ACTION ON INTERIM
OR FINAL FIELD EXAM REPORT
Date 1/20/58

Referred to:

1. ~~Mr. Mirtondorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5. Divisi
6. Docket Control Mails and Files
7. 500

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert E. Adams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

January 8, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Final inspection, Docket No. DMEA-4687 (copper), Calumet Claims, Howe Sound Company, Snohomish County, Washington, Contract No. Idm-E1111

The Operator commenced work on the subject contract on July 22, 1957. Drill equipment for the job was moved on the property by helicopter on July 18 and 19. Five AX size drill holes totaling 1,226 feet were completed by September 3, 1957 and the equipment was removed on that date.

Drilling was suspended before the total allowable footage in the contract was used. It was deemed by the Operator that the exploration target was sufficiently explored.

The status of the completed contract is as follows:

Contract date: July 22, 1957
Termination date: January 22, 1958
Amount of contract: $23,560.00
Amount spent: 12,202.00

	Authorized	Completed
Diamond drilling (AX)	2,400 ft.	1,226 ft.
Sample assays	100 ea.	75 ea.
Core boxes	120 ea.	85 ea.

No equipment was purchased for the project and the Government has no equity in materials or supplies.

E. A. Magill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Turner
Docket

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	B	220
9	Com	100
~~10/11~~	~~WPK~~	~~505~~

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

September 3, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA-4687 (copper), Calumet Claims, Howe Sound Company, Snohomish County, Washington, Contract No. Idm-E1111

A visit was made to the subject property on August 22-23, 1957. Mr. John Lamb, engineer in charge for Howe Sound Company, was on the property at the time of the visit. Two drill crews from Lynch Bros., diamond drill contractors from Seattle, were working two 10-hr. shifts per day, 7 days per week.

Diamond drilling at the property commenced on July 22. Drill equipment was moved onto the property on July 18 and 19 by helicopter. The equipment and supplies, amounting to over 10 tons, were lifted from a clearing near the end of the Sultan Basin road to a small basin several hundred feet below the drill sites. The air lift was over a vertical range of about 2,500 feet. Helicopter round trips took from 5 to 12 minutes, depending on the amount of time it took to load and unload. Loads averaged about 375 pounds with maximum loads up to 460 pounds. These maximum loads were 55-gal. oil drums. During several different periods supplies were moved onto the property at a rate of over a ton per hour.

The Bell helicopter used was from Aero Copters, Inc., Seattle, Wash. Costs were $100 per hour flying time and $100 per day standby time. Total helicopter costs to move the equipment, men and supplies amounted to approximately $1,500.00. This method of transportation certainly is an improvement over pack horses and makes it possible to carry out exploration in a much more efficient manner during the short summer season.

At the time of the visit three AX diamond drill holes had been completed and drilling was in progress in the fourth hole. The locations of the holes are shown on the attached map. A summary of the data on the holes is as follows:

	Hole No.	Bearing	Inclination	Length	
	1	N 16 E	- $38\frac{1}{2}^{\circ}$	260'	
	2	N 16 W	- 39°	260'	
	3	N 24 E	- 35°	272'	
	4	N 8 W	- 35°	180'	8/23/57
Proposed	5	N 54 E	- 35°	250'	

The original plan had been to drill these holes from a series of drill sites; however, because of the steep terrain it was more practical to fan the holes out from two sites as shown on the map accompanying this report.

Hole No. 1 failed to intersect any significant copper mineralization although it passed directly beneath the best surface exposure on the property at a depth of about 200 feet. Unfortunately, core recovery was poor and no sludges were recovered between 200 ft. and 240 ft. where the mineralized zone should have been intersected.

Hole No. 2 also failed to intersect any significant mineralization although as in Hole No. 1 there were occasional blebs and narrow stringers of pyrite and pyrrhotite.

Hole No. 3 intersected a mineralized zone from 117 to 204 feet. Portions of this core were moderately well mineralized with chalcopyrite in blebs and narrow stringers. From a visual examination of the core it is doubtful that any appreciable widths (i.e., over 5 feet) will average over 1 percent copper. This section of the core has been split and sent off for assay.

