance in exploring your property on Tozimoran Creek, Alaska, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration and has been referred to Mr. [illegible] H. Lorain, Executive Officer, Region I, P.O. Box 2970, Juneau, Alaska, for a field examination.

The Regional office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

(signed) FRANK E. JOHNSON

for Acting Administrator
Defense Minerals Exploration
Administration

MFKeller/jem
4/11/52
cc to: Adm. Reading File
Docket
Messrs: A. Henick, Rm. 3061
E.T.McKnight, Rm. 4204 GS
Ellis Keller
Field Team, Region I (2)

700 FILE COPY
SURNAME:

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

AIR MAIL

APR 15 1952

Mr. S. M. Lorain
Executive Officer, Region I
DMEA Field Team
Bureau of Mines
P.O. Box 2990
Juneau, Alaska

Re: Docket No. DMEA-2453 (Tin)
A. W. Purkeypile
Tozimoran Creek, Alaska

Dear Mr. Lorain:

This is your authority to make a field examination of the captioned applicant's property on Tozimoran Creek, Alaska. For your information we are enclosing copies of the memorandums of the commodity men in the U.S.G.S. and the Bureau of Mines, concerning this application.

We believe that your Regional Office may have sufficient data, on the properties to be explored under this project, with which to decide the merits of the application without a field team examination. If such is the case we believe that it would be advisable for you to review the application with the Applicant and revise the exploration project so as to explore the properties most efficiently and economically. At the same time the Field Team should decide whether a bulldozer is required in order to carry the project to completion most economically. If needed it should be determined whether this equipment may be obtained on a rental basis at much less than the estimated cost of $15,000.00.

In view of the fact that you may know not only the properties, but probably the applicant and his capability to supervise the proposed project, we would appreciate receiving your evaluation of the subject application.

Sincerely yours,

[illegible] (JB)
Chairman, Operating Committee
Defense Minerals Exploration
Administration
HFKeller/jem 4/11/52
cc to: Adm. Reading File
Docket
Messrs. A.Renick, Rm. 3061
E.T.McKnight, Rm.4204 GSA
Ellis Keller
Field Team, Region I
Opr. Com.

Enclosures
APPROVED:
J. H. Hedges (JB)
Member, Bureau of Mines

T. P. Thayer (JB)
Member, Geological Survey

4/9/53 gla

IN REPLY REFER TO:

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

April 9, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: Edwin T. McKnight

Subject: Geologic appraisal

Re: IMEA-2453
I. W. Purkeypile
Placer on Tozimoran Creek
near Tanana, Alaska
Exploration loan - $30,000
Tin (gold)

The occurrence of placer tin on Tozimoran Creek was investigated during the war by the Geological Survey and the Bureau of Mines. It occurs in the younger alluvium along the present valley floor, and also along the sides of the creek in remnant benches which record an earlier stage of alluvial gravel. The largest bench, on which the applicant's cabin is built, was sampled by the Bureau of Mines from cuts in the alluvium. Nine samples taken over an area 650 feet long and 80 feet wide showed an average tin content of 0.731 lbs. and a gold content of .0228 ounces per cubic yard. This ore bearing gravel averaged 2 feet thick and was below a barren overburden layer averaging 3 feet thick. The unpublished Geological Survey report is based on earlier sampling data from essentially the same places. It suggests that there may be two pay streaks on the bench, the northern one about 1,000 feet long and the southern about 600 feet, each about 40 feet wide. The two streaks join at the downstream (eastern) end. The northern streak, with an overburden of 4.1 feet, and a pay streak 1 foot thick, has a content of 2.55 lbs. of tin and $0.512 gold per cubic yard. The southern pay streak with an overburden of 1.2 feet and a pay streak 2.8 feet thick, has a content of 1.1 lbs. of tin and $0.71 gold per cubic yard.

