NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0394

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INT[illegible]
DEFENSE MINERALS EXPLORATION ADMI[illegible]

OPERATOR'S MONTHLY REPORT AN[illegible]UCHER

Month of January, 195 7 Docket No. DMEA 2879 Contract No. [illegible]-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 - Wallace, Idaho

Contract Amount, $ 727,390.00 Government Participation: 50 % Amount, $ 363,695.00

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:				OK WPK		
Drilling core 900.0 @ 4.50	4050.00	$71,739.90	$ 75,789.90	4050.00	71739.90	75,789.90
~~Raising~~ ~~Bulldozing~~		30,248.26	30,248.26		30248.26	30,248.26
Crosscutting 62.6 @ 48.78	3053.63	37,930.07	40,983.70	3053.63	37930.07	40,983.70
Drifting 244.0 @ 48.78	11902.32	515,506.00	527,408.32	11902.32	515506.00	527,408.32
~~Sidewipe~~		29,962.50	29,962.50		29962.50	29,962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	19005.95	685,386.73	$704,392.68	19005.95	685386.73	704,392.68

RECEIVED JUL 12 1957 D.M.E.A.

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

Date 2/12/57 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9502.98

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 7-5-57 Vou. No. 2000

(See other side)

1 copy 1041A
1 [illegible]
1 [illegible]
To [illegible] 7/26/57

(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 ..... Date .....

REPORT OF OPERATOR

The Operator (Contractor) of an exploratory 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 872893

W

F-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

Month of December, 1956 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 - Wallace, Idaho (and incidental silver)

Contract Amount, $ 727,390.00 Government Participation: 50 % Amount, $ 363,695.00

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:				1/30/57	W.P.K.	
Drilling Core 322.09 @ $4.50	$1449	$ 70290.90	$ 71739.90	1449.00	70290.90	71739.90
Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting 159.3 @ $48.78	$7770.65	30159.42	37930.07	7770.65	30159.42	37930.07
Drifting 77.1 @ $48.78	3760.94	511745.06	515506.00	3760.94	511745.06	515506.00
Sidewipe		29962.50	29962.50		29962.50	29962.50
(2) Labor and Supervision:						
Labor						
Supervision						Klug
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						Betty
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$12980.59	$672406.14	$685386.73	12980.59	672406.14	685386.73

RECEIVED JAN 24 1957 D.M.E.A.

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

Date 1-7-57 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 6490 30

Signature [signature]
(Authorized Certifying Officer)

Date 1-18-57 Vou. No. 1928
(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. 6541 in accordance with the terms of the contract.

Signature 151 Eric G. Erickson Title Mining Engr Date 1-14-57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 A. E. Weissenborn Title Exec Officer Date 1-15-57

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1956 Docket No. DMEA 2879 Contract No. DMA-511

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental silver)

Address Box 320 -- Wallace, Idaho

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	feet	3760.94	77.1	515506.00	10356.6	49.78)	11618.4	51.00**
Crosscutting		7770.65	159.3	37930.07	766.8	49.47)		
Raising				30248.26	324.1	93.33	330	93.33*
~~Shafts~~ Sidewipe				29962.50	1175.0	25.50	1175	25.50*
Winzes								
Drilling: Core		1449.00	322.0	71739.90	15942.2	4.50	19788	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 1-7-57 Operator Polaris Mining Company

Per J. Marshall Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract
** 6199.5 @ 50.53
5418.9 @ 48.78
11618.4

Eric G. Erickson

RECEIVED JAN 24 1957 D.M.E.A.

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 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

RECEIVED
JAN 24 1957
D.M.E.A.

January eighth
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
December - 1956
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of December included 159.3 feet of crosscutting, 77.1 feet of drifting, 70.0 feet of side-swiping and 322.0 feet of diamond drilling.

During December the footwall drift was advanced 73.1 feet easterly and the vein was then explored by two crosscuts (321 and 322) driven southerly from the drift as shown on the attached 50-scale map. Number 321 south crosscut was driven 36.0 feet south to intersect the vein at a point about 70 feet east of the vein-intersection in the main crosscut. At this point the vein is a fairly strong fault-vein structure varying from 2.5 to 4 feet in width and composed largely of fractured and brecciated quartzite, siderite and gouge with considerable pyrite, scattered tetrahedrite, galena and probably jamesonite or boulangerite. A sample across the vein on the west wall assayed 2.5 feet of 13.4 ounces silver, 0.43% copper and 0.1% lead while the weighted average of the samples across the vein on the east wall was 4.2 feet of 28.0 ounces silver, 1.24% copper and 3.8% lead. The assay results of individual samples are shown on the attached map.

Because of ground conditions it was not considered advisable to start drifting on the vein from 321 south crosscut, so a second crosscut (322) was driven 116.3 feet southeasterly from station SS3077 to again intersect the vein. The vein is of similar character here, but narrower, and the best sample was 0.9 feet of 20.5 ounces silver, 1.12% copper and 3.1% lead. From the end of this crosscut a drift was started easterly on the vein and at the end of the month had advanced 4.0 feet.

Diamond drill hole 3285 was extended 322.0 feet to a completed depth of 722 feet and a log of the hole is enclosed. A large fault zone was encountered at 391 to 402 feet and other minor pyritic zones were cut by the hole but no significant mineralization was found.

Diamond drill hole 3286 has now been started from 318 north crosscut at station 3076 + 30 feet northeast and will be drilled northerly to a depth of 1000 feet. The crosscut was advanced 7.0 feet in December to provide room for the drill setup.

Yours very truly,

H. E. Harper

H. E. Harper
Chief Geologist

HEH:mm

Enclosure

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-16-56
Finished 12-28-56
Hole Size EX
Depth 722
% Core Rec. 79

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3073 + 210.0' E. S. Wall
Logged by R. A. L. Date 12-29-56
Drilled by Holten, Hauser

Hole No. 3285
Level 3000
Grid 317
Latitude 84 885 S.
Departure 93 291 E.
Elevation - 272
Bearing (See Survey
Inclination Last Page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		0.0' - 13.5' Hd lt gray blchd qtzite.						
0-5.0	4.2	Stgrs py & arsenopy possibly some tetra at	E 3310	0 - 5				
10.0	3.9	0.0' - 1.5'.	1	10				
		0.2' stgr py dism sid at 4.8'.						
15.0	3.7	13.6' - 23.0' Med hd lt gray blchd arg qtzite.	2	15				
19.1	3.4	Small fault at 19.1'.	3	20				
22.6	1.7	Core very badly broken.	4	25				
25.9	2.8							
29.0	2.9	23.0' - 37.0' Hd lt gray qtzite.	5	30				
End Box 1		Some bands of dism sid.						
34.3	4.8		6	35				
39.0	4.6		7	40				
44.6	3.1		8	45				
49.0	4.4	37.0' - 89.4' Soft to med hd lt gray blchd	9	50				
52.5	2.4	arg qtzite. Some dism sid & some very small						
55.0	1.7	stgrs of sid.	20	55				
58.0	3.0	Small stgrs arsenopy & py at 47.3'.						
59.5	1.0	Small faults 50.0' & 52.0'.	1	60				
62.0	1.9	Small faults 55.0' & 59.5'.						
64.0	1.2	0.3' gg med fault, 64.0'.	2	65				
69.2	2.7	0.4' gg med fault at 69.0'.	3	70				
End Box 2		Few small stgrs py & arsenopy at 84.7'.	4	75				
76.7	4.2		5	80				
80.4	3.4		6	85				
85.4	3.8							
89.6	2.7	89.4' - 109.0' Hd lt gray blchd qtzite	7	90				
93.5	3.9	W/several small stgrs dism py & arsenopy.	8	95				
96.5	2.3	Several small slips or faults.	9	100				
101.5	4.3	Small faults 93.5', 96.5', 101.5', & 106.5'.	30	105				
106.5	4.8	Several small stgrs of py & arsenopy at	1	110				
End Box 3		107.0' to 108.5'.						
		Very broken core.						
110.9	2.9		2	115				
115.9	4.3	109.0' - 135.0' Mostly soft lt gray blchd						
120.0	4.0	arg qtzite, core very badly broken.	3	120				
125.0	4.5	Several very small stgrs & bands arsenopy?	4	125				
130.0	4.7	from 111.0' - 115.0'.	5	130				
135.0	4.8		6	135				

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. 3285
Level 3000
Grid 317

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
138.5	3.1		E 3337	135-140				
143.0	2.3		8	145				
End Box 4		135.0' - 183.0' Very hd lt gray blchd qtzite						
148.0	4.4	appears to be partially silic has very fine	9	150				
153.0	3.4	wavy stgrs of white qtz at 175.0' - 180.0'.	40	155				
156.2	2.2	Small fault at 138.5' & at 153.0'.						
159.2	2.7	Small stgr py & sid at 155.0'.	1	160				
164.2	4.8	Small fault at 159.0'.	2	165				
169.2	4.1	Well silic almost white qtzite 160' - 163'.	3	170				
172.7	2.5	Small fault at 168.0'.	4	175				
177.2	4.9	Crushed zone some gg 176.0' - 177.0'.						
180.0	2.6		5	180				
End Box 5								
183.0	3.0		6	185				
187.2	4.0	183.0' - 246.0' Mostly med hd lt grn qtzite						
188.8	0.8	some soft lt gray to dk grn arg qtzite: Few	7	190				
192.0	1.8	dk bands poss arsenopy: Core badly broken:	8	195				
198.0	3.8	Several small faults.	9	200				
201.0	2.9	Small faults 187.0'-188.0'.	50	205				
205.9	4.4	Fault zone some gg 199.0'-201.0'.	1	210				
211.0	4.7	Small fault some gg at 207.0'.	2	215				
216.0	4.7	Grades from hd qtzite at 201.0' to soft	3	220				
End Box 6		qtzite at 216.0'.						
221.0	4.8	Small fault badly broken qtzite 233.6'.						
224.0	2.3	0.3' sid stgr at 236.0'.	4	225				
229.0	4.9	Small fault at 238.0'.	5	230				
233.4	4.4	½" stgr dism arsenopy at 239.0'.	6	235				
238.6	4.6	Small fault at 241.0'.	7	240				
241.6	1.3	3" stgr white qtz, small fault 2" gg at	8	245				
245.1	2.8	244.0'.	9	250				
		¼" stgr sid at 245.0'.						
250.1	4.8	246.0' - 265.0' Mostly lt grn to med gray	60	255				
End Box 7		soft arg qtzite some bands of dism sid,						
255.1	4.2	several small faults. Core badly broken.	1	260				
260.1	4.6	Small faults with little gg 246', 250',	2	265				
		251', 256', & 260'.						
265.1	4.5		3	270				
270.1	4.3							
275.0	4.2		4	275				
280.0	4.8	265.0' - 366.0' Mostly lt grn hd qtzite	5	280				
284.0	3.6	W/some bands dism sid. Some lt gray med hd	6	285				
288.0	1.8	arg qtzite. Many thin bands lt grn to white	7	290				
End Box 8		material, poss silica. The core seems to						

RECEIVED JAN 24 1957 D.M.E.A.

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. 3285
Level 3000
Grid 317

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
293.0	3.2	break along these bands from 265' - 291'.	E 3368	290-295				
295.5	2.0	Very small stgr sid 267.0'.	9	300				
300.7	4.1	Small fault 1" gg at 280.0'.	70	305				
305.5	4.1	0.5' stgrs, blebs dk very soft gg material	1	310				
310.5	4.7	at 283.0' - 284.0'.	2	315				
315.5	4.7	0.4' white qtz at 301.0'.						
320.0	4.0	Several small fault some gg 300'-320'.	3	320				
325.0	4.6	Three ¼" stgrs sid at 316.0'.	4	325				
End Box 9		0.2' white qtz at 328.0'.						
330.0	4.9	Several small faults 334.0' - 363.0'.	5	330				
334.5	3.9	Several very thin stgrs dk material, poss	6	335				
339.5	4.6	arsenopy also many very small py cubes 332' -	7	340				
345.0	2.7	334'.	8	345				
350.0	4.7		9	350				
354.0	3.9		80	355				
359.0	4.7		1	360				
363.0	3.3		2	365				
End Box 10								
370.3	6.1		3	370				
372.0	1.3							
374.5	2.4		4	375				
377.4	2.6	366.0' - 404.0' Mostly med soft to med hd	5	380				
380.4	2.2	lt grn blchd arg qtzite. Several small						
383.0	2.3	faults, one large fault zone.	6	385				
385.2	1.9	¼" stgr milky qtz at 375.0'.	7	390				
391.0	3.1	Large fault zone; much gg; many small stgrs						
394.0	2.7	& seams of dk material probably arsenopy.	8	395				
396.5	0.7	W/some py at 391.0' - 402.0'.						
400.0	0.8		9	400				
404.0	2.3		90	405				
409.0	2.6		1	410				
End Box 11								
411.8	2.6		2	415				
417.0	2.0							
418.8	0.5		3	420				
422.0	1.9		4	425				
427.0	0.0		5	430				
430.8	1.0		6	435				
435.8	2.6							
437.6	1.5							
439.8	2.0		7	440				
441.5	1.7							
443.0	1.3							
444.7	1.3		8	445				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3285
Level 3000
Grid 317
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
447.0	2.3		E 3399	445-450				
451.5	3.8							
454.4	2.6		3400	455				
457.0	2.1							
End Box 12								
459.8	2.3		1	460				
462.8	2.5		2	465				
465.4	2.7		3	470				
471.0	1.8		4	475				
476.3	1.0							
479.0	2.4		5	480				
484.0	3.2		6	485				
488.7	1.6							
490.0	1.4		7	490				
491.5	0.9	404.0' - 643.0' Hd lt grn blchd qtzite. Few						
493.1	1.2	small bands softer arg qtzite.	8	495				
496.3	2.0	Core badly broken, still in fault zone.	9	500				
500.7	1.5	Much GG very muddy.						
505.0	3.5	0.2' stgr white qtz at 445.0'.	10	505				
508.5	0.8	Little badly broken black material at	1	510				
513.6	0.3	476.0', 493.0'. Many very small stgrs &	2	515				
516.0	2.0	veinlets of black material probably arsenopy						
End Box 13		from 500.0' to 516.0'.						
518.9	0.6	Core very badly broken.	3	520				
522.7	1.0	Hd lt gray blchd qtzite. Few bands arg	4	525				
526.3	2.6	qtzite. Large shear zone core very badly	5	530				
531.7	4.0	broken, A few thin seams of chl, some ser.	6	535				
536.7	4.0	Core not so badly broken from 597.0',	7	540				
540.6	3.5	although there are still frequent broken						
542.0	1.5	zones, W/some gg, from 1.0' to 3.0' wide.						
545.0	1.5		8	545				
547.3	2.0		9	550				
552.0	4.0		20	555				
554.0	1.8							
559.0	3.0		1	560				
End Box 14								
562.0	2.2		2	565				
563.5	0.5							
568.5	4.1		3	570				
571.0	1.8							
573.0	1.9		4	575				
578.0	4.5		5	580				
582.0	3.4							
585.0	2.5		6	585				
589.0	3.0		7	590				
594.0	3.1		8	595				

RECEIVED JAN 24 1957 D.M.E.A.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3285
Level 3000
Grid 317
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
447.0	2.3		E 3399	445-450				
451.5	3.8							
454.4	2.6		3400	455				
457.0	2.1							
End Box 12								
459.8	2.3		1	460				
462.8	2.5		2	465				
465.4	2.7		3	470				
471.0	1.8		4	475				
476.3	1.0							
479.0	2.4		5	480				
484.0	3.2		6	485				
488.7	1.6							
490.0	1.4		7	490				
491.5	0.9	404.0' - 643.0' Hd lt grn blchd qtzite. Few						
493.1	1.2	small bands softer arg qtzite.	8	495				
496.3	2.0	Core badly broken, still in fault zone.	9	500				
500.7	1.5	Much GG very muddy.						
505.0	3.5	0.2' stgr white qtz at 445.0'.	10	505				
508.5	0.8	Little badly broken black material at	1	510				
513.6	0.3	476.0', 493.0'. Many very small stgrs &	2	515				
516.0	2.0	veinlets of black material probably arsenopy						
End Box 13		from 500.0' to 516.0'.						
518.9	0.6	Core very badly broken.	3	520				
522.7	1.0	Hd lt gray blchd qtzite. Few bands arg	4	525				
526.3	2.6	qtzite. Large shear zone. core very badly	5	530				
531.7	4.0	broken, A few thin seams of chl, some ser.	6	535				
536.7	4.0	Core not so badly broken from 597.0',	7	540				
540.6	3.5	although there are still frequent broken						
542.0	1.5	zones, W/some gg, from 1.0' to 3.0' wide.						
545.0	1.5		8	545				
547.3	2.0		9	550				
552.0	4.0		20	555				
554.0	1.8							
559.0	3.0		1	560				
End Box 14								
562.0	2.2		2	565				
563.5	0.5							
568.5	4.1		3	570				
571.0	1.8							
573.0	1.9		4	575				
578.0	4.5		5	580				
582.0	3.4							
585.0	2.5		6	585				
589.0	3.0		7	590				
594.0	3.1		8	595				

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

Month of November 1956 Docket No. DMEA 6 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ 727,390.00 Government Participation: 50 % Amount, $ 363,695.00

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 Contracts:				1/28/57		
Short Footage Core 618.00 $4.50	$2784.60	$ 67506.30	$ 70290.90	2784.60	67506.30	70290.90
Drifting Raising		30248.26	30248.26		30248.26	30248.26
Bulldozing 117.28 $48.78	5717.02	24442.40	30159.42	5717.02	24442.40	30159.42
Crosscutting 17.50 $48.78	853.65	510891.41	511745.06	853.65	510891.41	511745.06
Sidewipe		29962.50	29962.50		29962.50	29962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$9355.27	$663050.87	$672406.14	9355.27	663050.87	672406.14

Betty

RECEIVED JAN 15 1957 D.M.E.A.

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

Date DEC 17 1956 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 4677 64

Signature [signature]
(Authorized Certifying Officer)

Date 1-11-57 Vou. No. 1983

(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. E541 in accordance with the terms of the contract.

Signature 151 Eric G Erickson Title Mining Engr Date 1-3-57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 A. E. Weissenborn Title Executive Officer Date 1-7-57

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JAN 15 1957 DMEA

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1956 Docket No. DMEA 2879 Contract No. IM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental silver)

Address Box 320 Wallace, Idaho

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	Feet	853.65	17.5	511745.06	10279.5	49.78	11618.4	@ 51.00**
Crosscutting		5718.02	117.2	30159.42	607.5	49.65		
Raising				30248.26	324.1	93.33	330	93.33*
Shaft/Sideswipe				29962.50	1175.0	25.50	1175	25.50*
Winzes								
Drilling: Core		2784.60	618.8	70290.90	15620.2	4.50	19788	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 DEC 17 1956 Operator Polaris Mining Company

Per [signature] Title President

→ 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.

Remarks:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

** 6199.5 @ 50.53
5418.9 @ 48.78
11618.4

/s/ Eric G Erickson

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 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

RECEIVED
JAN 15 1957
D.M.E.A.

December seventeenth
1956

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
November - 1956
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during November included 117.2 feet of crosscut, 17.5 feet of drift, 62.3 feet of sideswipe and 618.8 feet of diamond drilling.

The main heading or crosscut was extended northeasterly 117.2 feet and passed through the objective mineralized zone encountering the principal fault-vein along the footwall of the zone at station SS3075 plus 145 feet northeast. At this point the vein strikes S. 75° E., dips 67° south and is about 2.5 feet wide. The vein consists of strongly faulted and breviated quartzite with minor siderite gangue. Considerable pyrite is present but only very minor amounts of tetrahedrite can be seen. Samples from the east and west walls assayed only a trace of copper and 0.6 and 0.4 ounces silver respectively.

Original plans called for drifting easterly on the vein, but due to poor ground conditions (73 feet of crosscut had to be timbered) it was decided that an easterly drift along the north side or footwall of the vein would be most practical. The vein could then be explored at close intervals by short southerly crosscuts and the drift could be turned onto the vein if ground conditions improved. The drift was started about 20 feet in the footwall of the vein and as of the end of November had advanced 17.5 feet.

The first crosscut from the footwall drift has just now reached the vein at a point 70 feet east of the main crosscut. The vein has not been fully exposed nor sampled but specimens of the tetrahedrite indicate that the vein is probably of commercial grade at this point.

Other work during November included 42.3 feet of sideswiping in the main crosscut to complete the train switch and a 20 foot sideswipe at the start of the footwall drift.

Diamond drill hole No. SS3284 was drilled to intercept the mineralized zone about 130 feet west of the vein intercept in the main crosscut. No significant structure or mineralization was noted at the projected position of the vein and the highest sludge assay was 2.5 ounces silver at 85 to 90 feet. The hole was completed at a depth of 218.8 feet.

Diamond drill hole No. SS3285 reached a depth of 400 feet during November and is still advancing. No significant structures were encountered in this distance. The hole is located opposite drill hole 3284 (Station SS3074 + 20 feet west) and is being drilled to explore the area south of the lateral.

A 50-scale map showing the geology of the November advance and the location of the drill holes is enclosed. Also enclosed is the log of hole 3284.

Yours very truly,

H E Harper

H. E. Harper
Chief Geologist

HEH:mm

Enclosure

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10-30-56
Finished 11-14-56
Hole Size EX
Depth 218.9
% Core Rec. 83

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3073 + 215.0' E. & 10.0' N.
Logged by R. A. L. Date 11-15-56
Drilled by Hauser & Pearson

Hole No. 3284
Level 3000
Grid 317
Latitude 84 858 S.
Departure 93 291 E.
Elevation - 274
Bearing N. 22° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.0	1.0							
3.2	1.2							
4.4	0.8		E 3266	0 - 5				
6.0	1.0							
7.0	0.8	0.0' - 26.0' Dk gray blchd qtzite. Some						
8.9	1.2	dism sid. Some ser in slips. Some lt gray	7	10				
10.4	0.8	blchd qtzite.						
12.4	1.7	1" qtz at 12.6'.						
13.4	0.7	Small sid stgrs at 31.0' to 31.5'.	8	15				
15.7	1.5	Core badly broken.						
20.0	4.0		9	20				
21.7	1.4							
23.7	1.8		70	25				
26.0	2.0							
28.0	1.0							
30.0	1.3		1	30				
32.3	1.9							
End Box 1								
33.9	1.4		2	35				
35.2	1.1							
36.5	1.1							
38.2	1.5		3	40				
42.9	4.2	26.0' - 105.0' Md gray blchd qtzite. Abund	4	45				
47.9	4.6	dism sid.	5	50				
52.5	4.4	Small carb stgrs at 50.0' to 51.0'.	6	55				
57.4	4.6	Small slips at 33.9', 35.2', 36.5', 42.9',	7	60				
62.3	4.1	46.7', 52.5', 57.2' & 65.0'.	8	65				
65.1	2.6	1" py & weak tetra & some sid at 49.5'.						
67.0	1.3	6" white qtz at 80.0'.	9	70				
End Box 2		3.3' py & arsenopy & some tetra(?) 82.0' -						
71.1	3.2	85.3'.	80	75				
75.1	1.1	0.1' qtz at 85.4'.						
76.7	4.5	Several small py & arsenopy stgrs, some	1	80				
81.5	2.6	sid stgrs at 88.5' - 91.7'.						
84.7	1.4	0.1' qtz at 88.6'.	2	85				
88.5	2.5	Small py & arsenopy stgrs at 93.0', 94.0',	3	90	5.0	2.9		
91.7	2.6	94.3', 94.4' & 96.0'.						
94.6	0.8		4	95	5.0	1.1		
95.6	1.5							
97.4	4.5		5	100				
102.2	0.9							
103.2	4.7		6	105				
End Box 3								

RECEIVED JAN 15 1957 D.M.E.A.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. 3284
Level 3000
Grid 317
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
108.2	4.5	105.0' - 130.0' Blchd lt brownish gray hd	E 3287	105-110				
112.8	2.9	qtzite some dism sid. Several small py &	8	115				
116.4	2.6	sid stgrs.	9	120				
120.8	1.9	0.2' py stgr at 107.0'.						
122.9	3.8	Small fault W/gg at 115.3'.	90	125				
127.4	2.8	Small qtz stgr at 117.0'.	1	130				
		Small fault at 120.2'.						
130.9	4.0	130.0' - 142.0' Blchd lt gray arg qtzite.	2	135				
135.5	2.0	Several small sid & py stgrs.						
137.8	1.9	Small fault at 135.2'.	3	140				
140.4	1.2	0.4' py some sid some arsenopy at 139.2'.						
142.0	2.6	1" gg at 147.0'.						
End Box 4		Small py stgrs at 148.0' & 151.0'.						
144.8	2.7		4	145				
148.1	2.0		5	150				
150.3	2.1							
152.6	3.4		6	155				
156.6	4.0		7	160				
161.3	4.3	142.0' - 180.0' Hd lt gray qtzite.	8	165				
165.9	3.9	¼" py & tetra stgr at 177.0'.	9	170				
170.1	2.3	¼" py & tetra stgr at 180.0'.						
173.4	1.1							
174.7	1.2		3300	175				
End Box 5								
179.6	4.6		1	180				
182.2	2.5		2	185				
185.6	3.2							
186.8	0.9	180.0' - 197.0' Med hd brownish gray arg						
189.3	2.1	qtzite.	3	190				
192.3	2.2	Fault at 186.8'.	4	195				
195.7	2.3	Fault & qtz stgr at 195.0' to 195.9!	5	200				
		197.0' - 218.9' Hd lt gray qtzite.						
		Several faults at 198.0', 198.8', 202.0',						
		204.2', 206.0' & 209.2. All these faults						
200.7	4.6	have some gg.						
204.8	3.2	0.1' qtz at 198.0'.	6	205				
209.3	3.5	1.4' py & arsenopy, some qtz at 203.4'.	7	210				
End Box 6		Several small py & arsenopy stgrs at						
212.3	3.2	204.8' - 207.0'.						
213.8	1.5	Little py, arsenopy, sid,qtz, 207.2'-210'.	8	215				
218.9	3.4	1"qtz at 212'. Few small sid stgrs 215.0'.	9	218.9				

FORM 127 1M 7-55

END OF HOLE

Form MF-104 (Rev.)
(April 1956)

Budget Bureau No. 42-R1036.5

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

Month of October, 1956 Docket No. DMEA 2329 Contract No. IDM - 8 - 541
Operator's Name Polaris Mining Co. Minerals Copper Lead Antimony (and incidental silver)
Address Box 320 - Wallace, Idaho
Contract Amount, $ 727,390.00 Government Participation: 50% Amount, $ 363,695.00

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:				1/28/57	W.P.K.	
Drilling core 5491 @ 4.50	$ 2,470.95	$ 65,035.35	$ 67,506.30	2470.95	65035.35	67506.30
Raising		30,248.26	30,248.26		30248.26	30248.26
Crosscutting 12.0 @ 48.78	585.36	23,857.04	24,442.40	585.36	23857.04	24442.40
Drifting 295.3 @ 48.78	14,404.73	496,486.68	510,891.41	14404.73	496486.68	510891.41
Sidewipe 74.3 @ 25.50	1,894.65	28,067.85	29,962.50	1894.65	28067.85	29962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$19,355.69	$643,695.18	$663,050.87	19355.69	643695.18	663050.87

RECEIVED JAN 15 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date DEC 12 1956 *Payee Polaris Mining Company
Per [signature] Title President

*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:

$ 9677.85

Signature [signature]
(Authorized Certifying Officer)

Date 1-11-57 Vou. No. 1923
(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. E541 in accordance with the terms of the contract.

Signature: 1S/ Eric G. Erickson Title Mining Engr Date 12-18-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 1S/ Wm G. Agnew Title Acting Exec Officer Date 12-19-56

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-R1151.2

RECEIVED JAN 15 1957 DMEA

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

Month of October 1956 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental Silver)

Address Box 320 Wallace, Idaho

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	Feet	1444.73	295.3	510891.41	10262.0	49.78	1000 10618.4	51.00*
Crosscutting		585.36	12.0	24442.40	490.3	49.85		
Raising				30218.26	324.1	93.33	330	93.33*
Shafts Sideswipe		1894.65	74.3	29962.50	1175.0	25.50	1170	25.50*
Winzes								
Drilling: Core		2470.95	549.1	67506.30	15001.4	4.50	1000 15700	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 DEC 12 1956 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

/S/ Eric G. Erickson

*Maximum allowed by contract

** 6199.5 @ $50.53
5418.9 @ 48.78
11618.4

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 872894

Polaris Mining Company

Wallace, Idaho
November thirteenth
1956

RECEIVED
JAN 15 1957
D.M.E.A.

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
October - 1956
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during October included 295.3 feet of easterly advance in the main heading, 74 feet of sideswipe for train switch, 12 feet of sideswipe and 16.5 feet of crosscut for diamond drill setups, and 549.1 feet of diamond drilling.

As shown on the enclosed 50-scale map, the main heading was extended about 160 feet easterly on line to a point near station SS3074 and then turned northeasterly and is now being extended as a crosscut to intersect the southeasterly trending mineralized zone encountered in the diamond drill holes. Numerous small shears and quartz-siderite-pyrite stringers were cut in the crosscut portion of the heading. The largest of these stringers contains some tetrahedrite and a sample across 1.1 feet assayed 7.5 ounces silver and 0.12% copper. Because of the sheared, blocky nature of the ground, the heading had to be stopped at a point about 20 feet beyond the face shown on the sketch and a 35 foot section was timbered. Work was resumed in the face this date and the crosscut should reach the projected position of the vein in about 40 feet.

During October diamond drill hole SS3282 was advanced 264.8 feet and completed at a depth of 340 feet. The hole intersected the mineralized zone about 90 feet west of the 39.3 ounce intercept in hole 3281 but the sludge sample (280-285 feet) assayed only 2.5 ounces silver. Diamond drill hole SS3283, located near station SS3073, was drilled to a depth of 284.3 feet. This hole intersected the vein at about 224.5 to 227.7 feet, approximately 210 feet east of the 39.3 ounce intercept in hole 3281. Due to the faulted nature of the ground, the core recovery of the vein was poor. The sludge samples for the intervals 220-225 and 225-230 feet assayed 13.2 ounces silver, 0.41% copper and 25.2 ounces silver, 0.79% copper respectively.

The locations of the drill holes are shown on the accompanying map and the detailed logs are enclosed.

A 12 foot sideswipe in the north wall and 16.5 foot crosscut in the south wall

about 20 feet west of station SS3074 were prepared for diamond drill setups. A 750 foot south hole will be drilled from this station to explore the area south of the lateral and a north hole (No. 3284) is now being drilled from this location to further test the mineralized zone between the intercept in hole 3283 and the projected intersection of the zone with the main heading crosscut.

Yours very truly,

H. E. Harper

H. E. Harper
Chief Geologist

HEH:mm

Enclosure

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-27-56
Finished 10-5-56
Hole Size EX
Depth 340
% Core Rec. 92

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3072 + 25.0' N.
Logged by J.G.S. Date 10-11-56
Drilled by Holten, Hauser

Hole No. 3282
Level 3000
Grid 309
Latitude 84 828 S.
Departure 92 916 E.
Elevation - 275'
Bearing (See survey
Inclination last page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.0		E 3141	0 - 5				
10.0	4.4		2	10				
15.0	5.0		3	15				
17.7	2.7	0.0' - 27.0' Hd lt gray blchd qtzite.	4	20				
22.1	4.4	Small fault at 5.0'.	5	25				
End Box 1								
26.7	4.5		6	30				
31.7	5.0		7	35				
36.6	4.9		8	40				
41.6	5.0		9	45				
46.6	4.8		50	50				
51.6	4.7		1	55				
56.6	5.0		2	60				
End Box 2								
61.6	4.5		3	65				
66.6	4.9	27.0' - 120.0' Lt grn to med gray blchd arg	4	70				
71.6	4.3	qtzite. Little blchd qtzite.	5	75				
75.2	1.4	Little wh carb mottling 30.0' - 50.0'.	6	80				
80.2	4.4	Small slips at 55.0'	7	85				
85.2	2.9	Some shearing at 106.0'.	8	90				
90.6	5.0	¼" sid stgr at 116.0'.	9	95				
95.6	5.0		60	100				
End Box 3								
100.6	5.0		1	105				
105.6	4.8		2	110				
110.6	5.0		3	115				
115.6	4.2							
119.6	3.8		4	120				
123.6	4.0		5	125				
128.6	4.9		6	130				
End Box 4								
133.6	4.7		7	135				
138.6	5.0		8	140				
143.6	5.0		9	145				
148.6	4.8		70	150				
153.6	5.0		1	155				
158.6	4.8		2	160				
163.8	5.0	120.0' - 240.0' Hd lt gray blchd arg qtzite.	3	165				
End Box 5		Occas thin ser sms.						
168.9	5.0	½" sid W/some qtz & carb at 141.0'.	4	170				
173.9	5.0	Some med gray bands & some dism sid from	5	175				
178.9	5.0	180.0' to 190.0'.	6	180				
183.9	5.0	Silic from 200.0' to 210.0' & from 225.0'	7	185				
188.9	5.0	to 235.0'.	8	190				

RECEIVED JAN 15 1957 D.M.E.A.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3282
Level 3000
Grid 309
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
191.0	2.1	Small faults at 220.0' & at 225.0'.	E 3179	190-195				
196.0	2.8		80	200				
201.0	4.9		1	205				
206.0	3.3		2	210				
End Box 6								
210.7	4.6		3	215				
215.6	4.6		4	220				
220.4	4.8		5	225				
225.4	5.0		6	230				
230.4	5.0		7	235				
235.4	4.3		8	240				
End Box 7								
240.4	5.0		9	245				
245.4	5.0		90	250				
250.4	5.0							
254.8	4.8		1	255				
257.6	2.5	240.0' - 300.0' Abt eql amts hd lt gray	2	260				
261.0	2.0	blchd arg qtzite & blchd qtzite.	3	265				
266.0	4.5	Small fault, some ser at 254.0'.	4	270				
270.5	3.6	Sid some qtz little tetra little py from	5	275				
End Box 8		280.5' to 280.9'.						
275.5	5.0	Small fault at 297.0'.	6	280				
280.5	4.4		7	285	5.0	2.5		
285.5	4.8							
290.0	4.5		8	290				
295.2	4.7		9	295				
299.2	4.2		E 3200	300				
304.2	4.6	300.0' - 340.0' Lt grn gray blchd arg	1	305				
End Box 9		qtzite. Much dism sid.						
310.5	5.0	Many thin chl sms 305.0' to 312.0'.	2	310				
315.5	3.5	Small fault little py at 312.0'.	3	315				
320.5	4.9	Small stgrs py some sid badly broken at	4	320				
325.5	4.7	319.0'.	5	325				
330.5	4.8	Small sid stgrs some py little tetra(?) &	6	330				
335.5	4.8	small fault 320.6' to 321.0'.	7	335				
340.0	4.5	1" sid py at 325.7'.	8	340				
End Box 10		Small fault at 338.0'.						

End of Hole

Hole Survey by Tro-pari

Depth	Bearing	Dip
40	N. 1° E.	+ 5°
300	N. 8° E.	+ 12°

Note: All sludge assays are tr[illegible] or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10- 9-56
Finished 10-19-56
Hole Size EX
Depth 284.3'
% Core Rec. 81.2

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3073 + 23.0' N.
Logged by J.G.S. Date 10-23-56
Drilled by Holten, Hauser, Madsen

Hole No. 3283
Level 3000
Grid 313
Latitude 84 840 S.
Departure 93 092 E.
Elevation - 275'
Bearing (See survey
Inclination last page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-7.0	4.0		E 3209	0 - 5				
12.0	3.6	0.0' - 23.0' Lt grn blchd arg qtzite.	10	10				
17.1	5.0	Few small veinlets wh. carb.	1	15				
22.0	4.7	Small fault W/little blk gg at 17.0'.	2	20				
27.0	4.5		3	25				
31.5	4.2		4	30				
36.7	4.2	23.0' - 58.0' Hd lt gray blchd qtzite. Few	5	35				
41.9	3.7	dk gray zones. Occas thin ser sms.	6	40				
44.0	3.0		7	45				
End Box 1								
48.6	2.0		8	50				
53.8	3.8		9	55				
57.8	3.8		20	60				
62.7	4.9							
65.0	1.3		1	65				
68.8	3.8		2	70				
72.2	3.4							
73.9	1.5		3	75				
75.9	2.0		4	80				
80.7	4.8							
End Box 2								
84.6	3.3		5	85	5.0	0.4		
86.1	1.2							
87.7	1.6							
90.0	2.0	58.0' - 156.0' Med gray blchd arg qtzite.	6	90	5.0	0.2		
95.0	4.0	Some silic.	7	95	5.0	1.9		
96.6	1.5	Shearing at 91.0'.	8	100	5.0	0.1		
101.6	4.7	1" qtz at 95.0'.	9	105	5.0	0.1		
106.1	4.9	Small faults at 127.0' & 136.0'.	30	110	5.0	0.2		
110.5	4.3	Small sid veinlets at 143.0'.						
115.0	4.1	Small sid stgrs at 156.0'.	1	115	5.0	0.1		
119.6	4.6		2	120				
End Box 3								
122.3	2.1		3	125				
126.8	4.1							
129.4	2.9		4	130				
132.9	3.5							
134.4	0.7		5	135				
139.4	5.0		6	140				
144.0	4.5		7	145				
149.0	3.2		8	150				
155.0	0.6		9	155				

RECEIVED JAN 15 1957 D.M.E.A.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3283
Level 3000
Grid 313
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Cu	% Zn
157.5	1.5							
End Box 4		156.0' - 173.0' Lt gray blchd arg qtzite.						
158.7	0.9	Some ser.	E 3240	155-160				
160.1	0.8	Small veinlets sid at 158.0'.	1	165				
165.2	3.6	Small fault at 165.0'.						
167.9	2.3	½" qtz at 168.0'.	2	170				
174.3	2.7		3	175				
177.9	4.0		4	180				
181.5	2.3							
183.1	1.2	173.0' - 198.0' Hd med gray blchd arg qtzite.	5	185				
185.1	1.9	3" py at 174.0'.						
186.2	1.1	2" py at 187.0'.						
187.7	1.3	Py little sid 187.7' to 188.9'.	6	190	5.0	0.4		
190.8	2.7							
191.9	0.7		7	195				
198.6	3.8		8	200				
End Box 5								
201.8	2.0							
205.0	2.1	198.0' - 224.0' Soft med gray arg qtzite.	9	205				
206.0	0.8	Little dism sid.	50	210				
211.0	4.4	1" sid little qtz at 224.0'.	1	215				
215.7	3.3							
219.5	2.9		2	220				
224.5	4.0		3	225	5.0	13.2	0.41	
227.6	0.7							
229.5	1.1		4	230	5.0	25.2	0.79	
230.1	0.6							
231.6	1.4							
233.9	1.8		5	235				
238.5	4.4	224.0' - 284.3' Hd med gray blchd qtzite.	6	240	5.0	0.7		
242.0	1.8	0.5' broken sid little py little tetra &	7	245				
End Box 6		0.2' qtzite from 224.5' to 227.6'.						
246.6	4.0	Little fine grained py at 227.7'.						
248.6	1.5	1" sid little py specks tetra? at 230.5'.	8	250				
253.6	4.0	½" gg at 238.0'.	9	255				
258.0	3.4	6" shear zone at 267.0' little blk gg.	60	260				
263.0	4.0	1" qtz little wh carb at 268.0'.	1	265				
268.0	4.7	1" lt gray gg at 270.0'.	2	270				
271.4	3.2	Shearing at 275.0'.	3	275				
275.9	4.0		4	280				
End Box 7								
280.7	4.5							
282.5	1.8							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3283
Level 3000
Grid 313
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
284.3	1.6							
End Box 8								
		END OF HOLE						
		Hole Survey by Tro-Pari						
		Depth / Bearing / Dip						
		0' N. 33° E. 0° (Brunton)						
		75' N. 40° E. + 11°						
		200' N. 28° E. - 1°						

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
December 10, 1956

RECEIVED DEC 31 1956 D.M.E.A.

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony), Polaris Mining Company, Silver Summit Mine, Shoshone County, Idaho, Contract No. Idm-E541

The project site was inspected December 7, accompanied by R. D. Sample, geologist, U. S. Geological Survey, and Mr. J. Semos, company geologist.

The easterly drive had been advanced a total of 10,949 feet including 502.9 feet of crosscutting. The drive had been turned northeasterly near 93,315 east coordinate and continued through the sheared zone found by core drilling. The ground was loose and in one place sloughed out to a height of about 19 feet. Timber was placed through loose ground and the easterly drive was continued about 20 feet in the footwall of the southerly dipping zone. The zone will be cut by a crosscut from the footwall drift after an advance of about 60 feet and if the ground is not unduly bad the most promising part of the zone will be followed.

The shear zone contained a number of stringers of quartz and iron sulphide mineralization but no significant amount of tetrahedrite was noted.

Core drilling was in progress on a southerly hole. Fault gouge had been cut and progress had been about 10 feet per shift for the last couple of shifts. No important ore mineralization has been cut in this hole to date. A log of the hole will be submitted when the hole is completed.

An amendment to increase the amount of crosscutting and/or drifting and the drilling footage is being considered by the Washington office. If the amendment is not approved the drifting and crosscutting was finished when 10,618.4 feet was completed. There remains about 3,500 feet of core drilling to be performed under the present contract.

Following is a tabulation of the work items and number of units:

	Authorized	Completed
Drifting and/or crosscutting	10,618.4 ft.	10,949.0 ft.
Raising	330 "	324.1 "
Sideswiping	1,140 "	1,090.7 "
Core drilling	18,788 "	15,300 "

Date of contract: June 3, 1953
Termination date: January 1, 1957
Amount of contract: $685,955.00
Amount spent: 643,695.18 (thru Sept. 1956) 1/

1/ October invoice has not been submitted; it is withheld pending action on proposed amendment.

E. G. Erickson

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

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

1201 N. Division St.
Spokane 2, Washington
October 18, 1956

RECEIVED
OCT 30 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

Mr. H. E. Harper was contacted October 10 at the company office in Wallace, Idaho, regarding the status of the contract and Amendment No. 3.

Amendment No. 3 was discussed and it was returned unsigned. The Field Team forwarded all copies to Washington with recommended revisions.

As of October 8, 1956 the drift east had been advanced 305 feet beyond survey station No. 3072 for a total advance of 10,030 feet.

Two crosscut drill stations totaling 41 feet had been completed since the last inspection, making the total crosscutting 478.3 feet. The combined crosscutting and drifting total 10,508.3 feet. It is planned to continue the drift to a total of 10,116 feet and drive one more 25-foot crosscut for a drill station, making a total of 10,618 feet of crosscutting and drifting under the present contract. This crosscutting and drifting is expected to be completed in the third week of October 1956.

Recent core drilling has disclosed encouraging ore samples from a vein about 275-280 feet north of the drift. Plotting of drill holes to date indicates a mineralized vein or zone that is beginning to show more promise than was indicated in earlier drill holes. Mr. Harper has submitted a proposal to crosscut to the structure from the face of the presently planned drifting and explore it by drifting. He also has included additional core drilling to explore north and south of the new drifting.

About 3,000 feet of unexplored area lie between the face of the presently authorized drifting and the property line included in the contract. In view of the encouraging disclosures it appears prudent that the vein or zone be cut by crosscutting and explored by drifting. The

cost of the additional work which may lead to a worthwhile discovery is a small percentage of the cost of reaching this target area. The proposal has been forwarded to Washington for consideration.

Following is a tabulation of the work items and number of units authorized and completed:

	Authorized	Completed	
Drifting and/or crosscutting	10,725 feet	10,508.3 feet	1/
Raising	330 "	324.1 "	
Sideswiping	1,560 "	1,090.7 "	
Core drilling	15,200 "	14,662 "	

1/ Includes 478.3 feet of crosscutting.

Date of contract: June 3, 1953
Expiration date: January 1, 1957
Amount of contract: $685,955.00
Amount spent: 643,695.18 (thru Sept. 1956)

E. G. Erickson

Distribution:
BMEA (4)
USGS (2)
USBM (AD)
Docket
Erickson

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

Budget Bureau No. 42-R1036.5

RECEIVED
OCT 29 1956

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

Month of September, 1956 Docket No. DMEA 2879 Contract No. IIM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 core 493.2@4.50	2219.40	$ 62815.95	$ 65035.35			
~~Bunnoning~~ Raising		30248.26	30248.26			
Crosscutting 41 @ $48.78	1999.98	21857.06	23857.04			
Drifting 232.3 @ $48.78	11331.59	485155.09	496486.68			
Sideswipe 10.0@25.50	255.00	27812.85	28067.85			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	15805.97	627889.21	643695.18	15805.97	627889.21	643695.18

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

Date 10-8-56 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 7902 99

Signature [signature]
(Authorized Certifying Officer)

Date 10/22/56 Vou. No. 1899
(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-541 in accordance with the terms of the contract.

Signature 19 Eric G Erickson Title Mining Engr Date 10/17/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 15 Wing G Agnew Title Acting Exec. Date 10/19/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED OCT 29 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1956 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 Wallace, Idaho

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	feet	11331.59	232.3	496486.68	9966.7	49.81	10725	51.00 *
Crosscutting		1999.98	41.0	23857.04	478.3	49.88		
Raising				30248.26	324.1	93.33	330	93.33 *
~~Shafts~~ Sideswipe		255.00	10.0	28067.85	1100.7	25.50	1560	25.50 *
Winzes								
Drilling: Core		2219.40	493.2	65035.35	14452.3	4.50	15200	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 10-8-56 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

* Maximum allowed by contract.

(For Government use only)

/s/ Eric G Erickson

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 872894

DMEA

Polaris Mining Company

Wallace, Idaho
October ninth
1956

RECEIVED
OCT 29 1956

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
September, 1956
Docket DMEA - 2879
Contract No. 1 DM-E541

Gentlemen:

During September the main heading was advanced 232.3 feet. This leaves about 160 feet to be driven to complete the lateral. Two north crosscuts, one 25 feet long at station SS3072 and one 16 feet long located 175 feet east of station SS3072, were driven for diamond drill stations and 10 feet was sideswiped for a switch opposite the latter drill station.

Diamond drill hole No. SS3281 was drilled to a depth of 418.0 feet. The hole shows a mineralized zone from about 245 to 279 feet with a good but narrow siderite-tetrahedrite vein at 277.8-279.1 feet. The five foot sludge sample from 275-280 feet assayed 39.3 ounces silver and 1.58 percent copper. Drill hole SS3282 is now being drilled from the same drill station to explore the zone about 140 feet west of the ore intercept in hole 3281. At the end of the month the hole had reached a depth of 75.2 feet.

A 50-scale map showing the lateral advance for the month and the location of the drill holes is enclosed. Also enclosed is the log of drill hole SS3281.

Yours very truly,

H. E. Harper

H. E. Harper
Chief Geologist

HEH:mm

Enclosures

Note: All sludges are trace [illegible] no silver unless otherwise indicated.

DIAMOND DRILL RECORD

RECEIVED OCT 29 1956

Standpipe
Casing

Started 9-14-56
Finished 9-27-56
Hole Size EX
Depth 418'
% Core Rec. 88

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3072 + 29.0 N. = Face
Logged by J.G.S. Date 9-27-56
Drilled by Holten & Hauser

Hole No. 3281
Level 3000
Grid 309
Latitude 84 826 S.
Departure 92 919 E.
Elevation - 275'
Bearing (See Survey
Inclination Last Page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	3.0		E 3057	0 - 5				
9.0	4.8		8	10				
14.0	4.7		9	15				
19.0	5.0		60	20				
24.0	5.0	0.0' - 46.0' Mostly hd thin bedded lt gray	1	25				
29.0	5.0	blchd qtzite. Some hd med gray blchd arg	2	30				
33.5	4.5	qtzite. Few small slips.	3	35				
End Box 1								
36.2	2.7		4	40				
41.2	4.8		5	45				
46.2	4.5		6	50				
51.0	4.2							
53.0	2.0	46.0' - 68.0' Hd lt gray blchd qtzite.	7	55				
58.0	5.0	Small fault at 68.0(lt grn gg).	8	60				
63.0	5.0		9	65				
68.0	5.0		70	70				
73.0	5.0		1	75				
78.0	5.0	68.0' - 101.0' Hd med gray blchd arg qtzite.	2	80				
83.0	5.0	Some dism sid.	3	85				
88.0	4.8	Little silic from 70.0' - 80.0'.	4	90				
93.0	5.0		5	95				
97.6	4.4		6	100				
101.6	4.8		7	105				
End Box 3								
106.7	3.6		8	110				
111.1	3.1		9	115				
116.1	4.7		80	120				
121.6	4.8	101.0' - 170.0' Mostly hd med gray blchd	1	125				
126.5	4.4	qtzite. Some olive grn arg qtzite. Occas	2	130				
131.1	4.9	thin bed lt grn arg ss.						
134.3	2.8	Small fault (½" lt grn gg) at 116.0'.	3	135				
139.3	4.8	Small slip at 122.0'.	4	140				
End Box 4		Small fault at 133.0'.						
144.3	1.2		5	145				
149.3	5.0		6	150				
154.3	5.0		7	155				
159.3	4.7		8	160				
164.3	4.6		9	165				
169.3	5.0		90	170				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by

Hole No. 3281
Level 3000
Grid 309
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
174.3	5.0		E 3091	170-175				
End Box 5								
180.4	4.9		2	180				
185.4	4.4	170.0' - 210.0' Abt eql amts hd lt grnish	3	185				
190.4	4.5	gray blchd arg qtzite & lt gray qtzite.	4	190				
195.4	4.6	Small fault at 180.0'.	5	195				
200.3	4.6		6	200				
205.3	4.4		7	205				
210.4	3.9		8	210				
End Box 6								
215.4	5.0	210.0' - 294.0' Hd lt gray blchd qtzite.	9	215				
220.4	4.5	Some badly broken core thruout.	E 3100	220				
222.6	0.8	Occas small stgrs fine grained py from						
225.0	1.0	242.0' to 250.0'.	1	225				
230.0	4.2	4" sid py little tetra at 251.0'.	2	230				
231.0	1.0	Several stgrs py sid W/specks tetra from	3	235				
236.0	1.3	252.0' to 253.0'.	4	240				
241.6	0.3	1" sid specks tetra at 257.0'.	5	245				
247.0	0.9	Few small py stgrs at 260.0'.						
249.0	0.9	1" py stgr & some dism py at 262.0'	6	250				
254.0	4.9	Small py stgr & some dism py & small fault	7	255			% Cu	
257.0	1.9	at 264.0'.	8	260	5.0	0.4		
261.0	3.0	Little dism sid 264.0' - 272.0'.	9	265				
End Box 7		Sid good tetra from 277.8' to 279.1'.						
266.0	4.3	Little dism sid 282.0' - 290.0'.	10	270	5.0	0.4		
271.0	4.6	½" dism sid at 286.0' & at 290.0'	1	275	5.0	0.4		
276.0	5.0		2	280	5.0	39.3	1.58	
281.0	5.0							
284.8	3.7		3	285	5.0	1.3		
289.6	4.6		4	290				
294.1	4.5		5	295				
299.1	5.0		6	300				
End Box 8		294.0' - 319.0' Lt grn blchd arg qtzite.						
303.9	4.2	6" qtz little py & ser at 303.0'.	7	305				
309.9	3.5	Fault at 308.0' (¼" gg).	8	310				
314.8	4.4		9	315				
319.6	4.5		20	320				
324.1	4.3	319.0' - 333.0' Hd lt gray blchd qtzite.	1	325				
328.9	4.6	Small fault, ¼" sid stgr, ¼" py stgr at	2	330				
End Box 9		332.0'.						
333.0	3.8		3	335				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by
Date
Drilled by

Hole No. 3281
Level 3000
Grid 309
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
338.0	4.8		E 3124	335-340				
343.0	4.7		5	345				
346.7	3.7		6	350				
351.2	4.0		7	355				
356.0	4.5		8	360				
360.5	4.5		9	365				
End Box 10		333.0' - 418.0' Abt eql amts hd lt gray						
365.5	4.9	blchd arg qtzite & lt gray qtzite.	30	370				
370.2	4.7	¼" sid wh carb at 359.0'.						
375.0	4.8	3" sid little wh carb at 372.0'.	1	375				
378.4	3.1	1" py at 374.0'.	2	380				
383.4	1.0	Shearing 393.0' to 394.0'.	3	385				
388.4	4.0	Small fault ¼" dk gray gg little sid at	4	390				
394.0	5.0	397.0'.	5	395				
398.0	3.1	Some chl from 402.0' to 413.0'.	6	400				
403.2	5.0		7	405				
End Box 11								
407.3	4.0		8	410				
413.0	4.8		9	415				
418.0	5.0		40	418				
End Box 12								

END OF HOLE

HOLE SURVEY BY TROPARI

Depth	Dip	Bearing
40	+4°	N. 21° E.
200	+9°	N. 22° E.
400	—	N. 30° E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
September 20, 1956

RECEIVED
OCT - 8 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected September 14, 1956, accompanied by the drift miners.

The drift miners were on "day's pay" during the date of the inspection to allow regrading of the last couple hundred feet of track. The drift face has been advanced 109 feet ahead of survey station No. SS 3072. Total work completed to date is 9,834 feet of drifting and 437.3 feet of crosscutting. The present plans are to stop the crosscutting and drifting after 10,613.3 feet has been completed and explore by core drilling. (Refer to Operator's letter of August 14, 1956.)

The last drill hole, No. 3280, was completed at a depth of 760 feet. Only minor amounts of mineralization were encountered at 525'-530' where the sludge assayed a fraction over 2 oz. Ag per ton, and from 655'-660' where the sludge assayed a fraction over 1 oz. Ag per ton. See the log attached to the Operator's August 1956 report.

The drill was being assembled in the north drill station crosscut located 142 feet east of survey station No. SS 3071.

The drifting and crosscutting is expected to be completed by the latter part of October 1956. A total of 4,827.1 feet of core drilling remains to be completed, including the 3,586.2 feet of additional drilling proposed by the Operator in his August 14 letter.

It was reported that one of the drift miners met with a fatal accident in the east drift earlier in the month. The inquest had not been held so the details are not available at this time. It was reported that the miner was transporting steel on the top of a locomotive and a steel caught on the fan line; the steel or fan line punctured the miner's abdomen. The official details will be available at the time of the next inspection.

?

Following is a tabulation of the work items and number of units authorized and completed:

	Authorized	Completed	
Drifting and/or crosscutting	10,725 ft.	10,271.3 ft.	1/
Raising	330 ft.	324.1 ft.	
Sideswiping	1,560 ft.	1,090.7 ft.	
Core drilling	15,200 ft.	13,959.1 ft.	

1/ Includes 437.3 feet of crosscutting.

Contract date: June 3, 1953
Expiration date: 40 months from Sept. 1, 1953
Amount of contract: $685,955.00
Amount spent: 627,889.21 (August 1956)

E. G. Erickson

E. G. Erickson

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Erickson
L. H. McGuire, Chief, Health & Safety Division, Seattle

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

Klugsdine W

Budget Bureau No. 42-R1036.5

RECEIVED
SEP 24 1956

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

Month of August, 1956 Docket No. DMEA 2879 Contract No. IDM-E-541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (Incidental Silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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 Core 547.8[illegible]4.50	$2465.10	$60350.85	$ 62815.95	2465.10	60350.85	62815.95
~~Bulldozing~~ Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting		21857.06	21857.06		21857.06	21857.06
Drifting 340.0[illegible]48.78	16975.44	468179.65	485155.09	16975.44	468179.65	485155.09
Sideswipe 11.0[illegible]25.50	280.50	27532.35	27812.85	280.50	27532.35	27812.85
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$19721.04	$608168.17	$627889.21	19721.04	608168.17	627889.21

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

Date 9-10-56 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9860 52

Signature MGP
(Authorized Certifying Officer)

Date 9-21-56 Vou. No. 1874
(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. E541 in accordance with the terms of the contract.

Signature (S) Eric G. Erickson Title Mining Engr Date 9-18-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature (S) A. E. Weissenborn Title Exec Officer Date 9-20-56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 24 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1956 Docket No. DMEA 2879 Contract No. IDM-E-541

Operator's Name Polaris Mining Company Mineral Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (and incidental Silver)

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	feet	$16975.44	348.0	$485155.09	9734.4	$49.84	10725	$ 51.00*
Crosscutting	"			21857.06	437.3	49.98		
Raising	"			30248.26	324.1	93.33	330	93.33*
~~xxxx~~Sideswiping	"	280.50	11.0	27812.85	1090.7	25.50	1560	25.50*
Winzes								
Drilling: Core	"	2465.10	547.8	62815.95	13959.1	4.50	15200	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		19,721.04						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 9-10-56 Operator Polaris Mining Company

Per [signature] Title President

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)

REMARKS:

(For Government use only)

* Maximum allowed by contract

Is. Eric G. Erickson

8 a/c
3-25-60

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 872894

DMEC.

Polaris Mining Company

RECEIVED
SEP 24 1956

Wallace, Idaho
September seventh
1956

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report
Polaris East Exploration Project -
August, 1956
Docket DMEA - 2879
Contract No. 1 DM-E541

Gentlemen:

During August the main heading was advanced 348.0 feet and 11 feet was side-swiped from SS3071 plus 35 to 46 feet. A north crosscut is now being driven near the face to provide for a northerly diamond drill hole. This hole will be located approximately 400 feet east of Hole No. SS3279.

The geology covering the August work in the heading is shown on the attached 50-scale map. Two fault structures were crossed by the lateral in the August advance. The largest fault, located 125 feet west of station SS3071, is a sheared and brecciated zone about 7 feet wide with up to 6 inches of dark gouge on both the footwall and hangingwall. The fault strikes about S 45° E and dips 60 to 74 degrees to the southwest. Although the observed strike of this fault is somewhat more southerly than expected, its location fits reasonably well with our projection of the Polaris fault. The second, smaller fault, located at station SS3071, has a more easterly trend with a steep to vertical southerly dip. The rocks in this section of the lateral are bleached, light to medium gray quartzites. A few minor quartz and siderite stringers accompany the faults and other smaller slips.

Diamond drill hole No. SS3280 was advanced 547.8 feet and completed at a depth of 760 feet. Only minor mineralization was encountered in the hole. The sludge sample at 525 to 530 feet assayed 2.2 ounces silver and at 655 to 660 feet assayed 1.1 ounces silver. Small pyritic stringers with streaks of tetrahedrite were observed in the core at the 655 to 660 foot interval. A log of the hole and also Sheet No. 6 showing the location of the hole are enclosed.

Yours very truly,

H. E. Harper

H. E. Harper
Chief Geologist

HEH:mm

Enc.

Note: All sludges are trace of gold silver unless otherwise indicated.

DIAMOND DRILL RECORD

RECEIVED SEP 24 1956

Standpipe
Casing

Started 7-11-56
Finished 8-23-56
Hole Size EX
Depth 760'
% Core Rec. 88

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3064 + 21.0' N.
Logged by JGS & MWH Date 8-30-56
Drilled by Holten, Hauser, Walker

Hole No. 3280
Level 3000
Grid 289
Latitude 84 786 S.
Departure 91 885 E.
Elevation - 279'
Bearing (See survey
Inclination last page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.0		E 2905	0 - 5				
10.0	4.9		6	10				
15.0	4.9	0.0' - 35.0' Mostly hd lt greenish-gray	7	15				
20.0	4.9	blchd arg qtzite. Some hd lt gray qtzite	8	20				
25.0	5.0	& some lt grn arg. Many thin ser sms.	9	25				
30.0	4.8		10	30				
End Box 1								
35.0	4.8		1	35				
40.0	5.0		2	40				
45.0	5.0	35.0' - 65.0' Lt grn blchd arg qtzite.	3	45				
50.0	5.0	Some med gray arg qtzite. Bands dism sid	4	50				
55.0	5.0	thruout.	5	55				
57.0	1.4	Small fault at 51.0'.	6	60				
62.0	4.8		7	65				
67.0	4.9							
End Box 2								
69.3	2.1		8	70				
71.3	1.7		9	75				
76.3	5.0		20	80				
81.3	4.6	65.0' - 146.0' Mostly hd lt grn blchd arg	1	85				
86.2	4.3	qtzite. Some hd lt gray qtzite.	2	90				
91.2	3.5	Chl filled frac thruout. Much ser.	3	95				
95.2	3.9	1" qtz at 67.0'.						
99.5	4.3	1" brec qtzite W/dism sid. Much chl at	4	100				
End Box 3		72.0'.						
104.5	5.0	White qtz & much ser from 91.5' to 92.0'.	5	105				
109.1	3.1	1" qtz W/some white carb at 99.5'.	6	110				
112.5	3.4	Silic from 100.0' to 118.0'.	7	115				
118.0	2.4	Few scat small py cubes from 112.0' to	8	120				
123.4	5.0	118.0'.	9	125				
126.4	3.0	Small fault at 143.0'.						
128.7	2.2		30	130				
132.7	5.0		1	135				
137.7	5.0		2	140				
End Box 4								
143.5	4.3		3	145				
146.0	2.5		4	150				
151.1	5.0							
154.4	3.0		5	155				
159.0	4.2		6	160				
161.0	1.4	146.0' - 180.0' Lt grayish grn to grn blchd	7	165				
165.4	3.6	arg qtzite. Some silic. Few bands dism sid.						
166.8	1.3	Occas chl filled frac from 152.0' to 165'.	8	170				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3280
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
170.4	2.8		E 2939	170-175				
174.3	3.6							
179.3	5.0		40	180				
End Box 5								
184.3	4.4		1	185				
189.3	4.9		2	190				
194.3	5.0		3	195				
197.3	2.8	180.0' - 250.0' Soft lt grn blchd arg	4	200				
202.3	3.9	qtzite. Some dism sid. Ser sms. Few thin	5	205				
207.3	4.6	chl sms.	6	210				
212.2	4.5	Small faults at 207.0' & at 212.0'.	7	215				
End Box 6		6" zone W/much dism sid & irreg chl						
217.7	1.6	filled frac at 223.0'.	8	220				
222.2	4.5	Few narrow dk gray bands from 236.0' to	9	225				
227.2	4.9	239.0'.	50	230				
230.8	1.8	Small faults at 234.0' & 238.0'.	1	235				
235.8	4.6		2	240				
240.8	4.7							
244.8	3.6		3	245				
249.8	5.0		4	250				
254.8	4.9		5	255				
End Box 7								
259.8	5.0		6	260				
264.8	5.0	250.0' - 295.0' Lt gray hd blchd arg qtzite.	7	265				
269.8	4.7	Narrow med gray bands thruout. Bands dism	8	270				
273.0	3.2	sid. Some chl.	9	275				
278.0	4.8	6" zone chl filled frac partly silic &	60	280				
283.0	5.0	some dism sid at 270.0'.						
285.0	1.9		1	285				
End Box 8								
290.0	5.0		2	290				
295.0	5.0		3	295				
300.2	4.9		4	300				
305.8	1.3		5	305				
310.2	4.4		6	310				
315.0	4.7	295.0' - 360.0' Hd lt gray blchd qtzite.	7	315				
320.2	4.6	Soft lt grn blchd arg qtzite from 325.0' -	8	320				
325.2	5.0	335.0'.	9	325				
End Box 9		Small fault blk slick at 296.0'.						
330.2	4.5	2" qtz stgr W/½" sid at 300.5'.	70	330				
335.2	4.9	Small fault lt grn gg at 310.0'.	1	335				
340.2	5.0	2" qtz at 325.0'.	2	340				
344.0	3.8	Blk slick at 340.0'.	3	345				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3280
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
349.1	4.5	½" white carb W/few py cubes at 340.5'.	E 2974	345-350				
353.7	4.0		5	355				
358.4	4.4		6	360				
End Box 10								
363.2	3.9		7	365				
368.0	4.5		8	370				
373.0	4.4		9	375				
378.0	4.3	360.0' - 403.0' Lt gray grn blchd arg	80	380				
383.2	4.3	qtzite. Little dism sid.	1	385				
385.1	1.9	Small blk irreg frac at 374.0' also few						
386.0	0.9	py cubes.						
388.2	1.0	In general poor core recovery, badly brkn	2	390				
390.9	1.2	core, and some shearing from 385.0' to						
392.3	1.4	403.0'.	3	395				
399.0	2.0		4	400				
400.3	1.0							
403.0	0.5		5	405				
End Box 11								
408.0	4.9	403.0' - 413.0' Med purp arg qtzite W/some dism sid.	6	410				
413.2	1.8		7	415				
417.9	2.5		8	420	5.0	1.1		
421.0	2.4	413.0' - 447.0' Hd med gray blchd qtzite.						
423.1	2.1	Blk slick at 413.0'.	9	425	5.0	0.4		
427.0	3.7	Small fault at 430.0', ½" gg.	90	430				
432.0	5.0	Broken core W/dk chl & fine grained py	1	435				
437.0	5.0	at 447.0'.	2	440				
442.0	5.0		3	445				
End Box 12								
447.0	5.0		4	450				
452.0	4.9		5	455				
457.1	4.7		6	460				
461.8	4.7	447.0' - 478.0' Lt gray grn qtzite, some	7	465				
470.3	4.8	thin bands gray arg qtzite.	8	470				
475.0	4.7	2" qtz at 464.0'.	9	475	5.0	1.5		
476.6	1.6		E 3000	480				
481.6	5.0	478.0' - 481.6' Nearly white silic qtzite	1	485				
End Box 13		W/few small pieces vein qtz.						

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. 3280
Level 3000
Grid 289

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
486.6	5.0		E 3002	485-490				
491.6	4.9		3	495				
497.6	4.9		4	500				
503.0	4.9		5	505	5.0	0.4		
507.8	4.8		6	510				
512.2	5.0		7	515				
517.4	4.7	481.6' - 570.0' Lt to med gray hd qtzite,	8	520				
End Box 14		silic, nearly white, 507.0' - 517.0'. Slip						
522.0	4.8	zone 503.0' - 504.0' and 507.0' - 507.8'.	9	525	5.0	0.4		
527.0	4.9	Smaller slips at 512.0' & 517.0'.	10	530	5.0	2.2		
531.5	2.3	1" - 3" white qtz at 526.0' & 527.0',	1	535				
536.5	4.7	W/small peices broken sid, some dk min 526.0'	2	540				
541.5	4.7	& 527.5'.						
544.6	2.7	Faulted zones 541.0' to 541.5', 550.0' to	3	545				
547.5	2.8	550.6', 554.0' to 554.5' and at 560.0' to	4	550				
550.6	3.1	560.7'.						
554.6	3.0		5	555				
End Box 15								
558.0	2.5		6	560				
560.7	2.2		7	565				
565.7	4.8		8	570				
570.7	4.7		9	575				
575.7	4.5	570.0' - 601.0' Lt greenish gray & med gray	20	580				
581.4	3.6	bands qtzite & arg qtzite. Core mostly						
584.1	2.7	broken 565.0' to end of box, especially	1	585				
589.1	4.7	569.0' - 570.0', 576.0' - 581.0', W/some						
590.0	0.9	gg at 583.0' & 584.0'.	2	590				
596.0	4.7	Small peices qtz at 589.5' & at 596.0'.	3	595				
End Box 16								
601.3	2.0		4	600				
604.0	1.8		5	605				
606.0	0.9	601.0' - 640.0' Lt to med gray mostly arg						
609.4	1.9	qtzite. Mostly thin beds.	6	610				
611.3	1.0	Mostly broken core 601.0' - 616.0' W/slip	7	615				
616.3	4.8	zones at 604.0', 611.3'(some gg), 616.0',						
618.9	1.4	624.0' & 640.4'.	8	620				
624.0	3.5	½" qtz at 615.0' & 629.0'.	9	625				
625.7	1.5	Small stgr sid at 632.5'.	30	630				
630.6	5.0		1	635				
635.5	4.9		2	640				

DIAMOND DRILL RECORD

RECEIVED SEP 24 1956

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3280
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
640.4	4.9		E 3033	640-645				
End Box 17								
642.8	1.5							
647.4	3.0		4	650				
652.4	4.7		5	655				
656.4	3.3		6	660	5.0	1.1		
661.4	2.5		7	665				
666.4	5.0		8	670				
671.4	5.0		9	675				
676.4	5.0		40	680				
681.4	4.9							
End Box 18		640.0' - 760.0' Mostly med gray qtzite.						
683.3	1.9	Badly broken, faulted, 642.0' to 661.4',	1	685				
688.3	4.7	especially at 652.0' to 653.0', 654.0' to	2	690				
694.0	4.6	655.0' and 661.0' to 661.4', W/2" sid at	3	695				
699.5	4.8	653.0' and small pieces broken sid W/some	4	700				
705.5	5.0	tetra 659.0' - 660.0'.	5	705				
709.5	3.9	Several small dk streaks tetra(?) 654.0'	6	710				
714.5	4.8	to 661.0'.	7	715				
719.2	4.7	Slips at 671.0', 676.0', 681.4', 688.3'	8	720				
720.2	1.0	& 705.5'.						
End Box 19		6" qtz at 714.5'.						
721.8	1.3		9	725				
726.6	4.7							
728.4	1.8		50	730				
733.8	4.8		1	735				
736.8	1.5		2	740				
741.0	4.0		3	745				
746.0	4.7							
750.0	4.0		4	750				
755.0	4.8	END OF HOLE	5	755				
End Box 20								
760.0	4.9		6	760				

TROPARI SURVEY

Depth	Mag. Bear	True Bear	Dip
0		N. 22° E.	Flat
200	N. 01° W.	N. 20° E.	- 7°
400	N. 02° W.	N. 19° E.	- 6°
700	N. 10° W.	N. 11° E.	- 8°

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

Month of July, 1956 Docket No. DMEA 2879 Contract No. IDM-E541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 Contracts:						
Short Hole Core Drilling 829.8 @ $4.50	$ 3734.10	$ 56616.75	$ 60350.85	3734.10	56616.75	60350.85
~~Bulldozing~~ Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting		21857.06	21857.06		21857.06	21857.06
Drifting 16.9 @ $48.78	824.38	467355.27	468179.65	824.38	467355.27	468179.65
Sideswipe		27532.35	27532.35		27532.35	27532.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 4558.48	$ 603609.69	$ 608168.17	4558.48	603609.69	608168.17

Betty

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

Date 8-7-56 *Payee Polaris Mining Company

Per [signature] Title President

*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)

RECEIVED AUG 27 1956

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

$ 2279.24

Signature [signature] (Authorized Certifying Officer)

Date 8-20-56 Vou. No. 1842

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 8-16-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Wing G. Agnew Title Acting Exec Date 8-20-56

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 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1956 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (and incidental Silver)

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	feet	$ 824.38	16.9	$ 468179.65	9386.4	49.88	10725	$ 51.00 *
Crosscutting				21879.06	437.3	49.98		
Raising				30248.26	324.1	93.33	330	93.33 *
~~xxxxx~~ Sideswiping				27532.35	1079.7	25.50	1560	25.50 *
Winzes								
Drilling: Core		3734.10	829.8	60350.85	13411.3	4.50	15200	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
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 8-7-56 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ Eric G Erickson

RECEIVED
AUG 27 1956

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 872894

DMEA

HECLA MINING COMPANY

P. O. BOX 320
WALLACE, IDAHO

RECEIVED

August ten
1956

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report
Polaris East Exploration Project - July, 1956
Docket DMEA - 2879
Contract No. 1 DM-E541

Gentlemen:

As noted in the June progress report, work in the main heading was suspended to permit diamond drilling and the work was not resumed until the last week in July. Total advance during the period was 16.9 feet.

Diamond drill hole No. 3279 was drilled northeasterly to explore the possible easterly extension of the zone of weak quartz-siderite-pyrite stringers at 355 to 375 feet in Hole 3278. The hole reached a total depth of 494.7 feet and encountered a zone of small pyritic stringers between 415 to 440 feet which gave sludge assays of 1.2 to 2.5 ozs. silver. Minor tetrahedrite is visible in the core at depths of 428 and 432 feet. The location of the hole and the sludge assays are shown on the attached map. A log of the hole is enclosed.

Other diamond drilling during July included deepening Hole 3275 and starting Hole 3280. Hole 3275 was extended 122.9 feet to a total depth of 778.3 feet to further explore the indicated mineralized zone. Sludge assays of 0.5 and 0.9 oz. silver indicate only very minor mineralization. A log of the completed hole is enclosed. Hole 3280 is being drilled northeasterly from the north crosscut at station SS 3064 to explore the mineralized zone at a point about midway between Holes 3275 and 3277. The hole reached a depth of 212.2 feet at the end of July. It is expected to intersect the projected zone at a depth of about 600 feet.

The present plans are to continue the main heading on line approximately 740 feet beyond the face as of July 31 to a point 300 feet east of the west end line of the Pride of the Rockies claim. Short crosscuts will be driven at desired intervals to provide for diamond drilling both to the north and south of the lateral.