Hole No. 4 was at a depth of 180 feet but had encountered no significant sulfides to this depth.

All holes were collared in peridotite, passing into highly siliceous metasediments on either side of the mineralized zone. Rate of drilling has been very slow with high diamond wear in the siliceous zone. No reaction was obtained on the core with either a geiger counter or mineral lite.

If the Operators do not encounter more encouraging mineralization in the remainder of hole No. 4 or in hole No. 5, they plan to stop after completing hole No. 5. At their present rate of progress that means the drilling will be completed during the first week in September.

It was suggested that the mineralized portions of the drill core be flown out when the equipment is taken out. The remainder of the core will be left in the core boxes in a sheltered spot near the drill holes.

The status of the contract as of August 23, 1957 is as follows:

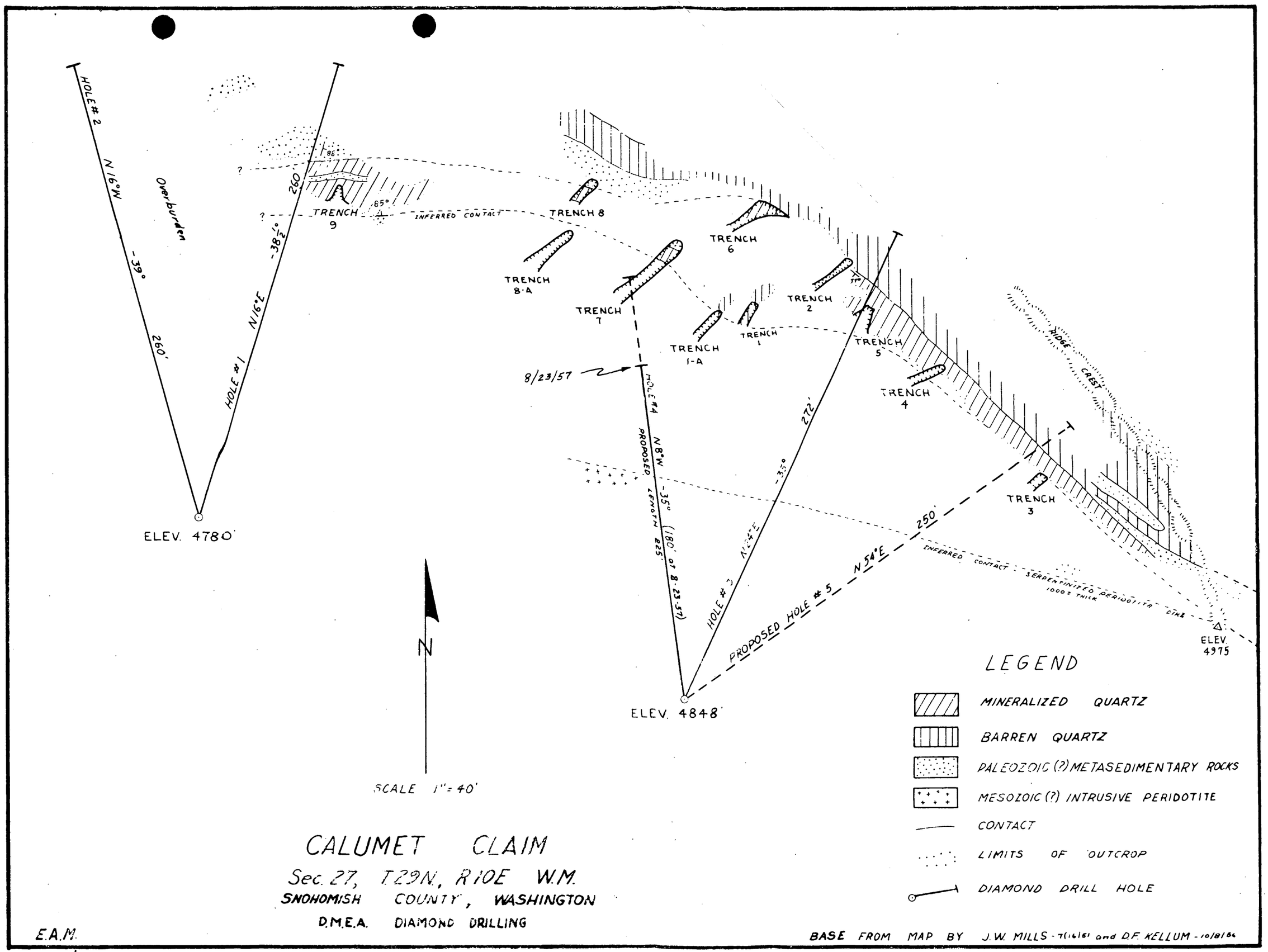
Contract date: July 22, 1957
Termination date: January 22, 1958
Amount of contract: $23,560.00
Amount spent: none

