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 3 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Routine inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine at Cobalt, Idaho, was inspected on December 8, accompanied by H. B. Nickelson, U.S.G.S., Cecil Whitley, mine engineer, and W. C. Cole, mine geologist.

The underground work is progressing normally, the only difficulties being those caused by the unstable ground conditions. The 7400 drift has advanced about 25 feet to within 30 feet of the DMEA line marking the end of the exploratory work on the level. The 74-787 hanging wall crosscut has advanced about 130 feet. The ground is badly faulted and requires heavy timber.

Diamond drilling is being carried on concurrently with the drifting. Several holes have been drilled northeast and southwest from the 7400 drift. An impressive ore zone has been intersected by three holes drilled to the northeast. D.D. hole 65 at 200 feet from the face intersected 52-1/2 feet of 2.17% cobalt and 4.61% copper; hole 70 at 130 feet from the face intersected 25-1/2 feet of 1.77% cobalt and 3.93% copper; and hole 72 at 30 feet from the face intersected 16-1/2 feet of 1.30% cobalt and 3.08% copper. A second possible ore zone has been intersected by one drill hole southeast at about 200 feet from the face. A 5-foot zone of 1.48% cobalt and 2.67% copper was intersected.

The project work is being done on a three shift basis. The advance and workmanship are satisfactory.

Following are the units of work completed to December 8:

		Authorized	Completed
Stage I			
	Trenching, Diamond drilling and Reaming		Yes
	Assays	3100 units	2346 units
	U.G.D.D.	664 feet	612 feet

Stage II	Authorized	Completed
Drifting and crosscutting	6,000 feet	2,697 feet
Assays	5,900 units	1,055 units
Normal timber	5,000 feet	1,832 feet
Heavy timber	750 "	656.5 "
Spiling	500 "	463 "
Framing	1,150 sets	376 sets
Diamond drilling	10,500 feet	2,266 feet

A. L. Service

A. L. Service

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

508
75
38,100

100 – 102½	2.5	1.72	4.30	4.98	12.45
102½ – 106	3.5	1.84	6.44	5.56	19.46
106 – 111	5.0	2.44	12.20	4.58	22.90
111 – 114½	3.5	1.35	4.725	2.91	10.185
114½ – 116½	2.0	1.60	3.20	12.20	24.40
116½ – 121	4.5	.26	1.17	.59	2.655
121 – 126½	5.5	.80	4.40	1.65	9.075
126½ – 127½	1.0	6.41	6.41	6.60	6.60
127½ – 129	1.5	1.95	2.925	2.90	4.35
129 – 130	1.0	.43	.43	.24	.24
130 – 131½	1.5	2.45	3.675	2.54	3.81
131½ – 137	5.5	1.35	7.425	1.05	5.775
137 – 142	5.0	1.87	9.35	3.06	15.30
142 – 147	5.0	4.91	24.55	5.71	28.55
147 – 152½	5.5	4.14	22.77	5.71	31.405
	52.5		113.970		197.155
			2.17		3.76

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

1201 N. Division St.
Spokane 2, Washington
November 10, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Co., Blackbird mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine was visited on November 3, 1955, accompanied by H. B. Nickelson, geologist, U. S. Geological Survey. Mr. C. Whitley, mine engineer, and Mr. W. C. Cole, mine geologist, were present.

The 7400 N. drift advanced about 273 feet through fairly stable ground. Heavy timber was necessary in places, but most of the advance was not timbered. The ground has definitely improved and the advance has increased accordingly.

A diamond drill hole was drilled to 226 feet at coordinates 17300 N and 2975 E. A small ore section was picked up about half way out. Further drilling is planned.

The maps and supporting data for the proposed change in the project work were discussed, and they will be forwarded to the Spokane office as soon as they are completed.

The project work completed to November 3 follows:

		Authorized	Completed
Stage I			
	Trenching)		
	Diamond drilling)		Yes
	Reaming)		
	Assays	3100 units	2346 units
	U.G.D.D.	664 feet	612 feet

	Authorized	Completed
Stage II		
Drifting)		2053 feet
Crosscutting)	6000 feet	457 "
Assays	5900 units	730 units
Normal timber	5000 feet	1514.3 feet
Heavy "	750 "	591.5 "
Spiling	500 "	463.0 "
Framing	1150 sets	313 sets
Diamond drilling	10500 feet	1500.5 feet

On November 3 there was about 120 feet of drift remaining to reach the DMEA boundary on the 7400 level. This will complete the drifting allotted. If the new proposal submitted by Mr. Douglas is approved, it will add 1500 feet to the drift.

A. L. Service

A. L. Service

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
October 24, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA-3143 (cobalt-copper), Calera Mining Company, Blackbird Division, Lemhi County, Idaho, Contract No. Idm-E645

A visit to the Blackbird mine was made on October 6 and 10. The underground work was not inspected, but the work accomplished was reviewed with Mr. Douglas, mine superintendent, Mr. Whitley, mine engineer, and Mr. Cole, mine geologist.

The work in the 74-787 hanging wall crosscut has been temporarily recessed at about 457 feet from the 7400 drift north. The last advance of 147 feet was reported on September 20, 1955. Drifting has been resumed in the 7400 N. drift and an advance of 197 feet was reported. About 90 feet of the advance was through heavy ground that had to be timbered; the remainder was in an argillaceous quartzite that is more firm and did not need support.

Mr. Cole and I discussed at some length the Operator's recent proposal for transfer of footage from the 7100 level to the 7400 level. About 220 feet remain before the allotted work in the 7400 N. drift is completed, and Mr. Cole suggested that it might be well to wait until the drifting and surface work are completed before any action is taken on the proposal. Further drilling from the final face and correlation of surface and underground data will undoubtedly provide a basis for acceptance or refusal of the proposal, and it seems wise to wait for this information.

The work completed to October 10, 1955 is:

		Authorized	Completed
Stage I			
	Trenching)		
	Diamond drilling)		Yes
	Reaming)		
	Assays	3100 units	2346 units
	U.G. D.D.	664 feet	612 feet

Stage II	Authorized	Completed
Drifting)	6,000 ft.	1,780 ft.
Crosscutting)		457 "
Assays	5,900 units	730 units
Normal timber	5,000 ft.	1,514.3 ft.
Heavy timber	750 "	591.5 "
Spiling	500 "	463.0 "
Framing	1,150 sets	313 sets
Diamond drilling	10,500 ft.	1,274.5 ft.

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

A. L. Service

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
OCT 10 1955

~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
September 20, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper) Calera Mining Co., Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

An inspection of the Calera Blackbird mine was made on September 13, 1955, accompanied by George Krempasky, Mining Engineer, Bureau of Mines, Cecil Whitley, mine engineer, and Gavin Young, mine superintendent.

Diamond drilling in the 7400 drift north has been completed and the logs, maps, and assays have been submitted with the August narrative report. The results of the drilling have been favorable and have further verified anomalies produced by self-potential surveys conducted by the company. Drilling was stopped late in the month and the drifting in the 7400 north drift was resumed.

The 74/787 hanging wall crosscut heading has been advanced on a 3 shift basis while diamond drilling was in progress. During August 147 feet had been advanced through badly broken quartzite and biotite schist. Most of the advance required heavy timber. Late in the month the crews were shifted to the 7400 north drift.

The heading in the 7400 north drift advanced only 8 feet during the month. The ground appears to have improved over that previously driven through, and the progress should pick up during September.

Mr. E. B. Douglas, mine manager, discussed a proposal to transfer 2000 feet of drifting, allotted to the 7100 level exploration, to the 7400 north drift and the 74/787 hanging wall crosscut. Self-potential surveys and surface cuts recently completed and geochemical surveys completed by the USGS were used by Mr. Douglas as points favoring a modification of the original project. A letter has been received by the Field Team and the proposal is being reviewed.

The total work completed on the DMEA project as of September 13, 1955 is:

	Authorized	Completed
Stage I		
Trenching)		
Diamond drilling)		Yes
Reaming)		
Assays	3100 units	2346 units
U.G.D.D.	664.4 ft.	612.0 ft.
Stage II		
Drifting)		1586.0 feet
Crosscutting)	6000 feet	457.0 feet
Normal timber	5000 "	1418.3 "
Heavy timber	750 "	549.5 "
Spiling	500 "	421.0 "
Framing	1150 sets	295 sets
D.D.	10500 feet	1274.5 feet

A. L. Service

Orig. & 3 cys - Wash.
USGS (2)
DMEA
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ALS/he

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
August 22, 1955

RECEIVED
SEP - 1 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt), Calera Mining Co., Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The project work at the Blackbird mine was inspected on August 9, 1955, accompanied by George Krempasky, Mining Engineer, U. S. Bureau of Mines. Cecil Whitley, mine engineer, Gavin Young, mine superintendent, and Richard Cribbs, geologist, were present.

The 784 hanging wall crosscut has been advanced about 280 feet during the month. The ground is solid and very little timber has been needed. Some sections of the crosscut are slabbing off, and the Operator has requested permission to use rock bolts instead of timber.

The diamond drilling in the 7400 N drift is progressing rapidly. The results of the drilling have enabled the Operator to project several of the vein segments and to partially solve the complexities of the numerous cross faults that offset the vein. Logs of the holes will be submitted with the Operator's monthly narrative.

The total units of work completed to August 9 are:

Stage I	Authorized	Completed
Trenching)		
Diamond drilling)		Yes
Reaming)		
Drift)		
Crosscut)	6,000 ft.	525 ft.
Normal timber	5,000 "	839 "
Heavy "	750 "	477 "
Spiling	500 "	656 "
Framing	11,500 sets	230 sets
U.G. D.D. Stage I	664.4 ft.	612.0 ft.
D.D. " II	10,500 "	1050.0 "
Assays " I	3100 units	2346 units
" " II	5900 "	600 "

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

A. L. Service

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

1201 N. Division St.
Spokane 2, Washington
April 13, 1955

Department of the Interior
Defense Minerals Administration
RECEIVED
MAY 12 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Company, Blackbird Division, Lemhi County, Idaho, Contract No. Idm-E645

The Calera Blackbird mine was visited on April 7. Mr. Whitley, mine engineer, was present during the visit.

Progress has improved considerably since the last inspection. A total advance of 362 feet in the 7400 N. drift on a 3-shift basis was reported. Spiling ended at station 553 + 96 and 10 sets of timber were placed in the 362 feet advanced. The drift was not inspected at this time because a round had just been shot, but Mr. Whitley said that the ground had improved and they expected to maintain an average of about 15 feet per day with 3 shifts.

Minor quantities of cobalt mineralization have been picked up in the drift and the assays were reported favorable. Samples will be cut and the Operator's assays verified on the next visit.

The total contract units completed to April 7, 1955 are:

	Authorized	Completed
Trenching - Stage I	864 hrs.	864 hrs.
Drift }	6000 ft.	1070 ft.
Crosscut }		220 "
Normal timber	5000 "	703 "
Heavy "	750 "	341 "
Spiling	500 "	292 "
Framing	11500 "	205 sets
D. D. - Stage I	8576.5 Ft.	9188.5 ft.
D. D. - Stage II	10500	155.5 "
Assays - Stage I	3100	2346
Assays - Stage II	5900	272
Reaming - Stage I	1145 ft.	370 ft.

A. L. Service
A. L. Service

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

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

1201 N. Division St.
Spokane 2, Washington
March 16, 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Co., Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine was visited on March 5 with Mr. Soderburg and Mr. Whitley, mine engineers.

Although work is on a 3-shift basis progress on the 7400 drift north has been slow with about 138 feet of advance since the last inspection. Considerable difficulty was encountered in the badly fractured and heavy ground, but the face, at the time of the inspection, looked considerably better. The workmanship is good. In the report of January 17, 1955, it was erroneously reported that the drift section was 9x11 feet. The section is 6x8 feet in the clear of timbers.

Two diamond drill holes were drilled in the 7100 level. Drill hole U-71-206 was 232 feet deep and cut a 13-ft. zone of quartz and pyrite. Drill hole U-71-205 was drilled to 455 feet. Seventy-five feet of this hole was not charged to this project. There were no logs available on this hole at the time.

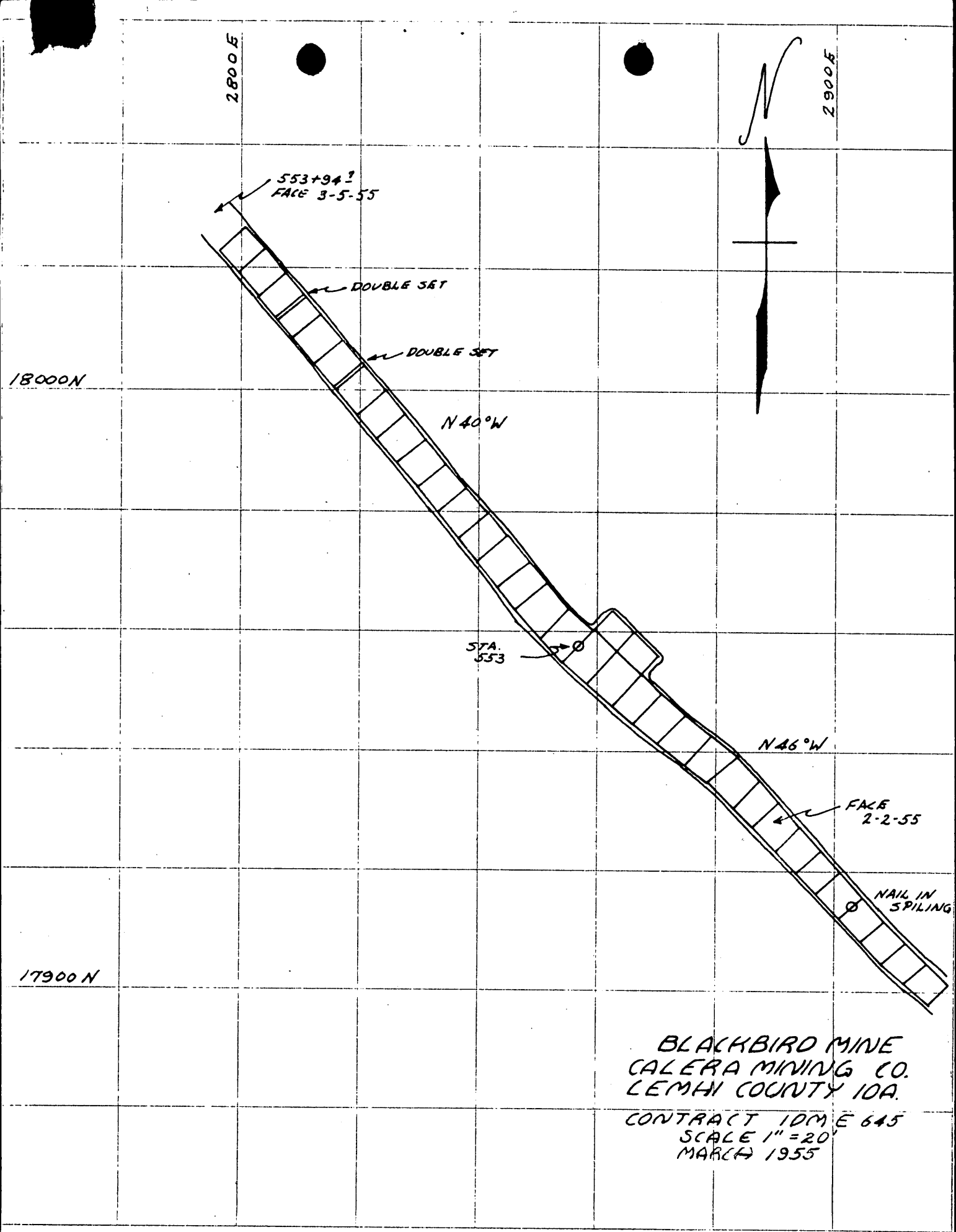
Total contract units completed to March 5, 1955 are:

Drift	708 feet
Crosscut	220 "
Normal timber	650 "
Heavy "	341 "
Spiling	271 "
Framing	47 sets
D.D., Stage I	9188.5 feet
D.D., Stage II	98 "
Assays, Stage I	2300
" Stage II	150
Reaming, Stage I	370 feet

if so, it still seems too big to attempt to drive through heavy ground
/s/ W S
4/6/55

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

A. L. Service
A. L. Service



"ALBANENE" NO. 1000 K&E CO., N.Y.
REG. U.S. PAT. OFF.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
February 16, 1955

MEMORANDUM

To: DMEA Field Team, Region I

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Co., Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The mine was visited on February 2, 1955. Mr. Richard Cribbs, company geologist, was present at the time of the inspection.

The 7400 northwest drift has advanced 93 feet since the last inspection. The Operator tried to advance without spiling for 20 feet but the ground would not hold up and spiling was resumed. The section is still about 9x11 feet in the clear of timbers. Progress and workmanship on the project is good.

The heading was swung about 30° to the west in an effort to get out of the fractured zone. A round was shot a few minutes before the inspection and the back looked a little better than it had previously. If the improvement continues, spiling may be eliminated.

A small amount of mineralization was found about 15 feet back from the present face. It consisted of small stringers scattered over the face. The mineralization was persistent and there was some evidence of it in the muck pile from the last round. This ore is being sent to the mill. The Operator plans to stay on the present heading.

Mill Results

Total contract units completed to date are:

Drift	570 feet
Crosscut	220 "
normal timber	650 "
Heavy "	203 "
Spiling	183 "
Framing	19 sets
Diamond drilling, Stage I	8576.5 feet
" " " II	98 "
Assays, Stage I	2300
" " II	150
Reaming, " I	370 feet

Snow for the area is light, and access roads are in good condition.

Orig. & 3 cys - Wash.
USGS (2)
DMEA
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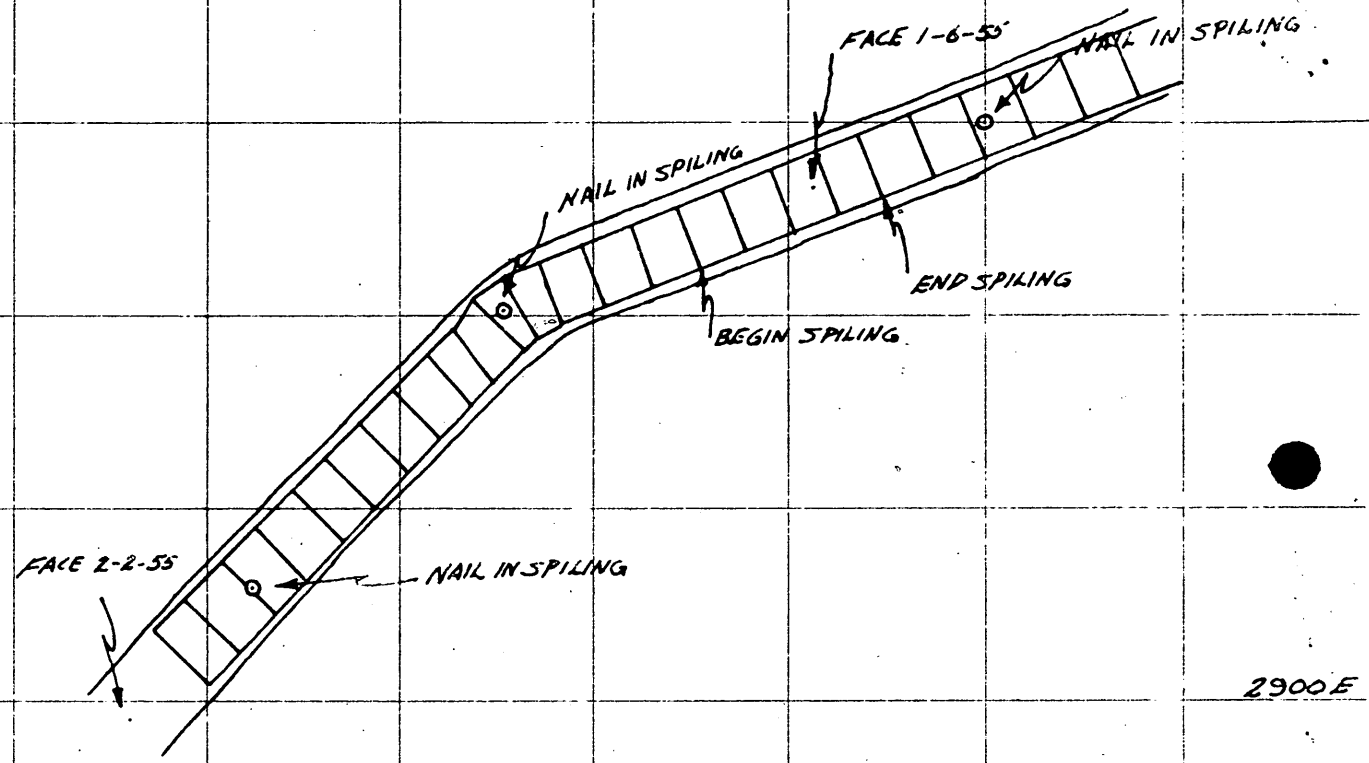
A. L. Service

A. L. Service



BLACKBIRD MINE
CALERA MINING CO.
DMEA 3143-COBALT
IDM E645
7400 DRIFT Nº
1" = 20'

17900N

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division Street
Spokane 2, Washington
January 17, 1955

MEMORANDUM

To: DMEA Field Team, Region I

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Co., Blackbird Mine, Lemhi County, Idaho Contract Idm-E645

The subject property was inspected on January 6, 1955 accompanied by H. B. Nickelson, geologist, Geological Survey.

There has been an advance of 42 feet in the heading of the 7400 northwest drift since the last inspection on December 4, 1954. The drift has been timbered all the way and spiling was used for the last 72.5 feet. The cross section runs about 9 x 11 feet in the clear. *

Mr. Cribbs, the operator's geologist, discussed a proposal whereby the remaining surface diamond drilling and reaming in Stage I of the contract be used to do some underground diamond drilling on the 7100 level. The final decision on this proposal was that the operator would submit a request for an amendment that would permit the outlined work to be done.

Total contract units completed to January 6, 1955 are about as follows:

Drift	477	feet
Crosscut	220	"
Normal timbering	650	"
Heavy timbering	110	"
Spiling	110	"
Framing	148	sets
Diamond drilling, Stage I	8576.5	feet
Diamond drilling, State II	98	"
Assays Stage I	2300	
Assays Stage II	150	
Reaming Stage I	370	feet

Snow conditions are average for the area and most roads are passable with chains-equipped vehicles.

A. L. Service

ORIG. & 3 cys - Wash.
USGS (2), DMEA,
M/D, AD
ALS/lb

From Webster's New Collegiate - "Clear, noun 1. A clear space or part. 2. Clearance; unobstructed space; also (chiefly in phrase in the clear), minimum distance between bounding parts or surfaces, as of an opening; interior width.

Form Approved (Apr. 1956)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
APR 26 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1955 Docket No. DMEA 3143 Contract No. 14a-1045
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $ 407,340.00 Government Participation: 70 % Amount, $ 285,138.00

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 Spotting:	740.00	9,260.00	10,000.00	740.00	9260.00	10000.00
Short Form Heavy Timbering	378.00	4,595.50	4,973.50	378.00	4595.50	4973.50
Drilling						
Sandstone Trenching		10,262.59	10,262.59		10262.59	10262.59
Crosscutting Framing	109.60	2,060.48	2,170.08	109.60	2060.48	2170.08
Drifting	6,787.19	95,837.92	102,625.11	6787.19	95837.92	102625.11
Normal Timbering	700.00	12,826.10	13,526.10	700.00	12826.10	13526.10
(2) Labor and Supervision:						
Core Drilling Stage III Labor	3,238.46	7,664.07	10,902.53	3238.46	7664.07	10902.53
Core Drilling Stage I Supervision		59,692.44	59,692.44		59692.44	59692.44
Technical Services						
(3) Operating Materials and Supplies:						
Core Drilling UG Stage I Timber		2,069.91	2,069.91		2069.91	2069.91
Explosives						
Reaming Stage I Pipe		2,862.50	2,862.50		2862.50	2862.50
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 Stage II	756.00	3,165.00	3,921.00	756.00	3165.00	3921.00
Liability Insurance						
Sampling and Analysis Stage I		7,038.00	7,038.00		7038.00	7038.00
(8) Contingencies (specify):						
TOTALS	12,709.25	217,334.51	230,043.76	12709.25	217334.51	230043.76

I certify that the above bill is correct and just and that payment therefor has not been received.
Date January 6 *Payee Calera Mining Company
Per [signature] Title [signature]

*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)

14a - Narrative
& maps sent to Washington
4/3/56

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

$ 4785 91

Signature [signature]
(Authorized Certifying Officer)

Date 4-20-56 Vou. No. 1757
(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. E645 in accordance with the terms of the contract.

Signature (S) Alfred R. Service Title Mining Engr. Date Jan 17-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature (S) Stephen W. Zoldok Title Mining Engr. Date Jan 18-56

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

RECEIVED
APR 6 - 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1952 Docket No. DMEA 3143 Contract No. Ida-8645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, 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	Ft.	6,787.19	191	102,625.11	2,888	35.535	6,000	35.535
Crosscutting								
Normal Timbering	Ft.	700.00	100	13,526.10	1932.3	7.00	5,000	7.00
Raising								
Heavy Timbering	Ft.	378.00	54	4,973.50	710.5	7.00	750	7.00
Shafts								
Spiling	Ft.	740.00	37	10,000.00	500.0	20.00	500	20.00
Stopes								
Framing	Sets	109.60	20	2,170.08	396	5.48	1,150	5.48
Drilling: Core								
Assay Stage II	Each	756.00	252	3,921.00	1,307	3.00	5,900	3.00
Drilling: Churn								
Drilling Core Stage II	Ft.	3,238.46	957½	10,902.53	3223.5	3.3822	10,500	3.3822
Auger								
Underground DD Stage I	Ft.			2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Test Pits								
Drilling Core Stage I	Ft.			59,692.44	8,576.5	6.96	8,576.5	6.96
Roads and Trails								
Assay Stage I	Each			7,038.00	2,346	3.00	3,100	3.00
Reaming Stage I	Ft.			2,862.50	1,145	2.50	1,145	2.50
Total Distributed Costs		12,709.25		230,043.76				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		12,709.25		230,043.76				

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 January 6 Operator Calera Mining Company

Per [signature] Title [signature]

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)

Payment being held up until amendment extending time is signed.