Yours very truly,

H. E. Harper

H. E. Harper
Chief Geologist

HEH:mm

Enclosure

Note: All sludges are trace no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-20-56
Finished 7-10-56
Hole Size EX
Depth 778.3
% Core Rec. 78

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3064 + 21.0' N.
Logged by JGS & AHS Date 5-3-56
Drilled by Holten, Hauser & Walker

Hole No. 3275
Level 3000
Grid 289
Latitude 84 786 S.
Departure 91 884 E.
Elevation - 283
Bearing (See Survey
Inclination Last Page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.1		E 2328	0 - 5				
10.0	4.4		9	10				
15.0	4.2		30	15				
20.0	4.6		1	20				
25.0	4.7	0.0' - 65.0' Mostly hard med gray blchd arg	2	25				
30.0	4.8	qtzite. Few zones up to 1' wide are highly	3	30				
35.0	3.5	silic. Occas narrow dk gray bands. Occas	4	35				
End Box 1		bands dism sid. Small fault at 50.0'. 1"						
40.0	4.3	qtz at 57.0'	5	40				
45.0	4.8		6	45				
50.0	4.7		7	50				
55.0	5.0		8	55				
60.0	4.3		9	60				
65.0	4.5		40	65				
		65.0' - 73.0' Mostly hd tan blchd qtzite.						
70.0	4.1	Some narrow more argillaceous zones. Occas	1	70				
End Box 2		bands dism sid. Few dk gray bands. Few						
		thin chl sms.						
75.0	3.5		2	75				
80.0	4.3	73.0' - 83.0' Lt grn blchd arg qtzite.	3	80				
85.0	3.7		4	85				
90.0	4.0		5	90				
95.0	4.0		6	95				
100.0	3.5		7	100				
105.0	4.2		8	105				
110.0	3.6	83.0' - 155.0' Abt eql amts hd lt gray	9	110				
End Box 3		blchd qtzite & softer lt grn blchd arg						
115.0	1.6	qtzite, thin ser sms thruout. Occas narrow	50	115				
120.0	3.8	bands dism sid thruout. Occas zones W/few	1	120				
125.0	3.2	scat py xtals. Occas thin chl sms thruout.	2	125				
130.0	4.2	3" shear zone W/some qtz, ser, very fine	3	130				
135.0	4.1	grained py (?) & specks sid. Driller reports	4	135				
140.0	4.0	Fault at 89.0'. Small fault at 105.5'. 1"	5	140				
145.0	4.2	qtz at 110.5'.	6	145				
150.0	3.8		7	150				
155.0	4.2		8	155	5.0	0.2		
End Box 4								
161.1	5.0		9	160				
166.1	4.6		60	165				
170.8	4.1		1	170				
176.0	4.3		2	175	5.0	0.2		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by _____ Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
181.0	4.6		E 2363	175-180				
186.4	4.7		4	185				
191.3	4.9		5	190	5.0	0.4		
End Box 5		155.0' - 230.0' Lt grn blchd arg qtzite.	6	195				
196.3	5.0	Some thin beds soft lt grn blchd arg. Occas						
201.4	4.8	narrow bands dism sid. Few thin ser sms.	7	200				
206.4	5.0	Few thin chl sms. Small fault at 170.0'.	8	205				
211.0	4.7	Small slips at 201.0'. ½" qtz at 226.0'.	9	210				
216.0	5.0		70	215				
221.0	3.9		1	220				
226.0	4.5		2	225				
End Box 6								
231.0	4.6		3	230				
233.8	2.0		4	235				
238.9	4.6		5	240				
243.8	4.9		6	245				
248.8	4.1		7	250				
254.0	1.4		8	255				
259.5	1.9		9	260				
264.5	4.9	230.0' - 309.0' Hd med gray blchd arg	80	265				
269.5	5.0	qtzite. Occas thin dk gray bands. Few thin	1	270				
End Box 7		chl sms. Small black slip at 263.0'. Small						
274.5	4.3	slip at 293.0'. Small sid stgrs, some qtz	2	275				
279.5	4.0	& ser at 297.0'. ½" qtz, specks sid at	84	280				
284.5	4.2	303.0'. 1" qtz, specks sid at 306.0'. Small	5	285				
289.5	3.4	fault at 308.0'	6	290				
294.5	3.0		7	295				
299.5	2.2		8	300				
303.0	2.5		9	305	5.0	0.2		
306.0	1.7							
309.0	3.0		90	310				
End Box 8								
		309.0' - 313.0' Lt grn blchd arg qtzite, some lt gry blchd qtzite. ½" qtz & some sid at 311.0'.						
314.0	4.6	313.0' - 353.0' Lt gray blchd qtzite, arg	1	315				
318.8	4.6	to 321.0'. Silic from 321.0' to 353.0'. ½"	2	320	5.0	0.6		
324.1	4.6	qtz vein at 321.5'; 1" qtz carb vein at	3	325				
329.1	4.5	323.8'; thin short streaks dk gray magnetite	4	330				
334.7	1.6	or sulphide 1½" wide at 324.6'; ½" qtz at	5	335				
339.7	4.0	327.5'; ½" qtz at 347.0' followed by 1' dism	6	340				
345.0	4.1	py. Broken from 348.0' - 350.0'.	7	345				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
350.0	3.9		E 2398	345-350				
End Box 9								
			9	355				
360.0	7.3		E 2400	360				
361.3	1.2		1	365				
366.3	4.0		2	370				
371.4	4.6		3	375				
376.0	3.9	353.0' - 392.0' Lt gray qtzite. Bleached.	4	380				
380.5	3.7	All argillaceous. Few magnetite specks 368'.	5	385				
385.5	4.0							
389.0	2.8		6	390				
391.5	1.6							
End Box 10								
394.0	1.3		7	395				
398.6	2.1		8	400				
401.4	1.5		9	405				
412.0	6.8	392.0' - 438.5' Blchd lt gray arg qtzite	10	410				
414.9	2.1	392.0' to 426.0'. Purp from 426.0' to	1	415				
420.0	2.6	438.5'. Silic but W/arg bands from 415.0'	2	420				
425.0	2.9	thru 428.5' and from 431.0' - 438.0'. ½"	3	425				
426.3	0.4	qtz at 419.0'; 3" qtz at 419.5'.	4	430				
430.5	3.6		5	435				
435.5	4.5							
438.5	2.3		6	440				
End Box 11								
442.0	2.0		7	445				
446.2	2.9		8	450				
451.8	3.2							
453.8	2.4	438.5' - 479.5' Purp from 438.5' to 442.0'.	9	455				
458.1	4.7	Mod silic from 453.0' to 458.0'. Remainder	20	460				
463.1	4.4	arg. ½" qtz 457.7'; gg at 457.9'. Lt gray	1	465				
468.4	3.9	from 442.0' to 479.5'.	2	470				
473.8	3.9		3	475				
478.7	2.4		4	480				
End Box 12								
484.0	4.0		5	485				
485.3	0.7		6	490				
490.3	1.3							
492.0	1.0							
495.0	2.6		7	495				
497.5	1.2		8	500				
502.3	2.1	479.5' - 526.0' Lt to med gray blchd arg	9	505				
506.0	2.2	qtzite. Silic from 490.3' to 492.0'; 494.0'-						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
507.8	0.6	496.0'; 502.0' - 520.0'. Dism. 3/16" py	E 2430	505-510				
512.6	4.5	cubes at 508.0'.						
514.6	1.4		1	515				
519.5	4.8		2	520				
524.0	2.8		3	525				
525.3	0.5		4	530				
End Box 13								
530.3	3.1		5	535				
535.3	4.5		6	540				
540.3	4.5		7	545				
545.3	4.1		8	550				
550.3	4.4	526.0' - 565.0' Lt gray arg qtzite. Blchd.						
551.2	1.0	Silic from 555.0' to 564.0'.	9	555				
555.5	2.7							
559.5	1.7		40	560				
564.3	3.5		1	565				
End Box 14								
567.4	1.2		2	570				
571.8	2.2		3	575				
576.8	4.2		4	580				
581.6	3.2	565.0' - 615.0' Med gray blchd qtzite.	5	585				
586.4	3.9	silic from 571.0' to 591.0'. 6" qtz at	6	590				
592.6	1.7	573.0'; dism sid & possible magnetite at	7	595				
598.1	4.6	580.0'. gg at 609.0' and 615.0'.	8	600				
603.2	3.8		9	605				
609.0	3.6		50	610				
615.3	4.5		1	615				
End Box 15								
			2	620				
625.0	0.1	615.0' - 655.4' Hd grnish gray blchd arg	3	625				
629.0	4.0	qtzite. Few thin chl sms. No core from	4	630				
638.0	3.4	615.0' to 625.0'. Poor core recovery from	5	635				
645.0	2.3	625.0' to 655.0'. Much of it is badly	6	640				
650.0	4.2	broken. Some faulting from 628.0' to 638.0'.	7	645				
655.4	2.6	Shearing at 639.0'. Shearing 645.0' to	8	650				
End Box 16		650.0'. Shearing 655.0'.	9	655				
		HOLE 3275 EXTENDED TO 778.3' FROM 7-3-56 to 7-10-56.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.
Logged by: Date:
Drilled by:

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
657.2	1.3		E 2881	655-660	5.0	0.4		
660.5	2.5	655.0' - 732.0' Mostly hd med gray blchd	2	665				
665.5	3.5	qtzite. Some lt grn blchd qtzite. Some						
668.7	2.7	ser thruout.	3	670	5.0	0.9		
673.7	2.9	Shearing at 656.0'.	4	675				
678.7	4.5	Few thin dk gray sms (crushed py?) at	5	680	5.0	0.5		
683.7	4.6	666.0'.	6	685				
688.7	4.4	Some py small faults at 668.0'.	7	690	5.0	0.2		
691.7	1.3	Small fault at 675.0'.	8	695				
696.1	4.4	3" qtz stgr & 1" of py stgrs at 678.0'.	9	700				
End Box 17		Few thin dk gray sms (crushed py?) at						
701.0	4.9	684.0'.	90	705				
706.0	5.0	Few small blk slickensides at 716.0'.						
708.3	2.3	1" sid qtz W/little tetra & cpy at 720.0'.	1	710				
711.4	3.0	6" badly broken core & some gg at 729.0'.	2	715				
716.4	4.6	Small faults at 731.0'.	3	720				
721.4	4.6		4	725				
726.4	5.0							
729.1	3.2		5	730				
End Box 18								
734.1	5.0		6	735				
739.1	4.8		7	740				
744.1	5.0		8	745				
749.1	4.2		9	750				
753.7	3.4	732.0' - 778.3' Lt grn blchd arg qtzite.	2900	755				
758.7	3.6	Some badly broken core thruout. Occas	1	760				
762.8	2.6	small white carb lenses.	2	765				
766.9	4.1	Small slip at 741.0'.	3	770				
771.8	4.4	Tiny lenses py at 750.0' & at 754.0'.						
End Box 19								
774.3	2.3		4	775				
777.3	3.0							
778.3	1.0	END OF HOLE						

HOLE SURVEY BY TROPARI

Depth	Inclination	Bearing
0	0°	N 03° E (Brunton)
300	- 6°	N 09° E
700	- 4°	N 01° E

Note: All sludges are trace o[illegible]o silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 7-3-56
Finished 7-27-56
Hole Size EX
Depth 424.7
% Core Rec. 92

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3069 + 10' NE.
Logged by MWH & JGS Date 7-30-56
Drilled by Hauser & Walker

Hole No. 3279
Level 3000
Grid 301
Latitude 84 826 S.
Departure 92 506 E.
Elevation - 279'
Bearing (See Hole Survey
Inclination Last Page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.6	3.2		C 6276	0 - 5	5.0	0.3		
6.9	1.8		7	10	5.0	0.4		
10.1	2.8							
13.6	3.4		8	15	5.0	0.2		
17.0	3.0							
18.8	1.8		9	20	5.0	0.4		
23.3	4.8		80	25	5.0	0.6		
25.6	2.2	0.0' - 68.3' Blchd, mostly lt gray qtzite	1	30	5.0	0.2		
30.7	4.8	W/some slightly darker gray arg qtzite						
33.4	2.3	bands. Numerous irregular frac filled	2	35				
36.5	1.0	W/chl & some W/dk gray py.	3	40				
End Box 1		Faulting at 46.6', 58.7' & at 68.0',						
41.5	3.5	W/few pieces soft purp arg at 68.0'.	4	45				
45.6	2.0							
46.6	0.8							
48.8	1.9		5	50				
52.2	3.2							
53.5	1.3		6	55				
55.7	2.2							
58.7	2.9		7	60				
63.8	4.7		8	65				
65.6	1.6							
68.3	1.7		9	70				
70.2	1.9		90	75				
75.5	4.8							
78.6	3.0	68.3' - 83.4' Silic lt gray qtzite.	1	80				
End Box 2								
83.4	4.7		2	85				
88.5	3.8		3	90				
91.5	2.0							
94.8	2.2		4	95				
99.6	2.4		5	100				
101.9	2.3							
104.9	3.0	83.4' - 158.2' Blchd lt gray qtzite - occas	6	105				
109.9	5.0	arg band.	7	110				
115.0	4.7	Broken & sheared at 94.0', 101.5', 115.0'	8	115				
117.6	2.0	& 121.5'.						
119.3	1.4	Silic, nearly white 121.5' to 134.0'.	9	120				
122.5	1.9	Small pieces qtz at 123.0'.						
End Box 3		2" qtz stgrs W/fine grained dk py at						
124.4	2.4	125.0', 125.5' & 126.3' W/scat small streaks	6300	125				
128.6	4.7	py to 128.6'.	1	130				
132.0	3.4	Slips at 124.0', 128.0' & 132.0'.						
134.5	2.5	Small fault W/4" shearing at 152.0'.	2	135				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3279
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
138.5	4.0		C 6303	135-140				
143.5	4.9		4	145				
148.5	4.9		5	150				
153.5	5.0		6	155				
End Box 4								
158.2	4.8		7	160				
163.0	4.8	158.2' - 179.5' Blchd lt to med gray qtzite	8	165				
166.8	3.5	W/some arg qtzite.	9	170				
170.5	3.7	Brecc zone W/dk py filling frac, & a 3"						
173.5	3.0	py stgr from 171.0' to 171.8'.	10	175				
178.4	4.6	Small streaks py filling frac 170.5' -						
179.5	0.9	173.4'.	1	180				
184.5	4.5		2	185				
188.5	2.8		3	190				
193.5	4.9	179.5' - 198.0' Sheared & broken lt to med	4	195				
195.8	2.2	gray arg qtzite W/faults at 179.5', 184.5',						
End Box 5		& 193.0'.						
198.0	2.0		5	200				
202.8	4.3		6	205				
205.3	2.5							
209.0	2.9	198.0' - 230.0' Mostly hd lt gray blchd	7	210				
214.0	4.6	qtzite. Some med gray arg qtzite.	8	215				
215.5	1.5	Tiny veinlet sid some py at 200.0'.						
217.6	2.0	¼" py stgrs at 218.0'.						
219.0	1.0		9	220				
224.0	4.0		20	225				
227.6	3.6		1	230				
230.2	2.6							
End Box 6								
234.7	4.5		2	235				
239.5	4.8		3	240				
244.4	4.8		4	245				
248.7	4.3		5	250				
252.3	3.5		6	255				
257.1	4.8							
258.6	1.5		7	260				
261.1	2.5	230.0' - 305.0' Lt grayish grn blchd arg						
263.3	2.0	qtzite.	8	265				
End Box 7		Small fault at 234.0'.						
268.2	1.4	Small fault W/some chl at 269.0'.	9	270				
271.8	3.6	Few small chl filled frac from 268.0' to	30	275				
275.2	3.2	277.0'.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3279
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Cu	% Zn
277.6	2.1	Highly silic from 292.0' to 294.0'.	C 6331	275-280				
282.6	5.0							
284.2	1.3		2	285				
288.8	4.6		3	290				
290.8	2.0		4	295				
295.6	4.8		5	300				
300.5	4.8							
End Box 8								
305.0	4.5		6	305				
310.0	5.0	305.0' - 330.0' Hd lt grnish gray to med	7	310				
315.0	5.0	gray blchd arg qtzite. Some silic thruout.	8	315				
320.0	5.0	2" qtz at 324.5'.	9	320				
324.2	3.7	3" qtz & little white carb at 327.0'.	40	325				
327.0	2.8	3" qtz little sid, ser & chl at 330.0'.	1	330				
332.0	4.4		2	335				
336.6	4.4	330.0' - 372.3' Med gray blchd arg qtzite.						
End Box 9		¼" py sid & slickenside at 337.0'.						
338.3	1.7	Occas small zones W/tiny lenses of dk gray	3	340				
342.8	4.5	min from 338.0' to 340.0'.	4	345				
347.7	4.9	Small sid veinlet W/some py at 341.0'.	5	350				
352.6	4.8	Qtz, specks sid some ser from 342.8' to	6	355				
357.6	4.3	343.3'.	7	360				
362.6	4.5	1" gg at 345.0'.	8	365				
367.9	3.0		9	370				
372.3	4.0		50	375				
End Box 10								
		372.3' - 405.0' Mostly hd lt gray blchd						
377.3	5.0	qtzite. Little hd lt gray blchd arg qtzite.	1	380				
382.2	4.9	½" sid stgr, some py small faults at	2	385				
387.1	4.6	376.0'.	3	390				
390.9	3.6	Small sid stgrs & some dk gray min in	4	395				
395.9	4.4	qtzite. (Dism py?) from 377.0' to 377.3'.						
397.4	0.4	Small fault at 381.0'.	5	400				
402.4	5.0	Few bands dk gray qtzite W/much dism py	6	405				
		& few stgrs ½" py from 391.0' to 392.0'.						
		1" sid stgr little dk gray min at 392.5'.						
406.0	3.5	405.0' - 470.0' Lt gray blchd arg qtzite.	7	410				
End Box 11		Freq thin ser sms. Little dism sid.						
411.0	4.4	3/4" py stgr at 419.5'.	8	415	5.0	0.9		
415.5	4.5	½" py stgr W/specks sid at 422.0'.	9	420	5.0	1.2		
420.2	4.5	1" py stgr W/specks sid at 425.0'.	60	425	5.0	1.2		
425.2	5.0	Sid qtz specks tetra from 427.7' to 428.0'.						
426.7	1.2	Few small py stgrs & small sid stgrs from	1	430	5.0	2.5	0.07	

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by

Hole No. 3279
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Cu	% Zn
431.7	5.0	430.0' to 431.0'.	C 6362	430-435	5.0	2.3	0.02	
436.0	4.2	Sid stgr some qtz little py little tetra	3	440	5.0	1.5		
440.6	4.5	from 431.8' to 432.2'.	4	445				
445.7	4.2	Silic from 435.0' to 460.0'.	5	450				
End Box 12		¼" sid stgr at 451.0'.						
450.6	4.9	Few small py stgrs at 455.0'.	6	455				
455.3	4.7	½" qtz at 457.0'.	7	460				
460.1	4.5	Some shearing at 463.0' W/some wh carb						
464.9	4.7	& ser.	8	465	5.0	0.4		
469.8	4.9		9	470	5.0	0.4		
474.7	4.9		70	475				
End Box 13								
479.7	5.0		1	480				
484.7	4.3	470.0' - 494.7' Hd med gray blchd qtzite.	2	485				
489.7	4.6		3	490				
494.7	3.6		4	494.7	4.7			
End Box 14								

SURVEY BY TROPARI

Depth	Bearing	Inclination
Collar	N 35° E	0° (Brunton)
200'	N 36° E	+4°
450'	N 30° E	+5°

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
JUL 23 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1956 Docket No. DMEA 2879 Contract No. IDM-E541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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:				7/27/56	W.P.K.	
Drilling core 1140.6 @ $4.50	$5132.70	51,484.05	$ 56,616.75	5132.70	51484.05	56616.75
Bulldozing xxxxxx Raising		30,248.26	30,248.26		30248.26	30248.26
Crosscutting 16.0 @ $48.78	780.48	21,076.58	21,857.06	780.48	21076.58	21857.06
Drifting 36.6 @ $48.78	1785.35	465,569.92	467,355.27	1785.35	465569.92	467355.27
Sideswipe		27,532.35	27,532.35		27532.35	27532.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 7698.53	$595,911.16	$603,609.69	7698.53	595911.16	603609.69

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 7-9-56 *Payee Polaris Mining Company
Per [signature] Title President

*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:
$ 3849.27
Signature M.P.
(Authorized Certifying Officer)
Date 7-20-56 Vou. No. 1827
(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. E541 in accordance with the terms of the contract.

Signature 151 Eric G. Erickson Title Mining Engr Date 7-18-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Wing G. Agnew Title Acting Exec Date 7-19-56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 23 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1956 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)

Address Box 320, Wallace, Idaho

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	feet	1785.35	36.6	$467,355.27	9369.5	49.88	10725	$51.00*
Crosscutting	"	780.48	16.0	21,857.06	437.3	49.98		
Raising	"			30,248.26	324.1	93.33	330	93.33*
~~xxxx~~Sideswiping	"			27,532.35	1079.7	25.50	1560	25.50*
Winzes								
Drilling: Core	"	5132.70	1140.6	56,616.75	12,581.5	4.50	15200	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		7698.53	✓	603609.69	✓			TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		7698.53		603609.69				685955.00

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 7-9-56 Operator Polaris Mining Company

Per [signature] Title President

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)

REMARKS:

(For Government use only)

* Maximum allowed by contract

/s/ Eric G Erickson

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 872894

P4EA

Polaris Mining Company

RECEIVED
JUL 23 1956

Wallace, Idaho
July ninth
1 9 5 6

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - June, 1956
Docket DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Advance in the main easterly heading was limited to 36.6 feet and No. 301 north crosscut was driven 16.0 feet to a point 20.2 feet north of station SS3069. Bleached light gray quartzite is exposed in this new work. Work was temporarily suspended in the main heading as announced in the report for May.

As previously reported, Hole No. 3277 was drilled 101.7 feet during June and was completed at 611.0 feet. It encountered interesting mineralization and as a result, Hole No. 3278 (see map) was drilled northerly. It was drilled 1033.5 feet and completed during June although only minor mineralization was exposed as shown on the map. A log of 3278 is enclosed.

At present former Hole No. 3275 (northerly) is being extended a sufficient length to reach the projected position of the mineralization in Hole No. 3277. Another northeasterly hole is being drilled from the set-up in 301 north crosscut. Another hole may be drilled from the 3275 set-up to prospect the area between Holes 3275 and 3277 for the zone found in Hole No. 3277. The main heading may be extended soon depending upon what the drilling reveals.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson
Vice President

RES:cb
Enclosures

Note: All sludges are trace of no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 6-7-56
Finished 7-1-56
Hole Size EX
Depth 1033.5
% Core Rec. 90

Mine SILVER SUMMIT
Location Polaris E. Expl. Dev.
SS 3069 + 20.2' N.
Logged by JGS & MWH Date 7-2-56
Drilled by Holten, Hauser, Walker

RECEIVED JUL 23 1956

Hole No. 3278
Level 3000
Grid 301
Latitude 84 814 S.
Departure 92 503 E
Elevation - 279'
Bearing (See survey
Inclination last page)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	3.0	0.0' - 75.0' Lt gry grn blchd arg qtzite.	E 2675	0 - 5				
8.8	2.8	Some dism sid thruout.						
10.0	1.2	¼" py stgr at 20.0'.	6	10				
11.0	1.0	Many chl sms. Some broken core. Occas						
14.0	0.9	slickensides from 26.0' - 30.0'. Fault zone.	7	15				
18.3	3.3	½" chl cemented breccia at 29.5'.	8	20				
22.3	4.0	Some silicification at 34.0'.	9	25				
25.3	3.0	Occas chl sms from 35.0' to 40.0'.						
29.0	3.4	Slick & chl at 48.0'.	80	30				
31.5	2.0	Small faults at right angles to core from						
33.8	2.1	50.0' to 51.0'.	1	35				
35.3	1.1	Some slick at small angle to core & chl	2	40				
40.1	2.6	sms almost // to core from 51.0' to 53.0'.						
41.3	1.1	Shearing, some slick, some blk gg, & chl	3	45				
End Box 1		almost // to core & some broken core from						
46.3	5.0	56.0' to 61.0'.						
49.1	2.5	½" qtz at 65.0'.	4	50				
50.2	0.8	Few small faults W/lt grn gg from 65.5'						
55.0	4.8	to 72.0'. 1" gg at 69.0'.	5	55				
57.3	1.9	2" dk purp to blk broken qtzite at 73.5'.	6	60				
61.6	4.3	Badly broken core & gg from 73.5' to 74.7'	7	65				
69.2	2.2	(poor recovery).	8	70				
72.5	3.3	In general from 50.0' to 75.0' is a zone						
74.7	1.5	of several small faults	9	75				
75.2	0.5		90	80				
End Box 2								
80.1	3.6							
82.4	1.8		1	85				
85.2	1.8							
89.6	4.2	75.0' - 120.0' Hd lt gray blchd qtzite.	2	90				
92.1	2.5	Slip at 85.5'.	3	95				
97.1	5.0	¼" wh carb stgr // to core at 91.0'.						
98.5	1.3	Small slips at 96.0', 98.0', 103.0',	4	100				
101.2	2.7	104.0', 105.0', 111.0' & 117.0'.	5	105				
106.1	4.9							
108.5	2.3		6	110				
115.0	5.0		7	115				
End Box 3								
117.8	2.8		8	120				
121.7	3.9							
125.0	3.3	120.0' - 162.0' Hd lt grn blchd arg qtzite.	9	125				
127.0	2.4	Many thin ser sms.	2700	130				
132.0	5.0	4" lt grn gg & badly broken core at 126'.						
135.0	3.0	Chl cemented shear zone from 135.4' to	1	135				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
140.0	5.0	136.0'	E 2702	135-140				
145.0	5.0	Few slickensides, some chl & badly broken	3	145				
End Box 4		core from 138.0' to 140.0'.						
147.6	1.5	Small fault much chl at 140.5'.	4	150				
150.2	1.7	Some carb & little chl from 140.0' to						
154.1	2.9	162.0'.	5	155				
156.3	1.8		6	160				
160.2	3.0							
162.4	1.4		7	165				
165.2	2.8	162.0' - 176.0' Med gray hd blchd qtzite.						
170.0	4.0	Some carb from 162.0' to 165.0'.	8	170				
173.5	3.2		9	175				
176.4	2.3							
178.6	2.2	176.0' - 190.0' Hd lt grn blchd arg qtzite.	10	180				
181.6	3.0	Shearing at 177.0'.	1	185				
End Box 5		Some shearing, little chl from 179.0' to						
185.2	3.5	181.0'.	2	190				
		190.0' - 218.0' Mostly hd gray blchd qtzite.						
191.1	4.5	Some softer greenish arg qtzite.						
193.8	2.4	Lt grn gg 191.1' to 191.7'.	3	195				
196.9	3.1	Little dk purp gg at 192.0'.	4	200				
200.6	3.7	Blk slick at 194.5'.						
203.9	3.3	1" broken blk qtzite at 195.0'.	5	205				
207.9	3.8	Few thin chl sms thruout.	6	210				
213.3	5.0	Few thin bands dism sid thruout.	7	215				
		Small fault at 217.0'.						
218.3	4.9		8	220				
223.3	4.8		9	225				
End Box 6								
227.3	3.4		20	230				
232.3	4.9		1	235				
235.6	3.3	218.0' - 301.0' Blchd lt to med gray, mostly						
239.1	2.9	qtzite.	2	240				
241.3	2.2	Badly frac, some tiny dk gray streaks py,	3	245				
245.8	4.0	222.0' - 232.0'.						
247.6	1.8	½" sid at 221.5'.	4	250				
250.4	2.6	½" sid, py // to core at 240.0'						
253.8	3.3	Slip zone at 231.0', 239.0', 241.0' and	5	255				
End Box 7		253.0'.						
256.8	2.7	2" qtz at 254.5'.						
259.5	1.2	Very light silic qtzite 255.0' - 257.0'.	6	260				
261.6	2.0	Core from 256.8' - 259.5 is mostly broken	7	265				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.
Logged by: Date:
Drilled by:

RECEIVED JUL 23 1956

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
266.2	4.6	white qtz.						
269.2	3.0	Fault zone 291.5' to 293.5' W/smaller	E 2728	265-270				
272.8	1.2	slips and faults at 262.0', 278.0' & 283.0'.						
274.2	1.2		9	275				
278.0	2.8		30	280				
283.0	5.0		1	285				
287.0	4.0		2	290				
291.8	4.8		3	295				
End Box 8								
296.8	4.8		4	300				
301.5	4.7		5	305				
306.5	4.6		6	310				
311.5	4.7							
314.6	3.0		7	315				
316.8	2.1	301.0' - 352.0' Lt gray & gray green blchd	8	320				
320.3	2.7	qtzite. Some narrow arg bands.						
324.1	3.3	Slip zones at 302.0', 314.0' 319.0' and	9	325				
327.3	3.2	320'.	40	330				
333.3	1.5	Badly broken, considerable loss of core	1	335				
End Box 9		327.0' - 333.0' - probable fault zone.						
338.3	5.0		2	340				
342.8	4.5		3	345				
347.7	4.7		4	350				
		352.0' - 405.0' Mostly med gray qtzite.						
352.2	5.0	Some lt gray qtzite. 3" py, some sid at	5	355				
357.2	4.9	356.0'.						
359.0	1.7	Slip zone W/broken qtz, small stgrs sid	6	360	5.0	0.9		
364.0	5.0	& py, W/possible sulfides 357.2' to 358.0'.	7	365				
366.8	2.2	(Whole zone from 355.0' to 361.0' shows	8	370				
End Box 10		scat small py stgrs.)						
371.5	4.7	6" qtz at 365.0', 2" same at 367.0'.	9	375	5.0	0.4		
376.5	4.9	3" sid, py, some dk sulfides at 373.0'.	50	380				
380.6	4.1	Core is mostly qtz W/occas streak py from	1	385				
385.7	5.0	384.5' to 387.0'.	2	390	5.0	0.2		
390.5	4.9	Same from 389.0' to 390.5'.						
395.0	4.4	Several ½"-1" py stgrs 387.0' - 389.0' &	3	395	5.0	0.2		
400.8	4.9	390.5' to 392.0', and 400.0' to 402.0'.	4	400				
		Mostly broken qtz 402.5' to 404.5'.						
405.3	4.4		5	405	5.0	0.2		
End Box 11								
409.6	4.3	405.0' - 429.0' Lt gray & gray grn qtzite -	6	410				
414.5	4.7	silic nearly white W/numerous bands white	7	415				
418.0	3.5	qtz 410.0' - 423.0'.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
Logged by Date
Drilled by

RECEIVED JUL 23 1956

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
420.0	2.0	Shows prominent mottling from dism sid	E 2758	415-420	5.0	0.2		
423.0	3.0	418.0' - 423.0'.	9	425	5.0	0.2		
427.7	4.7		60	430				
432.0	4.3		1	435				
437.0	4.9		2	440				
442.0	3.4		3	445				
447.0	4.7		4	450				
452.0	5.0		5	455				
457.0	5.0	429.0' - 513.0' Med to dk gray blchd qtzite.	6	460				
662.2	5.0	Some dism sid & few small bands dism py	7	465				
467.0	4.8	from 452.0' to 454.0' & from 478.0' to 488.0'.	8	470				
472.0	4.8	Small fault at 454.0' & at 491.0'.						
473.2	1.2	Highly silic from 493.0' to 513.0'.	9	475				
End Box 13		Little py at 514.0'.						
477.7	3.4							
478.9	1.2		70	480				
483.4	1.0		1	485				
485.4	1.5		2	490				
490.2	4.6							
493.6	3.3		3	495				
498.7	5.0		4	500				
503.4	4.7		5	505				
508.2	4.8		6	510				
513.2	5.0		7	515				
End Box 14		513.0' - 553.0' Mostly hd lt gray blchd						
518.8	4.7	qtzite. Minor amts softer greenish arg	8	520				
523.8	4.6	qtzite. Occas thin ser sms. Some silic	9	525				
525.8	1.7	thruout.						
528.8	2.0	Slip at 334.0'	80	530				
533.8	4.1	Little dism sid & py at 544.0'.	1	535				
540.0	1.0	Some shearing from 547.5' to 548.0'.	2	540				
544.1	2.6	Dism sid from 548.0' to 548.5'.	3	545				
548.3	3.9	Dism sid at 550.0'.	4	550				
552.6	5.0	Shearing from 551.0' to 552.5'.	5	555				
End Box 15								
557.8	5.0		6	560				
561.7	3.4		7	565				
566.2	4.5	553.0' - 601.0' Mostly lt grn blchd arg						
568.1	1.7	qtzite. Little med gray arg qtzite.	8	570				
571.3	3.2	Silic from 572.0' to 596.0'.						
573.5	1.8	2" qtz specks sid at 575.0'	9	575				
576.5	2.8	Very poor core recovery, some badly broken						
579.0	1.3	core from 579.0' to 589.0'.	90	580				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
584.4	0.6	Massive qtz, specks sid & little ser from	E 2791	580-585				
589.4	1.4	590.0' to 591.0'.	2	590				
592.8	3.3	½" qtz, little fine gr py & possibly little	3	595				
596.2	2.4	tetra (?) 595.0'.	4	600				
End Box 16								
		601.0' - 619.0' Mostly hd lt gray blchd arg qtzite. Some hd lt gray blchd qtzite.						
601.1	4.9	Brecciated qtzite W/some lt gray gg from	5	605				
606.1	5.0	605.3' to 606.3'.	6	610				
610.4	3.7	2" same at 607.0'.						
613.8	3.2	4" badly broken core W/much gg at 610.0'.	7	615				
618.8	4.9	Small qtz stgrs W/some ser at 614.0'.	8	620				
		3" qtz some ser, & small fault at 618.5'.						
620.8	1.6		9	625				
625.8	4.4	619.0' - 635.0' Lt grn blchd arg qtzite.	2800	630				
630.8	4.8	Little dism sid.	1	635				
635.4	3.7		2	640				
End Box 17								
640.5	4.3		3	645				
645.5	4.8		4	650				
650.5	3.6		5	655				
655.5	4.3		6	660				
660.7	5.0		7	665				
665.1	4.4	635.0' - 743.0' Abt eql amts hd lt gray	8	670				
670.1	4.8	blchd arg qtzite & lt gray blchd qtzite.						
End Box 18		Little dism sid.						
674.9	4.5	½" gg at 636.0'	9	675				
679.8	4.6	Black slickenside // to core at 637.0'.	10	680				
684.1	4.3	Badly broken core from 637.0' to 639.0'.	1	685				
689.0	4.7	Black slickenside at 642.0'.	2	690				
694.0	5.0	Broken core & small faults W/dk gray gg	3	695				
698.7	4.2	from 643.0' to 644.0'.	4	700				
702.8	3.9	Black slickenside at 646.0'.	5	705				
End Box 19		Black slickenside & some lt grn gg at 649'.						
707.8	4.3	1" qtz at small angle to core & W/some sid	6	710				
712.8	4.9	specks at 658.0'.	7	715				
717.8	5.0	Pieces redish brown stained qtzite at 700'.	8	720				
722.8	4.8	Driller reports these are from caving in hole.	9	725				
727.8	5.0							
728.3	0.5		20	730				
733.2	4.7		1	735				
737.8	4.6		2	740				
End Box 20								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
742.8	4.7		E 2823	740-745				
747.8	4.8	743.0' - 776.0' Mostly lt gray arg qtzite	4	750				
752.8	4.8	W/thin bands med gray arg qtzite - some lt	5	755				
757.8	4.6	gray qtzite.	6	760				
762.8	4.8	Slips W/some broken qtz at 752.0' & 756.0'.	7	765				
767.8	4.9	3" white qtz at 755.0'.	8	770				
771.4	3.6		9	775				
End Box 21								
776.5	5.0		30	780				
781.5	4.9		1	785				
785.5	4.0							
786.9	1.4		2	790				
791.1	4.2	776.0' - 831.0' Blchd lt gray qtzite W/thin	3	795				
796.5	4.8	darker gray bands of arg qtzite.	4	800				
801.1	4.6	Slips at 776.0', 791.0', & 805.0'.	5	805				
805.6	4.5	3" qtz at 802.0'.	6	810				
End Box 22		Slip zone W/some qtzite breccia 814.0' to						
810.3	4.7	815.0'.	7	815				
815.5	4.9	6" qtz W/some sid at 815.0'.	8	820				
820.5	4.8		9	825				
825.3	4.9		40	830				
830.6	5.0		1	835				
835.6	4.8	831.0' - 842.0' Mostly blchd lt gray qtzite,						
839.8	4.1	some thin med gray qtzite bands.	2	840				
844.1	4.3		3	845				
848.6	4.5		4	850				
End Box 23								
853.6	5.0	842.0' - 880.0' Lt greenish gray blchd arg	5	855	5.0	0.2		
858.6	4.7	qtzite.	6	860				
863.6	5.0	Silicified from 850.0' to 855.0'.	7	865				
868.0	4.4	Little lt grn gg at 873.0'.	8	870				
872.5	4.5		9	875				
877.1	4.6		50	880				
End Box 24								
881.5	4.4		1	885				
885.9	4.4							
887.6	1.7		2	890				
891.9	4.3		3	895				
896.8	4.9		4	900				
901.7	4.9	880.0' - 935.0' Lt grn blchd arg qtzite.	5	905				
906.7	4.8	Many narrow bands dism sid. Few narrow bands	6	910				
911.9	4.8	med gray arg qtzite.	7	915				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
End Box 25		Little white gg at 991.2', badly broken						
917.9	4.8	core from 991.0' to 992.0'.	E 2858	915-920				
922.0	4.1		9	925				
925.8	3.8							
928.8	3.0		60	930				
933.4	4.3		1	935				
935.3	0.9		2	940				
940.3	5.0		3	945				
945.4	5.0							
End Box 26		935.0' - 955.0' Hd med gray blchd arg qtzite.						
949.8	4.4		4	950				
953.6	3.8		5	955				
956.6	3.0							
959.2	2.6		6	960				
966.0	4.5		7	965				
968.7	2.7		8	970				
971.3	2.0							
975.0	2.7		9	975				
980.0	4.9		70	980				
End Box 27								
982.2	1.3	955.0' - 1015.0' Lt grn blchd arg qtzite.						
984.9	2.2	Occas bands dism sid. Much ser.	1	985				
987.3	2.4	Small irreg sid stgr at 998.0'.	2	990				
990.7	2.5	½" small irreg sid stgr at 1000.0'.						
991.7	1.0	Silic at 1013.0'.						
994.2	3.0		3	995				
997.0	1.3		4	1000				
1000.4	3.4							
1004.0	3.6		5	1005				
1008.8	4.8		6	1010				
1013.8	4.2		7	1015				
End Box 28								
1017.0	2.5							
1019.0	2.0		8	1020				
1024.0	4.9	1015.0' - 1033.5' Blchd banded lt gray &	9	1025				
1027.1	3.1	gray green qtzite & arg qtzite. Thin beds.						
1029.5	2.4	Slips at 1019.0', 1024.0' & 1033.0'.	80	1030				
1033.5	4.0							
End Box 29								
		END OF HOLE						
		For Hole Survey by Tropari see page 8						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3278
Level 3000
Grid 301
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		HOLE SURVEY BY TROPARI						
		Depth / Inclination / Bearing						
		0 / 0° / N 05 E (Brunton)						
		300 / + 1° / N 08½ E						
		600 / + 9° / N 08 E						
		900 / + 10° / N 17 E						

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

1201 N. Division St.
Spokane 2, Washington
June 25, 1956

RECEIVED
JUL 19 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The exploration project work was inspected June 19, 1956 accompanied by Mr. George C. Selfridge, Chairman, DMEA Operating Committee, Washington, D.C., Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, NW Dist., and Mr. M. Hutchinson, company mine geologist.

The 3000 level east exploration project was inspected after a brief look at the underground hoist, compressor and electrical installations. The entire east drift was traversed and interesting sections were examined. These sections included the small ore shoots found below the Coeur d'Alene mine including the "wire silver vein" and the present drill site. The drifting had been stopped at a point 276.1 feet beyond survey station No. SS-3068 to allow a couple more core drill holes to be drilled to check the mineralization found in the last northerly hole drilled. Should other holes prove the mineralized structure cut warrants further investigation it appears it would be best to explore it by crosscutting and drifting rather than continue the present course of the eastward drive. The face of the drift was in bleached, light-gray quartzite devoid of any significant ore mineralization.

Following is a tabulation of the work items, number of units authorized and units completed:

	Authorized	Completed
Drifting and/or crosscutting	10,725 ft.	9,806.8 ft. *
Raising	330 "	324.1 "
Sideswiping	1,560 "	1,079.7 "
Core drilling	15,200 "	11,440.9 "

*Includes 437.3 ft. crosscutting

E. G. Erickson

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Engr.
M/D

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

RECEIVED
BUREAU OF MINES
JUL 3 - 1956
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1956 Docket No. DMEA 2879 Contract No. IDM - E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:				4/16/56	WPK	
Drilling Core 1132.5 @ $4.50	$5096.25	46387.80	$ 51484.05	5096.25	46387.80	51484.05
Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting 41.8 @ $48.78	2039.00	19037.58	21076.58	2039.00	19037.58	21076.58
Drifting 280.5 @ $48.78	13682.79	451887.13	465569.92	13682.79	451887.13	465569.92
Sideswipe 10.0 @ $ 25.50	255.00	27277.35	27532.35	255.00	27277.35	27532.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$21073.04	$574838.12	$595911.16	21073.04	574838.12	595911.16

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

Date JUN 29 1956 *Payee Polaris Mining Company

Per John R. Matthews Title Secretary

*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)

RECEIVED
JUL 13 1956

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

$ 10,536 52

Signature MDP
(Authorized Certifying Officer)

Date 7-10-56 Vou. No. 1816
(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 541 in accordance with the terms of the contract.

Signature /S/ Stephen W Zoldok Title Mining Engr Date 7-9-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Wing G Agnew Title Acting Exec. Date 7-9-56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1956 Docket No. DMEA 2879 Contract No. IDM - E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)

Address Box 320 Wallace, Idaho

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	feet	$13682.79	280.5	$465569.92	9332.9	49.88)	10725	$ 51.00*
Crosscutting	"	2039.00	41.8	21076.58	421.3	50.03)		
Raising	"			30248.26 ✓	324.1	93.33	330	93.33*
~~Slats~~ Sideswiping	"	255.00	10.0	27532.35 ✓	1079.7	25.50	1560	25.50*
Winzes								
Drilling: Core	"	5096.25	1132.5	51484.05 ✓	11440.9	4.50	35200	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 JUN 29 1956 Operator Polaris Mining Company

Per John R. Martinez Title Secretary

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)

REMARKS:

(For Government use only)

*Maximum allowed by contract

/s/ S. W. Zoldok

RECEIVED
JUL 13 1956

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 872894

Note: All sludges are trace no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-20-56
Finished 5-6-56
Hole Size EX
Depth 655.4
% Core Rec. 74

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3064 + 21.0' N.
Logged by JGS & AHS Date 5-3-56
Drilled by Holten, Hauser & Walker

Hole No. 3275
Level 3000
Grid 289
Latitude 84 786 S.
Departure 91 884 E.
Elevation - 283
Bearing N 3° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.1		E 2328	0 - 5				
10.0	4.4		9	10				
15.0	4.2		30	15				
20.0	4.6		1	20				
25.0	4.7	0.0' - 65.0' Mostly hard med gray blchd arg	2	25				
30.0	4.8	qtzite. Few zones up to 1' wide are highly	3	30				
35.0	3.5	silic. Occas narrow dk gray bands. Occas	4	35				
End Box 1		bands dism sid. Small fault at 50.0'. 1"						
40.0	4.3	qtz at 57.0'	5	40				
45.0	4.8		6	45				
50.0	4.7		7	50				
55.0	5.0		8	55				
60.0	4.3		9	60				
65.0	4.5		40	65				
		65.0' - 73.0' Mostly hd tan blchd qtzite.						
70.0	4.1	Some narrow more argillaceous zones. Occas	1	70				
End Box 2		bands dism sid. Few dk gray bands. Few						
		thin chl sms.						
75.0	3.5		2	75				
80.0	4.3	73.0' - 83.0' Lt grn blchd arg qtzite.	3	80				
85.0	3.7		4	85				
90.0	4.0		5	90				
95.0	4.0		6	95				
100.0	3.5		7	100				
105.0	4.2		8	105				
110.0	3.6	83.0' - 155.0' Abt eql amts hd lt gray	9	110				
End Box 3		blchd qtzite & softer lt grn blchd arg						
115.0	1.6	qtzite, thin ser sms thruout. Occas narrow	50	115				
120.0	3.8	bands dism sid thruout. Occas zones W/few	1	120				
125.0	3.2	scat py xtals. Occas thin chl sms thruout.	2	125				
130.0	4.2	3" shear zone W/some qtz, ser, very fine	3	130				
135.0	4.1	grained py (?) & specks sid. Driller reports	4	135				
140.0	4.0	Fault at 89.0'. Small fault at 105.5'. 1"	5	140				
145.0	4.2	qtz at 110.5'.	6	145				
150.0	3.8		7	150				
155.0	4.2		8	155	5.0	0.2		
End Box 4								
161.1	5.0		9	160				
166.1	4.6		60	165				
170.8	4.1		1	170				
176.0	4.3		2	175	5.0	0.2		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by _____ Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
181.0	4.6		E 2363	175-180				
186.4	4.7		4	185				
191.3	4.9		5	190	5.0	0.4		
End Box 5		155.0' - 230.0' Lt grn blchd arg qtzite.	6	195				
196.3	5.0	Some thin beds soft lt grn blchd arg. Occas						
201.4	4.8	narrow bands dism sid. Few thin ser sms.	7	200				
206.4	5.0	Few thin chl sms. Small fault at 170.0'.	8	205				
211.0	4.7	Small slips at 201.0'. ½" qtz at 226.0'.	9	210				
216.0	5.0		70	215				
221.0	3.9		1	220				
226.0	4.5		2	225				
End Box 6								
231.0	4.6		3	230				
233.8	2.0		4	235				
238.9	4.6		5	240				
243.8	4.9		6	245				
248.8	4.1		7	250				
254.0	1.4		8	255				
259.5	1.9		9	260				
264.5	4.9	230.0' - 309.0' Hd med gray blchd arg	80	265				
269.5	5.0	qtzite. Occas thin dk gray bands. Few thin	1	270				
End Box 7		chl sms. Small black slip at 263.0'. Small						
274.5	4.3	slip at 293.0'. Small sid stgrs, some qtz	2	275				
279.5	4.0	& ser at 297.0'. ½" qtz, specks sid at	84	280				
284.5	4.2	303.0'. 1" qtz, specks sid at 306.0'. Small	5	285				
289.5	3.4	fault at 308.0'	6	290				
294.5	3.0		7	295				
299.5	2.2		8	300				
303.0	2.5		9	305	5.0	0.2		
306.0	1.7							
309.0	3.0		90	310				
End Box 8								
		309.0' - 313.0' Lt grn blchd arg qtzite, some lt gry blchd qtzite. ½" qtz & some sid at 311.0'.						
314.0	4.6	313.0' - 353.0' Lt gray blchd qtzite, arg	1	315				
318.8	4.6	to 321.0'. Silic from 321.0' to 353.0'. ½"	2	320	5.0	0.6		
324.1	4.6	qtz vein at 321.5'; 1" qtz carb vein at	3	325				
329.1	4.5	323.8'; thin short streaks dk gray magnetite	4	330				
334.7	1.6	or sulphide 1½" wide at 324.6'; ½" qtz at	5	335				
339.7	4.0	327.5'; ½" qtz at 347.0' followed by 1' dism	6	340				
345.0	4.1	py. Broken from 348.0' - 350.0'.	7	345				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
350.0	3.9		E 2398	345-350				
End Box 9								
			9	355				
360.0	7.3		E 2400	360				
361.3	1.2		1	365				
366.3	4.0		2	370				
371.4	4.6		3	375				
376.0	3.9	353.0' - 392.0' Lt gray qtzite. Bleached.	4	380				
380.5	3.7	All argillaceous. Few magnetite specks 368'.	5	385				
385.5	4.0							
389.0	2.8		6	390				
391.5	1.6							
End Box 10								
394.0	1.3		7	395				
398.6	2.1		8	400				
401.4	1.5		9	405				
412.0	6.8	392.0' - 438.5' Blchd lt gray arg qtzite	10	410				
414.9	2.1	392.0' to 426.0'. Purp from 426.0' to	1	415				
420.0	2.6	438.5'. Silic but W/arg bands from 415.0'	2	420				
425.0	2.9	thru 428.5' and from 431.0' - 438.0'. ½"	3	425				
426.3	0.4	qtz at 419.0'; 3" qtz at 419.5'.	4	430				
430.5	3.6		5	435				
435.5	4.5							
438.5	2.3		6	440				
End Box 11								
442.0	2.0		7	445				
446.2	2.9		8	450				
451.8	3.2							
453.8	2.4	438.5' - 479.5' Purp from 438.5' to 442.0'.	9	455				
458.1	4.7	Mod silic from 453.0' to 458.0'. Remainder	20	460				
463.1	4.4	arg. ½" qtz 457.7'; gg at 457.9'. Lt gray	1	465				
468.4	3.9	from 442.0' to 479.5'.	2	470				
473.8	3.9		3	475				
478.7	2.4		4	480				
End Box 12								
484.0	4.0		5	485				
485.3	0.7		6	490				
490.3	1.3							
492.0	1.0							
495.0	2.6		7	495				
497.5	1.2		8	500				
502.3	2.1	479.5' - 526.0' Lt to med gray blchd arg	9	505				
506.0	2.2	qtzite. Silic from 490.3' to 492.0'; 494.0'-						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. 3275
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
507.8	0.6	496.0'; 502.0' - 520.0'. Dism. 3/16" py	E 2430	505-510				
512.6	4.5	cubes at 508.0'.						
514.6	1.4		1	515				
519.5	4.8		2	520				
524.0	2.8		3	525				
525.3	0.5		4	530				
End Box 13								
530.3	3.1		5	535				
535.3	4.5		6	540				
540.3	4.5		7	545				
545.3	4.1		8	550				
550.3	4.4	526.0' - 565.0' Lt gray arg qtzite. Blchd.						
551.2	1.0	Silic from 555.0' to 564.0'.	9	555				
555.5	2.7							
559.5	1.7		40	560				
564.3	3.5		1	565				
End Box 14								
567.4	1.2		2	570				
571.8	2.2		3	575				
576.8	4.2		4	580				
581.6	3.2	565.0' - 615.0' Med gray blchd qtzite.	5	585				
586.4	3.9	silic from 571.0' to 591.0'. 6" qtz at	6	590				
592.6	1.7	573.0'; dism sid & possible magnetite at	7	595				
598.1	4.6	580.0'. gg at 609.0' and 615.0'.	8	600				
603.2	3.8		9	605				
609.0	3.6		50	610				
615.3	4.5		1	615				
End Box 15								
			2	620				
625.0	0.1	615.0' - 655.4' Hd grnish gray blchd arg	3	625				
629.0	4.0	qtzite. Few thin chl sms. No core from	4	630				
638.0	3.4	615.0' to 625.0'. Poor core recovery from	5	635				
645.0	2.3	625.0' to 655.0'. Much of it is badly	6	640				
650.0	4.2	broken. Some faulting from 628.0' to 638.0'.	7	645				
655.4	2.6	Shearing at 639.0'. Shearing 645.0' to	8	650				
End Box 16		650.0'. Shearing 655.0'.	9	655				

Note: All sludges are trace c[illegible]no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5- 6-56
Finished 5-17-56
Hole Size EX
Depth 473.2
% Core Rec. 82

Mine Silver Summit
Location Polaris E. Expl. Dr.
SS3064 + 21.0' S.
Logged by JGS & AHS Date 5-20-56
Drilled by Holten, Hauser, & Walker

Hole No. 3276
Level 3000
Grid 289
Latitude 84 828 S.
Departure 91 882 E.
Elevation - 283
Bearing S. 3° W.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.5	1.0		E2460	0 - 5				
10.4	4.8		1	10				
15.3	4.9		2	15				
20.3	4.8	0.0' - 26.0' Hd lt gray blchd qtzite.	3	20				
25.5	4.4			25				
End Box 1								
30.5	4.5		5	30				
35.5	4.1	26.0' - 52.0' Lt grn blchd arg qtzite. Freq	6	35				
40.5	4.4	bands dis sid. Small stgrs wh carb W/some	7	40				
45.5	4.1	sid, qtz, & py from 34.5' to 35.0'. 1" qtz	8	45				
50.5	4.2	little sid at 51.0'.		50				
55.5	4.5		70	55	5.0	0.2		
60.5	3.9		1	60				
End Box 2		52.0' - 103.0' Hd lt gray blchd qtzite,						
65.5	4.3	W/little dis sid thruout. Little dk grn	2	65				
70.5	4.9	chl(?) staining. 1" small sid stgr at 55.0'.	3	70				
75.5	4.8	6" qtz W/few specks sid at 57.0'. Small	4	75				
78.1	2.6	fault W/some blk gg at 69.0'. 6" zone of	5	80				
80.5	2.4	chl filled tight frac at 93.0'. Many small	6	85				
85.4	4.8	chl filled frac from 97.0' to 100.0'.	7	90				
90.5	4.5	Slcikenside at 102.0'. ½" qtzite breccia	8	95				
95.6	4.9	W/much chl at 102.5'.	9	100				
End Box 3								
100.6	4.5							
103.6	2.1		80	105				
108.6	4.1		1	110				
113.6	4.2		2	115				
118.6	4.4	103.0' - 139.0' Mostly olive grn blchd arg	3	120				
123.6	4.0	qtzite. Some hd lt grnish gray blchd qtzite.	4	125				
128.6	4.4	Occas thin chl sms thruout. 1" qtz W/little	5	130				
133.6	4.4	sid at 107.0'.	6	135				
End Box 4								
139.0	4.7		7	140				
143.5	4.5		8	145				
148.5	4.3		9	150				
153.5	4.5		90	155				
156.0	2.3		1	160				
161.4	5.0	139.0' - 206.0' Mostly med gray blchd arg	2	165				
167.0	4.9	qtzite. Some hd lt gray blchd qtzite. Little	3	170				
173.3	4.9	dis sid. Few thin chl & ser sms. Small	4	175	5.0	0.2		
178.3	4.5	shear zone at 147.0'.	5	180				
End Box 5								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3276
Level 3000
Grid 289
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
183.3	4.6		E 2496	180-185				
188.3	4.9		7	190				
193.3	4.9		8	195				
198.3	5.0		9	200				
203.3	5.0		2500	205				
End Box 6								
208.3	3.8		1	210				
213.3	4.5		2	215				
217.0	3.4		3	220				
222.0	4.8		4	225	5.0	0.1		
227.0	4.7	206.0' - 244.0' All blchd med to lt gray	5	230	5.0	0.1		
232.0	4.8	arg qtzite. Silic from 220.0' - 222.0'. A	6	235	5.0	0.2		
235.4	2.9	3" qtz vein at 214.3' & 1½" qtz vein at 214.8'.						
237.3	1.6		7	240	5.0	0.2		
242.3	2.8		8	245				
End Box 7								
245.8	3.4		9	250				
250.8	4.4		10	255				
255.8	2.8		1	260				
260.8	3.7	244.0' - 290.0' Blchd lt gray qtzite. Silic						
265.0	3.8	from 248.0' to 252.0'; 256.0' - 276.0';	2	265				
267.0	0.8	280.0' - 285.5'. A badly brkn qtz vein about						
268.0	0.8	4 - 5 inches wide at 256.0'; 1" qtz vein at	3	270				
274.0	3.2	264.0'; a 2" vuggy qtz-sid vein at 265.0'	4	275				
277.0	2.6	W/badly brkn massive qtz from 265.0' - 268.0';						
280.0	1.5	a 1" qtz vein at 283.3'. GG at 250.8',	5	280				
283.4	2.2	257.0' & 268.0'.	6	285				
285.5	2.0		7	290				
End Box 8								
290.5	2.0		8	295				
295.5	4.1		9	300				
300.5	3.7		20	305				
305.5	3.3		1	310	5.0	0.4		
310.5	4.2							
313.2	2.4	290.0' - 345.0' Lt gray qtzite. Silic from	2	315				
318.0	2.5	297.0' to 323.7' and from 329.2' to 338.4'.	3	320				
320.2	1.3	Badly brkn from 322.0' - 323.7' and from						
323.7	2.2	329.0' to 339.0' ±.	4	325				
327.0	2.2							
329.2	1.7		5	330				
334.4	1.2		6	335				
338.4	1.4		7	340				
End Box 9								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by: Date:
Drilled by:

Hole No.: 3276
Level: 3000
Grid: 289
Latitude:
Departure:
Elevation:
Bearing:
Inclination:

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
345.2	1.1		E 2528	340-345				
348.5	3.3		9	350				
351.3	2.3		30	355				
356.3	4.6	345.0' - 381.0' Lt gray arg qtzite. Silic	1	360				
361.3	4.6	from 349.0' - 351.0', 352.0' - 361.0',	2	365	5.0	0.4		
366.3	4.9	365.0' - 381.0'. No sid, qtz veins or sulph-	3	370				
371.3	4.7	ides.	4	375				
375.8	3.9							
377.0	0.4							
378.0	0.8		5	380				
383.0	3.7		6	385				
388.4	4.2							
389.0	0.5		7	390				
394.0	3.8		8	395				
399.0	4.8		9	400				
404.0	4.7		40	405				
409.0	4.1		1	410				
410.5	0.7		2	415				
415.5	4.7		3	420				
420.5	4.8	381.0' - 473.2' Mostly hd lt gray to almost	4	425				
End Box 11		wh blchd qtzite. Some partly silic lt grn						
425.5	4.1	blchd arg qtzite. Some thin ser sms. Occas	5	430				
430.5	4.6	thin chl sms. Small fault at 388'.	6	435				
435.8	4.4		7	440	5.0	0.1		
440.8	4.6		8	445				
445.8	4.6		9	450	5.0	0.1		
450.8	4.7		50	455	5.0	0.3		
455.8	3.8		1	460	5.0	0.1		
463.0	4.8		2	465				
End Box 12								
468.0	5.0		3	470	5.0	0.2		
473.2	4.4							
End Box 13								
		END OF HOLE						

Note: All sludges are trace of lead silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-18-56
Finished 6- 6-56
Hole Size EX
Depth 611'
% Core Rec. 89

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3068 + 31.0' N.
Logged by JGS & MWH Date 6-13-56
Drilled by Holten, Hauser, & Walker

Hole No. 3277
Level 3000
Grid 297
Latitude 84 793 S.
Departure 92 278 E.
Elevation - 281'
Bearing N 3° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-8.5	4.8	0.0' - 10.0' Lt grn blchd arg qtzite. Occas bands dism sid. Some ser.	E 2554	0 - 5'				
11.0	1.8		5	10				
14.7	1.7		6	15				
19.3	1.8	10.0' - 34.0' Hd lt gray blchd qtzite.	7	20				
23.9	3.7	Occas small chl filled frac. Few bands dism	8	25				
26.9	1.9	sid.	9	30				
31.9	2.4							
33.5	0.7							
35.0	1.2		60	35				
37.6	1.0		1	40				
End Box 1								
40.6	2.5							
42.3	1.7		2	45				
46.8	4.4		3	50				
50.9	3.5		4	55				
55.6	4.0							
56.9	0.9		5	60				
60.4	3.4							
63.8	3.2	34.0' - 110.0' Hd lt grnish gray blchd arg	6	65				
65.3	1.3	qtzite. Occas bands dism sid. Many small						
67.8	2.3	chl filled frac. 1" qtz at 40.5'. Small	7	70				
70.4	1.6	fault at 42.0'. Much of the core is badly						
72.2	1.1	broken from 55.0' to 72.0'. 4" bands dism						
74.3	1.0	sid, partly silic & W/much chl at 91.0' &	8	75				
End Box 2		95.0'. Small fault & little py at 106.0'.						
79.3	4.5		9	80				
81.7	1.4		70	85	5.0	0.2		
85.5	3.9		1	90				
90.2	4.5							
95.0	3.6		2	95				
100.0	4.5		3	100				
105.0	4.4		4	105				
End Box 3								
110.0	4.4		5	110				
115.0	4.8		6	115				
117.0	2.0							
120.0	3.0		7	120	5.0	0.2		
123.0	2.8		8	125				
125.3	2.3	110.0' - 150.8' Mostly lt grnish gray	9	130				
130.1	4.8	rather hd arg qtzite. Occas band lt gray						
132.5	2.4	qtzite. Scat py xtals 110.0' - 112.0'.	80	135				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by: Date:
Drilled by:

Hole No.: 3277
Level: 3000
Grid: 297
Latitude:
Departure:
Elevation:
Bearing:
Inclination:

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
137.7	4.8	Small streak py at 127.0'. 3" white qtz at	E 2581	135-140				
141.6	3.9	133.5'. Small slip at 128.0', 145.8', and	2	145				
End Box 4		150.0'.						
145.8	4.0		3	150				
150.8	4.8		4	155				
155.7	4.7		5	160				
161.7	6.0	150.8' - 191.0' Mostly lt to med gray qtzite	6	165				
165.1	2.8	W/thicker beds. Considerable faulting 154.0'						
170.0	4.9	to 170.0', W/sheared & ggy zones 155.0' to	7	170				
175.0	4.7	155.7', 160.0' to 162.0' & at 168.0' to	8	175				
End Box 5		170.0'. Small white qtz stgrs at 157.0',						
180.0	4.0	159.0' & 163.5'. 1" sid at 174.5'.	9	180				
183.4	3.2		90	185				
187.3	3.9		1	190				
191.9	4.6		2	195				
196.4	4.5		3	200				
200.9	4.9	191.0' - 213.6' Rather hd lt gray-grn arg						
205.0	4.1	qtzite. Several bands softer purp arg qtzite	4	205				
208.7	3.7	203.0' to 208.0'. More grnish W/some chl	5	210				
End Box 6		breccia 192.0' to 200.0'.						
213.6	4.5		6	215				
218.7	4.7		7	220				
223.9	4.8		8	225				
228.9	4.8		9	230				
233.9	5.0	213.6' - 249.0' Mostly grnish to gray qtzite.	2600	235				
238.0	4.0	Badly broken W/many small frac filled W/chl						
239.9	1.8	& dk py 223' - 238' and 244' to 247'. Prob	1	240				
244.6	4.7	fault at 246'.	2	245				
246.9	1.8							
End Box 7								
249.0	1.7		3	250	5.0	0.2		
251.4	1.8		4	255				
255.3	3.9							
257.6	2.3							
259.0	1.4		5	260				
264.0	4.7		6	265				
265.7	1.7	249.0' - 294.2' Mostly badly broken lt gray	7	270				
270.2	4.2	qtzite W/many small irreg frac filled W/chl	8	275				
276.0	5.0	and dk gray fine py.	9	280	5.0	0.2		
280.2	4.8							
283.0	2.8		10	285				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3277
Level 3000
Grid 297
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
End Box 8								
287.5	3.0		E 2611	285-290				
292.5	4.0							
294.2	1.7		2	295				
297.2	3.3		3	300				
302.4	5.0							
304.8	1.7		4	305				
310.2	5.0		5	310				
312.5	1.6		6	315				
317.6	3.6	294.2' - 341.4' Mixed lt gray grn qtzite &						
318.6	1.0	arg qtzite. Thinner beds. Slips at 317.0'	7	320				
321.2	2.6	& at 321.0'.						
323.8	2.0		8	325				
End Box 9								
326.4	2.4		9	330				
331.6	5.0		20	335				
341.4	4.7		1	340				
343.8	2.4		2	345				
348.1	4.3		3	350				
351.0	2.6							
354.7	3.2		4	355				
358.4	3.7		5	360				
365.0	5.0		6	365				
368.6	2.5		7	370				
End Box 10		341.4' - 406.7' Mostly lt gray qtzite.						
373.2	4.6	Becomes darker gray & slightly arg from	8	375				
377.9	4.7	388.0' to 406.7'. Slips at 398.0' & at	9	380				
381.9	3.9	403.0'.	30	385				
386.3	4.4							
388.8	2.5		1	390				
393.2	4.8		2	395				
398.3	5.0		3	400				
403.0	4.8		4	405				
End Box 11								
406.7	3.6		5	410				
410.3	4.8							
415.0	4.8		6	415				
416.4	1.4		7	420				
421.0	4.6		8	425				
426.0	4.8		9	430				
431.2	4.9	406.7' - 480.5' Mostly med gray qtzite,						
435.0	3.8	W/bands lighter qtzite. Mostly broken core	40	435				
437.3	2.2	406.7' to 438.0'. Silic med gray W/numerous	1	440	5.0	0.6		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by
Date
Drilled by

Hole No. 3277
Level 3000
Grid 297
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Cu	% Zn
End Box 12		frac filled W/very fine dk py 435.0' to						
441.9	2.4	341.9'. Fault zone 435.0' to 437.3'. Small	E 2642	440-445	5.0	1.2		
446.9	5.0	streaks dk sulfide at 437.0' & 442.0'. Dk	3	450				
451.8	4.7	gray W/abundant small py streaks & stgrs	3A	455				
458.0	4.8	451.8' to 467.2'. Fault at 453.0' & at 465.0'.	4	460				
461.5	3.2		5	465	5.0	0.2		
466.0	0.8							
467.2	1.2		6	470				
471.3	3.0		7	475				
476.3	5.0		8	480				
480.5	3.2							
End Box 13								
484.1	3.6		9	485				
489.5	0.8	480.5' - 519.1' Mostly hd med gray blchd	50	490			% Cu	
490.8	0.9	qtzite. Little dism sid thruout. 5" zone	1	495				
495.7	4.8	W/small py stgrs, little sid at 493.5'.						
498.9	3.2	Small qtz stgrs at 494.0' & at 495.0', 0.7'	2	495 - 500	5.0	11.8	0.43	✓
503.9	4.7	sid, py, tetra at 496.0' to 496.7'. Up to	3	505	5.0	0.9		
508.8	4.6	3" py, sid & qtz stgrs 499.0' to 502.0'. 3"	4	510	5.0	0.7		
512.3	3.4	sid, some qtz & py at 505.0'. 1" py, some						
514.9	2.7	sid & qtz at 508.0'. Few small py & sid	5	510 - 515	5.0	20.1	1.21	✓
519.1	4.1	stgrs from 509.0' to 510.0'. 2.6' sid, py,						
End Box 14		tetra 510.0' to 512.6'. Few small sid stgrs						
		512.6' to 514.0'.						
520.0	0.9		6	520	5.0	0.4		
521.8	1.8		7	525	5.0	0.7		
525.4	2.9							
526.5	1.1							
529.6	3.0		8	530	5.0	0.5		
530.9	1.1	519.1' - 554.0' Med gray qtzite. Badly						
533.4	2.5	broken W/considerable py 520.0' - 530.9'.	9	535	5.0	0.3		
538.4	5.0	Slightly lighter gray & more grnish 538.0'	60	540				
540.6	2.2	to 552.0'.	1	545				
545.6	5.0							
548.3	2.5		2	550				
552.1	3.5		3	555				
End Box 15								
556.2	4.1		4	560				
561.1	4.8	554.0' - 578.0' Med gray hd blchd arg						
564.7	3.6	qtzite. Occas ser sms. Slip at 577.0'.	5	565				
569.5	4.2		6	570				
573.3	3.8		7	575				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by
Date
Drilled by

Hole No. 3277
Level 3000
Grid 297
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
578.3	5.0		E 2668	575-580				
582.7	4.8	578.0' - 611.0' Mostly hd lt gray to white	9	585				
587.2	5.0	blchd qtzite. Occas 6" to 12" dk gray qtzite						
End Box 16		W/much dism py. Massive white qtz W/little						
589.1	1.6	sid from 578.0' to 579.0'. 2" same at 583'.	70	590				
592.3	2.8	Mostly Massive white qtz some lt gray qtzite	1	595				
597.2	4.4	small sid & py stgrs from 584.0' to 585.0'.						
597.9	0.7	Few inches qtz at 586.0' (some qtz almost //						
599.5	1.5	to core, some at small angle). 3" qtz, small	2	600				
602.3	3.0	fault W/dism py at 593.0'. 6" massive qtz,						
604.0	1.5	small slip W/little Ag at 604.0'. Small	3	605				
606.9	2.9	fault at 602.0'. Small py stgr at 607.0'.						
609.2	1.8		4	610				
611.0	1.0							
End Box 17								
		END OF HOLE						

FORM 127 1M 7-85

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

1201 N. Division St.
Spokane 2, Washington
May 14, 1956

RECEIVED
MAY 21 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected May 9, 1956, accompanied by Mr. G. Grissmer, mine superintendent, Mr. McDonald, mine foreman, and Mr. Semos, mine geologist.

The east exploration drift had been advanced 412.5 feet beyond survey station No. SS-3064 for a total of 9,110 feet of drifting under the contract. The drift is continuing in light grey, bleached quartzite and has exposed only minor shears. A total of 379.5 feet of crosscutting has been completed; 1,293 feet of drifting and crosscutting remains to be completed under the contract. The present rate of advance (about 300 feet per month) indicates the drifting and crosscutting will be completed in September 1956.

Detailed geologic maps of the drifting and crosscutting accompany the Operator's monthly progress reports.

The core drilling is continuing and about 4,800 feet of drilling remains to be completed. The area in the vicinity of the face of the completed drifting will be probed; therefore, drilling will probably not be completed before December 1956. Only minor amounts of ore mineralization have been drilled as is shown by the logs of the completed holes which are submitted by the Operator.

Following is a tabulation of the work items, number of units authorized and units completed:

	Authorized	Completed
Drifting and crosscutting	10,725 feet	9,489.5 feet
Raising	330 "	324.1 "
Sideswiping	1,560 "	1,069.7 "
Core drilling	15,200 "	10,308.4 "

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

E. G. Erickson
E. G. Erickson

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAY 21 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1956 Docket No. DMEA 2879 Contract No. IDM-E-541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony & (Incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:				5/22/56		
Drilling Core 849.9 @ $4.50	$ 3824.55	$ 42563.25	$ 46387.80	3824.55	42563.25	46387.80
Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting		19037.58	19037.58		19037.58	19037.58
Drifting 300.7 @ $48.78	14668.15	437218.98	451887.13	14668.15	437218.98	451887.13
Sidewipe 12.08@25.50	306.00	26971.35	27277.35	306.00	26971.35	27277.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$18798.70	$556039.42	$574838.12	18798.70	556039.42	574838.12

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

Date MAY 9, 1956 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9399.35

Signature [signature]
(Authorized Certifying Officer)

Date 5/15/56 Vou. No. 1774
(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 541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Eng. Date 5/14/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Wing G Agnew Title Acting Exec. Date 5/14/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAY 21 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1956 Docket No. DMEA 2879 Contract No. IDM-E-541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony & (Incidental Silver)

Address Box 320, Wallace, Idaho

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	feet	$14668.15	300.7	$451887.13	9052.4	49.92	9225	$51.00*
Crosscutting	"			19037.58	379.5	50.16	1500	51.00*
Raising	"			30248.26	324.1	93.33	330	93.33*
~~xxxx~~Sidesviping	"	306.00	12.0	27277.35	1069.7	25.50	1560	25.50*
Winzes								
Drilling: Core	"	3824.55	849.9	46387.80	10308.4	4.50	15200	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 MAY 9 1956 Operator Polaris Mining Company

Per [signature] Title President

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)

*maximum allowed by contract

(For Government use only)

151 Eric G. Erickson

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 872894

DMEA

Polaris Mining Company

Wallace, Idaho

RECEIVED
MAY 21 1956

May eighth
1956

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - April, 1956
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

During April the main heading was advanced 300.7 feet. Twelve feet of sideswiping was done in the section Station SS3066 plus 183 feet to plus 195 feet. Diamond drill hole No. 3274 was extended 349.9 feet to completion at 1001.2 feet. A log of the hole is attached. Nothing of great interest was found in this hole. Another northerly drill hole, No. 3275, was extended 500.0 feet during April, but it was not completed at month end. A log will be supplied upon completion.

The geology of the main heading is shown on the attached 50-scale map. Rock was massive, light-gray, bleached quartzite and only minor slips were exposed.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:cb
Encs.