	Authorized	Completed
Diamond drilling	2,400 ft.	972 ft.
Sample assays	100	none
120 core boxes	120	30 (filled)

Mr. Lamb has completed a Brunton tape triangulation net covering the drilling area and exposures and intends to prepare a geologic and topographic map. The work is being carried out in a very efficient manner with the possible exception of attention to sludge recovery.

E. A. Magill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Magill


HOLE # 2
N 16° W
-39°
260'
ELEV. 4780'
Overburden
HOLE # 1
N 16° E
-38½°
260'
86°
85°
TRENCH 9
INFERRED CONTACT
TRENCH 8
TRENCH 8-A
TRENCH 6
TRENCH 7
TRENCH 1-A
TRENCH 1
TRENCH 2
TRENCH 5
TRENCH 4
TRENCH 3
RIDGE CREST
8/23/57
HOLE #4
N 8° W
PROPOSED
LENGTH 225'
-35°
(180' at 8-23-57)
HOLE # 3
N 24° E
-35°
272'
ELEV. 4848'
PROPOSED HOLE # 5
N 54° E
250'
INFERRED CONTACT
SERPENTINITED PERIDOTITE
100'± THICK
DIKE
ELEV. 4975
N
SCALE 1" = 40'
LEGEND
MINERALIZED QUARTZ
BARREN QUARTZ
PALEOZOIC (?) METASEDIMENTARY ROCKS
MESOZOIC (?) INTRUSIVE PERIDOTITE
CONTACT
LIMITS OF OUTCROP
DIAMOND DRILL HOLE
CALUMET CLAIM
Sec. 27, T29N, R10E W.M.
SNOHOMISH COUNTY, WASHINGTON
D.M.E.A. DIAMOND DRILLING
E.A.M.
BASE FROM MAP BY J.W. MILLS - 7/16/61 and D.F. KELLUM - 10/8/66

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

Budget Bureau No. 42-R1036.5

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

RECEIVED OCT 14 1957 D.M.E.A.

Month of July & August, 1957 Docket No. DMEA 4687 Contract No. 1111
Operator's Name Howe Sound Company Minerals Copper
Address 730 5th Avenue, New York 19, N.Y.
Contract Amount, $ 23,560 Government Participation: 50 % Amount, $ 11,780

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:				10/14/57		
Drilling 1226 ft.	11647.00		11647.00	11,647.00	—	11,647.00
Bulldozing						
Crosscutting						
Drifting						
						Betty
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Boxes 85	255.00		255.00	255.00	—	255.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis 75	300.00		300.00	300.00	—	300.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	12202.00		12202.00	12202.00	—	12,202.00

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

Date Sept 24, 1957 *Payee Howe Sound Company

Per John Lamb Title Geologist & agent for

*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:

$ 5,601.00

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 10/9/57 Vou. No. 2052

(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. E 1111 in accordance with the terms of the contract.