The younger alluvium in the present valley floor has been difficult to sample by the hand methods employed, owing to the abundance of ground water. Two shafts 50 feet apart dug by the Bureau of Mines in frozen alluvium 1-3/4 miles below the sampled bench (and 1 mile above the mouth of Slate Creek), gave values of 0.197 and 0.146 lbs. tin per cubic yard. This was in a gravel layer 5 to 6½ feet thick lying just above bedrock at depth of 16 to 18 feet. The cross section of the alluvium could not be completed at this place, and it is not evident whether a pay streak may have been missed.

The younger alluvium averages 250 feet wide between the mouth of Slate Creek and the sampled bench, and 150 feet wide above there to the mouth of Ash Creek. The average thickness in the lower stretch

mentioned may be 15 feet, and the thickness doubtless decreases upstream. The Survey report emphasizes that it is reasonable to expect the grade of tin in the gravel to increase upstream towards the apparent source of the tin.

Applicant proposes to explore the upper sections of the creek by "a line of holes about 25 feet apart" at several places along Tozimoran Creek and its tributary Ash Creek, as shown diagrammatically on sketch accompanying his application. The text of his application says that the successive lines of holes should be about 400 feet apart, starting at the upper end of the bench which was previously explored by the Bureau of Mines and extending upstream until no further tin is found. Between the lines of holes, he proposes bulldozer cuts to check the drilling. He also proposes a line of holes 50 feet apart, on a bench about one mile below the previously explored bench, and another line of holes across Tozimoran Creek near the mouth of Slate Creek.

Half of the total funds requested is for the bulldozer. Considering the trouble from ground water experienced by previous workers in attempting to excavate to bedrock in this younger alluvium, I believe that the bulldozer would not be a legitimate exploration expense.

Geologically, I believe the proposed exploration by drilling to be sound, and it could lead to a considerable extension of reserves with a possible betterment of grade. Somewhat more than 3 miles of alluvium is available, counting the tributaries.

Although not proposed by applicant, the 3-mile stretch of alluvium downstream from the previously sampled bench to the mouth of Slate Creek should be an equally favorable stretch for exploration. A rough calculation in the Geological Survey report indicates that this stretch might contain 190 tons of tin metal. This figure can be used as a rough measure of the inferred reserve that will be available for exploration by the applicant. How much of the creek can be explored in the 4 months estimated for the work is not evident from the application.

Edwin T. McKnight

Edwin T. McKnight
Geologist

4/2/52 gla

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

April 2, 1952

DMEA-2453 - Tin
Exploration Loan
I. W. Purkeypile
Box 572, Fairbanks, Alaska

Memorandum

To: E. William Ellis

From: Abbott Renick

Subject: Application for DMEA assistance submitted by I. W. Purkeypile, Fairbanks, Alaska.

Applicant submits a $30,000 Tin Exploration loan to consist of the following:

To drill and bull-doze ground and gravels on the north side of Tozimoran Valley downward from the mouth of Ash Creek. Tin in the form of cassiterite, and gold are found in the gravels of the valley floor down stream from the bench. Applicant considers four months work required to carry project to completion. Also, total expenditures is broken down, roughly $20,000 for equipment and supplies, and $10,000 for pay rolls. It is hoped that tin values will be exposed, and that this work may trace the deposition of cassiterite to the exact source of the placer tin.

Bureau of Mines, Report of Investigation 4323, August 1948, deals with the Tozimoran Creek tin placer. Excerpts from this report are as follows:

"The principal tin bearing area on Tozimoran Creek is a bench 1,000 feet long and 200 feet wide on the north side of Tozimoran Valley."

"The tin bearing gravels on the bench are about four feet deep and are covered with muck to an average depth of three feet."

"The cassiterite is 1/16 to 1½ inches in diameter, however, the largest percentage is found in the smaller sizes."

Sampling:

"During the preliminary examination, two methods of sampling were used. Channel samples were cut through exposed pay sections of gravel in open cuts on the bench and shaft holes were sunk in the gravel of the valley floor."