Note: All sludges are trace no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 3-20-56
Finished 4-20-56
Hole Size EX
Depth 1001.2
% Core Rec. 74.5

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3059 + 34' N 16° E
Logged by JGS & MWH Date 4-25-56
Drilled by Holten, Hauser, & Walker

Hole No. 3274
Level 3000
Grid 281
Latitude 84 678 S
Departure 91 507 E
Elevation -283'
Bearing N 14° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.0		E2128	0 - 5	5.0	0.2		
7.0	2.0		9	10				
11.0	2.5							
14.8	2.3		30	15	5.0	0.2		
19.6	4.8		1	20				
24.3	4.7		2	25				
29.3	3.6		3	30				
34.3	4.3	0.0' - 80.0' Mostly hd lt gry grn blchd	4	35				
End Box 1		arg qtzite. Occas narrow highly silic. zones.						
39.0	4.1	Occas few inches of chl filled frac. Some	5	40				
41.5	2.5	dism sid thruout.	6	45				
46.5	5.0		7	50				
51.5	4.5		8	55				
62.0	5.0		9	60				
66.3	3.6		40	65				
67.3	1.0		1	70				
70.3	2.1		2	75				
78.8	1.0		3	80				
End Box 2								
83.8	4.9		4	85				
88.1	3.4		5	90				
92.5	4.0	80.0' - 117.0' Lt grn blchd arg qtzite.	6	95				
97.2	4.7	Zones of many small chl filled frac from	7	100				
100.3	2.8	96.0' to 98.0'; 100.0' to 100.5'; & 105.0'						
104.3	4.0	to 106.0'. 1" qtz at 108.0'. 7" massive	8	105				
107.9	2.8	qtz W/some ser & little chl. Few specks	9	110				
111.1	1.6	sid at 110.5'.						
114.3	3.2		50	115				
End Box 3								
117.9	3.3		1	120				
120.7	2.9							
124.7	1.6		2	125				
127.5	3.0		3	130				
130.5	2.5							
135.0	1.1		4	135				
140.0	1.2		5	140				
144.0	2.2	117.0' - 172.0' Mostly lt gray qtzite,	6	145				
149.0	4.6	occas thin gray arg bands. Numerous thin						
150.0	0.9	irreg chl streaks in the frac. Broken core	7	150				
152.0	1.4	W/some gg at 144.0'. 2" white qtz at 148.0'.	8	155				
156.5	1.2	6" brec qtzite at 152.0'.						
157.4	0.8							
158.9	1.2		9	160				
162.0	2.3		60	165				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
164.7	1.6							
End Box 4								
170.0	3.8		E 2161	165-170				
172.0	1.8		2	175				
176.8	4.8		3	180				
180.7	2.6							
182.5	1.5		4	185				
187.5	4.8	172.0' - 199.8' Mostly thin bands lt gray	5	190				
192.3	4.8	and med gray arg qtzite. 6" shrd zones at						
194.5	2.2	172.0', 176.0' and 182.0'. 3" brec qtzite	6	195				
197.3	2.2	at 199.8'.						
199.8	2.3		7	200				
End Box 5								
		199.8' - 215.0' Gray-blue qtzite. Silic,	8	205				
210.0	4.5	W/numerous tiny irreg frac, some filled	9	210				
215.0	4.0	W/qtz. Fault zone at 205.0' - 210.0'	70	215				
		W/consid loss of core.						
220.0	4.7	215.0' - 240.0' Thin bands lt and med gray	1	220				
225.0	2.9	arg qtzite. Very irreg small qtz and white	2	225				
230.0	2.2	carb, mostly parrall to core. scattered	3	230				
235.3	2.7	from 220.0' to 225.0'. Small streak of fine	4	235				
		grained py at 234.0'.						
240.2	4.7		5	240				
244.1	3.9		6	245	5.0	0.2		
249.1	5.0	240.0' - 260.5' Hd lt to med gray qtzite.	7	250	5.0	0.4		
253.9	4.8	Many small irreg frac. ½" qtz at 256.0'.	8	255				
End Box 6								
256.1	2.1		9	260				
260.5	4.3		80	265				
265.5	5.0							
267.8	2.0		1	270				
272.7	4.3		2	275				
277.2	5.0		3	280				
282.2	3.5	260.5' - 315.0' Mostly lt gray grn qtzite	4	285				
287.2	1.8	W/some arg bands. ½" qtz at 262.0' & 262.5'.	5	290				
293.0	3.2	Slips at 264.0', 268.0', 272.0' & 277.0'.						
295.0	0.7		6	295				
300.0	2.1		7	300				
End Box 7								
305.0	1.0		8	305				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
310.0	3.2		E 2189	305-310	5.0	0.2		
315.0	1.5		90	315				
320.0	1.8		1	320				
325.0	2.1		2	325				
330.0	2.5		3	330				
335.1	4.8		4	335				
340.1	4.8		5	340				
345.5	2.8	315.0' - 379.0' Mostly lt gray qtzite.	6	345				
350.7	4.7	Shows silicification. Few narrow arg bands.	7	350				
355.0	4.0	½" qtz at 315.0' & at 353.0'. Slip zones	8	355	5.0	0.2		
357.2	1.5	W/broken core at 335.0', 345.5', 350.7' &						
End Box 8		353.0'.						
359.4	1.3		9	360				
362.4	3.0		E 2200	365				
366.0	4.4							
369.5	1.9		1	370				
374.2	2.6		2	375				
379.0	1.7		3	380				
385.0	1.2	379.0' - 410.0' Lt gray qtzite mixed with	4	385				
390.0	1.4	thin bands darker gray arg qtzite. Numerous	5	390				
395.0	0.7	spots dism white carb. Slips at 370.0' &	6	395				
400.0	0.8	390.0'.	7	400				
405.1	2.5		8	405				
410.3	2.8		9	410				
415.3	5.0		10	415				
End Box 9		410.0' - 459.0' Blchd med gray slightly arg						
420.1	4.4	qtzite W/some faint darker gray softer bands.	1	420				
424.7	4.7	Shows silicification W/numerous irreg small	2	425				
429.8	4.9	frac filled W/qtz 410.0' - 417.0'. Small	3	430				
434.5	4.2	fault W/¼" sid W/some dk gg & little py at	4	435				
438.5	4.0	419.5'. ½" fault gg at 438.5'.	5	440				
444.5	2.9		6	445				
449.5	1.2		7	450				
453.0	0.6							
455.0	2.0		8	455				
460.0	2.0		9	460				
465.0	2.0		20	465				
470.0	2.0	459.0' - 482.0' Med to dk purp arg qtzite	1	470				
End Box 10		W/some dism sid. Occas small zones blchd						
475.0	0.3	lt grn soft arg qtzite.	2	475				
480.0	4.0		3	480				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by _____ Date _____
Drilled by _____

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
483.0	1.5		E 2224	480-485				
489.0	2.5		5	490	5.0	0.2		
492.0	1.2		6	495				
497.0	3.7							
498.0	0.7	482.0' - 569.0' Mostly hd lt gray blchd arg	7	500				
503.0	2.4	qtzite. Some softer lt grn arg qtzite. Few	8	505				
507.2	2.3	scat small py xtals from 489.0' - 492.0'.	9	510				
511.0	3.8	thin sms ser thruout. 2" gg at 505.0'. 2"						
513.5	0.9	qtz at 507.0'. Small irreg sid stgr of qtz	30	515				
517.1	3.1	at 514.0'. Some gg at 517.0'. 2" qtz at						
519.1	0.8	526.0'. In general from 503.0' to 530.0'	1	520				
524.0	1.5	core is badly broken and there are many	2	525				
526.0	0.8	small slips. 1" gg at 548.0'. Lt grn gg						
527.0	0.7	& broken core from 563.0' to 564.0'. Also						
530.0	1.8	½" dk purp gg. Zones of broken core & gg	3	530				
End Box 11		from 565.0' to 566.5'. 1" dk purp arg						
533.1	2.2	qtzite W/much dism sid at 566.5'. Some	4	535				
538.1	4.2	shearing from 568.0' to 569.0'.	5	540				
542.9	4.2		6	545				
547.9	5.0		7	550				
550.5	1.7							
554.4	3.2		8	555				
556.8	2.0		9	560				
561.8	5.0		40	565				
566.4	4.6		1	570				
End Box 12								
570.8	4.2							
575.0	3.6		2	575				
580.0	4.8	569.0' - 615.0' Darker grn-gray rather hd	3	580				
585.0	4.0	arg qtzite W/narrow tan bands due to dism	4	585				
589.0	3.2	sid. Some lt gray qtzite. Mostly broken	5	590				
593.8	4.0	esp. from 590.0' to 610.0' - few small irreg						
594.8	1.0	dk gray streaks at 593.0' to 596.0'. Prob	6	595				
600.0	3.5	fine grained py.	7	600				
605.0	3.7		8	605				
610.0	2.3		9	610				
615.3	2.9		50	615				
End Box 13								
620.3	4.0		1	620				
625.3	4.8		2	625				
628.6	1.9	615.0' - 644.0' Mostly lt gray grn qtzite.	3	630				
633.3	4.8	Some sheared thin bands arg 629.0' - 633.0'.	4	635				
637.0	1.9	Core mostly badly broken esp 633.0' - 644.0'.	5	640				
641.7	2.8							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
643.8	4.0		E 2256	640-645				
651.3	1.6		7	650				
655.6	1.3		8	655	5.0	0.2		
659.2	1.5		9	660				
664.5	3.4	644.0' - 689.0' Med to dk gray brittle	60	665				
669.0	1.4	broken qtzite. Badly frac W/occas small	1	670				
674.0	1.3	black slickenside. Dk color due to abundant	2	675				
676.0	1.1	dk, fine grained py. Broken qtz, some sid						
678.1	1.2	makes up most of core from 663.0' to 674.0'						
679.0	0.6	W/scat small pieces to 684.0'. Some brick						
680.0	0.6	red staining.	3	680				
685.0	1.5		4	685				
End Box 14								
688.0	2.0		5	690				
691.5	3.3							
693.0	1.5							
694.7	1.5		6	695				
697.0	2.0							
699.2	2.0	689.0' - 731.3' Lt to med gray qtzite -	7	700				
703.2	4.0	shows silic (nearly white at 697.0' to	8	705				
706.8	3.6	699.0'). Occas tiny streaks of py to 699.0'.	9	710				
710.7	3.8	1" sid py at 691.0'. Small qtz stgrs at	70	715				
715.7	4.9	693.0' & 699.0'. 1" fault gg at 721.0'.	1	720				
720.7	4.9							
724.2	3.5		2	725				
726.8	2.6		3	730				
731.3	4.3		4	735	5.0	0.2		
736.0	4.5	731.3' - 754.3' Blchd, mostly med gray	5	740				
741.1	4.8	qtzite - numerous thin darker bands due to						
743.0	1.8	dism py. Some tiny irreg veinlets fine	6	745				
746.5	3.4	grained py, 236.0' to 746.0'. 4" qtz at	7	750				
750.1	3.5	740.0' & at 740.6'. Broken core at 739.0'						
754.3	4.2	& 748.0'.	8	755				
		754.3' - 760.0' Mostly lighter greenish						
758.0	4.0	gray qtzite. Narrow streaks fine grained	9	760				
End Box 16		py in frac (some parallel to core) 754.0'						
		to 756.0'.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by
Date
Drilled by

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
762.3	3.6		E 2280	760-765				
767.3	4.5		1	770				
772.3	4.7		2	775				
775.7	2.5	760.0' - 800.2' Rather hd arg qtzite (blchd	3	780				
781.0	3.5	lt gray grn). Some slightly purplish tints						
784.0	2.8	at 787.0'. Scat py xtals at 786.0' to	4	785				
788.9	4.8	787.0'.	5	790				
793.9	4.7		6	795				
796.7	2.6		7	800				
End Box 17								
801.2	4.5							
804.8	3.6		8	805				
810.7	5.0		9	810				
814.7	3.8	800.2' - 836.0' Mostly harder qtzite - Some	90	815				
816.9	1.2	greenish arg bands. Some med gray bands	1	820				
821.7	4.7	dism py. Slip zones at 810.5', 816.9', &	2	825				
826.7	4.8	831.0'. Sheared, partly silicified,	3	830				
831.0	4.3	834.0' - 836.0'. Numerous spots scat	4	835	5.0	0.2		
836.0	4.8	py 830.0' - 833.0'.	5	840				
End Box 18								
841.0	4.8		6	845				
846.2	4.7		7	850	5.0	0.4		
850.7	3.5							
852.5	2.5		8	855				
857.3	4.6		9	860	5.0	0.2		
860.4	2.9							
865.0	4.3	836.0' - 1001.2' Mostly lt gray qtzite -	E 2300	865				
870.0	4.7	Some tan bands. Few bluish bands W/dism	1	870				
872.0	1.9	py, 836.0' - 846.0'. Slip zone at 875.0'.						
872.9	0.9	Some mottling due to spots dism py 897.0' -	2	875				
877.3	1.5	899.0' W/some coarse xtals py. Some darker	3	880				
End Box 19		gray banding 907.0' - 915.0'. Broken pieces						
880.1	1.5	qtz scat from 941.0' to 942.0'. Badly						
884.4	1.5	broken silic pieces core 962.0' - 964.0'	4	885				
889.4	3.6	W/irreg tiny streaks py. Same 977.6' to	5	890				
894.2	4.7	978.0'. Badly broken 996.0' to 997.0'	6	895				
897.3	3.1	W/some small spots dk mineralization.	7	900				
902.7	4.9		8	905				
907.5	4.7		9	910				
912.4	4.8		10	915				
917.2	4.8		1	920				
End Box 20								
922.1	3.7		2	925				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Dr.

Logged by
Date
Drilled by

Hole No. 3274
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
927.1	4.7		E 2313	925-930				
932.1	4.7		4	935				
937.1	4.8		5	940				
942.1	4.8		6	945				
947.1	4.9		7	950				
952.1	4.8		8	955				
957.1	4.7		9	960				
End Box 21								
962.8	4.9		20	965				
967.8	4.8		1	970				
972.6	4.7		2	975				
977.6	4.7		3	980				
982.6	4.5		4	985				
987.0	4.3		5	990				
992.0	4.7		6	995				
997.0	4.7		7	1000	5.0	0.6		
1001.2	2.8							
		END OF HOLE						

RECEIVED
MAY 21 1956

Form MF-194 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
APR 23 1956

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

Month of March, 1956 Docket No. DMEA 2879 Contract No. IDM-2541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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:				4/25/56		
Drilling Core $4.50	$3244.95	$39318.30	$42563.25	3244.95	39318.30	42563.25
~~Bulkhead~~ Raising 30.2		30248.26	30248.26		30248.26	30248.26
Crosscutting 48.78	1478.03	17559.55	19037.58	1478.03	17559.55	19037.58
Drifting 149.4 @ $48.78	7287.73	429931.25	437218.98	7287.73	429931.25	437218.98
Sideswipe 10.0 @ 25.50	255.00	26716.35	26971.35	255.00	26716.35	26971.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$12265.71	$543773.71	$556039.42	12265.71	543773.71	556039.42

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 4-11-56 *Payee Polaris Mining Company
Per [signature] Title President

*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:

$ 6132 86

Signature [signature]
(Authorized Certifying Officer)

Date 4-18-56 Vou. No. 1754
(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 4/16/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ A. E. Weissenborn Title Exec. Officer Date 4/16/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED APR 23 1956

Month of March 1956 Docket No. DMEA 2879 Contract No. IDMC-E541

Operator's Name Polaris Mining Company

Address Box 320, Wallace, Idaho

Mineral Copper, Lead, Antimony (and incidental Silver)

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	feet	$7287.73	149.4	$437218.98	8751.7	49.96	9225	$51.00 *
Crosscutting	"	1478.03	30.3	19037.58	379.5	50.16	1500	51.00 *
Raising	"			30248.26	324.1	93.33	330	93.33 *
~~Shaft~~ Sideswiping	"	255.00	10.0	26971.35	1057.7	25.50	1560	25.50
Winzes								
Drilling: Core	"	3244.95	721.1	42563.25	9458.5	4.50	15200	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 4-11-56 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

*Maximum allowed by contract

(For Government use only)

151 Eric G. Erickson

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 872894

Dmea

Polaris Mining Company

Wallace, Idaho
April twelfth
1 9 5 6

RECEIVED
APR 23 1956

Defense Minerals Exploration Administration
U.S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - March-1956
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

The advance of the main easterly heading during the month of March was 149.4 feet. Ten feet of sideswipe from station SS3063 plus 119 to 129 feet was completed. Number 289 south crosscut was driven 16.3 feet to a point 21.1 feet south of station SS3064 and number 289 north crosscut was driven 14.0 feet to a point 20.9 feet north of the same station. These crosscuts will be used for later drill stations. Diamond drill hole No. 3273 was completed to 435.3 feet and a log of the hole is enclosed. Hole No. 3274 was drilled 651.3 feet during the month and is being continued. A log will be provided as soon as the hole is completed.

In drill hole 3273 light mineralization appears to be present in the section 45 to 90 feet, 140 to 145 feet and 185 to 190 feet. It is probably insignificant, however.

The geology of the section covered by main drift advance is shown on the attached 50-scale map. Rocks are still bleached argillaceous quartzite and quartzite and no strong structures were exposed.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:eel
Encs.

Note: All sludges are trace no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 2-13-56
Finished 3- 7-56
Hole Size EX
Depth 435.3'
% Core Rec. 86

Mine SILVER SUMMIT
Location Polaris E. Explor. Dr.
SS 3059 + 13' S.
Logged by J.G.S. & M.W.H Date 3-15-56
Drilled by Holten, Hauser, & Walker

Hole No. 3273
Level 3000
Grid 281
Latitude 84 725 S
Departure 91 496 E
Elevation - 282'
Bearing S 10° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-6.0	2.7		E 2041	0 - 5				
12.5	5.6		2	10				
14.2	1.6	0.0' - 27.0' Hd blchd lt gry qtzite. 2"	3	15				
19.7	5.0	stgr qtz at 21.0'. Broken qtz 22.0' - 22.9'.	4	20				
22.9	2.3		5	25				
27.0	4.3							
29.0	1.3		6	30				
32.0	2.8		7	35				
36.0	2.7							
37.2	1.9		8	40				
42.3	3.1		9	45				
End Box 1								
46.9	3.1	27.0' - 75.0' Rather arg qtzite W/greenish	50	50	5.0	0.4		
51.0	3.5	gry color. Blchd. Small qtz stgrs at 29.0',	1	55	5.0	0.2		
58.0	5.0	30.0', 31.0', 45.0', & 46.0'.	2	60	5.0	0.2		
61.0	2.7		3	65	5.0	0.2		
69.0	3.6							
70.0	0.7		4	70	5.0	0.2		
75.0	1.5		5	75	5.0	0.2		
79.0	1.9		6	80	5.0	0.2		
79.5	0.5	75.0' - 94.0' Lt to med gry blchd arg qtzite						
81.5	1.9	W/some very lt qtzite bands. Some narrow						
84.1	2.9	darker gry bands 84.0' - 90.0'. Slip zones	7	85	5.0	0.2		
85.2	1.7	70.0' to 75.0', at 78.5' and 0.6' crush &						
89.8	4.2	gg at 85.0'. Badly broken W/some qtz at	8	90	5.0	0.2		
93.4	2.9	92.5'.	9	95				
End Box 2								
98.1	4.7							
98.7	0.6							
103.4	4.7		60	100				
105.8	2.4		1	105				
111.3	5.3		2	110				
112.4	0.9							
116.8	4.4	94.0' - 148.0' Mostly lt gry to lt gry-green	3	115				
120.2	3.3	blchd qtzite. Some darker gry narrow more	4	120				
124.6	4.4	arg bands at 106.0' to 108.0' & greenish arg						
End Box 3		bands 122.0' to 125.0'. Small white qtz at	5	125				
128.6	4.0	104.0', 124.0', 132.8', & 141.0'.						
132.8	3.0		6	130				
135.0	1.2							
137.8	2.8		7	135				
141.0	3.2		8	140				
144.4	3.4		9	145	5.0	0.3		
147.9	3.5		70	150				

FORM 127 7-55

RECEIVED
APR 23 1956

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Explor. Dr.

Logged by Date
Drilled by

Hole No. 3273
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
152.6	4.0							
153.7	1.1	146.0' - 173.7' Mostly darker gry grn arg	E 2071	150-155				
158.7	4.6	qtzite W/thin med gry bands. Core badly	2	160				
170.0	5.5	broken around 149.0', 154.4', 159.0', &	3	165				
173.7	1.7	170.0'.	4	170				
End Box 4			5	175				
178.1	4.1		6	180				
180.5	2.8							
183.0	2.2		7	185				
187.8	4.3	173.7' - 208.0' Lt grayish-brown to med gry	8	190				
192.7	4.5	qtzite. Silic in the lighter bands, slightly	9	195				
197.7	4.6	softer in the gry bands. Broken at 178.0',	80	200				
202.2	3.8	179.0', 182.5', 192.0', 197.0', 202.0'. 1"	1	205				
207.0	4.5	qtz vein at 178.0'.	2	210				
End Box 5								
212.1	3.5							
212.7	0.5		3	215				
217.5	4.8							
220.0	2.3		4	220				
220.7	0.5							
221.3	0.4	208.0' - 242.0' Brownish-gry to lt gry, hd,						
222.3	1.7	silic qtzite. Dk gry W/possible arsenpyrite	5	225				
227.3	4.3	at 210.0', 210.5', 220.6', & 242.5'.	6	230				
232.5	4.0							
233.5	0.8		7	235				
236.3	2.4		8	240	5.0	0.2		
241.2	4.5							
End Box 6								
243.9	2.6		9	245				
245.8	1.6		90	250				
250.8	4.9		1	255				
255.6	4.8							
257.0	0.9							
260.0	3.0		2	260				
265.2	5.0		3	265				
270.2	4.7		4	270				
275.2	5.0		5	275				
278.0	1.9		6	280				
End Box 7								
280.8	2.4	242.0' - 320.0' Mostly hd lt gry blchd	7	285				
285.6	4.9	qtzite. Some softer lt grn blchd arg qtzite.						
288.3	2.2	Some dism sid & sms ser. 4" broken qtz at						
290.0	1.6	280.8'. 1" sid-qtz, some py at 285.5'.	8	290	5.0	0.9		

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Dr.

Logged by _____ Date _____
Drilled by

Hole No. 3273
Level 3000
Grid 281
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
~~EEE~~ ~~EEX~~ ~~X~~		6" white qtz at 316.0'. ½" white qtz at						
295.0	1.9	319.0'.	E 2099	290-295				
300.1	2.4		100	300				
305.2	5.0		1	305				
310.2	4.9		2	310				
312.2	1.9		3	315				
316.3	4.1		4	320				
320.5	4.2		5	325				
End Box 8								
325.7	5.1		6	330				
330.8	4.8		7	335				
335.5	4.7							
338.4	2.7	320.0' - 377.0' Mostly med gry grn arg	8	340				
343.1	4.7	qtzite W/occas bands qtzite. Silic at	9	345				
347.7	4.5	340.0' to 343.0'. 1" qtz at 345.0' & 348.0'.	10	350				
351.1	2.8	Slips at 325.0' & 332.0'.	1	355				
355.9	4.8		2	360				
End Box 9								
362.0	5.0		3	365	5.0	0.2		
366.6	4.2							
368.2	1.7		4	370				
373.0	4.7		5	375				
377.2	4.2		6	380				
382.1	4.8		7	385				
386.6	4.3							
389.1	2.6		8	390				
393.6	3.7	377.0' - 410.0' Mostly hd lt gry grn qtzite.	9	395				
395.4	1.5	Silic lt gry 393.6' to 397.1'. 1" - 3" qtz						
End Box 10		stgrs at 396.0', 399.5', 402.8', & 405.0'.						
397.1	1.6							
399.5	2.4		20	400				
402.8	3.1		1	405				
405.6	2.5							
407.7	0.8		2	410				
410.7	2.9							
414.4	4.3		3	415				
419.1	4.2	410.0' - 435.3' Mostly med gry grn arg	4	420				
420.3	1.3	qtzite. Some narrow darker gry bands &						
422.6	1.7	some lt gry bands qtzite	5	425				
427.3	4.0							
429.1	1.9		6	430				
435.3	2.5		7	435				
End Box 11		END OF HOLE						

FORM 127 1M 7-85

RECEIVED
APR 23 1956

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAR 26 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1956 Docket No. DMEA 2879 Contract No. Idm - E541
Operator's Name Polaris Mining Company Minerals copper, lead, antimony
Address Box 320 Wallace, Idaho (and incidental silver)
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:				3/28/56	OK	
Drilling core 403.4 @ $4.50	1815.30	37503.00	$ 39318.30	1815.30	37503.00	39318.30
raising		30248.26	30248.26		30248.26	30248.26
Crosscutting 6.0 @ $48.78	292.68	17266.87	17559.55	292.68	17266.87	17559.55
Drifting 271.0 @ $48.78	13219.38	416711.87	429931.25	13219.38	416711.87	429931.25
Sideswipe		26716.35	26716.35		26716.35	26716.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	15327.36	528446.35	543773.71	15327.36	528446.35	543773.71

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

Date 3-8-56 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 7663 68

Signature M. P. (Authorized Certifying Officer)

Date 3/22/56 Vou. No. 1737

(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 541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 3/19/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ A. E. Weissenborn Title Exec Officer Date 3/19/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAR 26 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1956 Docket No. DMEA 2879 Contract No. Idm - E541
Operator's Name Polaris Mining Company Minerals copper, lead, antimony
Address Box 320 Wallace, Idaho (and incidental silver)

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	feet	13219.38	271.0	429931.25	8602.3	49.98	10725	~~51.00*~~ 48.28
Crosscutting	"	292.68	6.0	17559.55	349.2	50.29		
Raising	"			30248.26	324.1	93.33	330	93.33
~~[illegible]~~ sideswiping	"			26716.35	1047.7	25.50	1560	25.50
Winzes								
Drilling: Core	"	1815.30	403.4	39318.30	8737.4	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		15327.36		543773.21				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		15327.36		543773.71				685955.00

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.

REMARKS:

Date 3-8-56 Operator Polaris Mining Company

Per [signature] Title President

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)

*Maximum allowed by contract.

/s/ Eric G. Erickson

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 872894

DMEA

Polaris Mining Company

Wallace, Idaho

RECEIVED
MAR 26 1956

March twelfth
1 9 5 6

Defense Minerals Exploration Administration
U. S. Department of the Interior
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project-February-1956
Docket No. DMEA - 2879
Contract No. Idm-E541

Gentlemen:

The advance of the main easterly heading during February was 271.0 feet. No. 281 south crosscut was driven 6 feet to a point 13.3 feet south of station SS-3059. Diamond drill hole No. 3271 was advanced 37.9 feet thereby completing the hole to 934.2 feet. A log of the hole is enclosed. Hole No. 3273 was drilled 365.5 feet during the month and will be drilled to the property line. A log will be submitted after completion.

As shown on the attached 50-scale map, drift progress was in bleached fairly-massive white to gray quartzite. Some small fault structures were cut and bunches and stringers of quartz and siderite were exposed. Note that some mineralization is indicated on a gouge streak as shown by sample 4351 assaying 0.6 oz. silver and 0.01% copper and in a 4 inch siderite stringer - sample 4367 assaying 1.1 oz silver and 0.36% copper. The main heading is being turned northerly to bear directly toward the west face proposed in the original application. Diamond drill holes will probe both north and south as the drift advances.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:EEL
Encs.

Note: All sludge assays are trace or no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-11-55
Finished 2-10-56
Hole Size EX
Depth 934.2
% Core Rec. 86

Mine SILVER SUMMIT
Location Polaris E. Exploration
Drift. SS 3041 + 25.5' S.
Logged by J.G.S. Date
Drilled by Holten & Walker

Hole No. SS 3271
Level 3000
Grid 249
Latitude 84, 198 S
Departure 89, 976 E
Elevation -290'
Bearing S 25° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.5	4.5		E1434	0 - 5				
6.0	1.5		5	10				
10.5	4.7		6	15	5.0	0.2		
15.5	5.0		7	20				
20.5	4.7							
25.0	4.3		8	25				
26.5	1.5		9	30				
31.7	3.7							
33.8	2.4	0' - 70' Hard lt grn blchd arg qtzite.	40	35				
End Box 1		Freq thin bands dism sid. Few 2" to 3"						
36.0	2.2	zones hd lt grn blchd qtzite from 0.0' to						
40.0	4.0	6.0' & from 47.0' to 50.0'.	1	40				
41.3	1.3	2" qtz with little sid at 34.0'.						
43.6	2.1	2" qtz with little sid at 35.0'.	2	45				
45.3	1.7	1" qtz at 35.5'.						
47.6	1.7	freq thin ser sms thruout.						
49.0	1.4		3	50				
51.1	2.0							
53.3	2.1		4	55				
57.0	3.5							
59.5	2.5		5	60				
64.5	3.8							
69.5	4.9		6	65				
End Box 2			7	70				
72.7	2.7		8	75				
77.7	4.9							
79.8	1.8		9	80				
84.8	4.5		50	85				
89.0	4.1	70.0' - 140.0' Mixed zone of abt equal						
90.0	0.9	amounts soft lt grn blchd arg qtzite and hd	1	90				
95.0	4.2	lt gry blchd qtzite. Some fracturing in the	2	95				
100.8	0.9	more qtzitic zones. Freq thin ser sms and	3	100				
105.4	4.5	a few thin chl sms.	4	105				
108.3	1.2	1" qtz at 90.0' & 93.0'.	5	110				
113.3	4.7	Small qtz stgrs from 105.0' to 108.0'.						
114.0	0.6	1" qtz at 119.0'.	6	115				
117.5	3.1	1" qtz at 120.0'.	7	120				
122.5	5.0	½" qtz at 136.0'.	8	125				
127.5	4.8	1" qtz at 140.0'.	9	130				
132.5	4.7		60	135				
137.2	4.6							
139.1	1.8		1	140				
End Box 4								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Explor. Drift

Logged by Date
Drilled by

Hole No. SS 3271
Level 3000
Grid 249
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
143.5	4.0		E1462	140-145				
148.3	3.6		3	150				
152.0	3.7		4	155				
157.0	4.8		5	160				
167.0	4.6	140.0' - 190.0' lt gry grn blchd arg qtzite.	6	165				
166.6	4.6	Many thin bands dism sid. Little dism white						
169.8	3.1	carb. Qtz vein from 166.0' to 166.5' with	7	170				
171.4	1.6	small sid stgr & some ser. 1" qtz at	8	175				
176.4	4.6	189.0'.	9	180				
End Box 5								
181.2	4.7							
183.0	1.8		70	185				
185.9	2.8		1	190	5.0	0.2		
190.9	4.0		2	195				
195.7	4.7		3	200	5.0	0.4		
200.7	5.0		4	205	5.0	0.3		
206.0	3.0	190.0' - 219.0' Mostly hd lt gry blchd						
207.0	1.0	qtzite. Few small bands lt grn blchd arg						
208.0	1.0	qtzite. Many vuggy qtz veins from 1" to 5"	5	210				
211.6	3.2	wide thruout. Qtz xtals up to 3/4" long.						
213.3	1.6	Some thin ser bands.						
End Box 6								
214.0	0.4							
214.5	0.5		6	215				
219.3	5.0		7	220				
224.0	4.6		8	225				
228.4	4.4							
229.4	0.9	219.0' - 268.0' Mostly softer lt grn blchd	9	230				
230.6	1.1	arg qtzite. Few zones of hard lt gry blchd	80	235				
235.4	4.4	arg qtzite and few bands soft lt grn blchd						
239.8	4.2	arg. Many small bands dism sid.	1	240				
243.3	3.3	2" qtz at 230.0'.	2	245				
247.3	4.0	qtz from 234.8' to 235.4'.	3	250				
End Box 7		2" qtz with little sid at 240.0'.						
252.3	4.0							
253.0	0.6		4	255				
259.3	1.1		5	260	5.0	0.2		
263.5	4.2							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Drift

Logged by
Date
Drilled by

Hole No. SS 3271
Level 3000
Grid 249
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
268.5	4.9	268.0' - 295.0' Hd lt gry blchd qtzite.	E1486	260-265				
271.5	2.4	Several 1" & 2" qtz stgrs and many small ser	7	270				
275.8	1.8	sms from 268.0' to 278.0'. 4" brecciated	8	275				
278.0	1.4	qtzite cemented with sid & ser at 277.5'.	9	280				
281.1	2.1	Qtz W/freq ser bands from 281.0' to 284.0'.						
284.9	3.8	6" brecciated qtzite cemented W/qtz & some	90	285				
286.3	0.9	sid from 287.6' to 288.1'. Also small sid						
287.6	1.2	stgr W/some chl(?). Vuggy qtz W/some ser						
End Box 8		from 290.0' - 291.5'.						
290.0	1.4		1	290				
296.0	5.0		2	295				
301.0	4.8		3	300				
305.8	4.7		4	305				
309.2	3.3		5	310	5.0	0.2		
314.0	4.8	296.0' - 348.0' Hd lt gry blchd arg qtzite.	6	315				
317.9	3.7	Occas. thin bands dism sid. ½" silicified	7	320				
321.2	3.0	sid at 323.0'. ½" sid with some qtz &						
324.3	2.4	little chl at 332.0'. Small band py xtals	8	325				
End Box 9		at 333.0'. ¼" qtz W/some sid at 342.0'.						
329.1	4.0		9	330				
334.1	4.7		E1500	335				
338.9	4.5		1	340				
343.3	4.4		2	345				
346.7	3.5		3	350				
350.3	4.3							
351.1	0.6							
354.0	2.6		4	355				
356.3	1.9							
358.5	1.9	348.0' - 379.0' Hd lt gry blchd qtzite. 6"	5	360				
361.2	1.4	massive qtz at 350.5'. Massive qtz W/few						
End Box 10		ser sms from 351.5 to 354.0'. Massive qtz						
362.5	1.2	W/few thin ser sms from 361.0' to 363.0'.						
364.4	1.8	Same from 365.0' to 365.5'. 1" qtz W/specks	6	365				
366.8	1.6	sid at 378.0'.	7	370				
370.5	3.6							
372.5	2.0							
374.2	1.7		8	375				
378.4	2.4		9	380				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Drift

Logged by
Date
Drilled by

Hole No.: SS 3271
Level: 3000
Grid: 249
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
382.4	3.8	379.0' - 400.0' Soft thin bedded lt grn						
384.8	2.2	blchd arg qtzite. One thin bed tan arg ss.	E1510	385				
386.5	1.2	Occas thin bands dism sid. Few thin chl	1	390				
391.5	5.0	sms. ½" sid W/some qtz at 387.0'. 2" qtz	2	395				
396.3	4.5	W/specks sid at 392.0'.	3	400				
End Box 11								
401.3	5.0		4	405				
406.1	4.8	400.0' - 435.0' Hd very lt gry blchd qtzite.	5	410				
410.8	1.5	2" massive qtz W/some sid at 400.0'. 3"						
414.5	3.2	massive qtz W/sid & some ser at 405.0'. 2"	6	415				
417.5	3.4	massive qtz W/some sid & ser at 411.0'. 1"						
420.0	2.3	massive qtz W/some ser at 413.0'. 4" massive	7	420				
423.5	3.5	qtz W/some sid at 416.0'. 3" massive qtz						
424.6	1.1	W/ser at 416.5'. 6" massive qtz W/some sid	E1938	425	0.4	0.8		
425.6	0.9	at 417.0'. 3" massive qtz W/some ser at						
430.0	3.2	418.0'. 2" massive qtz at 429.0'. 3"	9	430	5.0	0.7		
End Box 12		massive qtz W/some sid at 430.0'. 3" massive						
432.7	1.9	qtz at 434.5'.						
434.9	1.1		40	435	5.0	1.0		
439.8	4.9		1	440	5.0	0.2		
444.6	5.0	435.0' - 460.0' Abt eql amts lt grn blchd	2	445	5.0	0.1		
449.8	4.6	arg qtzite & hd lt gry blchd qtzite. Occas	3	450	5.0	0.1		
455.2	4.2	bands dism sid. Few chl sms.	4	455				
460.0	4.6		5	460				
464.8	4.8		6	465				
469.1	4.7		7	470				
475.1	0.8		8	475				
477.8	2.0		9	480				
End Box 13		460.0' - 510.0' Hd lt gry blched qtzite.						
482.7	4.9	Some dism sid. Few chl sms. 1" sid some	50	485				
485.2	1.0	qtz & little py at 469.0'	1	490	5.0	0.2		
490.2	2.5							
494.8	3.0		2	495				
496.9	1.6		3	500				
500.4	2.0							
505.0	4.6		4	505				
510.2	4.8		5	510				
512.0	1.5		6	515				
517.0	5.0		7	520				
End Box 14								
522.0	2.1		8	525				
525.2	1.7	510.0' - 565.0' Lt grn blchd arg qtzite.	9	530				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Drift

Logged by _____ Date _____
Drilled by _____

Hole No. SS 3271
Level 3000
Grid 249
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
530.2	1.5	Much dism sid. Few chl sms. ½" gg at	E1960	530-535				
534.0	3.4	522.0'. ½" gg at 524.0' also some brecciated	1	540				
540.4	2.0	qtzite.						
544.6	2.6		2	545				
546.1	1.3							
548.9	1.1		3	550				
553.6	4.6		4	555				
558.2	4.4		5	560				
560.4	2.0		6	565				
565.3	5.0							
End Box 15								
570.0	4.2		7	570				
575.0	4.9		8	575				
579.5	4.2		9	580				
584.4	4.9		70	585				
586.2	1.3							
589.8	2.8		1	590				
592.2	2.3	565.0' - 650.0' Hd lt gry grn blchd arg	2	595				
597.2	5.0	qtzite. Some dism sid. Few large py cubes	3	600				
601.8	4.5	at 567.0'. Band small py cubes at 586.0' &	4	605				
End Box 16		642.0'						
606.7	4.8		5	610				
611.7	5.0		6	615				
616.7	4.9		7	620				
621.7	5.0		8	625				
627.4	1.4		9	630				
632.3	4.9		80	635				
637.3	4.8		1	640				
642.2	4.9		2	645				
End Box 17								
647.2	5.0		3	650				
652.2	5.0		4	655				
657.2	4.8	650.0' - 680.0' Mostly hd lt gry blchd	5	660				
662.2	2.3	qtzite. Some lt grn gry blchd arg qtzite.	6	665				
667.2	4.9	Few ser sms. Some dism sid. Small sid	7	670				
671.2	4.0	stgrs at 631.0' & 637.0' & at 678.0'.	8	675				
676.2	4.9		9	680				
End Box 18								
681.2	4.8		90	685				
686.2	5.0		1	690				
691.4	5.0		2	695				
696.5	5.0		3	700				
701.6	5.0		4	705				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Drift

Logged by: Date:
Drilled by:

Hole No.: SS 3271
Level: 3000
Grid: 249
Latitude:
Departure:
Elevation:
Bearing:
Inclination:

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
706.6	5.0		E1995	705-710				
710.1	3.5							
714.0	3.9		6	715				
End Box 19								
718.9	3.0		7	720				
723.9	5.0		8	725				
728.8	4.9		9	730				
733.8	4.3		E2000	735				
738.8	4.5							
740.0	0.9		1	740				
745.0	2.2		2	745				
750.0	2.5		3	750				
755.0	4.7		4	755				
760.0	4.8	680.0' - 837.2' Abt equal amts massive hd	5	760				
End Box 20		lt gry grn arg qtzite. & massive lt gry						
765.0	4.6	qtzite. Occas. bands dism sid. Occas ser	6	765				
770.0	4.9	sms. Few chl sms. Slips at 798.0', 810.0',	7	770				
775.0	4.7	822.0' & 825.0'. Numerous irreg sid-qtz	8	775				
780.0	4.9	stgrs (½" to 2" wd) 801.5' to 803.0'. and	9	780				
785.0	4.7	823.0' to 826.5'. ½" stgrs py at 802.5'	10	785				
790.6	5.0	and 812.0'. Tiny veinlets sid with some	1	790				
End Box 21		py and cpy at 829.0'.						
795.3	4.2		2	795				
798.3	3.5		3	800				
802.0	2.6							
803.0	1.2		4	805				
805.8	2.0							
807.0	1.1							
810.0	3.0		5	810				
812.2	1.5		6	815				
817.0	4.6		7	820				
821.6	4.6							
822.8	1.1		8	825				
826.3	3.1							
829.0	2.6		9	830				
832.2	1.4		20	835				
End Box 22								
837.2	1.1		1	840	5.0	0.6		
840.7	2.8		2	845				
845.6	4.9	837.2' - 859.1' Blchd lt gray slightly arg	3	850				
850.3	4.7	qtzite W/yellowish bands ser. Numerous 1/16						
853.3	2.0	to ½" irreg veinlets sid W/some py. Small	4	855				
855.0	1.6	streak qtz-tetra at 840.0'. 2" stgr py at						
857.0	1.0	848.0' and at 850.0'.						
859.1	1.2		5	860	5.0	0.7		

FORM 127 1M 7-85

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Explor. Drift

Logged by: Date:
Drilled by:

Hole No.: SS 3271
Level: 3000
Grid: 249
Latitude:
Departure:
Elevation:
Bearing:
Inclination:

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
861.2	1.6							
862.1	0.9	859.1' - 874.0' Med gry to nearly white						
863.0	0.7	qtzite. (gry color is due to some dism dk						
864.0	1.0	mineral probably py.) Badly broken qtz sid	E2026	860-865	5.0	1.0		
867.2	2.2	vein from 859.1' to 862.1'. Shows numerous						
868.1	0.9	buttons py-tetra. Ggy at 861.0' with occas						
869.1	1.0	black slickenside parallel to core axis.	7	870				
870.4	1.3	White qtz 870.4' to 874.0'. Some gg at						
870.8	0.6	872.9' and at 873.3'.						
872.9	2.1							
873.3	0.4	Note : Split core 859.1 to 862.1 (2.5 core)	8	875				
		Assayed 2.1 oz Ag; No Pb; 0.1% Zn, & 0.02%						
880.0	0.7	Cu.	9	880				
End Box 23								
885.2	3.2		30	885				
890.2	4.8		1	890				
893.0	2.6		2	895				
896.3	3.0							
898.0	1.5	874.0' - 917.0' Mostly lt gry blchd qtzite.	3	900	5.0	0.2		
900.2	1.5	Some darker gry & greenish arg bands. Some						
904.9	4.6	small pieces broken qtz at 884.5', 898.0',	4	905	5.0	0.4		
905.4	0.3	902.0' & 907.0'. Small slip zone at 884.5'.						
907.0	1.5	Fault zone 912.0' - 914.0'.	5	910	5.0	0.2		
911.6	4.5							
912.0	0.4							
914.0	1.8							
914.9	0.8		6	915	5.0	0.4		
916.1	1.0							
917.0	0.9							
End Box 24								
918.8	2.0							
919.5	0.7							
921.0	1.5		7	920	5.0	0.7		
922.0	1.0							
925.3	3.5	917.0' - 934.2' Hd lt qtzite. Mostly	8	925	5.0	0.2		
926.1	1.0	silicified, nearly white. Fault zone 917.0'-						
929.7	3.6	918.8'.						
931.2	1.5		9	930	5.0	0.3		
933.7	2.5							
934.2	0.8							
			40	934.2	5.0	0.8		
		END OF HOLE						

FORM 127 1M 7-65

RECEIVED
MAR 2 6 1956

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED FEB 20 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1956 Docket No. DMEA 2879 Contract No. IDM-E541
Operator's Name Polaris Mining Company Minerals Copper, lead, antimony (and incidental silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 Core 602.0 @ $4.50	$2709.00	$34,794.00	$37,503.00	2709.00	34794.00	37503.00
~~xxxxxx~~ Raising		30,248.26	30,248.26		30248.26	30248.26
Crosscutting 29.5 @ $48.78	1439.01	15,827.86	17,266.87	1439.01	15827.86	17266.87
Drifting 253.0 @ $48.78	12341.34	404,370.53	416,711.87	12341.34	404370.53	416711.87
Sideswipe 50.0 @ $25.50	1275.00	25,441.35	26,716.35	1275.00	25441.35	26716.35
(2) Labor and Supervision:						
Labor				2/21/56	WRK.	
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$17,764.35	$510,682.00	$528,446.35	17764.35	510682.00	528446.35

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

Date ..... *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 8882 18

Signature M. R. P.
(Authorized Certifying Officer)

Date 2/16/56 Vou. No. 1712
(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 2/16/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Wing G. Agnew Title Acting Exec. Officer Date 2/16/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
FEB 29 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1956 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 Wallace, Idaho

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	feet	$12,341.34	253.0	$416,711.87	8331.3	50.02	10725	$ 51.00*
Crosscutting	"	1,439.01	29.5	17,266.87	343.2	50.31		
Raising	"			30,248.26	324.1	93.33	330	93.33
~~XXX~~ Sideswiping	"	1,275.00	50.0	26,716.35	1047.7	25.50	1560	25.50
Winzes								
Drilling: Core	"	2,709.00	602.0	37,503.00	8334.0	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		17,764.35						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 _____ Operator Polaris Mining Company

Per J. B. Mudell Title President

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)

* Maximum allowed by contract.

(For Government use only)

/s/ Eric G Erickson

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 872894

Polaris Mining Company

Wallace, Idaho

RECEIVED
FEB 20 1956

February fourteenth
1 9 5 6

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - January 1956
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

The main easterly heading was advanced a total of 253.0 feet during January. Sideswipe consisted of 37 feet (from station SS 3050 plus 18 to 55 feet) and 13 feet (from station SS 3058 plus 141 to 154 feet). Number 281 N. crosscut was driven 29.5 feet. Diamond drill hole No. 3271 was drilled 471.7 feet during the month and was still being continued. Hole No. 3272 was drilled 130.3 feet and completed to 987.0 feet. The log of SS 3272 is enclosed. The log of SS 3271 will be included in next month's report.

The attached 50-scale map shows the advance during January. Rocks are still bleached argillaceous quartzite containing minor quartz and siderite stringers. Several minor faults were found, and near the Rainbow west boundary a stronger fault structure was cut. In the hangingwall of this fault there was considerable coarse-grained siderite containing some pyrite, and north, or in the footwall, a strong fault zone was exposed in the north crosscut. Holes will be drilled both northerly and southerly from the crosscut and the sideswipe opposite the mouth of the crosscut.

Ventilation is getting to be a greater problem as this long drift continues to advance.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/rmr

Encs.

Note: All Sludge Assays Trace No Silver
Unless Otherwise Indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 12-14-55
Finished 1- 9-56
Hole Size EX
Depth 987
% Core Rec. 74

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift
SS 3050 + 35' N.
Logged by J.G.S. Date 1-13-56
Drilled by Holten, Houser, Walker

Hole No. 3272
Level 3000
Grid 263
Latitude 84 365 S
Departure 90 611 E
Elevation -288'
Bearing N 18° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.6	5.0		E1741	0 - 5	5.0	0.2		
9.6	4.0		2	10				
10.3	0.7		3	15				
15.3	5.0	0.0' - 50.0' Abt eql amts hd lt gry grn						
17.8	2.1	blchd arg qtzite & softer lt grn blchd arg	4	20				
22.6	4.8	qtzite. Occas thin ser sms. Few narrow	5	25				
27.7	4.6	bands dism sid. 2" qtz W/little sid & ser	6	30				
32.0	4.2	at 3.0'. Occas py xtals thruout. Small	7	35				
36.4	4.2	fault & little py at 36.0'.	8	40				
End Box 1								
41.4	5.0		9	45				
46.3	4.9		50	50				
51.3	5.0		1	55				
56.3	4.9		2	60				
61.3	5.0		3	65				
66.1	4.8							
70.0	3.5		4	70				
74.4	4.4		5	75				
End Box 2								
78.8	3.8		6	80				
82.5	3.7		7	85				
87.0	4.2		8	90				
91.3	4.2	50.0' - 175.0' Thin bedded soft lt grn blchd	9	95				
95.4	4.1	arg qtzite. Many narrow bands dism sid. Few	60	100				
100.5	2.0	tiny wh carb stgrs. Few ser sms. Few chl						
103.7	3.2	sms. Shearing & few py cubes at 120.0'.	1	105				
107.0	3.3	Shearing at 124.0' & 128.0'. Small slip at	2	110				
End Box 3		130.7'. 1" qtz at 144.0'. Small stgr qtz						
113.0	5.0	W/little sid & PbS at 148.0'. Small slip at	3	115				
116.7	3.7	157.0'. Small slip at 161.0'.	4	120				
120.4	2.6							
124.1	3.7		5	125				
128.9	4.8		6	130				
130.6	1.7							
132.7	1.9		7	135				
136.7	4.0							
138.4	1.5							
139.7	0.9		8	140				
End Box 4								
142.9	2.6		9	145				
145.1	2.2							
146.9	1.4							
148.9	1.8		70	150				
151.2	2.2							
154.7	3.2		1	155				

RECEIVED
FEB 20 1966

RECEIVED
OCT 20 1956

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Drift

Logged by _____ Date _____
Drilled by _____

Hole No. 3272
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
159.6	4.3		E1772	155-160				
164.5	4.6		3	165				
169.5	3.7		4	170				
171.7	2.2							
172.6	0.9		5	175	5.0	0.2		
177.7	2.0							
179.5	0.5		6	180	5.0	0.2		
End Box 5								
181.7	1.5		7	185				
186.9	3.8							
188.3	1.0		8	190				
193.5	5.0		9	195				
198.5	5.0		80	200				
203.5	5.0		1	205				
205.1	1.4		2	210				
210.1	4.6							
214.8	4.3		3	215				
End Box 6		175.0' - 330.0' Mostly hd massive lt grn						
219.8	4.8	gry blchd arg qtzite. Occas beds soft grn	4	220				
224.8	5.0	blchd arg. 4" qtz little sid & ser at	5	225				
230.0	4.8	183.0'. ¼" wh carb at 245.0. Small fault	6	230				
235.0	4.8	at 218.0'. ½" qtzite breccia W/wh carb	7	235				
237.3	2.3	cement & little lt emerald grn stain at	8	240				
240.8	2.2	245.0'. Highly silicified zone from 248.0'	9	245				
248.5	7.0	to 295.0'. Little lt emerald grn staining	90	250				
End Box 7		from 251.0' to 253.0'. 1" qtz little wh						
253.8	4.6	carb at 284.0'. ½" qtz little wh carb &	1	255				
258.8	4.9	sid at 285.0'. Small stgr qtz little wh	2	260				
263.5	2.0	carb at 295.0'. Small fault at 294.0'.	3	265				
270.0	2.1	Small wh carb stgrs at 298, 300, & 304.0'.	4	270				
276.0	4.7	Highly silicified zone W/some dism sid &	5	275				
280.0	3.5	few tiny sid stgrs from 318.0' to 328.0'.	6	280				
282.2	1.8	Occas small py xtals thruout.	7	285				
287.3	4.6		8	290				
292.5	4.9		9	295				
297.5	4.4		E1800	300				
End Box 8								
302.4	4.9		1	305				
307.5	5.0		2	310				
312.1	4.6		3	315				
317.6	5.0		4	320				
322.6	4.8		5	325				
326.0	3.2							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Drift

Logged by _____ Date _____
Drilled by

Hole No. 3272
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
331.0	3.7		E1806	325-330				
End Box 9			7	335				
336.0	4.9		8	340	5.0	0.2		
341.0	4.8		9	345				
346.0	5.0	330.0' - 378.0' Abt eql amts lt grn blchd	10	350				
350.5	2.8	arg qtzite & very lt purp hd qtzite. Some	1	355				
355.5	5.0	dism sid thruout. Few sms ser. Some car-						
360.0	4.5	bonitization from 360.0' to 365.0'.	2	360				
365.0	4.7		3	365				
370.0	4.4		4	370				
End Box 10								
378.5	1.6		5	375	5.0	0.1		
380.0	0.8	378.5' - 387.0' Mostly dk purp arg qtzite	6	380				
385.0	5.0	W/much dism sid. Some hd lt grn gry blchd	7	385				
		arg qtzite.						
390.0	5.0	387.0' - 400.0' Dk purp arg qtzite W/little	8	390				
395.0	4.8	dism sid & few small slips thruout. Houser	9	395				
399.7	2.0	reports purp gg 397.0' - 399.0'.	20	400				
404.7	5.0	400.0' - 411.0' Hd lt gry blchd qtzite.	1	405				
409.5	4.8	Shear zone W/much ser & small sid stgr from	2	410				
End Box 11		400.0' to 400.5'. Small fault at 401.5'.						
414.5	4.6		3	415				
420.1	5.0		4	420				
425.1	4.0		5	425				
430.1	5.0		6	430				
435.1	3.9		7	435				
440.1	4.4	411.0' - 490.0' Hd lt gry blchd arg qtzite.	8	440				
445.1	2.9	Some softer lt grn blchd arg qtzite. Small	9	445				
450.1	5.0	irreg sid stgrs at 419.0', 421.0', 423.0',	30	450				
End Box 12		426.0' & at 428.0'. ½" qtz & little wh carb						
453.9	2.5	at 423.0'. Few zones 3" to 6" badly brkn	1	455				
456.2	2.1	core thruout. Narrow bands dism sid & few	2	460				
462.8	4.8	py xtals from 435.0' to 450.0'. ½" qtz stgr	3	465				
465.5	1.4	W/wh carb & py at 457.0'. Small fault qtz &						
470.0	0.7	py at 458.0'. Little core recovered & badly	4	470				
475.0	0.7	broken from 460.0' - 485.0'. (Probably	5	475	5.0	0.2		
480.0	1.2	Polaris or Mineral Point fault.)	6	480				
485.0	1.3		7	485	5.0	1.0		
489.9	2.5		8	490				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Drift

Logged by _____ Date _____
Drilled by _____

Hole No. 3272
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
494.0	3.8	490.0' - 500.0' Mostly lt purp arg qtzite &	E1839	490-495				
495.0	1.0	some soft lt grn blchd arg. few small slips						
500.0	3.5	some ser.	40	500				
503.0	2.5	500.0' - 508.0' Abt eql amts soft lt grn	1	505				
End Box 13		blchd arg & harder lt gry grn blchd arg						
505.8	2.2	qtzite. Few narrow bands lt purp arg qtzite.	2	510				
		Many narrow bands dism sid. Some ser.						
510.1	4.3		3	515				
515.8	5.0	508.0' - 542.0' Mostly hd lt gry blchd	4	520				
520.2	4.4	qtzite. Some softer lt gry grn blchd arg	5	525				
525.4	5.0	qtzite. Few thin ser sms & few small slips.						
529.6	3.7	Dism sid thruout. ½" qtz stgrs W/little sid	6	530				
534.6	4.4	& wh carb & ser at 518, 519, & at 523.0'.	7	535				
539.6	3.3		8	540				
544.0	3.0		9	545				
End Box 14								
548.3	4.0	542.0' - 565.0' Abt eql amts lt gry grn	50	550				
553.4	3.9	blchd arg qtzite & lt grn blchd arg. Freq	1	555				
556.0	1.6	bands dism sid, little carbonitization.						
560.0	3.2	Little ser.	2	560				
561.0	0.9							
565.0	1.4		3	565				
570.0	4.4	565.0' - 585.0' Abt eql amts hd lt gry	4	570				
575.2	4.9	blchd qtzite & lt gry blchd arg qtzite. Few	5	575				
580.2	4.9	thin beds lt grn blchd arg. Some ser.	6	580				
585.2	5.0	Little dism sid. Small qtz stgr W/wh carb	7	585				
End Box 15		& py xtals at 579.0'.						
590.2	5.0	585.0' - 606.0' Hd lt grn gry blchd arg	8	590				
595.2	4.8	qtzite. Minor amts soft lt grn blchd arg	9	595				
599.6	4.1	qtzite. Little dism wh carb. Few small	60	600				
604.6	5.0	slips W/some ser.	1	605				
609.6	5.0		2	610				
613.8	2.6	606.0' - 621.0' Dk purp arg qtzite. Little	3	615				
615.9	2.1	carbonitization & little dism sid from 607	4	620				
620.9	4.5	to 608.0'.	5	625				
End Box 16								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3272
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
626.4	5.0	621.0' - 650.0' Alternate zones from few	E1866	625-630				
631.4	4.8	inches to 2' of dk purp arg qtzite & lt gry	7	635				
636.4	4.7	blchd arg qtzite to lt purp partially blchd	8	640				
641.4	4.7	arg qtzite. Few small stgrs wh carb & some	9	645				
646.4	5.0	dism wh carb. Few bands dism sid.	70	650				
651.0	4.2		1	655				
End Box 17		650.0' - 674.0' Mostly hd lt grn blchd arg						
655.6	3.9	qtzite. W/little dism sid. Occas few	2	660				
660.6	5.0	inches dk purp arg qtzite.	3	665				
665.6	4.8		4	670				
670.6	4.9		5	675				
675.6	4.5							
677.2	1.5		6	680				
682.1	4.2		7	685				
687.0	4.9		8	690				
692.0	3.9		9	695				
697.0	1.3		80	700				
701.9	3.5		1	705				
710.6	4.3		2	710				
712.0	0.7		3	715				
717.0	4.9		4	720				
722.0	4.3	674.0' - 782.0' Mostly soft dk purp arg						
725.0	0.5	qtzite. Some soft dk purp arg. Occas few	5	725				
729.0	2.6	inches blchd arg qtzite. Few small veinlets	6	730				
732.5	1.2	wh carb. Hd lt grn gry blchd arg qtzite						
734.0	1.5	from 717 to 722.0' W/some carbonitization.	7	735				
737.2	1.7	Poor core recovery from 700 to 782.0'. Much	8	740				
End Box 19		badly broken core.	9	745				
748.0	0.9		90	750	5.0	0.4		
754.5	4.7		1	755	5.0	0.2		
757.2	1.7		2	760				
761.5	3.7							
764.9	2.0		3	765				
769.9	5.0		4	770				
772.0	1.4		5	775				
775.7	1.8		6	780				
780.7	0.5							
781.7	1.2		7	785				
785.7	4.0		8	790				
790.2	3.8	782.0' - 800.0' Mostly hd grn blchd arg	9	795				
End Box 20		qtzite. Some softer lt grn blchd arg in						
795.2	5.0	buttons. Little blchd qtzite.	E1900	800				
800.0	4.6							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Drift

Logged by
Date
Drilled by

Hole No. 3272
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
804.8	4.8		E1901	805				
810.0	4.9	800.0' - 823.0' Soft dk purp arg qtzite.	2	810				
815.0	5.0	Many thin ser sms. Few narrow blchd zones.	3	815				
818.1	3.1	Small wh carb stgr at 817.0'. Shearing at	4	820				
821.6	2.8	823.0'.	5	825				
End Box 21								
825.1	3.9							
827.2	2.0	823.0' - 830.0' Lt grn blchd arg qtzite.	6	830				
831.0	2.8		7	835				
835.2	3.0							
839.4	2.1		8	840				
841.1	0.7		9	845				
846.0	3.1							
848.5	1.6	830.0' - 879.0' Soft dk purp arg qtzite.	10	850				
853.5	2.7	Little carbonitization. Little dism sid.	1	855				
856.7	1.4	badly broken core thruout. Small slips	2	860				
861.0	0.6	thruout. Poor core recovery.	3	865				
865.2	2.0							
867.5	1.0							
870.0	0.9		4	870				
871.7	0.7		5	875				
876.5	2.6		6	880				
End Box 22								
880.2	1.0							
881.7	0.7	879.0' - 885.0' Hd lt grn blchd arg qtzite.						
885.0	2.0	Little hd lt gry blchd qtzite. Little wh carb.	7	885				
889.9	1.4		8	890				
893.1	0.9							
895.0	1.0		9	895				
896.2	0.6		20	900				
900.1	0.1							
903.9	1.2		1	905				
907.9	0.7	885.0' - 937.0' Mostly dk purp arg qtzite.	2	910				
912.9	1.0	Some lt grn blchd arg qtzite W/many ser	3	915				
916.2	0.9	filled irreg fractures.						
918.9	0.5		4	920				
923.9	0.3		5	925				
925.3	0.9		6	930				
930.8	0.7		7	935				
935.3	0.8							
937.2	0.4		8	940				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Expl. Drift

Logged by: Date:
Drilled by:

Hole No.: 3272
Level: 3000
Grid:
Latitude:
Departure:
Elevation:
Bearing:
Inclination:

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
942.2	0.6		E1929	940-945				
945.4	0.3	937.0' - 964.0' Abt eql amts lt grn & dk						
949.0	0.0	purp gg, sand & mud. Much partially rounded	30	950				
952.0	0.4	qtz grains in sand. Qtz grains mostly fine.						
955.0	0.4	A few up to ¼". Very poor core recovery.	1	955				
958.2	1.0		2	960				
964.0	4.0		3	965				
967.9	2.1	964.0' - 967.9' Hd lt gry blchd qtzite.						
968.6	0.5	967.9' - 968.6' Lt purp mud.						
969.0	0.1	968.6' - 976.7' Hd med gry blchd qtzite.	4	970				
971.6	0.4	Small irreg sid stgrs & fine grained small	5	975				
976.7	0.8	irreg py stgrs at 976.0'.	6	980				
980.9	0.0	976.7' - 980.9' No Core.						
987.0 End Box 23	2.5	980.9' - 987.0' Lt tan arg sand. Fine grained partially rounded qtz grains. Some small dk purp fragments. 2" med gry hd qtzite at 986.0'.	7	985				

END OF HOLE

Note: - - - -A fault with caved zone beginning at about 930'. Very poor core recovery from this point on. Most runs beyond this point contain ggy material much of which may have been picked up going thru caved zone, ~~and~~ plugging bit. Part of the core recovered appears to be a loose poorly consolidated sandstone especially 958 - 964' & 981 to 986'.

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JAN 20 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Lead, Copper, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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 Core 1072.2 @ 4.50	4,824.90	29,969.10	34,794.00	4824.90	29969.10	34794.00
Raising		30,248.26	30,248.26		30248.26	30248.26
Crosscutting		15,827.86	15,827.86		15827.86	15827.86
Drifting 2904 @ 48.78	14,165.71	390,204.82	404,370.53	14165.71	390204.82	404370.53
Sidewipe 11.0 @ 25.50	280.50	25,160.85	25,441.35	280.50	25160.85	25441.35
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
						1/27/56
TOTALS	19,271.11	491,410.89	510,682.00	19271.11	491410.89	510682.00

Klugerchuck
Betty

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

Date 1-5-56 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9635.56

Signature MJP
(Authorized Certifying Officer)

Date 1-16-56 Vou. No. 1689
(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. 6541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 1-9-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldak Title Mining Engr Date 1-10-56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JAN 20 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 195 5 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)
Address Box 320, Wallace, Idaho

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	feet	14,165.71	290.4	404,370.53	8,078.3	50.06	10725	~~$ 51.00~~ 48.78
Crosscutting	"			15,827.86	313.7	50.46		
Raising	"			30,248.26	324.1	93.33	330	93.33
~~Stoping~~ Sidesniping	"	280.50	11.0	25,441.35	997.7	25.50	1560	25.50
Winzes								
Drilling: Core	"	4,824.90	1,072.2	34,794.00	7,732.0	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		19271.11		510,682.00				685955.00

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 1-5-56 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

151 E. G. Erickson

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 872894

Polaris Mining Company

Wallace, Idaho
January fifth
1 9 5 6

RECEIVED
JAN 30 1956

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - Dec. 1955
Docket No. DMEA - 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 290.4 feet during December, and 11 feet of sideswipe (from Station 3055 plus 56 to 67 feet) was completed. Diamond drill hole No. SS 3270 was extended 215.5 feet to completion at 1010 feet and hole No. SS 3272 was extended 856.7 feet. A log of hole No. SS 3270 is attached and the log of hole SS 3272 will be provided upon completion of the hole.

The attached 50 scale map shows the geology of December's advance. Minor quartz and siderite stringers were exposed in bleached argillaceous quartzite. Also enclosed is Sheet No. 5 showing progress through November. This is the standard sheet which shows compiled information previously submitted on small monthly sheets.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/rmr

Note: All sludge assays are trace or no silver unless otherwise noted.

DIAMOND DRILL RECORD

RECEIVED
JAN 20 1956

Standpipe
Casing

Started 8-1-55
Finished 12-13-55
Hole Size EX
Depth 1010.0'
% Core Rec. 85

Mine SILVER SUMMIT
Location Polaris E. Exploration Drift. SS 3039 + 29' N.
Logged by M.W.H. & J.G.S. Date
Drilled by Holten & Walker

Hole No. SS 3270
Level 3000
Grid 244
Latitude 84, 013 S
Departure 89, 663 E
Elevation -292'
Bearing (see hole
Inclination survey page 8)

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0 -5.4	3.3	0 - 8.3' Mostly blchd lt gray qtzite. Few lavender bands.	E1388	0 - 5				
8.3	2.6		9	10				
10.5	2.5							
11.8	1.5	8.3' - 19.0' Med gray to lt purple arg qtzite.						
14.0	2.0	Slip at 19.0'.	90	15				
16.0	2.3							
17.3	1.2							
19.0	2.0		1	20				
20.1	1.0							
22.2	2.1							
24.2	2.0	19.0' - 35.6' Mostly blchd lt greenish gray	2	25				
25.2	1.0	qtzite. Some narrow arg bands. Core Mostly						
28.0	2.8	broken 19.0' to 24.0'. Small str calcite						
29.6	1.5	at 27.5'.	3	30				
31.0	1.4							
End Box 1								
33.1	2.1							
34.2	1.0		4	35				
35.6	1.3							
37.0	1.4							
38.5	1.4							
39.2	0.7	35.6' - 54.9' Thin beds greenish arg and	5	40				
41.8	2.6	greenish gray arg qtzite. Some slightly						
43.5	1.6	purple bands, 37.0' to 42.0'.	6	45				
45.7	2.2							
47.4	1.7		7	50				
50.7	2.7							
51.8	1.1							
54.9	2.8		8	55				
58.9	4.0	54.9' - 65.2' Light gray-green qtzite.	9	60				
61.6	2.5	Some med gray argillaceous bands at 64' to	400	65				
End Box 2		65'.						
65.2	3.6							
68.3	2.8							
69.0	0.6	65.2' - 84.0' Moderately blchd lt gray to	1	70				
73.1	4.1	med gray arg qtzite. Slip at 78.9'.	2	75				
75.4	2.2							
78.9	3.5		3	80				
83.4	4.4		4	85				

RECEIVED
JAN 20 1956

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by — Date
Drilled by

Hole No.: SS 3270
Level: 3000
Grid: 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
85.4	2.0		E1405	85'-90'				
87.0	1.5							
90.8	3.7							
92.5	1.7							
94.2	1.6		6	95				
End Box 3								
98.0	3.8	84.0' - 125.5' Mostly thin beds, only						
99.2	1.2	partially blchd. Numerous blue-gray to	7	100				
100.5	1.2	purple bands. Slip at 125.5'.						
104.6	4.1		8	105				
108.5	3.9		9	110				
111.3	1.9							
113.0	1.7		10	115				
116.1	3.0							
119.3	2.7		1	120				
122.0	2.6		2	125				
125.5	2.8	125.5' - 132.3' Mostly blchd lt gray green						
127.8	2.3	arg qtzite. Slips at 127' to 128' and 129'						
129.8	2.0	to 129.5'. Considerable lt green chlorite	3	130				
		at 131'.						
132.3	2.5							
End Box 4								
132.8	0.3		4	135				
137.4	3.9							
139.6	2.2		5	140				
144.1	3.7		6	145				
146.4	2.3	132.3' - 227.0' Mostly lt gray blchd qtzite.						
148.5	1.7	Several zones brecciated qtzite cemented	7	150				
150.5	1.8	with dark chloritic material, notably at	8	155				
155.3	4.3	134.0', 140.0' to 140.5', 155.0', & 167.0'	9	160				
160.3	3.9	to 171.0'. Shearing with some gg at 132.8',						
165.0	4.5	139.6', & at 159.0'. 2" breccia with some	20	165				
End Box 5		qtz at 151.0'. 2"-3" ggy zones at 210.6' &						
167.1	2.1	214.6'.	1	170				
171.1	3.8							
172.4	1.2							
174.1	3.2		2	175				
181.1	4.6		3	180				
186.0	4.8		4	185				
191.1	3.9		5	190				
195.3	4.7		6	195				
197.9	2.2							
199.1	0.7		7	200				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3270
Level 3000
Grid 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
200.4	1.3							
201.6	1.3		E1428	200-205	5.0	0.2		
End Box 6								
205.6	3.5		9	210				
210.6	4.6							
214.6	4.7		30	215				
216.0	1.3							
219.7	3.5		1	220				
222.8	3.0							
224.5	1.7		2	225				
227.2	2.5		3	230				
231.3	4.0	227.0' - 231.3' Med gray qtzite						
End Box 7								
233.2	2.1		E1519	235				
237.9	4.8	231.3' - 250.0' Lt grn blchd arg qtzite	20	240				
241.1	3.2	w/occas irreg highly silicified bands. Many						
242.2	0.9	thin ser sms. Some dism sid & few white						
245.0	2.0	carb veinlets.	1	245				
250.0	1.8		2	250				
255.0	4.3		3	255				
256.8	1.8		4	260				
261.6	3.3		5	265				
266.6	4.8		6	270				
271.5	3.9							
End Box 8		250.0' - 309.0' Mostly hd lt gry blchd arg						
275.0	1.8	qtzite w/much dism sid & some dism white	7	275	5.0	0.2		
280.0	1.4	carb. Little lt grn blchd arg & little	8	280				
283.0	3.0	blchd qtzite. Some ser. Three ½" stgrs	9	285				
288.0	4.8	sid w/some white carb & qtz at 261.0'.	30	290				
293.0	4.6							
294.0	0.7		1	295				
298.2	4.2		2	300				
301.1	2.6		3	305				
305.4	3.9							
308.5	2.9		4	310				
End Box 9								
311.7	2.8		5	315				
315.9	3.5		6	320				
320.7	4.0	309.0' - 350.0' hd silicified lt gry to						
323.6	2.8	gryish white qtzite except for a 6" greenish	7	325				
326.3	2.6	gray soft section at 343.1'. Broken shrd	8	330				
328.1	1.0	& ggy at 311.7', 315.9', 320.3', 326.0',						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3270
Level 3000
Grid 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
333.1	3.5	339.0', 342.0'. A ¼" qtz-carb vein at 313.5'	E1539	335				
338.1	4.3	½" qtz vein at 318.5'; ¼" at 321.3'; a 5-6						
339.2	0.7	inch zone qtz at 323.0'; ½" at 326.0'.	40	340				
343.2	1.2		1	345				
348.2	4.7							
350.0	1.6		2	350				
End Box 10								
353.3	3.1		3	355				
357.0	3.3							
360.0	2.8		4	360				
364.8	3.4	350.0' - 389.0' Lt gry qtzite silicified	5	365				
368.8	4.0	from 350.0'-355.0'; 360.0'-363.0'; 368.0'-	6	370				
372.0	3.0	389.0'. Broken & shrd throughout. Ggy at	7	375				
377.0	3.1	357.0', and 387.4'. Scattered pyrite crystals	8	380				
382.0	4.4	382.0'-389.0'. A ¼" qtz vein at 388.0' with						
383.0	0.8	row of tiny pyrite crystals along border.	9	385				
387.4	2.9							
388.4	0.9		50	390				
End Box 11								
392.8	3.8		1	395				
396.7	3.2		2	400				
401.7	4.7							
402.0	0.2		3	405	5.0	0.2		
407.1	4.5		4	410				
411.1	3.5		5	415				
415.8	4.7	389.0' - 505.0' Mostly hd lt gry grn blchd	6	420				
420.8	5.0	arg qtzite. Few narrow zones of intense						
425.0	4.1	silicification. Few thin bands of soft lt	7	425				
End Box 12		grn blchd arg. Some ser sms. Little dism						
430.0	4.8	sid. Few bands w/a faint purplish tint.	8	430				
435.0	4.5	Lt purp arg qtzite w/much dism sid from	9	435				
439.6	4.5	431.0' to 436.0'. Blchd qtzite fault brec-	60	440				
444.7	5.0	cia cemented w/ser & qtz. Few purp frag.	1	445				
454.4	4.7	Little white carb from 472.5' to 473.2'.	2	450	5.0	0.2		
459.4	4.5	Small irreg sid stgrs at 490.0' & 490.5'.	3	455				
464.4	4.5	Large scat py cubes from 495.0' to 500.0'.	4	460				
End Box 13			5	465	5.0	0.1		
467.6	3.2		6	470				
474.1	3.6		7	475				
477.4	2.0							
479.5	1.1		E1634	480				
481.5	1.5							
483.6	1.5		5	485				
888.1	4.5		6	490				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3270
Level 3000
Grid 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
492.3	3.9		E1637	495				
497.1	4.8		8	500				
501.8	4.7							
504.9	2.5		9	505				
End Box 14								
509.8	4.9		40	510				
514.4	4.4	505.0' - 529.0' Hd lt gry to faintly purp	1	515				
519.3	4.9	blchd arg qtzite. Some dism sid. Occas	2	520				
524.6	5.0	thin ser sms.	3	525				
529.4	4.4		4	530				
533.9	4.5	529.0' - 533.0' Hd lt purp arg qtzite.	5	535				
538.4	4.5		6	540				
End Box 15								
543.6	4.0		7	545				
548.9	5.0		8	550				
552.9	4.0		9	555				
557.9	5.0		50	560				
561.9	4.0	533.0' - 638.0' Hd massive dk purp arg	1	565				
567.0	5.0	qtzite. Few irreg bands white carb. Small	2	570				
571.1	3.0	fault at 538.0'. Possible small fault at						
572.2	1.0	575.0'. Lt purp arg qtzite from 584.0' -	3	575				
575.3	2.4	596.0'. ½" qtz w/some sid & ser at 594.3'.						
End Box 16		Bedding slip at 594.7'. 1" dk purp gg at						
576.9	0.8	601.0'. shearing, dk purp breccia & little	4	580				
581.9	4.6	purp gg from 626.0' to 627.0'. Badly bkn	5	585				
586.6	4.8	core. Some shearing & breccia. Little gg	6	590				
591.4	4.8	& one slick from 629.0' to 630.0'. Little	7	595				
596.4	5.0	shearing from 632.0' to 634.0'. Polaris	8	600				
601.4	4.6	fault probably at 626.0' to 634.0'.	9	605				
611.1	9.3		60	610				
616.1	4.9		1	615				
621.1	4.9		2	620				
626.0	4.9		3	625				
630.0	4.0		4	630				
631.5	1.2		5	635				
636.3	4.7		6	640				
640.9	4.7							
646.1	4.2	638.0' - 662.5' Hd lt gry blchd arg qtzite,	7	645				
651.1	4.7	Some dism white carb. 1" qtz w/spots sid &	8	650				
654.5	3.3	little ser at 644.0'. Small stgr qtz.						
656.4	1.8	Little ser & sms blk mineral at 646.5'.	9	655				
661.2	4.7		70	660				
			1	665				

FORM 127 1M 7-88

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location

Logged by Date
Drilled by

Hole No. SS 3270
Level 3000
Grid 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
665.9	4.7		E1672	670				
670.9	0.7		3	675				
675.9	5.0							
679.2	3.0		4	680				
680.7	1.2		5	685				
685.9	5.0		6	690				
End Box 19		662.0' - 717.0' Dk purp arg qtzite. Few thin beds dk gry arg. Few thin sms white carb.						
690.2	3.7							
694.5	4.8							
699.4	4.6		7	695				
704.1	4.8		8	700				
709.0	4.1		9	705				
712.7	3.5		80	710				
717.7	4.8		1	715				
End Box 20			2	720				
722.7	4.7	717.0' - 720.0' Hd lt gry blchd qtzite.	3	725				
727.7	4.7							
732.0	4.2	720.0' - 745.4' Hd lt gry blchd arg qtzite. Occas narrow zones w/ a very lt purp tint. Little dism sid. Small slip at 722.0'.	4	730				
737.0	4.7		5	735				
740.4	3.4		6	740				
745.4	4.6		7	745				
747.5	2.1	745.4' - 746.5' Hd lt purp qtzite w/very much dism sid & few small sid veinlets.	8	750				
753.3	5.0	746.5' - 755.0' Hd very lt purp qtzite. Occas small sid veinlets. Little dism sid.	9	755				
End Box 21								
758.0	4.6							
763.0	4.9		90	760				
768.0	4.6	755.0' - 799.0' Hd lt gry blchd arg qtzite. Some shearing from 756.0' to 758.0'. 1" qtz, little sid & ser at 756.0'. 2" qtz w/sid halo at 757.0'. 2 small faults at 770.0'. Highly silicified zone from 785.0' to 799.0'. Few very lt purp zones.	1	765				
773.1	5.0		2	770				
778.1	4.5		3	775				
782.4	4.3		4	780				
786.9	4.3		5	785				
End Box 22			6	790				
791.3	5.0							
794.5	3.0							
799.8	4.7		7	795				
			8	800				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by — Date
Drilled by

Hole No.: SS 3270
Level: 3000
Grid: 244
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
801.3	1.1		E1699	805				
805.4	2.0	799.0' - 833.0' fault zone. Mostly hd lt						
808.5	3.0	gry grn blchd arg qtzite. Some dk purp arg	E1700	810				
813.2	1.0	qtzite. Occas veinlets white carb & some						
815.0	0.7	of white qtz. Zone of most intense shearing	1	815				
817.2	0.6	is from 799.0' to 821.0' w/broken purp frag.						
819.2	1.7	Some beccias of mixed blchd & purp rocks.	2	820				
821.2	1.0	Many small sms gg. Badly broken core in	3	825				
826.2	4.2	general. Some ser & occas sms chl. pro-						
828.3	1.7	bably Mineral Point fault zone.	4	830				
830.2	1.9							
833.1	1.3		5	835				
End Box 23								
835.8	2.5							
836.3	0.5		6	840				
841.0	2.3							
843.3	1.1		7	845				
846.6	1.5							
849.5	1.3		8	850				
851.2	0.6	833.0' - 889.0' Mixed zone of lt gry grn						
854.0	1.2	blchd arg qtzite & dk purp arg qtzite. In	9	855				
858.6	2.0	general badly broken core. Especially from	10	860				
863.5	4.0	846.0' to 855.0' which is mostly sheared dk						
865.0	0.7	purp arg qtzite w/some gg & some slick.	1	865				
867.4	1.2	Occas irreg stgrs white carb thruout. Also	2	870				
871.6	2.3	thin sms ser.	3	875				
877.7	1.1							
879.8	1.0		4	880				
884.8	4.9		5	885				
887.3	1.8		6	890				
End Box 24								
890.5	2.3							
892.5	1.5		7	895				
896.4	3.4							
899.1	1.8	889.0' - 919.0' Med purp to dk purp arg	8	900				
904.1	2.9	qtzite. Occas narrow partially blchd zones.	9	905				
906.6	1.5	Some dism white carb. Shearing from 906.0'						
909.0	2.2	to 906.6' & at 912.6'.	20	910				
912.6	2.8		1	915				
916.5	3.6							
919.0	2.5		2	920				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3270
Level 3000
Grid 244
Latitude
Departure
Elevation
Bearing
Inclination

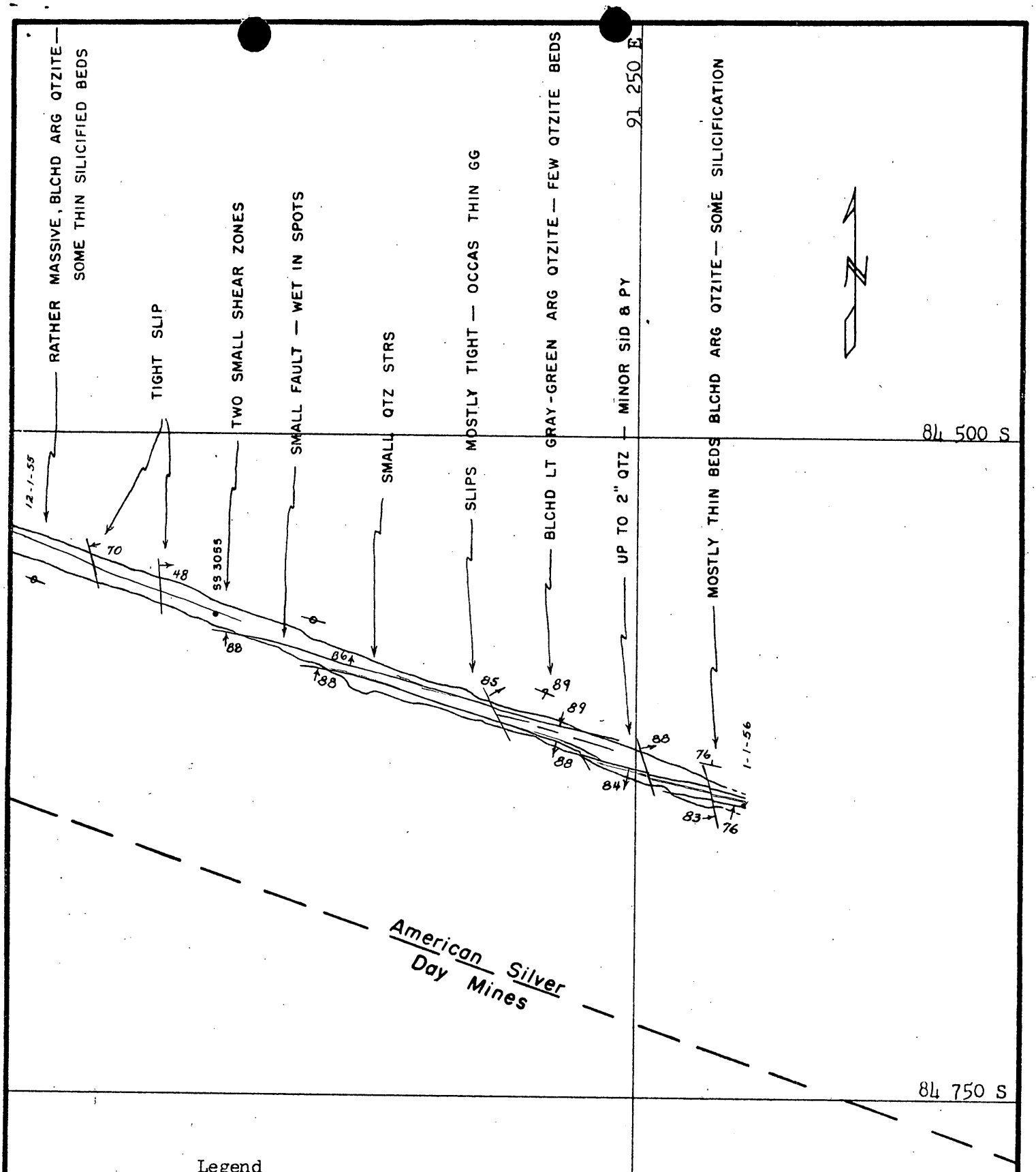
Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
923.9	5.0		E1723	925				
928.8	4.8	919.0' - 944.0' Bd lt grn blchd arg qtzite.	4	930				
End Box 25		Few thin lt purp bands. Some ser sms.						
932.5	3.4	Little dism sid. Occas thin highly sil						
934.5	1.1	bands. Bed slip at 937.0'. ½" white carb	5	935				
939.0	4.4	stgr at 942.0'.	6	940				
943.8	4.8		7	945				
948.6	4.8	944.0' - 954.0' Mixed zone of lt grn blchd	8	950				
953.3	4.7	arg qtzite & lt purp arg qtzite. Some dism	9	955				
		white carb.						
958.3	3.4		30	960				
960.9	1.5							
963.5	2.2							
965.0	0.6		1	965				
End Box 26								
967.5	2.3							
969.6	1.6		2	970				
972.1	1.5	954.0' - 1010.0' Dk purp arg qtzite w/few	3	975				
975.2	1.9	small stgrs white carb & some dism white						
979.0	3.8	carb. Badly broken core from 958.0' to						
980.0	0.8	965.0'. Lt grn blchd arg qtzite from 966.0'	4	980				
981.6	0.5	to 970.0'. Badly broken core & poor core	5	985	5.0	0.6		
986.6	2.0	recovery from 989.0' to 1010.0'.						
989.2	2.3		6	990				
997.1	0.9		7	995				
1001.0	1.0		8	1000				
1004.6	3.4		9	1005	5.0	0.2		
1007.0	0.9							
1008.0	0.7							
1010.0	1.2		40	1010				

DRILL HOLE SURVEY

Dec. 12, 1955, Trotter Pajari Compass, by MWH

Depth	True Bearing	Inclination
Collar	North	+ 1°
100	N 0° 30' E	- 6°
300	N 1° 30' W	- 9°
500	N 0° 30' W	- 6°
700	N 0° 30' W	- 8°
900	N 4° 30' W	- 8°

(by Brunton)



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 72 Strike and dip of faults
- 85 Strike and dip of beds
- 79 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Jan. 1, 1956
Geology by J.G.S.