Is/ Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

RECEIVED

APR 6 - 1956

January 4, 1956

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-E645

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143 for the month of December, 1955.

The 74/787 Hanging Wall Crosscut continued to be worked on a three shift basis and was advanced 191 feet during the month. A total of 100 feet of the crosscut required timbering; 54 feet of which was weakened by north trending fault and required the driving of spiling.

Drilling of the northern hanging wall part of the Blacktail Zone has now outlined an orebody of good grade over 400 feet in length and an average of 31 feet wide. Two holes drilled to the northeast failed to locate ore east of the major fault which appears to bisect the Blacktail Zone. A third and much longer hole is planned in this area. Another hole is being started from the face to intersect the zone as far north as possible. Drilling is also being started to further examine a possible southeast extension of the small footwall zone, which was intersected in one hole out of two drilled to the southwest.

Drilling continued in the area between the Brown Bear and Blacktail zones. So far two holes have located a zone which is rather narrow and spotty in distribution but of ore grade.

Gold assays of the Blacktail zone show that although they are somewhat better in general than the Chicago and Brown Bear zones, the values are not of the importance as was first indicated.

Very truly yours,,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:srp

Enclosures

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 3
By [illegible]
Date [illegible], 1955

Hole No. [illegible]-7-65 Mine [illegible] Division Level 7[illegible]
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Bi	% C. R.	Geology and Remarks
	[illegible]432	102-106			.078			Coll[illegible] [illegible] supplement to
	[illegible]433	106-111			.[illegible]			further result, also
	[illegible]434	111-114			.244			qualitative analysis for bismuth
	[illegible]435	114-116			.192			
	[illegible]436	116-121			nil			
	[illegible]437	121-126			.156			
	[illegible]438	126-127			[illegible]	nil	✓	
	[illegible]439	127-129			nil			
	[illegible]	129-130			[illegible]			
	[illegible]	130-131			.246			
	[illegible]	131-137			.144			
	[illegible]443	137-14[illegible]			[illegible]	nil		
	[illegible]444	14[illegible]-147			.192	nil		
	[illegible]445	147-152			[illegible]	nil	✓	

Hole No. [illegible]-7-65

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By [illegible] Cole
Date [illegible]ecember, 1955

Hole No. U-74-69 Mine Blackbird Level 740

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
12-8	13803	0 - 5	.03	.21		5	60	Contorted schistose quartzite 30° to core, minor sulfide mineralization
	13804	5 - 6	.01	1.42		1	60	Schistose brown silica dike, very small carbonate porphyroblasts
	13805	6 - 8	.05	1.19		2	60	Schistose quartzite somewhat contorted bleached, and irregularly iron stained with minor sulfide mineralization
		8 - 31						Schistose quartzite generally 30° to core, contorted in places, scattered minor sulfide mineralization
	13806	8 - 13½	.02	.23		5½	45	
	13807	13½ - 19	.09	.07	Tr.	5½	91	
	13808	19 - 25	.08	.10		6	83	
	13809	25 - 31	.06	.21		6	75	
12-11		31 - 64						Schistose quartzite with (-1°) bearing 40°-45° to core, scattered irregular minor sulfide mineralization, rather contorted 31-35 ft., possible chlorite in thin stringer 40° to core at 53 ft.
	13838	31 - 36½	.10	.43		5½	100	
	13839	36½-42	.10	.42		5½	100	
	13840	42 - 47½	.06	.43		5½	82	
	13841	47½- 53	.04	.56		5½	73	
	13842	53 - 58½	.03	.29		5½	73	
	13843	58½- 64	.10	.34		5½	73	
		64 - 74						Broken quartzite and quartzose schist, contorted, faults at 66 ft., 70 ft.
	13844	64 - 67	.07	.82		3	33	
	13845	67- 69	.17	.81		2	25	
	13846	69 - 74	.34	1.38	✓	5	4	
		74 - 88½						Broken, contorted quartzose schist with irregular quartz sulfide mineralization
	13847	74 - 79	.08	.58		5	10	
	13848	79 - 85	.20	1.22		6	20	
	13849	85 - 88	.55	1.77		3	40	
	13850	88 - 90	3.94	9.12		2	45	Quartz - sulfide - cobaltite vein
	13851	90 - 92	2.85	6.84		2	25	Quartz - sulfide vein with some unreplaced schist
	13852	92 - 97	.01	.18		5	18	Fragments of quartzose schist and quartzite, dipping 40° to core
12-13		97 - 131						Broken quartzose schist generally 30° to core, scattered quartz chalcopyrite - pyrite mineralization, especially 111-114 ft.
	13012	97 - 105	.18	2.93	✓	8	4	
	13013	105 - 108	.06	.41		3	33	
	13014	108 - 111	.04	.30		3	5	
	13015	111 - 114	.24	4.24	✓	3	23	
	13016	114 - 118	.09	.19		4	8	
	13017	118 - 126	.07	.09		8	5	
	13018	126 - 131	.05	.24		5	4	

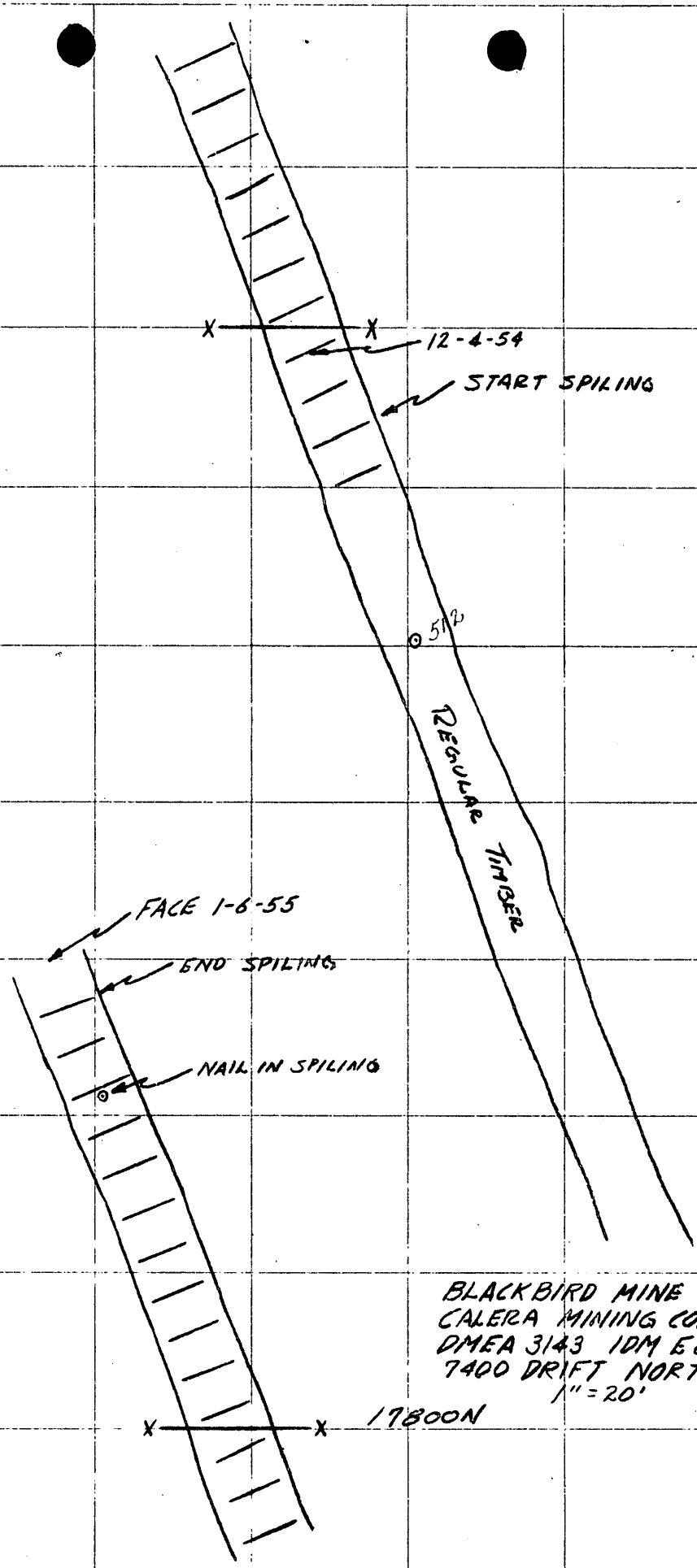
Hole No. U-74-69

ASSAY RECORD
CALERA MINING CO.

Chute Sect. _____ Level 7400

Working 12-7-69

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
				DIGGING						
12-11	3831	67	69			09	1 03			
	3832	69	74			19	1 94			
	3833	74	79			13	1 22			
	3834	79	85			35	2 14			
	3835	85	90			59	91			
	3836	90	92			75	4 33			
	3837	92	97			75	1 09			
12-13	3003	97	101			20	1 25			
	3004	101	105			26	1 16			
	3005	105	108			16	67			
	3006	108	111			15	97			
	3007	111	114			16	1 07			
	3008	114	118			08	48			
	3009	118	122			08	58			
	3010	122	1 26			07	63			
	3011	126	131			06	58			



BLACKBIRD MINE
CALERA MINING CO.
DMEA 3143 IDM E645
7400 DRIFT NORTH
1" = 20'

"ALBANENE" No. 160M A&E CO., N.Y.
REG. U.S. PAT. OFF

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED

January 31, 1955

Memorandum

To: DMEA Field Team, Region I, Northwest District

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3143 (cobalt-copper), Routine inspection report, Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

This inspection was made on January 6, 1955. A. L. Service, mining engineer, U. S. Bureau of Mines, accompanied the writer. Mr. Cribbs, company geologist, was contacted at the mine office and a limited drilling program which the company plans to do on the 7100 level was discussed.

Mr. Cribbs was asked to submit this proposal with accompanying maps to the Field Team for their consideration. The drilling program will explore for a vein found on the surface that should project about 200 to 300 feet beyond the 7100-level workings. This area will be cut by the 7100-level DMEA crosscut if the company and Field Team considers the geologic evidence found in surface trenching and surface drilling warrants this exploration work.

Mr. Cribbs was also asked to submit geologic maps of the trenches and the diamond drill locations. He informed the examiners it would be about May 1, 1955, before he could have them in our office. The examiners suggested submitting brown line intermediates and one colored print to facilitate receiving these maps as soon as possible for the Field Team's information and planning.

Mr. Service and the writer visited and measured the underground advance. Very little geology could be seen in the heavily spiled ground.

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Nickelson

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 2
By [illegible]
Date

Hole No. U-74-70 Mine Blackbird Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
12-2	3620	83-93	[illegible]	.37	✓	5	100	Quartz-sulfide-cobaltite vein, high quartz content, low angle fault (to core) at 89 ft., fault at 91 ft.
		93-112						Schistose quartzite 45° to core,
	3621	93-95½	.25	.75		2½	100	scattered quartz-sulfide mineralization
	3622	95½-101	.22	.32		5½	100	especially 100½-101½ ft., fault at
	3623	101-104½	.05	.50		3½	100	94½ ft.
	3624	104½-108½	.21	.50		4	100	
	3625	108½-112	.07	.03		3½	100	
	3626	112½-117	.43	.90	✓	5	100	Schistose quartzite 45° to core, a little disseminated cobaltite scattered throughout 4" cobaltite stringers at 116½ ft.
		117-136						Schistose, quartzite 45° to core, minor
	3629	117-120	.08	.14		2½	100	irregular sulfide mineralization, yellow
	3630	120-125	.11	.20		5	100	coatings along fractures, possible
	3631	125-130	.02	.03		5	100	fault at 122½ ft.
	3632	130-134	.07	.15		4	100	
	3633	134-136½	.09	.20		2½	100	
	3634	136½-141½	.09	.07		5	100	Schistose quartzite 55° to core, somewhat brecciated, a little disseminated cobaltite.
12-8		141½-155						Schistose quartzite 55° to core, scattered
	3810	141½-145½	.02	.15		4	100	minor mineralization, schistose brown
	3811	145½-148	.051	.02		3	83	basic dike with ferrous carbonates
	3812	148-149½	.08	.07		1	50	143½-147½ ft., fault at 149½ ft.,
	3813	149½-155	.04	.15		6	83	desseminated carbonate in quartzite 145½-149½ ft., scattered minor irregular sulfide mineralization.

Hole No. U-74-70

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By F. C. Cole
Date November, 1973

Hole No. U-72-71 Mine Blackbird Level 7,00

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
11-30	X3708	0 - 1	tr.	.02		1	75	Ms schistose quartzite - broken
		1 -14						Ms schistose quartzite 30°-60° to core, generally contorted, bleached 5-5½ ft.
	X3246	1-5	tr.	.01		4	100	
	X3247	5-9	tr.	tr.		4	100	
	X3250	9-14	.03	.12		5	90	
		14-76						Schistose quartzite thinly banded generally 60° to core, somewhat contorted in places, very broken 72-76 ft., fault with some iron stained quartz at 59 ft., quartz-sulfides in brecciated quartzite 22-24 ft., fault at 62 ft., a little cobaltite at 63 ft.
12-5	X3635	14-19	tr.	.05		5	50	
	X3636	19-22	.16	.02		3	67	
	X3637	22-24	.23	.25		2	75	
	X3638	24-29	.25	2.12		5	20	
	X3639	29-34	.02	.04		5	80	
	X3640	34-38	.03	.02		4	75	
	X3641	38-43	.04	.03		5	50	
	X3642	43-48	tr.	tr.		5	40	
	X3643	48-54	.04	.01		6	42	
	X3644	54-59	tr.	tr.		5	34	
	X3645	59-62	.06	.07		3	57	
	X3646	62-64	.10	.08		2	65	
	X3647	64-70	tr.	tr.		6	67	
	X3648	70-76	tr.	tr.		6	54	
12-8		76-89						Broken quartzite, contorted, possible fault zone 80-86 ft. (ground to sand and wet with distinctly brownish color-dike material?)
	X3818	76-80	.03	tr.		4	62	
	X3819	80-86	.08	.05		6	15	
	X3820	86-89	.08	.05		3	7	
		89-100						Ms broken quartzite
	X3821	89-94	.02	.05		5	8	
	X3822	94-100	tr.	.02		6	33	
12-15		100-117						Broken quartzite generally banded 45° - 60° to core, fault at 100½ ft., possible fault 102 ft., scattered minor quartz sulfide mineralization
	X3038	100-103	.02	.23		3	50	
	X3039	103-106	.02	.02		3	67	
		106-108				2	0	
	X3041	108-114	.06	.39		6	83	
	X3042	114 -117	.13	.08		3	50	
	X3043	117-123	.79	3.01	.04	6	67	Brecciated quartz-sulfide vein, generally low sulfide content, fault at 117 ft. large?
	X3044	123-124	.06	tr.	Nil.	1	60	Schistose brown, nice dike with carbonate along schistosity 80°-90° to core

U-72-71
Hole No.

RECEIVED
APR 6 - 1956

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. _____
By [illegible]
Date [illegible]

Hole No. [illegible] Mine _____ Level _____
Location _____
Bearing _____ Dip _____ Length _____
Latitude of Collar _____ Departure of Collar _____ Elevation _____

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
		124-145						Quartzose quartzite with very small
	3045	124-127	.01	.03	Nil	3	77	quartz-sulfide stringers 50°-90°
	3046	127-131	.04	.31	Nil	4	75	to core, scattered specks of sulfide
	3047	131-136	.05	.07		5	50	141-145 ft., possible fault at 147 ft.
	3048	136-141	.02	.03	Nil	5	26	
	3049	141-145	.03	.04	Nil	4	55	
12-19		145-168						Quartzose quartzite 75° to core,
	2794	145-151	.09	.13		6	40	scattered chlor sulfides, fault
	2795	151-157	.03	.15		6	42	zone with brown dike material
	2796	157-163	.02	.10		5	50	152-153 ft., quartzose brown
	2797	163-168	.01	.10		6	40	dike 159-160 ft.

Hole No. [illegible]

ASSAY RECORD
CALERA MINING CO.

Chute Sect. _____ Level 7600

Working 8-74-72

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
				DRIFT						
1248	3823	00	06			07	09			
	3824	86	89			06	03			
	3825	89	92			16	09			
	3826	92	94			22	03			
	3827	94	100			07	08			
	3050	100	103			Lost ?				
	2751	103	106			03	06			
	2752	106	108			07	08			
	2753	108	114			06	29			
	2756	112	115			06	13			

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By [illegible]
Date [illegible], 1963

Hole No. 1-71-72 Mine Blackbird Level 740

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
11-30		0-9½						Dk schistose quartzite banded 45°
	13233	0-4	.03	.21		4	87	to core, minor sulfide mineralization
	13234	4-9½	.06	.34		5½	73	7-7½ ft.
		9½-31						Dk schistose quartzite banded 45° to
	13235	9½-13½	.09	.33		4	100	core, somewhat contorted, scattered
	13236	13½-17½	.05	.02		4	100	minor mineralization, a little possible
	13237	17½-21	.03	.03		3½	100	descinderted cobaltite 29-31 ft.
	13238	21-26	.05	.14		5	100	possible faults at 16½ ft., faults
	13239	26-29	.07	.15		3	80	at 29 & 30 ft., some cuprite in
	13240	29-31	.22	.69		2	80	irregular fractures 29-31 ft.
12-2	13606	31-33	.45	2.68		2	100	Brecciated quartzite with a little irregular
								chalcopyrite mineralization, a little
								irregular brown mica at 32 ft.
		33-55½						Schistose quartzite with 0-1" banding,
	13607	33-35	.05	.04		2	100	brecciated and contorted in places,
	13608	35-40	.08	.29		5	100	generally 30°-45° to core
	13609	40-45	.04	.14		5	100	
	13610	45-49	.01	.05		4	100	
	13611	49-53	.08	.11		4	100	
	13612	53-55½	.14	.42		2½	100	
		55½-65½						Schistose quartzite with stringers of
	13613	55½-60½	1.62	2.74		5	100	quartz-sulfides-cobaltite 45° to
	13614	60½-65½	.83	1.57		5	100	core, fault? at 57½-58 ft., cryst-
								alline quartz at 58 ft., possible
								fault, at 60½ ft., crystals of white
								quartz at 60½ ft.
		65½-72						Quartz-chalcopyrite-cobaltite, vein
	13615	65½-72	1.42	4.51		6½	100	high percentage of quartz
		72-80½						Schistose quartzite 45°-50° to core
	13617	72-75	.05	.17		3	100	with 0-1" banding
	13618	75-80½	.26	.69		5½	100	
	13619	80½-85	.14	1.89		4½	100	Broken schistose quartzite with
								some irregular sulfide mineralization,
								fault at 80 ft.
		85-97						Schistose quartzite 45° to core, white
12-5	13226	85-91	.08	.26		6	100	coatings along fractures, brecciated
	13227	91-97	.03	.03		6	100	in places
12-8	13802	97-103½	.05	.15		6½	92	Schistose quartzite 45° to core, somewhat
								contorted around 98 ft., minor
								mineralization

Hole No. 1-71-72

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 2
By W. G. Cole
Date December, 1955

Hole No. U-74-73 Mine _____ Level _____
Location _____
Bearing _____ Dip _____ Length _____
Latitude of Collar _____ Departure of Collar _____ Elevation _____

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	ft.	% C. R.	Geology and Remarks
12-16	X2758	100½-102	2.47	5.70	.338	1½	100	Quartz-sulfide-cobaltite vein with a little unreplaced schist
	X2759	102-104½	.24	.95	.160	2½	92	Fault zone, ground up schist & gouge
		104½-110						Contorted schistose quartzite 45°-60°
	X2760	104½-106½	.32	.20		2	100	to core, minor chalcopyrite-cobaltite
	X2761	106½-110	.19	.91		3½	98	mineralization, core very broken
12-19		110-137½						Contorted & brecciated quartzite 20°
	X2786	110-112½	.19	.29		2½	92	60° to core, scattered irregular
	X2787	112½-117	.37	.22		4½	100	sulfide mineralization, 118-120 ft.,
	X2788	117-121½	.27	1.53		4½	78	127 ft., 133½ ft., core generally
	X2789	121½-126	.06	.07		4½	100	broken, possible fault zone
	X2790	126-128	.15	.45		2	100	117-119 ft., faults at 113 ft., 121½ ft.
	X2791	128-133	.06	.10		5	100	fault zone 134½-136½ ft., a
	X2792	133-134	.24	1.41		1	100	little carbonate at 111 ft.
	X2793	134-137½	.18	1.03		3½	83	
12-21		137½-145						Broken quartzite & schist, fault
	X3264	137½-141	.05	tr.		3½	100	zone, caving.
	X3265	141-145				4	100	
12-23		145-155						Broken quartzite, probable fault
	X3713	145-146½	.01	tr.		1½	75	zone
	X3714	146½-150	.11	tr		3½	9	
	X3715	150-155	.02	.09		5	8	
			SUMMARY					
	X3716	150-155	.07	.23				

Hole No. U-74-73

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By L. G. Cole
Date December, 1955

Hole No. U-74-73 Mine Blackbird Level 7400
Location 7400 S.W.
Bearing N48½E Dip 43° Length
Latitude of Collar 18,569N Departure of Collar 2,230½E Elevation 7417

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C. R.	Geology and Remarks
12-8		0-9						Schistose quartzite generally
	X3814	0-4½	.14	.02		4½	67	55° to core, minor irregular
	X3815	4½-9	.07	.42		4½	56	sulfide mineralization
		9-18						Schistose quartzite generally
	X3816	9-13½	.06	.21		4½	89	45° to core, minor irregular sulfide
	X3817	13½-18				4½	78	mineralization, contorted 0° to core
12-11								17-18 ft.
		18-39						Schistose quartzite with ¼" banding
	X3853	18-24	.04	tr.		6	83	generally 45° to core, contorted,
	X3854	24-30	.02	.21		6	83	cut by small low angle tight
	X3855	30-36	.01	tr.		6	100	faults 20-25 ft., 60° to core
	X3856	36-42	.08	.10		6	83	around 41 ft. (schistosity), minor
	X3857	42-48	.01	.03		6	67	sulfide mineralization at 48 ft.
	X3858	48-54	.05	.06		6	58	
	X3859	54-59	.01	.09		5	60	
		59-64½						Schistose quartzite, brecciated, with
	X3860	59-61	.04	.49	Nil	2	75	some quartz-sulfide cobaltite
	X3861	61-64½	1.34	.86	.018	3½	57	mineralization, much cobaltite
								30° to core 61-64 ft., core
								generally broken fault at 61 ft.
		64½-72½						Broken brecciated quartzite, minor
	X3862	64½-67½	.05	.02	Nil	3	63	irregular sulfide mineralization
	X3863	67½-72½	.32	.60	Nil	5	36	
12-13	X3029	72½-77½	1.50	3.22	.038	5	100	Quartz-chalcopyrite-pyrite-cobaltite
								mineralization 45° to core, much
								unreplaced quartzite
	X3020	77½-80½	.05	.04	Nil	3	100	Thinly banded schistose quartzite 30°
								to core, possible fault at 77½ ft.
12-15	X3030	80½-84	.11	1.02	.018	3½	86	Broken schistose quartzite 30° to
								45° to core, brecciated with some
								irregular quartz-sulfides, schistose
								brown basic dike 82½-84 ft. partially
								replaced by quartz-sulfides, fault
								at 82½ ft.
	X3031	84-88	.17	.18	Nil	4	100	Broken quartzite banded 50° to core,
								minor sulfides.
		88-94½						Broken quartzite with much irregular
	X3032	88-91½	1.45	.60	.030	3½	100	quartz-sulfide mineralization
	X3033	91½-94½	.37	2.39	.018	3	100	
	X3034	94½-100½	1.28	2.90	.190	6	100	Brecciated quartzite with much irregular
								chalcopyrite & cobaltite

Hole No. U-74-73

ASSAY RECORD
CALERA MINING CO.

Chute Sect. December, 1955 Level 7400

D.H.S.A. 31455 Working 737 A-C

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
12-2	X3604	4666 ≠ 47	≠ 52	Muck	5	tr	tr			
12-3	X3605	≠ 52	≠ 57	"	5	tr	tr			
12-4	X3001	≠ 57	≠ 62	"		tr	tr			
12-5	40388	"	"	"	5	01	04			
"	40389	"	"	"		01	10			
12-6	X3801	≠ 62	≠ 73½	"	11½	03	03			
12-7	X3828	≠ 73½	≠ 80	"	6½	01	07			
12-8	X3829	≠ 80	≠ 86½	"	6½	tr	tr			
12-10	X3830	≠ 86½	≠ 93	"	6½	tr	tr			
12-11	X3001	≠ 93	≠100	"	7	tr	tr			
12-12	X3002	≠100	≠108	"	8	tr	tr			
12-13	X3035	≠108	≠114	"	6	tr	04			
12-13	X3036	≠114	≠124	"	10	tr	tr			
12-14	X3037	≠124	≠134	"	10	10	08			
12-15	X2755	≠134	≠141	"	7	02	tr			
"	X2757	≠141	≠152	"	11	tr	tr			
12-16	X2756	≠150	≠152½	Chip	2½	01	tr			Left Rib
12-17	X2770	4668 - 20	- 7	Muck	13	02	tr			
12-17	X2771	- 7	≠ 6	"	13	03	03			
12-18	X2772	≠ 6	≠ 19	"	13	02	08			
12-19	X2798	≠ 19	≠ 33½	"	14½					
12-19	X2799	≠ 33½	≠ 38	"	4½	01	04			
12-20	X3266	≠ 38	≠ 46	"	8	tr	02			
12-21	X3267	≠46	≠ 54	"	8	01	tr			
12-30	X3282	+54	+64	"	10	03	02			

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

RECEIVED 1955

Month of November 1955 Docket No. DMEA 3143 Contract No. Idm-561.5
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $407,340.00 Government Participation: 70 % Amount, $285,138.00

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: Short Form						
Spiling		9,260.00	9,260.00		9260.00	9260.00
Heavy Timbering	378.00	4,217.50	4,595.50	378.00	4217.50	4595.50
Drilling						
Trenching		10,262.59	10,262.59		10262.59	10262.59
Bulldozing						
Framing	158.92	1,901.56	2,060.48	158.92	1901.56	2060.48
Crosscutting	6,645.05	89,192.87	95,837.92	6645.05	89192.87	95837.92
Drifting						
Normal Timbering	1,057.00	11,769.10	12,826.10	1057.00	11769.10	12826.10
(2) Labor and Supervision:						
Core Drilling Stage II	2,589.07	5,075.00	7,664.07	2589.07	5075.00	7664.07
Labor						
Core Drilling Stage I		59,692.44	59,692.44		59692.44	59692.44
Supervision						
Technical Services						
(3) Operating Mat'ls and Supplies:						
Core Drilling UG Stage I		2,069.91	2,069.91		2069.91	2069.91
Timber						
Explosives						
Reaming Stage I		2,862.50	2,862.50		2862.50	2862.50
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 Stage II	717.00	2,448.00	3,165.00	717.00	2448.00	3165.00
Liability Insurance						
Sampling and Analysis Stage I		7,038.00	7,038.00		7038.00	7038.00
(8) Contingencies (specify):						
TOTALS	11,545.04	205,789.47	217,334.51	11545.04	205789.47	217334.51

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

Date December 6 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 8081.53

Signature MEP
(Authorized Certifying Officer)

Date 12-23-55 Vou. No. 1674
(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. E645 in accordance with the terms of the contract.