Signature /s/ Elvin A. Mogill Title Mining Engr. Date Oct. 7, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Oct. 8, 1957

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.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED OCT 14 1957 D.M.E.A.

Month of July-August 195 7 Docket No. DMEA 4687 Contract No. 1111
Operator's Name Howe Sound Company Minerals Copper
Address 730 5th Avenue, New York 19, N.Y.

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	9.50	11647	1226	11647	1226	11647	2400	9.50/ft.
Churn								
Auger								
~~Stapping~~ Core Boxes	3.00	255	85	255	85		120	3.00 each
Trenching								
Test Pits								
Roads and Trails								
Assaying	4.00	300	75	300	75	300	100	4.00 each
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		12202		12202				

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 Sept 24th, 1957 Operator Howe Sound Company

Per John Lamb Title Geologist & agent for

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)

/s/ Elvin A. Mogill

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.

GPO 83-38475

I[illegible]A 4637 (Copper)

Contract No 1111

CODE

Report on Operations during July and August 1957

Calumet Vein - Sultan Basin Mining Company

Snohomish County - Washington

The above property, under option to the Howe Sound Company, was diamond drilled in July and August, drilling being confined to the western end of the Calumet Vein. Five holes were drilled, aggregating 1226 feet. The holes intersected the mineralized zone at depths of 150 to 300 feet below the outcrops covering a segment of the vein 450 feet long.

Inclement weather in June and July prevented a rapid melting of snow in Calumet Basin. Preparations for the operation were begun early in July and on July 18th and 19th a camp was established near the site. Transportation to the campsite from the road end in Sultan Basin was by helicopter, involving a rise of 2600 feet in approximately two miles of travel.

Because of heavy tree-covered talus immediately below the vein the drilling plan was changed from that outlined in the contract. It was necessary to set up farther away from the outcrop and drill lateral fans of holes instead of vertical fans. This change of plan was agreed to by Mr. Magill of the Seattle office, U.S.B.M.

Drilling commenced on July 22nd and finished on August 28th. Some of the ground was very hard and much of it blocky so that drilling progress was slow. The drillers experienced a large diamond loss through excessive wear on bits. AX core was drilled throughout, placed in trays and after logging was stored in a good shelter near the drill site. It has been inspected by both E.A. Magill of the U.S.B.M. and H. Albee of the DMEA.

Following are the data on the holes drilled:

No.	Length	Brg.	Incl.	El. Collar	El. Bottom	Remarks
1	260'	N17E	-38	4780		Few specks of copper and zinc
2	260	N16W	-40	4780		No ore
3	272	N24E	-35	4851		Scattered light mineralization
4	224	N7W	-36	4851		No ore
5	210	N59E	-34	4851		Light scattered mineralization

DMEA 4687 (Copper)

Contract No 1111

Surface trenches were cleaned out and re-sampled. A 40-scale map showing both surface features geology and topography is being prepared and will accompany the final report. The sketch accompanying this report shows the area adjacent to the drill holes, location of holes, and assays in both holes and surface trenches. Assay certificates are attached to this narrative.

It was felt that results of drilling did not justify further work, so the operation was stopped on August 28th.

Respectfully submitted,

John Lamb

John Lamb,
Geologist,
Howe Sound Company.

September 24th, 1957.

BRITANNIA MINING AND SMELTING CO., LIMITED

Certificate of Assay

August 14th, 1957.

Sample No.	OZS. PER TON Gold	Silver	Per Cent Copper
47501	tr	.30	.43
47502	tr	tr	.30
47506	tr	tr	tr
47507	tr	tr	.18
47508	tr	tr	tr
47509	tr	tr	tr
47516	.015	.10	.30
47517	tr	tr	tr
47519	tr	2.36	.75
47520	.005	.005	tr
47521	tr	tr	tr
47522	tr	tr	tr

Samples from open cuts on the Calumet Vein

John Lamb

P. O. Box 808

Phone 8-3332

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Britannia Mng & Smelting Co., Ltd

Wallace, Idaho, Aug. 22, 1957

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	%
Sample # 47503	0.02	0.8		2.4	2.26				
04	Tr	0.1			0.04				
05	Tr	1.2			1.6				

Charges

Calumet samples

J. L.

Peter Mack

3m 7 56 18

P. O. Box 808

Phone 8-3382

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Britannia Mining & Smelting Co.