RECEIVED
JAN 2 0 1956

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JAN 3 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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:				1/11/56	J.P.R.	
Drilling Core 542.1 @ 4.50	2,439.45	27,529.65	29,969.10	2439.45	27529.65	29969.10
~~xxxxxx~~ Bulldozing raising		30,072.49	30,072.49	175.77	30072.49	30248.26
Crosscutting		15,942.29	15,942.29	50.29	15777.57	15827.86
Drifting 265.4 @ 51.00	13,535.40	379,244.55	392,779.95	14429.02	375775.80	390204.82
Sideswipe 91.0 @ 25.50	2,320.50	22,633.16	24,953.66	2527.69	22633.16	25160.85
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Adjustments made						
TOTALS	18,295.35	475,422.14	493,717.49	19622.22	471788.67	491410.89

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

Date 12-9-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9811.11

Signature [signature]
(Authorized Certifying Officer)

Date 12-23-55 Vou. No. 1680

(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. 6541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 12-16-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr. Date 12-20-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JAN 3 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1955 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Mineral Copper, Lead, Antimony (& Incidental Silver)

Address Box 320, Wallace, Idaho

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
		1442902		390,204.82				
Drifting	feet	~~13,535.40~~	265.4	~~392,779.95~~	7,787.9	50.43	10725	$ 51.00 *
Crosscutting	"	50.29	158.27	15,942.29	313.7	50.82		
Raising	"	175.17	302.43	~~30,072.49~~	324.1	92.79	330	93.33
~~xxxx~~ Sidesewiping	"	~~2,320.50~~	91.0	~~24,953.66~~	986.7	25.29	1560	25.50
Winzes		2527.69		25160.85				
Drilling: Core	feet	~~2,139.45~~	542.1	29,969.10	6,659.8	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1962222		491410.89				685955.00

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.

REMARKS:

Date 12-9-55 Operator Polaris Mining Company

Per [signature] Title President

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)

*Maximum allowed by contract

151 Eric G Erickson

adjusted to audit report

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 872894

Polaris Mining Company

RECEIVED
JAN 3 1956

Wallace, Idaho
December ninth
1 9 5 5

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - Nov. 1955
Docket No. DMEA - 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 265.4 feet during November and 91.0 feet of switch sideswipe from Station SS - 3050 plus 151 to 242 feet was completed. Diamond drill hole No. SS-3268 was extended 221.6 feet completing the hole at 1004.2 feet. Hole No. SS-3270 was extended 320.5 feet and is still continuing. A log of SS-3268 is attached and the log for SS-3270 will be provided after the hole is completed.

The attached 50-scale map shows geology of the month's advance. The heading exposed minor quartz and siderite stringers in bleached argillaceous quartzite. The completed diamond drill hole No. SS-3268 crossed a section similar to that exposed in Coeur d'Alene Mines 2800 level south crosscut in the same general area. From 636 to 649 feet massive unmineralized white quartz was cut. Nothing else of interest was intersected by the hole.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/v

Note: All sludge assays are trace of gold & no silver unless otherwise noted.

RECEIVED JAN 3 1956

DIAMOND DRILL RECORD

Standpipe
Casing

Started 6-13-55
Finished 11-17-55
Hole Size EX
Depth 1004.2
% Core Rec. 93

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift
SS 3031 + 31.0' S.
Logged by J. G. S. Date 6-23-55-
Drilled by Holten & Walker 11-30-55

Hole No. SS 3268
Level 3000
Grid 218
Latitude 83, 541 S.
Departure 88, 369 E.
Elevation - 301'
Bearing S 23° W.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-6.0	2.5		E 1219	0 -5	5.0			
10.0	0.4		20	10				
12.0	1.8							
16.8	4.1		1	15				
22.2	4.8							
23.4	1.0		2	20				
28.5	5.0		3	25				
32.2	3.2		4	30				
37.2	5.0	0' - 77' Mostly hard lt. gray-green blchd	5	35				
42.1	5.0	arg qtzite. Occas. 1' to 2' band of hard	6	40				
End Box 1		light gray qtzite. Some dism. sid. & few						
46.8	3.4	chl. seams. Few vuggy 1" qtz stgrs from	7	45				
50.0	2.7	20.0' to 24.0' and from 42.0' to 48.0'.	8	50	5.0	0.2		
55.0	4.2		9	55	"	0.2		
57.0	1.7							
62.0	4.5		30	60				
67.0	4.4		1	65				
72.0	4.4		2	70				
76.0	3.0		3	75				
77.5	1.5							
82.5	4.4		4	80				
End Box 2								
85.2	2.7		5	85				
90.1	4.6	77' - 117' Mostly hard lt. gray blchd qtz-	6	90				
95.0	4.3	ite. Little softer lt. gray green blchd	7	95				
100.0	4.3	arg. qtzite. Occas thin ser seams. Few 1"	8	100				
104.5	3.8	vuggy qtz stgrs from 103 to 109.	9	105				
109.0	4.1		40	110				
113.5	3.7							
117.2	2.8		1	115				
End Box 3								
122.3	4.4		2	120	5.0	0.1		
123.5	1.2							
126.0	2.0		3	125	"	0.5		
131.0	4.4		4	130	"	0.1		
134.3	3.3		5	135				
139.1	1.5		6	140				
141.5	2.3	117' - 175' Hard lt. green blchd arg. qtz-						
144.8	1.5	ite. Some highly silicified bands (1'- 2').	7	145				
149.8	4.8	¼" sid stgr at 124'. Thin lenses dk gray	8	150				
154.8	5.0	mineral from 124-125.5 & 141.5 to 145. Few	9	155				
End Box 4		thin beds light brown arg sandstone, gently						
157.6	2.8	folded & at small angle to core at 168.0'.						

DIAMOND DRILL RECORD

RECEIVED JAN 3 1985

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by _____ Date
Drilled by

Hole No. SS 3268
Level 3000
Grid 218
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
161.9	4.6		E 1250	160				
164.7	2.8		1	165				
169.6	4.9		2	170				
173.6	4.7		3	175				
178.6	4.6							
			4	180				
		175' - 186.0' Hard lt. tan blchd qtzite						
183.6	5.0	with much dism sid. ½" stgr qtz with little sid at 184.0' and 185.0'.	5	185	5.0	0.1		
187.1	3.5							
192.0	4.6		6	190	"	0.1		
196.0	4.0		7	195				
200.8	4.5	186' - 220' Lt. gray-green to lt. green	8	200				
203.6	2.6	blchd arg qtzite. Freq. thin ser. seams.	9	205				
208.4	4.3	Some thin bands dism. sid.	60	210				
213.6	4.4							
216.0	2.1		1	215				
221.0	4.5		2	220				
End Box 5								
		220' - 226' Mostly hard lt. gray blchd.						
226.0	4.8	qtzite some softer lt. gray - green blchd arg. qtzite.	3	225				
228	1.7		4	230				
233	3.9							
235	1.6		5	235	5.0	0.2		
239.5	3.7							
242.0	1.9		6	240				
247.0	3.6	226' - 264' Soft lt. green blchd arg. qtz-	7	245	"	0.1		
249.4	1.9	ite. Some thin ser seams. Few thin chl.						
250.9	1.3	seams. Few tiny sid stgrs at 234 & 237.	8	250	"	0.1		
253.0	2.1	In general badly broken core. Some thin						
256.3	2.6	dism. siderite.	9	255				
258.7	1.4							
End Box 6								
261	1.9		70	260				
265.4	2.6		1	265				
		264' - 280' Mostly hard lt. gray-green						
270.5	3.3	blchd arg qtzite. Few zones up to 4" high-	2	270				
275.5	4.4	silicified. Few thin bands white carb. 5"	3	275				
280.3	4.6	Qtz at 264.	4	280				
285.7	4.2		5	285				

Standpipe
Casing

DIAMOND DRILL RECORD

RECEIVED JAN 3 1955

Hole No. SS 3268
Level 3000
Grid 218

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
291	1.8		E 1276	290				
295.6	5.0		7	295				
300.8	2.6		8	300				
End Box 7								
305.8	5.0		9	305				
311.1	5.0		80	310				
315.9	4.4		1	315				
317.0	0.6							
321.3	4.6	280' - 380' Hard lt. green blchd arg qtz-	2	320				
326.3	4.0	ite with freq. thin seams chl. few small	3	325	5.0	0.1		
331.2	4.0	vugs with chl Xtals. ¼" sid with little	4	330				
333.2	1.7	py at 294.0. 2" qtz at 333.0. Occas. sil-						
337.1	3.2	icified bands from 340 to 348. ½" chlor-	5	335				
338.6	0.8	itic fault breccia at 367.						
End Box 8			6	340				
343.6	3.9		7	345				
348.2	4.0							
353.6	4.3		8	350				
358.5	4.4		9	355	5.0	0.1		
363.7	4.7		90	360				
368.8	4.6		1	365				
373.7	3.9		2	370				
375.6	1.5		3	375				
378.6	2.1							
382.0	1.0		4	380				
383.0	0.7							
End Box 9								
384.5	0.9		5	385				
386.2	1.3							
391.3	4.0		6	390				
393.4	1.0		7	395				
397.4	4.6	380' - 438' Hard lt. gray blchd qtzite.						
401.2	3.0	Little dism. sid. In general badly broken	8	400				
404.3	2.5	core. Wide general zone of shearing from	9	405				
407.4	1.8	407-438. Many small irreg. ser. & chl.						
410.0	1.2	seams. A few small irreg sid. veinlets.	E1300	410				
412.0	1.7							
417.2	2.6		01	415				
422.8	4.0		2	420				
End Box 10			3	425				
428.1	3.7							
429.1	0.8		4	430				
434.1	3.8		5	435				
439.1	4.0		6	440				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3268
Level 3000
Grid 218
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
444.1	4.1		E 1307	445				
449.1	4.2		8	450				
453.7	4.0		9	455				
458.8	4.0							
463.5	3.5		10	460				
467.1	4.3		11	465				
471.8	3.8		2	470				
476.8	4.3		3	475				
481.0	3.7		4	480				
483.7	2.3							
485.0	1.0		5	485				
490.0	4.2		6	490				
495.0	4.2		7	495				
500.0	4.2		8	500	5.0	0.1		
505.0	4.2	438' - 570' Hard lt. gray-green blchd arg	9	505				
510.0	4.2	qtzite. Few small bands dism. sid. Occas	20	510				
End Box 12		thin chl. seams. Few small highly sil-						
515.0	4.0	icified bands from 465 to 475.0. 2" chl-	1	515				
518.9	3.3	oritic fault breccia at 487 and 488'.	2	520	"	0.4		
522.1	3.2							
524.0	1.4		3	525				
527.0	3.0							
531.9	4.4		4	530				
536.9	4.9		5	535	"	0.1		
End Box 13								
541	4.0		6	540				
546.1	4.0		7	545				
549.1	2.7		8	550				
553.1	4.1							
557.1	4.0		9	555				
560.5	3.0							
562.5	1.8		30	560	5.0	0.1		
567.5	2.6		1	565				
570.1	2.5		2	570	"	0.1		
575.0	3.8		3	575				
578.0	1.0							
582.0	0.5		4	580				
End Box 14								
584.0	1.0		5	585				
586.0	1.7	570' - 605' Hard lt. gry blchd qtzite.						
590.0	3.7	Good core.	6	590				
591.5	1.2							
593.4	1.4		7	595				
600.0	4.8		8	600				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3268
Level 3000
Grid 218
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
605.0	3.8		E1339	605				
608.5	3.5		40	610				
613.5	4.8		1	615				
617.8	4.3		2	620				
621.9	3.7	605' - 636' Hd lt grayish grn blchd arg	3	625				
End Box 16		qtzite. Few thin chl sms. Good core.						
627.2	3.9		4	630				
630.2	1.5							
633.0	1.3		5	635				
636.0	2.3							
639.5	2.8	636' - 649' Mostly massive white qtz. Few	6	640				
641.5	2.0	2" bands hd lt gry qtzite. Many small ser	7	645				
646.1	4.2	sms.						
648.5	2.0		8	650				
649.8	0.5							
654.6	4.2		9	655				
658.4	3.5		50	660				
663.2	4.8	649' - 685' Mostly hd lt gry blchd qtzite.	1	665	5.0	0.2		
End Box 17		Some softer, lt grn blchd arg qtzite. Little						
667.0	3.8	dism sid. Few thin dk gry bands from 681.0'						
669.3	2.2	to 683.0'.	2	670	5.0	0.2		
671.4	1.0		E1568	675				
676.1	4.2		9	680				
680.2	4.1		70	685				
685.7	3.9							
688.3	1.4		1	690				
690.8	2.4	685' - 710' Mostly soft lt grn blchd arg.	2	695				
695.8	4.2	Some harder lt gry grn blchd arg qtzite.	3	700				
700.4	3.8	Few bands dism sid. Pos small slip at 692.0'.	4	705				
705.2	4.2							
End Box 17A								
708.8	3.3		5	710				
710.1	1.2							
714.9	2.2		6	715				
719.9	4.4		7	720				
724.9	5.0	710' - 750' Lt grn gry blchd arg qtzite.	8	725				
729.9	3.5	Freq thin ser sms. Occas thin chl sms.	9	730				
734.9	3.8	Small dism py xtals from 725.1' to 729.0'.	80	735				
740.0	4.8	2" qtz stgr at 720.0'.	1	740				
745.2	3.4		2	745				
End Box 18								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by — Date
Drilled by

Hole No.: SS 3268
Level: 3000
Grid: 218
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
750.2	4.5		E1583	750				
752.7	2.1							
754.5	1.5		4	755				
758.0	3.5		5	760				
762.8	4.7	750' - 784' Hd very lt gry blchd qtzite.	6	765				
765.8	3.0	Occas irreg small qtz stgrs. Some thin white						
769.8	4.0	carb sms. Few thin chl sms at 774.0' and	7	770				
771.7	1.5	778.0'.						
773.5	1.5		8	775				
777.5	3.7		9	780				
End Box 19								
782.6	4.1		90	785	5.0	0.2		
785.5	4.0		1	790				
790.6	4.4							
792.2	1.5		2	795				
795.2	0.9							
799.5	3.6		3	800				
800.5	0.9							
803.6	3.1		4	805				
805.9	1.9							
807.5	1.5		5	810				
812.4	4.7	784' - 868' Mostly hd lt gry blchd qtzite.						
814.3	1.9	Some softer lt gry grn blchd arg qtzite.	6	815				
817.4	3.0	Fault gouge at 800.5' & some chl cemented	7	820				
End Box 20		qtzite breccia from 801.0' to 807.0'. Many						
822.3	4.7	thin chl sms from 821.0' to 822.0' & 825.0'	8	825	5.0	0.3		
827.4	5.0	to 827.0'. Occas tiny sid veinlet from	9	830	5.0	0.2		
832.1	4.5	826.0' to 838.0'.	E1600	835				
837.1	4.8		1	840				
842.1	5.0		2	845				
845.6	3.3		3	850				
850.4	4.8		4	855				
End Box 21								
855.4	5.0							
858.0	2.3		5	860				
861.1	3.1							
864.8	3.4		6	865				
867.5	2.6							
868.5	0.8		7	870				
873.5	4.8	868' - 890' Mostly hd lt grn gry blchd arg	8	875				
878.0	4.5	qtzite. Some hd lt gry blchd qtzite. Occas	9	880				
880.6	2.6	thin chl sms. Few very thin beds lt tan arg	10	885				
885.5	4.6	ss at 873.0' & at 878.0'. Few thin ser sms	1	890				
End Box 22		thruout.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by _____ Date
Drilled by

Hole No. SS 3268
Level 3000
Grid 218
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
890.3	4.7							
894.3	3.1		E1612	895				
898.9	4.6	890' - 923' Mostly hd med gry blchd qtzite.	3	900				
901.1	2.0	Little hd med gry blchd arg qtzite. Many						
903.7	2.4	thin irreg chl filled fractures. Small sid	4	905				
906.5	2.2	stgr at 909.0' & at 910.0'. ½" qtz ser &	5	910				
911.5	5.0	some chl at 916.0'.	6	915				
915.4	4.0		7	920				
920.5	3.0							
923.4	2.9	923' - 927' Hd lt gry to white blchd qtzite.						
924.9	0.8	Some white carb mottling. Freq ser & chl	8	925				
End Box 23		filled fractures. Lt purp remnants at 924.0'						
		& at 925.0'.						
927.2	2.3							
927.6	0.1							
932.6	4.6		9	930				
936.6	4.2		20	935				
940.5	3.4	927' - 965' Abt eql amt hd lt gry blchd	1	940				
945.0	4.5	qtzite & hd lt gry grn blchd arg qtzite.	2	945				
950.0	4.9	Occas thin chl sms. Few small bands dk gry	3	950				
954.7	4.7	mineral. Small sid stgr at 930.0'.	4	955				
957.0	2.2		5	960				
960.5	0.9							
End Box 24								
964.8	4.3		6	965				
965.7	0.6		7	970				
970.6	4.7							
972.0	1.3		8	975				
977.0	4.8	965' - 997' Lt grn blchd arg qtzite. Few	9	980				
981.7	4.4	thin chl sms. Small sid stgr at 987.0' &	30	985				
986.4	4.7	at 989.0'.						
989.4	2.9		1	990				
994.4	0.6		2	995				
996.3	0.8							
996.2	0.7							
999.6	0.4	997' - 1004.2' Hd lt gry blchd qtzite. Small	3	1000				
1001.6	0.3	sid stgr at 997.0'. Few sms ser. Purp						
1004.2	1.8	stains at 1002.0' & 1003.0'.						
End Box 25								
		END OF HOLE						

FORM 127 1M 7-55

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

Budget Bureau No. 42-R1036.5

RECEIVED JAN 3 1956

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

Month of October, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:				1/11/56	ADP.K.	
Drilling Core 160.6 @ 4.50	722.70	26,806.95	27,529.65	722.70	26806.95	27529.65 ✓
~~Bulldozing~~ Raising		30,072.49	30,072.49		30072.49	30072.49 ✓
Crosscutting		15,912.29	15,912.29		15777.57	15777.57
Drifting 121.0 @ 51.00	6,171.00	373,073.55	379,244.55	5902.38	369873.42	375775.80
Sidewipe 33.5@25.50	854.25	21,778.91	22,633.16	854.25	21778.91	22633.16 ✓
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Totals	7,747.95	467,671.19	475,422.11	7479.33	464309.34	471788.67

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 11-9-55 *Payee Polaris Mining Company
Per John R. Matthews Title Secretary

*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:

$ 3739 67

Signature M.P.
(Authorized Certifying Officer)

Date 12-23-55 Vou. No. 1680
(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. 6541 in accordance with the terms of the contract.

Signature /s/ Eric G Erickson Title Mining Engr Date Nov 16-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W Zoldok Title Mining Engr Date Nov 17-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JAN 3 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1955 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)

Address Box 320, Wallace, Idaho

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	feet	6,171.00	121.0	379,244.55	7522.5	50.41	10725	$ 51.00 *
Crosscutting	"			15,942.29	313.7	50.82		
Raising	"			30,072.49	324.1	92.79	330	93.33
Sideswiping	"	854.25	33.5	22,633.16	895.7	25.27	1560	25.50
Winzes								
Drilling: Core	"	722.70	160.6	27,529.65	6117.7	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 11-9-55 Operator Polaris Mining Company

Per John R. Montana Title Secretary

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by Contract

/s/ Eric G Erickson

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 872894

Polaris Mining Company

RECEIVED
BUREAU OF MINES
NOV 14 1955
SPOKANE, WASH.

Wallace, Idaho
November tenth
1 9 5 5

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East Exploration Project - October 1955
Docket No. DMEA - 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 121.0 feet during October. 21.5 feet of switch sideswipe was completed in the section Station 3050 plus 129.5 to 151.0 feet and 12.0 feet of sideswipe was completed in the section Station 3044 plus 231 to 243 feet. Diamond drill hole No. SS3268 was drilled 111.6 feet (not completed) and SS3270 was drilled 49.0 feet (not completed). Logs will be provided upon completion of the holes. During the month new ventilation pipe installation and alteration of the ventilation system delayed drift and drilling advance but since that time the drift has been advanced without loss in time due to poor air.

The attached 50-scale map shows the geology along the section of drift which was driven during the month. Rock was bleached argillaceous quartzite and a few minor quartz and carbonate stringers were cut as shown on the map. No important exposures were made in the small amount of diamond drilling done during the month.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/v

Enc.

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

Month of September, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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:				1/11/56 WPK		
Drilling Core-279.3 @ 4.50	1256.85	25550.10	26806.95	1256.85	25550.10	26806.95
~~[illegible]~~ Raising		30072.49	30072.49		30072.49	30072.49
Crosscutting 29.2 @ 51.00	1489.20	14453.09	15942.29	1324.48	14453.09	15777.57
Drifting 156.4 @ 51.00	7976.40	365097.15	373073.55	4776.27	365097.15	369873.42
Redamping		21778.91	21778.91		21778.91	21778.91
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	10722.45	456951.74	467674.19	7357.60	456951.74	464309.34

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

Date 10-10-55 *Payee Polaris Mining Company

Per John R. Nourse Title Secretary

*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:

$ 3678 80

Signature MOP
(Authorized Certifying Officer)

Date 12-23-55 Vou. No. 1680
(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. 6541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Eng. Date 10-12-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldoff Title Mining Engr. Date 10-13-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals copper, lead, antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho

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	feet	7976.40	156.4	373073.55	7401.5	50.41	10725	$ 51.00 *
Crosscutting	"	1489.20	29.2	15942.29	313.7	50.82		
Raising	"			30072.49	324.1	92.79	330	93.33
Sideswiping	"			21778.91	862.2	25.26	1560	25.50
Winzes								
Drilling: Core	feet	1256.85	279.3	26806.95	5957.1	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 10-10-55 Operator Polaris Mining Company

Per John R. Martin Title Secretary

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by Contract

/s/ Eric H Erickson

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 872894

Polaris Mining Company

Wallace, Idaho
October tenth
1 9 5 5

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - September 1955
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 156.4 feet during September and No. 263 North Crosscut was advanced 29.2 feet. The lesser advance was due primarily to the necessity of improving ventilation in this long advancing heading. Diamond drilling likewise was somewhat delayed and only short sections of holes Nos. 3270 and 3271 were drilled with a small machine. They will be deepened by the large machine which has just been returned from Canada after receiving a major overhaul. Advance in 3270 hole was 193.7 feet and in 3271 advance in September was 85.6 feet. Approximately 1800 feet of 24 inch pipe is being installed in the drift in an attempt to improve ventilation.

In September's drift advance some minor quartz and siderite stringers were exposed as shown on the attached map. Small specks of tetrahedrite were seen in a few places. Wall rock was bleached argillaceous quartzite.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/v

Encs.

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 SEP 26 1955

Month of August, 1955 Docket No. DMEA 2879 Contract No. IDM-E-951

Operator's Name Polaris Mining Company

Address Box 320, Wallace, Idaho

Minerals Copper, Lead, Antimony (& Incidental Silver)

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:				9/29/55 APK.		
Drilling Core-570.30 @ 4.50	2566.35	22983.75	25550.10	2566.35	22983.75	25550.10
Raising		30072.49	30072.49		30072.49	30072.49
Crosscutting		14453.09	14453.09		14453.09	14453.09
Drifting 309.5 @ 51.00	15784.50	349312.65	365097.15	15784.50	349312.65	365097.15
Sideswipe 11.0 @ 25.50	280.50	21498.41	21778.91	280.50	21498.41	21778.91
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	18631.35	438320.39	456951.74	18631.35	438320.39	456951.74

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

Date 9-12-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9315 68

Signature M.A.P.
(Authorized Certifying Officer)

Date 9-21-55 Vou. No. 1614
(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 541 in accordance with the terms of the contract.

Signature 151 Eric G Erickson Title Mining Engr Date 9-19-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Stephen W Zoldok Title Mining Engr Date 9-19-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 26 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1955 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)

Address Box 320, Wallace, Idaho

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	feet	15784.50	309.5	365097.15	7245.1	50.39	10725	$51.00*
Crosscutting	"			14453.09	284.5	50.80		
Raising	"			30072.49	324.1	92.79	330	93.33
XXXX Sidewiping Shafts	"	280.50	11.0	21778.91	862.2	25.26	1560	25.50
Winzes	"	2566.35	570.3	25550.10	5677.8	4.50	15200	4.50
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 9-12-55 Operator Polaris Mining Company

Per [signature] Title President

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)

REMARKS:

(For Government use only)

*Maximum allowed by Contract

/s/ Eric G Erickson

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 872894

Polaris Mining Company

Wallace, Idaho

RECEIVED
SEP 26 1955

September twelfth
1955

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - August 1955
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 309.5 feet during August and 11.0 feet of switch sideswipe was completed in the section 99 to 110 feet east of station SS 3042. Diamond drill hole No. SS 3270 was advanced 231.3 feet and No. SS 3271 was advanced 339.0 feet. These holes will be completed to greater depth when our large diamond drill machine is returned from Boyles Brothers plant in Vancouver, B.C., where it is now being repaired. Hole No. 3270 is being drilled N.01°W from a point 30 feet north of station SS 3039. Hole No. 3271 is being advanced S.22°W from a point 25 feet S. W. of station SS 3041.

The main heading was advanced in bleached argillaceous quartzite. Some minor irregular quartz stringers were exposed in drifting. No sulphide mineralization of importance was exposed. Diamond drill results during August were also negative. Logs of holes will be submitted when drilling is finished.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
rmr

Encs.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
AUG 26 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320, Wallace, Idaho (& Incidental Silver)
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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 core 310 @ 4.50	1,395.00	21,588.75	22,983.75	9/7/55 [illegible]	[illegible]	
~~Building~~ Raising		30,072.49	30,072.49			
Crosscutting 21.0 @ 51.00	1,071.00	13,382.09	14,453.09		Betty	
Drifting 289.2 @ 51.00	14,749.20	334,563.45	349,312.65			
Sideswipe 12.0 @ 25.50	306.00	21,192.41	21,498.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	17,521.20	420,799.19	438,320.39	17521.20	420799.19	438320.39

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

Date 8-10-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 8760 60

Signature [signature]
(Authorized Certifying Officer)

Date 8-17-55 Vou. No. 1582
(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. E5-41 in accordance with the terms of the contract.

Signature /S/ Stephen W Zoldok Title Mining Engr. Date 8-12-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr. Date 8-12-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 26 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1955 Docket No. DMEA 2879 Contract No. DMA-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho

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	feet	14,749.20	289.2	349,312.65	6935.6	50.37	10725	51.00 *
Crosscutting	"	1,071.00	21.0	14,453.09	284.5	50.80		
Raising	"			30,072.49	324.1	92.79	330	93.33
~~XXXX~~ Sideswiping	"	306.00	12.0	21,498.41	851.2	25.26	1560	25.50
Winzes								
Drilling: Core	feet	1,395.00	310.0	22,983.75	5107.5	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 8-10-55 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

151 Stephen W Zoldok

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 872894

Polaris Mining Company

Wallace, Idaho
August tenth
1 9 5 5

RECEIVED
AUG 26 1955

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - July 1955
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

The main easterly heading was advanced 289.2 feet during July and 12.0 feet of switch sideswipe from station SS 3040 plus 45 to 57 feet was completed. A crosscut to be used for a diamond drill station was driven southerly 21.0 feet making the face 25.5 feet southerly from station SS 3041. No important or interesting structures were found in the work which was entirely in bleached argillaceous quartzite.

Diamond drill hole No. SS 3268 was continued 128 feet to a point 671 feet from the collar where trouble with the drilling machine forced a temporary stoppage of this hole. In the meantime hole No. SS 3269 was drilled south from a point 52 feet S. E. of station SS 3036 a distance of 182 feet. No structures of importance were exposed by either hole. A log of hole No. SS 3269 is enclosed. Difficulty of obtaining drill repair parts made it necessary to start another hole with a small machine awaiting the repairs. A log of hole No. 3268 will be submitted when the hole is complete.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
vfc

Enc.

*NOTE: All sludge assays are tr[illegible] or no Silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 7-15-55
Finished 7-28-55
Hole Size EX
Depth 182'
% Core Rec. 88

Mine SILVER SUMMIT
Location Polaris East Expl. Drift
SS 3036 + 52' S. E.
Logged by J. G. S. Date 7-29-55
Drilled by Holten & Walker

Hole No. SS 3269
Level 3000
Grid 238
Latitude 83, 939 S.
Departure 89, 388 E.
Elevation - 294'
Bearing South
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.5	4.5								
7.0	2.4	0 - 10' Hard lt. gray qtzite.	E 1353	5 - 10		5.0			
9.9	2.6	Some faint purple tints.							
10.7	0.8								
12.7	1.5								
14.6	1.8		4	15		"			
16.0	1.3								
17.0	0.8								
18.5	1.3								
20.5	1.5		5	20		"			
22.0	1.2								
23.2	1.2								
25.5	1.8		6	25		"			
27.1	1.1								
28.1	1.0	10 - 60' Mostly hard lt. gray							
29.6	0.9	blchd. qtzite some softer lt.	7	30		"			
31.3	0.8	green blchd arg. qtzite. Many							
32.3	0.7	thin ser. seams. White qtz from							
33.5	0.9	10.0 to 12.0.							
36.1	2.6		8	35		"			
End Box 1									
38.5	1.8								
40.7	1.3		9	40		"			
45.6	3.4		60	45		"			
50.4	4.8		1	50		"			
53.0	2.6								
55.5	2.5		2	55		"			
59.9	4.4		3	60		"			
65.0	5.0		4	65		"			
69.8	4.8		5	70		"			
71.0	1.2								
End Box 2									
76	5.0		6	75		"			
79	3.0		7	80		"			
82.2	3.2								
84.0	1.8		8	85		"			
93.6	4.4		9	90		"			
98.0	4.4								
101.5	3.5		70	95		"			
103.3	1.7	60 - 142' Hard lt. gray-green							
105.0	1.7	blchd arg. qtzite. Few thin	1	100		"			
End Box 3		bands dism. sid. Occas 2" to 3"							
109.6	4.0	highly silicified bands. An	2	105		"			

RECEIVED
AUG 26 1955

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3269
Level 3000'
Grid 238
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
114.0	4.2	occas. veinlet white carb. Bad-							
114.8	0.8	ly broken core from 110 - 135'.	E 1373	110		5.0			
117.5	2.3		4	115		"			
119.3	1.5								
122.7	3.1		5	120		"			
127.7	4.5		6	125		"			
129.2	1.5								
130.6	1.4		7	130		"			
133.0	2.3								
134.4	1.3		8	135		"			
136.0	1.6								
137.3	1.2								
End Box 4			9	140		5.0	0.1		
141.8	3.2								
143.0	1.2								
144.6	1.5								
145.9	1.2		80	145		"			
147.0	0.7								
151.5	3.7		1	150		5.0	0.1		
154.1	1.6	142 - 182' Mostly hard lt. gray							
156.8	2.1	blchd qtzite. Some softer lt.	2	155		"			
159.7	2.7	gray-green blchd arg-qtzite.							
160.2	0.1	White qtz from 160 to 161. Few	3	160		"			
165.1	3.0	small sid. stgrs partly silici-	4	165		"			
167.5	2.4	fied at 180.0.							
169.3	1.7		5	170		"			
171.8	2.0								
173.3	0.8								
176.0	2.4		6	175		"			
179.0	3.0								
182.0	2.0		7	180		"			
		END OF HOLE							

RECEIVED
AUG 26 1955

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 25 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320, Wallace, Idaho (& Incidental Silver)
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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 Core 708.1 @ 4.50	3,546.45	18,042.30	21,588.75	7/28/55		
Bandoning Raising		30,072.49	30,072.49			
Crosscutting 24.00 @ 51.00	1,224.00	12,158.09	13,382.09			
Drifting 315.9 @ 51.00	16,110.90	318,452.55	334,563.45			
Sidestripe 12.0 @ 25.50	306.00	20,886.41	21,192.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	21,187.35	399,611.84	420,799.19	21187.35	399611.84	420799.19

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

Date 7-8-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$10593 68

Signature MEP
(Authorized Certifying Officer)

Date 7-20-55 Vou. No. 1568

(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. E541 in accordance with the terms of the contract.

Signature 151 Eric G Erickson Title Mining Engr Date 7-16-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Stephen W Zoldok Title Mining Engr Date 7-18-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 25 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320, Wallace, Idaho (& Incidental Silver)

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	feet	16,110.90	315.9	334,563.45	6646.4	50.34	10725	51.00 *
Crosscutting	"	1,224.00	24.0	13,382.09	263.5	50.79		
Raising	"			30,072.49	324.1	92.79	330	93.33
~~Stopes~~ Sidewiping	"	306.00	12.0	21,192.41	839.2	25.25	1560	25.50
Winzes								
Drilling: Core	feet	3,546.45	788.1	21,588.75	4797.5	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 7-8-55 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by Contract

An audit is being made of actual cost of work performed through Feb. 1955. Report will be made by the Contract and Audit Dept.

/s/ Eric G Erickson

E.G.E.

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 872894

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 24 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals copper, lead, antimony (&incidental silver)
Address Box 320 - Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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:						6/27/55.
*Drilling Core 688.7 @ 4.50	3,099.15	14,943.15	18,042.30			
Raising		30,072.49	30,072.49			
Crosscutting		12,158.09	12,158.09			
Drifting 370.5 @ 51.00	18,895.50	299,557.05	318,452.55			
Sideswipe 11.0 @ 25.50	280.50	20,605.91	20,886.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	22,275.15	377,336.69	399,611.84	22275.15	377336.69	399611.84

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

Date 6-8-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 11137 58

Signature [signature]
(Authorized Certifying Officer)

Date 6-20-55 Vou. No. 1539

(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. 6541 in accordance with the terms of the contract.

Signature (S) Eric G Erickson Title Mining Engr Date 6-14-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature (S) Stephen W Zoldok Title Mining Engr Date 6-16-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 24 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1955 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals copper, lead, antimony (& incidental silver)

Address Box 320, Wallace, Idaho

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	feet	18,895.50	370.5	318,452.55	6,330.5	50.30	10725	51.00 *
Crosscutting	"			12,158.09	239.5	50.76		
Raising	"			30,072.49	324.1	92.79	330	93.33
~~Shafts~~ XXXX Sideswiping	"	280.50	11.0	20,886.41	827.2	25.25	1560	25.50
Winzes								
Drilling: Core	feet	3,099.15	688.7	18,042.30	4009.4	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		22,275.15		399,611.84				685,955.00

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 6-8-55 Operator Polaris Mining Company

Per [signature] Title President

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.

Remarks:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

151 Eric G Erickson

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 872894

DMEA

Polaris Mining Company

Wallace, Idaho

RECEIVED
JUN 24 1955

June ninth
1 9 5 5

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - May 1955
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

During May the main easterly heading was advanced 370.5 feet and 11 feet of sideswipe was done from Station S. S. 3036 plus 43 to 54 feet. Progress of the main heading is shown on the attached 50-scale map. The work was largely in bleached quartzite and argillaceous quartzite. Minor white carbonate and quartz stringers and lenses were exposed as shown.

Diamond drilling during the month consisted of:

Hole No.	Advance	Depth	Remarks
3265	132.3	1,000.3	Completed
3266	400.7	400.7	Completed
3267	155.7	-	Not Completed

Nothing of great importance was found in hole No. 3265, the log of which is attached, but the down dip extension of the Coeur d'Alene Mines siderite vein was probably cut in the zone between 948 and 969.

Drill hole No. 3266 was drilled to explore the northerly striking vein previously drifted upon in Coeur d'Alene Mines 2800 level work. Only small stringers of barren quartz and carbonate were cut in the hole. The log of the hole is attached.

Drill hole No. 3267 was drilled to cut this same structure further southwest. Since June 1st this hole likewise cut the vein and it was thin and barren. The log of the hole will be submitted somewhat later when it is finished.

A new hole is being started southerly opposite the location of No. 3265 hole.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/vfc

Encs.

Standpipe
Casing

DIAMOND DRILL RECORD

RECEIVED JUN 24 1955

Started 3-21-55
Finished 5-12-55
Hole Size EX
Depth 1000.3'
% Core Rec. 77

Mine SILVER SUMMIT
Location 3000 Level Pol. E. Expl. Dr.
SS 3031 + 30.0' North
Logged by JGS & MWH & AHS Date 4-13-55
Drilled by Holten & Walker

Hole No. SS 3265
Level 3000
Grid 232
Latitude 83, 484 S.
Departure 88, 398 E.
Elevation - 301'
Bearing N 33° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	1.0		E 859	0 - 5		5.0	0.3		
7.8	2.1								
10.5	2.0		60	10			0.2		
13.0	1.5								
18.4	4.8		1	15			0.3		
20.4	1.4	0 - 53 Soft lt. grn. blchd. arg.	2	20			0.1		
22.4	1.5	qtzite with much dism. sid. Some							
25.3	1.5	soft lt. grn. blchd arg. and	3	25			0.1		
30.5	4.3	little hard lt gry blchd qtzite	4	30			Tr.		
31.4	0.9	with much dism. sid. Occas. thin							
32.6	1.0	ser sms thruout. Few small sid							
34.6	1.6	stgrs and some silicification at	5	35					
37.5	3.0	7.0 ft.							
40.1	1.4		6	40					
41.6	1.0								
45.3	2.8		7	45					
46.4	0.9								
48.3	1.5		8	50					
53.0	3.2								
		53 - 62 Hard very lt. purple							
55.6	1.5	arg. qtzite with much dism. sid.	9	55			0.1		
57.6	0.8	and few small bands soft lt.							
61.5	3.9	green bleached arg. qtzite.	70	60					
63.7	1.9		1	65					
67.3	1.6								
71.0	3.2	62 - 91 Hard lt grn gry blchd	2	70					
76.3	1.2	arg qtzite with much dism. sid.	3	75					
80.0	3.7	& some dism white carb. Few ser.	4	80			0.1		
83.4	2.9	seams and occasional seams of							
85.5	1.8	chlorite.	5	85					
90.4	1.4		6	90			0.1		
91.9	1.2								
93.3	0.9								
95.0	0.9		7	95					
96.8	0.6	91 - 105 Hard, lt. gry. blchd.							
98.3	0.7	qtzite. ½" qtz. stgr. at 91.0.							
100.7	0.5	Few small qtz stgrs with some	8	100			0.1		
103.9	0.7	sid. at 92.0.							
105.3	0.8		9	105					
		105 - 110 Hard very lt. purple							
107.3	1.4	arg. qtzite. Very thin beds.							
111.4	3.5		80	110					

All Samples are taken at 5.0 feet Interval

All Assays are No or trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

RECEIVED JUN 24 1955

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data: No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
113.1	0.7								
116.5	1.2		881	115		5.0			
121.5	4.1		2	120					
125.0	2.3	110 - 148 Hard dk purp. arg.	3	125					
130.4	4.4	qtzite with frequent thin bands	4	130					
131.8	1.2	of soft dk gry arg. Some dism.							
135.5	1.6	sid. thruout.	5	135			0.1		
138.3	2.8								
140.7	1.8		6	140			0.2		
144.5	1.9		7	145					
148.7	2.8								
		148 - 160 About equal amts. hd.	8	150					
153.6	4.8	very lt. purple arg. qtzite and	9	155					
159.0	2.8	softer lt. grn. blchd. arg. qtz-	90	160					
		ite. Much dism. sid.							
164.0	4.3		1	165			0.1		
169.2	4.0		2	170					
174.3	4.6		3	175					
179.9	4.0		4	180					
184.4	4.9		5	185					
189.0	4.6		6	190					
193.4	4.4	160 - 250 About equal amts. soft	7	195					
197.7	4.0	lt. grn. blchd arg. qtzite and							
202.2	4.2	soft lt. grn. blchd arg. Much	8	200					
207.4	4.4	diseminated siderite. Few tiny	9	205					
212.5	3.8	white carbonate stgrs. 1" qtz	900	210					
217.7	2.3	stgr. with some siderite and	1	215					
222.3	2.6	some ser. at 209.0. Small	2	220					
223.6	0.6	button with slickenside at	3	225					
228.8	1.4	211.0.							
230	1.2								
235.8	1.1		4	230					
237.1	0.6		5	235					
242.0	4.7								
244.5	1.9		6	240					
249.1	4.0		7	245					
252.5	1.9		8	250					
255.4	0.5								
260.4	1.0		9	255					
			10	260					
261.4	0.7	250 - 271 Hard lt. gry. blchd.	1	265					
269.6	2.6	qtzite. Few tiny white carb.	2	270					
271.6	1.9	veinlets. Little dism. sid.							
274.6	1.9		3	275			0.1		

All Samples are taken at 5.0 feet Interval

All Assays are No or trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by: Date
Drilled by

Hole No.: SS 3265
Level: 3000
Grid: 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		271 - 308 Hard lt. gry. grn.							
278.8	4.2	blchd arg. qtzite. Some soft lt	E 914	280					
283.8	4.8	grn blchd arg. Some dism. sid							
286.7	2.9	and some dism. white carb. 1"	5	285					
292.8	4.9	band hard purple arg. qtzite	6	290					
296.2	3.8	with much dism. sid at 278.0.	7	295					
301.2	3.7	Few thin bands lt. purple arg.	8	300					
305.2	3.3	qtzite from 284-287. ½" qtz	9	305					
308.5	3.2	stgr. at 291.0. 1" qtz stgr.							
		with some sid at 295.0.	20	310			0.1		
313.5	4.0	308 - 323 Mostly hard lt. pur-							
316.3	2.2	ple arg. qtzite. Some hard lt	1	315					
321.3	1.5	grn. blchd arg. qtzite.	2	320					
327.0	4.1		3	325					
330.0	2.1		4	330					
335.0	0.8		5	335					
337.0	1.7	323 - 377 Mostly hard dk purp.							
340.0	1.7	arg. qtzite some hard lt purp	6	340					
342.0	1.9	arg. qtzite. Little soft dk.							
347.1	4.8	gry arg. ¼" qtz stgr with some	7	345					
352.2	3.3	sid at 324. Few small qtz	8	350					
354.2	1.0	stgrs with some sid at 341. 1"							
355.0	0.5	qtz with some sid at 349.	9	355			0.1		
357.5	1.4	½" qtz with some sid. at 356.							
360.2	2.1	Occas. small white carb. vein-	30	360					
361.9	1.5	lets thruout.							
367.3	1.1		1	365					
368.7	0.4		2	370					
374.0	1.0								
375.7	1.2		3	375					
		377 - 431 Lt. purple arg. qtzite							
		throughout. A 1/8" white carb.							
		vein with smooth borders makes							
380.7	4.4	angle of 50° with core axis at	4	380					
386.0	4.2	379.6. Minute carb. veinlets	5	385					
388.5	2.1	parallel to rock cleavage at	6	390					
393.5	4.5	381.5 with some greenish possibly	7	395					
398.8	2.0	chloritic material intercal-	8	400					
403.9	3.6	ated. Similar veinlets inter-							
405.0	1.2	mittantly occur from 381 - 400.	9	405					
412.5	3.7	A ½" qtz-carb. vein parallel to	40	410					
417.0	3.3	cleavage at 405. Becoming less	1	415					
422.0	3.2	purple, but dk. grayish from	2	420					

All Samples are taken at 5.0 feet Interval

All Assays are No or Trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by: Date
Drilled by

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data: No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
424.5	0.9	410 to 431. Paper-thin, black	E 943	425					
428.0	1.2	metallic streaks parallel clea-							
End Box 9		vage (90° to core axis) at 418.5.							
		A mottled appearance from 429-							
		431 suggests dissem. siderite.	4	430			0.1		
		431 - 473 Mostly unbleached arg							
		qtzite. Lt. purple from 431 -							
432.9	4.7	448. Med. purple from 448-457.	5	435					
438.1	4.6	Lt. gray to brownish gray from	6	440					
443.4	2.5	457-473. Wavy bands of dissem.	7	445					
448.7	4.8	sid. up to 1½" thick occur in-	8	450					
453.6	4.0	termittantly from 431-435. Two	9	455					
458.2	4.7	¼" qtz-carb. veins make an angle							
463.2	4.7	of 40° with core axis at 449 ft.	50	460			0.4		
468.2	4.4	A 1" thick, white qtz-carb. vein	1	465					
End Box 10		70° to core axis at 457.6 ft. No							
		visible metallic sulphides.	2	470					
473.7	4.3								
475.0	1.3		3	475					
480.2	2.2		4	480					
485.2	4.5	473 - 542 Mostly dk purp arg.	5	485			0.1		
490	4.0	qtzite with occas small white	6	490					
492.2	1.5	carb. veinlets & some dism. wh.							
497.0	4.0	carb little dism sid.. Dark	7	495			0.2		
500.7	1.7	purp. fault breccia with much dk	8	500					
506.0	3.4	grn chl. cement from 529-531.	9	505					
508.0	0.4	Same but less pronounced brecc-							
510.0	0.4	iation from 533-537. Some thin	60	510					
512.5	0.4	chl. sems. & some small white							
517.5	4.8	carb veinlets from 537-540.	1	515			0.1		
521.7	3.2		2	520					
527.5	2.9		3	525					
529.0	0.8		4	530			0.2		
532.5	3.1								
537.7	2.8		5	535			0.1		
542.8	4.8		6	540			0.1		
547.8	5.0		7	545			0.1		
553.0	3.4		8	550			0.1		
557.4	4.0		9	555					
559.5	1.6		70	560			0.2		
562.0	1.6	542 - 575 Bleached gray green							
565.0	3.0	arg. qtzite. Some purple tints.	1	565			0.1		
End Box 12		Small irreg. qtz-calcite stgr.							
570.0	4.6	at 573.	2	570			0.1		

All Samples are taken at 5.0 feet Interval

All Assa Oys are No or Trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by _____ Date
Drilled by

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
570.9	0.9								
575.9	5.2		E 973	575			0.1		
578.9	3.8								
580.3	1.7	575 - 595 Gray to purple bands	4	580			0.6		
581.0	1.6	arg. qtzite. Sheared, gougy							
585.6	2.8	578-581. Small slip zones at	5	585			No		
586.6	1.2	585, 590.5, and 597. 1" qtz							
591.3	5.2	stgr. with pyr. at 587.5.	6	590					
595.5	4.9		7	595					
600.5	4.9		8	600					
602.7	2.0								
End Box 13									
604.1	1.8	595 - 627 Gray and purple bands	9	605					
608.1	3.2	arg. qtzite. (about 50% blchd).							
611.1	2.7	Some harder bands lt. gray qtz-	80	610					
614.2	3.0	ite. $\frac{1}{4}$" qtz - specularite stgr.							
616.1	2.0	at 606.	1	615			0.1		
620.6	3.9		2	620			0.1		
622.1	1.6								
626.2	4.9		3	625					
631.2	4.8		4	630			Trace		
634.8	3.9		5	635			0.2		
637.8	3.0								
End Box 14		627 - 657.5 Lt. greenish gray							
639.0	1.5	qtzite. Silicified, almost	6	640					
642.5	3.5	white 636 - 639. Slip with bro-							
645.3	2.8	ken white qtz. at 636.4-634.7.	7	645					
648.6	3.3								
653.0	4.4		8	650					
658.0	4.8		9	655			0.1		
663.1	5.0		90	660					
668.6	5.3		1	665					
673.2	4.8		2	670					
674.0	0.7	657.5 - 689.6 Purple arg. qtz-							
End Box 15		ite. Mostly sheared from 663 to							
675.6	1.6	673. Slip at 688.	3	675			0.1		
681.0	4.5		4	680			0.2		
686.5	4.7		5	685			0.1		
689.6	2.8								
693.4	3.8		6	690			Tr.		

All Samples are taken at 5.0 feet Interval

All Assays are No or Trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		689.6 - 719.0 Bleached lt. gray-							
698.6	5.2	green qtzite with some thin dar-	E 997	695			0.1		
701.2	1.8	ker green arg. bands. Thin red	8	700					
702.6	1.3	-purple bands, 689-690. 4"	9	705			0.2		
708.0	4.8	qtz stgr at 701.5. 1" qtz stgrs							
712.0	4.0	with reddish tint at 698.6,	E 1000	710					
End Box 16		702, and at 704. Reddish to							
713.0	1.0	lavender bands at 714. Sheared	1	715					
717.7	4.7	at717 - 719.							
722.7	4.7		2	720					
727.7	4.7		3	725					
733.6	4.7		4	730					
735.4	2.4	719.0 - 753 Mostly purple arg.	5	735					
741.0	3.6	qtzite. Some bleaching 735 -	6	740					
745.6	2.0	745. 1.0 slip zone at 752.	7	745					
747.8	1.8								
752.5	1.6		8	750					
End Box 17									
754.0	1.5		9	755					
757.6	3.0								
762.7	4.8	753 - 780 Mixed purple and	10	760					
765.0	2.0	bleached bands arg. qtzite. Slip	1	765			0.1		
767.5	2.5	zone with some loss of core 776							
771.1	3.0	- 780.	2	770					
773.7	2.6		3	775					
780.2	3.0		4	780					
785.0	4.0		5	785					
790.6	3.4		6	790					
794.5	3.0	780 - 805.0 Blchd lt gry qtzt	7	795					
799.7	1.2	and grn arg. Gougy zone 788-790.	8	800			0.1		
End Box 18									
805.0	2.0		9	805					
810.1	2.0		20	810					
811.6	1.5								
816.6	4.8	805 - 831 Predominately blchd	1	815					
818.6	2.0	gray arg qtzite. Occas. purple	2	820					
823.1	4.5	bands. Slips & sheared zones at							
825.7	2.1	811, 816 and 823.	3	825					
827.0	0.9								
830.6	2.8		4	830					

All Samples are taken at 5.0 feet Interval

All Assays are No or Trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		831 - 850 Mostly dark purple arg. Most of core is intensely							
835.6	1.6	sheared from 831 to 850, with	E 1025	835					
837.7	1.3	small qtz-carb stgrs 847 to 848,							
842.8	4.7	brecciated from 848 to 850 and	6	840					
847.3	4.5	1.0 broken, yellow - stained qtz.	7	845					
848.7	1.3	at 849. (This may be the Polaris							
End Box 19		fault zone.).	8	850					
852.5	2.4								
856.0	2.5		9	855					
860.0	3.8	850 - 863.5 Blchd lt. gry-grn.	30	860					
861.0	1.0	arg qtzite. Slip at 861.							
862.0	1.0								
863.5	1.0		1	865					
868.6	4.2	863.5 - 901 Mostly purple arg.	2	870					
872.4	4.7	sheared at 866.6 and from 878							
874.6	1.5	to 886. 3" broken qtz at 878.7.	3	875					
878.9	3.2	Zone small sid stgrs in purple							
881.6	3.0	shearing 879 - 881. Small	4	880					
884.0	2.3	pieces qtz at 886.0 and 886.4.	5	885					
886.4	2.5	Bleached from 888 to 891.							
End Box 20									
891.3	4.8		6	890					
896.7	4.5		7	895					
898.0	0.6								
900.5	2.5		8	900			0.1		
902.5	2.0	901 - 904' Soft dark green							
903.5	1.0	chloritic dike. Very fine							
904.5	0.9	grained.	9	905			0.1		
906.3	1.2	904 - 911 Soft lt. purple arg.							
911.3	1.8	qtzite with some dism. sid.	40	910					
		911 - 919 Soft dark green very							
913.3	1.5	fine grained chloritic dike with							
915.7	2.3	few small veinlets of white car-	1	915					
917.6	1.7	bonate.							
922.6	4.5		2	920					
925.5	2.4		3	925			0.1		
930.5	4.8		4	930					
934.5	3.0	919 - 948 Soft lt gry blchd arg.	5	935					
935.5	1.0	quartzite.							

All Samples are taken at 5.0 feet Interval

All Assays are No or Trace except as noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3265
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
935.7	0.2								
940.5	4.9		E 1046	940					
944.0	3.4		7	945					
948.2	4.4	948 - 969 Very hard lt gry blchd					noted.		
950.2	2.2	qtzite. Little lt. gry. blchd.	8	950					
954.5	4.3	arg. quartzite. 4" of pyr stgrs	9	955			0.2		
956.0	1.3	at 954.0.							
960.0	3.6		50	960			0.1		
964.1	4.8		1	965					
969.2	4.7								
			2	970			0.1		
974.4	5.0		3	975			0.1		
977.5	3.0								
979.0	1.4	969.2 - 1000.3 Mostly hard lt.	4	980			as		
983.7	4.3	gry blchd qtzite. Little hard							
984.9	1.2	lt. gray blchd arg. qtzite. 3"	5	985			0.1		
988.2	3.3	qtz at 973.0 and at 995.0.							
989.4	1.2		6	990			0.1		
994.7	3.0		7	995					
1000.3	2.0		8	1000					
		END OF HOLE							

All Samples are taken at 5.0 feet Interval

All Assays are No or Trace except

Fm 108 3m 2-52

* NOTE: All sludge assays are trace or no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-12-55
Finished 5-26-55
Hole Size EX
Depth 400.7'
% Core Rec. 86

Mine SILVER SUMMIT
Location Polaris East Drift
SS 3035 + 38' S. E.
Logged by MWH & JGS Date 5-27-55
Drilled by Holten & Walker

Hole No. SS 3266
Level 3000
Grid 232
Latitude 83,833 S.
Departure 89, 095 E.
Elevation - 297'
Bearing S 33° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Spls. Feet	Oz. Ag	% Pb	% Zn
0-5.3	5.0		E 1059	0 - 5		5.0	0.1		
10.0	3.5	0-26.0	60	10		"	0.2		
14.0	4.7	Bleached lt. to med. gray	1	15					
18.7	4.7	qtzite. Some arg bands. Rather	2	20					
22.3	2.9	massive. Slip at 18.5							
27.3	4.8		3	25					
32.8	1.3		4	30					
36.8	3.4		5	35					
38.0	0.8	26.0-65.0							
41.0	3.3	Bleached, hard, lt. greenish	6	40					
End Box 1		gray arg. qtzite. Some thin							
45.0	4.0	darker gray arg. bands.	7	45					
48.8	3.2	Core mostly broken 27.0 to							
50.2	1.8	36.8	8	50					
53.5	2.9	½" qtz. at 53.7	9	55					
58.0	4.6	6" sheared ggy. zones at 60.7							
60.7	2.4	and 65.0.	70	60					
65.0	4.2		1	65					
69.7	4.3		2	70		5.0	0.1		
73.5	3.8								
End Box 2									
77.4	4.1		3	75					
82.2	4.8		4	80					
87.1	4.9	65.0-110.0	5	85					
91.1	4.3	Lt. to med. gray qtzite. Some	6	90					
96.8	4.8	narrow bands med. gray arg.	7	95					
101.8	5.0	qtzite. Slip at 73.5.	8	100					
103.8	1.2	8" qtz, small amt. pyr. at	9	105					
108.7	4.1	108.0.							
109.8	1.0		80	110					
End Box 3		110.0-143.7							
111.8	2.1	Same type of rock. Silicified							
115.9	3.8	zone, nearly white at 119.0 to	1	115					
118.5	2.4	120 and 127 to 130.	2	120					
122.8	4.7	6" qtz. str. at 119.							
127.5	4.5	3" qtz str. at 120.	3	125					
131.3	3.7	2" qtz. str. at 123.	4	130					
134.0	2.3	1" qtz. str. at 130.5 & 130.8.	5	135					
138.6	4.6		6	140					
143.7	3.3								
End Box 4									

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-12-55
Finished 5-26-55
Hole Size Ex
Depth 400.7
% Core Rec. 86

Mine SILVER SUMMIT
Location Polaris East Drift
SS 3035 + 38' S. E.
Logged by MWH & JGS Date 5-27-55
Drilled by Holten & Walker

RECEIVED JUN 24 1955

Hole No. SS 3266
Level 3000
Grid 232
Latitude 83833 S
Departure 89095 E
Elevation -297'
Bearing S 33° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample No.	Sample Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
147.0	3.1		E 1087	140-145					
149.7	2.6		88	150					
153.8	3.3								
156.3	2.5		89	155					
158.6	1.4								
161.9	1.6	143.7-195.9	90	160					
166.6	4.8	Hard, light qtzite. Few	91	165					
171.3	4.2	darker gray bands. Some greenish	92	170					
176.3	4.5	sericite along fractures.	93	175					
180.2	3.5	1" str. white qtz. at 148,	94	180					
END	BOX 5	149.8 and 170.							
184.6	4.2	Slip at 161.9, 166.6, and 180.	95	185					
186.6	2.0								
191.0	4.5		96	190					
195.9	4.6		97	195					
199.9	4.0	195.9-251.0	98	200					
203.0	1.5	Slightly darker, more sericitic	99	205					
208.3	4.2	qtzite.	100	210					
213.3	4.7	Small qtz. str. at 196.0 and	101	215					
END	BOX 6	202.5							
217.4	4.0	Slip zone, badly broken 206	102	220					
220.4	3.0	to 208.							
222.2	1.8	Slip at 217.4.							
226.9	4.6	Few thin arg. bands at 236 to	103	225					
231.2	4.5	242.	104	230					
236.2	3.0	2" str. white qtz. at 250.	105	235					
242.1	4.9		106	240					
245.7	3.0	251.0-263.2	107	245					
248.3	2.1	Very lt. gray to white qtzite.							
END	BOX 7	Highly silicified.							
252.2	3.5	Numerous irreg. bands, vein qtz.	108	250					
253.4	1.1	from 251 to 258. Slip at 258.	109	255					
258.7	3.2	263.3-297.2	110	260					
263.3	4.4	Lt. greenish gray to lt. gray	111	265					
268.1	4.8	qtzite. Small 1"-2" str. qtz. at							
271.2	3.1	265.5, 267.5, 271.2, 277.0,	112	270					
275.3	4.1	280.0, 285.5, 287.0 and 290.	113	275					
280.5	4.5	6" slip zone with broken qtz.	114	280		5.0	0.1		
285.1	4.0	at 268. 1" gouge, small amt. sid.	115	285					
289.8	4.4	at 286.	116	290					
292.5	2.3	8" str. sid-qtz., some dark							
297.2	3.8	mineralization (very weak) at	117	295					
		295.5. Three qtz. str. at 296 to							
		297.							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3266
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
302.0	2.5	297.2-365	E 1118	295-300					
311.2	3.8	Slightly more arg. qtzite	9	305					
313.5	2.5	(shows occasional narrow bands	20	310					
315.0	1.5	med. gray arg. qtzite and lt.	1	315					
319.0	3.3	tan bands diss. sid.).	2	320					
325.0	2.0	6" qtz. with chlorite at 310.	3	325					
End Box 9		2" qtz. strs. at 311.5 & 312.0.							
329.0	1.6	½" same at 313.7	4	330					
333.4	4.4	Broken core with groundup qtz.	5	335					
338.8	5.0	322.5 to 322.9 and 328.5 to	6	340					
344.0	4.3	329.0.	7	345					
347.4	5.0	1"-3" strs white qtz. at 356,	8	350					
352.7	4.4	357.5, and 358.5.	9	355					
361.8	2.2	4" same at 362.0.	30	360					
End Box 10		Slip zones at 328.5-329.0, 344.0,							
365.5	3.5	347.4, 352.5, and 358.0-358.5.	1	365					
370.5	4.5	365 - 393 Mostly very hard lt.	2	370					
375.4	4.7	gry blchd qtzite. Occas. bands	3	375					
381.1	4.7	up to 4" wide of massive white	4	380					
386.1	4.4	qtz. Little softer lt. grn gry	5	385					
389.6	3.5	blchd arg qtzite. Some thin ser	6	390					
393.6	4.0	sms. Few thin chl. sms.							
		393 - 400 Soft lt. grn. blchd							
396.3	2.7	qtzitic argillite. Some bands	7	395					
400.7	3.7	dism. sid. Two ½" stgrs. partly	8	400					
		silicified sid. at 399.							
		END OF HOLE							

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

Defense Minerals Administration
RECEIVED
MAY 13 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1955 Docket No. DMEA 2879 Contract No. IDM-R-541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental silver)
Address Box 320 - Wallace, Idaho
Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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 core 868.0@4.50	$3906.00	$ 11037.15	$ 14943.15			
raising		30072.49	30072.49			
Crosscutting 21.0@51.00	1071.00	11087.09	12158.09			
Drifting 282.9@51.00	14427.90	285129.15	299557.05			
Sideswipe 52.0 @ 25.50	1326.00	19279.91	20605.91			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$20730.90	$356605.79	$377336.69	20730.90	356605.79	377336.69

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 5-5-55 *Payee Polaris Mining Company
Per John R. Meadows Title Secretary

*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:

$ 10365 45

Signature M. P.
(Authorized Certifying Officer)

Date 5-10-55 Vou. No. 1508
(See other side)

*Include 275.5' diamond drill advance in Hole No. ss3265 which was omitted from March-1955 report.

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 5-9-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldoski Title Mining Engr Date 5-9-55

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
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Exp.
RECEIVED
MAY 13 195

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 195 5 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Anti-

Address Box 320 - Wallace, Idaho (& Incidental Silver) mony

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	feet	$14427.90	282.9	$299557.05	5960.0	50.26	10725	$51.00*
Crosscutting	"	1071.00	21.0	12158.09	239.5	50.76		
Raising	"			30072.49	324.1	92.79	330	93.33
~~Sinks~~ Sideswiping	"	1326.00	52.0	20605.91	816.2	25.25	1560	25.50
Winzes								
Drilling: Core	feet	3906.00	868.0	14943.15	3320.7	4.50	15200	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								685955.00

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 5-5-55 Operator Polaris Mining Company

Per John R. Martens Title Secretary

→ 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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

151 Eric G Erickson

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

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1955

May fifth
1 9 5 5

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane 4, Washington

Re: Progress Report Polaris East Exploration
Project - April 1955 Docket No. D.M.E.A. 2879
Contract No. IDM-E- 541

Gentlemen:

During April the main easterly heading was advanced 282.9 feet and 27.0 feet of switch sideswipe was made from Station SS-3033 plus 248 to 275 feet and 25 feet of sideswipe was done at Station SS-3033 plus 305 to 330 feet. 21.0 feet of crosscut southerly from station SS-3035 was driven for a diamond drill station, the face being located 38.4 feet from station SS-3035. Progress of the main heading is shown on the attached 50-scale map. St. Regis wall rock was largely bleached and no mineralization of importance was found.

Diamond drill hole No. SS-3265 drilled 275.5 feet northerly during March was extended an additional 592.5 feet in April placing the face of the hole at 868.0 feet on May first. No mineralized structures of great importance appear thus far. A complete log will be submitted after completion of the hole.

The new drill station crosscut near station SS-3035 will be used for drilling a southeasterly hole in exploration of a northerly siderite vein previously explored on Coeur d'Alene Mines 2800 level.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:abs
Encs.

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

500

W

Budget Bureau No. 42-R1036.5

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 22 1955

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

Month of March, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320- Wallace, Idaho (& incidental silver)
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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		11,037.15	11,037.15			
Raising		30,072.49	30,072.49			
Crosscutting		11,087.09	11,087.09			
Drifting 368.4 @ 51.00	18,788.40	266,340.75	285,129.15			
Sideswipe 11.0 @ 25.50	280.50	18,999.41	19,279.91			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	19,068.90	337,536.89	356,605.79	19068.90	337536.89	356605.79

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 4-8-55 *Payee Polaris Mining Company
Per John R. Murdoch Title Secretary

*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:

$ 9534.45

Signature M. G. P.
(Authorized Certifying Officer)

Date 4-15-55 Vou. No. 1483

(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-541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 4-12-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr. Date 4-12-55

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-R1151.2

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

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

Month of March 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals copper, lead, antimony
Address Box 320 - Wallace, Idaho (& incidental silver)

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
		18,788.40	368.4					
Drifting	feet	~~15,616.20~~	306.2	285,129.15	5677.1	50.22	~~11625~~	$ 51.00*
Crosscutting	"			11,087.09	218.5	50.74	10,725	
Raising	"			30,072.49	324.1	92.79	330	93.33
~~XXXX~~ Sideswiping	"	280.50	11.0	19,279.91	764.2	25.23	1560	25.50
Winzes								
Drilling: Core	"			11,037.15	2452.7	4.50	~~5000~~	4.50
Churn							15200	
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		19,068.90		356,605.79				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		19,068.90		356,605.79				

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 4-8-55 Operator Polaris Mining Company

Per John R. Macdonald Title Secretary

REMARKS: Amendment No 1. increases drilling to 15,200 ft and decreases drifting and Crosscutting to 10,725 ft.

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)

*Maximum allowed by contract

E.J. Lundbeam 4/12/55

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 872894

N M E A
1 map

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

April seventh
1 9 5 5

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane 4, Washington

Re: Progress Report Polaris East
Exploration Project - March, 1955
Docket No. D.M.E.A. 2879
Contract No. IDM-E-541

Gentlemen:

During March the main easterly heading was continued for a distance of 368.4 feet and 11.0 feet of switch sideswipe was made from Station SS3032 + 202.0 to 213.0. Progress was in bleached and unbleached argillaceous quartzite with occasional small quartz stringers and minor siderite stringers with no associated sulphides.

A long flat diamond drill hole was started during the month from coordinate point 83484 south and 88399 east and bearing N. 33° E. It was advanced 275.5 feet during the month. This hole probably will be drilled from 800 to 1000 feet in length. The log will be submitted after completion of the hole.

You will note on the attached map that the heading has almost reached a point under the main Coeur d'Alene Mines south crosscut where another diamond drill crosscut will be placed so that drill holes may be drilled southeasterly toward a large siderite vein of northeasterly strike which was explored from the Coeur d'Alene Mines 2800 level.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:abs
Encs.

Form MGF-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

Month of January, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)
Address 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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		$ 11,037.15	$ 11,037.15			
Raising		30,072.49	30,072.49			
Crosscutting 53.6 @51.00	$ 2,733.60	8,353.49	11,087.09			
Drifting 247.2 @ 51.00	12,607.20	238,117.35	250,724.55			
Sideswipe		18,999.41	18,999.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$15,340.80	$306,579.89	$321,920.69	15340.80	306579.89	321920.69

No Rehabilitation

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

Date 2-9-55 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 7670 40

Signature [signature]
(Authorized Certifying Officer)

Date 2/18/55 Vou. No. 1443
(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. E541 in accordance with the terms of the contract.

Signature /s/ Eric G. Erickson Title Mining Engr Date 2/15/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W. Zoldok Title Mining Engr Date 2/17/55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1955 Docket No. DMEA 2879 Contract No. DDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (and Incidental Silver)

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	feet	$12,607.20	247.2	$250,724.55	5002.5	50.12	11625	$ 51.00*
Crosscutting	"	2,733.60	53.6	11,087.09	218.5	50.74		
Raising	"			30,072.49	324.1	92.79	330	93.33
~~Stoping~~ Sideswiping	"			18,999.41	753.2	25.22	1560	25.50
Winzes								
Drilling: Core	feet			11,037.15	2452.7	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 2-9-55 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 21 1955

February ninth
1 9 5 5

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - January 1955
Docket No. DMEA 2879
Contract No. IDM-E-541

Gentlemen:

During January the main easterly heading was advanced 247.2 feet, No. 218 North Crosscut was driven 28.3 feet and No. 218 South Crosscut was driven 25.3 feet. The crosscuts are to be used in drilling long diamond drill holes north and south of the main heading.

Advance for the month is shown on the attached 50-scale map dated February 1, 1955. The advance was in bleached quartzite and argillaceous quartzite. Some minor quartz streaks and lenses with a small amount of pyrite were associated quite intimately with a small zone of shearing as shown on the attached map.

Also attached is Sheet No. 3 which is a composite 50-scale map showing progress through November 1, 1954.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:abs
Enc.

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

Month of December, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company

Address Box 320 - Wallace, Idaho

Minerals Copper, Lead, Antimony (and incidental silver)

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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		$ 11,037.15	$ 11,037.15			
~~Bulldozing~~ Raising		30,072.49	30,072.49			
Crosscutting		8,353.49	8,353.49			
Drifting 332.8 @ 51.00	$16,972.80	221,144.55	238,117.35			
Sideswipe 12.0 @ 25.50	306.00	18,693.41	18,999.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 17,278.80	$289,301.09	$306,579.89	17,278.80	289,301.09	306,579.89

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

Date 1-7-55 *Payee POLARIS MINING COMPANY

Per [signature] Title President

*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:

$ 8639.40

Signature [signature]
(Authorized Certifying Officer)

Date 1-19-55 Vou. No. 1411

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 1-14-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldoh Title Mining Engr Date 1-14-55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name POLARIS MINING COMPANY Minerals copper, lead, antimony

Address Box 320 - Wallace, Idaho (and incidental silver)

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	feet	$16,972.80	332.8	$238,117.35	4755.3	$50.07	11,625	$51.00*
Crosscutting	"			8,353.49	164.9	50.66		
Raising	"			30,072.49	324.1	92.79	330	93.33
Shafts ~~xxxx~~ sideswiping	"	306.00	12.0	18,999.41	753.2	25.22	1,560	25.50
Winzes								
Drilling: Core	"			11,037.15	2,452.7	4.50	5,000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 1-7-55 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 24 1955

January seventh
1 9 5 5

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - December 1954
Docket No. DMEA 2879
Contract No. IDM-E-541

Gentlemen:

During December the main easterly heading was advanced 332.8 feet and sideswiping 12 feet in length extended from Station SS-3029 +28.0 feet to + 40 feet.

Advance for the month is shown on the attached 50-scale map. Work was along the strike of bleached quartzite and argillaceous quartzite. Minor narrow barren quartz stringers were found as indicated on the map. No other mineralization of interest was found.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
abs

Enc.

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

Month of November, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 - Wallace, Idaho (& Incidental silver)

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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		11 037 15	11 037 15			
Raising 80.3 @ 93.33	7 494 40	22 578 09	30 072 49			
Crosscutting		8 353 49	8 353 49			
Drifting 211.7 @ 51.00	10 796 70	210 347 85	221 144 55			
Sideswipe 10.0 @ 25.50	255 00	18 438 41	18 693 41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	18 546 10	270 754 99	289 301 09	18546.10	270754.99	289301.09

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

Date 12-7-54 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 9273.05

Signature [signature] (Authorized Certifying Officer)

Date 12/16/54 Vou. No. 1380 (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. E541 in accordance with the terms of the contract.

Signature /s/ Eric G Erickson Title Mining Engr Date 12/13/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W Zoldok Title Mining Engr Date 12/13/54

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 3 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1954 Docket No. DMEA 2879 Contract No. IDM-B 541

Operator's Name Polaris Mining Company

Address Box 320 - Wallace, Idaho

Minerals Copper, Lead, Anti-mony (and incidental Silver)

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	feet	10,796.70	211.7	221,144.55	4,422.5	50.00	11,625	$51.00*
Crosscutting	"			8,353.49	164.9	50.66		
Raising	"	7,494.40	80.3	30,072.49	324.1	92.79	330	93.33
~~xxxx~~ sideswiping	"	255.00	10.0	18,693.41	741.2	25.22	1,560	25.50
Winzes								
Drilling: Core	feet			11,037.15	2,452.7	4.50	5,000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 12-7-54 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 23 1954

December seventh
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project- November-1954
Docket No. DMEA-2879
Contract No. IDM-E 541

Gentlemen:

In November, the main easterly heading was advanced 211.7 feet and sideswiping 10 feet in length extended from 3 feet N. W. of Station SS-3028 to 7 feet S. E. of that station. The timbered advance in the ventilation raise was 80.3 feet and the raise holed through to Coeur d'Alene Mines 2800 level during the month.

The attached 50-scale map shows the advance made in the main heading during November. Work was in bleached argillaceous quartzite. A few narrow barren quartz stringers were exposed in the first half of the month's advance. Nothing else of interest was exposed in the drifting.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
abs

Enc.

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 195 4 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company

Address Box 320 - Wallace, Idaho

Minerals copper, lead, antimony(&incidental silver)

Contract Amount, $685,955.00 Government Participation: 50 % Amount, $342,977.50

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		11,037.15	11,037.15			
Raising 110.6 @ 91.74	10,146.53	12,431.56	22,578.09			
Crosscutting		8,353.49	8,353.49			
Drifting 223.4@ 49.88	11,142.44	199,205.41	210,347.85			11,393.40
Sideswipe 78.6 @ 24.94	1,960.15	16,478.26	18,438.41			2,004.30
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	23,249.12	247,505.87	270,754.99	23249.12	247505.87	270754.99

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

Date 11-5-54 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 11624 56

Signature [signature] (Authorized Certifying Officer)

Date 11/10/54 Vou. No. 1350

(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-541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 11/8/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr Date 11/9/54

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, lead, Antimony (and incidental silver)

Address Box 320 - Wallace, Idaho

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	feet	11,142.44	223.4	210,347.85	4,210.8	49.95	11,625	$ 51.00*
Crosscutting	"			8,353.49	164.9	50.66		
Raising	"	10,146.53	110.6	22,578.09	243.8	92.61	330	93.33
~~Stoping~~ Sideswiping	"	1,960.15	78.6	18,438.41	731.2	25.22	1,560	25.50
Winzes								
Drilling: Core	"			11,037.15	2,452.7	4.50	5,000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 11-5-54 Operator Polaris Mining Company

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

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 872894

DMEA

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 12 1954

November fifth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East Exploration
Project - October-1954
Docket No. DMEA -2879
Contract No. IDM-E 541

Gentlemen:

During October the main easterly heading was advanced 223.4 feet and 78.6 feet of sideswiping extending from Station SS-3027 plus 66.6 feet to SS-3027 plus 145.2 feet was completed. The timbered advance in the ventilation raise was 110.6 feet. The present raise back is 261 feet above the rail and should hole through during November.