Channel-Sampling Summary:

"The examination indicated a tin bearing area approximately 650 feet long and 80 feet wide, which constitutes a portion of the bench below Ash Creek. The sampled block averages 0.731 pounds tin and .0228 ounce gold per cubic yard."

Shaft-Hole Summary:

"The tin content of gravel in the valley floor below the bench was not estimated. The two shaft holes were in a narrow portion of the valley. The results of the sampling from these two holes do not indicate the presence of a pay streak."

Summary of Shaft-Hole Sampling Results:

Hole	Depth Mining Section Feet	Pounds tin per Cubic Yard	Ounces gold per Cubic Yard	Depth Muck Section Feet
3	12.0	0.197	0.0031	5.0
4	13.1	0.146	0.0029	5.5

It is noted that the applicant proposes to drill lines of holes (type of drilling not clear) at intervals of 25 feet and also 50 feet. Furthermore, between the holes "cuts will be made with the bull dozer to check the drilling."

In view of the close spacing of drilling, the writer raises the question as to the justification for the bull dozer program. This equipment is estimated at $15,000 for four months work.

To sum up, "Preliminary sampling by the Bureau of Mines indicates the existence of approximately 8,900 cubic yards of gravel, averaging 0.731 pounds of tin and .0228 ounces of gold a cubic yard, and containing a total of 6,500 pounds of metallic tin and 203 five ounces of gold. These tin and gold bearing gravels are covered with approximately 5,560 cubic yards of over burden." 1/

Conclusions:

"The tin-bearing bench on Tozimoran Creed is too small for the development of an important reserve. There is no evidence of sufficient tin in the area to warrant further exploration by the Bureau of Mines at the present time." (May 1945).

1/ Confidential Report Mount Weather Technical Files No. 80.8669.

The presence of a large proportion of magnetite with the cassiterite and gold in the concentrate suggests the possibility of tracing pay streaks by means of a magnetometer survey in advance of drilling. 2/

The writer suggests that Application 2453 be reviewed with recommendations by the field team in Alaska.

Abbott Renick

2/ Thomas G. Payne, U.S.G.S. Mount Weather Files No. 49.29.

EXPLORATION

Subject: DMEA-2453
Re: Exploration Loan
Above and Below Mines
March 28, 1952

Mr. I. W. Purkeypile
Box 572
Fairbanks, Alaska

My dear Mr. Purkeypile:

This will acknowledge receipt of your application dated March 18, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2453 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-2453 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