Signature /S/ Alfred R. Service Title Mining Eng Date 12-19-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zollolf 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.

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

RECEIVED JAN 3 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 195 5 Docket No. DMEA 3143 Contract No. Idm-8645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, 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	Ft.	6,645.05	187	95,837.92	2,697	35.535	6,000	35.535
Normal Timbering	Ft.	1,057.00	151	12,826.10	1,832.3	7.00	5,000	7.00
Heavy Timbering	Ft.	378.00	54	4,595.50	656.5	7.00	750	7.00
Spiling	Ft.			9,260.00	463	20.00	500	20.00
Framing	Sets	158.92	29	2,060.48	376	5.48	1,150	5.48
Assaying: Core Stage II	Ea.	717.00	239	3,165.00	1,055	3.00	5,900	3.00
Drilling Core Stage II	Ft.	2,589.07	765½	7,664.07	2,266	3.3822	10,500	3.3822
Underground DD Stage I	Ft.			2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ft.			59,692.44	8,576.5	6.96	8,576.5	6.96
Assay Stage I	Ea.			7,038.00	2,346	3.00	3,100	3.00
Reaming Stage I	Ft.			2,862.50	1,145	2.50	1,145	2.50
TOTAL DISTRIBUTED COSTS		11,545.04		217,334.51				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS		11,545.04		217,334.51				

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 December 6 Operator Calera Mining Company
Per [signature] Title [signature]

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ Alfred R. Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

December 5, 1955

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-2645

Dear Mr. Weissenborn:

Enclosed are maps and assays pertinent to the D.M.E.A. Project No. 3143 for the month of November, 1955.

The 7400 Drift North was advanced 25 foot on a three shift basis. The drift encountered moderately weak caving ground caused by north trending faults and required the standing 6 sets of timber. This heading was stopped temporarily for diamond drilling.

The 74/787 Hanging Wall Crosscut was advanced 117 feet on a three shift basis. The drift encountered badly faulted and fractured schistose quartzite and garnet schist requiring heavy timbering for 54 feet. Beyond this distance the faulting was less severe and required only 32 feet of timbering.

Holes are being drilled northeast and southwest from the 7400 Drift North to locate the northern extension of the Blacktail zone, 552½ feet of drilling in this area have located two possible ore zones. The footwall zone in the left rib has been intersected in only one hole and is narrow but of good grade. The hanging wall zone has been intersected in two holes and is wide and of very good grade. Drilling is now being concentrated on this more promising hanging wall zone.

The hole drilled west along the 17,298 north coordinate line was abandoned at 272 feet because of drilling difficulties. Two small zones of ore grade were intersected but were not of sufficient width.

Two holes were drilled from the dead end footwall drift to locate the northern extension of the Brown Bear Zone. The southernmost hole intersected ore of good grade 3½ feet wide. The hole drilled from the face intersected no significant mineralization. A third hole is being started from the main haulage drift and drilled southwest to examine this same possible zone 100 feet farther to the north.

Yours very truly,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas

EBD:abd

Enclosures

ASSAY RECORD

CALERA MINING CO.

Chute Sect. D.M.E.A. #3143

November, 1955

Level 7400

Working 787 X-C-E

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
11- 9	X3363	#13	#29	Muck	16	01	Tr.			
11-11	X3497	#29	#35	"	6	Tr.	Tr.			
11-12	X3478	#35	#40	"	5	04	Tr.			
11-16	X3413	#50	#60	"	10	51	77			Saltod?
11-21	40001	#72	#82	"	10	Tr.	Tr.			
11-22	X3079	#82	#93	"	11	01	Tr.			
11-23	X3480	#93	#104	"	11	Tr.	Tr.			
11-25	X3492	#104	#110	"	6	Tr.	02			
"	X3493	#110	#116½	"	6½	Tr.	15			
"	X3494	#116½	#123	"	6½	02	04			
11-26	X3502	#123	#146	"	23	01	02			
11-27	X3201	#146	#154½	"	8½	03	14			
"	X3202	#154½	163	"	8½	Tr.	Tr.			
11-30	X3603	#163	#170	"	7	8r	.04			

ASSAY RECORD

CALERA MINING CO.

Chute Sect. D.M.E.A. #3143
November, 1955

Level 7400

Working 7400 D.N.

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
10-31	12440	#93½	#105½	Muck	12	10	✓ 75			
11-1	12451	#105½	#112	"	6½	12	✓ 57			
11-2	12452	#112	#118	"	6	04	55			
11-4	12462	#118	#129½	"	11½	15	✓ 37			

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 3
By W. C. Cole
Date October 1955

Hole No. U-74-63 Mine Blackbird Level 7403

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.		% C. R.	Geology and Remarks
11-3		220-231						Quartz-chalcopyrite-pyrite vein broken quartzite minor mineralization highly fractured quartzite banded 45°-60° to core, somewhat contorted, core ground to mud at 230ft., 240 ft. Faults?
	X3453	226-231	.01	.01		5	80	
	X3454	231-236	.01	.09		5	80	
	X3455	236-241	.02	tr.		5	80	
	X3456	241-246	.01	tr.		5	80	
	X3457	246-251	.03	.29		5	60	
11-8		251-272						Quartzite with 1/8" banding 30° to core, core broken, scattered broken white quartz and a few flakes of native copper.
	X3469	251-256	tr.	tr.		5	20	
	X3470	256-262½	tr.	tr		6½	74	
	X3471	262½-267½	.03	.10		5	30	
	X3472	267½-272	.03	.07		4½	62	
10-11		SHADES						
	X41	7-11	.43	1.03				
	X42	11-16	.63	1.46				
	X43	16-21	.49	.97				
	X4225	175-180	.02	1.61				
	X4226	180½-186	.01	1.06				
	X4227	186-191	.01	.16				
10-30								
11-1	X4220	198-201	.03	1.21				
	X4221	207½-211	.03	.24				
	X4222	211-216	.05	.67				
	X4223	216-221	.23	.63				
	X4224	221-223	.03	.60				
	X4225	223-226	.36	1.10				
11-8	X3473	251-256	.02	.29				
	X3474	256-262½	.03	.35				
	X3475	262½-267½	tr.	.17				
	X3476	267½-272	.01	.16				

U-74-63
Hole No.

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By F. J. Cox
Date

DIAMOND DRILLING RECORD

Hole No. E-74-64 Mine Blackbird Level 7400
Location 7400 D.M.
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-10-55	13351	0-5	.06	.02		5	100	3% well leached pelitoceo quartzite. Bands about 45° to core. Very minor quartz and sulphides. Cobaltite in fracture at 2½'.
	13352	5-10	.01	Tr.		5	80	3% Same
		10-39						3% Same
	13353	10-13.5	.03	Tr.		3½	100	
	13354	13.5-17	.03	.04		3½	71	
	13355	17-21	.04	.04		4	50	
	13356	21-25	.03	.15		4	75	
	13357	25-29	Tr.	.01		4	75	
11-12-55		29-39						3% Sericitic quartzite 20° to core. 3 inches of brown mica dike at 34½.
	13369	29-32	.03	.21		3	70	Some carbonates in seams at 35½
	13370	32-39	.10	.16		7	50	
	13371	39-42	1.61	3.26	.013	3	87	Chalcopyrite, cobaltite & carbonates in seams.
	13372	42-46	1.31	1.79		2	95	Sericitic quartzite with some quartz & carbonate replacement.
	13373	46-47	.18	.03		3	93	Brown mica dike with carbonates. Some pieces of sericitic quartzite with dike-appears to be enclosures by drilling.
		47-49						Sericitic quartzite with minor carbonates & quartz in fractures.
	13374	47-48	.21	.09		1	50	
	13375	48-52	.03	Tr.		4	100	
	13376	52-56	.04	.05		3	100	
	13377	56-58½	.01	Tr.		4½	92	
	13378	58½-62½	.07	.19		4	100	
	13379	62½-66	.34	.41		1½	93	
	13380	66-68	.23	.03		4	100	
	13381	68-71	.04	.02		6	66	
	13382	71-77	.03	Tr.		5	92	
		77-97						Some sulphide mineralization from 95-97 seems to be ground up core & caving water over 100 core lost 1½'
	13383	77-83	.03	Tr.		4	100	
	13384	83-87	.20	Tr.		4	100	
	13385	87-92	.06	.13		5	100	
	13386	92-95	.13	.39		3	100	
	13387	95-97	.21	.76		2	100	

Hole No. E-74-64

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2
By F. J. Cox
Date

DIAMOND DRILLING RECORD

Hole No. U-74-64 Mine Blackbird Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-16-59		97-131						Schistose quartzite thinly banded 30°-45° to core, albeit grewed to end 108-109 Ft. fault zone brecciated 109-112 Ft. core generally broken.
	X3400	97-103	.03	.02		6	63	
	X3401	103-109	.03	.01		6	63	
	X3402	109-115	.03	.01		6	83	
	X3403	115-121	.04	.04		6	50	
	X3404	121-126	.07	Tr.		5	90	
	X3405	126-131	.02	.05		5	67	
11-17-59		131-144						Schistose quartzite with minor pyrite & chalcopyrite from 131 to 132. Core fairly well but recovery very poor. Sludge was taken 137-140 & 140-144.
	X3421	131-137	.14	.44		6	43	
	X3422	137-140	Tr.	Tr.		3	17	
	X3423	140-144	.07	.28		4	23	

Hole No. U-74-64

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By F. J. Cox
Date

DIAMOND DRILLING RECORD

Hole No. U-74-65 Mine Blackbird Level 7400
Location 7400 D.H.
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.		% C. R.	Geology and Remarks
11-10-55		0-5½						DZ Schistose quartzite quite well
	R3399	0-2½	.01	tr.		2½	100	lateralized.
	R3360	2½-5½	tr.	.05		3	100	
		5½-12						AZ Same
	R3361	5½-9	.01	.07		3½	91	
	R3362	9-12	.02	.10		3	100	
11-12-55	R3363	12-15½	.01	.04		4½	96	AZ Schistose quartzite with carbonate
	R3389	15½-17	.34	1.03		1	60	& iron oxides in fractures.
								Chalcopyrite & pyrite replacement of quartzite.
	R3390	17-18	.29	.36		1	100	Black biotite schist intercalated with quartzite bordering the sulfide vein above.
		18-47						Schistose quartzite, minor sulfide stringers quartzite, at 22 663 ft.
	R3391	18-21½	.01	.02		3½	97	quartz vein 1 inch at 30 ft. with
	R3392	21½-23½	.02	.37		2	85	unidentified green mineral, core not
	R3393	23½-28	.01	.05		4½	100	very broken.
	R3394	28-32	.01	tr.		4	103	
	R3395	32-36	.01	.05		4	93	
	R3396	36-41½	tr.	tr.		4½	100	
	R3397	41½-47	.02	.13		5½	95	
11-16-55	R3479	47-52	tr.	.04		5	90	Quartzite banded 40° to core, core broken
								1/8" white quartz stringer at 47½
								perpendicular to schistosity
		52-57½				3½	0	No core of sludge
11-17-55		57½-65						Schistose quartzite with quartz and
	R3414	57½-62	.01	.05		4½	100	carbonate in fractures. Some sulphides
	R3415	62-65	.19	.25		3	87	63-66 and minor sulphides 64½-65.
	R3416	65-66	.46	1.50		1	80	
	R3417	66-70	.05	.46		4	77	
	R3418	70-76	.03	tr.		6	62	
	R3419	76-79½	.03	.06		3½	97	
	R3420	79½-85	.05	1.64		5½	91	
11-18-55		85-102½						Schistose quartzite with minor quartz
	R3427	85-91	.06	.03		6	82	and chalcopyrite stringers. Structure
	R3428	91-94	.04	.45		3	100	about 60° to core some chalcopyrite and
	R3429	94-97	.04	.10		3	97	cobaltite mineralization 100-102½.
	R3430	97-100	.05	.22		3	93	
	R3431	100-102½	1.78	4.98		2½	72	

U-74-65

Hole No.

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2
By J. Cox
Date

DIAMOND DRILLING RECORD

Hole No. U-74-65 Mine Blackbird Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.		% C. R.	Geology and Remarks
11-16-55		102½-111						All pyrite, quartz, chalco-pyrite mineralization. About 35% quartz & about 10% unreplaced quartzite.
	X3432	102½-106	1.84	5.46	.078	3½	97	
	X3433	106-111	2.44	4.38		5	66	
	X3434	111-114½	1.35	2.91		3½	100	Good seringers of quartz, pyrite and chalcopyrite. About 63% unreplaced quartzite.
	X3435	114½-116½	1.60	12.20	0.396	2	90	Massive vein of chalcopyrite pyrite, quartz & cobaltite.
		116½-126½						Schistose quartzite moderately mineralized with quartz, chalcopyrite & pyrite.
	X3436	116½-121	.26	.39		4½	100	
	X3437	121-126½	.80	1.65	.156	5½	98	
11-21-55	X3438	126½-127½	6.41	6.60	.620	1	100	Complete replacement of quartzite by chalcopyrite quartz, cobaltite & pyrite.
		127½-142						Schistose quartzite 65° to core partially replaced by seringers of very good cobaltite & chalcopyrite. Cobaltite medium coarse.
	X3439	127½-129	1.95	3.90		1½	93	
	X3440	129-130	.43	.24		1	90	
	X3441	130-131½	2.45	3.64		1½	100	
	X3442	131½-137	1.35	1.03		5½	95	
	X3443	137-142	1.87	3.06	.066	5	100	
		142-152½						Chalcopyrite, cobaltite, quartz & pyrite vein-90% replacement. Cobaltite was medium coarse.
	X3444	142-147	4.91	5.71	.192	5	100	
	X3445	147-152½	6.14	5.71	.298	5½	95	
		152½-166½						Schistose quartzite about 65° to core with minor replacements of quartz, carbonate & chalcopyrite 1" of brown mica dike near end of hole. Possible fault zone somewhat between 156-166½.
	X3446	152½-156	.13	1.07		3½	80	
	X3447	156-161½	.07	.12		5½	20	
	X3448	161½-166½	.03	.09		5	12	
		CLOSE						
	X3426	70-76	.11	1.24				
	X3449	161-166½	.78	1.29				
	52.5'	100'-152½	2.17	3.76	WEIGHTED AVERAGE			

U-74-65
Hole No.

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1 ~~3. Cor~~

By

Date

DIAMOND DRILLING RECORD

Hole No. U-74-66 ~~7400-D.H.~~ Mine Blackbird Level 7400

Location

Bearing Dip Length 62

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.		% C. R.	Geology and Remarks
11-12-55		0-5 0-14						~~Granular bleached looking quartzite. Dense schistose quartzite 14-5.~~
	23364		.03	.03		14	67	
	23365	14-5	.02	tr.		24	29	
		5-20						~~Schistose quartzite. Structure 60° to core 1/2" sulphide at 10'. Very minor quartz & carbonate replacement.~~
	23366	5-10	.05	tr.		5	36	
	23367	10-14½	.01	tr.		4½	87	
	23368	14½-20	tr.	tr.		3½	52	
		20-31						~~Schistose quartzite-badly broken. Minor sulphides in fractures.~~
	23398	20-24	.05	.03		4	40	
	23399	24-28	tr.	.02		4	38	
	23400	28-31	.03	.20		3	33	
	23401	31-31½	.01	tr.			80	~~Brown mica dike.~~
	23402	31½-33½	.18	.69		2	43	~~Schistose quartzite somewhat mineralized. Four inches of brown mica dike with carbonates 33-33½. Cobaltite, chalcopyrite, pyrite, carbonates and quartz. Schistose quartzite with minor carbonates and quartz in fractures.~~
	23403	33½-37	.73	1.31		3½	91	
		37-62						
	23404	37-39½	.05	.12		2½	100	
	23405	39½-44	.02	tr.		4½	99	
	23406	44-47	.05	.01		3	103	
	23407	47-52	.03	.09		5	96	
	23408	52-57	.09	.12		5	92	
	23409	57-62	.06	tr.		5	90	
		~~OLDER~~						
	23412	~~47-54~~	.06	.29				
	23410	~~54-57~~	.03	.26				
	23411	~~57-62~~	Lost?					

U-74-66
Hole No.

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By F. J. Cox
Date 11-21-55

DIAMOND DRILLING RECORD

Hole No. U-74-67 Mine Blackbird Level 7400
Location 7400 D.N.
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-21-55	X3630	0-5	.12	.03		5	22	Hx Quartzite-chlor badly sheared.
		5-21						Hx Gran except minor vein quartz and
	X3701	5-10	.04	.01		5	42	chalcopyrite 16-17.
	X3702	10-16	.03	.01		6	23	
	X3703	16-17	.12	.20		1	70	
	X3704	17-21	.02	.07		4	50	
11-22-55	X3031	21-27	tr.	tr.		6	73	Schistose quartzite-structure about
								75° to core.
	X3032	27-29	.16	.26		2	70	Gran except minor qtz, sericite and
								chalcopyrite in veinlets.
								Schistose quartzite with some fault
		29-46						zone 40-41'.
	X3033	29-34	.01	.03		5	37	
	X3034	34-38	.03	tr.		4	27	Trace disclosure of distance from
	X3035	38-43	.01	tr.		5	32	31-41 is doubtful because of
	X3036	43-46	.03	tr.		3	40	tuyeron cuttings.
		46-71						Schistose quartzite with structure
11-23-55	X3037	46-49	.03	.23		3	73	about 50° to core. A small amount
	X3038	49-54	.09	.12		5	70	of green mica dike at 71'.
	X3039	54-56	.08	.02		2	63	
	X3040	56-59	.01	tr.		3	60	
	X3041	59-61	.01	.03		3	55	
	X3042	61-66	.03	.03		5	73	
	X3043	66-71	.01	.02		5	22	
11-24-55		71-91						Quartzite bedded 45°-50° to core.
	X3224	71-74	tr.	.03		3	20	core generally broken, somewhat
	X3225	74-78	.07	.03		4	63	bleached 71-77½ ft. scattered minor
	X3226	78-81	.01	tr.		3	77	sulfide mineralization.
	X3227	81-83	.03	tr.		2	03	
	X3228	83-86	.04	.24		3	47	
	X3229	86-88	.07	.26		2	65	
	X3230	88-91	.04	tr.		2	33	

Hole No. U-74-67

ASSAY RECORD

CALERA MINING CO.

Chute Sect. _____

Level 7400

Working U-74-67

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
11-21-55	X3705	14	16	SLUDGE		03	19			
	X3706	16	19	00		04	22			
	X3707	19	21	00		tr	13			
	X3057	21	23	00		05	10			
	X3058	23	25½	00		23	10			
	X3059	25½	29	00		23	25			
	X3060	29	31	00		15	29			
	X3061	31	35	00		07	13			
	X3062	35	41	00						
	X3063	41	44	00		08	18			
11-25-55	X3094	44	46	00		02	15			
	X3095	46	49	00		06	23			
	X3096	49	54	00		07	27			
	X3097	54	56	00		06	27			
	X3098	56	59	00		08	30			
	X3099	59	61	00		08	27			
	X3100	61	66	00		07	26			
	X3602	66	71	00		06	18			
11-23-55	X3231	71	74	00		07	24			
	X3218	74	78	00		07	17			
	X3219	78	81	00		07	32			
	X3220	81	83	00		06	23			
	X3221	83	85	00		04	25			
	X3222	85	88	00		06	28			
	X3223	88	91	00		06	21			

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By F. J. Cox
Date 11-25-55

DIAMOND DRILLING RECORD

Hole No. D-74-68 Mine Blackbird Level 2100
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-23-55		0-10						Bx lebiteco quartzite with minor quartz, chalcopyrite veinlets.
	13064	0-5	.02	.30		5	20	Structure about 55° to core.
	13065	5-10	.02	.13		5	60	
		10-25						As here as above except black biotite schist intercalated 13-16. Fault zone at 14-14. A wide zone of quartz and cobaltite at 16'.
	13066	10-15	.03	.15		5	100	
	13067	15-16	1.05	.03		1	100	
	13068	16-20	tr.	.03		4	100	
	13069	20-25	.03	.35		5	100	
	13070	25-28½	tr.	tr.		1½	07	Zone of fine grained rock parallel core.
	13071	28½-29	tr.	.03		½	100	Lebiteco quartzite structure about 60° to core.
	13072	29-30½	.03	.30		1½	93	Same except fine grained lens parallel to core. Bleached granular quartzite with brown shale 28½-30½. Two inches of fault zone at 30½.
	13073	30½-32	.03	.28		1½	100	Lebiteco quartzite 60° to core.
	13074	32-32½	.03	tr.		1½	100	Two small brown zones with carbonates intercalated with lebiteco quartzite.
		32½-42						Lebiteco as above with quartz, cobaltite, pyrite veins 35-36.7.
	13075	32½-35	.02	.21		1½	100	
	13076	35-36.7	.20	.24		1.7	100	
	13077	36.7-40½	.03	.03		3.8	97	
	13078	40½-42	.10	.10		1½	100	
11-23-55		42-97						Lebiteco quartzite with ½-1" beds 45° to core, minor sulfide mineralization 42½-43 ft., 67½ft., 82½ft., possible small zones at 11 ft.
	13203	42-47½	.03	.17		5½	100	
	13204	47½-54½	.03	.49		6	100	
	13205	54½-60½	.03	.07		6	100	
	13206	60½-66½	.03	.07		6	100	
	13207	66½-72½	.03	.07		6	100	
	13208	72½-78½	.03	.14		6	100	
	13209	78½-84½	.03	.12		6	100	
	13210	84½-90½	.03	.24		6	100	
	13211	90½-97	.03	.32		6½	100	

Hole No. D-74-68

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By F. J. Fox
Date November 1955

DIAMOND DRILLING RECORD

Hole No. U-74-70 Mine Blackbird Level 7400

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-23-55		0-15						In 0-10 Schistose quartzite with structure
	X3021	0-5	tr.	.03		5	60	about 40° to core. Minor pyrite and
	X3022	5-10	.01	.11		5	64	chalcopyrite 10-11.
	X3023	10-11	.13	5.67		1	90	
	X3024	11-15	.10	.65		4	100	
		15-22						
	X3025	15-18½	.04	.24		3½	94	Core is ground up badly. The rock
	X3026	18½-22	.14	.61		3½	91	appears to be gritty, coarse quartzite.
								Pyrite fair gauge at 14½ to 20½.
11-23-55	X3027	22-23	.03	.61		1	100	M Quartzite & Schist ground almost to
								mud! Fault?
		23-40						
	X3027	23-31	.03	.43		8	20	Broken Quartzite & Schist, fragments of
	X3028	31-40	.14	3.13		9	20	brown schistose dike material around 24
								feet (??), iron stained quartz with some
								pyrite 32-35 feet (??).
		40-55½						
	X3029	40-45	.02	.13		5	100	Very broken quartzite with ¼" bands 40°-
	X3030	45-50	.02	.31		5	100	45° to core, white coatings on fracture
	X3031	50-55½	.04	.31		5½	100	surfaces, possible faults (large?) at 45
								feet, 50-51 feet.
11-23-55		55½-67½						
	X3212	55½-60½	.01	.14		5	100	Very broken quartzite & Schist, scattered
	X3213	60½-65	.15	.67		4½	100	irregular quartz-sulfides, possible faults
	X3214	65-67½	.33	.93		2½	100	57½-59 ft., 63-63½ ft., 67 ft.
	X3215	67½-72	2.87	10.20		5½	100	Massive sulfide vein, much chalcopyrite &
								cobaltite (Coarse Grained).
		72-78						
	X3216	72-76	.14	.63		3	100	Schistose quartzite with ¼" - ½" knots
	X3217	76-78	.03	.37		2	100	45° to core, minor sulfide mineralization.
11-30-55	X3241	78-79	.14	.65		1	100	Blocked 77½ -78 feet. Iron stained
	X3242	79-83½	.03	.93		4½	100	quartzite. Broken Schist partially min-
								eralized 45° to Core.
	X3243	83½-83½	3.53	1.77		1	100	Quartz-sulfides - Cobaltite
	X3244	83½-87	.47	.52		3½	100	Broken Schist partially mineralized, 45°
								to core.
	X3245	87-88	3.08	2.35		1	100	Quartz-sulfides - cobaltite, brecciated
								and cemented.