Advance in the main heading was in argillaceous quartzite largely steep dipping and overturned toward the south. Small stringers of quartz and siderite appear in the drift along some of the distance advanced. No sulphide mineralization was found in the drift. The drift is now within a rather long section which was unexplored on the level above.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
abs

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

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 18 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September 195 4 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (& Incidental silver)
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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		11037.15	11037.15		11037.15	11037.15
Raising 105.9 @ 93.33	9883.65	2547.91	12431.56	9883.65	2547.91	12431.56
Bulldozing		8353.49	8353.49		8353.49	8353.49
Crosscutting 175.1 @ 51.00	8930.10	190275.31	199205.41	8930.10	190275.31	199205.41
Drifting Sidewipe 102.01 @ 25.50	2601.00	13877.26	16,478.26	2601.00	13877.26	16478.26
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	21414.75	226091.12	247505.87	21414.75	226091.12	247505.87

No Deduction

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

Date 10-7-54 *Payee POLARIS MINING COMPANY

Per [signature] Title President

*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:

$ 10707 37

Signature MGP
(Authorized Certifying Officer)

Date 10/14/54 Vou. No. 1316
(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. E541 in accordance with the terms of the contract.

Signature /s/ Eric G. Erickson Title Mining Engr Date 10/12/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Thomas E. Howard Title Mining Engr Date 10/12/54

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-R1151.2

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 18 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1954 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (& Incidental Silver)

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	Feet	8930.10	175.1	199205.41	3987.4	49.96	11625	$ 51.00*
Crosscutting	Feet			8353.49	164.9	50.66		
Raising	Feet	9883.65	105.9	12431.56	133.2	93.33	330	93.33
~~Shafts~~ Sideswiping	Feet	2601.00	102.0	16478.26	652.6	25.25	1560	25.50
Winzes								
Drilling: Core	Feet			11037.15	2452.7	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 10-7-54 Operator POLARIS MINING COMPANY

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

October seventh
1954

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 18 1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - September-1954
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

During September the main easterly heading was advanced 175.1 feet and 102.0 feet of sideswiping for switch room was done. The ventilation raise was advanced 105.9 feet (timbered).

The geology of the drift work is shown on the attached 50-scale map. Advance was in bleached argillaceous quartzite striking with the drift and overturned southerly dipping at a steep angle. No mineralization of consequence was found in the work. The heading will be driven on a line in the direction shown on the map.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/mg

Enc.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

Defense Minerals Administration
RECEIVED
SEP 27 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony, (& incidental silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 665,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 248.5 @ 4.50	1,118.25	9,918.90	11,037.15	1118.25	9918.90	11037.15
Raising 27.3 @ 93.33	2,547.91		2,547.91	2547.91		2547.91
Bulldozing						
Crosscutting 104.6 @ 51.00	5,334.60	3,018.89	8,353.49	5334.60	3018.89	8353.49
Drifting 142.7 @ 51.00	7,277.70	182,997.61	190,275.31	7277.70	182997.61	190275.31
Sidewipe 121.6 @ 25.50	3,100.80	10,776.46	13,877.26	3100.80	10776.42	13877.26
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	19,379.26	206,711.86	226,091.12	19379.26	206711.86	226091.12

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Sept. 8, 1954 Payee Polaris Mining Company
Per [signature] Title President

*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:

$ 9689 63

Signature MEP
(Authorized Certifying Officer)

Date 9/23/54 Vou. No. 1297
(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. E541 in accordance with the terms of the contract.

Signature /s/ Earle G. Erickson Title Mining Engr Date 9/14/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W. Zoldak Title Mining Engr Date 9/15/54

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 27 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Mineral Copper, lead, antimony (and incidental silver)

Address Box 320 Wallace, Idaho

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	feet	7,277.70	142.7	190,275.31	3,812.3	49.91	11,625	$ 51.00*
Crosscutting	"	5,334.60	104.6	8,353.49	164.9	50.66		
Raising		2,547.91	27.3	2,547.91	27.3	93.33	330	93.33
~~Shafts~~ Sideswiping	"	3,100.80	121.6	13,877.26	550.6	25.20	1,560	25.50
Winzes								
Drilling: Core	"	1,118.25	248.5	11,037.15	2,452.7	4.50	5,000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 Sept. 8, 1954 Operator Polaris Mining Company

Per [signature] Title President

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)

* Maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

September seventh
1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - August-1954
Docket No. DMEA 2879
Contract No. IDM-E541

Gentlemen:

During August the main easterly heading was advanced 142.7 feet and eight feet of sideswiping was completed. The ventilation crosscut, (shown on the map) was driven 104.6 feet and 113.6 feet of sideswipe in connection with raise preparation was completed. The ventilation raise has been driven 27.3 feet (timbered). Diamond drill holes SS-3255, 3256, 3257 and 3258 were drilled to explore the Wire Silver vein. Lengths of these holes were respectively 78.0 feet, 50.5 feet, 55.0 feet and 65 feet.

The geology of the new work performed is indicated on the attached map. Work was in bleached quartzite and argillaceous quartzite. No mineralization of note was encountered except as shown on the attached drill logs covering the holes above mentioned.

The main heading is being driven on a line easterly approximately parallel with the zone explored above on Coeur d'Alene Mine's 2800 level.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:dc

encs.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-11-54
Finished 8-15-54
Hole Size Ex
Depth 78'
% Core Rec. 76

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift
SS 3018 + 102' E.
Logged by J. G. S. Date 8-17-54
Drilled by Holten

Hole No. SS 3255
Level 3000
Grid 189
Latitude 82, 927 S.
Departure 87, 035 E.
Elevation - 307'
Bearing S 13° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	1.0		E-363	0 - 5		5.0	Tr.		
6.0	0.8								
7.9	1.5								
10.2	1.1		64	10		"	Tr.		
12.2	2.2								
15.2	2.8		65	15		"	Tr.		
18.0	2.4								
20.8	3.2	0' - 46.0' Bleached lt. gray-	6	20		"	Tr.		
24.0	3.1	green qtzite with a few tan							
26.4	1.1	bands. Some arg. qtzite.	7	25		"	0.6		
27.6	1.3	Mostly broken core, with shear-							
28.4	0.8	ing at 10.5, 13.0, 21.5, 36.0							
32.3	4.1	to 37.0 and at 46.0. Small	8	30		"	Tr.		
34.5	0.9	str. sid-qtz, some tetra at							
36.1	1.5	23.5. 1" Sid-qtz, small amt.	9	35		"	Tr.		
37.8	1.2	tetra at 35.0.							
38.8	1.0								
40.3	0.8		370	40		"	Tr.		
42.6	2.5								
43.8	0.9								
47.5	3.4	46.0' - 52.5' More greenish	1	45		"	Tr.		
52.6	1.6	argillite and arg. qtzite.							
			2	50		"	Tr.		
53.4	0.9								
56.0	1.4		3	55		"	Tr.		
57.1	1.1	52.5' - 75.0' Lt. gray and Lt.							
59.7	2.8	tan qtzite, with some thin dk	4	60		"	Tr.		
60.0	0.8	gray bands.							
64.8	4.0		5	65		"	Tr.		
70.0	1.9		6	70		"	Tr.		
75.1	4.6		7	75		"	Tr.		
		75.0' - 78.0' Alternate bands							
78.0	2.7	dk gray and lt gray qtzite.							
		END OF HOLE							

Fm 108 3m 2-52

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-16-54
Finished 8-17-54
Hole Size Ex
Depth 50'
% Core Rec. ~~75~~ 77

Mine SILVER SUMMIT
Location 3000 Polaris E. Expl. Drift
SS 3018 + 100' E.
Logged by J. G. S. Date 8-23-54
Drilled by Holten

Hole No. SS 3256
Level 3000
Grid 189
Latitude 82, 926 S.
Departure 87, 033 E.
Elevation - 307'
Bearing S 41° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	1.3		E-378	0 - 5		5.0	Tr.		
5.0	0.3								
8.1	1.6		9	10		"	Tr.		
13.7	2.0	0' - 50.0' Lt. gray-green to lt							
14.9	1.7	green qtzite & arg. qtzite.	380	15		"	Tr.		
16.7	1.0	Some tan bands with diss. sid.							
20.0	2.9	Core mostly badly broken esp.	1	20		"	Tr.		
24.8	3.7	3.0 - 5.0.							
26.4	1.8	Strs. sid. with pyr., cpy., &	2	25		"	Tr.		
29.8	3.0	tetra 26.4 to 26.9.							
31.3	1.4	Sid strs at 34.0 to 34.7, 36.0	3	30		"	Tr.		
33.9	2.5	to 36.5 & 39.0 to 39.8, with							
36.1	2.0	pyr., cpy and tetra at 36.0	4	35		"	Tr.		
40.8	4.5	to 36.5.	5	40		"	Tr.		
45.3	4.2	1" sid, qtz, some pyr at 48.0.	6	45		"	4.7		
48.0	2.5								
50.5	2.4		7	50		"	Tr.		
		End Of Hole							

Fm 108 3m 2-52

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-18-54
Finished 8-20-54
Hole Size Ex
Depth 55'
% Core Rec. 71

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift
SS 3018 + 123' East
Logged by J.G.S. Date 8-30-54
Drilled by Holten

Hole No. SS 3257
Level 3000
Grid 189
Latitude 82,922 S
Departure 87,062 E
Elevation -307'
Bearing N 55° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-1.0	0.4		E-388	0-5		5.0	Tr.		
3.0	0.2								
5.0	0.2	0' - 55.0' Light greyish-green							
5.8	0.8	to light green banded bleached							
7.9	1.7	argillite qtzite. Argillite with							
9.0	1.2	tan bands of disseminated sid.	89	10		"	Tr.		
11.2	1.9								
14.4	2.3	Most of the core is badly	90	15		"	Tr.		
16.5	1.6	broken. Several small qtz. and							
19.9	1.5	sid. strs. with pyr. from	91	20		"	Tr.		
23.3	1.4	10.0' to 19.0'. Small amt.							
26.5	2.4	tetra. Some of the sid. strs.	92	25		"	Tr.		
29.0	2.4	cross core at about 30.0'.	93	30		"	Tr.		
32.1	2.3	Small veinlet pyr. with a							
36.4	2.0	little tetra at 12.0', 15.0'	94	35		"	Tr.		
38.3	2.0	17.0' and 18.0'							
40.3	1.9		95	40		"	Tr.		
41.9	1.3								
45.9	3.9		96	45		"	Tr.		
48.0	2.1								
51.7	3.4		97	50		"	Tr.		
55.0	2.3		98	55		"	Tr.		
		END OF HOLE							

Fm 108 3m 2-52

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-24-54
Finished 8-25-54
Hole Size Ex
Depth 65'
% Core Rec. 87

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift
STA. SS 3024 + 100' West
Logged by J. G. S. Date 8-26-54
Drilled by Holten

Hole No. SS 3258
Level 3000
Grid 190
Latitude 82, 957 S.
Departure 87, 114 E.
Elevation - 307'
Bearing N 11° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-1.0	0.8		E-399	0 - 5		5.0	Tr.	-	
2.5	1.4								
3.5	0.8								
5.0	1.5								
7.5	2.0								
10.8	3.3		400	10		"	Tr.		
11.9	1.1								
13.0	1.1								
15.1	2.0		400A	15		"	Tr.		
18.9	3.4								
20.0	0.8	0' - 65.0' Bleached lt. gray-	1	20		"	Tr.		
21.8	1.7	green arg. qtzite, mixed with							
23.9	1.1	bands of qtzite and arg. Some							
26.6	2.6	tan bands with diss. sid.	2	25		"	Tr.		
28.3	1.7								
31.8	3.4	Core mostly broken. Probable	3	30		"	Tr.		
33.8	1.2	slip zones at 17.5-20.0, 45.0							
35.1	1.3	and 59.0-61.0. Some shearing	4	35		"	Tr.		
37.4	1.5	at 35.5, 51.5 and 65.0							
38.7	1.3								
41.0	1.9		5	40		"	Tr.		
43.0	2.0								
45.2	1.5		6	45		"	Tr.		
47.7	2.0								
50.0	2.3		7	50		"	Tr.		
52.1	2.1								
55.0	2.4		8	55		"	Tr.		
58.1	2.6								
61.3	2.5		9	60		"	Tr.		
65.0	3.1		410	65		"	Tr.		
		END OF HOLE							

Fm 108 3m 2-52

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 10 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1954 Docket No. DMEA 2879 Contract No. IDM-B541

Operator's Name Polaris Mining Company Minerals copper, lead, antimony (and incidental silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ 685,955.00 Government Participation: ____% Amount, $ 342,977.50

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:	-	9,918.90	9,918.90			
Drilling						
Bulldozing						
Crosscutting 35.5 @ 49.94	1,772.94	1,245.95	3,018.89			1,806.95
Drifting 357.2 @ 49.94	17,839.23	165,158.38	182,997.61			18,181.48
Sidewipe 49.0 @ 24.97	1,223.57	9,552.89	10,776.46			1,249.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services	17,838.57					
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	20,835.74	185,876.12	206,711.86	20835.74	185876.12	206711.86

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

Date Aug. 11, 1954 Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 10417.87

Signature [signature] (Authorized Certifying Officer)

Date 9/3/54 Vou. No. 1268

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 8/26/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 8/30/54

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)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 10 1954

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1954 Docket No. DMEA 2879 Contract No. IDM-E541
Operator's Name Polaris Mining Company Minerals Copper, lead, antimony (and incidental silver)
Address Box 320 Wallace, Idaho

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	feet	17,839.23	357.2	182,997.61	3,669.6	49.87	11,625	$51.00*
Crosscutting	"	1,772.94	35.5	3,018.89	60.3	50.06		
Raising							330	93.33
~~Shafts~~ Sideswiping	"	1,223.57	49.0	10,776.46	429.0	25.12	1,560	25.50
Winzes	"			9,918.90	2,204.2	4.50	5,000	4.50
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 July Operator Polaris Mining Company

Per Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* maximum allowed by contract

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 872894

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 10 1954

August tenth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - July-1954
Docket No. DMEA 2879
Contract No. IDM-E541

Gentlemen:

During July the main easterly heading was advanced 357.2 feet and 23 feet of sideswipe was completed. Also 9.0 feet of drift north and 15.0 feet of drift south was driven on the Wire Silver vein. The vent raise crosscut near SS 3018 was driven 11.5 feet and 26 feet of sideswipe was completed.

The attached 50-scale map shows progress for the month of July, the geology of the workings and samples taken on the Wire Silver vein.

Wall rock was mostly thin bedded grayish-green sericitic quartzite with rocks appearing to become more massive toward the face. A change in bedding direction appears to be taking place near the face of the main heading.

The tetrahedrite-siderite vein located about 150 feet southeast of Station SS 3018 is similar in character to the small stoped section on 2800 called the "Wire Silver" vein by the Coeur d'Alene Mines Corporation. Although the vein is rather narrow in this new work, the silver and copper content is interesting, reaching a maximum of 2.0 feet; assaying 90.7 ounces silver and 3.14% copper. Slabs for diamond drilling northerly and southerly for purposes of prospecting the vein extensions have been prepared and before any usable drift may be run, drilling should establish the probable trend. The erratic nature of the vein is only partially illustrated on this 50-scale map. Drilling is being started there now.

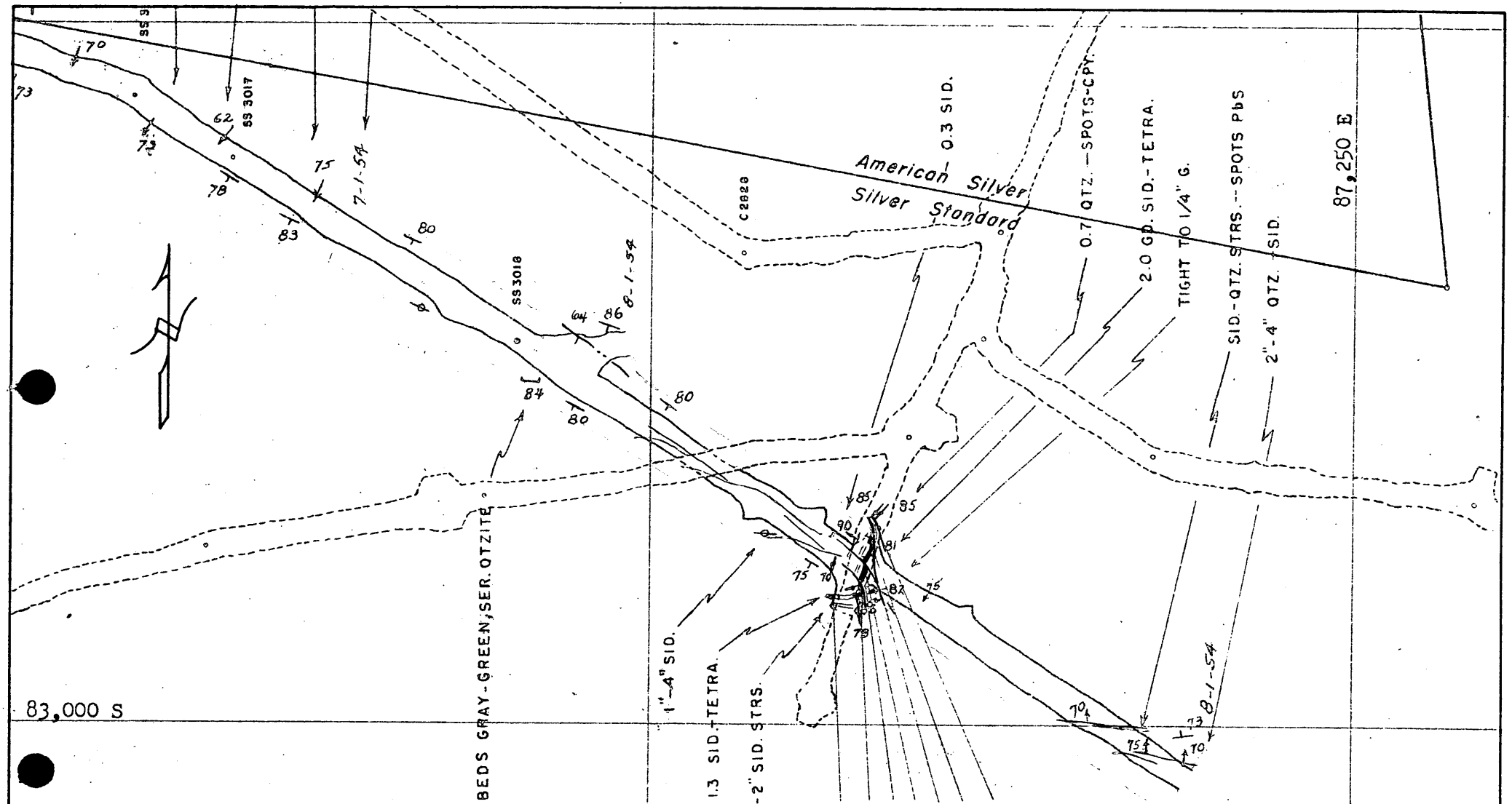
Near Station SS 3018 a northerly crosscut is being driven to a position under Station C 2828 (Coeur d'Alene 2800 level) and the raise will be spotted to hole in the vicinity of that station. Since August first the crosscut has reached that position and the raise is being started as planned. Advance will be made both in the raise and in the main heading.

Yours very truly,

Robert E. Sorenson

RES:dc

Robert E. Sorenson



NO.	FT.	AG	CU
3259	1.3	56.9	2.55
3254	8.0	90.7	3.14
3251	1.0	30.9	1.69
3247	0.4	43.7	1.42
3246	1.7	91.6	3.10
3249	0.4	3.2	0.35
3253	0.7	0.4	0.00

LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 60 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' August 1,1954

Geology by J.G.S. W.R.A. & P.M.L.

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

W

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 June, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Co. Minerals copper, lead, antimony
Address Box 320 - Wallace, Idaho (and incidental silver)
Contract Amount, $685,955.00 Government Participation 50 % Amount, $ 342,977.50

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) ~~Standard~~ Short Form Contracts:						
Drilling core 203 @ 4.50	913 50	9 005 40	9 918 90	913.50	9 005.40	9918.90
Bulldozing						
Crosscutting		1 245 95	1 245 95		1245.95	1245.95
Drifting 346.8 @ 51.00	17 686 80	147 471 58	165 158 38	17686.80	147471.58	165158.38
Sideswipe 60.0 @ 25.50	1 530 00	8 022 89	9 552 89	1530.00	8022.89	9552.89
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS 20	130 30	165 745 82	185 876 12	20130.30	165745.82	185876.12

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

Date July 9-1954 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 10065.15

Signature MJP
(Authorized Certifying Officer)

Date 7/20/54 Vou. No. 1223

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 7/13/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr Date 7/14/54

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 June 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals copper, lead, antimony (and incidental silver)

Address Box 320 - Wallace, Idaho

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	Feet	17 686 80	346.8	165 158 38	3,312.4	49 86	11,625	8 51 00*
Crosscutting	"			1 245 95	24.8	50 24		
Raising							330	93 33
~~Stopes~~ Side Swiping	"	1 530 00	60.0	9 552 89	380	25 14	1,560	25 50
Winzes								
Drilling: Core	"	913 50	203.0	9 918 90	2,204.2	4 50	5,000	4 50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 July 9-1954 Operator Polaris Mining Co.

Per [signature] Title President

→ 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.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract.

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

Polaris Mining Company

Wallace, Idaho

July ninth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
S. 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - June-1954
Docket No. DMEA 2879
Contract No. IDM-E541

Gentlemen:

During the month of June the main easterly heading was advanced a total of 346.8 feet and 60 feet of sideswipe was completed. Diamond drill hole No. SS 3233 was completed to 100 feet and drill hole No. SS 3234 was drilled to 103 feet as shown on attached map and on attached logs of the holes.

The attached 50-scale map shows the advance for the month of June, the geology and the assays of samples taken in the drift. Samples on the map are indicated as follows: Sample No., Width, Silver Ounces, Copper %. About 200 feet of the month's advance followed the vein in which spotty silver-copper mineralization has occurred but no consistent interesting mineralization was found. The last 90 feet of heading has been driven on line toward a projection of the first or easterly wire silver ore shoot and toward a point from which a raise will be extended to the Coeur d'Alene Mines 2,800 level as planned. Advance has been largely in bleached argillaceous quartzite wall rock. Drilling seems to indicate that the structure followed on this new level is the same vein explored on the 2,800 level of Coeur d'Alene Mines.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:dc

DIAMOND DRILL RECORD

Standpipe
Casing

Started 6-14-54
Finished 6-19-54
Hole Size Ex
Depth 100'
% Core Rec. 76.1

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by W. R. A. Date 6-20-54
Drilled by Pearson

Hole No. SS 3233
Level 3000 Level
Grid 180
Latitude 82, 724.5 S
Departure 86, 579.5 E
Elevation - 309.5
Bearing Due South
Inclination 0°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3	0.7		C-4292	0 - 5			0.4		
5.0	1.1								
6.0	0.6		93	5 - 10			0.4		
9.0	1.4								
11.0	1.7								
13.0	1.4								
14.0	0.7		4	10 - 15					
18.0	3.4								
18.8	0.6	0' - 50.0' Lt. gray to grn gry							
20.0	1.4	arg. and buttons blchd. 25'- 35'	5	20					
20.5	0.5	= chlorite seams. 41.0' = ½"							
25.0	1.8	sid - py. More qtzitic from 41-	6	25					
27.0	1.3	45'.							
30.0	1.8		7	30					
32.0	1.8								
33.1	1.0								
35.0	1.6		8	35					
36.1	1.2								
40.0	3.1		9	40					
41.5	1.7								
45.0	2.0		4300	45					
End Box 1									
50.0	1.6		301	50					
54.6	3.9		2	55					
57.6	3.3		3	60					
61.5	2.2								
66.0	4.5		4	65					
67.2	1.2								
72.0	3.2		5	70					
76.0	3.2	50.0' - 100.0' harder qtzt 69±	6	75					
80.5	4.5	3" pink qtz-sid.	7	80					
85.3	4.5		8	85					
89.0	3.5								
End Box 2			9	90					
94.0	3.8								
96.0	2.0		310	95					
100	3.6		311	100					
		END OF HOLE							

All Samples taken at 5.0 feet Intervals.

All Assays are 0.00 or Trace except as shown.

Fm 108 3m 2-52

DIAMOND DRILL RECORD

Standpipe
Casing

Started 6-22-54
Finished 6-29-54
Hole Size Ex
Depth 103'
% Core Rec. 84.5

Mine SILVER SUMMIT
Location 3000 Polaris E. Expl. Drift

Logged by W. R. A. Date 6-30-54
Drilled by Pearson

Hole No. 3234
Level 3000 Level
Grid 181
Latitude 82, 716 S.
Departure 86, 631.0 E.
Elevation - 309.5
Bearing Due North
Inclination 0°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0.0-4.0	0.9		C-4312	0-5					
7.0	2.7		3	10					
8.0	1.2								
10.5	2.1								
13.5	3.1	0' - 20.0' Lt. gray Arg.-Qtzt	4	15					
15.5	1.9	with talcy seams. Minute sid							
17.5	1.2	strgrs at 7.1'.							
18.5	1.4								
20.0	1.2		5	20					
22.0	1.8								
23.0	1.1								
25.5	2.2	20.0' - 41.6' Lt. gray qtzt to	6	25					
27.2	1.8	arg qtzt - harder at 34' to 41.6'.							
28.4	1.3	28.4' - 30.0' is black dissem.							
31.4	2.6	chlorite (?). 33.0'-34.0' =	7	30					
34.1	1.5	brkn & pcs of qtz = fault (?).							
36.1	1.5		8	35					
37.1	1.1								
41.6	1.2		9	40					
End Box 1									
43.7	1.1								
45	1.6		320	45					
46.6	1.4								
47.8	1.3								
49.7	1.8								
52.2	2.6		21	50					
53.1	1.6								
57	3.6	41.6' - End of Box Lt. Gray hard,	2	55					
61.5	2.2	brkn qtzt. 47'-54' = yellowish-							
62.7	1.3	qtzt due to dissem. sid. ½" wht	3	60					
65.0	2.2	qtz-sid at 56. arg bands at 72'-	4	65					
69.5	3.4	75', pcs qtz at 78.5'.							
70.7	1.2		5	70					
71.5	1.0								
72.6	1.1								
75.0	2.3		6	75					
76.1	0.9								
78.5	2.2								
80.0	1.1		7	80					
End Box 2	2.3								
85.0	2.7		8	85					
86.1	1.2								
87.5	1.5								
89.5	2.0		9	90					
92.5	2.8		330	95					

All Samples taken at 5.0 feet Intervals.

All Assays are 0.00 or Trace except as shown.

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 3000 Polaris E. Expl. Project

Logged by Date
Drilled by

Hole No. 3234
Level 3000 Level
Grid 181
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
94.5	1.8	Start Box - 100' Med to lt. gray							
96.0	1.8	qtzt to arg. qtzt. Brkn at 87.5,							
97.0	1.0	89, 91, 97, & 99. Pcs qtz at	C-4331	100					
100.0	2.2	96'.							
103	2.0		2	105					
		END OF HOLE							

All Samples taken at 5.0 feet Intervals.

All Assays are 0.00 or Trace except as shown.

Fm 108 3m 2-52

Form MF-102 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

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

Month of May, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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 Contractors: Short Form						
Drilling Core 259.50	1,167.75	7,837.65	9,005.40			
Bulldozing						
Crosscutting		1,245.95	1,245.95			
Drifting 393.7 @ 50.30	19,801.29	127,670.29	147,471.58			20,019.65
Sideswipe 28.0' @ 25.15	704.14	7,318.75	8,022.89			714.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Totals	21,673.18	144,072.64	165,745.82	21,673.18	144,072.64	165,745.82

393.7 @ 50.30 = 19,801.29
28.0' @ 25.15 = 704.14
329.70
16.07
34.85
50.93
393.70
20,019.65

Pd. card for operations

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 7-1954 Payee Polaris Mining Company
Per [signature] Title President

*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:
$ 10836 59

Signature [signature]
(Authorized Certifying Officer)
Date 6/21/54 Vou. No. 1200
(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 541 in accordance with the terms of the contract.

Signature Eric G. Erickson Title Mining Engr Date 6/16/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Eng Date 6/16/54

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 May 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Co. Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (& Incidental Silver)

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	Feet	19801.29	393.7	147471.58	2965.6	49.73	11625	$ 51.00*
Crosscutting	Feet			1245.95	24.8	50.24		
Raising							330	93.33
~~xxxx~~ Side Swiping	Feet	704.14	28.0	8022.89	320	25.07	1560	25.50
Winzes								
Drilling: Core	Feet	1167.75	259.5	9005.40	2001.2	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 June 7-1954 Operator Polaris Mining Co.

Per [signature] Title President

→ 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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

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

DMEA

RECEIVED
BUREAU OF MINES
JUN 14 1954
SPOKANE, WASH.

Polaris Mining Company

Wallace, Idaho

June tenth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - May-1954
Docket No. D.M.E.A. 2879
Contract No. IDM-E541

Gentlemen:

During May the main easterly drift was advanced 393.7 feet and 28 feet of sideswiping was completed. Diamond drill hole No. SS3225 was advanced 41.5 feet and completed to 158 feet; SS3228 was completed to 166 feet, and SS3229 was drilled 52 feet or a total of 259.5 feet of drilling. Logs of the holes are attached.

The attached 50-scale map shows the month's progress and the geology. About 35 feet east of station SS3006, what appears to be the "Wire Silver" vein was encountered in the drift, and at this point a narrow high-grade streak contained good silver assays as reported last month. Spotty narrow high-grade mineralization has been followed by the drift as shown on the attached map and since June 1, about 105 feet of additional work (yesterday) has been done on the vein without finding consistent or continuous mineralization. A small drill station has been prepared recently and diamond drill holes both toward the foot and hanging walls will be drilled since echelon structures may be expected in this area. Work has progressed through the vertical rake projection of a rather interesting section explosed on 2800 level above and through the section beneath the drill holes drilled below 2800 level by Coeur d'Alene Mines. The proposed wall drilling should either discount the presence of parallel mineralization or expose the dip projection of the mineralization seen above.

Wall rock has been bleached argillaceous quartzite and bleached quartzite.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:dc

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-27-54
Finished 5-3-54
Hole Size EX
Depth 158'
% Core Rec. 90

Mine SILVER SUMMIT
Location Polaris E. Exploration Project
SS 3000 + 249' East
Logged by M. Hutchinson Date 5-24-54
Drilled by M. R. Pearson

Hole No. SS 3225
Level 3000
Grid 165
Latitude 82,389 S.
Departure 85903 E.
Elevation -313'
Bearing North
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-6.0	1.2		C 4134	0 - 5					
10.0	1.9		5	10					
11.0	1.2		6	15					
13.0	1.4	0' - 47.0' Bleached lt. gray-green	7	20					
16.0	1.8	slightly arg . qtzite. First 15'	8	25					
17.5	1.3	is greenish, more argillaceous,	9	30					
22.0	3.2	and mostly broken. Probable slip							
26.0	4.6	at 13.0 with 1" siderite. 2"	40	35					
31.0	4.7	qtz at 42.4. Sheared zone,							
35.0	4.4	greenish arg., 41.5 to 42.0.	1	40					
40.0	4.7								
44.5	4.7		2	45					
47.0	2.6	End of Box 1 at 47.0	3	50					
52.0	4.3		4	55					
55.0	2.5	47.0' - 98.0' Lt. green and gray	5	60					
58.0	3.0	green arg and arg qtzt. Few							
60.0	1.2	purplish remnants from 74.0 to 83.5'	6	65					
61.5	1.3								
68.0	4.7		7	70					
70.0	4.0								
74.0	3.0		8	75					
78.5	4.7								
83.5	4.8		9	80					
85.0	1.0								
87.0	2.4		50	85					
End of	Box 2								
88.0	1.2		1	90					
93.0	4.7								
98.0	4.7	98.0 - 103.0' Purplish arg.	2	95					
103.0	4.6	103.0 - 115.0' Lt greenish gray							
105.0	2.8	arg. Abundant diss. sid 103.5-	3	100					
110.0	4.1	104.5.	4	105					
114.0	4.7		5	110					
119.0	5.0	115.0 - 158.0' Purplish arg and	6	115					
123.5	4.8	arg qtzt. Moderately bleached	7	120					
124.7	1.2	127.0 - 137.0.	8	125					
End of	Box 3		9	130					
127.4	2.4		60	135					
131.0	4.0		1	140					
135.0	3.7		2	145					
140.0	4.7		3	150					
141.5	1.5		4	155					
146.0	4.1								
151.5	4.2								
153.0	1.8								
158.0	4.7								

All sludge samples taken at 5.0-foot intervals

All assays are 0.00 or Trace

Fm 108 3m 2-52

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-12-54
Finished 5-20-54
Hole Size Ex
Depth 166.0
% Core Rec. 86

Mine SILVER SUMMIT
Location 3000 Polaris E. Expl. Dr.
SS 3005 + 163 S. E.
Logged by MWH & WRA Date 5-21-54
Drilled by Pearson

Hole No. SS 3228
Level 3000
Grid 172
Latitude 82,553 S.
Departure 86,205 E.
Elevation -314'
Bearing South
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	0.6	0'- 13.5' Bleached, partly arg.,	C 4201	0 - 5		5.0	0.5		
5.0	1.1	lt green qtzite mostly broken							
7.2	1.3	core slip zone 10.0-13.5 with 2"	2	10		"			
10.0	1.2	qtz. and ¼" sid. at 10.5.							
12.0	1.1								
13.5	1.0								
			3	15		"			
16.5	2.9								
20.5	4.0		4	20		"			
End Box 1	at	44.5 feet.							
24.8	3.6		5	25		"			
26.0	1.4	13.5' - 46.0' harder lt gray							
30.0	4.0	qtzite - some thin darker gray	6	30		"			
35.0	4.7	bands.	7	35		"			
39.0	3.4								
41.0	2.1		8	40		"			
44.5	2.8		9	45		"			
46.0	0.9								
50.0	4.0		10	50		"			
55.0	4.9	46.0' - 61.0' Med-Gray Arg-Qtzt-	11	55		"	0.2		
57.5	2.2	Blchd - ½" wht. qtz at 59.0 also							
59.0	1.6	brkn.							
60.0	0.6		12	60		"	0.1		
61.0	1.1								
End Box 2	at	85.8 feet.							
65.0	2.6		13	65		"			
68.0	2.7								
71.5	2.7		14	70		"			
73.0	0.7								
76.5	3.6		15	75		"			
80.0	3.3		16	80		"			
85.0	4.0	61.0' - 146.0' Lt. to med gray	17	85		"			
85.8	0.8	qtzt blchd - good core. Brkn							
88.0	2.5	71.5 and 73'. Slip zone at 107.0	18	90		"			
92.0	3.9	and at 109.5. Small qtz str at							
95.2	3.5	87.2 and at 108.5. Slip at 119.0	19	95		"			
99.5	4.6	& 125.5. 1" qtz at 132.0. ½"	20	100		"			
104.1	4.1	sid. at 137.5. Slips at 139.0 &	21	105		"			
106.0	2.8	from 142.5 to 144.5.							
108.0	1.6								
110.0	1.7		22	110		"			
112.0	2.2								
116.4	3.5		23	115		"			

All assays trace except where noted

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine
Location

Logged by Date
Drilled by

Hole No. SS 3228
Level 3000
Grid 172
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
120.0	1.6		C 4224	120		5.0			
121.2	1.1								
123.5	1.7								
126.0	2.2		5	125		"			
End Box 3									
128.0	1.4								
130.0	1.8		6	130		"			
133.0	3.4		7	135		"			
138.5	4.7								
142.2	4.6		8	140		"			
144.5	1.7		9	145		"			
146.0	1.8								
148.5	1.3		30	150		"			
152.0	4.1	146.0' - 166.0' Lt. gray to blue	1	155		"	0.3		
153.0	0.5	-gray qtzt. - Blchd. 144.5-146.0							
156.0	2.2	small black specks prob pyrite.							
161.0	4.2	Slip at 147.0. Chlorite in frac-	2	160		"			
166.0	3.1	tures 151.0-154.0.	3	165		"	0.2		
End Box 4									
		END OF HOLE							

All assays trace except where noted

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-24-54
Finished 5-25-54
Hole Size Ex
Depth 52.0
% Core Rec. 82

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift SS 3006 + 69' S. E.
Logged by MWH Date 5-26-54
Drilled by Pearson

Hole No. SS 3229
Level 3000
Grid 174
Latitude 82,602 E.
Departure 86,317 E.
Elevation -313'
Bearing South
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	0.5		C 4234	0 - 5		5.0	Tr.		
5.0	1.6	0' - 18.0' Lt gray-green, blchd							
7.0	0.6	arg. qtzite. Broken core first							
8.2	0.9	15 feet.							
10.0	1.8		5	10		All 5.0 foot intervals	All assays trace		
12.5	1.2								
15.0	2.0		6	15					
17.5	2.2								
21.8	4.3		7	20					
26.2	4.7		8	25					
29.0	2.7								
32.0	2.4	18.0' - 52.0' Lt gray less arg-	9	30					
37.0	4.7	illaceous. Mostly qtzite 32.0 to	40	35					
43.2	5.0	52.0.							
End Box 1			1	40					
45.9	1.5		2	45					
50.0	4.4		3	50					
52.0	2.0		4	50 - 52		2.0	Tr.		
		END OF HOLE							

Fm 108 3m 2-52

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1954 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 Core 462.0' @ 4.50	2,079.00	5,758.65	7,837.65	* 2079.00	5758.65	7837.65
Bulldozing				(22,555.28)		
Crosscutting		1,245.95	1,245.95		1245.95	1245.95
Drifting 466.5 @ 48.22	22,496.10	105,174.19	127,670.29	22496.10	105174.19	127670.29
Sideswipe 8.0 @ 24.11	192.89	7,125.86	7,318.75	192.88	7125.86	7318.75
(2) Labor and Supervision:				(204.00)		
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	24,767.99	119,304.65	144,072.64	24767.99	119304.65	144072.64

466.5 / 1329.70 / 13.57 / 34.76 / 466.5 / 55.28 / 21

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

Date May 5-1954 *Payee POLARIS MINING COMPANY

Per [signature] Title President

*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:

$ 12,384

Signature [signature]
(Authorized Certifying Officer)

Date 5/18/54 Vou. No. 1171
(See other side)

* Including 147.2' diamond drill advance in Hole No. SS3254 which was omitted from February, 1954 report.

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 5/13/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr. Date 5/13/54

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-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 195 4 Docket No. DMEA 2879 Contract No. IPM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320 Wallace, Idaho

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	Feet	22496.20	466.5	127670.29	2571.9	49.64	11625	$ 51.00*
Crosscutting	Feet			1245.95	24.8	50.24		
Raising							330	93.33
~~Shaft~~ Sidesniping	Feet	192.89	8.0	7318.75	292	25.06	1560	25.50
Winzes								
Drilling: Core	Feet	2079.00	462.0	7837.65	1741.7	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 May 5-1954 Operator POLARIS MINING COMPANY

Per [signature] Title President

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.

Remarks:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

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

Polaris Mining Company

Wallace, Idaho

May tenth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East Exploration
Project - April - 1954 Docket No. DMEA-2879
Contract No. IDM-E 541

Gentlemen:

During April the main easterly heading was advanced 466.5 feet and eight feet of sideswiping was done. Diamond drill hole No. 3254 was drilled an additional 198.3 feet and was completed to 802.3 feet on April 30th. Hole No. S.S. 3225 was drilled 116.5 feet

The attached log of drill hole S. S. 3254 is complete to the end of the hole.

Sheet No. 2, 50-scale, which is the second sheet of this type shows a composite of the section covered by previous monthly progress sheets.

The month's progress is shown on the attached 50-scale small map and geology is also shown. The heading was turned more southerly during the month of April to more nearly follow the projected position of the "Wire Silver" vein. For means of comparison the Coeur d'Alene Mines 2800 level drift is shown in dashed lines. Work was in bleached argillite and bleached quartzite and nothing of consequence was opened prior to May first. Since then, however, a vein was discovered about 245 feet southeasterly from station S3005. It was composed of siderite and quartz stringers with associated tetrahedrite. The first sample, 3093, representing 0.4 feet of high grade on the footwall side assayed 217.1 ounces silver and 8.35% copper. The balance, or 1.9 feet of vein, assayed 1.2 ounces silver and 9.43% copper. At s3005 plus 269 feet sample 3094 across 1.4 feet assayed 12.6 ounces silver and 0.47 % copper. Today's sample was taken at station 3005 plus 278 feet, across 0.7 feet but assay results are not available. As yet dip information is not sufficiently conclusive to determine if this vein exposure is the dip projection of the "Wire Silver" vein explored on Coeur d'Alene Mines 2800 level.

Yours very truly,

Robert E. Sorenson

RES:as

Robert E. Sorenson

Polaris Mining Company

Wallace, Idaho

RECEIVED
BUREAU OF MINES
MAY 13 1954
SPOKANE, WASH.

May twelfth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East Exploration
Project - April - 1954 Docket No. DMEA-2879
Contract No. IDM-E 541

Gentlemen:

In our report dated May tenth, covering the subject contract, an error was made in connection with the assay grade of the first sample, 3093, representing the balance, or 1.9 feet of vein. This assay should have been 1.2 ounces silver and 0.43% copper.

Yours very truly,

Robert E. Sorenson

RES:as

Robert E. Sorenson.

RECEIVED
MAY 13 1954
U. S. G. S.
SPOKANE, WASH.

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

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 29 1954

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

Month of March, 1954 Docket No. DMEA 2879 Contract No. IDM-2-541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (& Incidental Silver)
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 Core 309.0'@4.50	1390.50	4368.15	5758.65			
Bulldozing						
Crosscutting	22592.10	1245.95	1245.95			
Drifting 469.3'@48.14	22593.77	82580.42	105174.19			22,653.11
Sideswipe 8.0' @ 24.07	192.57	6933.29	7125.86			204.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	24176.84	95127.81	119304.65	24176.84	95127.81	119304.65

390/469.3 x 16.23 = 13.49
34.98/48.14

25.50 x 8"

Reduced for mileage 390

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

Date April 12-1954 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$12,088 42

Signature [signature] (Authorized Certifying Officer)

Date 4/23/54 Vou. No. 1144

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date 4/16/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 4/16/54

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-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 29 1954

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

Month of March 195 4 Docket No. DMEA 2079 Contract No. IDM-E 541
Operator's Name Polaris Mining Co.
Address Box 320 Wallace, Idaho
Minerals Copper, Lead, Antimony (& Incidental Silver)

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	Feet	22593.77	469.3	105174.19	2105.4	49.95	11625	* 51.000
Crosscutting	Feet			1245.95	24.8	50.24		
Raising							330	93.33
~~Stopes~~ Side Swiping	Feet	192.57	8.0	7125.06	284	25.09	1560	25.50
Winzes								
Drilling: Core	Feet	1390.50	309.0	5758.65	1279.7	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 April 12-1954 Operator Polaris Mining Co.

Per [signature] Title President

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.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

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

Polaris Mining Company

Wallace, Idaho

April thirteenth
1 9 5 4

DEPARTMENT OF THE INTERIOR
Defense Minerals Exp.
RE
APR 29 1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
S. 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - March-1954
Docket No. DMEA - 2879
Contract No. IDM-E 541

Gentlemen:

During March the main easterly heading was advanced 469.3 feet and eight feet of sideswipe was driven. Diamond drill hole No. S.S. 3254, started in February, was drilled an additional 309 feet and a complete log will be furnished upon completion of the hole.

The attached 50-scale map shows progress of drifting during March. Work disclosed bleached thick-bedded quartzite with a few sericitic sections. No mineralization of interest was found. It may possibly appear that the small fault structure at station S.S. 3000 is the dip projection of the wire silver vein seen on Coeur d'Alene Mines 2800. Projections have been made anticipating the structure near this point. A curve has now been made in the main heading along a bearing parallel with the wire silver vein as known on 2800 level of Coeur d'Alene Mines. Drilling of the walls as work progresses should serve to keep the work along a proper course and should succeed in locating the structure as soon as the westerly end of it becomes interesting. On the 2800 level of Coeur d'Alene Mines the interesting tetrahedrite was found about 400 feet westerly from the April first face of our new drift.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:dc

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53

RECEIVED
Mar 29 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company

Address Box 320 Wallace, Idaho

Minerals Copper, Lead, Antimony (&Incidental Silver)

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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 Contracts: Short Form Core 593.1 @ 4.50	2668.95	1699.20	4368.15	2668.95	1699.20	4368.15
Drilling						
Bulldozing 24.8' @ 50.24	1246.01		1246.01	1245.95		1245.95
Crosscutting 367.3' @ 50.24	18453.98	64127.27	82581.25	18453.15	64127.27	82580.42
Drifting Sideswipe 34' @ 25.12	854.12	6079.21	6933.33	854.08	6079.21	6933.29
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	23223.06	71905.68	95128.74	23222.13	71905.68	95127.81

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

Date March 9, 1954 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 11,611.06

Signature [signature] (Authorized Certifying Officer)

Date 3/17/54 Vou. No. 1121

(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric A Erickson Title Mining Engr Date 3/15/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Goldoft Title Mining Engr Date 3/15/54

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-204A
(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

Month of February 1954 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Co.

Address Box 320 Wallace, Idaho

Minerals Copper, Lead, Antimon (& Incidental Silver)

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	Feet	18453.98	367.3	82581.25	1636.1	50.47	Reduced for 390	18,702.92
Crosscutting	Feet	1246.01	24.8	1246.01	24.8	50.24		1,262.82
Raising								
~~Shafts~~ Side Swiping	Feet	854.12	34	6933.33	276	25.12		867.00
Winzes								
Drilling: Core	Feet	2668.95	593.1	4368.15	979.7	4.50		
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

367.3 / 24.8 / 39.1 / 390 / 390 × 16.23 = 6329.70

16.4 / 34.9 / 50

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 March 9-1954 Operator Polaris Mining Co.

Per [signature] Title President

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.

GPO 83-38475

Polaris Mining Company

Wallace, Idaho

March tenth
1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
S. 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - February 1954
Docket No. D.M.E.A. - 2879
Contract No. 1DM-E 541

Gentlemen:

During February 1954, the main easterly heading was advanced 367.3 feet, 24.8 feet of crosscut was driven as a site for diamond drill hole S.S. 3254, 34 feet of sideswipe was driven and 593.1 feet of diamond drilling was completed.

The attached logs of Diamond drill holes Nos. S.S. 3251, 3252, and 3253 show the position of the holes as well as logged information and assay results. Nothing of great interest was disclosed in the drilling. Diamond drill hole No. S.S. 3254, drilled 147.8 feet in February is being continued and the log will be furnished upon the completion of the hole.

The 50-scale attached map shows the advance during the month and the geology of the section explored. Rocks continue to be largely bleached argillite and quartzite with some purplish unbleached bands. Drift work was in the property of Silver Standard Mining Company.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/mg

DIAMOND DRILL RECORD

Standpipe
Casing

Started 1-29-54
Finished 2-1-54
Hole Size Ex
Depth 192.5
% Core Rec. 92.6

Mine SILVER SUMMIT
Location Polaris East Explor. Lateral
A 3084 + 128 ft. East
Logged by M. W. Hutchinson Date 2-1-54
Drilled by Holten and Collett

Hole No. SS 3251
Level 3000 Level
Grid 129
Latitude 82,503 S.
Departure 84,061 E.
Elevation - 323.5
Bearing South
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
			E - 84	0 - 5		5	Tr.		
0-4.0	1.1	0' - 18.5' Bleached and purple	E - 85	5 - 10		"	0.0		
9.0	4.7	bands arg. qtzite. Bleached bands	86	10 - 15		"	Tr.		
13.5	4.1	more qtzitic. Some diss. pyr.							
18.5	4.7	first 5 feet.							
23.4	4.9		87	20		"	0.0		
29.0	4.8		88	25		"	0.0		
31.0	2.0	18.5' - 37.5' Bleached qtzite	89	30		"	0.0		
31.8	0.8	and arg. qtzite.							
36.4	4.6		90	35		"	0.0		
40.6	4.3		91	40		"	Tr.		
44.1	3.5	37.5' - 53.0' Mostly purple arg.	92	45		"	0.0		
48.5	4.4	qtzite. 1" qtz at 54.8.	93	50		"	Tr.		
53.0	4.5		94	55		"	0.0		
57.9	4.7		95	60		"	Tr.		
62.5	4.5								
65.0	3.3		96	65		"	Tr.		
67.0	0.8								
71.8	4.0		97	70		"	Tr.		
77.5	4.8		98	75		"	Tr.		
82.5	4.8		99	80		"	0.0		
86.5	3.8		100	85		"	0.0		
91.5	4.7		1	90		"	0.0		
98.0	4.5	53.0' - 150.5' Bleached lt. gray	2	95		"	0.0		
100.0	4.7	qtzite and arg. qtzite. 2" slip	3	100		"	Tr.		
102.4	2.0	zones, 86.4 and 91.0. 2" qtz							
104.0	2.0	with one spot PbS at 128.5.	4	105		"	Tr.		
104.8	0.8	Scattered chlorite 136.0 to 141.5.							
106.7	1.8								
108.6	1.8		5	110		"	Tr.		
111.8	3.0								
115.1	2.9		6	115		"	Tr.		
119.4	4.3		7	120		"	0.0		
124.4	4.7		8	125		"	Tr.		
129.3	4.7		9	130		"	Tr.		
132.9	3.2		110	135		"	0.0		
137.9	4.7								
141.6	3.6		111	140		"	Tr.		
142.9	1.2								
147.8	4.8		2	145		"	Tr.		
152.9	4.7		3	150		"	Tr.		
154.9	1.9		4	155		"	Tr.		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3251
Level 3000 Level
Grid 129
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
159.4	4.5		E - 115	160		5	Tr.		
161.9	1.8								
165.4	3.1		6	165		"	Tr.		
169.1	4.5	150.5' - 192.5' Mostly purple	7	170		"	0.1		
173.9	3.5	arg. qtzite. Several small calcite	8	175		"	Tr.		
179.1	4.5	streaks at 148.0 to 150.0 (one ¼"	9	180		"	0.4		
184.1	4.5	str parallel to core). Slip zone	120	185		"	0.0		
186.6	1.4	at 149.9 and 180.0.							
191.1	4.0		21	190		"	Tr.		
192.5	1.4								
		END OF HOLE							

DIAMOND DRILL RECORD

Standpipe
Casing

Started 2-3-54
Finished 2-8-54
Hole Size Ex
Depth 197.0
% Core Rec. 86.4

Mine SILVER SUMMIT
Location Polaris East Exploration Lateral
A 3090 ± 14 ft. East
Logged by M. W. Hutchinson Date 2-8-54
Drilled by Holten and Collett

Hole No. SS 3252
Level 3000 Level
Grid 136
Latitude 82,485 S.
Departure 84,402 E.
Elevation - 323
Bearing South
Inclination + 1°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-6.7	4.7		E-122	0 - 5		5.0	Tr.		
10.3	2.1		3	10		"	Tr.		
13.0	1.9		4	15		"	Tr.		
18.5	4.3								
20.0	1.5		5	20		"	0.1		
25.0	4.3		6	25		"	Tr.		
25.5	0.6								
27.2	1.0	0'-0 - 67.7 Mostly purple arg &							
32.1	4.4	arg. qtzite. (Some bleaching 0'-	7	30		"	0.0		
35.2	3.1	12.0'). Slips at 40.5, 62.5, and	8	35		"	Tr.		
End Box 1		at 69.0.							
38.4	2.9								
41.7	2.8		9	40		"	Tr.		
46.7	4.3		130	45		"	Tr.		
50.3	3.9		131	50		"	Tr.		
55.0	4.0		2	55		"	0.0		
60.0	4.8		3	60		"	0.0		
63.7	3.0		4	65		"	Tr.		
68.7	3.0		5	70		"	Tr.		
73.4	4.4								
74.8	1.4		6	75		"	0.0		
End Box 2									
77.2	2.0	67.7' - 114.0' Mostly bleached,	7	80		"	Tr.		
83.1	4.9	more qtzitic. Core mostly broken.							
88.1	0.9	Probable slips at 76.0, 85.0, &	8	85		"	0.1		
89.4	0.7	97.5. Scattered ¼" streaks qtz.							
92.5	0.8	80.6 to 93.0. Some diss. dark	9	90		"	Tr.		
96.1	3.6	mineral at 93.0, probably pyr.	140	95		"	Tr.		
98.4	2.2	Badly broken 98.0 to 120.0 with							
102.4	4.1	slips at 110.0 & 112.0.	1	100		"	0.0		
106.0	3.2		2	105		"	Tr.		
108.6	2.4								
111.8	2.3		3	110		"	Tr.		
114.9	3.0		4	115		"	Tr.		
119.2	3.0		5	120		"	Tr.		
End Box 3									
122.4	3.2								
124.0	1.6	114.0' - 128.0' Mostly purple arg.	6	125		"	Tr.		
128.8	4.6	qtzite.	7	130		"	0.0		
131.8	2.7								
136.7	4.5		8	135		"	0.0		
139.6	3.0		9	140		"	0.0		
144.6	4.7		150	145		"	0.0		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by: Date
Drilled by

Hole No. SS 3252
Level 3000 Level
Grid 136
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
148.4	4.5	128.0' - 159.9' Mostly lt. gray	E-151	145 - 150		5.0	Tr.		
153.5	4.7	arg. qtzite, occasional purple	2	155		"	Tr.		
158.1	4.7	bands. Fault Zone at 136.0.							
159.9	1.5		3	160		"	Tr.		
End Box 4									
161.9	1.8								
167.0	4.7	159.9' - 172.0' Lt. gray and	4	165		"	0.0		
172.0	4.8	purple bands arg. & arg. qtzite	5	170		"	0.0		
176.3	4.6	about 50% bleached.	6	175		"	Tr.		
181.1	4.7		7	180		"	Tr.		
183.2	2.3								
187.2	3.6	172.0' - 197.0' Same, but about	8	185		"	Tr.		
192.2	5.0	75% bleached and somewhat more	9	190		"	0.0		
197.0	4.7	qtzitic.	160	195		"	Tr.		
End Box 5									
		END OF HOLE							

DIAMOND DRILL RECORD

Standpipe
Casing

Started 2-8-54
Finished 2-13-54
Hole Size Ex
Depth 213.0
% Core Rec. 88.7

Mine SILVER SUMMIT
Location Polaris East Exploration Lateral
A 3090 + 123 ft. East.
Logged by M. W. Hutchinson Date
Drilled by Holten and Collett

Hole No. SS 3253
Level 3000 Level
Grid 138
Latitude 82,460 S.
Departure 84,509 E.
Elevation - 323
Bearing North
Inclination + 1°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.1	3.1		E-161	0 - 5		5.0	Tr.		
6.7	2.3		2	10		"	0.0		
11.7	4.6								
13.9	2.1		3	15		"	0.0		
15.9	1.8	0' - 41.0' Medium gray to light							
20.0	3.7	gray bleached arg. qtzite with	4	20		"	Tr.		
23.8	3.5	some qtzite. Some purplish banding.	5	25		"	0.0		
27.8	3.4								
30.0	1.2		6	30		"	0.0		
31.7	1.4								
36.2	4.7		7	35		"	0.0		
41.0	4.7		8	40		"	0.0		
End Box 1									
46.0	1.3		9	45		"	0.0		
48.1	1.0								
50.0	1.5		170	50		"	0.0		
54.0	2.0								
55.0	1.0	41.0' - 67.9' Mostly purple arg.	1	55		"	Tr.		
57.0	2.3	qtzite. Some bleached bands.							
58.4	1.2		2	60		"	Tr.		
62.1	2.5								
67.9	4.8		3	65		"	Tr.		
70.7	2.5		4	70		"	0.0		
72.6	1.9								
74.4	1.6								
79.3	4.7	67.9' - 99.0' Bleached lt. green-	5	75		"	Tr.		
84.1	4.7	ish gray qtzite. Some arg bands	6	80		"	Tr.		
87.6	3.6	esp. 67.9 to 71.0. Slip at 70.0.	7	85		"	0.0		
End Box 2									
89.6	1.2		8	90		"	0.0		
94.0	4.8		9	95		"	0.0		
99.0	4.8		180	100		"	0.0		
101.0	1.8								
105.0	4.0	99.0' - 109.0' Gray to purple	181	105		"	0.0		
109.0	4.4	qtzite. 1" qtz. at 99.0.	2	110		"	0.0		
114.0	4.4								
117.2	3.8	109.0' - 125.2' Moderately ble-	3	115		"	Tr.		
121.8	4.7	ached lt. gray qtzite. Some pur-	4	120		"	0.0		
125.2	2.8	ple tints. Slip at 110.0.	5	125		"	Tr.		
Box 3									
127.8	2.4								
132.6	4.7								
137.0	4.2		6	130		"	Tr.		
			7	135		"	Tr.		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3253
Level 3000 Level
Grid 138
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
141.8	4.7		E-188	135 - 140		5.0	Tr.		
144.0	1.8								
145.0	1.2		9	145		"	0.0		
150.2	4.8	125.2' - 171.7' Partially blea-	190	150		"	Tr.		
151.7	1.5	ched gray to purple qtzite. and							
155.2	3.0	arg. qtzite. ¼" qtz at 153.0,	1	155		"	Tr.		
160.2	4.5	Same at 171.6. Slips at 167.0	2	160		"	Tr.		
163.3	2.9	and 171.6.							
End Box 4									
166.0	2.3		3	165		"	Tr.		
168.7	2.6								
171.7	2.6		4	170		"	Tr.		
174.1	2.1		5	175		"	Tr.		
178.6	4.0								
182.6	3.5		6	180		"	Tr.		
184.5	2.0		7	185		"	Tr.		
187.6	3.4	171.7' - 213.0' Bleached qtzite.							
192.4	2.7	Some purple banding at 179.0.	8	190		"	Tr.		
197.0	4.0	Some arg bands. Purple zone	9	195		"	Tr.		
199.0	2.0	193.0 - 203.0. Slip at 196.0 &							
203.5	4.7	208.0.	E-200	200		"	Tr.		
End Box 5									
204.4	0.8		1	205		"	Tr.		
208.4	3.8								
213.0	3.9		2	205 - 210		5.0	0.0		
		END OF HOLE							

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

Defense Minerals Administration
RECEIVED
FEB 23 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1954 Docket No. DMEA 2879 Contract No. DMA-2 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (& Incidental Silver)

Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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) Contracts: Short Form						
Drilling Core 377.6 @ $4.50	1699.20		1,699.20			
Bulldozing						
Crosscutting						
Drifting 406' @ $50.21	$ 20384.57	$ 43,742.70	$ 64,127.27			20,446.16
Sidewipe 8' @ $25.10	200.83	5,878.38	6,079.21			204.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
	390/406 x 16.23	15.59 / 34.77 / 50.36 / 406 / 20446.16				
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:	51.00 / 16.23 / 34.77					
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$22,284.60	$ 49,621.08	$ 71,905.68	22284.60	49621.08	71905.68

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

Date February 9-54 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 11142.30

Signature [signature] (Authorized Certifying Officer)

Date 2/18/54 Vou. No. 1085.

(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 541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 2/15/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 2/15/54

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-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 23 1954

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

Month of January 1954 Docket No. DMEA 2879 Contract No. 1 DM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (& Incidental Silver)

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	Feet	$20,384.57	406	$ 64,127.27	1268.8	50.54	11625	$ 51.00*
Crosscutting								
Raising							330	93.33
~~Shafts~~ Side Swiping	Feet	200.83	8	6,079.21	242	25.12	1560	25.50
Winzes								
Drilling: Core	Feet	1,699.20	377.6	1,699.20	377.6	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
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 February 9-1954 Operator Polaris Mining Co.

Per [signature] Title President

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)

* Maximum allowed by contract

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1953 Docket No. DMEA 2879 Contract No. 1DM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental silver)
Address Box 320 Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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) ~~[illegible]~~ Short Form } Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting 306'@$50.15	$15,345.90	$ 9,149.40	$ 24,495.30	Written down on books of Defense 4/11.5 in months		15,606.00
Sideswipe 211'@$25.08	5,291.88		5,291.88			5,380.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$20,637.78	$ 9,149.40	$ 29,787.18	20637.78	9149.40	29,787.18

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 12-10-53 *Payee Polaris Mining Company
Per [signature] Title President

*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:
$ 10,318.89
Signature [signature] (Authorized Certifying Officer)
Date 12/28/53 Vou. No. 1027
(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 541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr. Date 12/21/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr Date 12/21/53

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-R1151.1
Approval expires 6-30-53.

Defense Minerals Administration
RECEIVED
DEC 14 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1953 Docket No. DMEA 2679 Contract No. [illegible]

Operator's Name Polaris Mining Company Minerals Copper, lead, antimony (& Incidental Silver)

Address Box 320 Wallace, Idaho

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	Feet	$15,345.90	306	$ 24,495.30	485.4	50.46	11625	$ 51.00*
Crosscutting								
Raising							330	93.33
Shafts Side Swiping		5,291.88	211	5,291.88	211	25.08	1560	25.50
Winzes							5000	4.50
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 Dec. 10, 1953 Operator Polaris Mining Company

Per [signature] Title President

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)

REMARKS:

(For Government use only)

* Maximum allowed by contract

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

Polaris Mining Company

Wallace, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 4 1954

December ninth
1953

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - November 1953
Docket No. D. M. E. A.- 2879
Contract No. IDM - E541

Gentlemen:

During the month of November-1953, the main easterly heading was advanced 306.0 feet and the south wall was slabbed along a length of 211.0 feet providing adequate room for siding.

The attached 50-scale progress map shows the advance during the month of November and the geology of the section explored. Advance was largely in bleached St. Regis quartzite which strikes S. 70° to 80° E. and dips from vertical to 85° overturned toward the south. The purplish argillaceous quartzite appears to be a narrow band of less bleached rock. Further extension of the drift now has proved this purplish band to be a little more than twenty feet thick, the face having again entered bleached rock.

A few minor quartz stringers, some of them containing specularite, were crossed during the month, but no important mineralization was seen. Diamond drill holes will be drilled north and south from a point near Station A 3086.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson
Chief Engineer and
Geologist

RES:EB
Enc.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

RECEIVED 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

700

Month of October, 1953 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony, (and incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50% Amount, $ 342,977.50

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 179.4' @$51.00	$ 9,149.40	--	$ 9,149.40			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 9,149.40	--	$ 9,149.40	9149.40		9149.40

Checked audit for Stage I

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

Date 11-12-53 *Payee Polaris Mining Company

Per [signature] Title President

*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:

$ 4574.70

Signature [signature] (Authorized Certifying Officer)

Date 11/18/53 Vou. No. 977 (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-541 in accordance with the terms of the contract.

Signature /S/ Eric G. Erickson Title Mining Engr Date Nov 16-53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ A. E. Weissinborn Title Exec. Officer Date Nov 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-R1151.1
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 1953 Docket No. DMEA 2879 Contract No. IDM-E-541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony, (and incidental Silver

Address Box 320, Wallace, Idaho

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	Feet	$9,149.40	179.4	$ 9,149.40	179.4	51.0	11625	$51.00 *
Crosscutting								
Raising							330	93.33
~~Shafts~~ Side Swiping							1560	25.50
~~Winzes~~							5000	4.50
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 Nov. 12, 1953 Operator Polaris Mining Company

Per [signature] Title President

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)

REMARKS:

(For Government use only)

* Maximum allowed by contract

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

Polaris Mining Company

Wallace, Idaho

RECEIVED
NOV 13 1953

November 12, 1953

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - October-1953
Docket No. D.M.E.A. - 2879

Dear Sirs:

Work under the above numbered contract between Polaris Mining Company and the Defense Minerals Exploration Administration was actively commenced on August 25, 1953. From that date until October 16, 1953, the work consisted of rehabilitation of the old Merger East Drift, installation of air and water lines and ventilation pipe.

Drifting was begun on October 16, 1953 from the old east face and during the balance of the month 179.4 feet of advance was made as shown on the attached 50-scale progress map. The advance was made in purplish and bleached St. Regis Rock as shown in the purple color and yellow color respectively. Rocks are argillite and quartzite. The beds are all overturned dipping to the south. A small tight slip and a one-half inch quartz stringer are the only features found.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson
Chief Engineer and Geologist

RES/rw
enc.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.
Defense Minerals Administration
RECEIVED
JAN 29 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1953 Docket No. DMEA 2879 Contract No. DMI-E 541
Operator's Name Polaris Mining Company Mineral Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (& Incidental Silver)
Contract Amount, $85,955.00 Government Participation 50 % Amount, $42,977.50

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) Contractor Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting 377.4' @ $51.00	$19,247.40	$24,495.30	$43,742.70	✓		
Sidewipe 23' @ $25.50	586.50	5,291.88	5,878.38			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$19,833.90	$29,787.18	$49,621.08	19,833.90	29,787.18	49,621.08

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

Date ..... *Payee Polaris Mining Company

Per John R. Marshall Title Treasurer

*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:

$ 99.16 95

Signature ..... (Authorized Certifying Officer)

Date 1/20/54 Vou. No. 1056
(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. E541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 1/18/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 1/18/54

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-R1151.1
Approval expires 6-30-55

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 29 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1953 Docket No. DMEA 2879 Contract No. 1953-0 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320 Wallace, Idaho

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	Foot	$19,247.40	377.4	$43,742.70	862.8	50.70	11625	$ 51.000
Crosscutting								
Raising							330	93.33
*Side Swiping		586.50	23	5,878.30	234	25.12	1560	25.50
Shafts							5000	4.50
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 _____ Operator Polaris Mining Company

Per John R. Matthews Title Treasurer

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)

* Maximum allowed by contract

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

DMEA

Polaris Mining Company

Wallace, Idaho

January seventh
1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - December 1953
Docket No. D.M.E.A. - 2879
Contract No. 1DM-E 541

Gentlemen:

During the month of December - 1953, the main easterly heading was advanced 377.4 feet and 23 feet of sideswiping was done.

The attached 50-scale progress map shows the advance during the month of December and the geology of the section explored. Advance was in bleached and unbleached St. Regis quartzite and argillaceous quartzite as indicated on the map. Warps of the bedding have been minor.

In the section explored the past month only minor quartz veinlets with some specularite have been exposed. No important mineralization was opened.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES/mg

Enc.

DMEA

Polaris Mining Company

RECEIVED
JUL 25 1955

Wallace, Idaho
July eleventh
1 9 5 5

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

Re: Progress Report Polaris East
Exploration Project - June 1955
Docket No. DMEA 2879
Contract No. IDM-E 541

Gentlemen:

June advance in the main easterly heading was 315.9 feet and 12 feet of sideswipe was completed from Station SS3038 plus 41 to 53 feet. The progress was in argillaceous quartzite and some small irregular barren quartz and white carbonate stringers were exposed by the drift. No. 244 North X-Cut, shown on the map, was driven 24.0 feet. It will be used for a drill station for a long northerly hole.

Diamond drilling during the month consisted of the completion of drill hole No. SS-3267, a log of which is enclosed, and drilling 543 feet in drill hole No. SS3268 which is being drilled southerly from the crosscut at Station 3031. Nothing of great interest has been found in either hole but No. 3268 is being continued. A log will be prepared after completion of the hole.

Another enclosed map dated June 14 and titled "Sheet No. 4" shows the new drift in relation to old workings on Coeur d'Alene Mines 2800 level.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES
vfc

Enc.

NOTE: All sludge assays are trace or no Silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-27-55
Finished 6-10-55
Hole Size EX
Depth 400.8'
% Core Rec. 85

Mine SILVER SUMMIT
Location Polaris East Expl. Drift SS 3035 + 38' S. E.
Logged by J. G. S. Date 6-13-55
Drilled by Holten & Walker

Hole No. SS 3267
Level 3000
Grid 232
Latitude 83, 835 S.
Departure 89, 090 E.
Elevation - 297'
Bearing S 03° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4	3.0		E 1139	0 - 5					
6.7	0.7								
8.6	1.5								
12.0	3.4		40	10		5.0	0.1		
17.0	4.4		1	15					
22.0	4.7		2	20					
27.0	4.5		3	25					
32.0	4.7	0' - 84' Lt. gray-green blchd	4	30					
34.5	2.1	arg. qtzite. Freq. thin bands	5	35					
39.5	5.0	dism. sid, some dism. white carb.							
End Box 1		Freq thin ser. seams, occas.	6	40					
44.2	4.6	thin chl. seams. Little silici-	7	45					
49.0	4.6	fication.	8	50					
54.0	5.0		9	55					
59.0	4.8		50	60					
64.0	5.0		1	65					
69.0	4.2								
71.9	2.9		2	70					
End Box 2									
75.0	2.0		3	75					
80.0	3.8		4	80					
84.6	5.0		5	85					
87.6	2.9	84' - 106' Mostly hard lt. gry							
91.5	3.9	blchd. qtzite. 1" qtz at 84.5.	6	90					
96.5	4.7	Few 1" bands qtz with small sid	7	95					
101.5	4.7	stringers and some sericite.	8	100					
End Box 3									
106.9	4.6		9	105					
112	4.3		60	110					
115.7	3.5		1	115					
121.0	3.0		2	120					
126.1	2.0		3	125					
129.2	3.5		4	130					
134.5	4.2	106' - 176' Mostly hard lt. gry	5	135					
135.8	1.3	-green qtzite, with nearly white							
140.4	4.6	silicified bands up to 12" wide.	6	140					
143.5	2.8	Small irreg. qtz and sid. stgrs.	7	145					
148.4	4.9	at 133.0. 1" qtz with little							
149.7	1.3	sid. at 149.0. 2" brecciated	8	150					
153.3	2.5	qtz and some ser. at 162.0,							
End Box 4		164.0 and at 172.0.	9	155					
158.6	4.6		70	160					
162.2	2.4								
163.7	1.5		1	165					

RECEIVED
JUL 25 1955

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location
Logged by: Date
Drilled by

Hole No.: SS 3267
Level: 3000
Grid: 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
168.7	0.5								
172.7	2.8		E 1172	170					
176.2	3.5		3	175					
179.9	2.8		4	180					
185.0	5.0	176' - 204' Hard lt. gray blchd	5	185					
190.0	4.6	qtzite. Small fault at 180.0.	6	190					
194.0	3.8	4" qtz at 186.0. 12" vuggy qtz	7	195					
198.5	4.5	with some ser. at 193.0. 3"							
End Box 5		qtz at 197.0.	8	200					
204.0	3.6		9	205					
208.7	4.7	204' - 233' Lt. green blchd arg	80	210					
213.6	4.9	qtzite. Some thin bands dism.	1	215					
218.6	4.5	siderite and little dism. white	2	220					
224	4.6	carbonate. Few thin bands dark	3	225					
229.3	4.1	gray arg. from 230.0 to 232.0.	4	230					
234.4	5.0								
End Box 6			5	235					
239.2	5.0	233' - 240' Hard lt. gray-green	6	240					
		blchd qtzite. Some dism. sid.							
244.7	4.2								
246.3	1.5		7	245					
250.9	4.6		8	250					
255.3	4.4		9	255					
260.1	4.8		90	260					
265.1	5.0		1	265					
270.1	4.7		2	270					
275.1	4.3		3	275					
End Box 7									
277.2	1.6	240' - 330' Lt. gray-green blchd							
281.1	2.4	arg. qtzite with many bands dism	4	280					
282.3	1.3	siderite. Sid. vein with some							
288.0	5.0	qtz and some pyrite from 277.5	5	285					
292.4	3.6	to 283.5.	6	290					
298.2	5.0		7	295					
303.7	4.8		8	300					
310.0	4.3		9	305					
312.6	2.2		E 1200	310					
316	2.9		1201	315					
319.5	2.0		2	320		5.0	0.1		
324.7	4.8		3	325					
330.0	1.9		4	330		"	0.1		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Hole No. SS 3267
Level 3000
Grid 232
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
332.4	2.0								
336.9	2.0		E 1205	335					
338.5	1.3	330' - 361' Mostly hard lt.							
339.5	0.8	gray blchd qtzite. Little							
340.5	1.0	softer greenish gray blchd arg.	6	340					
341.6	1.1	qtzite. Occas qtz. stgr up to							
347.3	5.0	2" wide.	7	345					
352.1	4.8		8	350					
356.6	4.5		9	355					
357.7	1.1								
358.6	0.3								
361.3	2.7		10	360					
362.3	0.4								
367.4	4.5		1	365					
372.4	4.5		2	370					
376.2	2.3		3	375					
378.7	1.6	361' - 400.8' Soft lt grn blchd	4	380					
384.0	4.5	arg qtzite with much dism. sid.	5	385		5.0	0.3		
388.7	3.1								
390.5	1.6		6	390					
395.9	5.0		7	395					
400.8	4.4		8	400					
		END OF HOLE							

RECEIVED
JUL 25 1955

DIAMOND DRILL RECORD

Standpipe
Casing

Started 1-19-54
Finished 1-27-54
Hole Size EX
Depth 220.5 Ft.
% Core Rec. 84.6

Mine Silver Summit
Location Polaris East Exploration Lateral
A 3084 + 128 ft. East
Logged by M.W.Hutchinson Date 1-27-54
Drilled by Holten and Collett

Hole No. SS 3250
Level 3000 Level
Grid 129
Latitude 82,489 S
Departure 84,061 E
Elevation -323.5 ft.
Bearing North
Inclination +1°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	2.4	0-41.6 ft. Mostly purple arg. -	E-40	0-5		5.0	Tr.		
8.0	4.2	qtzite - some lighter bands.	41	10		"	Tr.		
12.1	3.5		42	15		"	Tr.		
14.5	1.1		43	20		"	Tr.		
16.8	2.0		44	25		"	Tr.		
19.5	1.9		45	30		"	0.0		
21.2	1.8		46	35		"	Tr.		
24.3	2.7		47	40		"	Tr.		
26.9	2.5		48	45		"	Tr.		
29.1	2.3		49	50		"	0.0		
34.1	4.0		50	55		"	Tr.		
38.0	1.5		51	60		"	Tr.		
41.6	2.5		52	65		"	0.0		
44.0	2.0		53	70		"	0.0		
47.1	2.0		54	75		"	Tr.		
End Box			55	80		"	Tr.		
49.2	1.8		56	85		"	Tr.		
51.7	1.4		57	90		"	Tr.		
54.1	1.0		58	95		"	Tr.		
56.2	2.6		59	100		"	Tr.		
60.0	2.0		60	105		"	Tr.		
62.5	2.3		61	110		"	Tr.		
65.5	2.9		62	115		"	Tr.		
70.6	4.8		63	120		"	Tr.		
74.5	3.4		64	125		"	0.0		
78.3	3.7								
84.9	3.2								
87.6	2.6								
93.0	5.0								
Box 2									
95.0	1.5								
96.5	1.2								
100.6	2.3								
102.3	1.7								
104.4	1.4								
107.5	3.5								
109.3	2.0	41.6-162.0 Bleached, lt gray,							
114.4	3.6	more qtzitic. Some arg bands,							
115.7	1.2	65.5-74.5. ¼" sid at 84.9'.							
120.8	3.5	Some small qtz. strs at 93.0'.							
123.1	2.6	Some thin dark bands diss. pyr. at							
127.1	2.0	97.5, Some arg. bands 106.0-116.7'.							
130.3	3.0								
134.9	4.5								
Box 3									

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine Silver Summit
Location
Logged by Date
Drilled by

Hole No. SS 3250
Level
Grid
Latitude
Departure
Elevation
Bearing
Inclination

	Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval	Core Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
	139.6	4.2								
	143.9	4.7								
	149.2	4.1								
	153.0	4.1								
	158.0	4.8								
	161.3	4.4	162.0-172.0 Mostly purple arg. qtzite.							
	162.2	1.1								
	167.0	4.3		E-65	125-130		5.0	Tr.		
	172.2	4.9		66	135		"	Tr.		
Box 4				67	140		"	Tr.		
	177.5	4.2								
	182.5	4.1								
	186.9	4.3								
	191.4	4.7	172.0-207.5 Bleached lt. gray to							
	196.5	4.7	med. gray qtzite and arg. qtzite.							
	198.1	1.9								
	202.1	4.5		E-68	145		5.0	Tr.		
	207.8	4.5	207.5-220.4 Light to dark purple	69	150		"	Tr.		
			arg.	70	155		"	Tr.		
	211.0	4.3		71	160		"	Tr.		
	212.8	0.8		72	165		"	Tr.		
	216.6	3.6		73	170		"	Tr.		
	220.4	1.3		74	175		"	Tr.		
				75	180		"	Tr.		
				76	185		"	Tr.		
				77	190		"	Tr.		
				78	195		"	Tr.		
				79	200		"	Tr.		
				80	205		"	0.0		
				81	210		"	Tr.		
				82	215		"	Tr.		
				83	220.4		5.4	Tr.		
			END OF HOLE							

Polaris Mining Company

Wallace, Idaho

February ninth
1 9 5 4

Defense Minerals Exploration Administration
U. S. Department of the Interior
S. 157 Howard Street
Spokane, Washington

Re: Progress Report Polaris East
Exploration Project - January 1954
Docket No. D.M.E.A. - 2879
Contract No. 1DM - E541

Gentlemen:

During the month of January, 1954, the main easterly heading was advanced 406.0 feet to a point 189.3 feet east of station A3092. Eight feet of side-swiping was done.