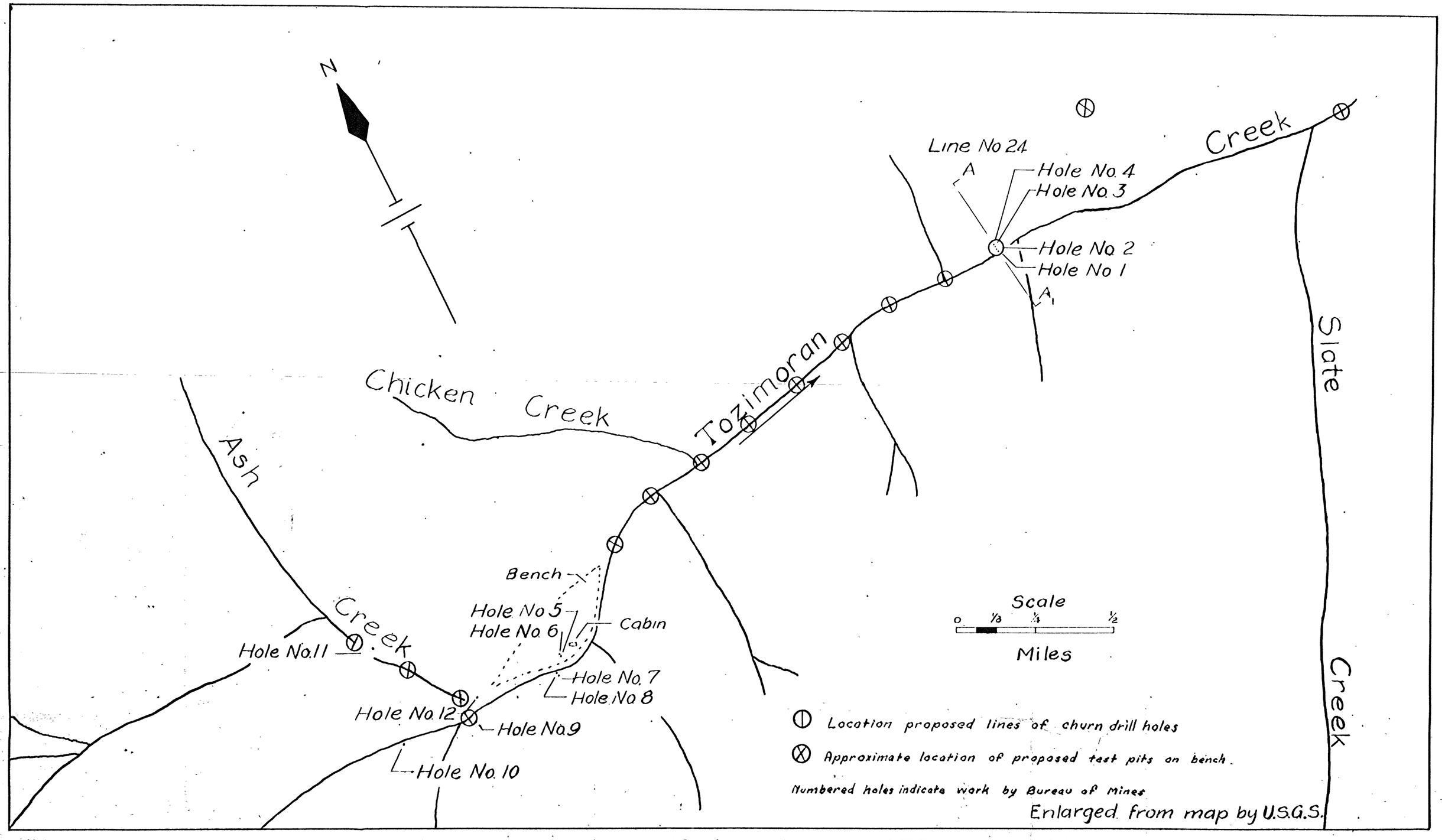

FIG. 3 SHAFT HOLES TOZIMORAN CREEK, ALASKA

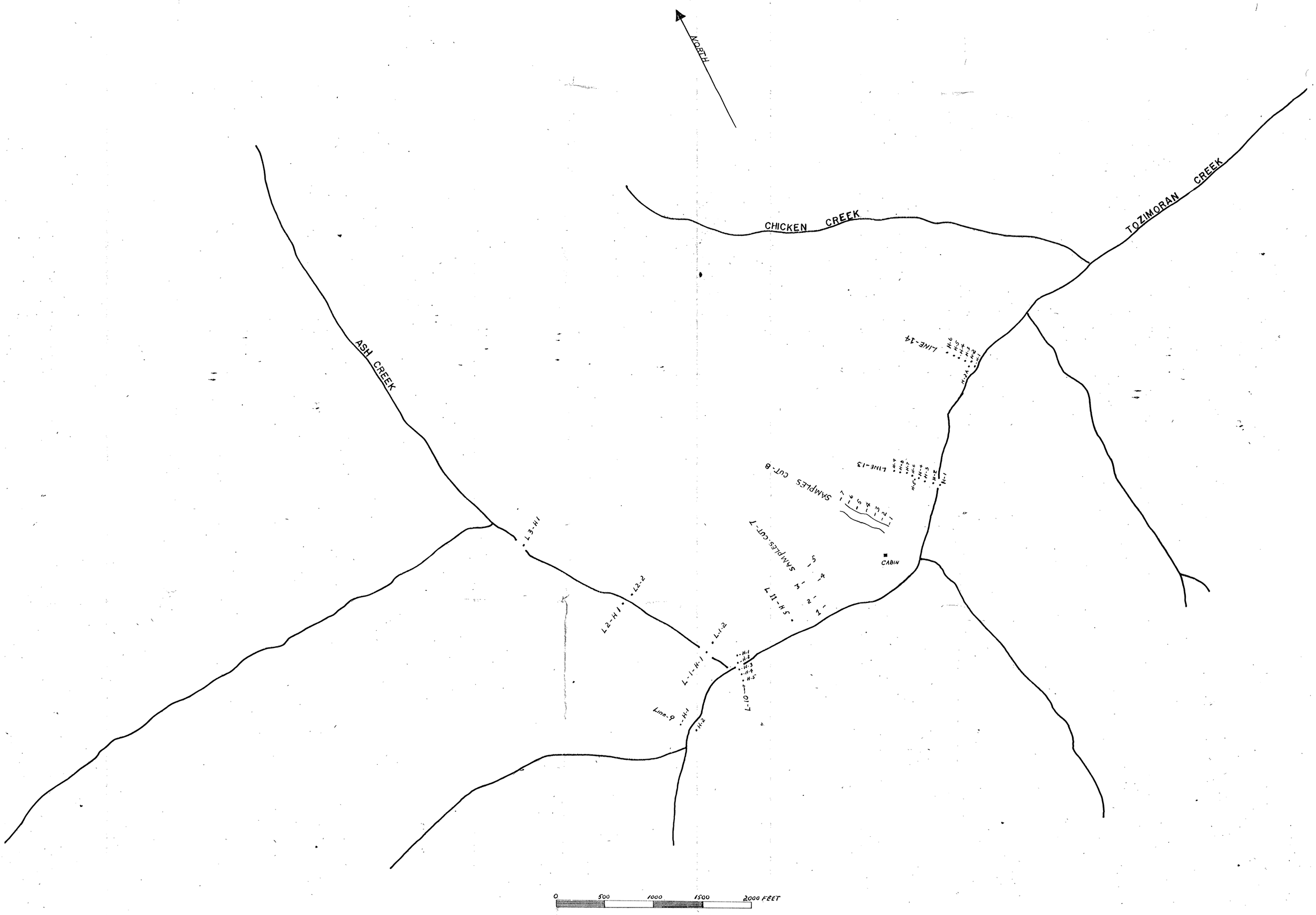