Hole No. U-74-70

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By H. C. Cole
Date November 1955

DIAMOND DRILLING RECORD

Hole No. U-74-72 Mine Blackbird Level 7400

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-30		0-24						BX Schistose Quartzite banded 45° to core, minor sulfide mineralization 1-7½ ft.
	23233	0-4	.05	.21		4	87	
	23234	4-8½	.05	.34 ✓		4½	79	
	II	8½-21						AX Schistose Quartzite banded 45° to core, scattered concentrated, scattered minor mineralization, a little possible disseminated sphalerite 20-21 ft.,
	23235	8½-13½	.09	.33 ✓		4	100	
	23236	13½-17½	.03	.02		4	100	
	23237	17½-21	.03	.03		4½	100	
	23238	21-26	.05	.14		5	100	possible faults at 17½ ft., faults
	23239	26-29	.07	.15		3	60	at 29 & 30 ft., some quartz in
	23240	29-31	.22	.49 ✓		2	50	irregular fractures 29-31 ft.

Hole No. U-74-72

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date November 1955

DIAMOND DRILLING RECORD

Hole No. U-72-71 Mine Blackbird Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
11-30-55	X9703	0-1	tr	.02		1		MK Schistose quartzite - broken
		1-14						BK Schistose quartzite - 30° - 60° to core, generally contorted, bleached
	X9246	1-5	tr	.01		4		5-5½ foot.
	X9247	5-9	tr	tr		4		
	X9250	9-14	.03	.12		5		

Hole No. U-72-71

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

Budget Bureau No. 42-R103

RECEIVED
NOV 1 1955

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

Month of October, 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $407,340.00 Government Participation: 70 % Amount, $285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Spiling		9,260.00	9,260.00		9260.00	9260.00
Heavy Timber	77.00	4,140.50	4,217.50	77.00	4140.50	4217.50
Trenching		10,262.59	10,262.59		10262.59	10262.59
Framing	186.32	1,715.24	1,901.56	186.32	1715.24	1901.56
Drifting	9,701.06	79,491.81	89,192.87	9701.06	79491.81	89192.87
Normal Timbering	1,169.00	10,600.10	11,769.10	1169.00	10600.10	11769.10
(2):						
Core Drilling Stage II	764.38	4,310.62	5,075.00	764.38	4310.62	5075.00
Core Drilling Stage I		59,692.44	59,692.44		59692.44	59692.44
(3)						
Core Drilling UG Stage I		2,069.91	2,069.91		2069.91	2069.91
Reaming Stage I		2,862.50	2,862.50		2862.50	2862.50
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						
Stage II	258.00	2,190.00	2,448.00	258.00	2190.00	2448.00
Liability Insurance						
Sampling and Analysis Stage I		7,038.00	7,038.00		7038.00	7038.00
(8) Contingencies (specify):						
TOTALS	12,155.76	193,633.71	205,789.47	12155.76	193633.71	205789.47

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

Date November 6 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 8509 03

Signature MJP
(Authorized Certifying Officer)

Date 11-16-55 Vou. No. 1646
(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. E645 in accordance with the terms of the contract.

Signature /S/ Alfred P. Service Title Mining Engr Date Nov 14-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldak Title Mining Engr Date Nov 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.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R

RECEIVED
NOV 21 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1955 Docket No. DMEA 3143 Contract No. Idm-E645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	9,701.06	273	89,192.87	2,510	35.535	6,000	35.535
Timbering	Ft.	1,169.00	167	11,769.10	1,681.3	7.00	5,000	7.00
Timbering	Ft.	77.00	11	4,217.50	602.5	7.00	750	7.00
Spiling	Ft.			9,260.00	463	20.00	500	20.00
Framing	Sets	186.32	34	1,901.56	347	5.48	1,150	5.48
Assay Stage II	Ea.	258.00	86	2,448.00	816	3.00	5,900	3.00
Drilling Core Stage II	Ft.	764.38	226	5,075.00	1,500.5	3.3822	10,500	3.3822
Underground D.D. Stage I	Ft.			2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ft.			59,692.44	8,576.5	6.96	8,576.5	6.96
Assay Stage II	Ea.			7,038.00	2,346	3.00	3,100	3.00
Reaming - Stage I	Ft.			2,862.50	1,145	2.50	1,145	2.50
TOTAL DISTRIBUTED COSTS		12,155.76		205,789.47				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		12,155.76		205,789.47				

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 November 6, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

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)

1st Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

RECEIVED
NOV 21 1955

November 3, 1955

October

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Ior-2645

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143 for the month of October, 1955.

The 7400 Drift North was advanced 273 feet on a three shift basis during this month. The drift encountered weak caving ground in three areas and a total of 167 feet of the drift required the standing of timber.

A hole is being drilled west along the 17,296 North coordinate beneath a surface trench showing a possible ore zone. The self potential survey also indicates a mineralized zone in this area. The first 226 feet of the hole shows numerous small basic dikes accompanied by faults of varying size. A rather sparsely mineralized zone was intersected from 207½ to 226 feet including a narrow high chalcopyrite zone 222 to 223 feet. Assays are not complete for the entire zone. If definite ore is not intersected, it is planned to drill this hole to approximately 300 feet.

Yours very truly,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:srp

Enclosures

CALERA MINING COMPANY
BLACKBIRD DIVISION

RECEIVED NOV 21 1955

Sheet No. 2
By W. C. Cole
Date

DIAMOND DRILLING RECORD

Hole No. _____ Mine _____ Level _____

Location _____

Bearing _____ Dip _____ Length _____

Latitude of Collar _____ Departure of Collar _____ Elevation _____

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
	X4956	65-70½	.01	tr.		5½	91	BX Thinly banded somewhat contorted quartzite 60° to core - Possible fault gouge at 68 ft.
10/18/55		70½-80						Quartzite banded 60°-70° to Core
	X4967	70½-75½	tr.	.04		5	100	
	X4968	75½-80	.06	.19		4½	85	
		80-86½						AX quartzite 70° to core minor quartz-chalcopyrite mineralization Some cobaltite stringers 45° to core at 85 feet
	X4969	80-83	.08	.07		3	73	
	X4970	83-86½	.31	.52	✓	3½	46	
	X4971	86½-89	.07	.10		2½	68	Brown schistose basic dike with large irregular blebs of carbonate
		89-104						Schistose quartzite 70°-80° to core Some small scattered grains of carbonate 94-96½ ft. A little fault gouge at 102 feet.
	X4972	89-94	.01	tr.		5	84	
	X4973	94-99	tr.	tr.		5	92	
	X4974	99-104	.01	tr.		5	92	
10/20/55		104-129½						Schistose quartzite somewhat controlled 45°-90° to core - Generally 60° to core - Somewhat bleached 112½-113 ft. 121-122 ft., Minor amounts of carbonate at 121-123 ft., 117½-118½ ft., fault gouge 125½-126½ ft., Some broken white quartz 118-119 ft.
	X4978	104-109	tr.	tr.		5	96	
	X4979	109-114	tr.	tr.		5	96	
	X4980	114-119	.01	tr.		5	80	
	X4981	119-124	tr.	tr.		5	70	
	X4982	124-129½	tr.	tr.		5½	46	
	X4983	129½-132	.07	.02		2½	80	Schistose brown basic dike 70° to core 3" fault gouge at 129½ feet.
10/24/55		132-163½						Schistose quartzite thinly banded Generally 45° to core 132-150 ft., 70°-90° to core 150-163½ ft., bleached with possible sericite 136-138 ft., bleached 155-158 ft., Possible chlorite in small fracture 90° to banding & schistosity at 143 ft., A little white quartz at 163 ft. Core generally broken.
	X4992	132-137½	.04	.05		5½	64	
	X4993	137½-143	.02	tr.		5½	100	
	X4994	143-148½	tr.	tr.		5½	100	
	X4995	148½-154	.04	tr.		5½	100	
	X4996	154-159½	tr.	tr.		5½	87	
	X4997	159½-163½	.01	tr.		4	65	
10/26/55		163½-172						Broken quartzite banded 30°-60° to core Not very schistose - Minor quartz-sulfide mineralization
	X4642	163½-168	tr.	tr.		4½	80	
	X4643	168-172	.01	.30		4	60	
	X4644	172-175	.06	.09		3	57	Rather massive brown basic dike with a high percentage of small carbonate grains

Hole No. U-74-63

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date October - 1955

DIAMOND DRILLING RECORD

Hole No. U-74-63 Mine Blackbird Level 7400

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
10/11/55	X2444	0-5	.29	.50	✓	5	28	NX Contorted quartzose schist 25% replaced by quartz-sulfides 30° to core, much of quartz in small lenses.
	X2445	5-7	.10	.76		2	25	BX Same as above except core extremely broken
	X2446	7-11	.05	.16		4	13	Quartzose schist with some carbonate & chalcopyrite, Core very broken
		11-21						Quartzite 20% replaced by irregular
	X2447	11-16	.02	.50		5	26	Quartz-chalcopyrite possible fault
	X33	16-21	.10	.32		5	42	at 15 feet
	X34	21-26	.28	.27	✓	5	76	Schistose quartzite 90° to core, Minor mineralization
	X38	26-30	.11	.48		4	73	Schistose quartzite with some quartz sulfides - cobaltite ?45° to core 27-29 ft., quartzite thinly banded 80° to core
		30-39						Schistose quartzite 40° to core
	X39	30-35	.06	.17		5	44	Minor mineralization, large fault
	X40	35-39	.01	.12		4	48	35-37 ft., Brown basic dike material 36-37 ft.
10/15/55		39-48						Schistose quartzite 60°-65° to core
	X47	39-43½	.26	.02	✓	4½	56	Core fairly broken, fault zone
	X48	43½-48	.01	tr.		4½	89	39-40½ (Ground up-to Mud) same dike material
	X49	48-52	.14	tr.		4	65	Massive brown basic dike, high carbonate, 6" fault at 48 ft., Small fault at 52'
		52-60						Thinly banded quartzite 40°-60° to
	X4951	52-56	tr.	tr.		4	100	Core somewhat contorted, minor mineralization, fragment of brown basic dike with fault gouge at 56 feet.
	X4952	56-60	tr.	tr.		4	85	
	X4953	60-61	.04	.01		1	70	Schistose brown basic dike - low carbonate
	X4954	61-63	tr.	tr.		2	100	Contorted quartzite thinly banded generally 45° to core, some white quartz & siderite at 61½-62 feet
	X4955	63-65	.11	.02		2	100	Schistose brown basic dike, high carbonate - fault at 63 feet

Hole No. U-74-63

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 3
By
Date

DIAMOND DRILLING RECORD

Hole No. Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
10/26/55		175-180				5	0	No Core
	X4645	180-182½	.03	.55		2½	56	Quartzite - Light Gray - Core 3/4" in diameter - 180-181 ft. Almost ground to sand
		182½-206						Broken quartzite - Core worn to 1/2" in diameter - Ground to mud - 191-196 201-206 ft. Faultzones ?
10/30/55	X4220	182½-186	.02	.10		3½	9	
	X4221	186-191	.02	tr.		5	26	
	X4222	191-198	.01	.20		7	71	
	X4223	198-201	.08	.03		3	20	
	X4224	201-206	.02	.34		5	52	
	X4225	206-207½	.05	1.07		1½	67	Broken quartzite with considerable white quartz and some chalcopyrite
11/1/55		207½-211						Quartz sulfide stringers 75°-80° to core in quartzite 207½-209½ - Broken quartzite with a little irregular sulfide mineralization 209½-211
	X4246	207½-209½				2	50	
	X4247	209½-211				1½	40	
		211-222						Broken quartzite with some irregular quartz-sulfides 75°-80° to core
	X4248	211-216				5	32	
	X4249	216-221				5	10	
	11459A	221-222	.05	.37		1	80	
	11459B	222-223	.11	8.15		1	100	Quartz-chalcopyrite - Pyrite vein
	11459C	223-226	.03	.41		3	67	broken quartzite - minor mineralization

Hole No. U-74-63

ASSAY RECORD

CALERA MINING CO.

Chute Sect. D.M.E.A. #3143 Level 7400

October - 1955 Working 7400 Drift North

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
9-28	X4627	4651 ~~#28~~	~~#~~ 35½	Muck	7½	06	39			
9-29	X4626	~~#35½~~	~~#~~ 43	"	7½	02	04			
9-30	X4625	~~#43~~	~~#~~ 50½	"	7½	15	03			
10-1	X4624	~~#50½~~	~~#58~~	"	7½	06	04			
10-2	X2439	~~#58~~	~~#~~ 77	"	19	05	58			
10-3	X2440	~~#77~~	~~#~~ 82	"	5	01	04			
"	48725	~~#82~~	~~#~~ 87	"	5	03	02			
10-4	48698	~~#87~~	~~#100~~	"	13	02	27			
10-6	7996A	~~#100~~	~~#108~~	"	8	12	39			
"	7996B	~~#108~~	~~#113~~	"	5	09	65			
10-7	X2441	~~#113~~	~~#118~~	"	5	09	40			
10-10	X2442	~~#118~~	~~#124~~	"	6	01	02			
10-11	X2443	~~#124~~	~~#130~~	"	6	06	14			
"	X2601	~~#130~~	~~#136~~	"	6	03	04			
10-12	X44	~~#136~~	~~#175~~	"	39	04	18			
10-4	X46	~~#175~~ 4657	~~#~~ 71	"	11½	13	22			
"	X45	~~#~~ 59½ ~~#~~ 71	~~#~~ 82	"	11	05	16			
"	X4957	~~#~~ 82	~~#~~ 88	"	6	06	54			
10-16	X4959	~~#~~ 94	~~#~~ 99	"	5	08	25			
10-17	X4966	~~#~~ 99	~~#105~~	"	6	07	59			
10-19	X4976	~~#115½~~	~~#123~~	"	7½	03	17			
"	X4977	~~#123~~	~~#130~~	"	7	02	03			
10-20	X4990	~~#130~~	~~#137~~	"	7	Tr	06			
10-21	X4991	~~#137~~	~~#143½~~	"	6½	01	24			
10-24	X4639	4660 ~~#~~ 33	~~#~~ 38	"	5	04	14			
10-25	X4640	~~#~~ 38	~~#~~ 43	"	5	03	36			
10-25	X4641	~~#~~ 43	~~#~~ 48	"	5	03	27			
10-26	X4205	~~#~~ 48	~~#~~ 52½	"	4½	07	19			
"	X4206	~~#~~ 52½	~~#~~ 69	"	16½	07	21			
10-27	X4207	~~#~~ 69	~~#~~ 85½	"	16½	38	44			
10-28	X4219	~~#~~ 85½	~~#93½~~	"	8	13	71			

ASSAY RECORD

CALERA MINING CO.

RECEIVED NOV 21 1955

Chute Sect. _____ Level 7400

SLUDGE Working U-74-63

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
				SLUDGE						
10-11	X41	7	11			45	1 03 ✓			
	X42	11	16			65	1 46 ✓			
	X43	16	21			43	97 ✓			
10-26	X4646	175	180			02	1 61			Ground quartzite minor sulfides
10-30	X4226	182	186			01	1 06			
	X4227	186	191			01	16			
	X4228	198	201			03	1 21			
11-1	X4241	207	211							
	X4242	211	216							
	X4243	216	221							
	X4244	221	223							
	X4245	223	226							

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 NOV 5 1955

Month of September, 1955 Docket No. DMEA 3143 Contract No. Idm-3645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, Idaho

Contract Amount, $407,340.00 Government Participation: 70 % Amount, $285,138.00

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~~ ~~Contract~~ Spiling	840.00	8,420.00	9,260.00			
~~Drilling~~ Heavy Timbering	294.00	3,846.50	4,140.50			
~~Bulldozing~~ Trenching		10,262.59	10,262.59			
~~Crosscutting~~ Framing	98.64	1,616.60	1,715.24			
Drifting	6,893.79	72,598.02	79,491.81			
Normal Timbering	672.00	9,928.10	10,600.10			
(2) ~~Labor and Supervision~~:						
Core Drilling Stage II		4,310.62	4,310.62			
Core Drilling Stage I		59,692.44	59,692.44			
~~Technical Services~~						
(3) ~~Operating Mat'ls. and Supplies~~:						
Core Drilling UG Stage I		2,069.91	2,069.91			
~~Explosives~~						
~~Pipe~~ Reaming-Stage I		2,862.50	2,862.50			
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~~ Stage II	69.00	2,121.00	2,190.00			
~~Liability Insurance~~						
Sampling and Analysis Stage I		7,038.00	7,038.00			
(8) Contingencies (specify):						
TOTALS	$8,867.43	$184,766.28	$193,633.71	8867.43	184766.28	193633.71

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

Date October 6 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 6207 20

Signature [signature]
(Authorized Certifying Officer)

Date 11/2/55 Vou. No. 1636
(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-645 in accordance with the terms of the contract.

Signature 1st Alfred P Service Title Mining Engr Date 10/29/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 1st Stephen W Zoldok Title Mining Engr Date 10/31/55

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.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED
NOV - 7 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt and Copper
Address Cobalt, 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	Ft.	6,893.79	194	79,491.81	2,237	35.535	6000	35.535
~~Crosscutting~~ Normal Timbering	Ft.	672.00	96	10,600.10	1,514.3	7.00	5000	7.00
~~Raising~~ Heavy Timbering	Ft.	294.00	42	4,140.50	591.5	7.00	750	7.00
~~Shafts~~ Spiling	Ft.	840.00	42	9,260.00	463	20.00	500	20.00
~~Winzes~~ Framing	Sets	98.64	18	1,715.24	313	5.48	1150	5.48
~~Drilling Core~~ ASSAY Stage II	Ea.	69.00	23	2,190.00	730	3.00	5900	3.00
Drilling Core Stage II	Ft.			4,310.62	1,274.5	3.3822	10500	3.3822
Underground DD Stage I	Ft.			2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ft.			59,692.44	8,576.5	6.96	8576.5	6.96
~~Drifts & Trails~~ ASSAY Stage I	Ea.			7,038.00	2,346	3.00	3100	3.00
Reaming - Stage I	Ft.			2,862.50	1,145	2.50	1145	2.50
Total Distributed Costs		$8,867.43		$193,633.71				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$8,867.43		$193,633.71				

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 October 6, 1955 Operator Calera Mining Company
Per [signature] Title [signature]

Remarks:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

RECEIVED
NOV - 7 1955

October 3, 1955

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Ida-1645

Dear Mr. Weissenborn:

Enclosed is the map and assays pertinent to the D.M.E.A. Project No. 3143 for the month of September.

The work in the 7400 Drift North continued on a three shift basis with the advance amounting to 194 feet for the month.

In the first part of the month, the drift continued to advance in a heavy ground that required timber and the driving of spiling. However, a firmer argillaceous quartzite has been encountered and the drift is now advancing without timber, encountering moderately dipping North-South faults about 30 feet apart.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:srp

Enclosures

ASSAY RECORD

CALERA MINING CO.

Chute Sect. DMGA #3143

Level 7400

Working 7400 D.N.

September, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
9-6	X4938	0584 f15	f21	"	6	09	06			
9-8	14511A	f21	f25	"	4	07	07			
"	14511B	f25	f30	"	5	12	35	✓		
9-9	X4945	f30	f36½	"	6½	09	14			
9-12	X2738	f36½	f43½	"	7	09	15			
9-13	X2739	f43½	f50½	"	7	08	03			
9-14	X4947	f50½	f54	"	3½	03	13			
"	X4948	f54	f58	"	4	08	18			
9-15	X2740	f58	f66	"	8	03	12			
9-16	X4614	f66	f73	"	7	04	24			
9-17	X4615	f73	f79	"	6	05	09			
9-18	X2741	f79	f85	"	6	07	29			
9-19	X4616	f85	f93	"	8	03	17			
9-20	X4618	f93	f99½	"	6½	05	07			
9-21	X4619	f99½	f111	"	11½	10	11			
9-22	X2435	f111	f119	"	8	03	09			
9-23	X4620	f119	f127	"	8	05	tr			
"	X4621	f127	f135	"	8	07	02			
9-26	X4622	f135	f147½	"	12½	08	04			
9-27	48486	f147½	f163	"	15½	08	18			
9-28	X4623	0651 f16	f28	"	12	03	07			
9-8	14511C	0633 -13	- 19	Chip	6	22	1 08	✓		Right rib
9-15	X4949	0561 f0	f7	"	7	05	1 24			Left rib

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 26 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt and Copper
Address Cobalt, Idaho
Contract Amount, $407,340.00 Government Participation: 70 % Amount, $285,138.00

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) Spiling	100.00	8,320.00	8,420.00			
Short Form						
Heavy Timber	819.00	3,027.50	3,846.50			
Trenching		10,262.59	10,262.59			
Framing	164.40	1,452.20	1,616.60			
Drifting	5,507.93	67,090.09	72,598.02			
Normal Timbering	1,078.00	8,850.10	9,928.10			
(2) Exploration:						
Core Drilling - Stage II	749.16	3,561.46	4,310.62			
Core Drilling - Stage I		59,692.44	59,692.44			
(3) Development:						
Core Drilling US Stage I		2,069.91	2,069.91			
Explosives						
Reaming - St. I		2,862.50	2,862.50			
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						
Stage II	309.00	1,812.00	2,121.00			
SAMPLING & Analysis Stage I		7,038.00	7,038.00			
(8) Contingencies (specify):						
TOTALS	$8,727.49	$176,038.79	$184,766.28	8727.49	176038.79	184766.28

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

Date September 6 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 6109 24

Signature [signature]
(Authorized Certifying Officer)

Date 9-21-55 Vou. No. 1610
(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 645 in accordance with the terms of the contract.

Signature /S/ Alfred R. Service Title Mining Engr Date 9-20-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr Date 9-21-55

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.

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

RECEIVED
SEP 26 1955

Month of August 1955 Docket No. DMEA 3143 Contract No. Idm-E-645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	5,507.93	155	72,598.02	2,043	35.535	6000	35.535
Timbering	Ft.	1,078.00	154	9,928.10	1,418.3	7.00	5000	7.00
Heavy Timbering	Ft.	819.00	117	3,846.50	549.5	7.00	750	7.00
Spilling	Ft.	100.00	5	8,420.00	421.0	20.00	500	20.00
Framing	Sets	164.40	30	1,616.60	295	5.48	1150	5.48
Stage II	Ea.	309.00	103	2,121.00	707	3.00	5900	3.00
Drilling Core Stage II	Ft.	749.16	221.5	4,310.62	1274.5	3.3822	10500	3.3822
Underground DD Stage I	Ft.	-	-	2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.	-	-	10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ea.	-	-	59,692.44	8576.5	6.96	8576.5	6.96
Assaying Stage I	Ea.	-	-	7,038.00	2,346	3.00	3,100	3.00
Reaming - Stage I	Ft.	-	-	2,862.50	1,145	2.50	1,145	2.50
TOTAL DISTRIBUTED COSTS		$8,727.49		$184,766.28				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$8,727.49		$184,766.28				

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 September 6, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

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/ Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

September 7, 1955

RECEIVED
SEP 26 1955

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-E645

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143, for the Month of August, 1955.

The D.M.E.A. Project continued to be operated on a three-shift basis, with the total advance amounting to 155 feet. The 74/787 Hanging Wall Crosscut was advanced 147 feet in a badly fractured schistose quartzite and garnet schist. All of the crosscut required the standing of drift timber and 117 feet required heavy timbering.

As soon as the diamond drilling was completed in the 7400 Drift North, the miners were moved back into this drift and it was advanced 8 feet in very heavy ground that required the use of spiling.

Diamond Drilling in the 7400 Drift North intersected a mineralized zone along the drift from 150 foot to 600 feet SE of the present face. The zone is very irregular in shape and is off-set by numerous north-south faults. Two parts of the mineralized zone, each about 130 feet in length and from 2-to-16 feet wide, may be of minable grade and width.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:jp

Enclosures

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date AUGUST 1955

DIAMOND DRILLING RECORD

RECEIVED
SEP 26 1955

Hole No. U 74 59 Mine BLACKBIRD Level
Location 7400 D.N.
Bearing N9E Dip +4½° Length 112
Latitude of Collar 17,997N Departure of Collar 2828E Elevation 7412

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C.R.	Geology and Remarks
8/15/55	X3903	0-5½	.10	.10		5½	55	BX schistose quartzite thinly banded 30° to core, somewhat contorted, a little white quartz at 2½ ft., scattered irregular minor quartz-sulfide mineralization, small fault(?) at 5 ft. core broken
		5½-23						AX schistose quartzite thinly banded 30° to core, somewhat contorted in places, small faults at 7 ft., 8½ ft., 13 ft., minor quartz-sulfides at 12 ft., core extremely broken 12-13 ft., 21½-22½ ft.
	X3904	5½-11	Tr	Tr		5½	78	
	X3905	11-14½	.17	Tr		3½	89	
	X3906	14½-19	.03	.04		4½	89	
	X3907	19-23	Tr	Tr		4	85	
		23-68						schistose quartzite generally thinly banded 30° to core, scattered minor chalcopyrite mineralization, some very small reddish brown specks 52-55 ft, medium size fault at 32 ft. core extremely broken 29-35 ft., 41-45 ft, 55-58 ft.
8/17/55	X3930	23-31	Tr	Tr		8	45	
	X3931	31-37	.01	Tr		6	75	
	X3932	37-41	.07	Tr		4	75	
	X3933	41-48	.01	Tr		7	27	
	X3934	48-55	.01	Tr		7	51	
	X3935	55-58	.03	.02		3	40	
	X3936	58-63	Tr	Tr		5	44	
	X3937	63-68	.09	.26		5	44	
		68-101½						schistose quartzite 30°-45° to core, mostly small rounded pieces, some sulfide mineralization at 77 ft. possible fault zone 69-71 ft.
	X3938	68-73	.07	.18		5	32	
	X3939	73-77½	.12	1.22		4½	27	
	X3940	77½-84	.04	.05		6½	12	
	X3941	84-89	.05	Tr		5	30	
	X3942	89-94	.05	.05		5	16	
	X3943	94-99	.02	Tr		5	20	
	X3944	99-101½	.02	Tr		2½	12	
		101½-112						schistose quartzite somewhat contorted generally 20° to core, good chalcopyrite 101½-104, 2" chalcopyrite at 109, some minor cobaltite at 112 ft.
8/21/55	X3174	101½-107	1.33	5.97		5½	36	
	X3175	107-112	.33	1.47		5	100	
		SLUDGE						
	X2293	68-73	.03	Tr				
	X2294	73-77½	.08	Tr				
	X2295	77½-84	.05	.07				
	X2296	84-89	.05	.13				
	X2297	89-94	.04	.13				
	X2298	94-99	.03	.03				
	X2299	99-101½	.29	.12				
	X3177	101½-107	.10	.26				
	X3178	107-112	.13	.41				

Hole No. U-74-59

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2
By W. C. Cole
Date

DIAMOND DRILLING RECORD

Hole No. U-74-60 Mine BLACKBIRD Level 7400

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
		SLUDGE (cont.)						
	X3927	46-51	.08	.19				
	X3928	51-56	.08	.10				
	X3929	56-61	.01	tr.				
	X3945	61-64½	.03	.02				
	X3946	64½-68	.05	Tr				
	X3947	68-73½	.03	.01				
	X3948	73½-78½	.02	Tr				
	X3949	78½-81½	.04	.01				
	X3950	81½-86½	.03	Tr				
	X3119	86½-91½	.03	.04				
	X3120	91½-96½	.04	.03				
	X3121	96½-101½	.02	Tr				
	X3122	101½-106½	.03	.01				
	X3123	106½-109½	.02	.01				

Hole No. U-74-60

ASSAY RECORD

CALERA MINING CO.