The attached 50-scale small map shows progress and the geology of the section explored during the month. Another larger map attached shows the progress in relation to property lines and is the second "base map" submitted. No structures were crossed during the month and progress was in bleached and unbleached St. Regis argillite and argillaceous quartzite as shown on the map. You will note that the Merger east property line was crossed during the month and the property of Silver Standard was entered.

Diamond drill hole No. SS3250 was drilled north 220.4 feet from a point in the lateral at station A3084 plus 128 feet east. The log of this hole is attached. Another hole drilled south from the same set-up was advanced 157.2 feet during January. The log of this hole will be submitted later after completion.

Yours very truly,

Robert E. Sorenson

Robert E. Sorenson

RES:dc

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

1201 N. Division St.
Spokane 2, Washington
December 20, 1955

RECEIVED
JAN 23 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project site was visited December 13, accompanied by the miners. The foreman was unable to join in the inspection because a train wreck a short time before my arrival had knocked out timber and blocked the main drift east, and he had to rustle a crew to restore transportation.

The drift east had been advanced 320 feet beyond survey station SS 3054 for a total advance of 7895 feet. A total of 313.7 feet of crosscutting had been completed as of December 1. The contract allows a total of 10,725 feet of drifting and crosscutting. The face was barren of any significant mineralization. The last 4,350 feet of the drive has not exposed any significant ore mineralization.

Following is a tabulation of the work items and number of units authorized and completed:

	Authorized	Completed
Drifting)		7,895 ft.
Crosscutting)	10,725 ft.	313.7 ft.
Raising	330 ft.	324.1 ft.
Sideswiping	1,560 ft.	986.7 ft.
Core drilling	15,200 ft.	6,659.8 ft. 1/

1/ As of Dec. 1

Eric G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
January 19, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Polaris Mining Co., Shoshone County, Idaho, Contract Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The exploration project was inspected January 14, accompanied by Mr. Thor H. Kiilsgaard, geologist, USGS, and Mr. G. Grismer, mine foreman.

The drift west had been advanced 432 feet beyond survey station A-3088 for an advance of 517 feet since my last inspection on December 3, 1953, and a total advance of 1027 feet under the contract. The minimum cross section is approximately 8'x8'.

A total of 234 feet of side swiping for double track has been completed.

The average advance per drill round blasted is approaching 5.5 feet, and the Operator hopes to increase it to over 6 feet.

The maximum unit price of $51 per foot was paid for December advance because the total advance for the month was 6 feet under the minimum of 395 feet. The Operator lost several work days due to holidays. The average monthly advance has been over 395 feet, and the average unit cost through December is $50.70 per foot of advance. The unit price will decrease as the monthly advance increases.

The drift is almost parallel with the steep quartzite bedding which is the least favorable condition for "pulling" long drift rounds in this district.

No significant mineralization has been exposed. A few quartz stringers containing siderite have been cut. The quartzites (St. Regis) have varied in color from unbleached purple to bleached light grey and are quite argillaceous.

Following is a tabulation of the items of work approved by contract, cost and percentage completed:

Item of Work	Allowed cost	% completed
1. Drifts and crosscuts - 11,625 ft. @ $51/ft.*	$592,875.00	9
2. Sideswipes - 1560 linear feet @ $25.50/ft.*	39,780.00	15
3. Diamond drilling - 5000 feet @ $4.50/ft.*	22,500.00	none
4. Raising 330 feet @ $93.33/ft.* (rounded to)	30,800.00	none

E. G. Erickson

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
January 5, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The exploration project was inspected December 3, 1953, accompanied by Mr. M. Hutchinson, mine geologist.

The drift west had been advanced 98 feet beyond survey station #A3086 for a total advance of 510 feet under the contract. The drifting has been through argillaceous quartzites (see Operator's maps accompanying monthly reports).

Sideswiping for double track amounting to 211 feet had been performed starting at survey station #A-3083 plus 110 feet.

No significant mineralization has been exposed to date.

Drifting is being performed on a 3-shift per day basis. Drift rounds of 34 to 39 holes are drilled with two IR-35 drifters mounted on a Cleveland jumbo. Rounds are blasted with about 2½ boxes of powder and mucked into Coeur d'Alene side dump cars with an Eimco Model 21 mechanical loader. Average advance per round has been about 5 feet. The Operator hopes to improve the average advance, and by means of adequate ventilation he expects to maintain a more or less continuous cycle whereby it will be possible to blast more than 3 rounds per 3 shift day.

Unit cost per foot of drifting as of December 1, 1953 was $50.46. The agreed maximum unit cost per foot is $51.00. It is indicated that the monthly rate of advance can be increased whereby the unit cost will be less than $50.00 per foot of drifting and/or crosscutting.

Standard of work is good, and no accident hazards were noted.

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

E. G. Erickson
E. G. Erickson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
SEP - 1 1955

August 18, 1955

Memorandum

To: DMEA Field Team, Region I, Northwest District

From: Verne C. Fryklund, Jr., Geologist, U. S. Geological Survey

Subject: Inspection of Silver Summit Mine, Docket No. DMEA-2879 (copper) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

I visited the mine August 11, 1955, with Mr. McDonald, Mine Foreman. I spent the afternoons of August 10 and 11 at the Hecla mine office in Burke examining maps of the general area.

On August 11, the face was in a structure compound of a steep dipping gouge seam and a band of rather pure quartzite that in places had been recrystallized to almost pure white quartz. A few grains of siderite were in the white quartz. This structure is apparently the one cut in DDH 3266 and exposed in the Coeur d'Alene mine's drifts on the 2800 level above. The structure at this point is weaker than where first cut in the drift and should disappear in a few rounds.

Approximately 3,000 feet of drifting remain to be done; the downward projection of the Rainbow vein, the next target, will be tested in this portion of the drift.

Enclosed is a Progress Map.

Enclosure
Distribution:
DMEA (orig. & 3)
USBM (2)
USBM (AD)
Docket
Fryklund

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Ad...
RECEIVED
NOV 8 - 1954

October 7, 1954

Memorandum

To: DMEA Field Team, Region II

From: Verne C. Fryklund, Jr., Geologist, U. S. Geological Survey

Subject: Inspection, Docket No. DMEA-2879 (lead-zinc-copper), Polaris Mining Company, Polaris East Exploration project, Shoshone County, Idaho, Contract No. Idm-E541

I visited the mine October 5, 1954. The drift has been a line drive from station 3025, a distance of 279 feet. Most of this distance, and the face, is double tracked. The raise is progressing slowly and probably will not hole through until the middle of December.

The second siderite-tetrahedrite vein (wire silver) is very low grade (see company assay figures) and cannot be considered ore. The vein was richer on the Coeur d'Alene Mines 2800 level and undoubtedly some ore will be produced from the vein.

The next general objective is about 2,000 feet from the October 5 face. It is possible that the drift (crosscut) will intersect a north-striking vein at this point; in addition, there are targets for drilling, both north and south of the drift.

I have suggested a 1,000-foot hole south from the general area of the two siderite veins. Such a hole would be a pure wild cat as there are no known structures within reach of a 1,000-foot hole; nevertheless, I believe that such a hole would at least be prudent exploration so that no large gaps are left unprobed. I believe such a hole should be drilled now. ?

Ventilation is extremely poor with no chance of improvement until the raise is completed.

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Fryklund

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

July 19, 1954

Memorandum

To: DMEA Field Team, Region II

From: Verne C. Fryklund, Jr., Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-2879 (lead-zinc-copper), Routine Inspection, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

I visited the Silver Summit mine July 14 and 15, 1954, with Walter Ashwill, company geologist.

As noted in my memorandum of June 4, 1954, the first ore shoot discovered was of modest size and grade. Continued drifting along the same structure disclosed no ore and the drift was turned southward so as to intersect the downward extension of another small vein. Although the present heading is supposed to be a crosscut, siderite stringers, parallel to the heading, are common. The projected position of the vein should be reached by July 21 or 22.

Samples submitted for cobalt analysis were blank. I will check the next ore shoot.

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Fryklund VCF

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 4, 1954

Memorandum

To: Field Team, Region II

From: Verne C. Fryklund, Geological Survey

Subject: Docket No. DMEA-2879 (lead-zinc-copper), Inspection of Polaris East project, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

I visited the property with S. Warren Hobbs, Geological Survey, and Walter Ashwill, company geologist, May 28, 1954.

As has been noted in the letter dated May 10, 1954, accompanying the operator's April monthly report, a tetrahedrite-bearing vein has been intersected in the DMEA 3000 level drift. This vein has been opened for a strike length of about 270 feet. About 60 feet of this length may be classified as an oreshoot. The east end of this small shoot is about 50 feet west of the present face.

There is little doubt that this shoot is the same as the Coeur d'Alene Mines' Southwest ore body on the 2800 level (300 feet above). On the basis of this discovery alone, it will be necessary to certify a discovery.

The vein is widening again and it is possible that other small shoots may be discovered on this structure.

Reject pulps are being saved by the company and I will submit them to the Geochemical Prospecting Unit for cobalt and nickel determinations.

My understanding, from talking with company geologists, is that the AEC Butte office is making periodic scintillometer surveys, that have so far been negative.

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Fryklund

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

RECEIVED
MAR 19 1956

1201 N. Division St.
Spokane 2, Washington
March 14, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project site was inspected March 8, accompanied by Mr. A. F. Robertson, Bureau of Mines engineer, Mr. McDonald, mine foreman, and Mr. M. Hutchinson, geologist.

The drive easterly had been advanced 86.5 feet beyond survey station S.S. 3063 for a total advance of 8659.6 feet. The 281 XCN was completed at 29.5 feet and the 281 XCS had been driven 6 feet. Total crosscutting under the contract is 349.2 feet.

Core drill hole No. 3271 was completed at a depth of 934.2 feet. Drill hole No. 3273 had been started and drilled to a depth of 365.5 feet. Drill logs of completed holes accompany the Operator's monthly report. Total core drilling as of March 1, 1956 was 8737.4 feet.

No significant ore showing was disclosed during the reporting period. The project heading and the drilling were idle at the time of the inspection because a section of about 2500 feet of the 19-inch galvanized vent pipe was being replaced with 24-inch spiral weld pipe. Work was to be resumed within a few days as there were only 14 twenty-foot lengths stored on the level to be installed.

Following is a tabulation of the work items and the units authorized and completed:

	Authorized	Completed
Drifting)	10,725 ft.	8,659.6 ft.
Crosscutting)		349.2 "
Raising	330 "	324.1 " 1/
Sideswiping	1,560 "	1,047.7 "
Core drilling	15,200 "	8,737.4 "

1/ Completed

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D—AD—EGE/he

2879

ACTION ON INTERIM
OR FINAL FIELD REAM REPORT

Date 2-13

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5. _____ Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Some hope yet!
2.
3.
4.

and take appropriate action.

- - - - - -

Action taken by Division:

ROBERT E. ADAMS
Initials

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

RECEIVED
FEB 13 1956

1201 N. Division St.
Spokane 2, Washington
January 31, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected January 27, accompanied by Mr. G. Grismer, mine superintendent, Mr. McDonald, mine foreman, and Mr. Semos, mine geologist.

The drift east had been advanced 174.5 feet beyond survey station No. SS 3058 for a total advance of 8326.3 feet. The drift is now in Rainbow property.

Crosscut No. 281 XCN, located at SS 3058 plus 140 feet, had been advanced 10 feet. The total length of the crosscut is planned to be about 25 feet. Total crosscutting to date is 323.7 feet. Another diamond drill station crosscut south is planned opposite 281 XN.

Two interesting fault structures with accompanying pyrite, siderite and quartz mineralization were exposed in the first two rounds of the crosscut. There was an 18" shear exposed in the crosscut face and another smaller shear 7½ feet back from the face. Both faults are steeply dipping to the south and their strike, not quite parallel to the drift, indicates they will cut the course of the drift a short distance ahead. Sample and assay results will be reported in the next progress report.

Diamond drill hole No. 3271, located opposite survey station No. SS 3041, is being deepened with a larger machine. The hole had reached a total depth of 869 feet. A 2-foot mineralized section was cut between 860 and 862 feet. Assay results will be submitted in a subsequent report.

The structures encountered in the crosscut appear to be of major importance and are the first major disclosures since the projected Coeur d'Alene mines structures were cut. The structure cut in drill hole No. 3071, although only 2 feet in width, is interesting and may very well be of major importance as very little is known of the area to date.

Following is a tabulation of the work items authorized and units completed:

Item	Authorized	Completed
Drifting)		8,326.3 feet
Crosscutting)	10,725 feet	323.7 "
Raising	330 "	324.1 "
Sideswiping	1,560 "	997.7 "
Core drilling	15,200 "	7,732.0 " 1/

1/ As of Jan. 1, 1956

E. G. Erickson

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

0879

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 11-3

Referred to:

1. ~~Mr. Mattendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. Base Metals Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Note 4th paragraph. Contract does not permit contract payment of $51.00 per ft.
2. Talbert

3.

4.

and take appropriate action.

- - - - -

Action taken by Division: Dated remove

ROBERT E. ADAMS

Initials

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
October 11, 1955

RECEIVED
NOV - 7 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project site was visited October 11; the prior inspection was made August 31.

On August 31 the drive east had been advanced 228 feet beyond survey station No. SS-3044 for a total advance of 7,232 feet. The only mineralization exposed was a 0.1' quartz stringer in the face that was virtually barren of mineralization (see Operator's progress report of August 1955).

On October 11 the exploration project was idle. The 19" ventilation pipe was being replaced with 24" spiral weld pipe, starting at the raise crosscut and continuing to the face. The change of ventilation pipe had started the first week of the month and the Operator expects to resume drifting and core drilling about the 24th of October.

The costs for the last part of the drifting are increasing as anticipated. The 19" ventilation pipe has had to be replaced with 24" pipe costing $3.55 per foot exclusive of installation, and the miners' contract wages are being adjusted to the new wage scale. It is pointed out that the agreed unit cost of $51.00 was an estimate for the entire job, not for the first part alone. It is therefore recommended that the present unit cost of $51.00 per foot maximum be continued. A detail of additional costs affecting the unit cost since the audit of the first period is being made up by the Operator and will be forwarded when received.

The drive had been advanced 57.9 feet beyond survey station No. SS-3049 for a total advance of 7,402 feet. A little siderite and specks of tetrahedrite mineralization have shown up, which is encouraging. (See Operator's September 1955 progress report.)

A crosscut north at survey station No. SS-3049 to be used for a diamond drill station had been completed. Total advance of the crosscut was 29.2 feet.

Drill logs are submitted by the Operator after each hole is completed.

Following is a tabulation of the work items and number of units authorized and completed as of October 11:

	Authorized	Completed
Drifting)		7,402 ft.
Crosscutting)	10,725 ft.	314 ft.
Raising	330 "	324.1 "
Sideswiping	1,560 "	862.2 "
Core drilling	15,200 "	5,957.1 "

The standard of work and the monthly progress reports are good.

Eric G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
July 29, 1955

RECEIVED
SEP - 1 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony) Polaris Mining Company, Silver Summit Mine, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected July 27, 1955, accompanied by Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, NW District.

The drift east was still in bleached argillaceous quartzite of the St. Regis formation. No significant mineralization had been encountered since the last inspection on July 8. The drift had been advanced 192 feet beyond survey station SS 3041.

Diamond drilling was in progress, and the results to date have been negative. The hole being drilled at the time of the visit was progressing slowly due to the broken formation. Some "pulls" were necessary after only one foot of drilling.

The standard of work remains good in spite of the ventilation problem. A booster has been added to the ventilation line to aid the flow of air from the raise crosscut.

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
July 12, 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected July 8, accompanied by Mr. McDonald, mine foreman.

The drift had been advanced 114 feet beyond survey station No. SS 3040 for a total advance of 6707.5 feet in the drift. The crosscutting to date totals 263.5 feet, making a grand total of 6971.0 feet of drifting and crosscutting.

A diamond drill station is to be cut northerly at SS 3040 plus 100 feet where a 1000-foot north hole is planned.

The north hole opposite SS 3031 was stopped at 1000 feet, and the south hole from the opposite side of the drift had reached a depth of 650 feet of its planned depth of 1000 feet.

No significant mineralization has been disclosed in the drilling or drifting since the last report. The project to date has been discouraging except for the small ore shoot opened earlier in the drifting. The most promising target area lies ahead in the Rainbow area.

The standard of work has been good.

Following is a tabulation of work items allowed by the contract and the units completed:

	Authorized	Completed	
Drifting and crosscutting	10,725 feet	6,971.0 feet	
Raising	330 "	324.1 "	1/
Sideswiping	1,560 "	839.2 "	
Diamond drilling	15,200 "	4,797.5 "	

1/ Raise completed.

Orig. & 3 cys - Wash.
USGS (2)
DMEA--M/D--AD--EGE/he

E. G. Erickson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
1201 N. Division St.
Spokane 2, Washington
May 9, 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected May 5, 1955, accompanied by two drift miners.

The drift east had been advanced 303 feet beyond S. S. No. 3035 for a total of 6,231 feet of drifting and crosscutting to date. No significant mineralization had been encountered since the last inspection.

Diamond drill hole No. 3265 had been drilled to a depth of 922 feet and the core has disclosed no significant mineralization. It is planned to drill to a total length of about 1,000 feet. A log of the drill hole will be submitted when the hole is completed.

Standard of work remains good and the monthly progress reports are complete.

Following is a tabulation of the work items allowed by the contract and the units completed:

	Authorized	Completed	
Drifting and crosscutting	10,725 ft.	6,231 ft.	
Raising	330 "	324.1 ft.	1/
Sideswiping	1,560 "	764.2 ft.	
Diamond drilling	15,200 "	3,374.7 ft.	

1/ Raise completed

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
April 5, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony) Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project site was inspected March 31, 1955, accompanied by Mr. McDonald, shift boss.

The drift east had been advanced 264 feet beyond survey station No. SS-3033. The drift is penetrating partially bleached and unbleached purplish argillaceous quartzites of the St. Regis formation. No significant sulphide mineralization was noted although minor quartz mineralization is persistent.

Diamond drilling had been resumed with DDH No. 3265. The hole is being drilled horizontal and directed northerly from the face of the short crosscut north opposite survey station No. SS-3031. The depth at the time of the inspection was 230 feet. A total length of about 1,000 feet is planned.

Operator's monthly progress reports are complete with detailed maps. The standard of contract work is good.

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
March 1, 1955

MEMORANDUM

To: DMEA Field Team, Region I

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony), Polaris Mining Co., Shoshone County, Idaho, Contract No. Idm-E541

The project was inspected on February 24. Two miners were mucking out the round, and an electrician aided by the motorman was installing hanging rods to support electric cable.

The drift had been advanced 157.0 feet beyond survey station No. SS-3032 for a total of 5,478 feet of drifting and crosscutting to date. No significant change was noted in the formation penetrated. The Operator submits a geologic map with his monthly report.

Two crosscuts for diamond drill stations located 303 feet back from the face have been completed. Crosscuts are northeasterly and southwesterly normal to the drift and are respectively 28.5 and 25.5 feet in length. Two 1000-ft. diamond drill holes are planned and are expected to be started in March 1955.

In a letter to the Executive Officer, under date of January 25, 1955, the Operator requested a change in the contract to include additional drilling. It is recommended that the contract be amended to allow an estimated 10,000 feet of diamond drilling to supplement the 5,000 feet stated in the contract. The Field Team report of March 16, 1953 originally recommended an estimated 15,000 feet of diamond drilling. A total of 2452.7 feet of the presently allowed 5,000 feet of drilling has been completed. It is urged that immediate and favorable action be taken on the Operator's request for additional drilling.

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
January 6, 1955

Department of the Interior
Defense Minerals Administration
RECEIVED
FEB 17 1955

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The project site was inspected December 22, 1954, accompanied by the mine geologist.

The raise was measured from the top down by going down the Coeur d'Alene Mines shaft to the 2800 level and walking to the top of the raise. USBM tag No. 67 was set on a cap in the manway compartment. A distance of 5.8 feet was measured from the tag to the top of the raise bulkhead, and a distance of 316.5 feet was measured from USBM tag No. 67 to USBM tag No. 66 set on the sill cap in the raise crosscut on the 3000 level of the Silver Summit mine. A distance of 10.6 feet was measured from tag No. 66 to the top of the rail. Total raising approved, 324.1 feet.

The drift east had been advanced 67 feet beyond survey station No. 3029 for a total advance of 4647.5 feet. The structure driven on was barren.

Diamond drilling has been lagging because of the ventilation but since the raise holed the diamond drilling should be resumed.

Standard of work continues to be good. The raise was advanced at the rate of about 100 feet per month.

The Operator will submit a summary of the costs of the project through February 1955. Due to the lag time necessary to summarize monthly accounts it will be about April 1, 1955 before the summary is received at the Spokane office of DMEA.

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
1201 N. Division St.
Spokane 2, Washington
November 29, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-K541, Docket No. DMEA 2879 (copper-lead-antimony)

The project site was inspected October 20, 1954. I was assisted in the inspection by the level motorman and the raise and drift miners. Mr. G. Grismer, mine foreman, and Mr. P. Lindstrum, chief engineer, were contacted at the company offices regarding the progress.

The east drift had been advanced 53 feet beyond survey station No. 3027 for a total advance of 4120.1 feet. The drift is in barren vein. The total crosscutting to date is 164.9 feet.

The ventilation raise had been advanced a total of 218 feet and should be completed early in December.

A brief review of the actual costs for drifting and crosscutting performed from the date of the contract through September 1954 was made, aided by the company accountant; it showed that the agreed unit cost is a little less than the actual cost. The Operator's actual costs are subject to audit at the end of the "first period" according to the terms of the contract. The first sentence in Annex II and footnote No. 6 on page 1 of the contract form designate the end of the first period as 18 months after the commencement of work. The Operator's first narrative stated that initial work started August 2X, 1954, which sets the date of the end of the first period as March 1, 1955. If any different, official interpretation of this date is made, the Operator should be advised.

See below

The maximum allowable "fixed cost" or prorated cost to the project is $6,332.12 per month. During the period of raising the total indirect cost allowable to the project is figured by multiplying the

(*) The date should be Aug. 25, 1953 (Aug. 23, 1954 is evidently a typographical error) However the date March 1, 1955 is the correct date for the end of the first 18 months.
Dec. 8-1954 Lamont W. Ellis

drift advance by $16.23 ("fixed" or prorated unit cost allowed for drifting) and the raise advance by $22.96 ("fixed" or prorated unit cost allowed for raising - unit cost of $93.33 minus unit direct cost of $70.37), and the sum of the two products is not allowed over the maximum amount of $6,332.12. Should the sum of $6,332.12 be exceeded, the excess is prorated to drifting and raising on a percentage basis. The percentages are calculated by dividing the product of the raise and drift advance and their respective allowed fixed unit cost by the sum of the products of raise and drift monthly advance and their respective fixed costs. The excess prorated to raising and drifting is divided by each respective advance, and the unit costs are reduced by the resulting figure.

Attached is a copy of a work sheet used by the Operator in arriving at costs for the month of October 1954.

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
[redacted]
M/B
AD
EGE/he

Polaris Mining Company

To allocate other costs between drifting and raising for the month of October 1954

	Rate per foot Other Operating Costs	Total	Adjustment prorated	Total other costs allowed by contract
Raising -				
110.6 ft. advance, Oct.	22.96	$2,539.38	$ 175.77	$2,363.61
Drifting -				
262.7 ft. advance, Oct.	16.23	4,263.62	295.11	3,968.51
Total		$6,803.00	$ 470.88	$6,332.12
Maximum allowed by contract		6,332.12		
Difference		$ 470.88		

Raising

Direct costs = 110.6 ft. x 70.37 =	$ 7,782.92	
Other costs - per above	2,363.61	
Total	$ 10,146.53	= $91.74 per ft.

Drifting

Direct costs = 262.7 ft. x 34.77 =	$ 9,134.08	
Other costs - per above	3,968.51	
Total	$ 13,102.59	= $49.87663 per ft.

Drifting = 223.4 ft. x 49.87663 = $11,142.44

Sideswipe = 78.6 ft. x 24.938315 = $ 1,960.15

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
September 28, 1954

Defense Minerals Exploration Adm.
RECEIVED
OCT 8 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Contract Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The project site was inspected August 27, 1954 accompanied by Mr. John Simos, mine geologist, and Mr. James Greenslade, mine engineer.

The main drive had been advanced 60.5 feet beyond survey station No. 3025 for a total of 3792 feet advance under the contract; this checks with the Operator's measurements. The face was barren.

The ventilation crosscut had been advanced a total of 140 feet where it was stopped. The center line of the ventilation raise was located 28 feet back from the face of the crosscut. The 2-compartment raise had been advanced 3 - 5' c. to c. sets and ground was broken 7 feet above timber. The rock section of the raise is approximately 12½'x7'.

At a point 145 feet ahead of survey station No. 3018, two short crosscuts north and south were driven 6 feet and 12 feet, respectively, to expose ore showing. The drift and the crosscuts showed ore (see Operator's geology and assay map accompanying his August 1954 monthly report). Sample EGE-165, taken over a width of 1.8 feet on the west wall of the south crosscut, assayed 60.4 oz. Ag, 2.85% Cu and 1.67% Sb.

The drift is being advanced on one shift per day and the raise is being worked on two shifts.

The Operator's monthly reports on geology, assays, core logs are complete, and the standard of work is good.

E. G. Erickson

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

1201 N. Division St.
Spokane 2, Washington
July 6, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA 2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The exploration project site was inspected July 8, 1954 accompanied by Mr. Sompop Chandraprabha, O.A.F. trainee from Thailand, and Mr. W. Ashwill, company geologist.

The drift had been advanced 131 feet beyond Survey Station 3017 for a total advance of 3,397 feet under the contract. Sixty feet of side swiping had been completed at Survey Station 3012. During June 203 feet of diamond drilling was performed.

Core recovery averaged 80%, and no significant mineralization was disclosed. Logs of holes and detailed geologic and assay map are submitted monthly by the Operator.

The two samples mentioned in my memorandum of May 25, 1954, estimated to assay 100 - 200 oz. Ag and 4 - 8% Cu and 20 - 50 oz. Ag and 1 - 2% Cu, actually assayed 352.5 oz. Ag and 15.6% Cu and 57 oz. Ag and 2.75% Cu, respectively.

The drift has been practically barren of mineralization from near Survey Station 3015 to the face, a distance of about 220 feet. The last 172 feet of drift starting at Station 3016 has been driven on line to the projected position of the first easterly "wire silver" ore shoot and a point (about 150 feet distant) where the raise to the Coeur d'Alene 2800 level is planned.

The ventilation problem has increased and the drift, except in the face, is rather warm.

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

E. G. Erickson
E. G. Erickson

700

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

1201 N. Division St.
Spokane 2, Washington
May 25, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: K. O. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Co., Shoshone County, Idaho, Contract Idm-2541, Docket No. DMEA 2879 (copper-lead-antimony)

Inspection of the exploration project was made May 19, 1954, accompanied by Mr. M. Hutchinson, mine geologist.

The drive easterly had reached a position 90.0 feet beyond survey station #3006 for a total advance of 2809 feet under the contract. The drive encountered ore at survey station #3006 plus 35 feet, which is a position 2650 feet from the start of the contract.

Small, but hot!

A sample of the ore over a 0.4' width was taken at survey station #3006 plus 42 feet, and it is believed it will assay 100 - 200 oz. Ag and 4 - 8% copper. A sample over a 1' width was taken at the face, and it will probably assay 20 - 50 oz. Ag and 1 - 2% Cu.* The ore width and grade vary from a few tenths to 2 feet and from almost barren vein to 200 plus oz. Ag with associated copper, lead and antimony.

The Operator has done a very good job of directing the drive. The vein will be followed and the walls will be tested by diamond drilling.

Following is a tabulation of work approved by the contract and percentage completed:

Item	Approved Units	% completed
1. Drifting and crosscutting	11,625 feet	24½%
2. Sidesniping	2,569 "	18½%
3. Diamond drilling	5,000 "	35 % 1/
4. Raising	330 "	none

1/ As of May 1, 1954

* Ag oz. Cu %
352.5 15.0 Interim Report only

** 57.4 2.05 " " " " "

The Operator keeps complete engineering and geologic records of all work performed. All diamond drill cores are being preserved.

Regarding royalty repayment, there is no doubt but that the production records of the company are satisfactory and that an audit or inspection of them is all that will be necessary to ascertain that the Government is getting all royalties due. The production subject to Government royalty will be from lands covered by working agreements with different companies (see agreements submitted with application) and the method accepted by the interested companies for determining production from different areas is recommended as the method to be accepted by the Government.

Royalty payments on production from BMBA area will be made about the 25th of the month for production of the preceding month because of "lag-time" due to calculations and smelter settlements.

E. O. Erickson

Orig. & 3 cys - Wash.
UMRS (2)
BMBA
M/D
AD
EOE/ho

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

1201 N. Division St.
Spokane 2, Washington
May 3, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Contract Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The exploration project was inspected April 27, 1954, accompanied by Mr. M. Hutchinson, mine geologist.

The face of the drive easterly had reached a point 96 feet beyond survey station No. 3005, for a total advance of 2495 feet under the contract.

The course of the drive had been turned southeasterly (see Operator's April progress map), directed to parallel the projected strike of the vein known to exist on the 2800 level of the Coeur d'Alene mine. No significant mineralization has been found. Y cut on dull lowes in wall

The average rate of drift advance for the month of March was a fraction under 6 feet per shift, for a monthly total of 469.3 feet plus 8 feet of sideswiping. The unit cost of drifting has been reduced from $51/ft. to $49.95/ft.

The drift cross section is more than the 8'x6' minimum section specified in the contract, and the standard of work continues to be good.

Following is a tabulation of items of work approved by the contract and the percentage completed:

	Item	Approved Units	% completed
1.	Drifting and crosscutting	11,625 feet	21½%
2.	Sideswiping	1,569 "	18 %
3.	Diamond drilling	5,000 "	30 % approx.
4.	Raising	330 "	none

Orig. & 3 cys - Wash.
USGS (2)
DMEA
AD
MD
EGE/he

E. G. Erickson
E. G. Erickson

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

1201 N. Division St.
Spokane 2, Washington
February 18, 1954

RECEIVED
FEB 15 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Co., Shoshone County, Idaho, Contract Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

The exploration project was inspected February 10, 1954 accompanied by Mr. G. Grismer, mine foreman, and Mr. R. Farmin, general manager for Day Mines, Inc.

The "drive" west had been advanced 780 feet beyond Survey Station A-3088, showing an advance of 348 feet since the last inspection on January 14, and a total advance under the contract of 1375 feet. The "drive" has passed through Merger ground and has entered Silver Standard ground. No significant mineralization has been exposed.

A crosscut was being driven north normal to the drift at Survey Station A-3093 plus 100 feet, which is about 40 feet back from the present face. The crosscut had been advanced 25 feet and will be used for a drill station for the planned 800-foot diamond drill hole.

Three short diamond drill holes had been completed and the fourth hole had been drilled 144 feet of its planned depth of 200 to 225 feet. A small speck of galena is the only mineral found in cores to date. Logs of holes and geologic maps are included with the Operator's monthly reports.

An additional 8 feet of sideswiping had been completed since the last inspection, making a total of 242 feet of sideswiping to date.

During the month of January 1954, 406 feet of drifting was reported. The average cost per foot of drifting through January is $50.54/ft., slightly under the maximum allowable cost of $51.00/ft.

Following is a tabulation of items of work approved by contract and percentage completed:

Item	Approved units	% completed
1. Drifting and crosscutting	11,625 feet	12%
2. Sideswiping	1,569 "	15½%
3. Diamond drilling	5,000 "	16% (approx.)
4. Raising	330 "	none

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

E. G. Erickson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
N. 1201 Division
Spokane 2, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 16 1953

October 30, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, U. S. Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone Co., Idaho
Contract Idm-E541, Docket No. DMEA 2879 (copper-lead-antimony)

Mr. R. Sorenson, vice-president for the company, was contacted at the company office in Wallace, Idaho, October 23, 1953.

I was informed that drifting had been started and they would submit their initial MF-104's early in November.

The company has spent about $25,000 revamping the ventilation to accommodate the exploration project, regrading and retracking existing drift, and other preliminary work. The contract work will be performed at an agreed unit price; therefore, initial rehabilitation and preparation will have to be absorbed in the unit costs set forth for stipulated items of work.

Distribution:
Orig. & 3 cys - Wash.
USGS (2)
DMEA
MD
AD
EGE/fw

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

1201 N. Division St.
Spokane 2, Washington
October 2, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Docket No. DMEA 2879 (copper-lead-antimony), Contract No. Idm-E541

The exploration project site was inspected September 24, 1953, accompanied by Mr. M. Hutchinson, geologist for the company.

The ventilation system for the exploration drift has been installed and the existing drift is being scaled, regraded and retracked.

There was some delay in retracking because the company was faced with a decision of changing to a wider gauge track. It was finally decided not to change at this time as it would mean converting other track and would cause a longer delay and a large expenditure. The existing drift had been bratticed off from the main mine workings and considerable spalling had taken place in the drift.

Drifting will commence as soon as scaling, regarding and retracking are completed, and a 3-shift per day operation is planned.

The present drift face was measured and found to be 63 feet beyond company survey station No. 3072.

E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EGE/he

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 24 1953

1201 N. Division St.
Spokane 2, Washington
July 15, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer

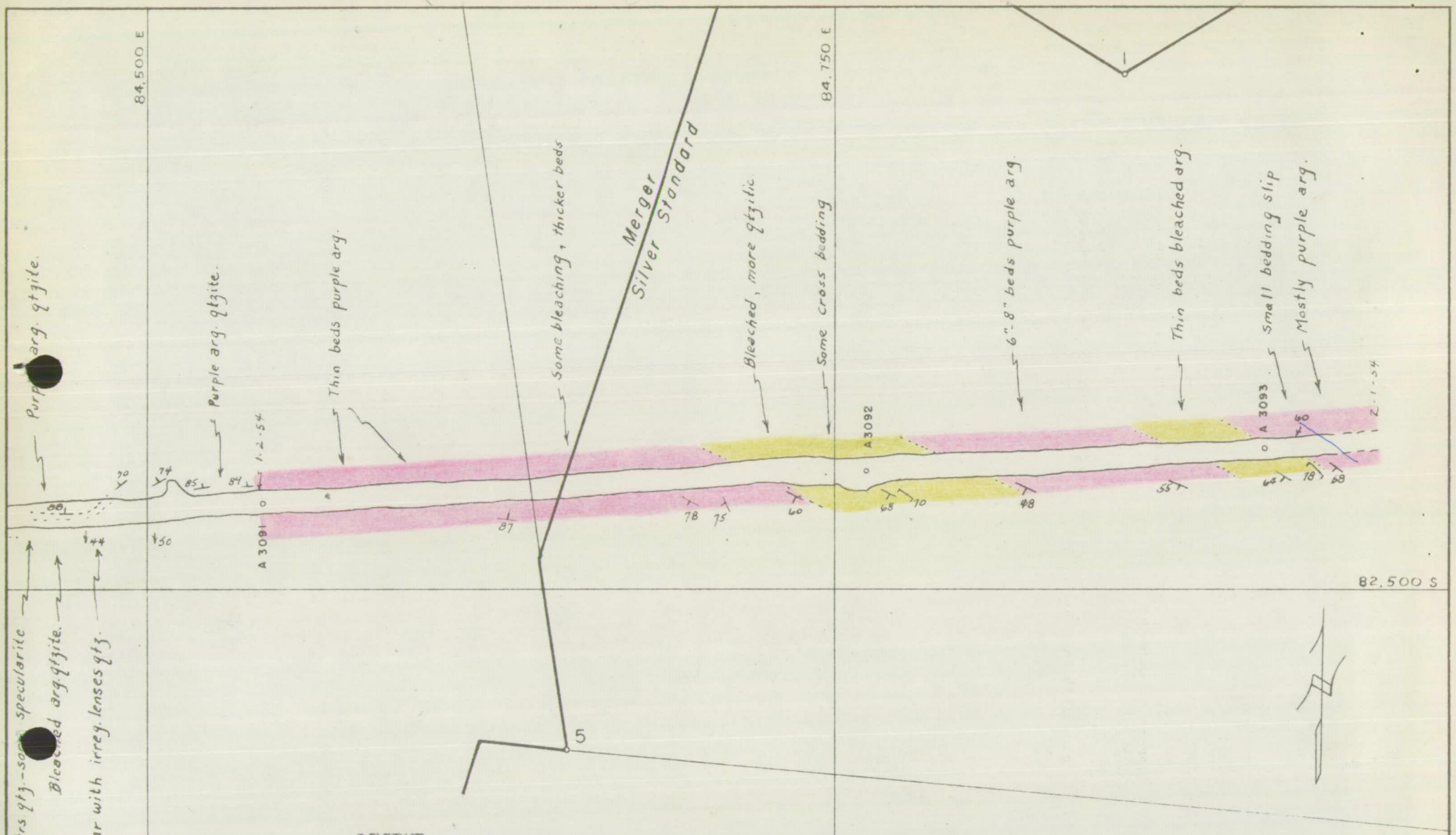
Subject: Interim report, Polaris Mining Company, Shoshone County, Idaho, Docket No. DMEA 2879 (copper-lead-antimony), Contract No. Idm-E541

Mr. Randall, president, and Mr. Neyman, general manager, for the company were contacted at the company offices in Wallace, Idaho, on July 9, 1953.

Work under the exploration contract had not been started due to delays in finalizing agreements with other companies that have properties included in the contract. Mr. Randall informed me the Polaris Company has completed their part of the agreements and he believes the remaining work necessary will be completed whereby they will be able to start work within the stipulated time.

E. G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
EGE/he

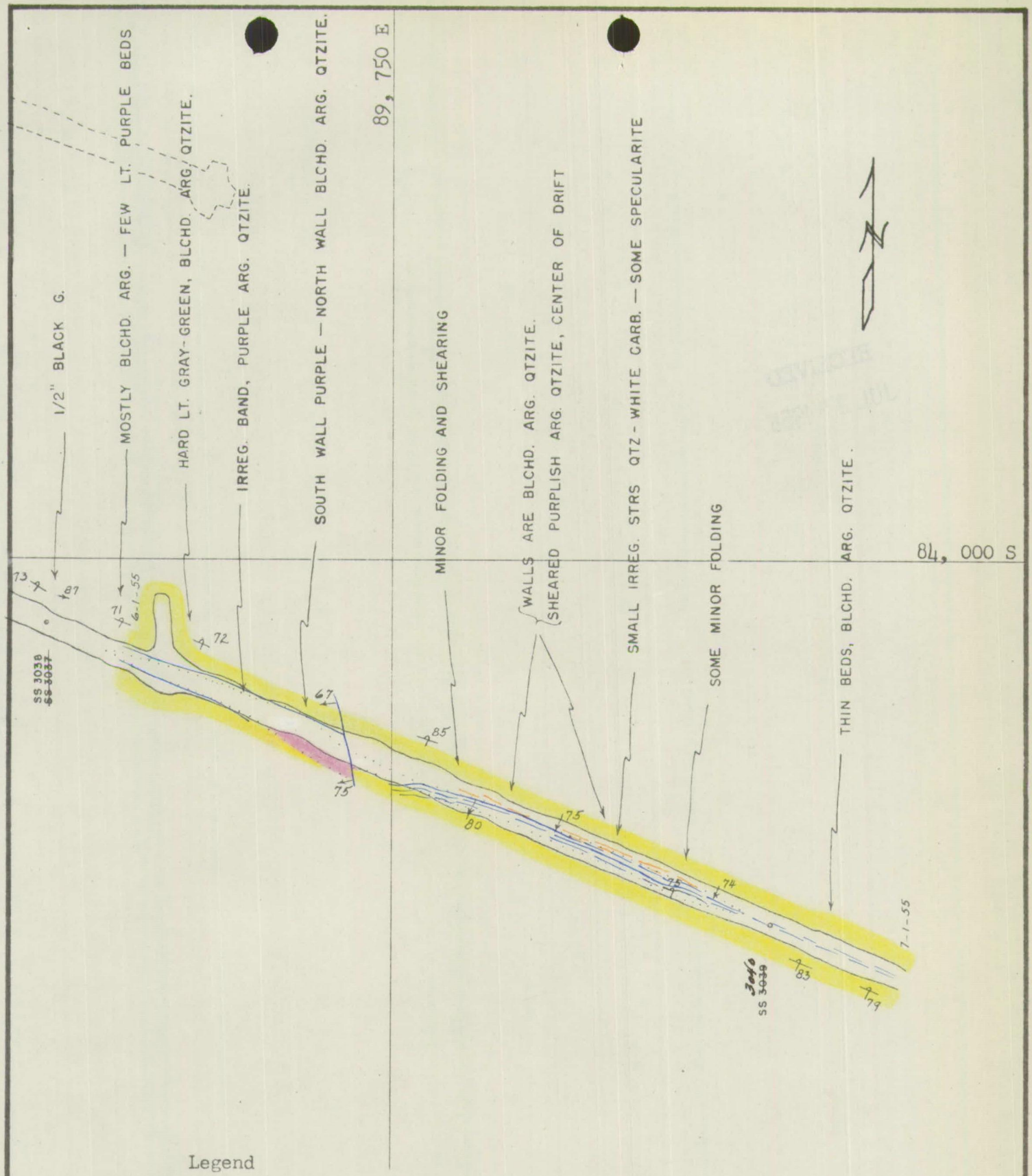


LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE: 1" = 50' Feb. 1, 1954

Geology by M.W.H.



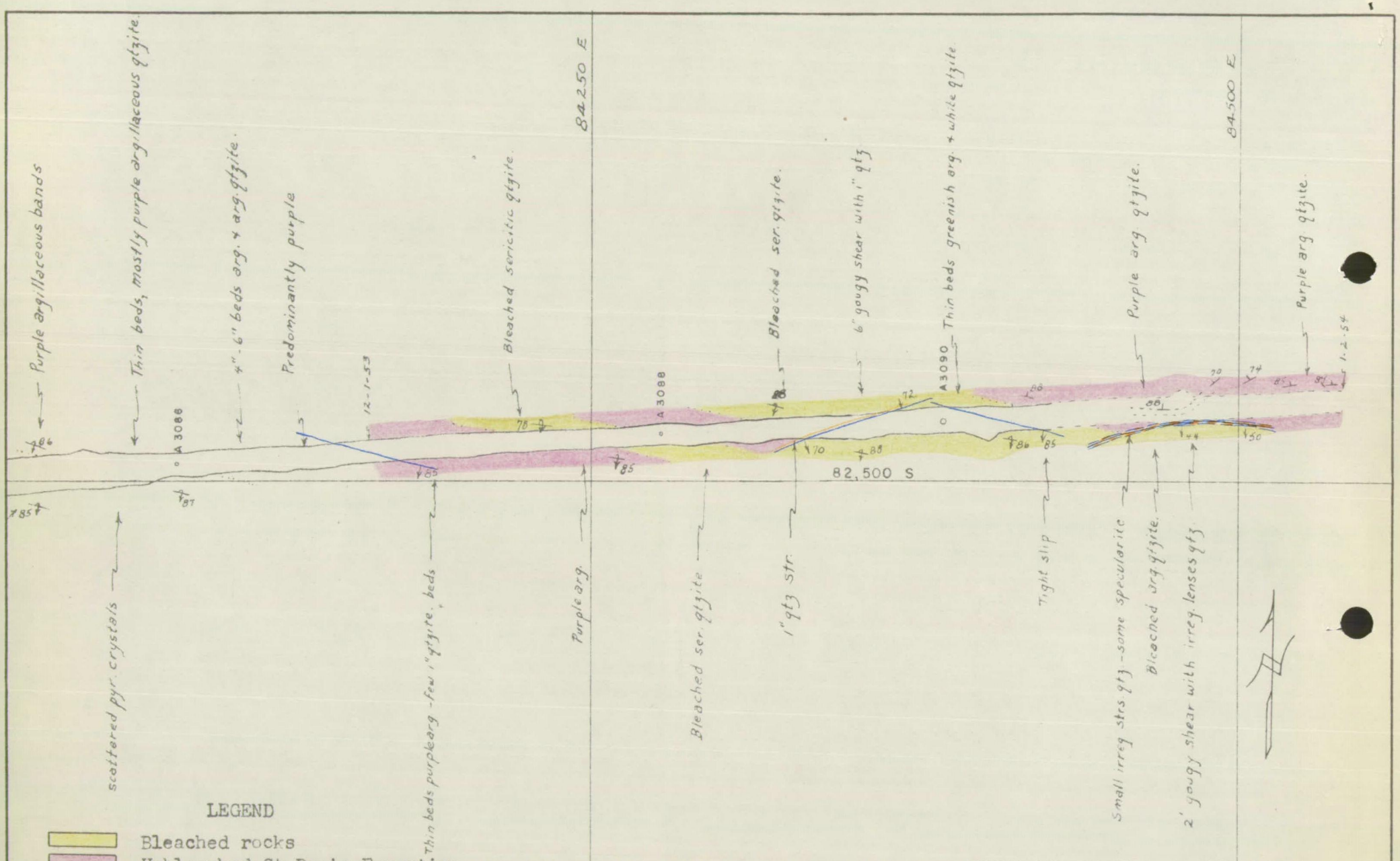
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 72 Strike and dip of faults
- 85 Strike and dip of beds
- 79 Strike and dip of overturned beds
- 62 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' July 1, 1955
Geology by J.G.S.

RECEIVED
JUL 25 1955

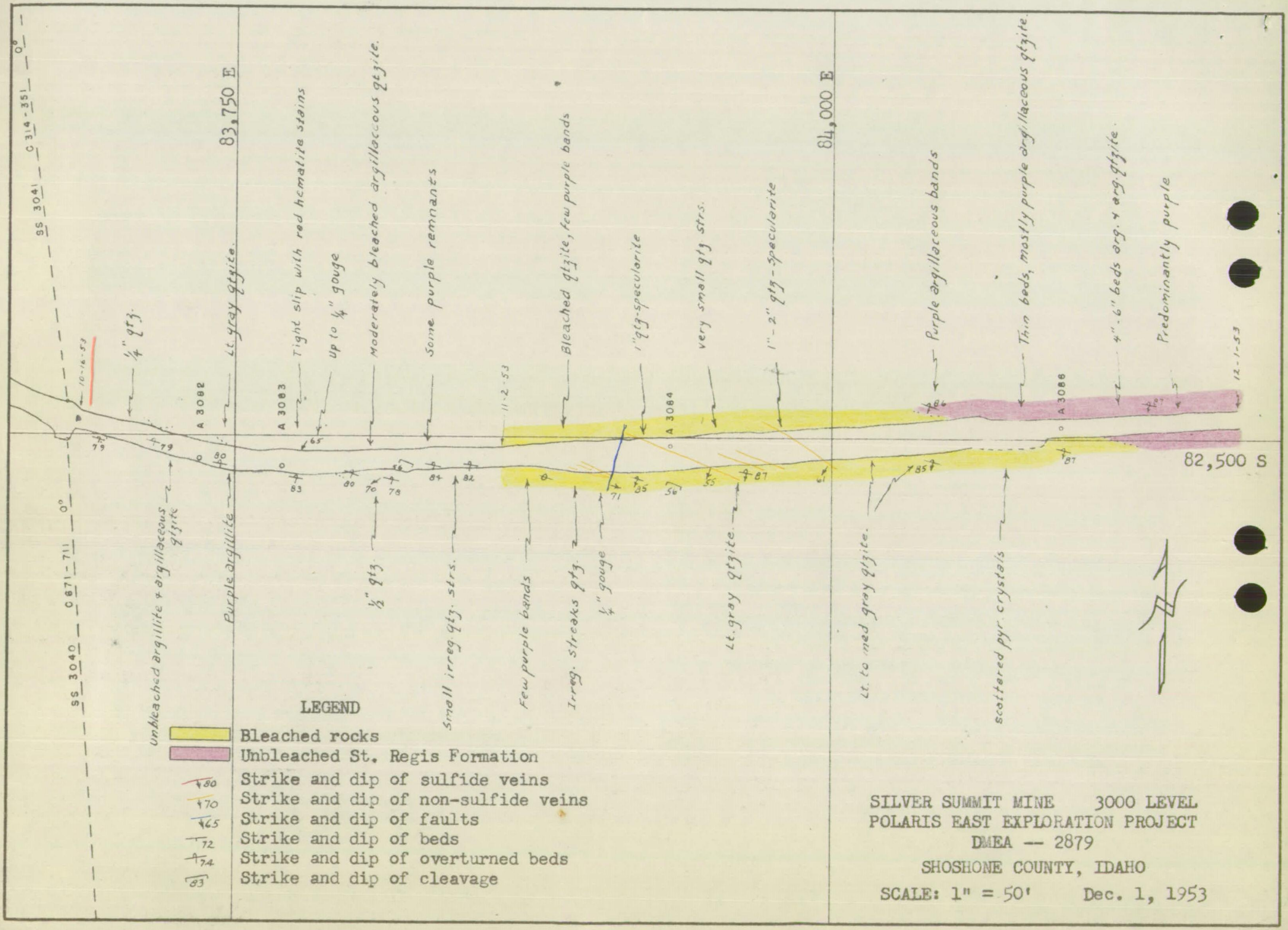


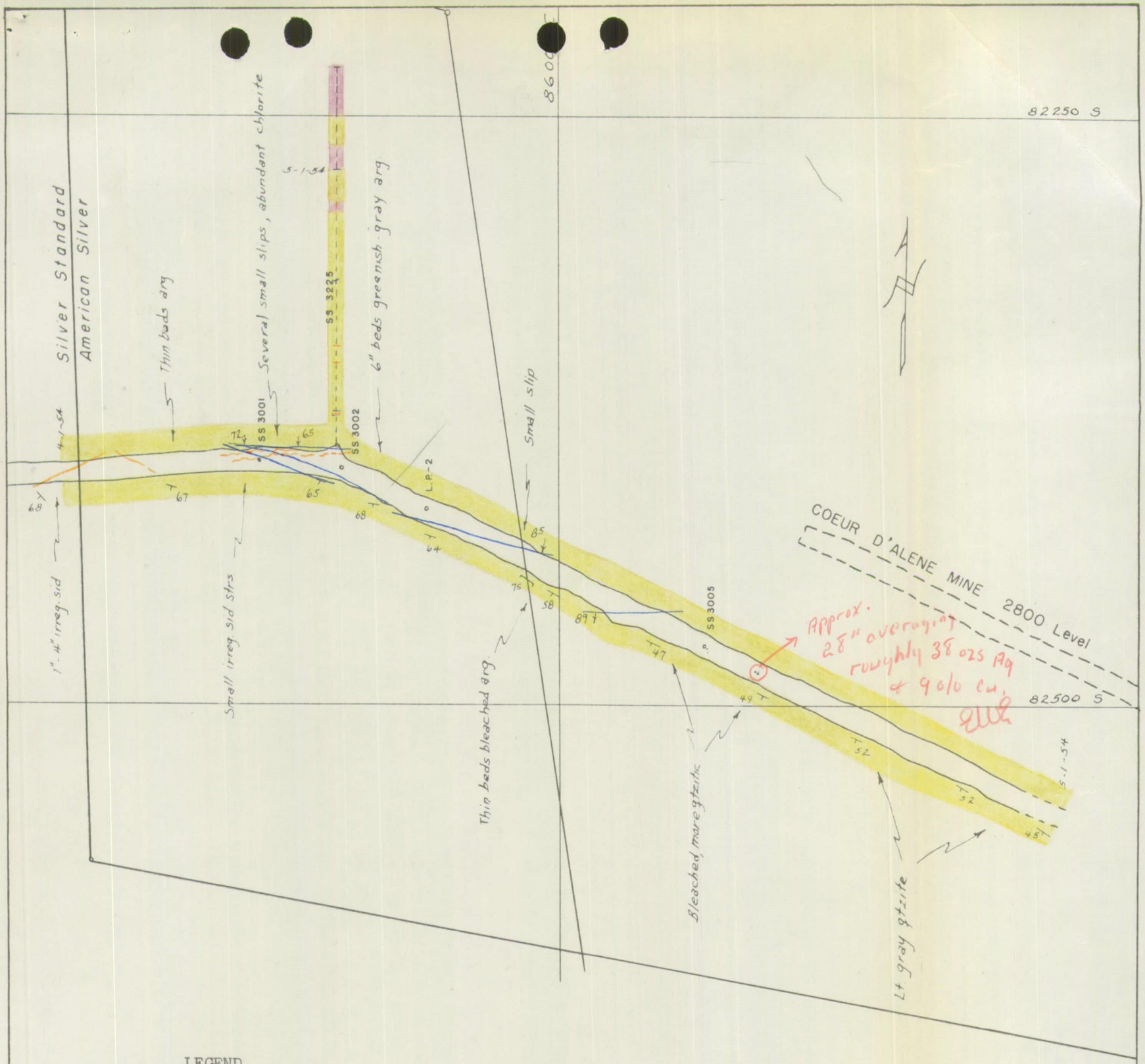
LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE: 1" = 50' Jan. 1,1954

Geology by M.W.H.


83,750 E
84,000 E
82,500 S
SS 3041 — C 314-351 — 0°
SS 3040 — C 671-711 — 0°
10-16-53
1/4" qtz.
Lt. gray qtzite.
A 3082
A 3083
Tight slip with red hematite stains
Up to 1/4" gouge
Moderately bleached argillaceous qtzite.
Some purple remnants
11-2-53
Bleached qtzite, few purple bands
1" qtz-specularite
A 3084
very small qtz strs.
1"-2" qtz-specularite
Purple argillaceous bands
Thin beds, mostly purple argillaceous qtzite.
A 3086
4"-6" beds arg. & arg. qtzite.
Predominantly purple
12-1-53
Unbleached argillite & argillaceous qtzite
Purple argillite
1/2" qtz.
Small irreg. qtz. strs.
Few purple bands
Irreg. streaks qtz.
1/4" gouge
Lt. gray qtzite
Lt. to med gray qtzite.
scattered pyr. crystals
LEGEND
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE: 1" = 50' Dec. 1, 1953

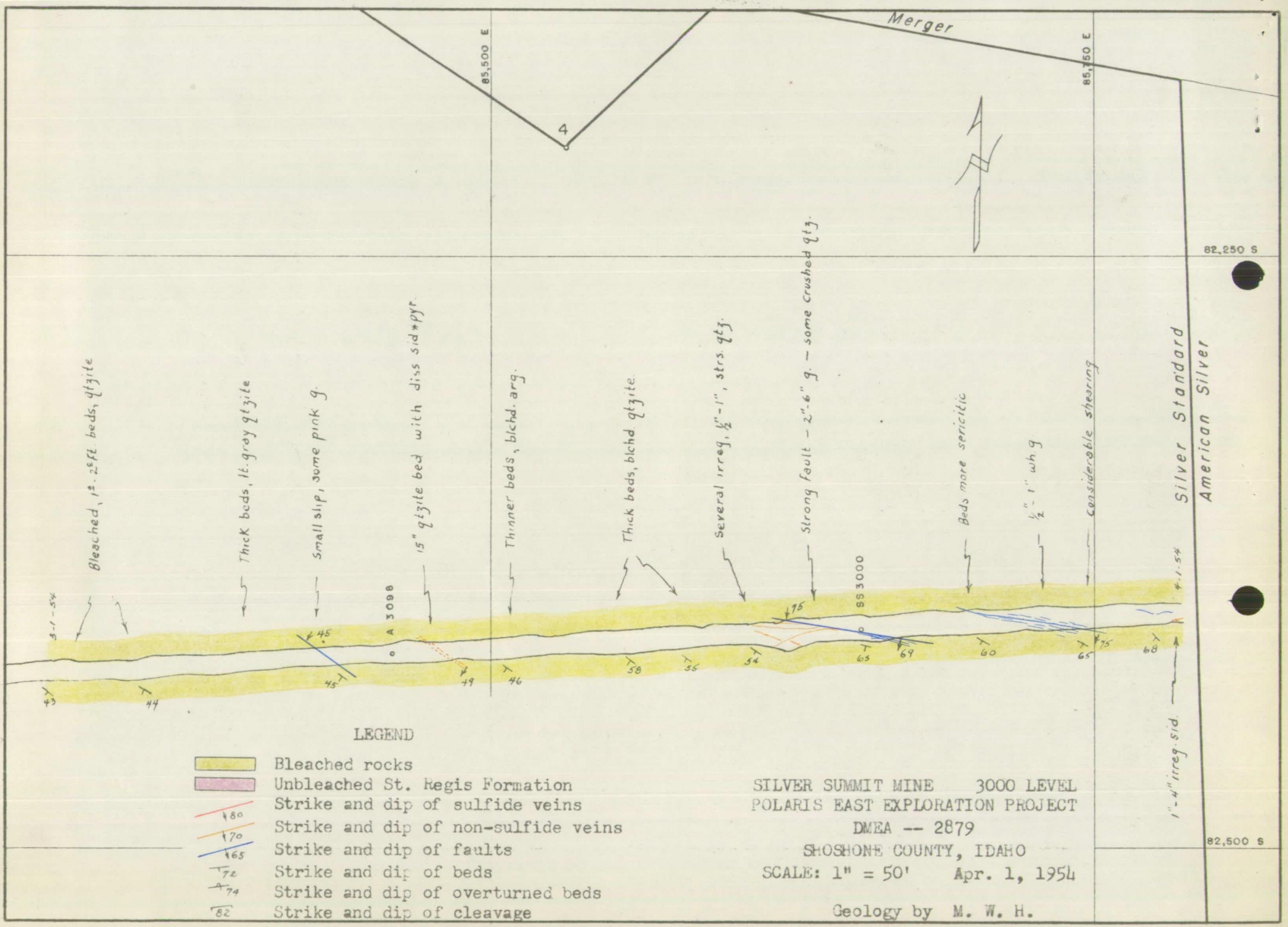


LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

Geology by M.W.H.

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
Scale: 1" = 50' May 1,1954

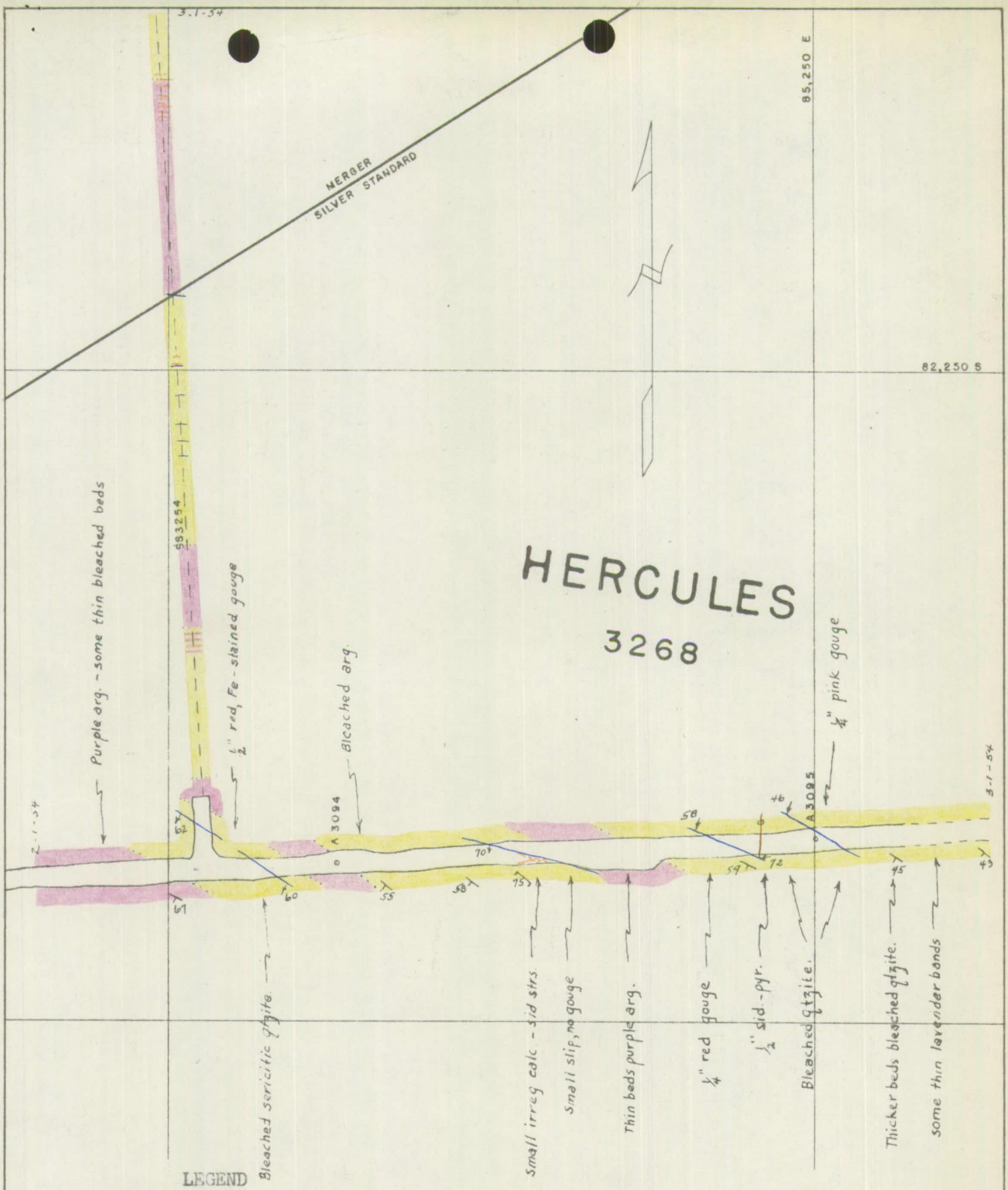


LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE: 1" = 50' Apr. 1, 1954

Geology by M. W. H.

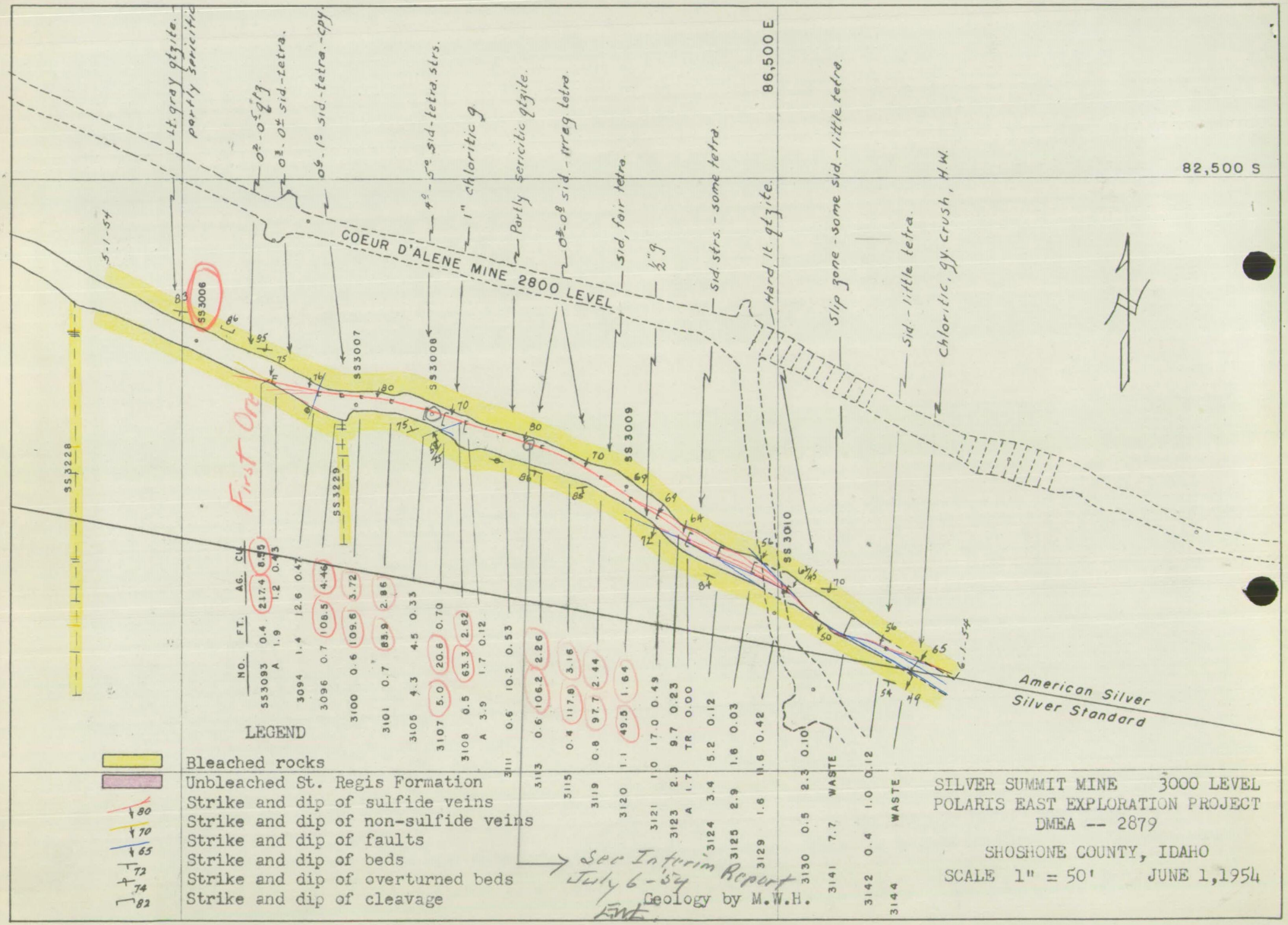


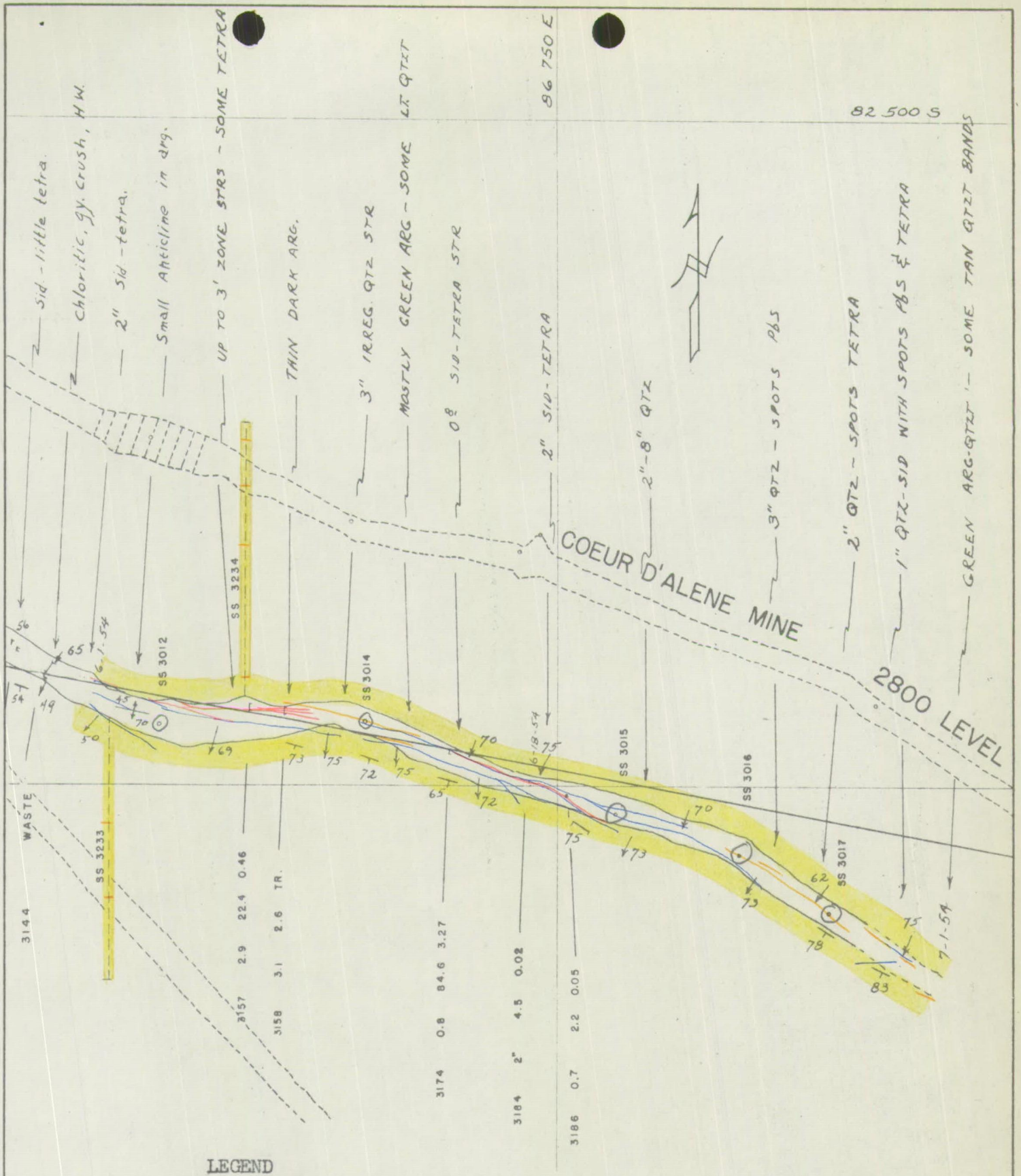
LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 60 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE: 1" = 50' Mar. 1, 1954

Geology by M. W. H.


COEUR D'ALENE MINE 2800 LEVEL
86,500 E
82,500 S
Lt. gray qtzite. partly sericitic
0²-0⁵ qtz
0³-0⁴ sid.-tetra.
0⁶-1⁰ sid.-tetra.-cpy.
4⁰-5⁰ sid-tetra. strs.
1" chloritic g.
Partly sericitic qtzite.
0³-0⁸ sid.-irreg tetra.
Sid, fair tetra.
½" g.
Sid. strs. - some tetra.
Hard, lt. qtzite.
Slip gone - some sid. - little tetra.
Sid. - little tetra.
Chloritic, gy. crush, H.W.
5-1-54
6-1-54
SS 3006
SS 3007
SS 3008
SS 3009
SS 3010
SS 3228
SS 3229
First Ore
American Silver
Silver Standard
NO. FT. AG. CU.
553093 0.4 217.4 8.95
A 1.9 1.2 0.43
3094 1.4 12.6 0.47
3096 0.7 108.5 4.46
3100 0.6 109.6 3.72
3101 0.7 83.9 2.86
3105 4.3 4.5 0.33
3107 5.0 20.6 0.70
3108 0.5 63.3 2.62
A 3.9 1.7 0.12
3111 0.6 10.2 0.53
3113 0.6 106.2 2.26
3115 0.4 117.8 3.16
3119 0.8 97.7 2.44
3120 1.1 49.5 1.64
3121 1.0 17.0 0.49
3123 2.3 9.7 0.23
A 1.7 TR 0.00
3124 3.4 5.2 0.12
3125 2.9 1.6 0.03
3129 1.6 11.6 0.42
3130 0.5 2.3 0.10
3141 7.7 WASTE
3142 0.4 1.0 0.12
3144 WASTE
LEGEND
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
80
70
65
72
74
82
See Interim Report July 6-54
Geology by M.W.H.
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
SCALE 1" = 50'
JUNE 1,1954



LEGEND

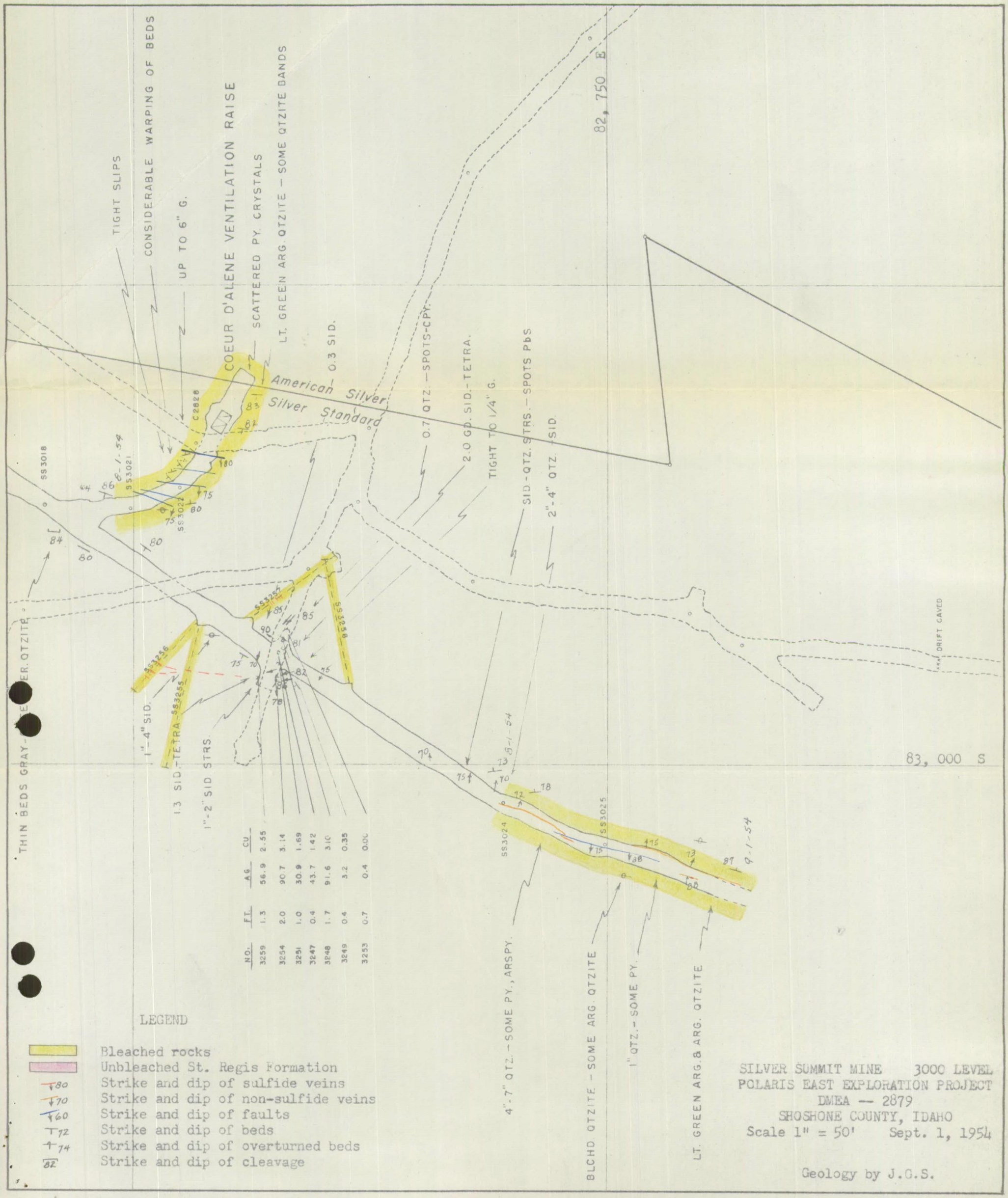
- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO

Scale 1" = 50' July 1,1954

Geology by M.W.H. & W.R.A.