NORTH
CHICKEN CREEK
TOZIMORAN CREEK
ASH CREEK
LINE-14
LINE-13
SAMPLES CUT-8
SAMPLES CUT-7
CABIN
L3-H1
L2-2
L2-H1
L-1-2
L-1-H-1
L-10-7
Line-9
H-1
H-2
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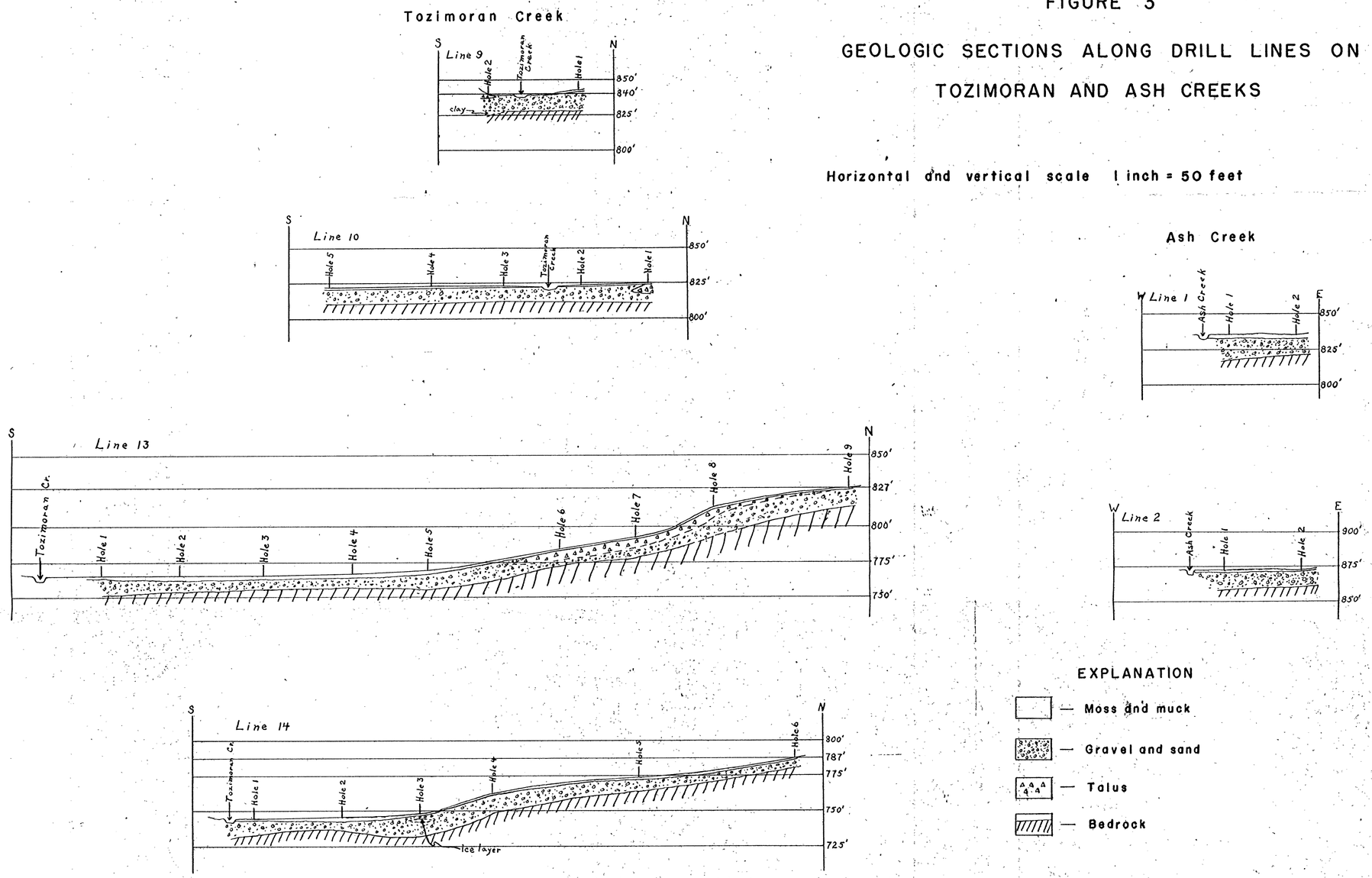
FIGURE 3