Chute Sect. _____ Level 7400

DMEA #3143 Working 787 X-C

August, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
7/27/55	X4496	△636 98	105	MUCK	7	04	19			
7/28	X5273	105	111	"	6	04	10			
7/29	X5274	111	117	"	6	07	12			
8/1	X4668	117	122	"	5	03	05			
8/1	X4669	122	127	"	5	07	05			
8/3	X2584	138	149	"	11	38	32			
8/5	X5275	149	155	"	6	12	21			
8/6	X5276	155	167½	"	12½	19	04			
8/8	X2586	△636+167½-172½ △639+31-35		"	4	09	07			
8/9	X2282	△639+35-+40		"	5	09	43			
8/10	X4602	40	45	"	5	04	17			
8/11	X2735	45	49	"	4	04	Tr			
8/12	X3901	49	53	"	4	03	Tr			
8/12	X3902	53	58	"	5	05	Tr			
8/15	X4612 ~~X4612~~	58	63	"	5	01	Tr			
8/15	X4613	63	68	"	5	01	Tr			
8/16	X2292	68	74	"	6	Tr	Tr			
8/17	X2736	74	78½	"	4½	02	04			
8/17	X2737	78½	83	"	4½	Tr	Tr			
8/19	X3151	83	88½	"	5½	06	Tr			
8/19	X3191	88½	94	"	5½	07	04			
8/20	X3190	94	100	"	6	04	04			
8/21	X4497	100	103½	"	3½	18	29			
8/22	X2682	103½	107½	"	4	02	15			
8/23	X2898	112	117½	"	5½	04	Tr			
8/24	X2899	117½	122	"	4½	01	Tr			
8/25	X2951	122	127	"	5	02	14			

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date

DIAMOND DRILLING RECORD

Hole No. U-74-60 Mine BLACKBIRD Level 7400
Location 7400 D.N.
Bearing S19½W Dip +2½° Length 109½'
Latitude of Collar 17,944½N Departure of Collar 2,861½E Elevation 7412

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C.R.	Geology and Remarks
8/15/55	X 3908	0 – 3½	.03	Tr		3½	63	BX schistose quartzite 25° to core, core very broken, possible fault at 1½ ft
		3½-38½						AX schistose quartzite, 0-1" banding 30° to core somewhat contorted in places, massive sulfides with much pyrrhotite 32-36½ ft, core generally very broken
	X3909	3½-8½	.04	Tr		5	82	
	X3910	8½-11	.05	.02		2½	20	
	X3911	11-15½	.02	Tr		4½	44	
	X3912	15½-22½	Tr	Tr		7	24	
	X3913	22½-27½	.06	.02		5	20	
	X3914	27½-30½	.02	Tr		3	50	
	X3915	30½-36½	.34	1.85		6	23	
	X3916	36½-38½	.06	.04		2	15	
		38½-61						fragments of quartzite
	X3917	38½-41	.06	.15		2½	8	
	X3918	41-46	.02	Tr		5	2	
	X3919	46-51	Tr	Tr		5	2	
		51-56				5	0	
	X3921	56-61	Tr	Tr		5	26	
8/17/55		61-86½						schistose quartzite thinly banded 30° to core, somewhat contorted, minor mineralization 60-85½ ft, schistose brown basic dike 85½-86½ ft. much of core extremely broken and rounded
	X3124	61-64½	Tr	.02		3½	71	
	X3125	64½-68	.02	Tr		3½	40	
	X3126	68-73½	.04	.10		5½	5	
	X3127	73½-78½	Tr	Tr		5	6	
	X3128	78½-81½	Tr	Tr		3	5T	
	X3129	81½-86½	Tr	Tr		5	48	
	X3130	86½-91½	.03	Tr		5	16	mostly schistose brown basic dike, a little contorted schistose quartzite alternating with dike material 88½-91½ ft.
		91½-106½						schistose quartzite 30° to core, thinly banded, minor irregular mineralization
	X3131	91½-96½	.02	Tr		5	4	
	X3132	96½-101½	.05	.07		5	32	
	X3133	101½-106½	.02	.20		5	22	
		106½-109½				3	0	no core
		SLUDGE						
	X3922	15½-22½	.06	.03				
	X3923	27½-30½	.06	.02				
	X3924	30½-[illegible]	.22	.18				
	X3925	38½-41	.16	.11				
	X3926	41-46	.12	.29				

Hole No. U-74-60

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 29 1955
Idm-Bmdx

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July 5 Docket No. DMEA 3143 Contract Cobalt & Copper
Operator's Name Calera Mining Company Minerals
Address Cobalt, Idaho 70
Contract Amount, $ 407,340.00 Government Participation: % Amount, $ 285,138.00

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:						
Short Form						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Operating Supervision:						
(3) Operating Mat'l and Supplies:						
Lumber						
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):						
~~Spilling~~		~~8,320.00~~	~~8,320.00~~			
~~Heavy Timber~~		3,027.50	3,027.50			
~~Trenching~~		10,262.59	10,262.59			
~~Framing~~	54.80	1,397.40	1,452.20			
	10,127.48	56,962.61	67,090.09			
~~Normal Timbering~~	336.00	8,514.10	8,850.10			
~~Stage II~~	2,707.45	854.01	3,561.46			
~~Drilling Stage I~~		59,692.44	59,692.44			
~~Operating Mat'l and Supplies~~		2,069.91	2,069.91			
~~Cleaning - Stage I~~		2,862.50	2,862.50			
~~Stage II~~	717.00	1,095.00	1,812.00			
~~Sampling & Analysis Stage I~~		7,038.00	7,038.00			
TOTALS	13,942.73	162,096.06	176,038.79	13942.73	162096.06	176038.79

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

Date August 5, 1955 *Payee Calera Mining Company

By [signature] Title [signature]

*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:

$ 9759 91

Signature [signature]
(Authorized Certifying Officer)

Date 8-24-55 Vou. No. 1590
(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 645 in accordance with the terms of the contract.

Signature /S/ Alfred R Service Title Mining Engr Date 8-22-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldak Title Mining Engr Date 8-22-55

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 29 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1955 Docket No. DMEA 3143 Contract No. Idm-E645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	10,127.48	285	67,090.09	1,888	35.535	6000	35.535
Normal Timbering	Ft.	336.00	48	8,850.10	1,264.3	7.00	5000	7.00
Heavy Timbering	Ft.			3,027.50	432.5	7.00	750	7.00
Spiling	Ft.			8,320.00	416.0	20.00	500	20.00
Framing	Sets	54.80	10	1,452.20	265	5.48	1150	5.48
Assay Core Stage II	Ea.	717.00	239	1,812.00	604	3.00	5900	3.00
Drilling Core Stage II	Ft.	2,707.45	800½	3,561.46	1,053	3.3822	10500	3.3822
Underground DD Stage I	Ft.			2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ea.			59,692.44	8,576.5	6.96	8,576.5	6.96
Assay Stage I	Ea.			7,038.00	2,346	3.00	3,100	3.00
Reaming - Stage I	Ft.			2,862.50	1,145	2.50	1,145	2.50
TOTAL DISTRIBUTED COSTS		13,942.73		176,038.79				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		13,942.73		176,038.79				

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 August 1, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

August 3, 1955

RECEIVED
AUG 29 1955

Mr. A. D. Weissenborn
Executive Office - Region 1
U.S.B.M., Field Team
North 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-2645

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143, for the month of July, 1955.

The 74/787 Hanging Wall Crosscut continued to be worked on a three-shift basis, and was advanced 265 feet in a moderately firm shistose quartzite. Normal drift timbering was used in 48 feet of the drift.

Diamond Drilling continued in the 7400 Drift North and amounted to 800½ feet during the month. The ore that has been intersected was found to be very irregular in shape and offset by closely spaced north striking faults. It has been necessary to space the drill holes 25 feet apart in some places to follow the ore.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:sp

Enclosures

74/787 H.W. XC
DMEA 1343
1" = 20'
JB
7/29/55
18100N
18000N
17900N
17800N
3200E
3100E
3000E
2900E
N
74/787 HANGING WALL X-C
794 SS
636
599
586
595
558
543
594

ASSAY RECORD

CALERA MINING CO.

Chute Sect. DMEA #343

Level 7400

Working 787 X-C

July, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
6/27	X2708	△538 +32½	-34½	MUCK	2	Tr	Tr			
6/30	X2711	34½	41½	"	7	03	03			
7/5	X2712	△538 +41½ △586 +18	-46½ -23	"	5	01	04			
7/6	X2714	△586+23	-28	"	5	05	21			
7/6	X2811	+28	34	"	6	01	01			
7/7	X2715	34	41	"	7	01	02			
7/7	X2716	41	47	"	6	01	Tr			
7/8	X2719	47	54	"	7	Tr	Tr			
7/8	X2718	54	60	"	6	02	08			
7/8	X2717	60	70	"	10	Tr	Tr			
7/9	X2721	△586 +70 △594 +43	-79 -52	"	9	01	04			
7/9	X2720	△594+52	-59	"	7	11	60			
7/11	X2722	59	66	"	7	01	Tr			
7/14	X2723	86	91	"	5	02	03			
7/15	X4402	91	120	"	29	04	04			
7/18	X4414	120	127	"	7	02	Tr			
7/18	X4416	127	133	"	6	04	04			
7/18	X4415	133	139½	"	6½	04	Tr			
7/19	X4592	△594+ △595	139½+05 +19.35	"	16	01	Tr			
7/23	X4593	△636+	14-21	"	7	04	01			
7/23	X4594	21	28	"	7	Tr	Tr			
7/23	X4595	28	36	"	8	04	05			
7/24	X4478	36	43	"	7	33	1.84		←	ASSAY SALTED OR MIXED UP
7/24	X4479	43	50	"	7	05	01			
7/25	X4487	58	65	"	7	02	Tr			
7/25	X4495	65	72	"	7	04	Tr			
7/26	X5251	72	78	"	6	11	Tr			
7/26	X5252	78	91	"	13	12	09			
7/26	X5253	91	98		7	04	24			

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By R. E. Collins
Date June 2, 1955

DIAMOND DRILLING RECORD

Hole No. U-2432 Mine Level 7400
Location 7400 DRIFT NORTH
Bearing N59°E Dip +7° Length 47
Latitude of Collar 18,464 N Departure of Collar 2,376 E Elevation 7417

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz Au	Ft	% Ex	Geology and Remarks
6/29/55	X4451	0-3	.06	.14		3	4%	BX FRACTURED SCHISTOSE QUARTZITE AND SCHIST BROWN SCHISTOSE ALT. PHYLLITE 7-9%
	X4452	3-5	.08	.06		2	70	BX FRACTURED BROWN SCHISTOSE ORE AND SCHIST
	X4453	5-9	.04	.13		4	60	FRACTURED SCHISTOSE QUARTZITE AND SOME BROWN SCHIST AT 1ST PIECE IN CORE. FRAGMENTS OF BROWN SCHISTOSE ORE 5% MEAN SCHIST PYRITE, CHALCOPYRITE SPHALERITE ADDED TO CORE 7-9
	X4454	9-12½						
	X4455	12½-15	.07	.16		2½	67	BROKEN SCHISTOSE QUARTZITE WITH BROWN SCHIST VEINING FROM 12½ TO 14½ PIECE OF CORE
	X5	15-18	.02	.05		3	58	
	X4456	18-21½	.04	.07		3½	46	CORE GROUND UP AT 15. BREAKING QUARTZ FRAGMENTS 9-11. VERY MINOR PYRITE, 16-21 BROWN QUARTZ & ORE. CHALCOPYRITE MINERALIZATION 21-22½
	X4457	21½-24	.02	.03		2½	67	
	X4458	24-27½	.31	1.03		1½	73	FROM 24-27½ PYRITE, CHALCOPYRITE, ORE
	X4459	27½-30	.10	.71		1½	58	SCHISTOSE QUARTZITE WITH ABOUT 10% PYRITE, CHALCOPYRITE, BROWN ORE INTERMIXED
		30-33½						
	X4460	33½-36	.06	.12		1½	67	SCHISTOSE QUARTZITE VARYING FROM SCHIST TO BROWN ORE IN CORE
	X4461	36-41	.01	.76		5	88	
	X4462	41-47	.04	.05		6	90	
	X2694	33½-36	.08	.22		5	2400	

Hole No. U-2432

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1

DIAMOND DRILLING RECORD

By W. C. Cole

Date July 1955

Hole No. U-74-33 Mine BLACKBIRD Level 7400

Location 7400 DRIFT NORTH

Bearing N 64½ E Dip Horiz Length 49

Latitude of Collar 18,440 N Departure of Collar 2,394½ E Elevation 7416

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	PT	% C.R.	Geology and Remarks
7/6	X2801	0-7	Tr	Tr		7	34	BX contorted schistose quartzite 30° - 10° to core, 0-1" bands, minor irregular quartz sulfide mineralization
		7-15						AX contorted quartzite cut by a few small irregular quartz-sulfide stringers
	X2802	7-12	.09	.42		5	60	
	X2803	12-15	.12	.65		3	30	Core broken
	X2804	15-20	.03	.09		5	40	15-16 ft. schistose brown mica chlor, 16-20 ft very broken quartzite with a few small irregular carbonate stringers & some small grains of blue-ish material in quartz
	X2805	20-25	.05	.12		5	38	Schistose quartzite generally 60° to core somewhat contorted, a few minor quartz stringers, core very broken
	X2806	25-30	.06	.26		5	50	very broken quartzite, minor arsenopyrite, 27½-30 ft. ground to sand core scooped up + few fragments of quartzite, minor mineralization
	X2807	30-35	.36	1.57		5	70	
		35-49						Fragments of schistose quartzite with a little minor sulfide mineralization
	X2808	35-40	.18	.28		5	82	
	X2809	40-44	.02	.04		4	20	
	X2810	44-49	.04	.19		5	8	
			SLUDGE					
	X2695	20-25	.03	.13			SLUDGE	
	X2696	25-30	.03	.08				
	X2697	30-35	.06	.60				
	X2698	35-40	.06	.19				
	X2699	40-44	.02	.08				
	X2700	44-49	.05	.19				

Hole No. U-74-33

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1

DIAMOND DRILLING RECORD

By M. C. Cole

Date July 1955

Hole No. U-74-34 Mine Blackbird Level 7400

Location 7400 Drift North

Bearing S 61 W Dip 44 Length 52½

Latitude of Collar 18,464 N Departure of Collar 2,355 E Elevation

Date	Sample No.	Depth From — To	Assay Value % Cu.	% Cit.	Oz. Au.	Ft.	% C.R.	Geology and Remarks
7/7	X2812	0-3½	Tr	Tr		3½	49	BX thinly banded quartzite 45° to core
		3½-9½						BX generally contorted quartzite 30°-45° to core thinly banded 1" bandwidth
	X2813	3½-6½	.02	Tr		3	63	21-26 ft. fault gouge at 9½ ft, a few
	X2814	6½-9	.03	.65		2½	52	fragments of white quartz at 12 ft.
	X2815	9-14	.04	.04		5	72	minor chalcopyrite 20-21 ft, minor
	X2816	14-18	.36	.57		4	98	sulfide mineralization in quartzite
	X2817	18-21	.35	.57		3	100	schist 31-31 ft, ½" massive sulfides
	X2818	21-26	.03	.02		5	44	at 41½ ft, core exactly new
	X2819	26-28	Tr	.01		2	70	broken
	X2820	28-32	.01	Tr		4	83	
	X2821	32-37	.02	.04		5	56	
	X2822	37-42½	.01	.03		5½	57	
	X2823	42½-46½	.02	Tr		4	40	
		46½-50						Green quartzite with contorted ½" bandwidth
	X2827	46½-50	Tr	.01		3½	52	30°-40° to core, a little scattered
	X2828	50-52½	Tr	.15		2½	72	native copper 49-52 ft.
			SLUDGE					
	X2824	28-32	.05	.07				
	X2825	32-37	.05	.07				
	X2826	42½-46½	.04	.07				

Hole No. U-74-34

CALERA MINING COMPANY
BONANZA DIVISION

DRILL RECORD

Sheet No. 1
By N. C. Cole
Date July 1955
Level 7400

Mine Blackbird
Drift
Dip 47°
Direction of Drill 246 E
Length
Elevation 7414

Depth Feet	Recovery Core %	Geology and Remarks
24	60	BX quartzite with ½" banding 50° to core, bleached 0-½ ft, minor wrecked sulfide mineralization 3½-4 ft
	62	BX quartzite with contorted ¼"-½" banding, minor sulfide mineralization at 10 ft, 16½ ft, 23 ft, 24-29 ft. core generally broken up
	90	
	85	
	70	
	64	quartzite with ½" bands, somewhat contorted in places, broken joint (possible fault) at 30 ft, minor quartz sulfide mineralization at 29½ ft, 31½ ft, 34½ ft, 38½ ft, 42 ft, 50½ ft, generally parallel to banding, core fairly broken
	74	
	44	
	78	
	58	
	60	
	40	39½ ft fragments of quartzite, 56½-58½ ft quartz sulfides, 58-60 ft brown shaley bx dike with well defined crystals of carbonate.
		quartzite with 0-1" banding generally 45° to core, some carbonate
	72	
	69	60-64 ft minor sulfide mineralization
	67	at 60½ ft, 64 ft, core fairly broken
	70	
	80	
	94	

Hole No. U-M-35

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2
By W. C. Cole
Date

DIAMOND DRILLING RECORD

Hole No. Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value Oz. Au	% Cu	Oz. Ag	Ft.	% C.R.	Geology and Remarks
		93-122						Schistose quartzite 45° to core with
	X4585	93-97	.02	tr		4	93	1/4" 1" bandwe contorted around
	X4586	97-102	.03	tr		5	74	98 ft. core both brown
	X4587	102-106	tr	tr		4	100	
	X4588	106-110	tr	tr		4	100	
	X4589	110-115	tr	tr		5	82	
	X4590	115-122	tr	tr		7	87	
7/18		122-140½						Hard quartzite, very broken 1/2 x 1/2"
	X4407	122-126	.38	.19		4	74	bedding 60° to core some quartz
	X4408	126-130	.04	tr		4	89	sulfide mineralization at 122½-123
	X4409	130-135	.03	.04		5	60	ft, 126½ ft, 136 ft, 139-140½ ft
	X4410	135-140½	.10	.06		5½	85	1 cm. fault at 128 ft
7/20		140½-159						[illegible] quartzite with 1/2" x 1/2" band
	X4446	140½-144	.05	.04		3½	52	140 somewhat contorted
	X4447	144-148	.05	.04		4	78	
	X4448	148-154	tr	tr		6	100	
	X4449	154-159	tr	tr		5	100	
			SLUDGE					
	X4591	88-93	.07	.13				
	X4411	126-130	.16	.19				
	X4412	130-135	.080	.124				
	X4413	135-140½	.05	.07				
	X4450	144-148	.36	.14				

Hole No. 6-7[illegible]

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date July 1955

DIAMOND DRILLING RECORD

Hole No. U-14-36 Mine Blackbird Level 1400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz Au	%	%	Geology and Remarks
7/13/55	X 4565	0-2	.05	.01		1	65	Schistose quartzite well banded 60° to core
		2-3.3						quartzite quartzite 45°-50° to core, faults
	X 4566	3-8	.01	.18				at 3.3 ft, generally quartzose
	X 4567	8-13	.01	.11				slightly sericitic brown,
	X 4568	13-18	.01	.01			76	minor, slight mineralization at
	X 4569	18-23	.03	.12			80	26.5 ft with possible fault zone aside to
	X 4570	23-28	.02	.12				core, brecciated contorted in places
	X 4571	28-34	.01	.02				
	X 4572	34-38½	.01	.01				
	X 4573	38½-40½	.01	.02				schistose brown basic dike material
								alternating with quartzite quartzose
								some greenish green small faults
								at 38.5 ft, 40½ ft.
		40½-53						quartzite sheared 50°-60° to core with
	X 4574	40½-46½	.01	.04				a few very thin quartz stringers
	X 4575	46½-53	.01	.01				parallel to the schistosity. Some
								contorted 1" brecciated, 1" fault zone
								followed by 6" broken basic dike at
								52 ft. Small fault at 53 ft.
	X 4576	53-57	.05	.15				very contorted quartzite with a few
								quartzite stringers.
	X 4577	57-59						schistose brown basic dike, structure
								generally 50°-60° to core
		59-79						schistose quartzite with 4"-6" brecciated
	X 4578	59-65						basic at 61 ft (reducing), 63 ft.
	X 4579	65-71						broken, possible fault at 73 ft,
	X 4580	71-76						fault small broken at 75 ft.
		76-79						
	X 4581	79-82	.01	.02				schistose brown dike to 80 ft, fault
								zone of broken up dike material
								80-82 ft.
	X 4582	82-88	.05	.12				red brown quartzite with 0-½" brecciated
								50° to core. Some broken quartzose
								schist.
	X 4583	88-93	.01	.02				schistose quartzite pink & 1" brecciated
								alternating with basic carbonate
								88 ft, N 92 ft.