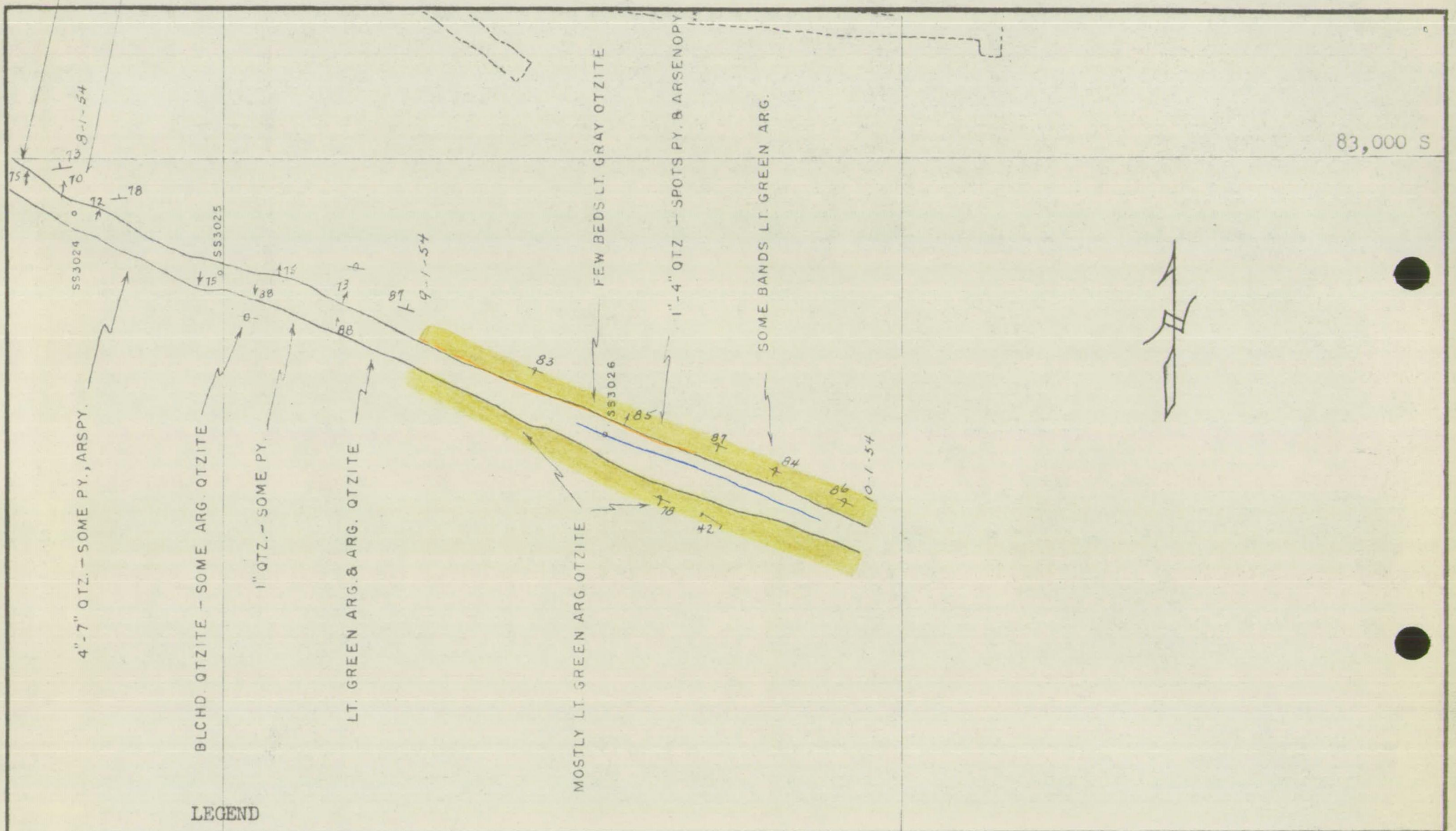
NO.	FT.	AG.	CU.
3259	1.3	56.9	2.55
3254	2.0	90.7	3.14
3251	1.0	30.9	1.69
3247	0.4	43.7	1.42
3248	1.7	91.6	3.10
3249	0.4	3.2	0.35
3253	0.7	0.4	0.00

LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 60 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Sept. 1, 1954

Geology by J.G.S.

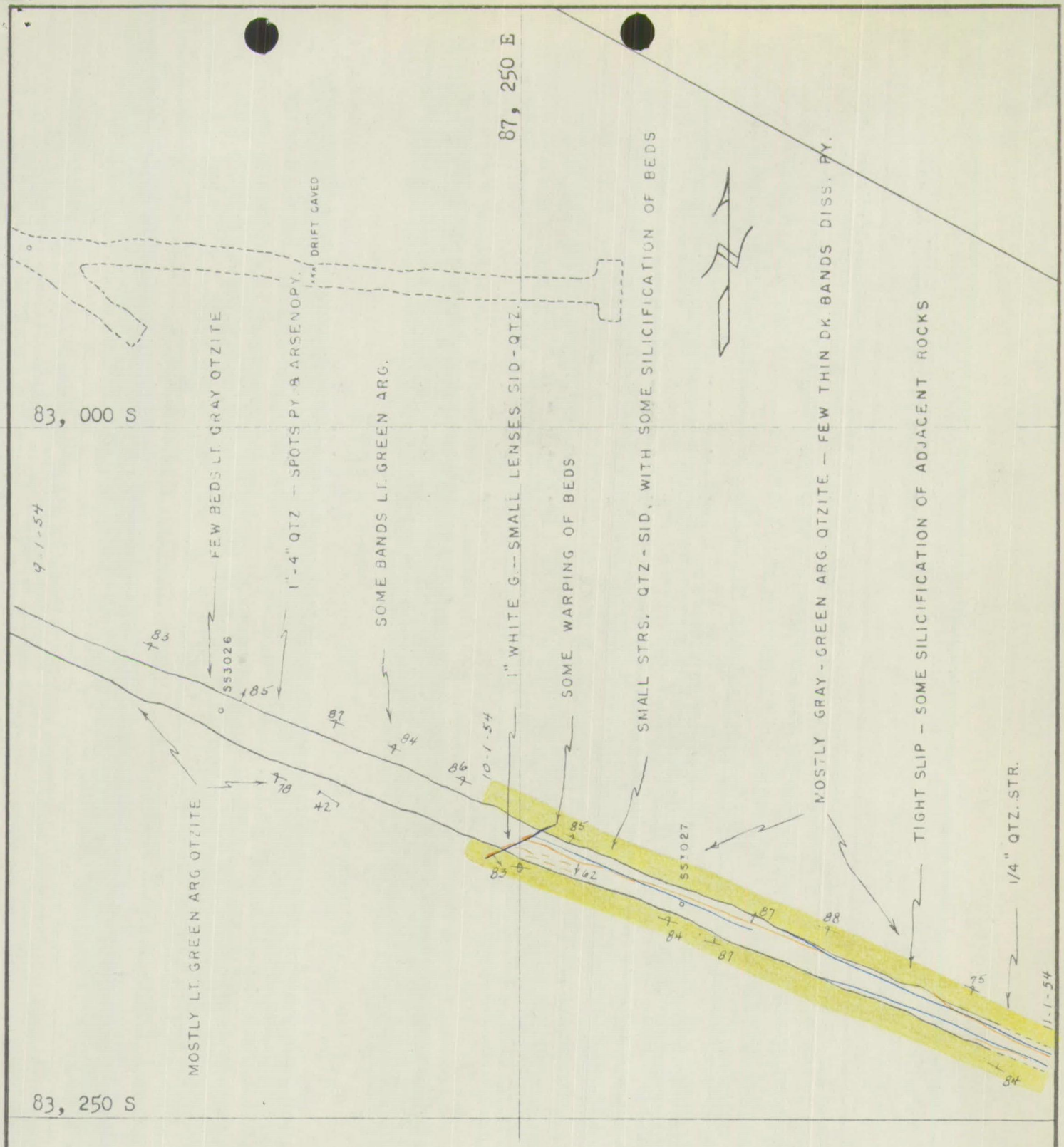


LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 60 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Oct. 1, 1954
Geology by J.G.S.

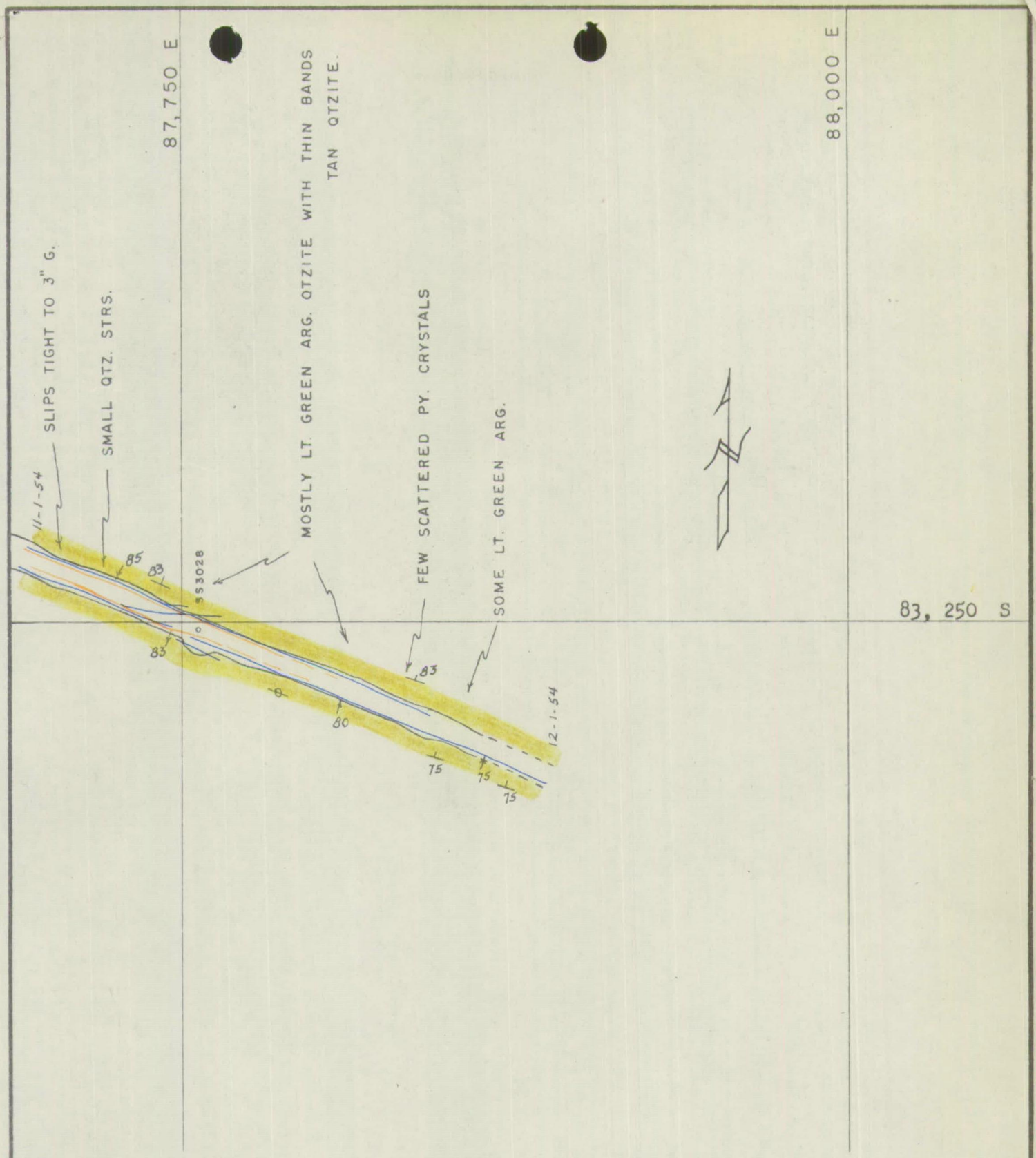


LEGEND

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Nov. 1, 1954
Geology by J.G.S.



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 82 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Dec. 1, 1954

Geology by J.G.S.

Legend

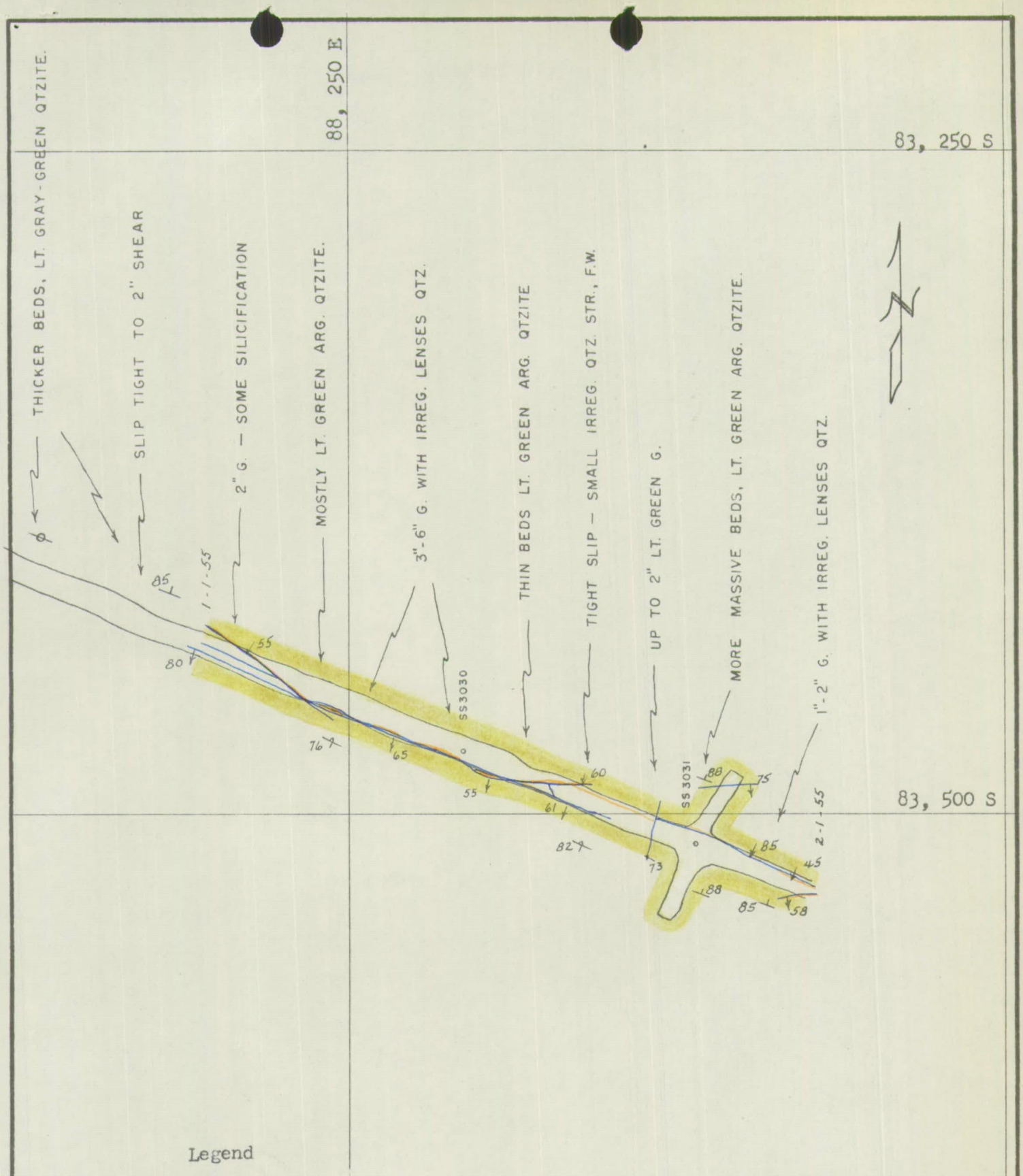
- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 85 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS FAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Jan. 1, 1955

Geology by J.G.S.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 24 1955



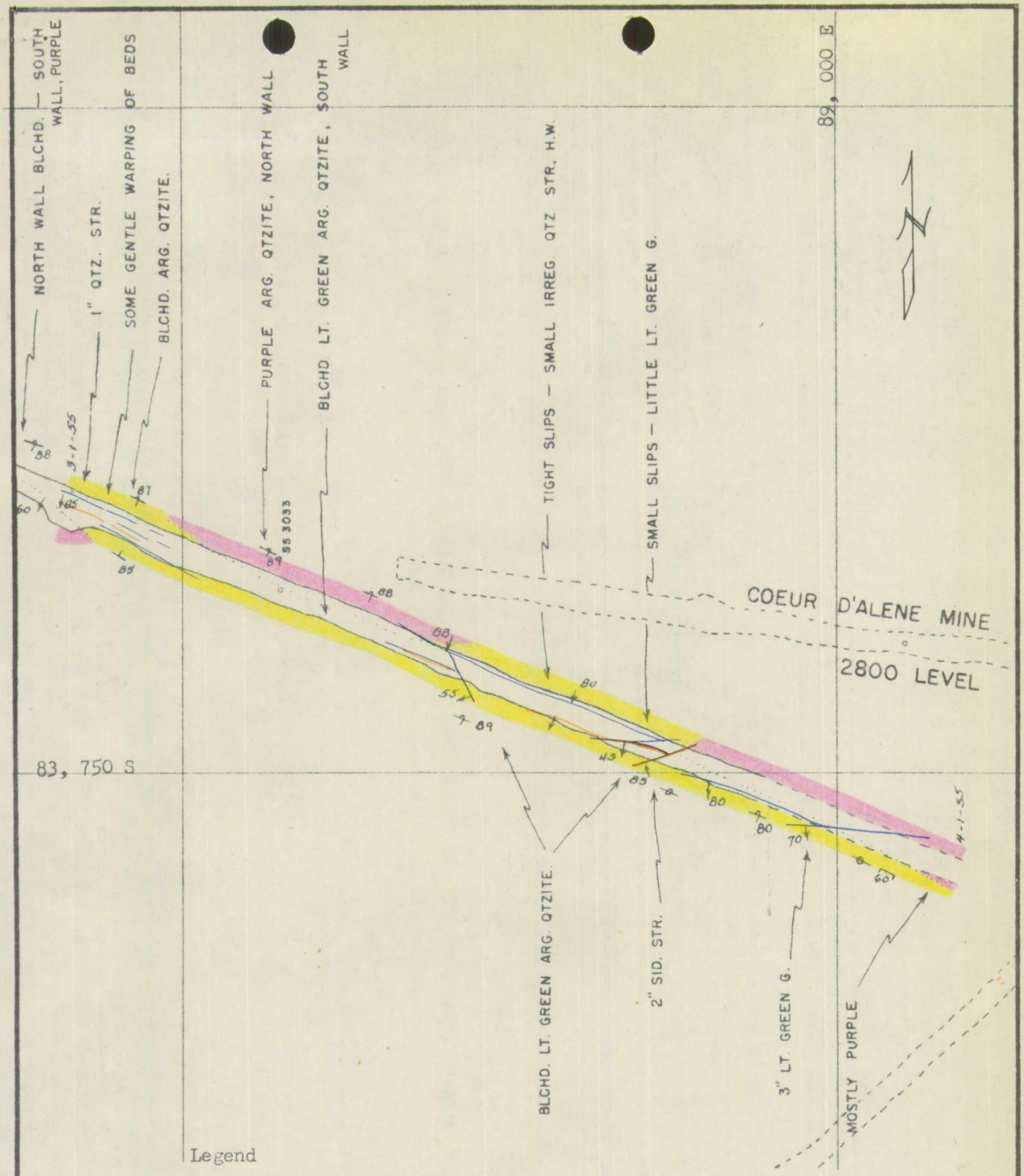
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 70 Strike and dip of non-sulfide veins
- 65 Strike and dip of faults
- 72 Strike and dip of beds
- 74 Strike and dip of overturned beds
- 85 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Feb. 1, 1955
Geology by J.G.S.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 21 1955



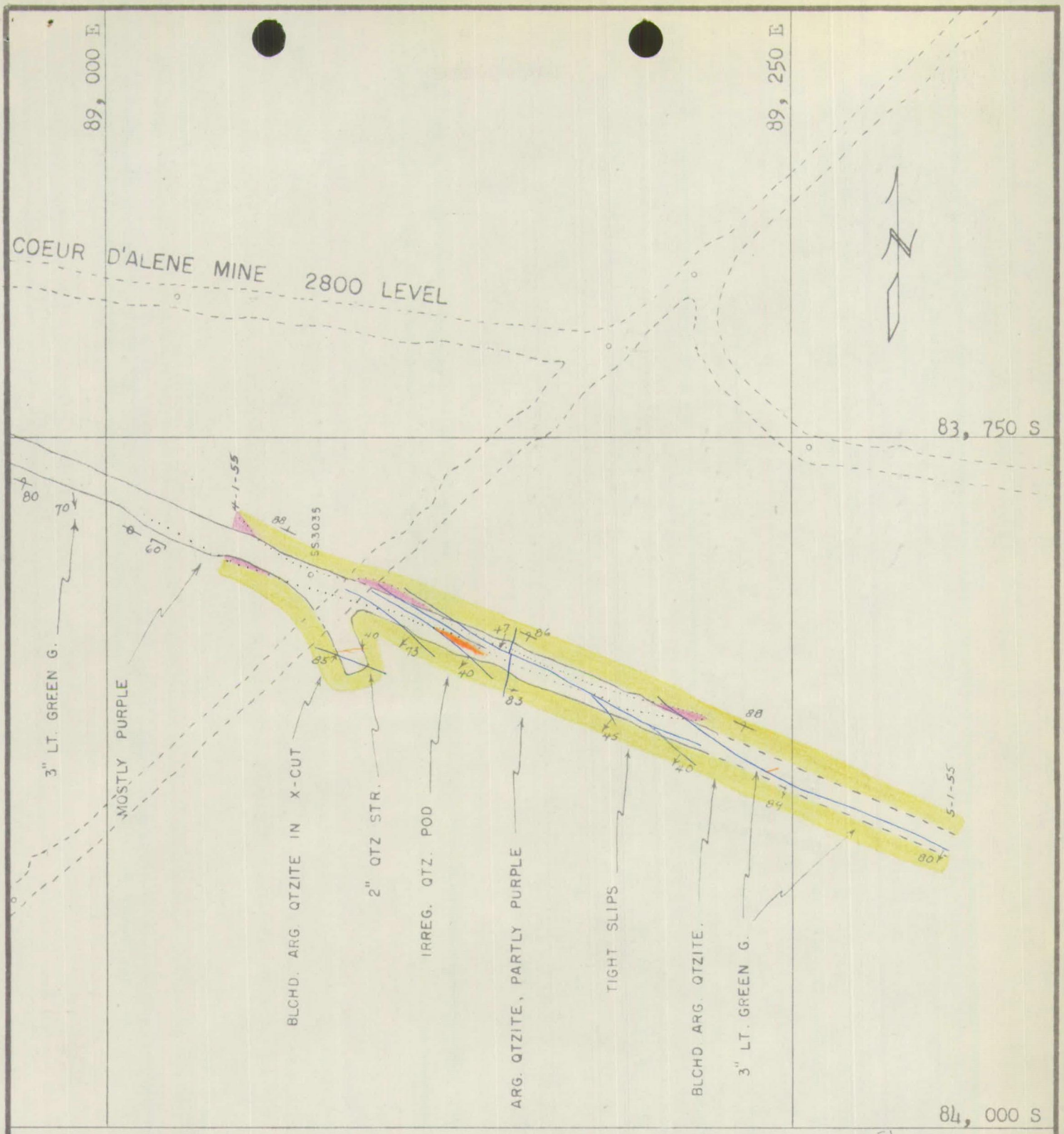
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' April 1, 1955
Geology by J.G.S.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955



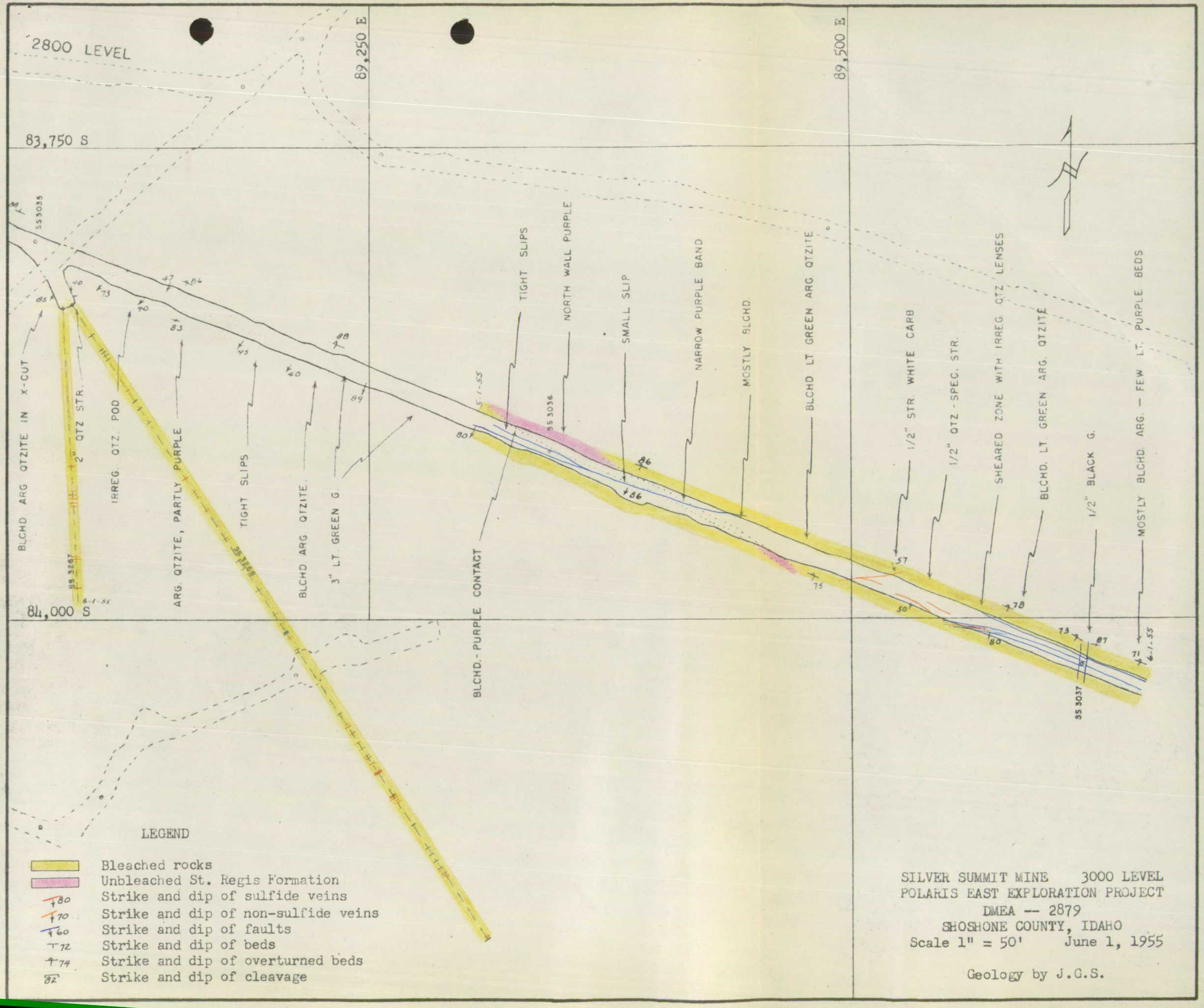
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 72 Strike and dip of faults
- 85 Strike and dip of beds
- 89 Strike and dip of overturned beds
- 62 Strike and dip of cleavage

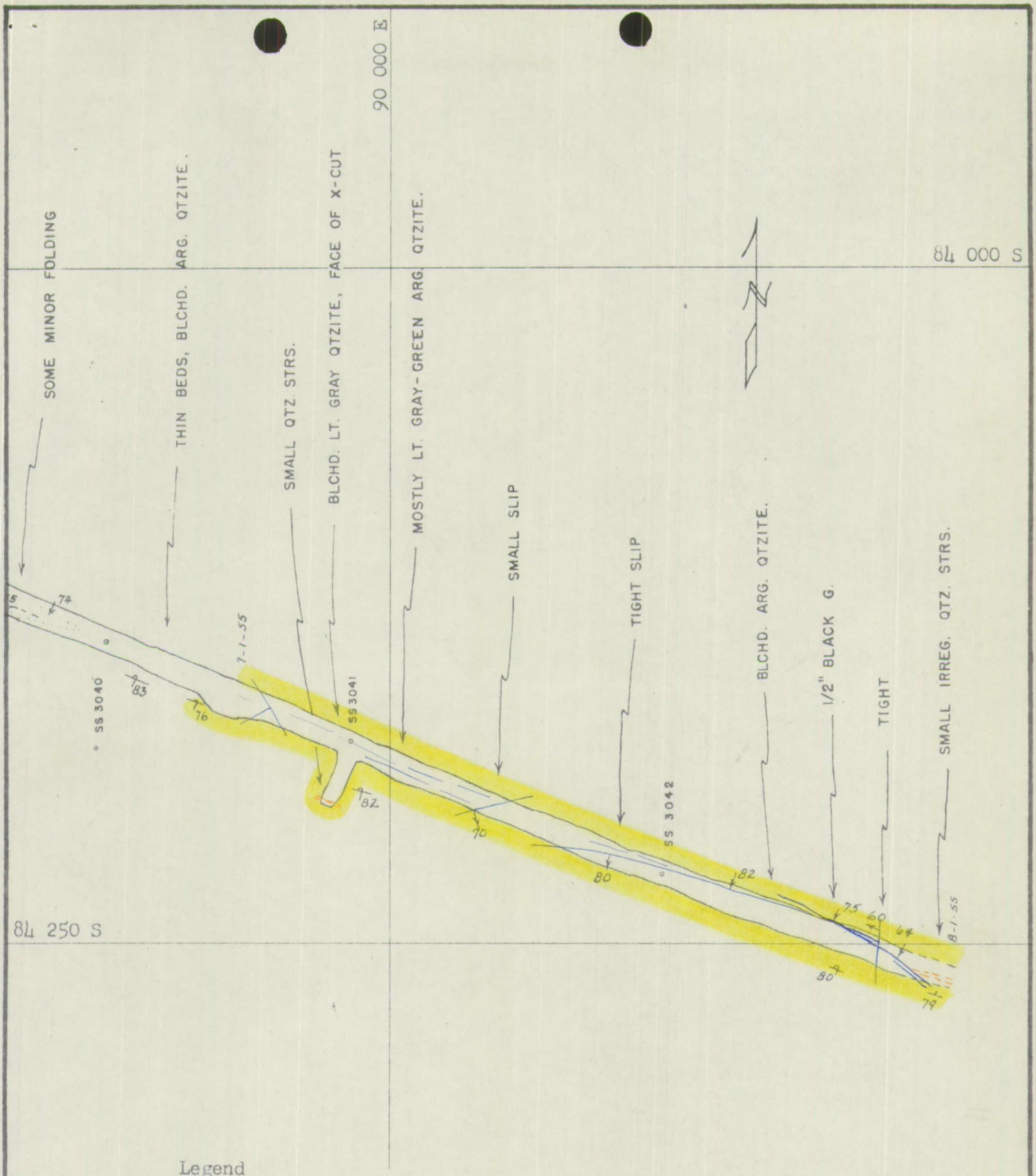
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' May 1, 1955
Geology by J.G.S.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1955


2800 LEVEL
83,750 S
84,000 S
89,250 E
89,500 E
BLCHD ARG QTZITE IN X-CUT
2" QTZ STR.
IRREG. QTZ. POD
ARG. QTZITE, PARTLY PURPLE
TIGHT SLIPS
BLCHD ARG QTZITE
3" LT. GREEN G.
BLCHD.- PURPLE CONTACT
TIGHT SLIPS
NORTH WALL PURPLE
SMALL SLIP
NARROW PURPLE BAND
MOSTLY BLCHD
BLCHD LT GREEN ARG QTZITE
1/2" STR. WHITE CARB
1/2" QTZ - SPEC. STR.
SHEARED ZONE WITH IRREG. QTZ LENSES
BLCHD. LT. GREEN ARG. QTZITE
1/2" BLACK G.
MOSTLY BLCHD. ARG. — FEW LT. PURPLE BEDS
SS 3035
SS 3036
SS 3037
SS 3267
SS 3268
6-1-55
LEGEND
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' June 1, 1955
Geology by J.G.S.

RECEIVED
JUN 24 1955

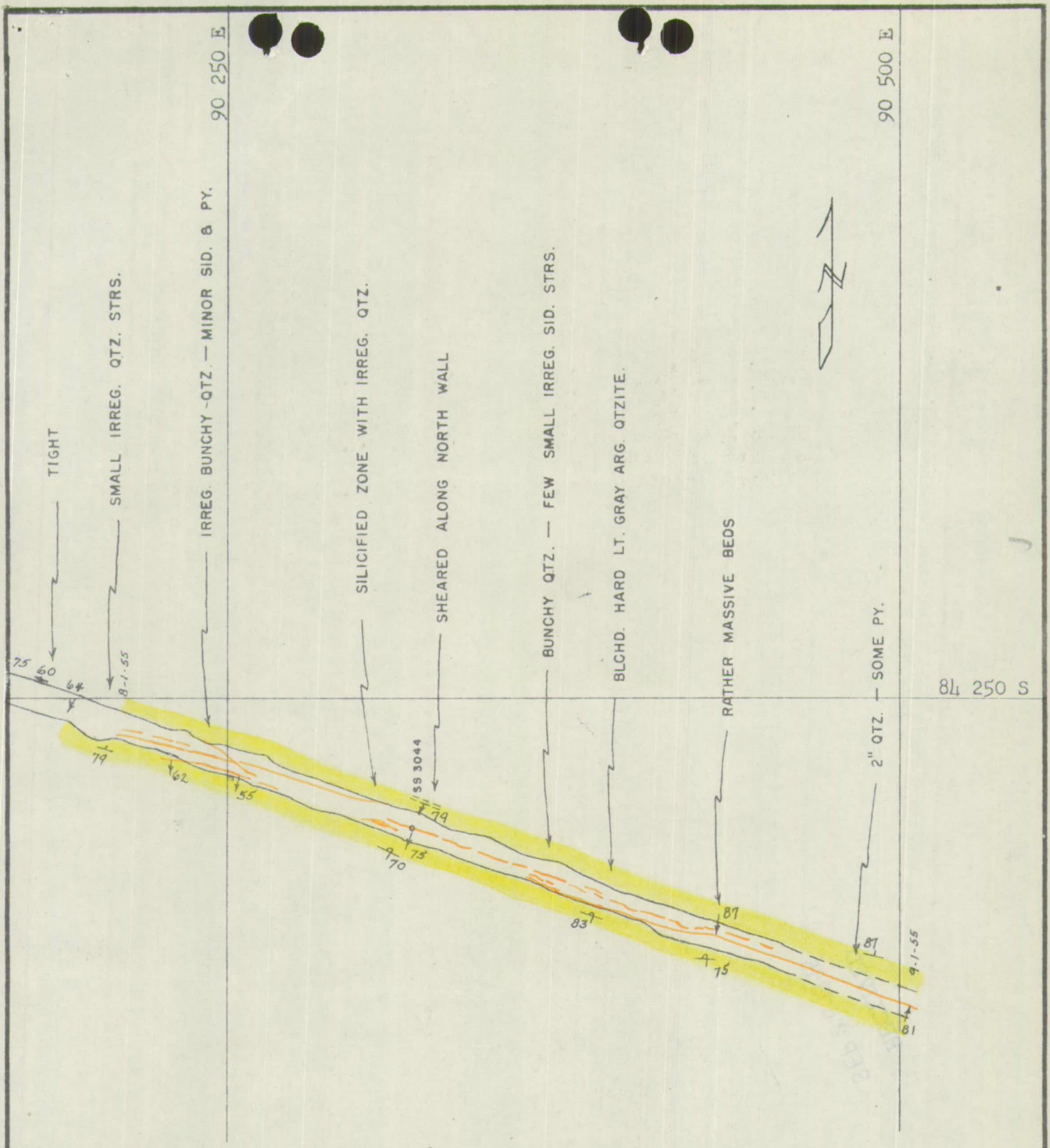


Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 72 Strike and dip of faults
- 85 Strike and dip of beds
- 79 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Aug. 1, 1955
Geology by J.G.S.



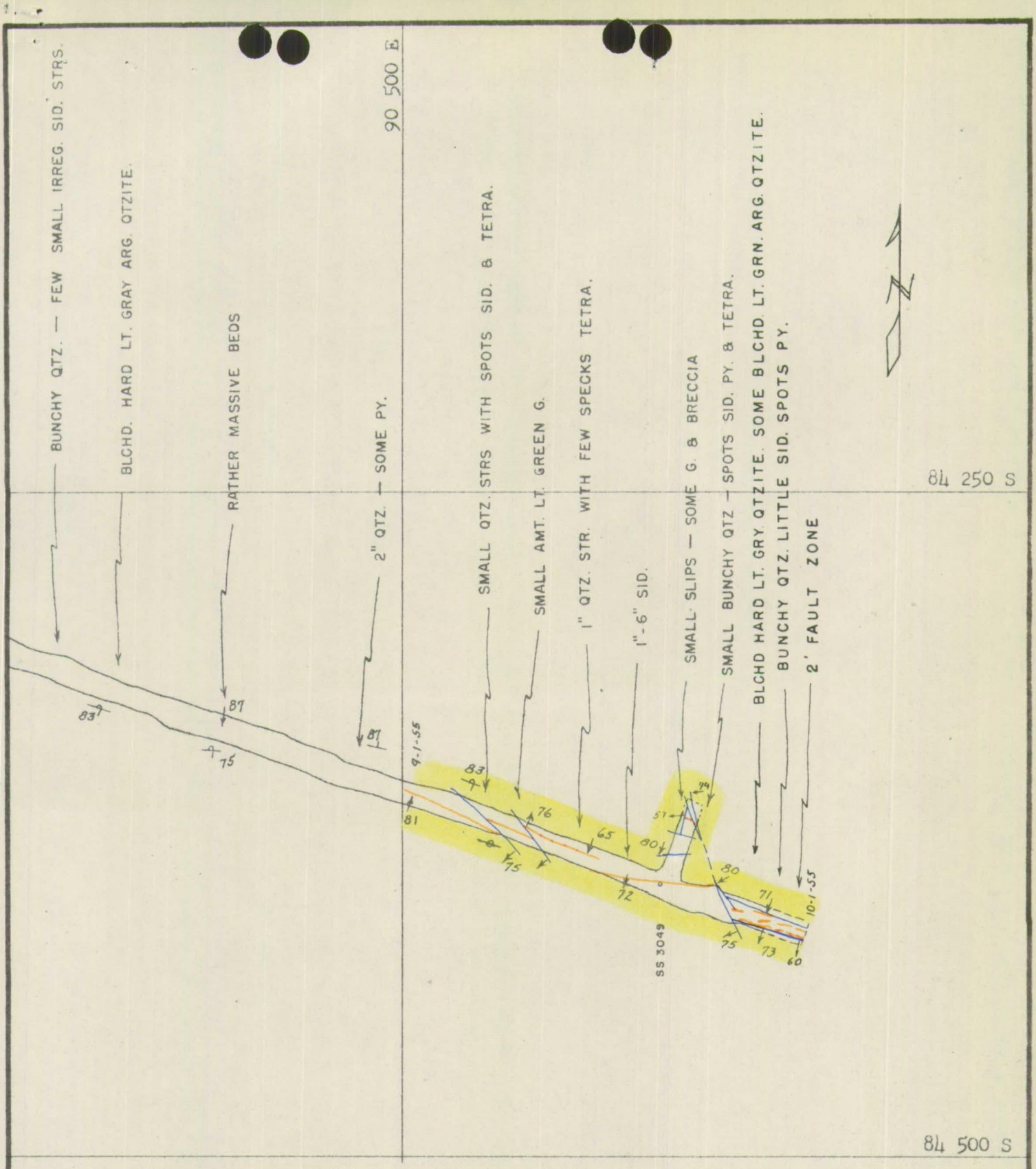
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Sept. 1, 1955
Geology by J.G.S.

RECEIVED
SEP 26 1955

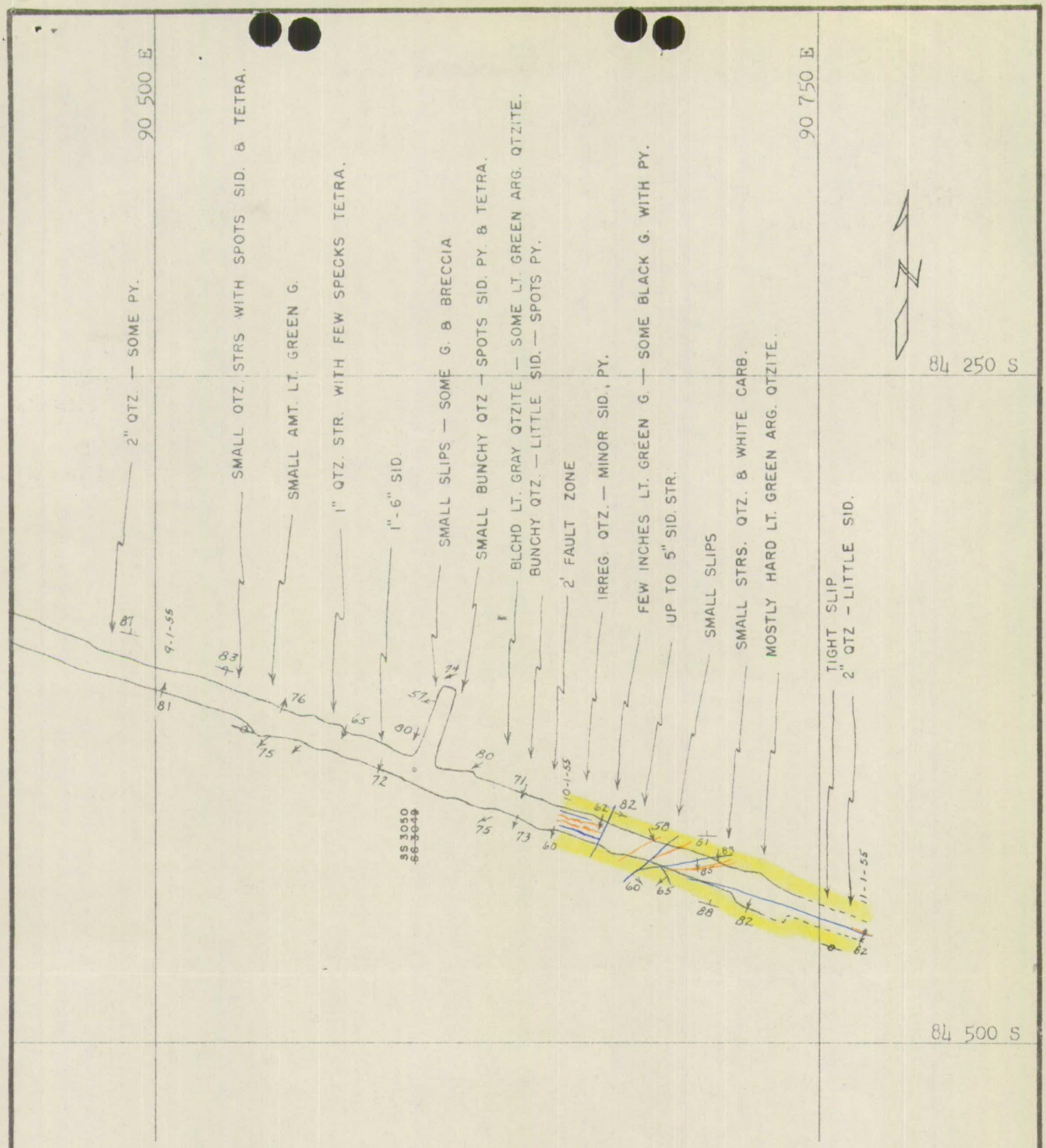


Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Oct. 1, 1955
Geology by J.G.S.

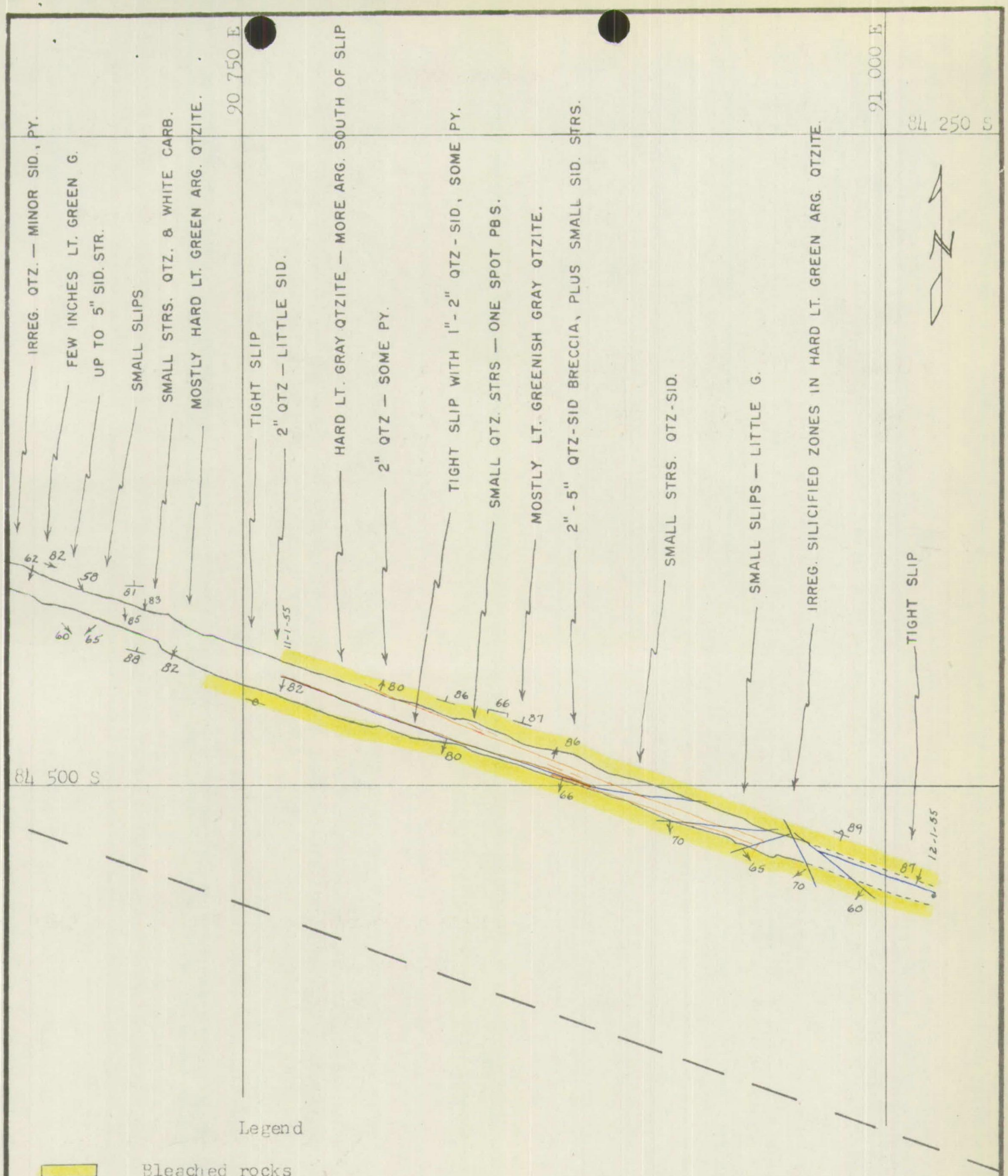


Legend

	Bleached rocks
	Unbleached St. Regis Formation
82	Strike and dip of sulfide veins
73	Strike and dip of non-sulfide veins
72	Strike and dip of faults
85	Strike and dip of beds
79	Strike and dip of overturned beds
60	Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Nov. 1, 1955
Geology by J.G.S.



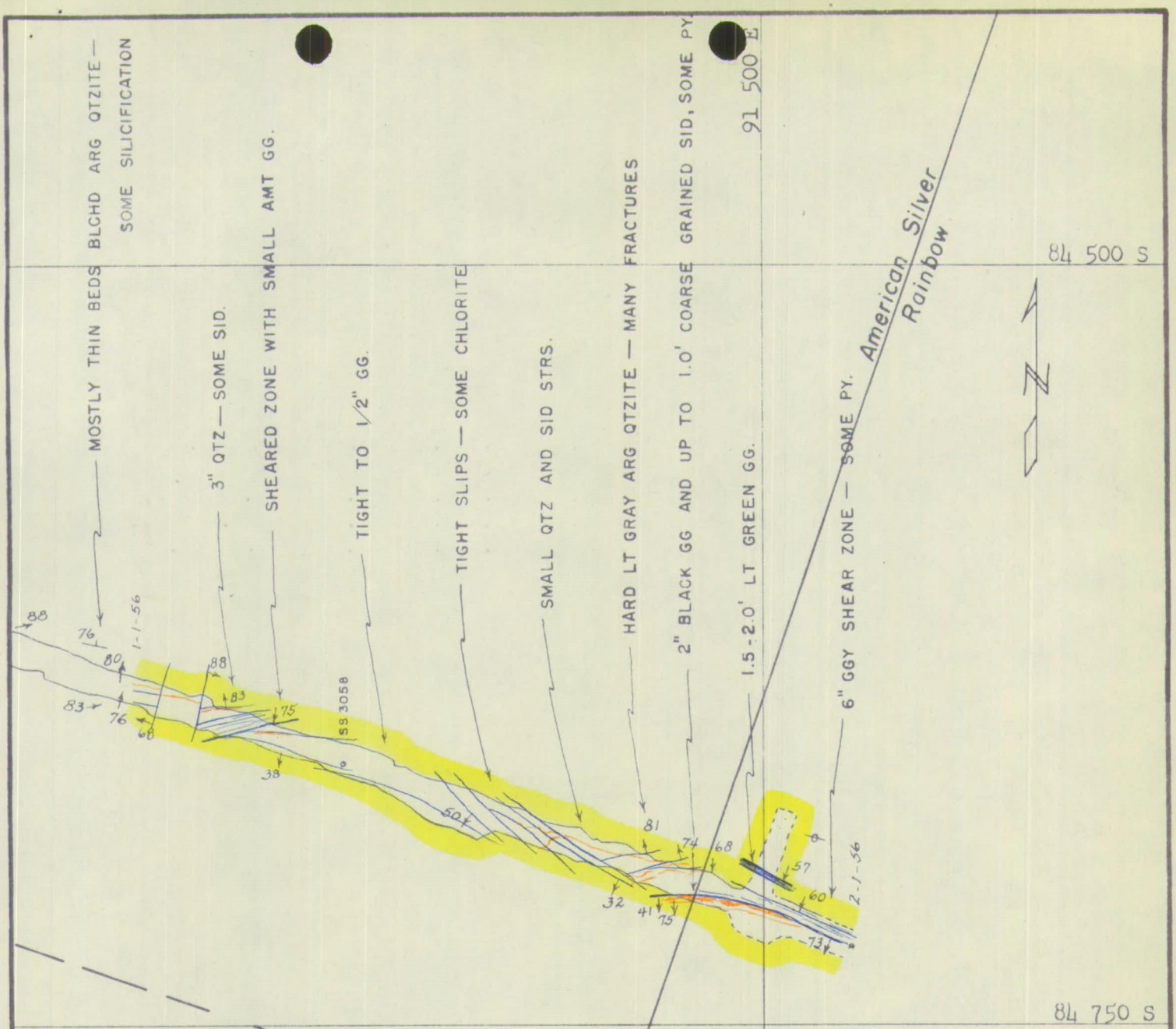
Legend

	Bleached rocks
	Unbleached St. Regis Formation
82	Strike and dip of sulfide veins
73	Strike and dip of non-sulfide veins
72	Strike and dip of faults
85	Strike and dip of beds
79	Strike and dip of overturned beds
60	Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Dec. 1, 1955
Geology by J.G.S.

RECEIVED
JAN 3 1956



Legend

Bleached rocks

Unbleached St. Regis Formation

82 Strike and dip of sulfide veins

75 Strike and dip of non-sulfide veins

72 Strike and dip of faults

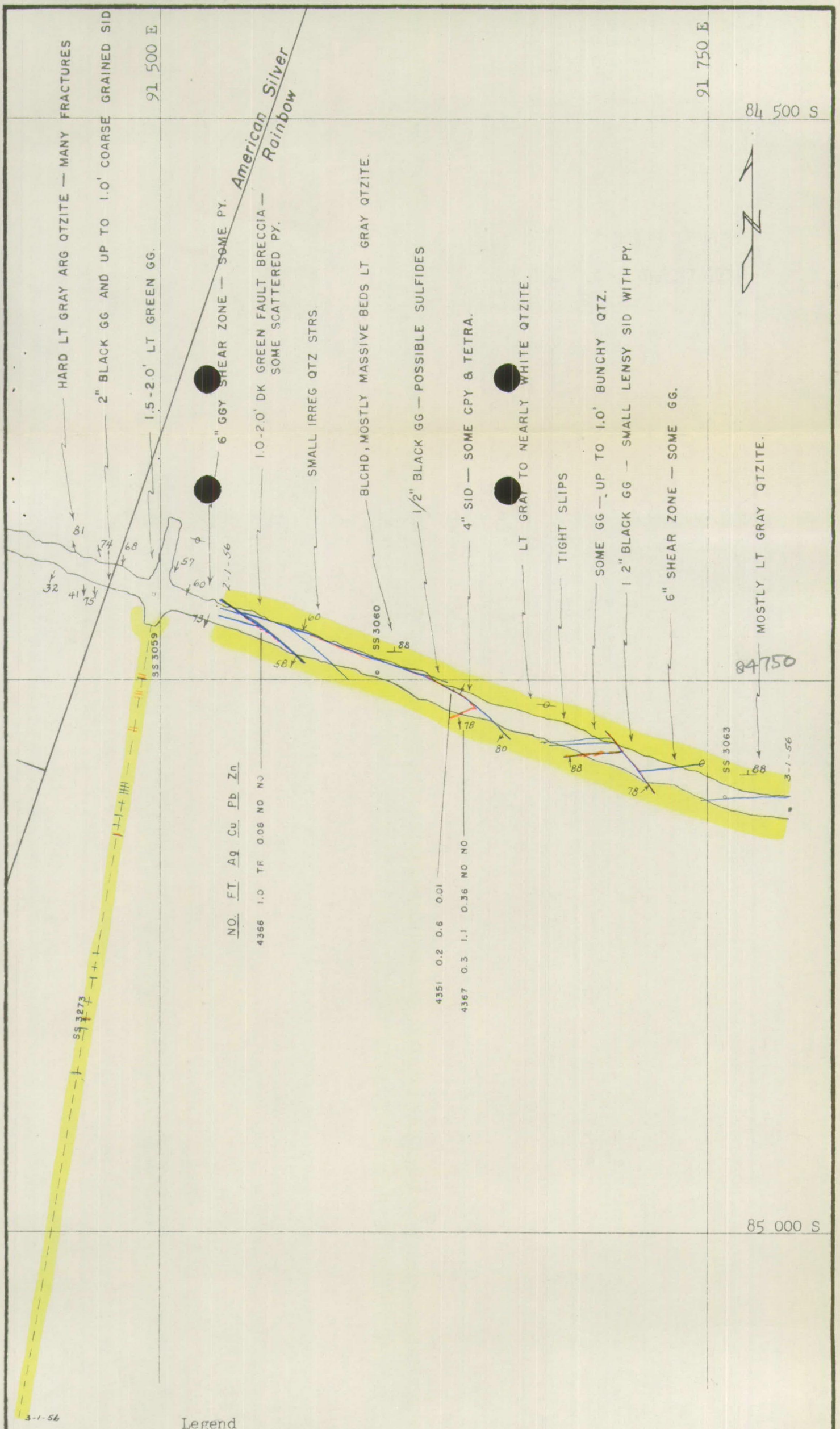
85 Strike and dip of beds

79 Strike and dip of overturned beds

60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Feb. 1, 1956
Geology by J.G.S.



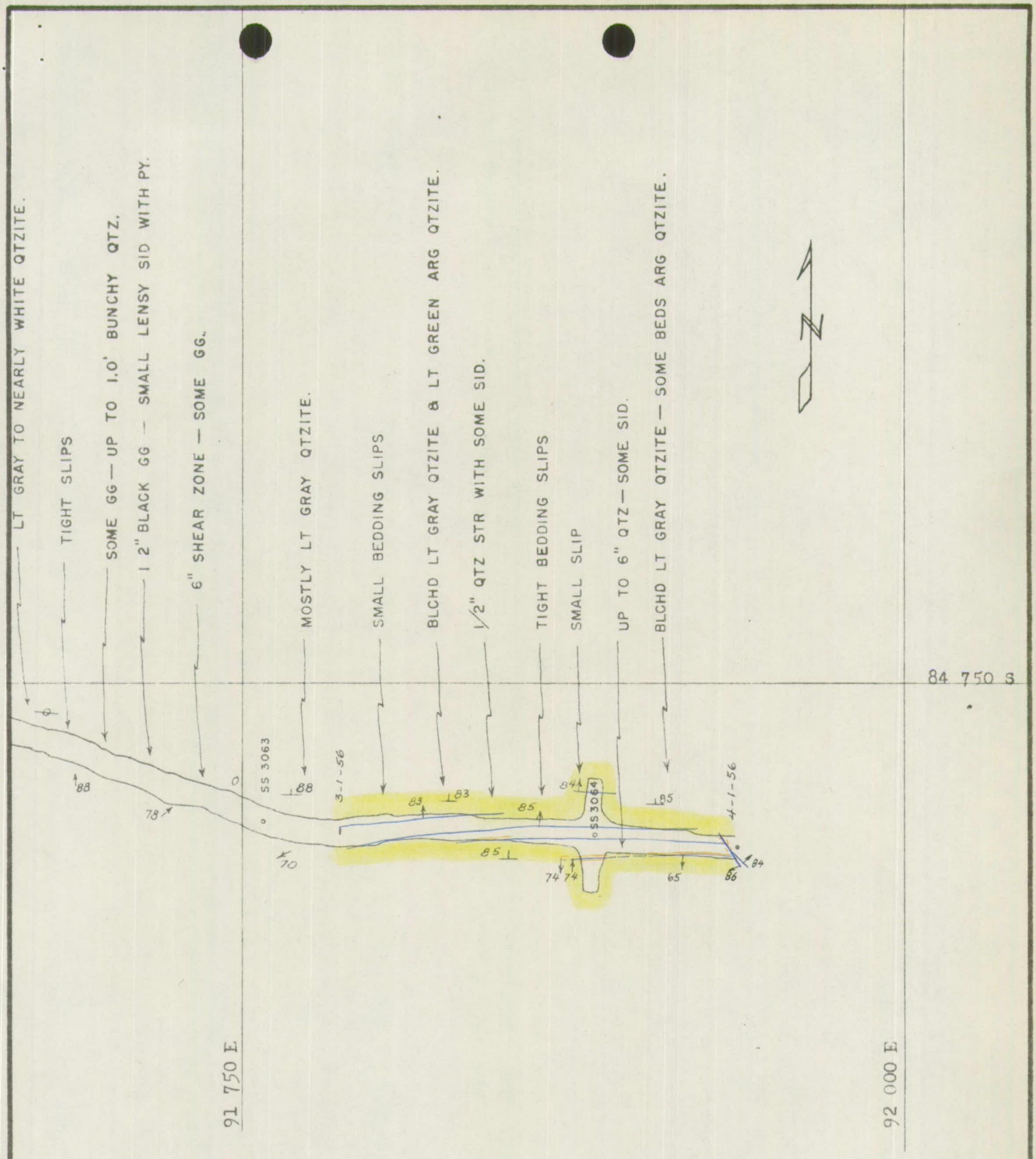
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 83 — Strike and dip of sulfide veins
- 75 — Strike and dip of non-sulfide veins
- 72 — Strike and dip of faults
- 85 — Strike and dip of beds
- 79 — Strike and dip of overturned beds
- 65 — Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Mar. 1, 1956
Geology by M.W.H.

RECEIVED
MAR 2 6 1956

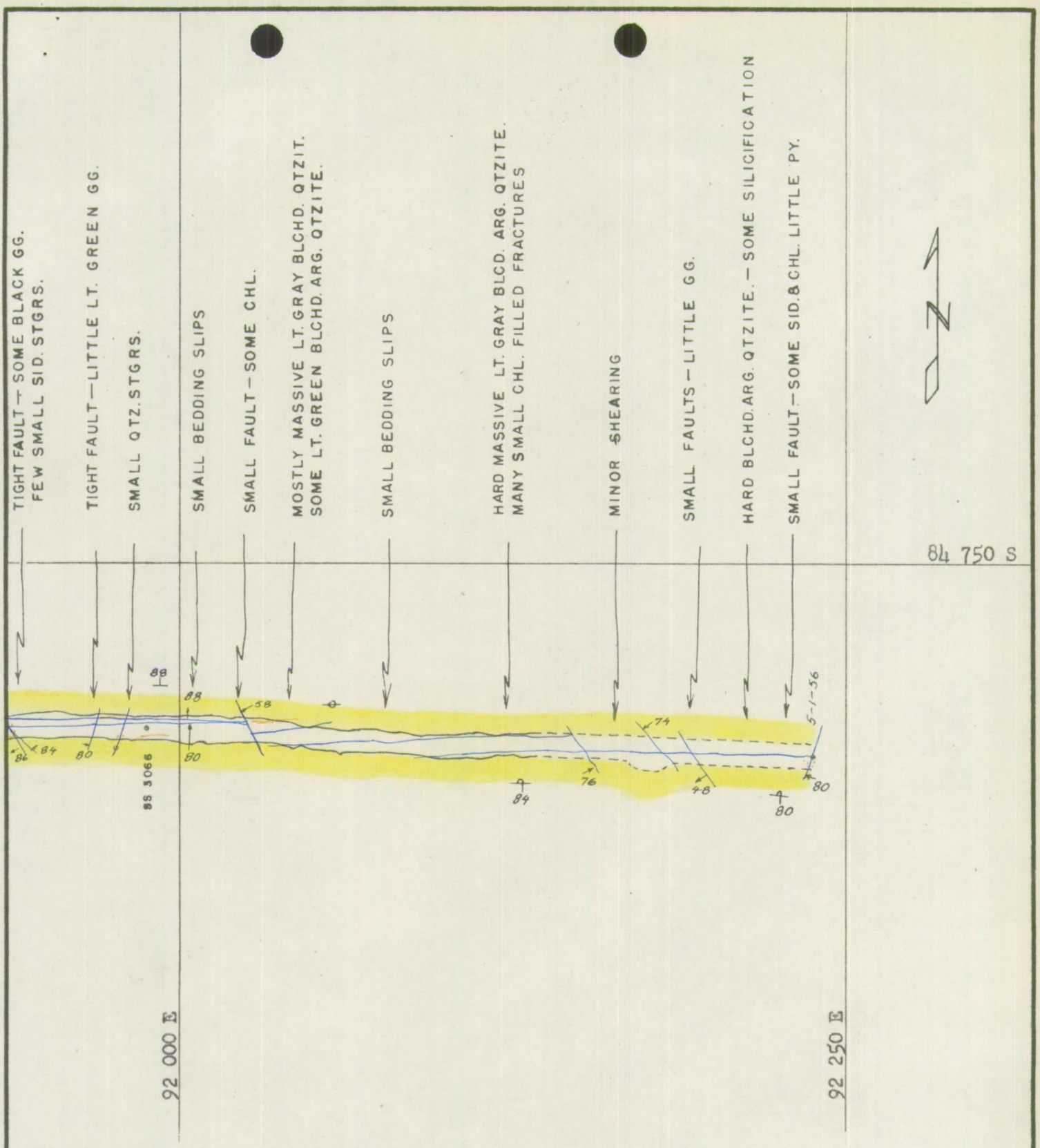


Legend

	Bleached rocks
	Unbleached St. Regis Formation
82	Strike and dip of sulfide veins
75	Strike and dip of non-sulfide veins
72	Strike and dip of faults
84	Strike and dip of beds
79	Strike and dip of overturned beds
60	Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Apr. 1, 1956
Geology by J.G.S.



Bleached rocks

Unbleached St. Regis Formation

82 Strike and dip of sulfide veins

75 Strike and dip of non-sulfide veins

72 Strike and dip of faults

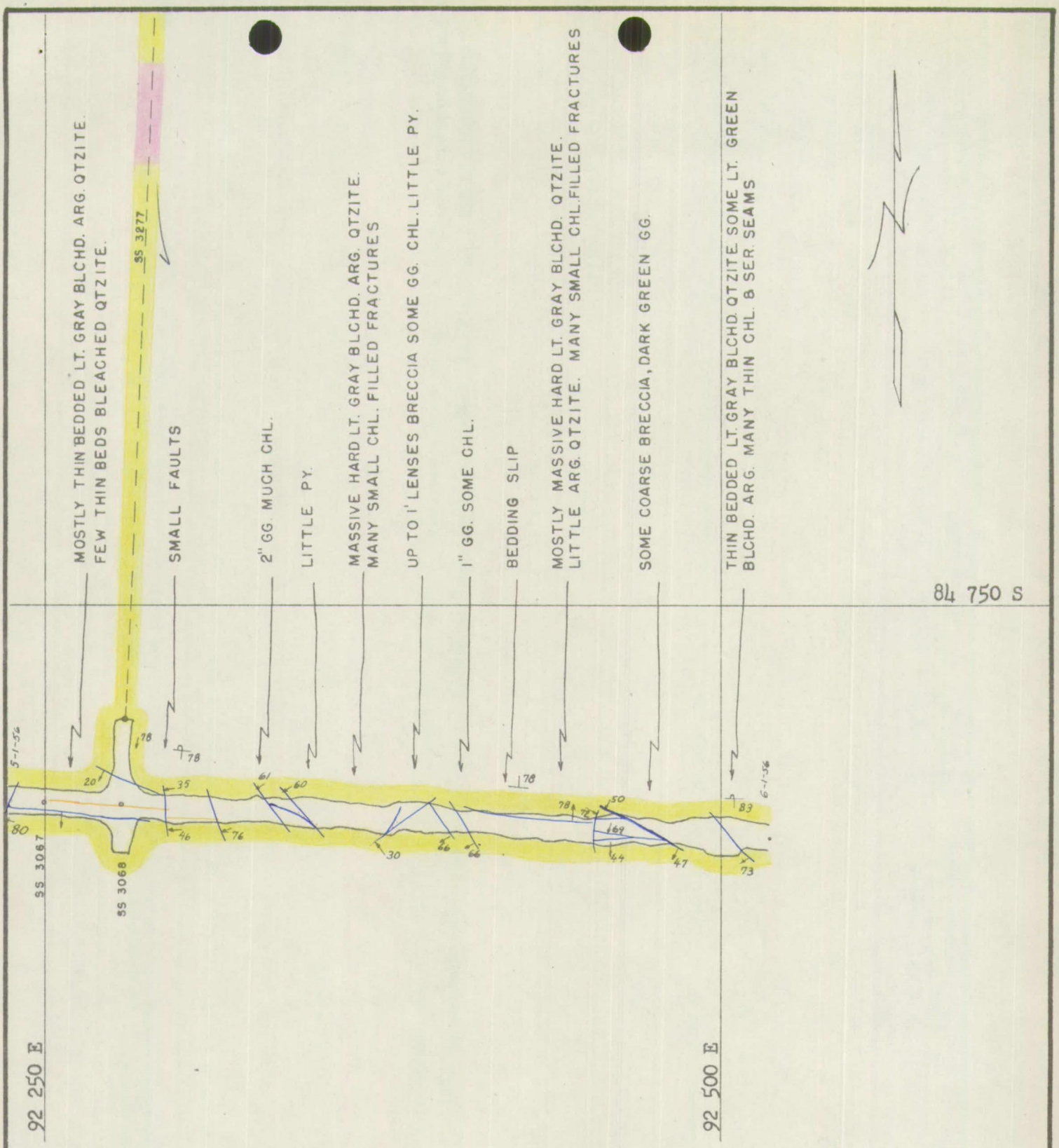
84 Strike and dip of beds

79 Strike and dip of overturned beds

60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' May 1, 1956
Geology by J.G.S.



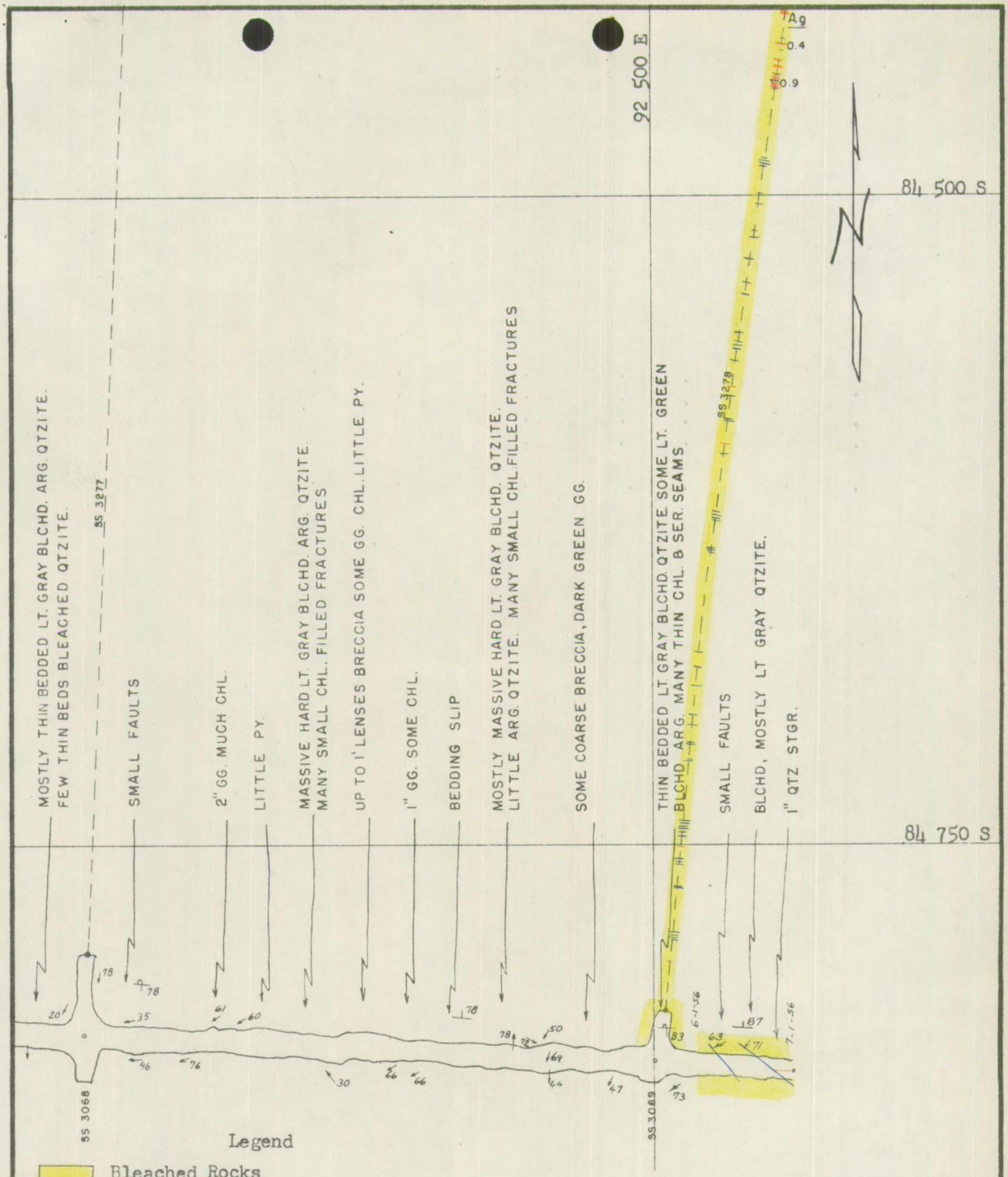
Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 76 Strike and dip of faults
- 84 Strike and dip of beds
- 79 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' June 1, 1956
Geology by J.G.S.

RECEIVED
JUL 13 1956

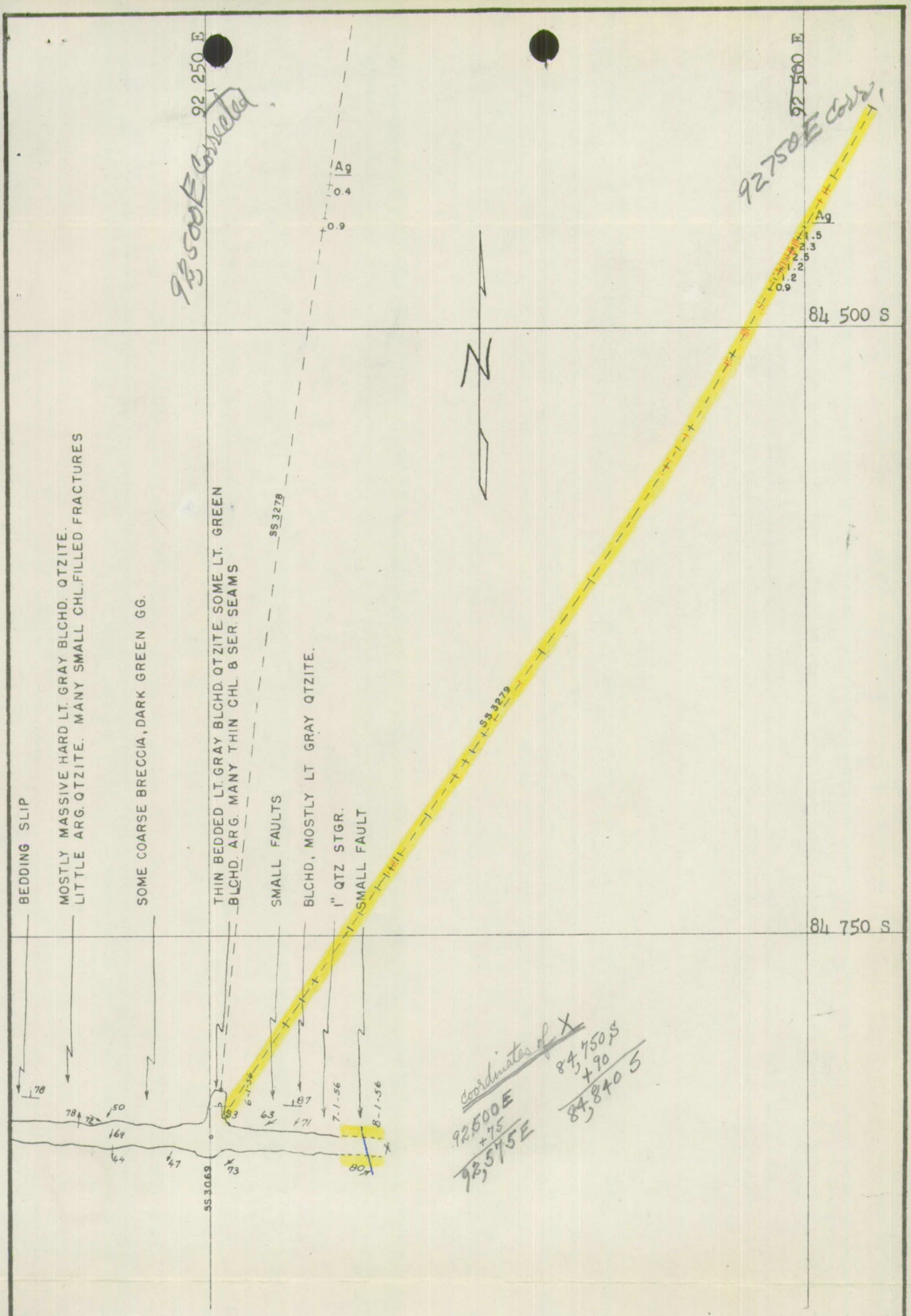


Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 85 Strike and dip of beds
- 80 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' July 1, 1956
Geology by J.G.S.