Wallace, Idaho, Aug. 23, 1957

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	%
47510	Tr	0.1			Tr				
11	0.02	Tr			0.24				
12	0.01	0.1			0.14				
13	0.04	0.6			Tr				
14	Tr	Tr			Tr				
15	Tr	Tr			0.16				
18	Tr	Tr			Tr				
23	0.02	0.7			0.18				
24	Tr	Tr			Tr				
25	Tr	Tr			Tr				

Calumet samples
J. L.

Peter Mack

Charges

3m 7 56 13

P. O. Box 808

Phone [illegible]

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Britannia Mng & Smelting Co. Ltd

Wallace, Idaho, August 22, 1957

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	%
Sample No. 47526	Tr	0.3		0.1	0.06				
27	Tr	0.8		Tr	1.08				
28	Tr	0.1		0.0	0.02				
29	Tr	0.3		0.15	0.42				
30	0.01	0.1		0.0	0.06				
31	Tr	0.2		0.1	0.04				
32	Tr	0.9		0.3	1.72				
33	Tr	0.1		Tr	0.60				
34	Tr	Tr		Tr	Tr				
35	0.02	0.2		0.25	2.92				

Peter Mack

Charges

Calumet samples

J. L.

Sm 7 60 10

P. O. Box 808

Phone 8-3382

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Britannia

Wallace, Idaho, Sept. 9, 1957

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	
Sample No. 47536	Tr	0.15			Tr				
37	Tr	0.15			Tr				
38	Tr	0.1			Tr				
39	Tr	Tr			Tr				
40	Tr	0.3			0.12				
41	Tr	0.15			Tr				
42	Tr	Tr			Tr				
43	Tr	Tr			0.12				
44	Tr	0.3			Tr				
45	Tr	Tr			Tr				

Peter Mack

Charges

Columet samples

J.L.