Hole No. U-14-36

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. [illegible]
By [illegible]
Date [illegible]

DIAMOND DRILLING RECORD

Hole No. U-74-37 Mine Blackbird
Location 7400 Drift Vein
Bearing N59E Dip [illegible]
Latitude of Collar [illegible] Departure at Collar [illegible]

Date	Sample No.	Depth From — To	% Co	Assay Value Ag oz	Au oz	% Cu
7/13	X3950	0-3½	.61	[illegible]	[illegible]	[illegible]
	X4551	3½-7½	.76	[illegible]	[illegible]	[illegible]
		3½-5½				
	X4552	5½-7½				
	X4553	7½-9½				
	X4554	9½-11½				
	X4555	11½-13½				
	X4556	13½-15½				
	X4557	15½-17½				
	X4558	17½-19½				
	X4559	19½-21½				
	X4560	21½-23½				
		23½-25½				
	X4561	25½-27½				
	X4562	27½-29½				
	X4563	29½-31½				
	X4564	31½-33½				

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date July 1955

DIAMOND DRILLING RECORD

Hole No. U-74-40 Mine Blackbird Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
7/18	X4403	0-4½	1.04	1.80		4½	87	BX quartz-sulfides with a little unreplaced schist 35°-40° to core
		4½-15½						BX quartz-sulfides 4½-10, irregular quartz-sulfides in contorted quartzose schist 10-15½, average 45° to core. possible small fault at 13½ ft. good cobaltite at 12 ft. & 15½ ft.
	X4404	4½-10	.18	1.58		5½	100	
	X4405	10-15½	.57	1.52		5½	100	
	X4406	15½-20	.03	.03		4½	100	contorted quartzite with 75 hardness 20°-45° to core. minor sulfide mineralization parallel to hardness

Hole No. U-74-40

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By L. E. Crabb
Date July, 1955

DIAMOND DRILLING RECORD

Hole No. U-7438 Mine
Level 2400
Location 2400 Drift North
Bearing S 88½ W Dip +3°
Length 37
Latitude of Collar 18,340' N Departure of Collar 2,486½' E
Elevation 7,414½'

Date	Sample No.	Depth From — To	Assay Value % Pb	% Cu	Oz Au	Ft	% C.R.	Geology and Remarks
7/9/55	X4468	0-5	.21	.24		3½	46	Fractured schistose quartzite and schist with minor irregular veins of pyrite-chalcopyrite stringers.
	X4469	5-8	.07	.03		1½	36	Fractured schistose quartzite and schist. Irregular quartz stringers. Carbonate veinlets at 4, 6½ at 4½, 8½.
		8-12						Highly fractured schist and gouge. Quartz-pyrite-chalcopyrite veinlets and fractures.
	X4470	12-15	.52	.29		3	30	
	471	15-18	.03	1.47		3	167	
	472	18-21	.42	3.70		4	55	
	473	21-24	.21	1.01		3	53	
		24-27						Fractured schistose quartzite. Irregular quartz-carbonate veinlets noted.
	X4474	27-33	.08	.32		2	30	
	475	33-28	.03	.09		5	64	
	476	28-32	.03	.03		4	30	
	477	32-37	.02	.04		2	40	
	X4463	18-18	.26	.10		4	19	
	464	18-23	.04	[illegible]		2	[illegible]	
	465	23-28	.04	.130	[illegible]	[illegible]	[illegible]	
	466	28-32	[illegible]	.048		5	[illegible]	
	467	32-37	.03	.02				

Hole No. U-7438

CALERA MINING COMPANY
BLACKBIRD DIVISION

DRILLING RECORD

Sheet No. 1

By W. C. Cole

Date July 1955

Mine [illegible]

Level 7400

Dip

Length

Bearing of Collar

Elevation

Depth From	To	% Cu	% Co	oz Au	Ft.	% R	Geology and Remarks
[illegible]	[illegible]	.02	.12		[illegible]	27	BX ground schist (fault zone?) 0-1 ft. some quartz sulfide mineralization
[illegible]	[illegible]	.01	.12		[illegible]	55	AX very broken sheared quartzite 45° to core.
[illegible]	[illegible]	.01	.03		[illegible]	22	very broken quartzite sheared 45° to core minor sulfide mineralization at [illegible] ft., 16-21 ft.
[illegible]	[illegible]	.01	[illegible]		[illegible]	[illegible]	
[illegible]	21	.01	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	.01	.12		[illegible]	[illegible]	schistose brown dike 21-25 ft. very broken quartzite 25-26 ft. schistose quartzite very broken, somewhat contorted, thinly banded some irregular quartz sulfide mineralization 28-33 ft.
[illegible]	[illegible]	.02	[illegible]		6	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	
		SLUDGE					
[illegible]	[illegible]	.03	.12				
[illegible]	[illegible]	[illegible]	1.57				
[illegible]	[illegible]	[illegible]	.18				
[illegible]	[illegible]	.04	.82				
[illegible]	[illegible]	.03	.10				
[illegible]	[illegible]	.03	.25				

Hole No. U-74-39

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date July 1955

DIAMOND DRILLING RECORD

Hole No. U-74-41 Mine BLACKBIRD Level 7400
Location 7400 DRIFT NORTH
Bearing N59½E Dip +4° Length 63
Latitude of Collar 18,238N Departure of Collar 2,604E Elevation 7,413½

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz Au	Ft.	% C.R.	Geology and Remarks
7/19	X4431	0-3½	Tr	.05		3½	43	BX thinly banded and contorted quartzite
	X4432	3½-10	.14	.21		6½	88	AX thinly banded and contorted quartzite 45°-60° to core. fault gouge at 7½ ft.
		10-19½						thinly banded and contorted quartzite with a few very irregular & small quartz-sulfide stringers not parallel to banding of quartzite
	X4433	10-15½	.08	.33		5½	96	
	X4434	15½-19½	.19	.82		4	97	
		19½-26½						irregular quartz-sulfide stringers in quartzite 30°-60° to core, some cobaltite. core broken;
	X4435	19½-24	.50	1.68		4½	95	
	X4436	24-26½	.32	.80		2½	68	
		26½-34						schistose quartzite 60° to core, thinly banded.
	X4437	26½-30	.05	.49		3½	66	
	X4438	30-34	.03	.58		4	100	
		34-42						very broken quartzose schist. fault gouge 34-35 ft. mostly ground to mud 38-42 ft. fault?, some scattered minor sulfide mineralization
	X4439	34-36	.05	.23		2	75	
	X4440	36-42	.01	.18		6	75	
	X4441	42-47½	.02	.21		5½	87	schistose quartzite 45°-60° to core. 0-1" banding. 1" brown dike at 42½ ft. some scattered sulfide mineralization parallel to banding of quartzite
	X4442	47½-50	Tr	.34		2½	100	pyrite sulfide cobaltite stringers 45°-60° to core in very contorted quartzite
	X4443	50-54	.05	.94		4	100	schistose quartzite 45° to core, 0-2" banding
7/20	X4444	54-57	.08	.10		3	100	schistose quartzite with minor sulfide stringers 45°-50° to core
	X4445	57-63	.06	.75		6	100	schistose quartzite thinly banded 45°-50° to core with 1½" biotite schist with cobaltite (concentrated) at 61½

Hole No. U-74-41

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date July 1955

DIAMOND DRILLING RECORD

Hole No. U-74-42 Mine BLACKBIRD Level 7400
Location 7400 DRIFT North
Bearing N58°E Dip +6 Length 58
Latitude of Collar 18221N Departure of Collar 2,6158 Elevation 7413

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz Au	Ft.	% R.C.	Geology and Remarks
7/24	X4652	0-4	.03	1.08		4	92	BX contorted quartzite, 1" bands generally 45° to core, a little more chalcopyrite mineralization
		4-22½						AX schistose quartzite 45°-60° to core, 0-2" banding; quartz-sulfide mineralization at 10½-11 ft., 11½-12½ ft., 15-15½ ft., 21 ft., fault at 10 ft.
	X4653	4-7½	.02	.19		3½	97	
	X4654	7½-10½	.08	.23		3	100	
	X4655	10½-15½	.20	1.72		5	100	
	X4656	15½-18½	.02	.09		3	73	
	X4657	18½-22½	.01	.08		4	100	
	X4658	22½-25	.05	.21		2½	100	schistose quartzite thickly banded, slightly brownish, some irregular carbonate
	X4659	25-27	.01	.01		2	100	schistose brown basic dike
	X4660	27-30	.04	.13		3	77	fragments of quartzose schist, some carbonate, fault gouge and dike material 29-30 ft.
		30-37						schistose quartzite, fault gouge at 31½ ft., 35½ ft., 36 ft., minor sulfide mineralization
	X4661	30-35	.44	.21		5	44	
	X4662	35-37	.18	.04		2	100	
	X4663	37-41	.09	.05		4	100	thickly banded schistose quartzite 60° to core, some irregular quartz-sulfide mineralization, 2" basic dike at 39½ ft.
		41-49½						quartz-sulfide in quartzite 45° to core, quartzite 50% replaced at 41-48 ft., massive sulfide 48-49½ ft., some carbonate
	X4664	41-45	.31	.18		3	100	
	X4665	45-49½	.43	2.00		3½	100	
		49½-58						schistose quartzite 45° to core with ¼" to 2" bands
	X4666	49½-52	.15	.12		3	100	
	X4667	52-58	.02	.41		5½	100	

Hole No. U-74-42

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By W. C. Cole
Date July 1955

DIAMOND DRILLING RECORD

Hole No. U-74-43 Mine BLACKBIRD Level 7400

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz Au	Ft.	% C.R.	Geology and Remarks
7/24	X 4596	0-4	.09	.35		4	80	BX schistose quartzite generally 85° contorted, some irregular minor chalcopyrite
		4-16						AX quartzite about 75% replaced by quartz sulfides, some cobaltite, generally 60° to core
	[illegible]	4-9	1.53	3.73		5	100	
	X 4598B	9-11½	.71	3.86		2½	100	
	X 4599	11½-16	1.05	5.97		4½	49	
		16-23						contorted: thinly banded schistose quartzite 60° to core; 4" quartz-sulfides at 20 ft.
	X 4600	16-21½	.05	.26		5½	69	
	X 4601	21½-23	.02	.11		1½	100	

Hole No. U-74-43

ASSAY RECORD

CALERA MINING CO.

Chute Sect. DMEA #3143 JUNE, 1955

Level 7400

Working 7400 DRIFT NORTH AND 787 X-C

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
6/6/55	X2552	Δ566+82½	-92½	MUCK	10	06	17			TRANSFER STATION
6/7	X2551	+107	-112	"	5	04	02			
6/8	X2553	112	117	"	5	06	08			
6/9	X2555	117	121	"	4	07	18			
6/10	X2557	121	126	"	5	06	06			
6/12	X2559	126	132	"	6	05	16			
6/13	X2562	132	137	"	5	04	17			
6/14	X2563	137	143	"	6	11	17			
6/15	X2565	143	149	"	6	08	19			
6/24	32658	Δ538+23	-25	"	2	Tr	Tr			787 X-C
6/25	X2705	+25	-27	"	2	02	Tr			787 X-C
6/26	X2706	27	29	"	2	02	05			787 X-C
6/26	X2707	29	32½	"	3½	06	12			787 X-C
6/13	X2561	Δ566	+132	CHIP	4º	10	16			RIGHT FACE

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By R.E. Crises
Date July 7, 1955

Hole No. V-74-45 Mine Level 740'
Location 740' Drift North
Bearing N 57½ E Dip +1° Length 20
Latitude of Collar 18,270½ N Departure of Collar 2,570 E Elevation 7,413½

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C.P.	Geology and Remarks
7/26/55	X4480	0-3½	.05	.46		3½	91	BX Schistose quartzite with some irregular narrow carbonate and quartz-chalcopyrite-pyrite stringers.
	X4481	3½-8	.18	.84		4½	82	AX Schistose quartzite with some irregular narrow quartz-pyrite-chalcopyrite-cobaltite stringers.
	X4482	8-10	.10	1.95		2	100	Schist and schistose quartzite with some irregular narrow quartz chalcopyrite-pyrite stringers. Faulted 9½-10½.
		10-17½						
	X4483	10-14	.80	2.68		4	100	Quartz-vuggy pyrite-chalcopyrite-cobaltite mineralization scattered
	484	14-17½	.58	4.25		3½	97	about 90% of quartzite and schist
		17½-23						
	X4485	17½-20½	.03	.06		3	100	Schistose quartzite with a few narrow schist bands varying from 0 to 60° to core. Very minor quartz and carbonate stringers. Minor pyrite and cobaltite? 20½-22. Small faults at 22 and 23.
	486	20½-23	.07	.13		2½	76	
		23-37						
7/28	X5260	23-27	tr	.09		4	100	Schistose quartzite contorted and thinly banded 0°-45° to core, scattered minor sulfide mineralization, quartzose schist 34½-36 ft. core very broken 27-34½ ft.
	X5261	27-34½	.05	.30		7½	33	
	X5262	34½-37	.01	tr		2½	80	
		37-51½						
	X5263	37-41	.08	.04		4	100	Schistose quartzite 50° 60° to core thinly banded. 2" brown basic dike with carbonate stringers and lenses parallel to schistosity at 41½ ft., small faults at 37½ ft., 27½ ft., 45 ft., narrow zone of carbonate 50° to core at 48 ft., small fault at 47 ft.
	X5264	41-45	.05	.04		4	100	
	X5265	45-51½	.05	tr		6½	85	
	X5266	51½-56½	.01	.02		5	84	Schistose quartzite 60° to core with ½"-2" bands, minor sulfide mineralization 55½-56½ ft.
		56½-70						
	X5267	56½-61½	.20	.23		5	82	Thinly banded schistose quartzite 30°-45° to core somewhat contorted, scattered irregular sulfide mineralization 56½-60½ ft., quartzite 50% replaced 60½-61½ ft., a few quartz-sulfide stringers 60-64 ft. (mostly pyrite)
	X5268	61½-64	.07	.02		2½	100	
	X5269	64-70	.05	.22		6	100	

Hole No. V-74-45

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By R.E. CRIBBS
Date JULY, 1955

DIAMOND DRILLING RECORD

Hole No. U-74-44 Mine Level 7400
Location 7400 DRIFT NORTH
Bearing S 61½ W Dip +4½° Length 59½
Latitude of Collar 18,195½N Departure of Collar 2,632 E Elevation 7412

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
2/26/55	X 4488	0-5	.06	.01		5	58	BX SCHISTOSE QUARTZITE WITH A FEW CONTORTED SCHIST BANDS. VERY MINOR QUARTZ-CHALCOPYRITE-PYRITE STRINGERS
	X4489	5-13	.02	Tr		8	89	BX SCHISTOSE QUARTZITE WITH A FEW NARROW SCHIST BANDS MOSTLY ABOUT 30° TO CORE. FINE CARBONATE STRINGERS REPLACING QUARTZITE 40-60° TO CORE 6-6½. SMALL FAULT AT 12.
	X4490	13-18	Tr	.10		5	100	ALTERNATING QUARTZOSE SCHIST AND SCHISTOSE QUARTZITE 20-40° TO CORE. SOMEWHAT BRECCIATED 14-16 WITH BIOTITE AND MINOR QUARTZ-PYRITE-CHALCOPYRITE STRINGERS
		18-30						SCHISTOSE QUARTZITE WITH
	X 4491	18-24	.01	.02		6	100	SCHIST BANDS 45-70° TO CORE. VERY
	492	24-30	.03	.04		6	100	MINOR QUARTZ-CHALCOPYRITE AND CARBONATE STRINGERS
		30-41½						SCHISTOSE QUARTZITE 20-40° TO
	X 4493	30-36	.01	Tr		6	100	CORE. A 2" BROWNISH SCHISTOSE DIKE
	494	36-41½	.04	Tr		5½	93	WITH CARBONATE STRINGERS AT 38.
								VERY MINOR QUARTZ-PYRITE ~~STRING~~ STRINGERS.
2/28/55		41½-47						SCHISTOSE QUARTZITE WITH SOME
	X 5,254	41½-44½	.02	.07		3	100	CONTORTED NARROW SCHIST BANDS
	255	44½-47	Tr	Tr		2½	100	0-80° TO CORE. VERY MINOR CARBONATE AND QUARTZ-PYRITE-CHALCOPYRITE STRINGERS
		47-54½						QUARTZ-CARBONATE-VUGGY PYRITE-
	X 5,256	47-50	.07	1.50		3	87	CHALCOPYRITE MINERALIZATION
	257	50-54½	.19	1.81		4½	80	REPLACING ABOUT 50% OF SCHISTOSE QUARTZITE. SULFIDES AT LOW ANGLE TO CORE.
		54½-59½						SCHISTOSE QUARTZITE 30-60° TO
	X 5,258	54½-56½	.03	.09		2	75	CORE. MINOR QUARTZ-PYRITE-CHALCOPYRITE
	259	56½-59½	.03	.02		3	77	STRINGERS 54½-56

Hole No. U-74-44

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 3
By A. C. Cole
Date

DIAMOND DRILLING RECORD

Hole No. U 74 45 Mine BLACKBIRD Level 7400
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
			SLUDGE					
7/28/55	X5270	37-41	.09	.19				
	X5271	51½ 56½	.04	.09				
	X5272	56½ 61½	.14	.22				

Hole No. U-74-45

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
July 11, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Co., Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine was inspected on July 1, 1955 with Mr. Cecil Whitley, mine engineer, and Richard Cribbs, mine geologist.

The 7400 drift north advanced an additional 45 feet during the period. Two diamond drill holes had been drilled out about 75 feet from the face. The soft caving ground made drilling difficult. The logs were not available, but Mr. Cribbs said that nothing of importance was picked up. Only one of the holes was charged to the project.

The 787 hanging wall crosscut has been collared and driven 25 feet. The ground is good, and it is expected to advance without the aid of timber.

The total work units completed to July 1, 1955 are:

	Authorized	Completed
Stage I		
Trenching) Diamond drilling) Reaming)		Yes
Drift)	6,000 feet	1,163 feet
Crosscut)		245 "
Normal timber	5,000 "	839 "
Heavy "	750 "	477 "
Spiling	500 "	656 "
Framing	11,500 sets	230 sets
U.G.DD - Stage I	664.4 ft.	612.0 ft.
DD " II	10,500 "	280.5 "
Assays " I	3,100 units	2,346 units
" " II	5,900 "	325 "

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

A. L. Service

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 11 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $407,340.00 Government Participation: 70 % Amount, $285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Spiling Short Form	860.00	7,460.00	8,320.00			
Heavy Timber	301.00	2,726.50	3,027.50			
Trenching		10,262.59	10,262.59			
Framing	82.20	1,315.20	1,397.40			
Drifting	2,487.45	54,475.16	56,962.61			
Normal Timber	469.00	8,045.10	8,514.10			
(2) Labor and Supervision:						
Core Drilling Stage II	328.07	525.94	854.01			
Core Drilling Stage 1		59,692.44	59,692.44			
(3) Core Timber Drilling						
U.G. Stage 1		2,069.91	2,069.91			
Reaming						
Stage 1		2,862.50	2,862.50			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7)						
Sampling and Analysis						
Stage II	81.00	1,014.00	1,095.00			
Sampling Analysis Stage 1		7,038.00	7,038.00			
(8) Contingencies (specify):						
TOTALS	4,608.72	157,487.34	162,096.06	4608.72	157487.34	162096.06

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

Date July 6, 1955 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$3226.10

Signature MAP
(Authorized Certifying Officer)

Date 8-8-55 Vou. No. 1574
(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. 6645 in accordance with the terms of the contract.

Signature /s/ Alfred R. Service Title Mining Engr Date 7-29-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W. Zoldak Title Mining Engr Date 7-29-55

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 June 1955 Docket No. DMEA 3143 Contract No. Idm-E645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	2,487.45	70	56,962.61	1603	35.535	6000	35.535
Normal Timbering	Ft.	469.00	67	8,514.10	1216.3	7.00	5000	7.00
Heavy Timbering	Ft.	301.00	43	3,027.50	432 .5	7.00	750	7.00
Spiling	Ft.	860.00	43	8,320.00	416.0	20.00	500	20.00
Framing	Sets.	82.20	15	1,397.40	255.0	5.48	1150	5.48
Assay St. II	Ea.	81.00	27	1,095.00	365.0	3.00	5900	3.00
Drilling Core	Ft.	328.07	97	854.01	252.5	3.3822	10500	3.3822
Drilling Stage II	Ft.			2,069.91	612	3.3822	664.38	3.3822
Underground Stage I								
Stripping	Hrs.			10,262.59	864	11.878	864	11.878
Trenching	Ea.			59,692.44	8576.5	6.96	8576.5	6.96
Drilling Core Stage 1	Ea.			7,038.00	2346	3.00	3100	3.00
Assay Stage 1	Ft.			2,862.50	1145	2.50	1145	2.50
Roads and Trails								
Reaming - Stage 1								
TOTAL DISTRIBUTED COSTS		4,608.72		162,096.06				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		4,608.72		162,096.06				

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 6, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ Alfred R Service.

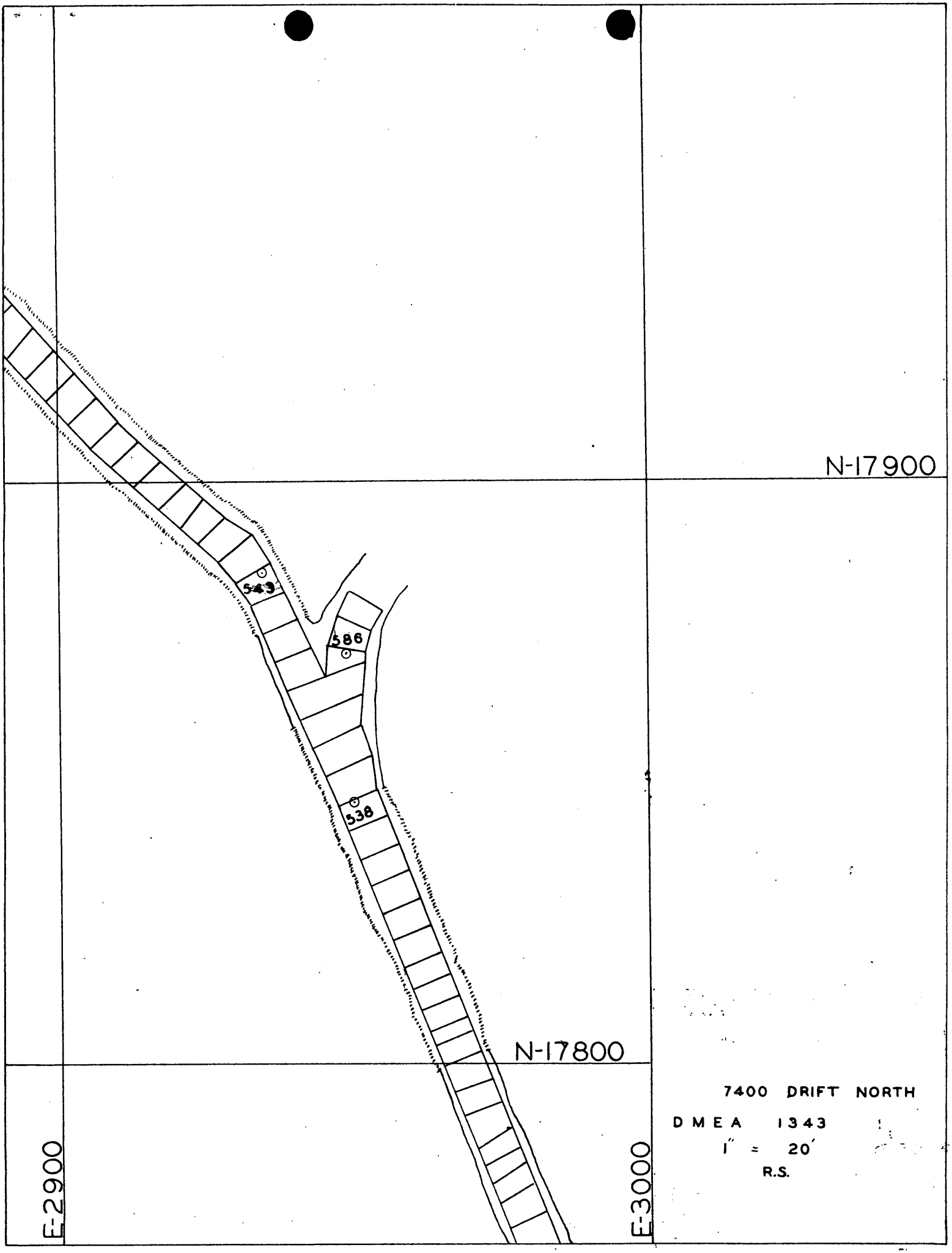
INSTRUCTIONS

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-17900
N-17800
E-2900
E-3000
543
586
538
7400 DRIFT NORTH
D M E A 1343
1" = 20'
R.S.

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

July 6, 1955

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm - 1645

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143 for the month of June, 1955.

The 7400 Drift North was advanced 45 feet and stopped for Diamond Drilling. This heading continued to advance in extremely heavy ground, and all the advance required the use of spiling.

The crosscut to explore the hanging wall mineralized zone was collared at a point approximately 1,560 feet back from the face of the 7400 Drift North. The crosscut was advanced 25 feet in ground that required normal timbering.

Diamond Drilling amounted to 97 feet in three holes collared near the face of the 7400 Drift North. An additional hole, U-74-33, was not charged to the D.M.E.A. account. No ore has been intersected.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:cm

Enclosures

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

1201 N. Division St.
Spokane 2, Washington
June 15, 1955

RECEIVED
JUL 1 5 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine was not visited at this time because a labor strike closed down all operations on May 18, 1955. The miners returned to work on June 6, 1955.

Richard Cribbs, mine geologist, was contacted in Salmon, Idaho, on June 3. He reported that only 73 feet of advance had been made since the 1st of the month and that no cobalt mineralization was found.

The contract work that has been completed is the same as that reported in the May 18 interim report.

A. L. Service
A. L. Service

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 15 1955

June 6, 1955

Memorandum

To: DMEA Field Team, Region I, Northwest District

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3143 (cobalt-copper), Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645.

The property was not inspected; this report is merely to inform the Field Team that the miners went out on strike about May 18 and on May 31 no settlement was imminent. The company has also had difficulty obtaining sulphuric acid for the mill because of the truck line strike.

Distribution:
DMEA (orig. & 3)
USBM (2)
USBM(AD)
Docket
Nickelson

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
JUN 24 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $ 407,340.00 Government Participation: 70 % Amount, $ 285,138.00

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:						
Shaft Sinking	1180.00	6280.00	7460.00			
Drifting Heavy Timber	413.00	2313.50	2726.50			
Bulldozing Trenching		10262.59	10262.59			
Crosscutting Framing	71.24	1243.96	1315.20			
Drifting	2594.05	51881.11	54475.16			
Normal Timber	483.00	7,562.10	8045.10			
(2) Labor and Supervision:						
Labor Core Drilling Stage II		525.94	525.94			
Supervision Core Drilling Stage I		59692.44	59692.44			
Technical Services						
(3) Operating Materials and Supplies:						
Timber Core Drilling						
Explosives U.G. StageI		2069.91	2069.91			
Pipe Reaming						
Track Stage I		2862.50	2862.50			
(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 Stage II	39.00	975.00	1014.00			
Liability Insurance						
Sampling & Analysis Stage I		7038.00	7038.00			
(8) Contingencies (specify):						
TOTALS	4780.29	152707.05	157487.34	4780.29	152707.05	157487.34

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 6, 1955 *Payee Calera Mining Company
Per William T. Holmes 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:

$ 3 346 20

Signature M D P
(Authorized Certifying Officer)

Date 6-20-55 Vou. No. 1528
(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. E645 in accordance with the terms of the contract.

Signature /s/ Alfred R. Service Title Mining Engr Date 6-13-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Stephen W. Goldsch 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

RECEIVED
JUN 24 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 195 5 Docket No. DMEA 3143 Contract No. Idm E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, 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	Ft.	2,594.05	73	54,475.16	1533	35.535	6000	35.535
Normal Timbering	Ft.	483.00	69	8,045.10	1149.3	7.00	5000	7.00
Heavy Timbering	Ft.	413.00	59	2,726.50	389.5	7.00	750	7.00
Shaft Spiling	Ft.	1,180.00	59	7,460.00	373.0	20.00	500	20.00
Winze Framing	Sets	71.24	13	1,315.20	240.0	5.48	1150	5.48
Drilling: Assay Stage II	Ea.	39.00	13	1,014.00	338	3.00	5900	3.00
Core Stage II	Ft.	-	-	525.94	155.5	3.3822	10500	3.3822
U.G. D.D. Stage I Auger	Ft.	-	-	2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.	-	-	10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ft.	-	-	59,692.44	8576.5	6.96	8576.5	6.96
Assay Stage I	Ea.	-	-	7,038.00	2346	3.00	3100	3.00
Reaming Stage I	Ft.	-	-	2,862.50	1145	2.50	1145	2.50
TOTAL DISTRIBUTED COSTS		4,780.29		157,487.34				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		4,780.29		157,487.34				407340.00

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 June 6, 1955 Operator Calera Mining Company

Per William T. Holman 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)

151 Alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

RECEIVED

JUN 24 1955

June 3, 1955

Mr. A. B. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Ida-8645

Dear Mr. Weissenborn:

Enclosed are the maps and assays showing the progress during the month of May for D.M.E.A. Project No. 3143.

The 740C Drift North was advanced 73 feet on a three shift basis during the first part of the month. The miners went out on strike the 14th of May and stayed out the remainder of the month.

The heading was slowed down when it intersected a large north striking fault that dips steeply to the east. A series of NE striking faults that dip at a low angle to the west were also intersected. The bad ground made it necessary to spile 59 feet of the advance. No ore was intersected during the month.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. S. Douglas, Manager

ESD:abd

Enclosures

ASSAY RECORD

CALERA MINING CO.