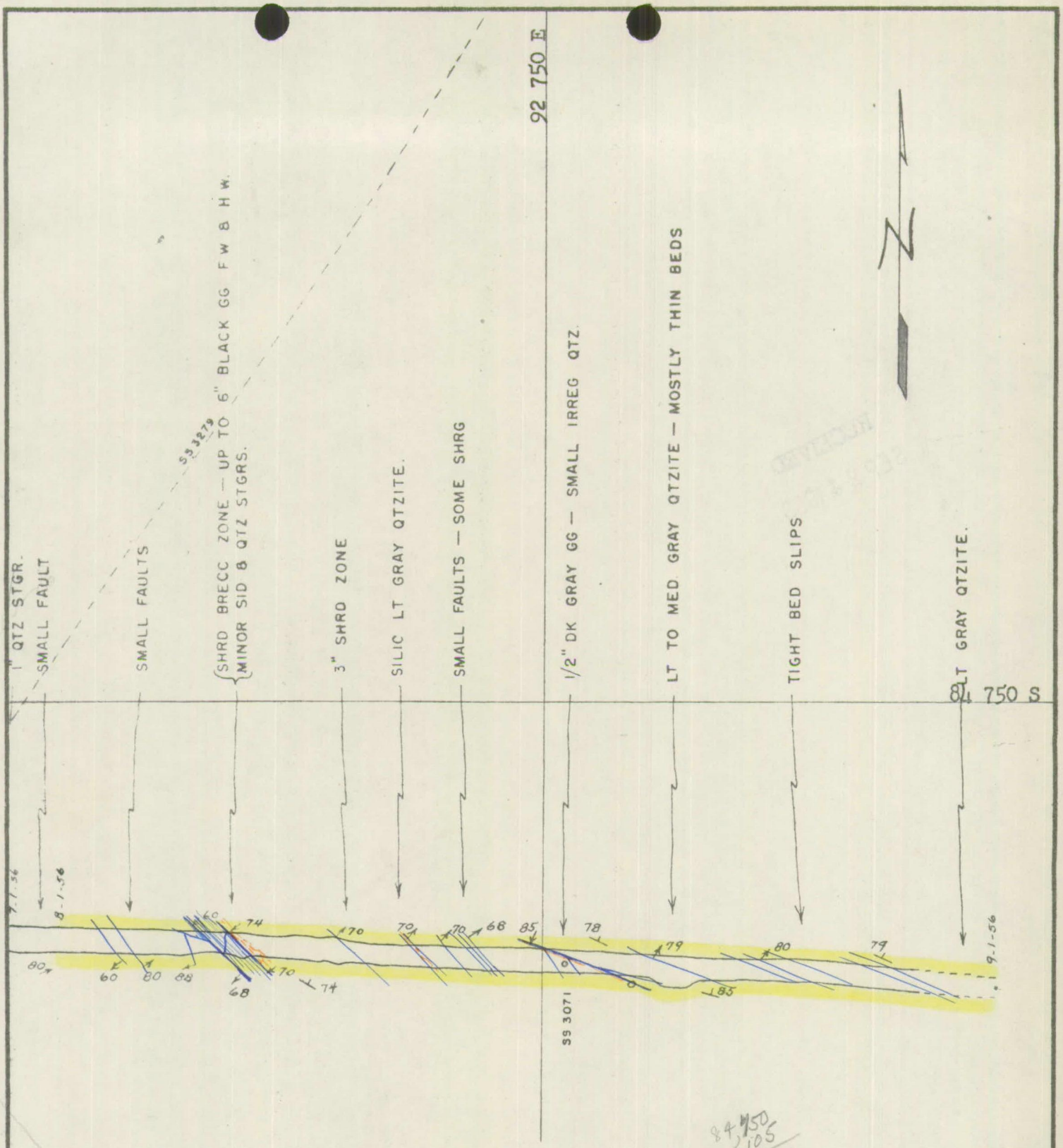


Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 85 Strike and dip of beds
- 80 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Aug. 1, 1956
Geology by J.G.S.



84,750
105
84,855

Legend

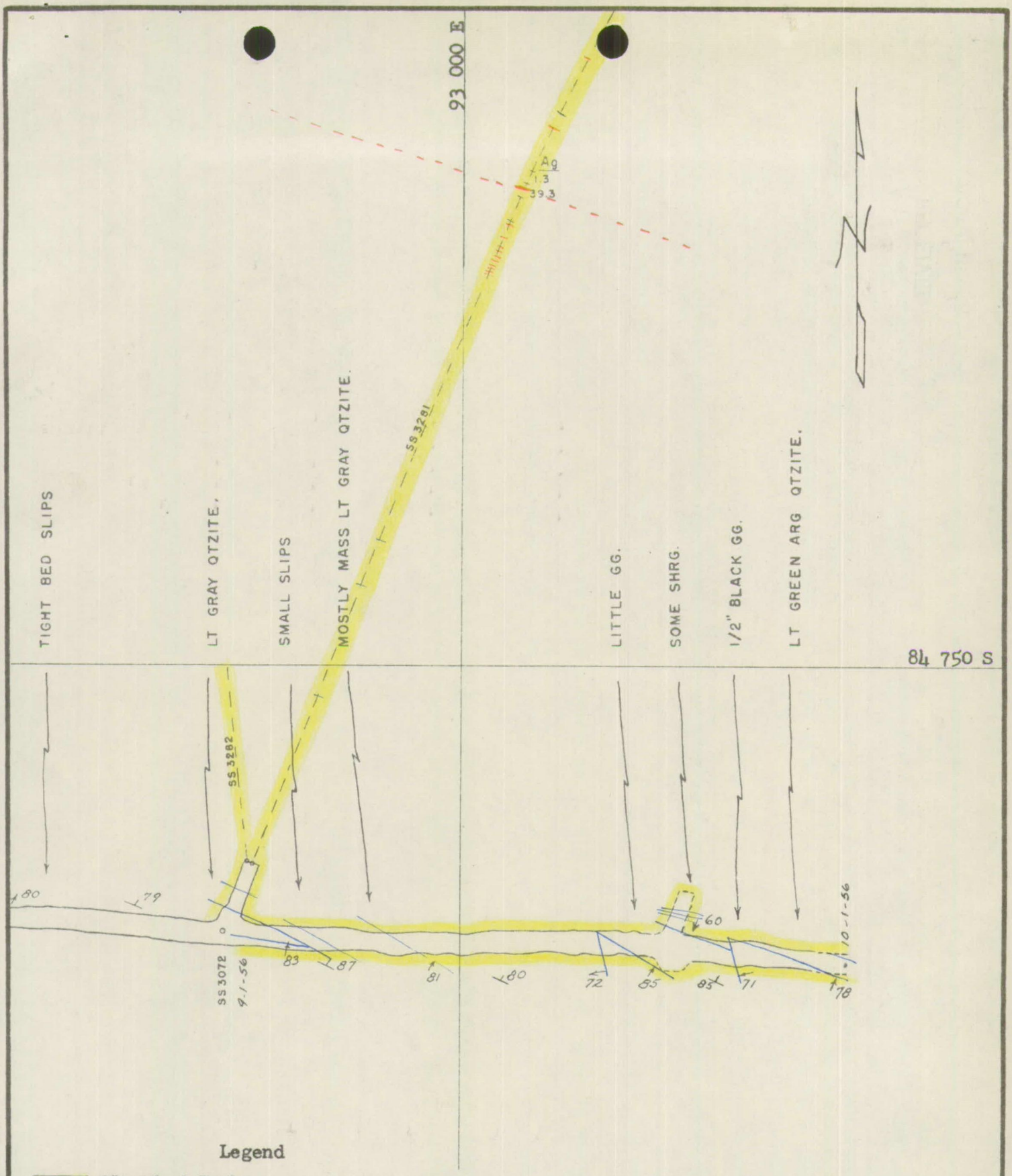
- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 85 Strike and dip of beds
- 80 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

93,750
167
93,917

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Sept. 1, 1956
Geology by J.G.S.

RECEIVED
SEP 24 1956



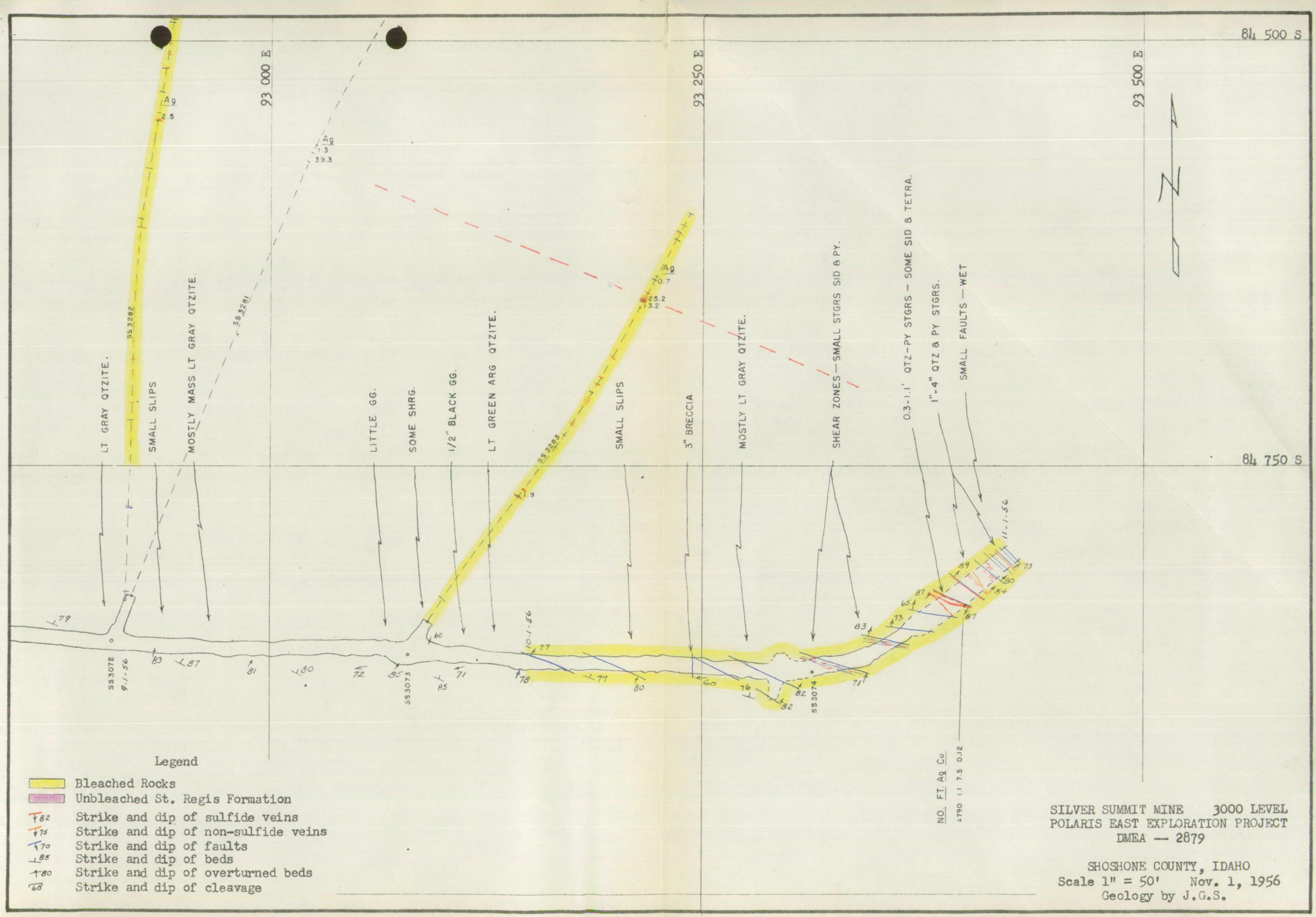
Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 85 Strike and dip of beds
- 80 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Oct. 1, 1956
Geology by J.G.S.

RECEIVED
OCT 2 9 1956



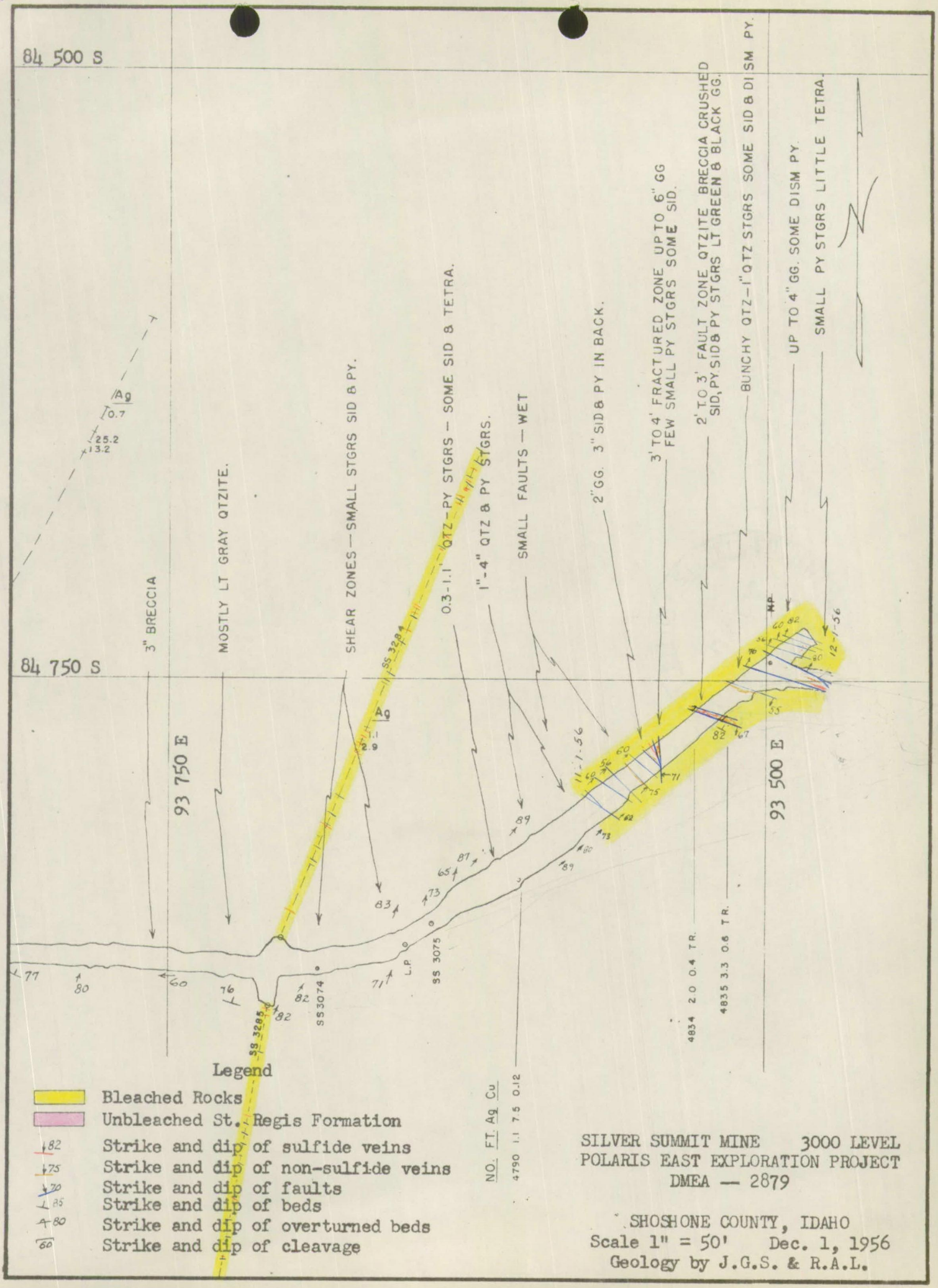
Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 85 Strike and dip of beds
- 80 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Nov. 1, 1956
Geology by J.G.S.

RECEIVED
JAN 15 1957
D.M.E.A.



SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Dec. 1, 1956
Geology by J.G.S. & R.A.L.

RECEIVED
JAN 15 1957
D.M.E.A.

Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 80 Strike and dip of faults
- 85 Strike and dip of beds
- 81 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Jan. 1, 1957
Geology by J.G.S. & R.A.L.

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE
1-19	C	220
"	JH	110
		500

Aug and Sept 104's

November eleventh
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Polaris East Exploration Project
Docket No. DMEA 2879
Contract No. IDM-E541

Gentlemen:

Enclosed herewith are 5 plain copies of the larger 50-scale sheets No. 6, 7 and 8 of the Polaris East Exploration Project and 5 copies of the log of diamond drill Hole No. 3514.

With these maps and log, a complete set of 50-scale prints from which the small monthly progress maps were made, has been submitted, as have the logs of all holes drilled under the DMEA contract.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/dv

Encs.

right side
docs only
(no left side
docs)

NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0393

Note: All sludges assayed are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-19-58
Finished 10-10-58
Hole Size AX
Depth 1010.0
% Core Rec. 99

Mine SILVER SUMMIT
Location Polaris East Exploration Drift PE3025 + 113.0 E.
Logged by P.E. Hyde Date
Drilled by Pearson, Madsen & Hauser

Hole No. 3514
Level 3000
Grid 361
Latitude 85 644 S
Departure 95 317 E
Elevation -257°
Bearing S 72° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	3.9		E5425	0 - 10	10.0'	Tr.		
10.0	3.2							
12.0	1.3	0.0' - 41.0'	26	15	5.0'			
17.0	5.5	Gry arg qtzt. Broken from 0-4.0 and 16.5.						
21.0	3.9	Several sid and py strgrs from 10.0 to 12.0.	27	20				
End Box 1		Sid strgrs scattered from 12.0 to 27.0.						
30.5	9.5	¼" sid near 35.5.	28	25				
34.5	4.4		29	30				
37.2	2.7		30	35				
43.3	6.1		31	40				
			32	45		1.6		
50.3	5.7	41.0' - 54.7'	33	50				
End Box 2		Chiefly sid and py in a gry qtzite.						
55.0	4.6	Nearly solid py & sid from 42.0 to 43.2 and 50.3 to 51.3.	34	55				
62.5	2.8	54.7' - 62.5'						
		Gry arg qtzt with few sid strgrs.	35	60				
71.8	9.9	62.5' - 86.9'	36	65				
78.4	6.6	Gry qtzt with many scattered sid strgrs	37	70				
84.0	5.6	up to ¼". Much of core is pyritized cutting	38	75				
86.9	1.7	across sid strgrs.	39	80				
		Nearly solid py & sid from 83.2 to 86.9.	40	85				
90.1	3.2	Broken & probable fault at 86.9.	41	90				
97.0	6.8		42	95				
101.0	4.0		43	100				
104.0	2.5	86.9' - 130.0'	44	105				
107.5	3.5	Dark gry arg qtzt. Breaks in thin sheets						
End Box 4		15° to core near 104.0.						
109.0	1.5	Good coring.	45	110				
115.5	6.0	Bedding 20° to core near 125.0.	46	115				
118.0	3.0		47	120				
123.0	5.0		48	125				
127.0	4.0							
130.2	2.1		49	130				

withhold (starting w/ this page to end of doc) DO NOT COPY

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
132.2	2.1							
End Box 5								
137.4	5.2		5450	130-135	5.0			
138.0	0.4							
139.0	1.8	130.0' - 173.0'	51	140				
145.4	5.5	Gry qtzite w/dissem sid. Broken near	52	145				
148.4	2.8	163.0, probable fault.						
150.3	2.9		53	150				
155.3	5.0							
End Box 6			54	155				
162.9	7.3		55	160				
168.6	5.7		56	165				
173.0	4.7		57	170				
		173.0' - 178.5'						
		Hard lt gry qtzt with py and siderite stringers.						
		Nearly solid fine grained pyrite and sid						
177.0	4.0	from 177.5 to 178.5.	58	175				
180.5	3.5							
End Box 7			59	180				
182.5	2.0							
186.0	3.5	178.5' - 205.8'	60	185				
189.5	2.9	Lt gry to gry arg qtzt (quite broken)	61	190				
193.0	3.5	Scattered small sid stringers from 185.0 to						
194.0	1.3	191.0.	62	195				
196.0	1.6	Probable fault at 198.0 & 205.8.						
197.2	1.2							
198.8	1.6		63	200				
End Box 8			64	205				
205.8	6.0							
		205.8' - 214.0'						
209.0	1.8	Lt gry qtzt with grn chloritic alteration	65	210				
214.2	6.2	and spots of pyrite near 210.0, 213.0.	66	215				
		Probable fault at 214.0.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
216.4	2.0							
217.7	1.3							
220.7	3.0		5467	215-220	5.0			
223.6	2.9	214.0' - 242.0'						
225.7	2.1	Dk grn and gry chloritic qtzt with small	68	225				
End Box 9		spots and specks of pyrite in the green.						
233.0	7.3		69	230				
235.8	2.0		70	235				
238.4	2.6							
242.0	3.6		71	240				
243.5	1.5							
245.0	1.5		72	245				
250.0	5.0		73	250				
End Box 10								
252.0	2.0	242.0' - 290.0'	74	255				
260.2	6.8	Dark grn fine grained dike. Hematite	75	260				
270.9	10.0	and white calcite in fractures.	76	265				
End Box 11		Broken from 282 to 290.	77	270				
277.3	6.4		78	275				
279.0	1.7		79	280				
287.0	3.8		80	285				
284.6	2.4							
288.2	3.6		81	290				
289.4	1.2							
290.5	1.1							
297.4	6.9		82	295				
299.5	2.1	290.0' - 311.0'	83	300				
End Box 12		Dark grn chloritic qtzt somewhat sideritized						
304.0	4.5	(altered).	84	305				
308.5	4.5							
311.5	3.0		85	310				
			86	315				
321.0	9.3	311.0' - 318.3'	87	320				
		Dark gry grn altered qtzt heavy sideritized.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris East Exploration Drift

Logged by _____ Date _____
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
323.4	2.4							
324.3	0.8		5488	320-325	5.0			
End Box 13								
329.0	4.6		89	330				
335.0	6.0		90	335				
339.2	3.9		91	340				
End Box 14 343.5	4.3							
346.0	2.8		92	345				
351.0	5.0		93	350				
353.9	2.7		94	355				
359.5	5.8		95	360				
363.6	4.1		96	365				
367.2	3.6							
371.8	4.3		97	370				
End Box 15								
377.5	5.7		98	375				
380.0	2.5		99	380				
382.5	2.0		5500	385				
388.0	5.5		01	390				
396.0	7.5		02	395				
End Box 16								
401.6	5.5		03	400				
406.2	5.0		04	405				
418.0	11.7		05	410				
422.0	4.0		06	415				
End Box 17			07	420				
428.0	6.0		08	425				
430.5	2.5		09	430				
432.5	1.9		10	435				
438.0	5.5		11	440				
444.2	6.1		12	445				
447.0	2.4							
449.0	2.0		13	450				
End Box 18								
454.5	4.5		14	455				
458.5	4.5		15	460				
467.8	9.3		16	465				
End Box 19			17	470				
475.9	7.9		18	475				
482.5	6.5	318.3' - 610.0'	19	480				
498.0	9.0	Dark qtzt heavily sideritized from alter-	20	485				
500.0	1.8	ation. Mostly spotted and mottled with	21	490				
End Box 20		with sid, sericitic in spots, but generally	22	495				
		fairly hard. Vein seems to be parallel to core	23	500				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
506.0	6.0	318.3' - 610.0' (Cont'd)	5524	500-505	5.0			
508.0	2.0	Core is good with only occasional broken						
510.0	1.7	places.	25	510				
519.0	8.9	½" sid strgrs at 422.0 & 424.0.	26	515				
520.3	1.3	¼" sid parallel to core near 522.0.	27	520				
523.0	2.7	Badly broken near 558.0.						
526.2	3.0	1" white qtz at 569.0.	28	525				
End Box 21		½" to 1" sid strgr parallel to core from						
529.8	3.1	565.0 to 571.0 has some traces of tetra and						
530.8	1.0	a few spots of chalcopyrite in it.	29	530				
532.2	1.0	½" sid-qtz strgr near 578.0 & 588.0.						
535.0	2.7	Several ¼" qtz strgrs from 591 to 593.	30	535				
538.5	3.5	½ of core is sid from 606.0 to 606.5.						
540.7	1.9	¼" sid at 607.0.	31	540				
547.3	6.6	Broken from 608-609.0.	32	545				
549.0	1.5		33	550				
End Box 22								
551.9	2.9							
554.0	2.5							
555.5	1.5		34	555				
557.5	1.5							
558.2	0.7							
559.5	1.3		35	560				
561.5	2.0							
563.1	1.6							
564.5	1.4		36	565				
567.0	2.5							
End Box 23								
571.8	4.8		37	570				
578.2	6.0		38	575				
678.9	1.2		39	580				
588.1	9.2		40	585				
590.0	1.9		41	590				
End Box 24								
595.3	5.3		42	595				
602.2	6.9		43	600				
608.9	6.7	610.0' - 623.0'	44	605				
		Nearly solid sid, py & white qtz in hard	45	610				
614.7	5.5	gry qtzt. Mostly qtz from 613.5 to 615.5.	46	615				
End Box 25		Mostly sid & py from 615.5 to 617.7. Small	47	620				
624.0	9.3	spots of tetra around 615. 0.5 Mostly sid & py	48	625				
		from 619.7 to 620.2.						
		½ core is qtz, sid, py from 622 to 623.0.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
627.5	9.3							
629.5	2.0		5549	625-630	5.0			
634.5	4.7		50	635				
637.0	2.4							
638.7	1.5		51	640				
End Box 26								
646.8	8.1		52	645				
649.0	2.2							
650.5	1.4		53	650				
652.0	1.5		54	655				
653.8	1.8		55	660				
660.5	6.7							
End Box 27			56	665				
668.7	8.2		57	670				
673.9	5.0		58	675				
681.4	7.5		59	680				
688.0	6.4		60	685				
692.5	4.3		61	690				
End Box 28			62	695				
697.5	5.0		63	700				
706.5	9.0	623.0' - 972.0'	64	705		No		
716.0	9.5	Hard dk gry qtzt with argill and sericitic	65	710				
End Box 29		fractures. Sideritized in mottled and spotted	66	715				
725.5	9.5	pattern.	67	720		No		
728.5	3.0	Sid strgrs from 649.5 to 651.0.	68	725		0.4		
733.2	4.7	2" sid 45° to core at 666.7.	69	730		1.0		
734.5	0.8	3/4" sid at 677.0.	70	735				
737.0	2.5	¼" sid at 678.5.	71	740				
741.5	4.2	4" qtz & sid at 696.5.						
End Box 30		3" qtz & sid at 699.5 45° to core.	72	745				
747.0	5.5	1½" sid at 714.0 45° to core.						
751.3	4.2	3/4" py & sid at 723.0.	73	750				
758.0	6.7	4" sid chalco, pyrite at 725.5.	74	755				
761.0	3.0	6" sid, py, qtz at 738.0.	75	760				
765.0	3.4	½" qtz, sid, py at 739.0.	76	765				
767.5	2.0	1/8" qtz & sid parallel to core 749-750.						
End Box 31		¼" sid at 750.7.	77	770				
771.9	4.4	2" sid with specks of tetra at 762.	78	775				
775.9	4.0	¼" sid at 764.	79	780				
779.0	2.5	Broken from 764-765 & 766.5-767.5.	80	785				
787.9	9.0	½" py & sid at 768.0.						
790.0	2.1	½" py & sid - ½" qtz at 772.4.	81	790				
793.1	3.1	¼" sid at 773.5 (irregular)	82	795				
End Box 32		Sid, qtz & py from 774.5 to 775.2 30° to core.						

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
797.2	4.0	623.0' - 972.0' (Cont'd)						
799.6	2.4	2" py, qtz at 777.2.	5583	795-800	5.0			
801.6	2.0	½" qtz at 782.1.						
805.8	4.2	2" dk sid at 783.5.	84	805				
809.5	3.5	2" sid, py, qtz at 789.0.	85	810				
813.0	3.5	0.8 mainly sid, py from 794.8 to 795.6.						
815.0	2.0	Broken sid near 796.5.	86	815				
819.0	4.0	Sid, qtz & specks tetra from 797.2 to	87	820				
End Box 33		798.5, 30° to core.						
827.0	8.0	½" sid at 804.3.	88	825				
831.2	4.2	¼" sid strgrs at 810.0 & 814.0.	89	830				
841.0	9.5	3, ¼" sid strgrs near 826.0.	90	835				
845.5	4.3	3.0 mostly solid sid, py, qtz with occassion-	91	840				
End Box 34		al spots of tetra from 830.3 to 833.3. 30° to	92	845				
849.0	3.5	45° to the core.	93	850				
853.3	4.2	½" sid at 833.6.	94	855				
855.0	1.5	¼" sid 30° to core at 846.0.	95	860				
861.5	6.5	1.7 mostly sid, py, qtz from 853.3 to	96	865				
867.0	5.5	855.0.	97	870				
871.0	4.0	Qtz and py from 855.4 to 856.2.						
End Box 35		3/4" sid 30° to core near 857.5.	98	875				
876.0	4.5	Broken near 876.0.	99	880				
884.0	7.8	¼" sid at 877 45° to core.	5600	885				
885.7	1.7	0.3 sid & py from 889.2 to 889.5. 30° to	01	890				
End Box 36 890.7	4.8	core.						
895.8	2.7	4" qtz & sid at 896.0.	02	895				
898.9	3.1	3.0 mostly sid with some qtz from 897.5 to	03	900				
903.1	4.2	900.5 45° to core.	04	905				
909.6	6.2	¼" sid at 902.2.	05	910				
918.8	9.0	Silicification and some sid from 908.7 to	06	915				
End Box 37		909.4.	07	920				
927.0	8.2	2" sid & qtz at 917.0.	08	925				
931.5	4.4	¼" qtz, 30° to core near 921.0.	09	930				
935.5	3.7	Several small parallel stringers of qtz	10	935				
940.0	4.5	to 925.2 with 2" sid at 925.2.	11	940				
942.1	2.0	Much silicification with little sid from						
End Box 38		938 to 939 and 940.5 to 942 and 943.3 to	13	945				
944.7	2.6	944.5.						
949.0	4.2	Quite broken from 949 to 970.	14	950				
950.7	1.6	Not much core from 961 to 965.						
951.3	0.6	Much silicification with some sid from	15	955				
955.0	4.1	955 to 972.						
956.8	1.8							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. 3514
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
958.4	1.5		5616	955-960				
961.2	2.7							
965.1	1.3		17	965				
967.2	2.0							
968.5	1.2							
End Box 39								
970.4	1.2		18	970				
972.0	1.5							
975.7	3.7	972.0' - 993.0'	19	975				
981.2	5.0	Hard dk gry qtzt that is heavily sideritized.	20	980		0.4		
984.0	2.0	Some wht qtz near 974.0. Tetrahedrite is	21	985		0.8		
988.5	4.5	dissem.						
990.2	1.7		22	990		0.7		
End Box 40								
993.5	2.5		23	995		1.8		
997.5	3.5	993.0' - 1010.0'						
999.8	1.8	Hard dk gry qtzt with diss sid in mottled						
1001.1	2.3	pattern.	24	1000		0.5		
1005.8	4.7	1" wht qtz near 996.0 and 998.0.	25	1005				
1010.0	4.2	½" wht qtz at 1004.0.	26	1010				
		END OF HOLE						

POLARIS MINING COMPANY.

Preliminary work began August 25,1953.

Drifting began October 16,1953.

For the preliminary work, according to a footnote to the Contract, the date of the Contract would be considered Sept.1,1953.

For the Drifting, the date of the contract would be November 1,1953.

In taking the Audit, the first period was considered to run from September 1,1953 to February 28,1955.

The Field Team considers that the work was not begun until the Drifting began as no preliminary work was allowed for in the contract. This would then make the first period: November 1,1953 - April 30,1955.

The start of the Second Period will then be considered May 1,1955.

April 26, 1957

Narratives and attachments received for February and March. MF-104 and 104A not yet received. Will forward your copies as soon as received and processed.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 30 1957

DATE	INITIALS	CODE
4/30	C	220
4/30	[illegible]	110
5/1	[illegible]	500

Mar & Feb '57

release top page only (this page only)

XXXXXXXXXXXXXXXXXXX
1201 N. Division Street
Spokane 2, Washington
December 27, 1955

~~Kingsbury~~ Betty

Polaris Mining Company
Box 320
Wallace, Idaho

Re: Docket No. DMEA-2879
Contract Idm-E541
Monthly operating reports
May 1953 through November 1955

Gentlemen:

The vouchers for September, October, and November 1955 have been processed and forwarded to our Disbursing Officer in Portland, Oregon, for payment.

Adjustments made are explained in the attached copy of a memorandum to the Field Team, Region I, from the Certifying Officer.

By Field Team, Region I, NW District

A. K. Weissenborn, Executive Officer
U. S. Geological Survey

cc: DMEA (2)
USGS (2)
AD

Wing G. Agnew, Member
U. S. Bureau of Mines

all right side docs (no left side docs)

10:45

Mr. Kilgard returned your call.

E.T.

NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0394

DMEA Field Team, Region I, NW District

December 27, 1955

DMEA Certifying Officer, Region I

Polaris Mining Company, Contract Idm-E541. Monthly operating reports May 1955 through November 1955.

Operating reports for the months of September, October, and November 1955 submitted by the Operator have been adjusted and payment has been made in accordance with the findings shown in the audit report by DMEA Auditor, C. A. Turner, dated September 2, 1955.

Adjustments have also been made to bring the per foot price for drifting and crosscutting to $48.78 for the months of May, June, July, and August 1955. This is the figure shown by the audit to be the actual cost of doing this work for the "first period" of the contract.

The audit allowed costs in excess of those claimed by the Operator for the first period of the contract in the amount of $1,916.06. This has been taken into consideration in making payment.

The date of May 1, 1955 is the date set by the Field Team as that on which the "second period" should start and as that on which the per foot price of $48.78 should become effective.

The adjustment made is as follows:

Adjustment of price from $51.00 per foot for drifting and crosscutting to $48.78 for the period May 1955 through November 1955	$4,222.66
Less additional costs allowed by the audit for the "first period"	1,916.06
Net deletion for period	$2,306.60

Withhold
DO NOT COPY
(operators
report)
* Including
following 2 pages
the letter to Mrs.
Purdy.

Myrtle Purdy

cc: Operator
DMEA (2)
USGS

DMEA Field Team, Region I, NW District December 27, 1955

DMEA Certifying Officer, Region I

Polaris Mining Company, Contract Idm-2541. Monthly operating reports May 1955 through November 1955.

Operating reports for the months of September, October, and November 1955 submitted by the Operator have been adjusted and payment has been made in accordance with the findings shown in the audit report by DMEA Auditor, C. A. Turner, dated September 2, 1955.

Adjustments have also been made to bring the per foot price for drifting and crosscutting to $48.78 for the months of May, June, July, and August 1955. This is the figure shown by the audit to be the actual cost of doing this work for the "first period" of the contract.

The audit allowed costs in excess of those claimed by the Operator for the first period of the contract in the amount of $1,916.06. This has been taken into consideration in making payment.

The date of May 1, 1955 is the date set by the Field Team as that on which the "second period" should start and as that on which the per foot price of $48.78 should become effective.

The adjustment made is as follows:

Adjustment of price from $51.00 per foot for drifting and crosscutting to $48.78 for the period May 1955 through November 1955	$4,222.66
Less additional costs allowed by the audit for the "first period"	1,916.06
Net deletion for period	$2,306.60

withhold
do not
copy

Myrtle Purdy

cc: Operator
DMEA (2)
USGS
Wash. (2)
AD
Engineer

POLARIS MINING COMPANY
Contract Idm-E541

Adjustments on payments made to Operator for period May 1955 through August 1955 and payments to be made December 23, 1955 for the months of September, October, and November 1955.

Date 1955	Claimed on Forms MF-104 Footage	Per Foot	Amount	Cost Determined by Audit Per foot	Amount	Adjustment of payments made on drifting and crosscutting during second period	
MF-104S Paid							
May							
Drift	370.5	$51.00	$18,895.50	$48.78	$18,072.99	$822.51	
June							
Drift	315.9	51.00	16,110.90	48.78	15,409.60	701.30	
Xcut	24.0	51.00	1,224.00	48.78	1,170.72	53.28	
July							
Drift	269.2	51.00	14,749.20	48.78	14,107.18	642.02	
Xcut	21.0	51.00	1,071.00	48.78	1,024.38	46.62	
August							
Drift	309.5	51.00	15,784.50	48.78	15,097.41	687.09	
						$2,952.92 ×	2,952.82
				Drifting		$2,852.92	↓
				Crosscutting		99.90	$2,952.82
MF-104S to be paid 12/23/55							
September							
Drift	156.4	51.00	$7,976.40	$48.78	$7,629.19	$ 347.21	
Xcut	29.2	51.00	1,489.20	48.78	1,424.38	64.82	
October							
Drift	121.0	51.00	6,171.00	48.78	5,902.38	268.62	
November							
Drift	265.4	51.00	13,535.40	48.78	12,946.21	589.19	
						$1,269.84	
				Drifting		$1,205.02	
				Crosscutting		64.82	1,269.84

Total adjustment due to difference in per foot price $4,222.66

Additional Costs allowed by audit for first period:

Drifting	$1,482.81 ✓	
Crosscutting	50.29 ✓	
Sideswipe	207.19 ✓	
Raising	175.77 ✓	1,916.06 ✓

Net deduction from costs claimed by Operator $2,306.60

Withhold
do not
copy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

December 22, 1955

Mrs. Myrtle Purdy
Certifying Officer
DMEA Field Team, Region I
Northwest District
1201 N. Division
Spokane 2, Washington

Betty

Re: Docket No. DMEA-2879 (copper-lead-antimony)
Polaris Mining Company
Shoshone County, Idaho
Contract No. Idm-E541

Dear Mrs. Purdy:

According to the terms of the contract the actual unit cost for drifting and crosscutting performed during the "first period" shall be and become the agreed unit cost for drifting and crosscutting for the "second period." The duration of the "first period" is 18 months and shall start on the first day of the calendar month next succeeding the date of commencement of the work.

The drifting and crosscutting started in October 1953 although preparation work started in August 1953. The audit did not allow preparation costs in computing the drifting and crosscutting unit costs, therefore the start of the "first period" would be November 1, 1953, the first day of the calendar month next succeeding the date of commencement of work as allowed by the audit. Consequently, the start of the "second period" is May 1, 1955, the time when the actual unit cost for the "first period" as computed by the audit becomes effective.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)
Fryklund

EGEricson/em

Official Copy of Board Decision

NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0394

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

Month of February, 1955 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& Incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $ 685,955.00 Government Participation: 50 % Amount, $ 342,977.50

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		11,037.15	11,037.15			
~~Bulkhead~~ Raising		30,072.49	30,072.49			
Crosscutting		11,087.09	11,087.09			
Drifting 306.2 @ 51.00	15616.20	250,724.55	266,340.75			
Sideswipe		18,999.41	18,999.41			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	15616.20	321,920.69	337,536.89	15616.20	321,920.69	337,536.89

withhold do not Copy

STAGE "I" CUT-OFF.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date March 9, 1955 *Payee Polaris Mining Company
Per [signature] Title President

*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:

$ 7808.10

Signature [signature]
(Authorized Certifying Officer)

Date 3-22-55 Vou. No. 1465
(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 541 in accordance with the terms of the contract.

Signature /S/ Eric G Erickson Title Mining Engr Date 3-18-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 3-21-55

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.

NON-PRIVILEGED DOCUMENT

TO BE PHOTOCOPIED AND PRODUCED

DO NOT CODE

BATES NO. 0394

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

Month of February 1955 Docket No. DMEA 2879 Contract No. DMT-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320, Wallace, Idaho (& Incidental Silver)

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	Feet	15616.20	306.2	266340.75	5308.7	50.17	11625	$51.00*
Crosscutting	Feet			11087.09	218.5	50.74		
Raising	Feet			30072.49	324.1	92.79	330	93.33
Shafts								
xxxx Sideswiping	Feet			18999.41	753.2	25.22	1560	25.50
Winzes								
Drilling: Core	Feet			11037.15	2452.7	4.50	5000	4.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
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 March 9-1955 Operator Polaris Mining Company

Per [signature] Title President

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)

*Maximum allowed by contract

withhold
do not
copy

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

Polaris Mining Company

Wallace, Idaho
March eleventh
1 9 5 5

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 25 1955

Defense Minerals Exploration Administration
U. S. Department of the Interior
South 157 Howard Street
Spokane 4, Washington

Re: Progress Report Polaris East
Exploration Project - February-1955
Docket No. DMEA 2879
Contract No. IDM-E-541

Gentlemen:

Through an oversight these statements were omitted from the statements previously sent you.

Yours very truly,

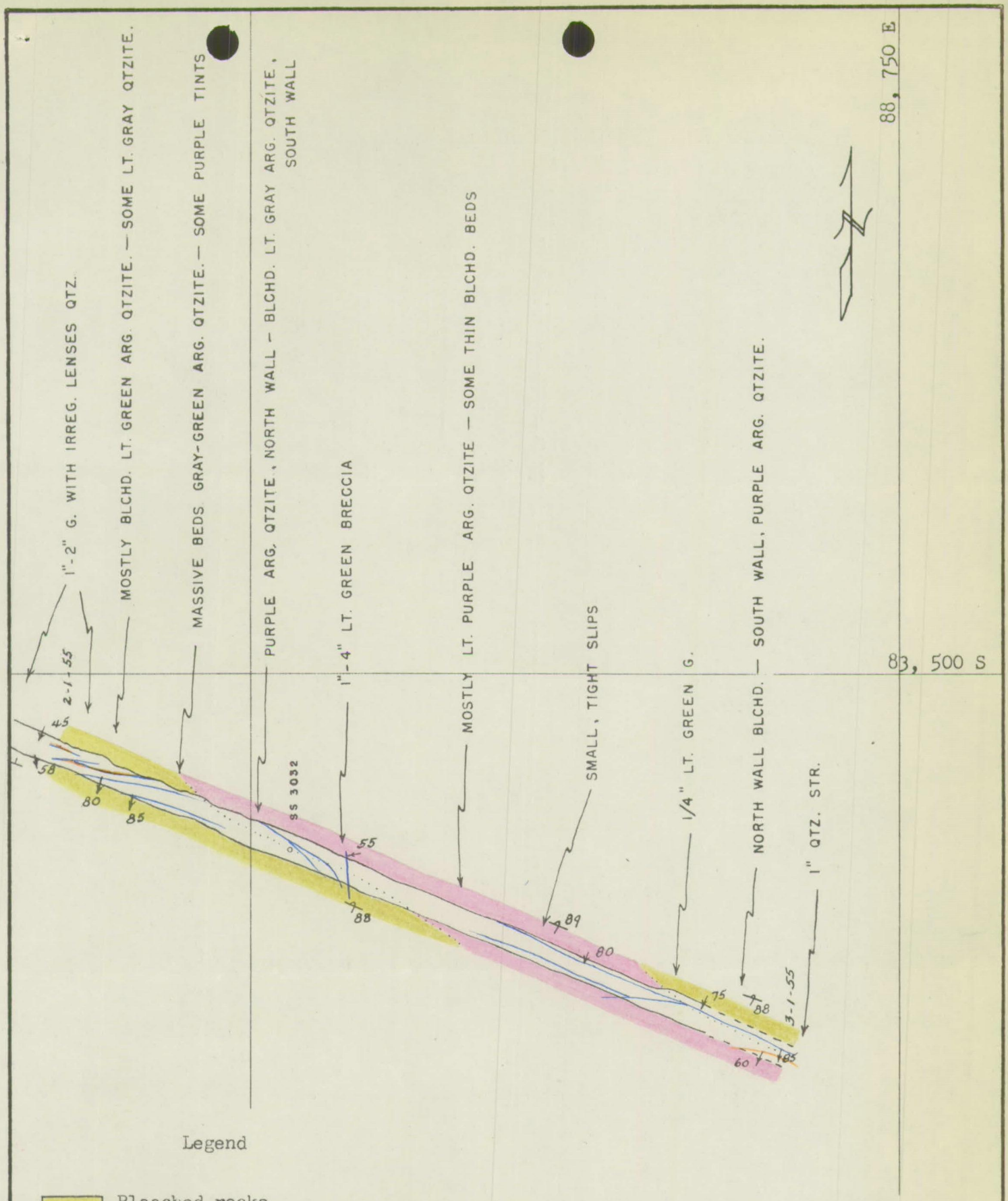
Lennis E. Hill

Lennis E. Hill

LEH/mg

release
(Copy)

Copy



Legend

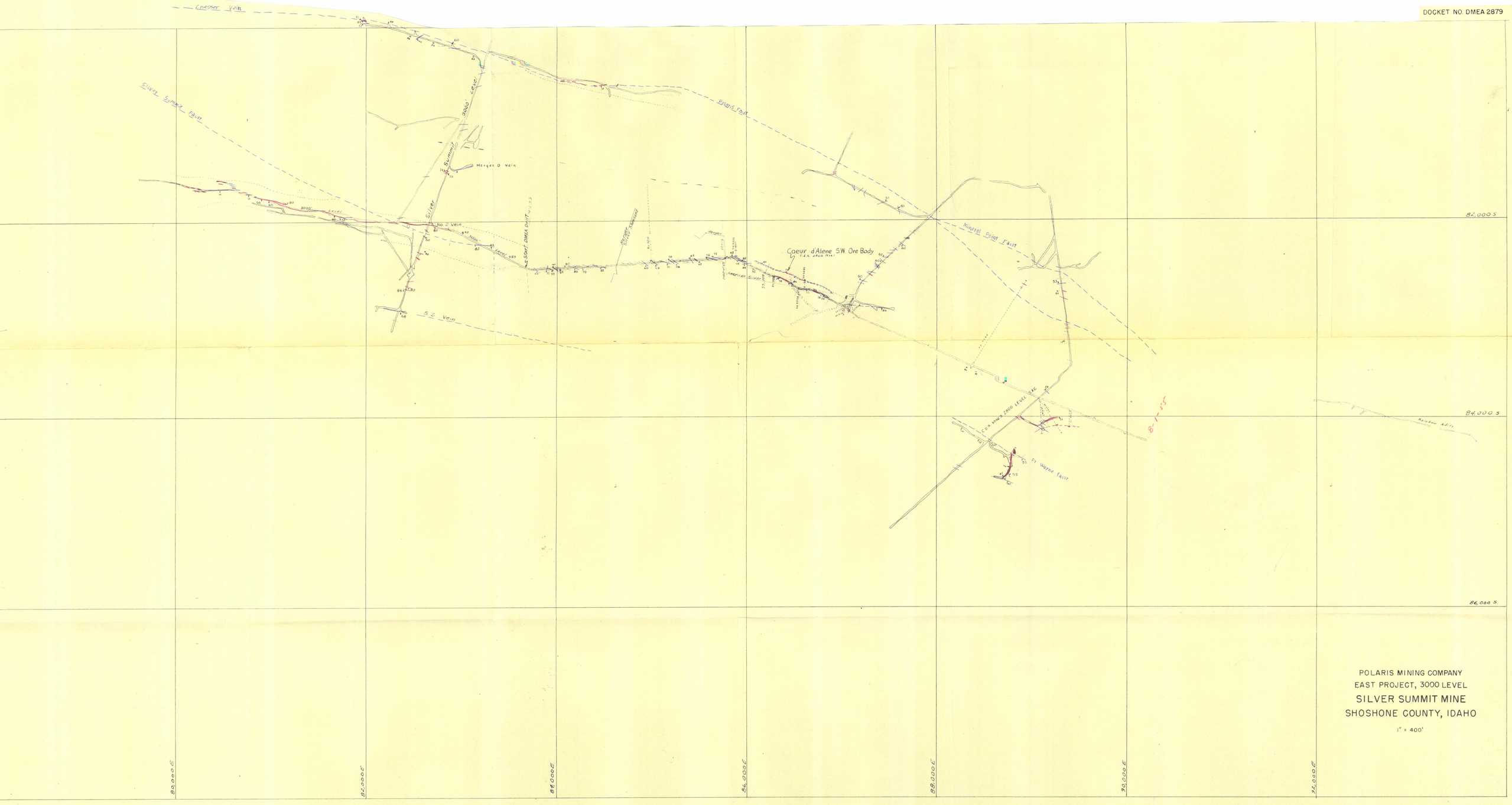
- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- 82 Strike and dip of non-sulfide veins
- 75 Strike and dip of faults
- 70 Strike and dip of beds
- 85 Strike and dip of overturned beds
- 84 Strike and dip of cleavage
- 62

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

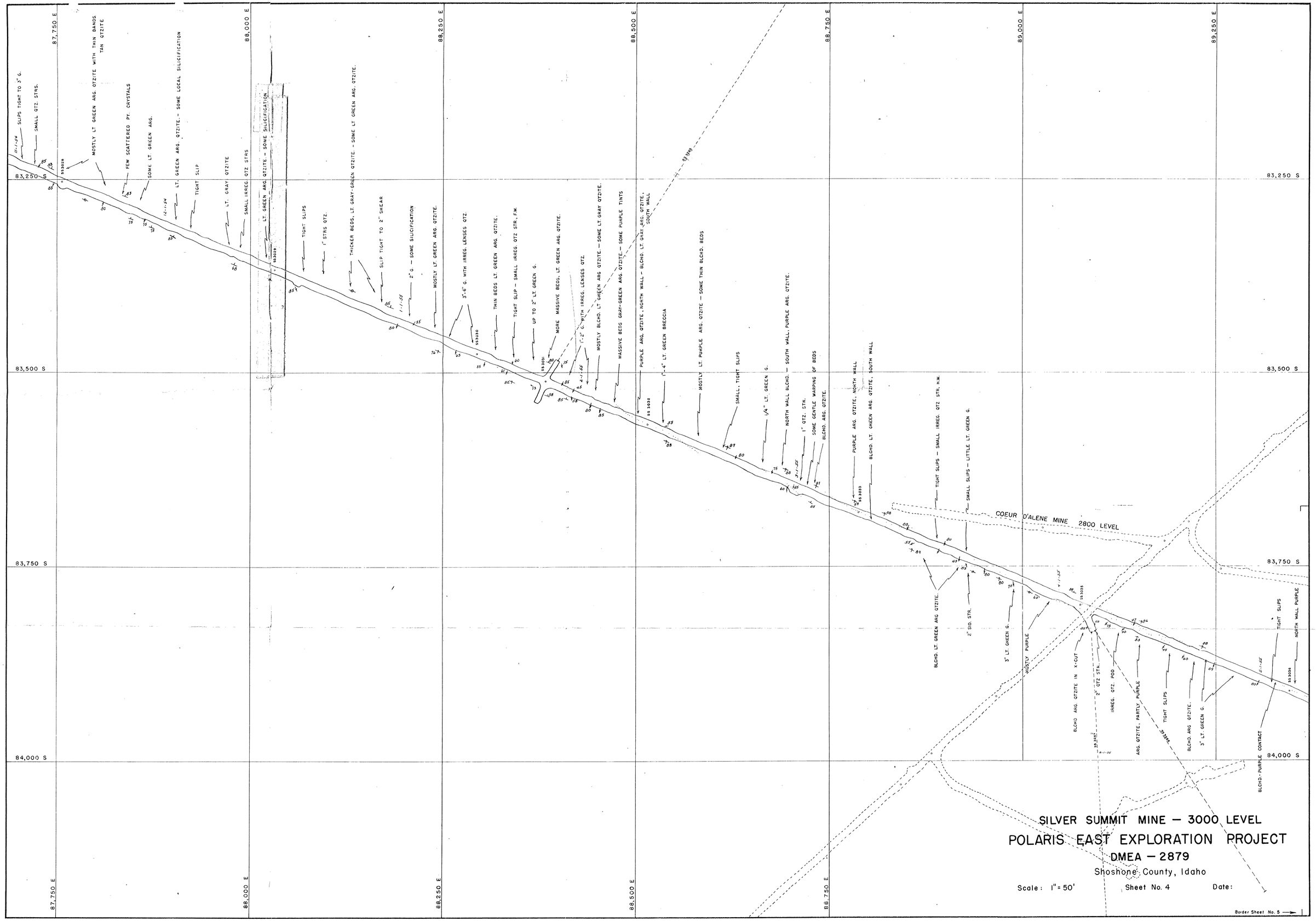
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Mar. 1, 1955
Geology by J.G.S.

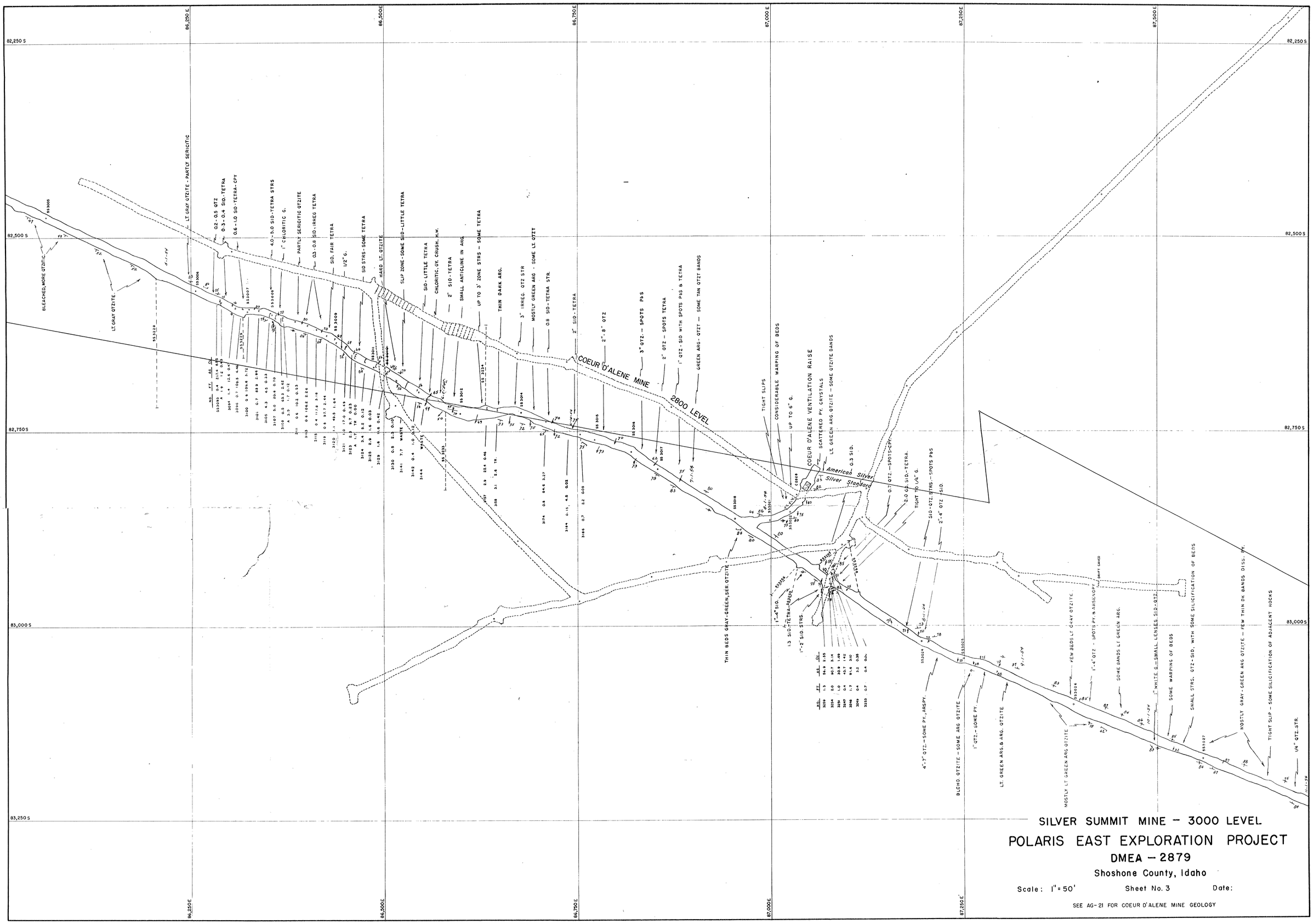
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 25 1955

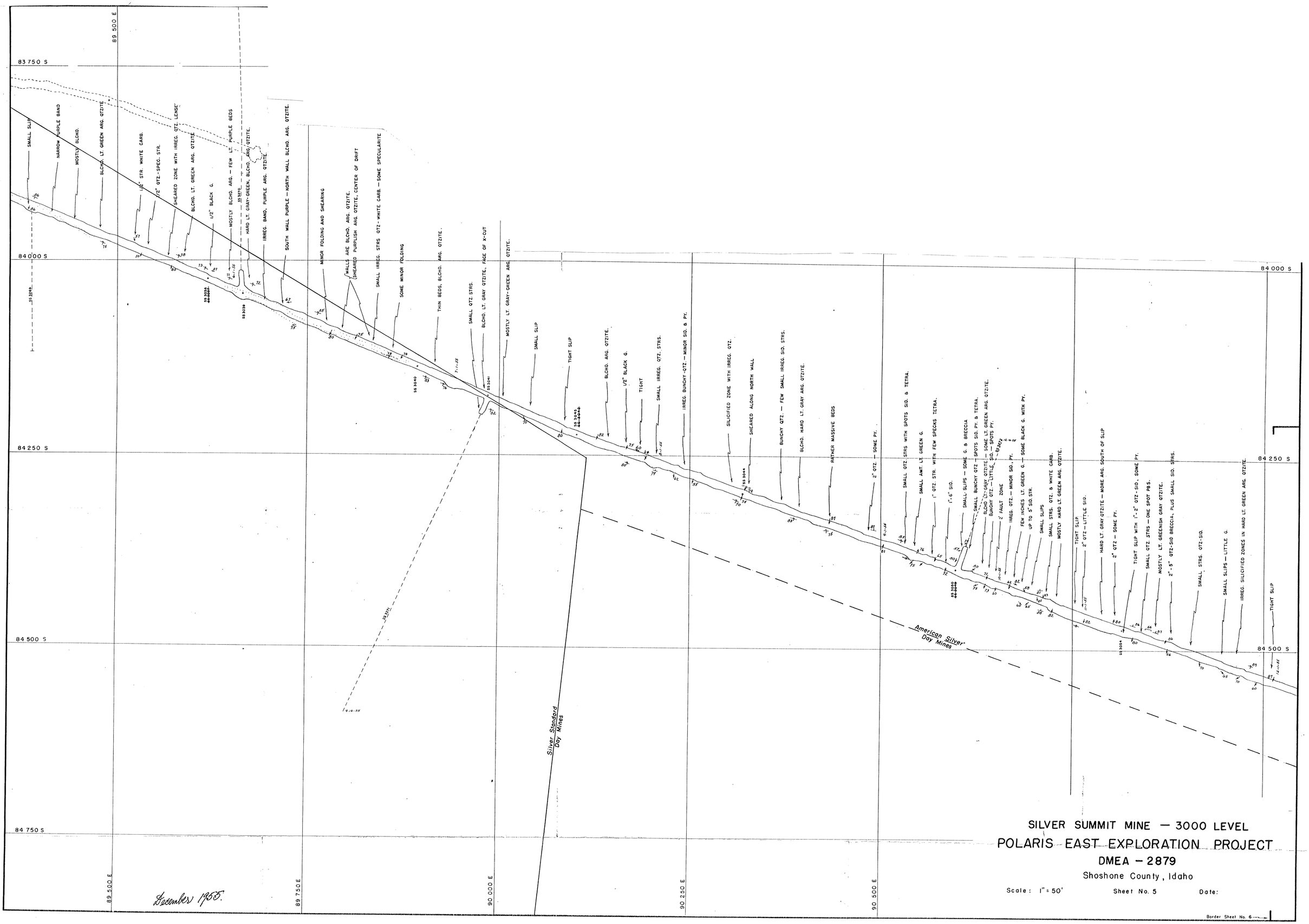
DOCKET NO. DMEA 2879



POLARIS MINING COMPANY
EAST PROJECT, 3000 LEVEL
SILVER SUMMIT MINE
SHOSHONE COUNTY, IDAHO
1" = 400'


SILVER SUMMIT MINE — 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
Shoshone County, Idaho
Scale: 1" = 50'
Sheet No. 4
Date:
Border Sheet No. 5
COEUR D'ALENE MINE 2800 LEVEL
87,750 E
88,000 E
88,250 E
88,500 E
88,750 E
89,000 E
89,250 E
83,250 S
83,500 S
83,750 S
84,000 S
SLIPS TIGHT TO 3" G.
SMALL QTZ. STRS.
MOSTLY LT GREEN ARG. QTZITE WITH THIN BANDS TAN QTZITE
FEW SCATTERED PY. CRYSTALS
SOME LT. GREEN ARG.
LT. GREEN ARG. QTZITE. - SOME LOCAL SILICIFICATION
TIGHT SLIP
LT. GRAY QTZITE
SMALL IRREG. QTZ STRS
LT. GREEN ARG QTZITE - SOME SILICIFICATION
TIGHT SLIPS
1" STRS QTZ.
THICKER BEDS, LT GRAY-GREEN QTZITE. - SOME LT GREEN ARG. QTZITE.
SLIP TIGHT TO 2" SHEAR
2" G. - SOME SILICIFICATION
MOSTLY LT. GREEN ARG. QTZITE.
3"-6" G. WITH IRREG. LENSES QTZ.
THIN BEDS LT. GREEN ARG. QTZITE.
TIGHT SLIP - SMALL IRREG. QTZ STR. F.W.
UP TO 2" LT. GREEN G.
MORE MASSIVE BEDS, LT GREEN ARG. QTZITE.
1"-2" G. WITH IRREG. LENSES QTZ.
MOSTLY BLCHD. LT GREEN ARG QTZITE. - SOME LT. GRAY QTZITE.
MASSIVE BEDS GRAY-GREEN ARG. QTZITE. - SOME PURPLE TINTS
PURPLE ARG. QTZITE, NORTH WALL - BLCHD. LT. GRAY ARG. QTZITE, SOUTH WALL
1"-4" LT. GREEN BRECCIA
MOSTLY LT. PURPLE ARG. QTZITE - SOME THIN BLCHD. BEDS
SMALL, TIGHT SLIPS
1/4" LT. GREEN G.
NORTH WALL BLCHD. - SOUTH WALL, PURPLE ARG. QTZITE.
1" QTZ. STR.
SOME GENTLE WARPING OF BEDS
BLCHD. ARG. QTZITE.
PURPLE ARG. QTZITE, NORTH WALL
BLCHD. LT. GREEN ARG. QTZITE, SOUTH WALL
TIGHT SLIPS - SMALL IRREG. QTZ STR. H.W.
SMALL SLIPS - LITTLE LT. GREEN G.
BLCHD. LT. GREEN ARG QTZITE.
2" SID. STR.
3" LT. GREEN G.
MOSTLY PURPLE
BLCHD. ARG. QTZITE IN X-CUT
2" QTZ STR.
IRREG. QTZ. POD
ARG. QTZITE, PARTLY PURPLE
TIGHT SLIPS
BLCHD. ARG. QTZITE.
3" LT. GREEN G.
TIGHT SLIPS
NORTH WALL PURPLE
BLCHD.-PURPLE CONTACT


SILVER SUMMIT MINE – 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA – 2879
Shoshone County, Idaho
Scale: 1" = 50'
Sheet No. 3
Date:
SEE AG-21 FOR COEUR D'ALENE MINE GEOLOGY
COEUR D'ALENE MINE
2800 LEVEL
COEUR D'ALENE VENTILATION RAISE
American Silver
Silver Standard
82,250 S
82,500 S
82,750 S
83,000 S
83,250 S
86,250 E
86,500 E
86,750 E
87,000 E
87,250 E
87,500 E
BLEACHED, MORE QTZITIC.
LT. GRAY QTZITE
LT. GRAY QTZITE - PARTLY SERICITIC
0.2 - 0.5 QTZ
0.3 - 0.4 SID.-TETRA
0.6 - 1.0 SID.-TETRA-CPY
4.0 - 5.0 SID.-TETRA STRS
1" CHLORITIC G.
PARTLY SERICITIC QTZITE
0.3 - 0.8 SID.-IRREG TETRA
SID. FAIR TETRA
1/2" G.
SID STRS - SOME TETRA
HARD LT. QTZITE
SLIP ZONE - SOME SID - LITTLE TETRA
SID - LITTLE TETRA
CHLORITIC, QY. CRUSH. H.W.
2" SID - TETRA
SMALL ANTICLINE IN ARG.
UP TO 3" ZONE STRS - SOME TETRA
THIN DARK ARG.
3" IRREG QTZ STR
MOSTLY GREEN ARG. - SOME LT. QTZT
0.8 SID - TETRA STR.
2" SID - TETRA
2" - 8" QTZ
3" QTZ. - SPOTS PbS
2" QTZ - SPOTS TETRA
1" QTZ - SID WITH SPOTS PbS & TETRA
GREEN ARG - QTZT - SOME TAN QTZT BANDS
TIGHT SLIPS
CONSIDERABLE WARPING OF BEDS
UP TO 6" G.
SCATTERED PY. CRYSTALS
LT. GREEN ARG QTZITE - SOME QTZITE BANDS
0.3 SID.
0.7 QTZ. - SPOTS CPY.
2.0 GP. SID - TETRA.
TIGHT TO 1/4" G.
SID - QTZ STRS. - SPOTS PbS
2" - 4" QTZ - SID.
THIN BEDS GRAY-GREEN, SER. QTZITE
1" - 4" SID.
1.3 SID - TETRA
1" - 2" SID. STRS
4" - 7" QTZ. - SOME PY., ARSPY.
BLCHD. QTZITE - SOME ARG QTZITE
1" QTZ. - SOME PY.
LT. GREEN ARG. & ARG. QTZITE
MOSTLY LT. GREEN ARG QTZITE
FEW BEDS LT. GRAY QTZITE
1" - 4" QTZ - SPOTS PY. & ARSENOPY.
DRIFT CAVED
SOME BANDS LT. GREEN ARG.
1" WHITE Q. - SMALL LENSES SID - QTZ.
SOME WARPING OF BEDS
SMALL STRS. QTZ - SID. WITH SOME SILICIFICATION OF BEDS
MOSTLY GRAY - GREEN ARG QTZITE - FEW THIN DK BANDS DISS. PY.
TIGHT SLIP - SOME SILICIFICATION OF ADJACENT ROCKS
1/4" QTZ. STR.



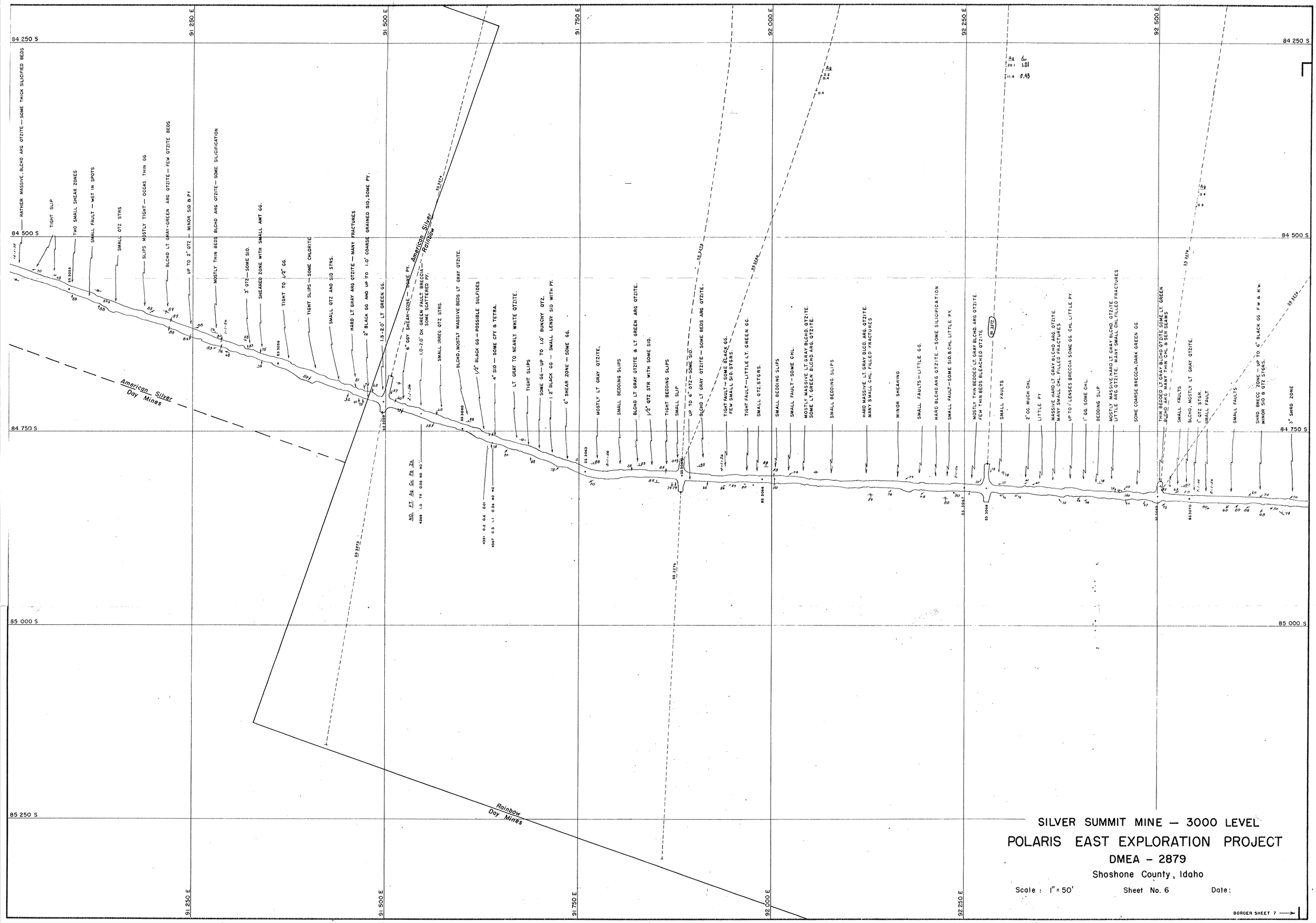
SILVER SUMMIT MINE — 3000 LEVEL

POLARIS EAST EXPLORATION PROJECT

DMEA — 2879

Shoshone County, Idaho

Scale: 1" = 50' Sheet No. 5 Date:


84 250 S
84 500 S
84 750 S
85 000 S
85 250 S
91 250 E
91 500 E
91 750 E
92 000 E
92 250 E
92 500 E
RATHER MASSIVE, BLCHD ARG QTZITE — SOME THICK SILICIFIED BEDS
TIGHT SLIP
TWO SMALL SHEAR ZONES
SMALL FAULT — WET IN SPOTS
SMALL QTZ STRS
SLIPS MOSTLY TIGHT — OCCAS THIN GG
BLCHD LT GRAY-GREEN ARG QTZITE — FEW QTZITE BEDS
UP TO 2" QTZ — MINOR SID & PY
MOSTLY THIN BEDS BLCHD ARG QTZITE — SOME SILICIFICATION
3" QTZ — SOME SID.
SHEARED ZONE WITH SMALL AMT GG.
TIGHT TO 1/2" GG.
TIGHT SLIPS — SOME CHLORITE
SMALL QTZ AND SID STRS.
HARD LT GRAY ARG QTZITE — MANY FRACTURES
2" BLACK GG AND UP TO 1.0' COARSE GRAINED SID. SOME PY.
1.5-2.0' LT GREEN GG.
6" GOY SHEAR-ZONE — SOME PY.
1.0-2.0' DK GREEN FAULT BRECCIA — SOME SCATTERED PY.
SMALL IRREG QTZ STRS.
BLCHD. MOSTLY MASSIVE BEDS LT GRAY QTZITE.
1/2" BLACK GG — POSSIBLE SULFIDES
4" SID — SOME CPY & TETRA.
LT GRAY TO NEARLY WHITE QTZITE.
TIGHT SLIPS
SOME GG — UP TO 1.0' BUNCHY QTZ.
1.2" BLACK GG — SMALL LENSY SID WITH PY.
6" SHEAR ZONE — SOME GG.
MOSTLY LT GRAY QTZITE.
SMALL BEDDING SLIPS
BLCHD LT GRAY QTZITE & LT GREEN ARG QTZITE.
1/2" QTZ STR WITH SOME SID.
TIGHT BEDDING SLIPS
SMALL SLIP
UP TO 6" QTZ — SOME SID.
BLCHD LT GRAY QTZITE — SOME BEDS ARG QTZITE.
TIGHT FAULT — SOME BLACK GG. FEW SMALL SID. STGRS.
TIGHT FAULT — LITTLE LT. GREEN GG.
SMALL QTZ. STGRS.
SMALL BEDDING SLIPS
SMALL FAULT — SOME CHL.
MOSTLY MASSIVE LT. GRAY BLCD. QTZITE. SOME LT. GREEN BLCHD. ARG. QTZITE.
SMALL BEDDING SLIPS
HARD MASSIVE LT. GRAY BLCD. ARG. QTZITE. MANY SMALL CHL. FILLED FRACTURES
MINOR SHEARING
SMALL FAULTS — LITTLE GG.
HARD BLCHD. ARG QTZITE — SOME SILICIFICATION
SMALL FAULT — SOME SID. & CHL. LITTLE PY.
MOSTLY THIN BEDDED LT. GRAY BLCHD. ARG QTZITE. FEW THIN BEDS BLEACHED QTZITE
SMALL FAULTS
2" GG. MUCH CHL.
LITTLE PY
MASSIVE HARD LT. GRAY BLCHD. ARG. QTZITE. MANY SMALL CHL. FILLED FRACTURES
UP TO 1' LENSES BRECCIA SOME GG. CHL. LITTLE PY.
1" GG. SOME CHL.
BEDDING SLIP
MOSTLY MASSIVE HARD LT. GRAY BLCHD. QTZITE. LITTLE ARG QTZITE. MANY SMALL CHL. FILLED FRACTURES
SOME COARSE BRECCIA, DARK GREEN GG.
THIN BEDDED LT. GRAY BLCHD. QTZITE. SOME LT. GREEN BLCHD. ARG. MANY THIN CHL. & SER SEAMS.
SMALL FAULTS
BLCHD. MOSTLY LT. GRAY QTZITE.
1" QTZ STGR.
SMALL FAULT
SMALL FAULTS
SHRD BRECC. ZONE — UP TO 6" BLACK GG. F.W. & H.W. MINOR SID & QTZ STGRS.
3" SHRD ZONE
American Silver
Rainbow
American Silver Day Mines
Rainbow Day Mines
NO. FT. Ag Cu Pb Zn
4366 1.0 TR 0.08 NO NO
4331 0.2 0.6 0.01
4367 0.3 1.1 0.36 NO NO
Ag 20.1 11.8
Cu 1.21 0.43
SILVER SUMMIT MINE — 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA - 2879
Shoshone County, Idaho
Scale : 1" = 50'
Sheet No. 6
Date:
BORDER SHEET 7