GEOLOGIC SECTIONS ALONG DRILL LINES ON TOZIMORAN AND ASH CREEKS

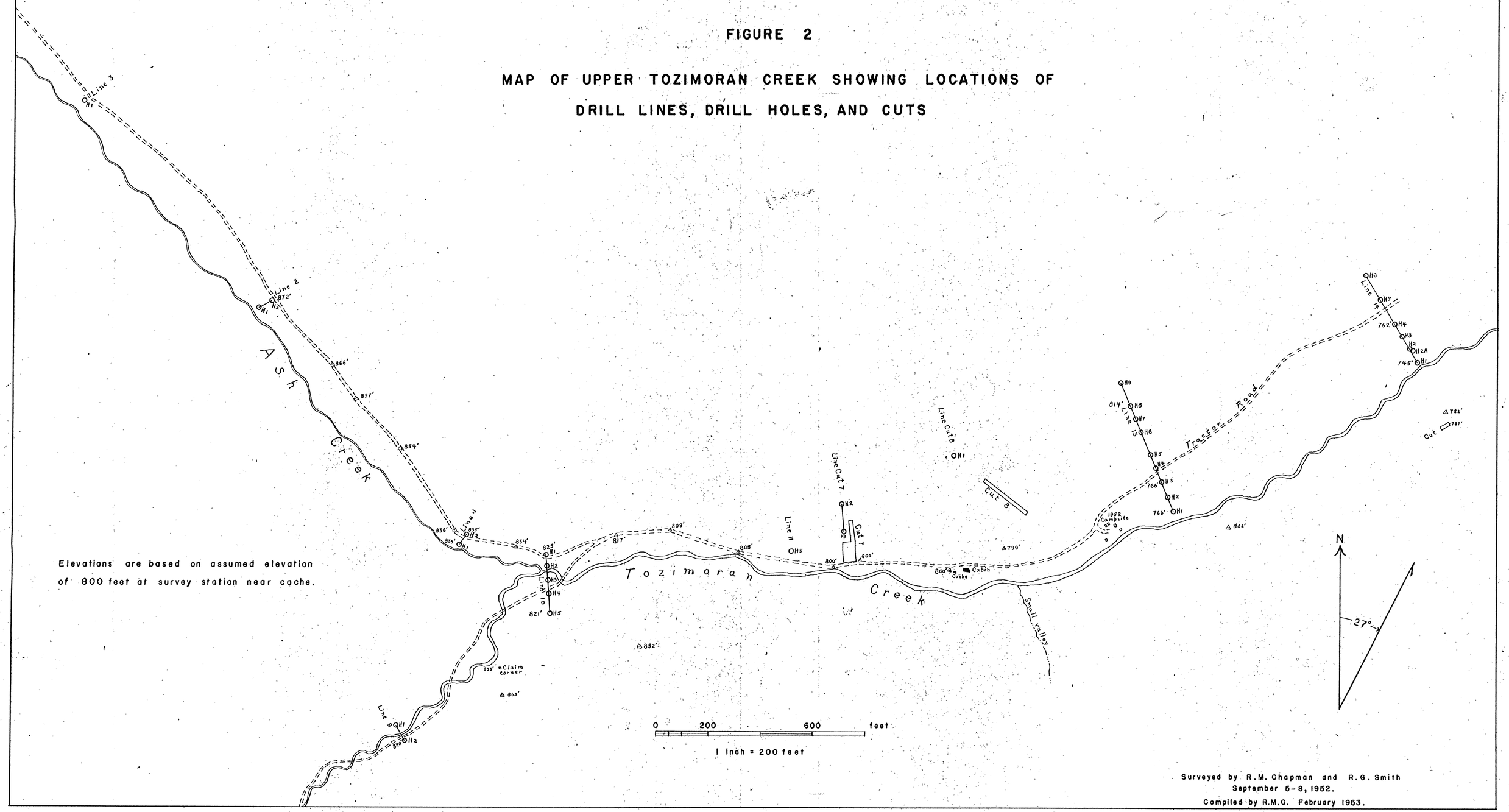
Horizontal and vertical scale 1 inch = 50 feet



Robert M. Chapman, February 1953.