Chute Sect. DMEA #3143 MAY, 1955

Level 7400

Working 7400 DRIFT NORTH

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au	REMARKS
5/5/55	X2691	A566+	42-47½	MUCK	5½	02	09		
5/6	X2418	+47½	-52	"	4½	06	12		
5/9	X2419	52	-55½	"	3½	09	29		
5/10	X2420	55½	59	"	3½	06	17		
5/11	X2421	59	61	"	2	06	07		
5/12	X2422	61	68	"	7	08	03		
5/12	X2423	68	74	"	6	07	07		
5/13	X2427	74	79½	"	5½	05	05		
5/14	~~[illegible]~~ X36	79½	86	"	6½	28	50		
5/15	X2692	86	96	"	10	11	29		
5/16	X2429	96	101½	"	5½	05	10		
5/17	X2432	101½	107	"	6½	03	04		
5/14	X2424	A566+	65-69	CHIP	4	27	88		RIGHT RIB

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

1201 N. Division St.
Spokane 2, Washington
May 18, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Interim inspection, Docket No. DMEA 3143 (cobalt-copper), Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The Blackbird mine was visited on May 10 to 14, 1955, with Mr. C. A. Turner, DMEA auditor. Gavin Young, mine superintendent, Cecil Whitley, mine engineer, and Richard Cribbs, mine geologist, were present during the inspection.

The 7400 drift north was driven about 248 feet since the last inspection. The ground was good during most of the advance but more bad ground has been encountered and the advance is expected to slow down. The last 111 feet of drift had to be spiled and timbered.

The total contract units completed to May 11, 1955 are:

	Authorized	Completed
Stage I		
Trenching) Diamond drilling) Reaming) completed		
Drift)	6,000 ft.	1,118 ft.
Crosscut)		220 "
Normal timber	5,000 "	814 "
Heavy "	750 "	452 "
Spiling	500 "	611 "
Framing	11,500 sets	226 sets
U.G. D.D. Stage I	664.4 ft.	612.0 ft.
D.D. Stage II	10,500 "	155.5 "
Assays, Stage I	3,100 units	2,346 units
" " II	5,900 "	325 "

The Operator has verbally requested permission to drive the proposed 7400 crosscut from a point about 100 feet northwesterly from where it was originally proposed. The length and bearing of the crosscut will be the same. The reason for the change is that the rock is more competent in the new location. It is recommended that this proposed work be approved by the Field Team.

All units claimed by the Operator were verified during an audit conducted by Mr. Turner.

A. L. Service

A. L. Service

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
May 18, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. L. Service, Mining Engineer, Bureau of Mines

Subject: Verification of contract units completed to March 31, 1955, Docket No. DMEA 3143 (Cobalt-copper), Calera Mining Company, Blackbird Mine, Lemhi County, Idaho, Contract No. Idm-E645

The total contract units claimed to March 31, 1955 were remeasured on May 11, 1955. Mr. Cecil Whitley, mine engineer, and two engineers assisted with the measuring.

The measured footages and the claimed footages are listed below:

	Measured	Claimed
Drifting	1238.0 ft.	1238.0 ft.
Spiling	310.8 "	297.0 "
Normal timber	995.0 "	994.3 "
Heavy "	327.8 "	313.5 "
Framing	214 sets	210 sets

The diamond drilling and reaming footages were verified by the contractor's invoices and the Operator's logs.

U.G. Diamond drilling Stage I	612 feet	612 feet
Diamond Drilling Stage I	8576.5 "	8576.5 "
Diamond Drilling Stage II	155.5 "	155.5 "
Reaming	1145 "	1145 "

The sampling and analysis costs are low because the DMEA sample costs were calculated by averaging the cost of all mine and mill samples. The assays run on DMEA samples are more complex and take more time than the average mill sample. The mill samples are already crushed which eliminates extra handling and reduces the cost per sample. By averaging the small percentage of DMEA samples against the large percentage of general mine and mill samples the resultant cost of the project samples is lower than would be expected.

	Claimed	Cost
Samples, Stage I	2346	$7,038.00
Samples, Stage II	272	816.00

There were 864 hours of bulldozing time expended in trenching during the first stage of the contract.

The contract units claimed by the Operator are accurate and justified.

A. L. Service

A. L. Service

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

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
MAY 17 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 195 5 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $ 407,340.00 Government Participation: 70% Amount, $ 285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY W34: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent Contractors~~ Spilling	340.00	5,940.00	6,280.00			
~~Drifting~~ Heavy Timber	119.00	2,194.50	2,313.50			
~~Raising~~ Trenching		10,262.59	10,262.59			
~~Crosscutting~~ Framing	93.16	1,150.80	1,243.96			
Drifting	7,888.77	43,992.34	51,881.11			
Normal Timber	602.00	6,960.10	7,562.10			
(2) Labor and Supervision:						
Core ~~Labor~~ Drilling Stage 2		525.94	525.94			
Core ~~Supervision~~ Drilling Stage 1		59,692.44	59,692.44			
~~Technical Services~~						
(3) ~~Operating Materials~~ Supplies						
Core ~~Timber~~ Drilling						
~~Explosives~~ U.G. Stage 1		2,069.91	2,069.91			
~~Pipe~~ Reaming						
~~Track~~ Stage 1		2,862.50	2,862.50			
(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~~ Stage 2	159.00	816.00	975.00			
~~Liability Insurance~~						
Sampling & Analysis						
Stage 1		7,038.00	7,038.00			
(8) Contingencies (specify):						
TOTALS	9,201.93	143,505.12	152,707.05	9,201.93	143,505.12	152,707.05

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

Date May 5, 1955 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 6441 35

Signature M&P
(Authorized Certifying Officer)

Date 5-13-55 Vou. No. 1516
(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 645 in accordance with the terms of the contract.

Signature 151 Stephen W Goldoft Title Mining Engr Date 5-13-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Stephen W Goldoft Title Mining Engr Date 5-13-55

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-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 17 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 195 5 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, 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	Ft.	7,888.37	222	51,881.11	1460.0	35.535	6000	35.535
Normal Timbering	Ft.	602.00	86	7,562.10	1080.3	7.00	5000	7.00
Crosscutting								
Heavy Timbering	Ft.	119.00	17	2,313.50	330.5	7.00	750	7.00
Raising								
Spiling	Ft.	340.00	17	6,280.00	314.0	20.00	500	20.00
Shafts								
Framing	Sets	93.16	17	1,243.96	227.0	5.48	1150	5.48
Winzes								
Assay Stage II	Ea.	159.00	53	975.00	325	3.00	5900	3.00
Drilling Core Stage II	Ft.	-	-	525.94	155.5	3.3822	10500	3.3822
U.C. D.D. Stage I	Ft.	-	-	2,069.91	612	3.3822	664.38	3.3822
Churn								
Auger								
Stripping								
Trenching	Hrs.	-	-	10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ea.	-	-	59,692.44	8576.5	6.96	8576.5	6.96
Test Pits								
Assay Stage I	Ea.	-	-	7,038.00	2346	3.00	3100	3.00
Roads and Trails								
Reaming Stage I	Ft.	-	-	2,862.50	1145	2.50	1145	2.50
Total Distributed Costs		9,201.93		152,707.05				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		9,201.93		152,707.05				

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, 1955 Operator Calera Mining Company
Per [signature] Title [signature]

Remarks:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

/s/ Stephen W Goldsk

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

CALERA MINING COMPANY
BLACKBIRD DIVISION
COBALT, IDAHO

May 5, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 17 1955

Mr. A. E. [illegible]
[illegible] - Region 1
[illegible] Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. [illegible] 3143
Contract No. [illegible]

Dear Mr. [illegible]:

Enclosed are the maps and assays [illegible] to the [illegible] Project No. 3143 for the month of April, 1955.

The 7400 Drift North was driven [illegible] feet on a three-shift basis during this period. [illegible] conditions required [illegible] until the closing week of the period, when a fault was encountered. [illegible] feet of [illegible] ground [illegible] feet of [illegible]. The [illegible] in the fault [illegible] the [illegible].

A series of north trending faults and one mineralized zone of ore [illegible] were encountered. [illegible] of the faults [illegible] until the end of the month.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

[illegible], Manager

[illegible]:cp

Enclosures

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. _____
By K.E. [illegible]
Date FEBRUARY, 19[illegible]

Hole No. [illegible] Mine _____ Level [illegible]
Location [illegible] [illegible] EAST
Bearing N 40° E Dip +[illegible] Length [illegible]
Latitude of Collar [illegible] Departure of Collar [illegible] 10½ E Elevation [illegible]

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. P.	Geology and Remarks
[illegible]		0-6½						NX SCHISTOSE QUARTZITE WITH A
	X2469	0-3	.01	TR		3	67	FEW NARROW SCHIST BANDS 60-90° TO
	X2470	3-6½	.01	TR		3½	66	CORE.
		6½-35						NX SCHISTOSE QUARTZITE WITH A
	X2471	6½-10	.01	TR		3½	100	FEW NARROW SCHIST BANDS 45-90° TO
	X2472	10-14½	.03	.04		4½	67	CORE. A 3" BROWN SCHISTOSE DIKE AT
	X2473	14½-19	.02	.40		4½	56	31'. VERY MINOR QUARTZ STRINGERS.
	X2474	19-24	.01	TR		5	72	QUARTZ-PYRITE-CHALCOPYRITE CARBONATE
	X2475	24-29	.01	.81		5	72	FELDSPAR VEIN 14-11'. A HEAVY PYRITE
	X2476	29-35	.01	.12		6	35	CHALCOPYRITE VEIN 33½-36½. MINOR
								PYRITE CHALCOPYRITE MINERALIZATION 33½
								FRACTURED QUARTZ 34½-35'. A SMALL
								FAULT AT 36½'.
		35-64						QUARTZOSE SCHIST AND MINOR
	X2477	35-41	.03	.31		6	67	SCHISTOSE QUARTZITE WITH CARBONATE
	X2478	41-45½	.02	1.61		4½	91	QUARTZ-SULFIDE STRINGERS. A BLOCK OF
	X2479	45½-49	.02	.16		3½	49	VEIN PYRITE-QUARTZ-CHALCOPYRITE
	X2480	49-54	.02	.17		5	36	CARBONATE MINERALIZATION 51½-53½.
	X2481	54-58½	.04	.45		2½	100	SMALL FAULT AT 54½. [illegible] OF CORE
	X2482	58½-61½	.06	.36		3	72	IS HIGHLY FRACTURED.
	X2483	61½-64	.03	.63		2½	54	
2/9		64-71						SCHISTOSE QUARTZITE [illegible]
	[illegible]	64-68	.02	.13		4	8	[illegible]
	[illegible]	68-[illegible]	.05	.08		3	4[illegible]	[illegible]
		[illegible]-99						[illegible]
	X[illegible]86	91-96	.01	.14		5	[illegible]	[illegible]
	X[illegible]	96-99	.02	.06		8	37	[illegible]
	X[illegible]	99-[illegible]	.03	.09		10	5	
		[illegible] 138						
	[illegible]	99-98	[illegible]	TR		9	72	NX FRACTURED SCHISTOSE QUARTZITE
2/[illegible]		98-108				10	77	AND QUARTZOSE SCHIST [illegible]
		108-115				7	62	[illegible]
		115-119				4	70	[illegible]
		119-127				5	62	[illegible]
		127-138				7	68	[illegible]

Hole No. [illegible]

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2

By

Date

DIAMOND DRILLING RECORD

Hole No. [illegible] Mine Level

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
2/11/65		134-139						FRACTURED SCHISTOSE QUARTZITE [illegible]
	X 2490	138-141	.04	.03		9	60	[illegible]
	X 2491	142-155	Tr	Tr		8	67	SCHISTOSE [illegible]
		155-160				5	92	[illegible]
		160-166				6	68	155-165 [illegible]
		166-171				5	78	[illegible] 139-145
		171-179				8	91	
		179-204						FRACTURED CHLORITE QUARTZITE [illegible]
	X 2492	179-189	Tr	Tr		10	70	SCHIST FROM [illegible]
	X 2493	189-199	.04	Tr		10	65	[illegible] MINOR [illegible]
	X 2494	199-204	.04	Tr		5	70	180-195. MINOR QUARTZ [illegible]
	X 2495	204-209	.11	.28		5	70	[illegible] 195-204. [illegible]
								CHALCOPYRITE MINERALIZATION [illegible]
								QUARTZ [illegible] CHALCOPYRITE [illegible]
								[illegible] 204-209. [illegible]
								POSSIBLY A FEW DIKE FRAGMENTS [illegible]
	X 2496	209-212	.02	.03		3	30	FRACTURED [illegible]
								[illegible] MINERALIZATION [illegible]
	X 2497	212-215	.02	.04		3	57	FRACTURED SCHISTOSE QUARTZITE [illegible]
								SCHIST REPLACED BY 70% QUARTZ [illegible]
	X 2498	215-219	.11	.12		4	45	FRACTURED SCHISTOSE QUARTZITE [illegible]
								ABOUT 50% QUARTZ PYRITE [illegible]
	X 2499	219-224	.08	.20		5	18	HIGHLY FRACTURED SCHISTOSE QUARTZITE
								[illegible] SCHIST. MINOR QUARTZ [illegible]
								CHALCOPYRITE MINERALIZATION. FRACTURE
								FILLING [illegible].
	X 2500	224-229	.03	.08		2	20	FRACTURED SCHIST WITH [illegible]
								QUARTZ MINERALIZATION.
	—	229-232				3	0	NO CORE.

Hole No. [illegible]

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 3
By
Date

DIAMOND DRILLING RECORD

Hole No. U-71-206 Mine Level

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
2/3/55		0-6½				6½	SURFACE	
	X2345	6½-19	.03	.21		12½	"	
	X2346	19-29	.03	.13		10	"	
	X2347	29-35½	.06	.18		6½	"	
	X2348	35½-41	.12	.24		5½	"	
2/4/55	X2355	41-45½	.13	2.01		4½	"	
	X2356	45½-49	.08	.64		3½	"	
	X2357	49-54	.07	.18		5	"	
	X2358	54-56½	.07	.41		2½	"	
	X2359	56½-61½	.09	.40		5	"	
	X2360	61½-64	.10	.44		2½	"	
	X2361	64-68	.14	1.46		4	"	
	X2362	68-76	.26	.75		8	"	
	X2363	76-84	.09	.08		8	"	
	X2364	84-94	.05	.23		10	"	
2/5/6	X2451	94-98	.07	.18		4	"	
	X2452	98-104	.03	.03		6	"	
	X2453	104-108	.01	TR		4	"	
	X2454	108-111	.02	TR		9	"	
	X2455	117-122	.03	TR		5	"	
	X2456	122-134	.05	TR		12	"	
	X2457	134-144	.01	TR		10	"	
	X2458	144-147	.10	.07		3	"	
	X2459	147-155	.01	TR		8	"	
	X2460	155-166	.03	.02		11	"	
	X2461	166-179	.02	.03		13	"	
	X2462	179-189	.02	TR		10	"	
	X2463	189-199	.04	TR		10	"	
	X2464	199-209	.09	.10		10	"	
	X2465	209-219	.10	.25		10	"	
	X2466	219-227	.11	.18		8	"	
	X2467	227-229	.06	.17		2	"	CAVE MATERIAL
	X2468	229-232	.07	.09		3	"	

Hole No. U-71-206

ASSAY RECORD

CALERA MINING CO.

2.

Chute Sect. DMEA #3143

APRIL, 1955

Level 7400

Working 7400 DRIFT NORTH

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
4/16/55	9621B	A663+113	-119	MUCK	6	52	64			
4/16	9621A	119	124½	"	5½	11	32			
4/17	X3111	124½	131½	"	7	06	10			
4/18	X2687	131½	138	"	6½	03	02	4%	0.07, 5.15	
4/19	X3112	138	144	"	6	05	04			
4/20	X3115	144	150	"	6	09	50			
4/21	X2688	A663+150 A566+14½	-154½ -19	"	4½	08	03			
4/21	X2689	+19	25	"	6	05	08			
4/4	X3105	A568	+104½	CHIP	2'	06	26			LEFT FACE
4/4	X3106		"	"	2'	80	2 30			CENTER FACE
4/4	X3107		"	"	1'	43	1 01			RIGHT FACE
4/5	X2660		+115½	"	4'	03	03			LEFT FACE
4/5	X2661		"	"	2'	22	2 23			RIGHT FACE
4/6	X2662	A663	+20	"	2'	05	05			LEFT FACE
4/6	X2663		"	"	5'	67	5 44			RIGHT FACE
4/7	X2667		+30	"	3'	10	2 09	6.98		LEFT FACE
4/7	X2668		"	"	3'	06	1 84		4.97	RIGHT FACE
4/12	X2675		+88	"	3'	71	1 68			LEFT FACE
4/12	X2676		"	"	3'	22	31			RIGHT FACE

ASSAY RECORD

CALERA MINING CO.

Chute Sect. _____ Level 7400

DMEA #3143 Working 7400 DRIFT NORTH

APRIL, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
3/30/55	X2651	Δ561 160	166	MUCK	6	06	11			
3/30	X2652	166	172	"	6	03	17			
3/30	X2653	172	178½	"	6½	Tr	07			
3/31	X2654	Δ561+1 Δ568+	178½-183½ 39-44	"	5	02	03			
3/31	X2655	Δ568+44	49½	"	5½	02	14			
3/31	X2656	49½	55½	"	6	03	30	[illegible]	0.05	0.16
4/1	9604B	55½	62	"	6½	02	03			
4/1	9604A	62	69	"	7	04	07			
4/2	9606A	69	75	"	6	01	02	[illegible]	0.05	0.19
4/2	9606B	75	81	"	6	09	15			
4/2	9606C	81	87	"	6	11	20			
4/3	X3108	87	93	"	6	12	67			
4/3	X3109	93	99	"	6	96	1 36			
4/4	X2657	99	104½	"	5½	11	1 33			
4/4	X2658	104½	110	"	5½	1 66	79			
4/4	X2659	110	116	"	6	35	1 34			
4/5	X2666	Δ568+116 Δ663	-120 +6-10	"	4	17	1 17			
4/5	X2665	Δ663 +10	16	"	6	54	1 95	[illegible]	[illegible]	
4/5	X2664	16	20	"	4	84	2 75			
4/6	X2669	20	24	"	4	33	1 88			
4/6	X2670	24	30	"	6	31	2 28			
4/7	X2671	30	36	"	6	14	1 74	28	033	2.18
4/7	X2672	36	42	"	6	52	3 44			
4/7	X2673	42	48	"	6	37	1 55			
4/8	X2674	48	52½	"	4½	1 05	1 46			
4/11	33025	55	61	"	6	37	07			
4/11	33026	61	67	"	6	07	13	19	047	0.27
4/12	X2677	67	74	"	7	06	02			
4/12	X2678	74	81	"	7	55	44			
4/12	X2679	81	88	"	7	1 05	54			
4/13	X2682	88	93½	"	5½	26	62			
4/13	X2680	93½	100½	"	7	16	33	25	0.20	[illegible]
4/15	X2685	100½	107	"	6½	06	18			
4/15	X2686	107	113	"	6	32	71			

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

400

W

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March 195 5 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $ 407,340.00 Government Participation: 70 % Amount, $ 285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent Contracts: Short Form~~ Spilling	220.00	5,720.00	5,940.00			
~~Drilling~~ Heavy Timber	77.00	2,117.50	2,194.50			
~~Bulldozing~~ Trenching		10,262.59	10,262.59			
~~Crosscutting~~ Framing	60.28	1,090.52	1,150.80			
Drifting	10,447.29	33,545.05	43,992.34			
Normal Timber	455.00	6,505.10	6,960.10			
(2) ~~Labor and Supervision:~~						
Core ~~Labor~~ Drilling Stage 2	194.48	331.46	525.94			
Core ~~Supervision~~ Drilling Stage1		59,692.44	59,692.44			
~~Technical Services~~						
(3) ~~Operating Mat'ls. and Supplies:~~						
Core ~~Timber~~ Drilling						
~~Explosives~~ H.G Stagel		2,069.91	2,069.91			
~~Pipe~~ Reaming		2,862.50	2,862.50			
~~Track~~ Stage 1						
(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~~ Stage 2	183.00	633.00	816.00			
~~Liability Insurance~~						
Sampling & Analysis Stage 1	264.00	6,774.00	7,038.00			
(8) Contingencies (specify):						
TOTALS	11901.05	131604.07	143,505.12	11901.05	131604.07	143505.12

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

Date April, 1955 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$ 8330 74

Signature [signature]
(Authorized Certifying Officer)

Date 4/15/55 Vou. No. 1480
(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. E645 in accordance with the terms of the contract.

Signature /S/ Alfred R. Service Title Mining Engr Date 4-14-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 4-15-55

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-R1151.1
Approval expires 6-30-53.

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 3143 Contract No. idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, 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		10447.29	294	43,992.34	1238	35.535	6000	35.535
Normal Timbering	Ft.	455.00	65	6,960.10	994.3	7.00	5000	7.00
Crosscutting								
Heavy Timbering	Ft.	77.00	11	2,194.50	313.5	7.00	750	7.00
Raising								
Shafts Spiling	Ft.	220.00	11	5,940.00	297.0	20.00	500	20.00
Shaft Framing	Sets.	60.28	11	1,150.80	210	5.48	1150	5.48
Assay Stage II	Ea.	183.00	61	816.00	272	3.00	5900	3.00
Drilling: Core								
Drilling Core Stage II	Ft.	194.48	57½	525.94	155½	3.3822	10500	3.3822
Churn								
U.G. Diamond Drilling	Ft.			2,069.91	612	3.3822	664.38	3.3822
Auger Stage I								
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ea.			59,692.44	8576½	6.96	8576.5	6.96
Test Pits								
Assay Stage I	Ea.	264.00	88	7,038.00	2346	3.00	3100	3.00
Roads and Trails								
Reaming Stage I	Ft.			2,862.50	1145	2.50	1145	2.50
TOTAL DISTRIBUTED COSTS		11901.05		143,505.12				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		11901.05		143,505.12				

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 4, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

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)

4-14-55 (For Government use only)

1st alfred R Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

April 4, 1955

Mr. A. H. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. idr-2045

Dear Mr. Weissenborn:

Enclosed are the maps and assays pertinent to the D.M.E.A. Project No. 3143 for the month of March, 1955.

The 7400 Drift North was driven 294 feet on a three shift basis. Only 65 feet of this advance required timber. There were 11 sets of drift timber installed, and 11 feet of ground was spiled.

Ground conditions in this heading improved greatly during the month. Two small ore zones were encountered, one of which was of exceptional grade. A diamond drill hole was drilled to investigate this high grade zone.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

EBD:abd

Enclosures

CALERA MINING COMPANY

730 FIFTH AVENUE

NEW YORK 19, N. Y.

RECEIVED
BUREAU OF MINES
APR 1 5
SPOKANE, WASH.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

April 12th, 1955

Mr. Wing G. Agnew, Member
DMEA Field Team, Region II
Defense Minerals Exploration Adm.
c/o U.S. Bureau of Mines,
1201 N. Division Street,
Spokane, 2, Washington.

RE: DOCKET NO. DMEA 3143
CONTRACT NO. IDM-E645

Dear Mr. Agnew:

Enclosed please find 5 copies each of Forms 104 and 104A showing work completed at the Calera Mine during the month of March.

I am also enclosing original and one copy of our separate invoice with the actual amount due us in accordance with our contract which provides that the Government's proportionate cost is 70%. We will appreciate it if you will make payment in the amount of $8,330.74 to our New York office.