#1-#5

#1-#5

0-7 CO 10

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

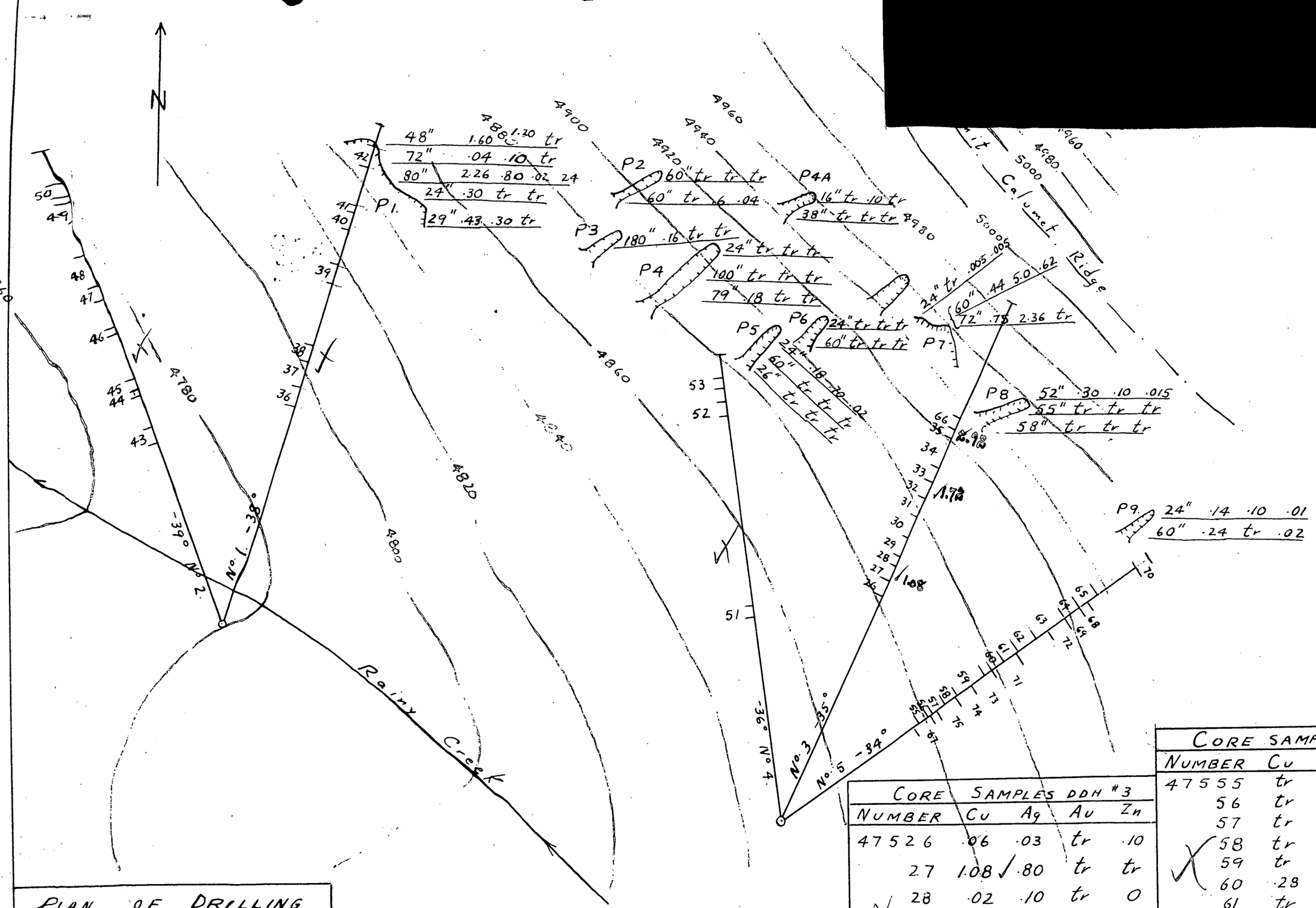
[illegible]

Vancouver, B.C., Oct. 10, 1957

[illegible]	Gold (Oz. per ton)	Silver (Oz. per ton)	Lead %	Zinc %	Copper %	Iron %	Insol. %	SiO_2 %	%
[illegible]	[illegible]	0.1			[illegible]				
[illegible]	[illegible]	[illegible]			[illegible]				
[illegible]	[illegible]	0.1			[illegible]				
[illegible]	[illegible]	[illegible]			[illegible]				
[illegible]	[illegible]	0.1			[illegible]				
[illegible]	[illegible]	[illegible]			[illegible]				
[illegible]	[illegible]	0.1			[illegible]				
[illegible]	[illegible]	0.1			[illegible]				
[illegible]	[illegible]	[illegible]			[illegible]				

Draft

Pt. #5.
Sketches



PLAN OF DRILLING
CALUMET VEIN
Scale 1" = 40'
SEPT. 24/57. J. Lamb
DMEA 4687 (Copper) No. 1111

* ORDER OF ASSAY VALUES
Cu Ag Au Zn

* P = pit or open cut.

CORE SAMPLES D.D.H. #1				
Number	Cu	Ag	Au	Zn
47536	tr	.15	tr	
37	tr	.15	tr	
38	tr	.10	tr	
39	tr	tr	tr	
40	.12	.3	tr	
41	tr	.15	tr	

CORE SAMPLES DDH #2				
NUMBER	Cu	Ag	Au	Zn
47543	.12	tr	tr	
44	tr	.30	tr	
45	tr	tr	tr	
46	tr	.10	tr	
47	tr	tr	tr	
48	tr	.10	tr	
49	tr	tr	tr	
50	tr	.10	tr	