FIGURE 2

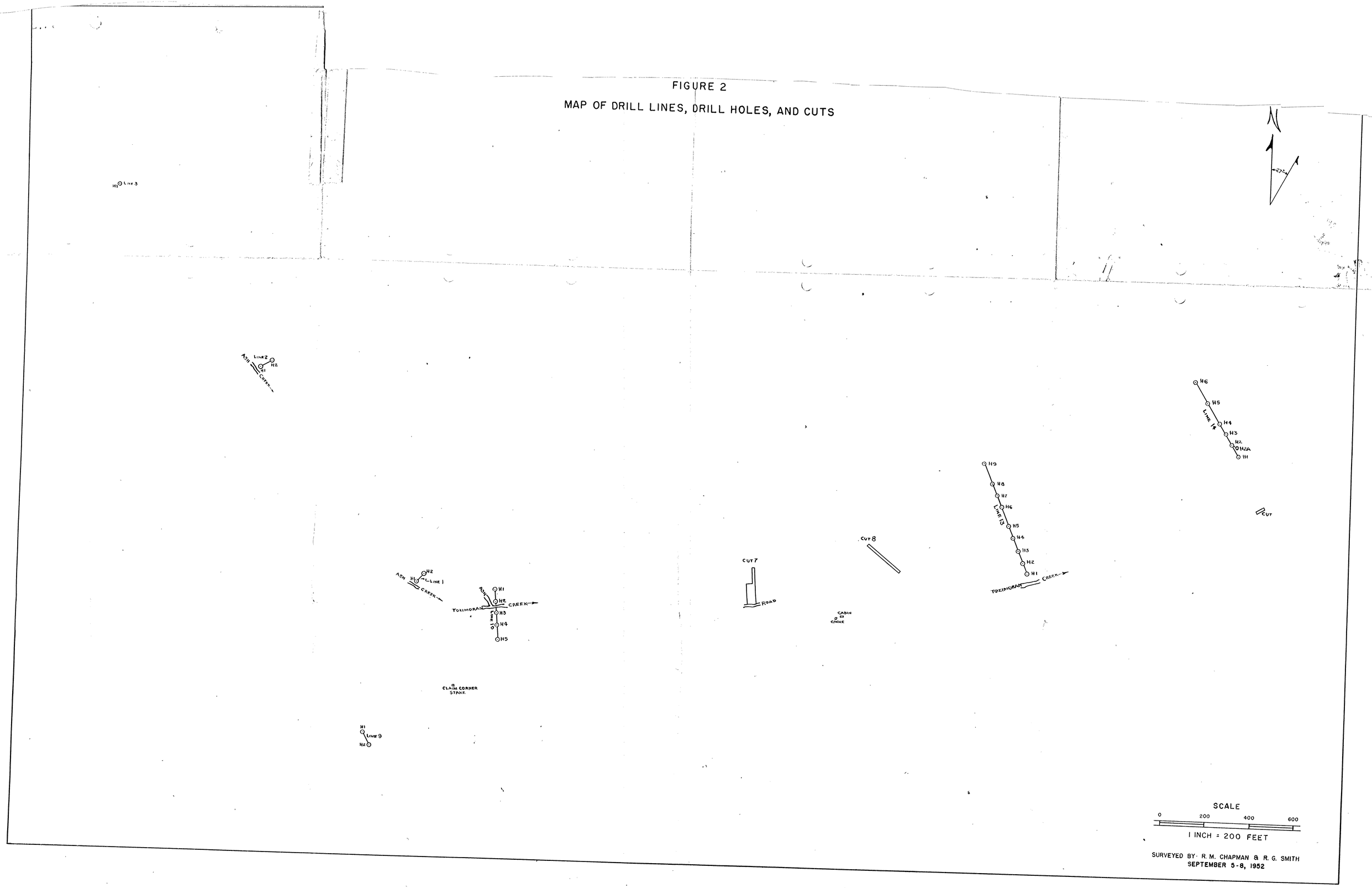
MAP OF UPPER TOZIMORAN CREEK SHOWING LOCATIONS OF DRILL LINES, DRILL HOLES, AND CUTS



Surveyed by R.M. Chapman and R.G. Smith
September 5-8, 1952.
Compiled by R.M.C. February 1953.

FIGURE 2

MAP OF DRILL LINES, DRILL HOLES, AND CUTS



SURVEYED BY: R. M. CHAPMAN & R. G. SMITH
SEPTEMBER 5-8, 1952