CORE SAMPLES DDH #3				
NUMBER	Cu	Ag	Au	Zn
47526	.06	.03	tr	.10
27	1.08	.80	tr	tr
28	.02	.10	tr	0
29	.42	.30	tr	.15
30	.06	.10	.01	.10
31	.04	.20	tr	.10
32	1.72	.90	tr	.30
33	.60	.10	tr	tr
34	tr	tr	tr	tr
35	2.92	.90	.09	.25
66	tr	tr	tr	

CORE SAMPLES #4 D.D.H.				
NUMBER	Cu	Ag	Au	Zn.
47551	tr	tr	tr	
52	tr	.10	tr	
53	tr	.10	tr	

CORE SAMPLES DDH #5.				
NUMBER	Cu	Ag	Au	Zn
47555	tr	tr	tr	tr
56	tr	.20	tr	.10
57	tr	.20	.01	0
58	tr	tr	tr	0
59	tr	tr	tr	0
60	.28	.50	.01	.20
61	tr	.15	tr	0
62	tr	tr	tr	0
63	tr	tr	tr	0
64	tr	.30	.03	0
65	tr	tr	tr	0

SLUDGE SAMPLES #5				
NUMBER	Cu	Ag	Au	Zn
47567	.06	.20	tr	tr
75	.14	tr	tr	0
74	.20	tr	tr	0
73	.32	.20	tr	.65
71	.26	.60	tr	.20
72	.10	.10	tr	0
69	.36	.5	.02	0
68	.16	.20	tr	0
70	.04	tr	tr	0

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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September 9, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, Geologist, U. S. Geological Survey

Subject: Final Inspection Report, Docket No. DMEA-4687 (copper), Howe Sound Company, Calumet Claims, Snohomish County, Washington, Contract No. Idm-Ellll

The property was visited September 4, 1957, in company with John Lamb, Howe Sound geologist. All men and equipment had been moved from the claims September 3, 1957, and as the claims lie on a precipitous mountain about 3,000 feet above the valley floor, a helicopter was employed for the move.

Two drill sites had been prepared from which a total of five holes were drilled. The original proposal called for six drill sites with two holes to be drilled from each site. The original drill sites, however, were located on a steep timbered talus slope and the type of drill taken in by helicopter could not penetrate the talus nor was equipment available to remove the talus. The two drill sites used were therefore moved southerly a short distance where the holes could be collared in bedrock.

From the west drill site two holes were drilled. Hole No. 1 was at a bearing of N. 16° E., inclined at -38°, and bottomed at 260 feet. This hole was drilled to test the vein structure beneath a well mineralized outcrop. Only one small showing of chalcopyrite was found. Hole No. 2 was drilled at a bearing of N. 16° W., inclined at -39°, and bottomed at 260 feet. It was drilled to test for a western extension of the vein structure beyond the westernmost outcrop. Only a weak unmineralized structure was found.

Three holes were drilled from the east drill sight. Hole No. 3, bearing N. 24° E. at an inclination of -35° and bottomed at 272 feet, was drilled to penetrate the vein structure directly below a strongly mineralized outcrop. The core showed spotty and thin mineralization. Hole Nos. 4 and 5 were fanned left and right, respectively, from Hole No. 3. Hole No. 4 was drilled

on a bearing of N. 7° W., inclined at -36° and bottomed at 224 feet. Hole No. 5 was drilled on a bearing of N. 59° E., inclined at -34° and bottomed at 210 feet. The holes were lean although some spotty mineralization was penetrated.

The overall core recovery was poor and ranged from about 60 percent to about 80 percent. The possibility exists that core loss was excessive in sulfide zones although the company geologist stated that thick sulfide zones were not indicated in the return water.

The core was spot checked against the core logs of the company geologist and were found adequate. Further logging, therefore, was not done. Complete logs will be submitted by the operator at a later date.

I fully concur with the location of the two drill sites, the method of fanning out the five holes from the two drill sites, and that the results obtained do not justify further work. It is recommended that the project be terminated, ~~without certification of discovery~~, should the operator request it.

Howard F. Albee

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