Yours sincerely,
CALERA MINING COMPANY

Vinton H. Clarke
Vice President

VHC:MP
Encl.
cc: EBDouglas

April 12th, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 22 1955

INVOICE NO. 14

Mr. Wing C. Agnew, Member
DMEA Field Team, Region II
Defense Minerals Exploration Adm.
c/o U.S. Bureau of Mines,
1201 N. Division Street
Spokane 2, Washington

CONTRACT NO IDM-E645

Unit Cost Total for work completed during March	$11,901.05
Government Participation 70%	8,330.74
DUE CALERA MINING COMPANY	3,570.31

Vice President

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 1
By K. E. Carlson
Date March, 1955

DIAMOND DRILLING RECORD

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
APR 22 1955

Hole No. U-71-205 Mine
Level 7200
Location 509 Sub Drift East
Bearing N 59½° E Dip +19 Length 455
Latitude of Collar 15,193½ N Departure of Collar 4,692 E Elevation 7136½

Date	Sample No.	Depth From — To	Assay Value % Cu	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
3/23/55	X2349	0-6	.02	.13		6	37	1X Schistose quartzite cut by narrow quartz-chalcopyrite-pyrite stringers.
	X2350	6-12	.04	.12		6	32	3X Schistose quartzite with a few schist bands 60-80° to core. Very minor narrow quartz-chalcopyrite stringers.
	X2351	12-16	Tr	Tr		4	80	Schistose quartzite interbedded with some contorted quartzose schist bands about 50° to core. Minor contorted quartz stringers.
		16-31½						Schistose quartzite
	X2352	16-21	.01	.02		5	70	interbedded with some quartzose
	X2353	21-26½	.01	Tr		5½	44	schist bands 50-80° to core.
	X2354	26½-31½	.01	Tr		5	30	
		31½-103½						Schistose quartzite with some
	X2365	31½-34	.01	Tr		2½	48	narrow schist bands mostly 70-80° to
	X2366	34-38½	.01	Tr		4½	98	core. A few fragments of brown
	X2367	38½-44	.05	Tr		5½	64	schistose dike at 103. Minor contorted
	X2368	44-49	.05	Tr		5	76	narrow quartz stringers. Very minor
	X2369	49-54	Tr	Tr		5	44	chalcopyrite and pyrite at 45.52-53,
	X2370	54-58½	.01	.12		4½	91	and 90'. Good pyrite-chalcopyrite-
	X2371	58½-64	Tr	.08		5½	67	cobaltite mineralization 91½-92'.
	X2372	64-69	.03	Tr		5	50	
	X2373	69-74	Tr	Tr		5	60	
	X2374	74-84	.01	Tr		10	39	
	X2375	84-88	.02	Tr		4	50	
	X2376	88-92	.05	.28		4	70	
	X2377	92-97	.02	Tr		5	60	
	X2378	97-103½	.04	Tr		6½	43	
		103½-126						Schistose quartzite and some
	X2379	103½-108½	.03	.04		5	58	quartzose schist cut with narrow
	X2380	108½-113	.03	Tr		4½	93	contorted quartz stringers. Minor
	X2381	113-117	Tr	Tr		4	95	pyrite and chalcopyrite mineralization
	X2382	117-122	.03	.08		5	48	mostly 109½-117'. Carbonate spots in
	X2383	122-126	.02	Tr		4	68	quartzite 123½-126'.
3/25		126-132½						Grayish green massive diab.
	X2384	126-130½	.10	Tr		4½	36	
	X2385	130½-132½	.15	.02		2	80	

Hole No. U-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 2
By
Date

DIAMOND DRILLING RECORD

Hole No. W-71-205 Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
3/25/73		130½-143						SCHISTOSE QUARTZITE WITH SOME
	X2388	132½-135	.01	.02		2½	80	MODERATELY CONTORTED MICACEOUS SCHIST
	X2387	135-140	Tr	Tr		5	92	DIPS 40-70° TO CORE. SOME MICACEOUS
	X2386	140-143	.08	.02		3	70	QUARTZ INTERBEDDED 139-140 AND
								ABOUT 50% QUARTZ-PYRITE MYLONITIZED
	X2389	143-147	.08	.09		4	55	140-141½.
								FROM 143-144 MINOR ORE GRADE
								CHLORITE SCHIST. FROM 144-147 QUARTZ
								CHLORITE SCHIST. FROM
								PYRITE STRINGERS, PYRITE ORDINARY IS
								MINOR COBALTITE.
		147-153½						SCHISTOSE QUARTZITE WITH A
	X2390	147-150½	.05	.03		3½	43	FEW CONTORTED SCHIST BANDS. QUARTZ
	X2391	150½-153½	.02	Tr		3	80	PYRITE STRINGERS 147-148½. ONE MINOR
								QUARTZ STRINGERS THROUGHOUT CORE.
								MINOR CHALCOPYRITE AT 151½.
		153½-173½						SCHISTOSE QUARTZITE WITH A FEW
		153½-157				3½	43	SCHIST BANDS 50-70° TO CORE. MINOR
		157-162				5	32	MINOR PRESENCE QUARTZ STRINGERS
		162-167				5	46	153½-158. MINOR QUARTZ AND
		167-171				4	32	CHALCOPYRITE STRINGERS ABOUT 35° TO
		171-173½				2½	36	CORE AT 164.
		173½-193						EX SCHISTOSE QUARTZITE WITH A
		173½-178½				3	47	FEW MODERATELY CONTORTED SCHIST
		178½-182				3½	80	BANDS 10-60° TO CORE. FROM 173½-178½, 181-185. FAULT ZONE 183-182.
		182-185½				3½	100	
		185½-191				5½	58	
		191-193				1	25	
	X2392	193-198	.01	.06		5	78	QUARTZOSE SCHIST MINOR SCHIST
								TO CORE. A 4" QUARTZ-CHALCOPYRITE
								STRINGER FOLDED TO CORE AT 197.
		198-203						SCHISTOSE QUARTZITE WITH
	X2393	198-201	.07	.05		3	100	MODERATELY CONTORTED SCHIST BANDS
	X2394	201-209	.03	.06		8	96	0-60° TO CORE. MINOR MODERATE
	X2395	209-214	Tr	Tr		5	90	QUARTZ CHALCOPYRITE-PYRITE
	X2396	214-218	Tr	Tr		4	83	STRINGERS 199-205.
	X2397	218-223	Tr	Tr		5	94	

Hole No. W-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 3
By
Date

DIAMOND DRILLING RECORD

Hole No. U-71-205 Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C.R.	Geology and Remarks
3/28/65		223-280						SCHISTOSE QUARTZITE WITH A
		223-227½				4½	91	FEW SCHIST BANDS. 40-70° TO CORE.
		227½-232				4½	80	QUARTZ-CARBONATE MINERALIZATION
		232-236½				4½	78	ABOUT 60° TO CORE 234½-235.
	X2398	236½-243	.01	.02		6½	40	FERRUGINOUS QUARTZITE FROM SURFACE
	X2399	243-246	Tr	Tr		3	97	BROKEN 239½-241½. A VERY
	X2400	246-250½	Tr	Tr		4½	61	NARROW QUARTZ-CARBONATE
	X2401	250½-256	Tr	Tr		5½	75	STRINGER AT 247½, 250½, 255½.
	X2402	256-261½	Tr	Tr		5½	73	VERY MINOR QUARTZ STRINGERS
	X2403	261½-266½	Tr	.03		5	18	245-280.
	X2404	266½-271½	Tr	Tr		5	88	
	X2405	271½-275	Tr	Tr		3½	83	
	X2406	275-280	Tr	.03		5	98	
		280-299						FROM 280-285½ SCHISTOSE QUARTZITE
	X2407	280-285	Tr	Tr		5	98	WITH A FEW CONTORTED NARROW SCHIST
	X2408	285-290	.02	Tr		5	74	BANDS. MINOR QUARTZ-SULFIDE STRINGERS.
	X2409	290-295	Tr	Tr		5	74	SOFT LIGHT COLORED BANDS ABOUT 295½-299.
3/29	X2410	295-299	Tr	Tr		4	60	
		299-304						SCHISTOSE QUARTZITE WITH SCHIST
	X2411	299-304	.01	Tr		5	78	BANDS VARYING FROM 1 CM TO MORE THAN
	X2412	304-309	Tr	Tr		5	70	TO CORE. SOME SCHIST QUARTZITE.
		309-314				5	50	CARBONATE STRINGERS 299-304.
		314-319				5	38	
		319-322				3	60	
		322-337						QUARTZOSE SCHIST GRADES INTO
		322-325				3	70	SCHISTOSE QUARTZITE.
		325-329				4	83	
		329-331½				2½	68	
		331½-337				5½	89	
		337-342						SCHISTOSE QUARTZITE WITH SOME
		337-342				5	48	NARROW SCHIST BANDS VARYING FROM
		342-347				5	50	LOW TO HIGH ANGLE TO CORE.
	X2413	347-352½	Tr	Tr		5½	73	
		352½-361½						SCHISTOSE QUARTZITE PREDOMINATES
	X2414	352½-356½	Tr	Tr		4	75	WITH QUARTZOSE SCHIST AT 10-20° ANGLE
		356½-361½				5	80	TO CORE.
		361½-373						SCHISTOSE QUARTZITE
		361½-368				12½	88	
		368-373				5	78	

Hole No. U-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 4
By
Date

DIAMOND DRILLING RECORD

Hole No. U-71-205 Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
3/30/55		373 - 414						SCHISTOSE QUARTZITE AND MICA
		373-377				4	73	SCHIST. VARIANS FROM LOWER TO HIGH
		377-384				7	90	QUALITY TO CORE. CHALCOPYRITE
		384-395½				9½	77	QUARTZ + PYRITE STRINGERS 404-404½.
		395½-398½				5	82	
		398½-403½				5	98	
	X2415	403½-405½	.19	1.70		2	80	
	X2416	405½-414	Tr	Tr		8½	82	
		414 - 449						SCHISTOSE QUARTZITE WITH MINOR
		414-424				10	32	VARIANT SCHIST FROM 60-80° TO CORE.
		424-429				5	78	SEVERAL INCHES OF QUARTZ - CHLORITE
		429-439				10	61	MIGRECRYSTALLIZATION AT 443. MINOR
		439-444				5	36	CHALCOPYRITE - QUARTZ STRINGERS
	X2417	444-449	Tr	.04		5	62	445-447.
		449-455						MODERATELY SHEARED SCHISTOSE
		449-453				4	25	QUARTZITE. MOSTLY MICA (SOME?)
		453-455				2	25	454-455.

Hole No. U-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 5
By
Date

DIAMOND DRILLING RECORD

Hole No. U-71-205 Mine Level
Location
Bearing Dip Length
Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C. R.	Geology and Remarks
1/25/55	—	0-97	—	—		97	[illegible]	
	X2301	97-101	.10	.05		4	"	
	X2302	101-103½	.14	.09		2½	"	
	X2303	103½-108	.13	.12		4½	"	
	—	108-140	—	—		32	"	
1/27	X2304	140-143	.09	.03		3	"	
	X2305	143-147	.07	.07		4	"	
	X2306	147-153½	.06	.10		6½	"	
	X2307	153½-162	.04	.03		8½	"	
	X2308	162-167	.02	Tr		5	"	
	X2309	167-171	.02	.02		4	"	
	X2310	171-173½	.05	.06		2½	"	
	X2311	173½-182	.05	Tr		8½	"	
	X2312	182-185½	.01	.03		3½	"	
	X2313	185½-190½	.01	.04		5	"	
	X2314	190½-193	.01	Tr		2½	"	
	—	193-223	—	—		30	"	
	X2315	223-227½	.04	Tr		4½	"	
	X2316	227½-232	.04	.09		4½	"	
	X2317	232-236½	.02	.05		4½	"	
	—	236½-250	—	—		3½	"	
	X2318	250-261½	.10	.23		11½	"	
	—	261½-275½	—	—		14	"	
	X2319	275½-280	.03	.03		4½	"	
	X2320	280-285	.10	.29		5	"	
	X2321	285-290	.11	.17		5	"	
	X2322	290-295	.08	.04		5	"	
	X2323	295-299	.12	.27		4	"	
	—	299-309	—	—		10	"	
	X2324	309-314	.04	.02		5	"	
	X2325	314-319	.04	.06		5	"	
	X2326	319-329	.03	.04		10	"	
2/1/55	X2327	329-337	Tr	Tr		8	"	
	X2328	337-342	.01	Tr		5	"	
	X2329	342-347	.01	Tr		5	"	
	—	347-356½	—	—		9½	"	
	X2330	356½-361½	.01	Tr		5	"	
	X2331	361½-368	.06	Tr		6½	"	
	X2332	368-377	.05	.02		9	"	
	X2333	377-384	Tr	Tr		7	"	
	X2334	384-393½	Tr	Tr		9½	"	

Hole No. U-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

Sheet No. 6
By
Date

DIAMOND DRILLING RECORD

Hole No. U-71-205 Mine Level

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co	% Cu	Oz. Au	Ft.	% C R.	Geology and Remarks
2/4/55	X2335	393½-398½	Tr	Tr		5	90+%	
	X2336	398½-403½	Tr	Tr		5	"	
	X2337	403½-408½	.02	.24		5	"	
	X2338	408½-414	.03	Tr		5½	"	
	X2339	414-424	.04	Tr		10	"	
	X2340	424-429	.06	Tr		5	"	
	X2341	429-439	Tr	Tr		10	"	
	X2342	439-444	Tr	Tr		5	"	
	X2343	444-449	Tr	Tr		5	"	
	X2344	449-455	Tr	Tr		6	"	

Hole No. U-71-205

CALERA MINING COMPANY
BLACKBIRD DIVISION

DIAMOND DRILLING RECORD

Sheet No. 1
By W. P. Barnes
Date March, 1955

Hole No. U-74-30 Mine Blackbird Level 740'

Location

Bearing Dip Length

Latitude of Collar Departure of Collar Elevation

Date	Sample No.	Depth From — To	Assay Value % Co.	% Cu.	Oz. Au.	Ft.	% C.R.	Geology and Remarks
3-11	X2501	0-3	1.57	15.20		3	97	BK - Massive vuggy sulfides. Minerals include quartz, pyrite, chalcopyrite and cobaltite.
	X2502	3-4	[illegible]	[illegible]		1	100	AK - Same as above. Sulfides 70°-80° to core.
		4-27½						Schistose quartzite. Narrow schist zones 30° to 40° to core. Fault at 16½ ft.
	X2503	4-9	.10	.05		5	100	
	X2504	9-14	.05	.05		5	100	
	X2505	14-19	Tr	Tr		5	94	
	X2506	19-24	Tr	Tr		5	100	
	X2507	24-27½	.02	.08		3½	100	
	X2508	27½-29½	.02	Tr		2	100	Black biotite schist with small carbonate inclusions grading into 4" stringer of quartz and carbonate about 70° to core at 28½ feet.
		29½-51½						Schistose quartzite. Schist zones about 20° to 40° to core. Small stringers of Cu-stained quartz and carbonate between 37 and 38 feet.
	X2509	29½-34	.00	Tr		4½	100	
	X2510	34-39	.01	Tr		5	94	
	X2511	39-44	.02	.02		5	94	
	X2512	44-49	.05	Tr		5	90	
	X2513	49-51½	[illegible]	[illegible]		2½	100	
	X2514	51½-53	.02	.01		1½	100	Sulfides in silicified schist
	X2515	53-57½	.05	[illegible]		4½	22	Dike material and broken quartzite.

Hole No. U-74-30

ASSAY RECORD

CALERA MINING CO.

①

Chute Sect. _____ Level 7400

DMEA # 3143 Working 7400 DRIFT NORTH

MARCH, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
3/3/55	X3583	Δ553+ 84½	88	muck	3½	07	04			
3/4	X3584	88	94	"	6	07	12			
3/5	X3104	94	100	"	6	06	31			
3/6	X3585	100	108	"	8	03	37			
3/7	X3586	108	113	"	5	05	43			
3/8	X3587	113	133	"	20	02	03	[illegible]	0.03, 0.02	
3/9	X3588	133	147	"	13	02	17			
3/9	X3589	147	155	"	8	03	07			
3/10	X3590	155	161	"	6	06	18			
3/10	X3591	161	168	"	7	02	04			
3/11	X3595	173	179	"	6	1 12	3 25	[illegible]	1.28, 3.25	
3/11	X3596	179	185	"	6	1 45	4 05			
3/14	X2516	185	192	"	7	24	2 19	7	[illegible], 2.19	
3/14	X2518	192	200	"	8	03	08			
3/15	X2523	Δ553+200 Δ561+ 18½	-207½ -27	"	7½	06	40	2½	0.03, 0.15	
3/15	X2525	Δ561 27	-34	"	7	01	Tr			
3/16	X2526	40	46	"	6	09	19			
3/16	X2527	46	52½	"	6½	02	19			
3/17	X2528	52½	57	"	4½	03	02			
3/17	X2529	57	62	"	5	04	22	.8	0.04, 0.39	
3/17	X2530	62	66	"	4	19	33			
3/18	X2531	66	73	"	7	04	62			
3/18	X2532	73	80	"	7	03	19			
3/18	X2533	80	87	"	7	05	33			
3/19	7163A	87	93	"	6	05	57			
3/20	7163B	93	98	"	5	05	07			
3/23	X2534	80	90	"	10	03	46	.10	[illegible] 0.46 SAFETY STATION	
3/24	X2537	111	115	"	4	15	75			
3/24	X2538	115	120	"	5	19	73			
3/24	X2542	120	126	"	6	03	19			
3/25	X2543	126	133	"	7	09	97			
3/28	X2544	133	138	"	5	05	58			
3/28	X2546	138	143	"	5	16	1 19	.49	0.11, 0.64	
3/28	X2547	143	148½	"	5½	22	1 11			

(2)

ASSAY RECORD

CALERA MINING CO.

Chute Sect. DMEA #3143 MARCH, 1955

Level 7400

Working 7400 DRIFT NORTH

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au			REMARKS
3/29	X2549	Δ561 148½	154	MUCK	5½	06	21				
3/29	X2550	154	160	"	6	09	19				
3/14	X3593	Δ553	+185	CHIP	3.5	1 83	6 09				LEFT FACE
3/14	X3594		+185	"	3.7	71	7 17				RIGHT FACE
3/15	X2519		+197½	"	3.5	19	1 70				LEFT FACE
3/15	X2520		+197½	"	3.5	Tr	50				RIGHT FACE
	X2521		+204	"	3.0	Tr	Tr				LEFT FACE
	X2522		+204	"	3.5	03	10				RIGHT FACE
3/23	X2535	Δ561	+111	"	3.5	09	33				LEFT FACE
3/23	X2536		+111	"	3.5	1 30	67				RIGHT FACE
3/6	X2540		+133	"	3.5	27	54				LEFT FACE
	X2541		+133	"	3.5	17	1 18				RIGHT FACE

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
APR 22 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February 5 3143 Docket No. DMEA Idm-E645 Contract

Operator's Name Calera Mining Company Cobalt & Copper Minerals

Address Cobalt, Idaho

Contract Amount, $ 407,340.00 Government Participation: 70 % Amount, $ 285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
******** Spiling	1560.00	4,160.00	5,720.00			
(1) ~~Independent~~ Contractors:						
~~Short Boring~~ Heavy Timber	546.00	1,571.50	2,117.50			
~~Drifting~~ Trenching	-	10,262.59	10,262.59			
~~Bulkhead~~ Framing	153.44	937.08	1,090.52			
Crosscutting	4619.55	28,925.50	33,545.05			
Normal Timber	931.00	5,574.10	6,505.10			
**********						
Core Drilling Stage II	-	331.46	331.46			
Core ~~Drilling~~ Stage I	-	59,692.44	59,692.44			
~~Sampling~~						
~~Technical Services~~						
Core Drilling Underground						
(3) ~~Operating~~ Meals and Supplies:						
~~Timber~~ Stage I	2069.91	-	2,069.91			
~~Explo~~ Reaming -						
~~Run~~ Stage I	-	2,862.50	2,862.50			
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) ~~New Rides~~ Improvements, etc.						
(7) ~~Miscellaneous~~						
Repairs to Equipment						
~~Sampling and~~ Stage II	111.00	522.00	633.00			
~~Payroll Taxes~~						
~~Sampling~~ Insurance Analysis						
Stage I	192.00	6,582.00	6,774.00			
(8) Contingencies (specify):						
	10182.90	121,421.17	131,604.07			
TOTALS				10182.90	121,421.17	131,604.07

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

Date March 3, 1955 *Payee Calera Mining Company

Per Title

*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:

$ 7128 03

Signature M QP
(Authorized Certifying Officer)

Date 4-15-55 Vou. No. 1480
(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 645 in accordance with the terms of the contract.

Signature /S/ Alfred P. Service Title Mining Engr Date 4-11-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen N. Goldsh 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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Bureau of the Interior
Defense Minerals Administration
RECEIVED
MAR 22 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1955 Docket No. DMEA 3143 Contract No. Idm-E645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	4,619.55	130	33,545.05	944	35.535	6000	35.535
Crosscutting Timbering	Ft.	931.00	133	6,505.10	929.3	7.00	5000	7.00
Raising Timbering	Ft.	546.00	78	2,117.50	302.5	7.00	750	7.00
Stopes Spiling	Ft.	1,560.00	78	5,720.00	286.	20.00	500	20.00
Winzes Framing	Sets	153.44	28	1,090.52	199.	5.48	1150	5.48
Drilling Core Stage II	Ea.	111.00	37	633.00	211	3.00	5900	3.00
Underground D.D. Auger Stage 1	Ft.	2,069.91	612	2,069.91	612	3.3822	664.38	3.3822
Stripping								
Trenching	Hrs.	-	-	10,262.59	864	11.878	964	11.878
Drilling Core Stage I	Ft.	-	-	59,692.44	8,576½	6.96	8576.5	6.96
Assay Stage I	Ea.	192.00	64	6,774.00	2,258	3.00	3100	3.00
Roads and Trails								
Reaming - Stage I	Ft.	-	-	2,862.50	1,145	2.50	1145	2.50
TOTAL DISTRIBUTED COSTS		10,182.90		$131,604.07				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		10,182.90		$131,604.07				

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 March 3, 1955 Operator Calera Mining Company

Per ..... Title .....

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)

4-11-55

(For Government use only)

1st/ alfred P Service

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

Defense Minerals Administration
RECEIVED
APR 22 1955

March 3, 1954

Mr. A. E. Weissenborn
Executive Office - Region 1
D.M.E.A. Field Team
South 157 Howard Street
Spokane 8, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-E645

Dear Mr. Weissenborn:

We enclose herewith, the maps and assays covering the underground advance of the D.M.E.A. Project No. 3143 for the month of February, 1955.

The work of driving the 7400 Drift North, was continued on a three shift basis Total advance in this heading amounted to 130 feet. Badly sheared and fractured ground continued to be a hindrance on the driving of the drift; 78 feet of the drift required the driving of spiling. During the month, a total of 28 sets of drift timber were used in the drift.

Two Diamond Drill holes were completed into the hanging wall of the Chicago Zone. Hole U-71-206 was drilled to a depth of 232 feet and intersected the mineralized zone that was exposed in the 500 surface trench. The zone was about 13 feet wide and consisted of Quartz and Pyrite mineralization, with minor Chalcopyrite and a trace of Cobalt. Hole U-71-205 was drilled to a depth of 455 feet and intersected only minor mineralization. Seventy-five feet at this hole was not charged to this contract.

Very truly yours,
Calera Mining Company
Blackbird Division

E. B. Douglas, Manager

Enclosures

ASSAY RECORD

CALERA MINING CO.

Chute Sect. ____ Level 7400

D. MEA # 3143 Working 7400 DRIFT NORTH

FEBRUARY, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
2/1/55	X3542	~~Δ543+94~~	59	muck	5	15	Tr			
2/2	X3544	59	67	"	8	26	12			
2/3	X3552	67	75	"	8	09	Tr			
2/4	X3546	75	80	"	5	05	09			
2/5	X3556	80	86	"	6	15	16			
2/5	X3557	86	92½	"	6½	11	04			
2/6	X3558	92½	97	"	4½	05	04			
2/7	X3560	97	101	"	4	07	Tr			
2/7	X3563	101	105½	"	4½	45	52			
2/8	X3565	105½	110	"	4½	12	29			
2/9	X3569	110	117	"	7	03	06			
2/10	X3571	Δ543+117	126½	"	9½	06	13			
		Δ553+12	~~22½~~							
2/11	X3573	~~Δ553~~	~~22½~~ 29½	"	7	03	02			
2/11	X3574	29½	35	"	5½	03	02			
2/14	X3540	35	40	"	5	09	05			
2/14	X3576	40	45	"	5	04	Tr			
2/15	X9515A	45	56	"	11	09	08			
2/16	X3502	56	63	"	7	09	10			
2/17	X3578	63	67	"	4	03	Tr			
2/21	X3580	72	75½	"	3½	14	17			
2/22	X3581	75½	79	"	3½	06	Tr			
2/24	X3582	79	84½	"	5½	03	04			

ASSAY RECORD

CALERA MINING CO.

Chute Sect.. Level 7400

DMEA #3143 Working 7400 DRIFT NORTH

FEBRUARY, 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
2/1	X3539	D543	+49-54	CHIP	5	11	Tr			LEFT RIB
2/1	X3540	D543	+54	"	4	70	07			RIGHT FACE
2/2	X3541	+54	59	"	5	35	26			LEFT RIB
2/4	X3551		+25	"	2	31	05			LEFT SIDE OF FACE
2/5	X3548		+86	"	4°	29	1 71			LEFT FACE
2/5	X3549		+86	"	5°	19	93			RIGHT FACE
2/6	X3554		+92½	"	5°	24	18			LEFT FACE
2/6	X3555		+92½	"	4°	26	12			RIGHT FACE
2/7	X3561		+101	"	5°	15	63			LEFT FACE
2/7	X3562		+101	"	4°	08	15			RIGHT FACE
2/8	X3566		+110	"	4°	05	03			LEFT FACE
2/8	X3567		+110	"	4°	Tr	Tr			RIGHT FACE
	X3577	D553	+39-44½	"	5°	33	Tr			LEFT RIB
	X3101	+61	-63	"	2°	46	1 18			RIGHT RIB
	X3579		+72	"	5°	35	1 06			RIGHT SIDE OF FACE

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

Department of the Interior
Defense Minerals Administration
RECEIVED
FEB 21 1955

Month of January, 1955 Docket No. DMEA 3143 Contract No. Idm-E645
Operator's Name Calera Mining Company Minerals Cobalt & Copper
Address Cobalt, Idaho
Contract Amount, $407,340.00 Government Participation: 70 % Amount, $ 285,138.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Spiling	1,500.00	2,660.00	4,160.00			
Heavy Timber	525.00	1,046.50	1,571.50			
Trenching		10,262.59	10,262.59			
Framing	104.12	832.96	937.08			
Drifting	3,304.76	25,620.74	28,925.50			
Normal Timber	672.00	4,902.10	5,574.10			
(2)						
Core Drilling-Stage 2		331.46	331.46			
Core Drilling Stage 1		59,692.44	59,692.44			
(3)						
Timber Reaming - Stage 1		2,862.50	2,862.50			
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 - Stage 2	60.00	462.00	522.00			
SAMPLING & Analysis - Stage 1		6,582.00	6,582.00			
(8) Contingencies (specify):						
TOTALS	6,165.88	115,255.29	121,421.17	6165.88	115255.29	121421.17

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

Date February 3rd 1955 *Payee Calera Mining Company

Per [signature] Title [signature]

*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:

$4316.12

Signature [signature]
(Authorized Certifying Officer)

Date 2/16/55 Vou. No. 1436
(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. E645 in accordance with the terms of the contract.

Signature (S) Alfred R Service Title Mining Eng Date 2/11/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature (S) Stephen W Zoldok Title Mining Engr Date 2/11/55

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

Defense Minerals Administration
RECEIVED
FEB 21 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1955 Docket No. DMEA 3143 Contract No. Idm-E645

Operator's Name Calera Mining Company Minerals Cobalt & Copper

Address Cobalt, 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	Ft.	3,304.76	93	28,925.50	814	35.535	6,000	35.535
Normal Timbering	Ft.	672.00	96	5,574.10	796.3	7.00	5,000	7.00
Heavy Timbering	Ft.	525.00	75	1,571.50	224.5	7.00	750	7.00
Spiling	Ft.	1,500.00	75	4,160.00	208.0	20.00	500	20.00
Framing	Sets	104.12	19	937.08	171	5.48	1,150	5.48
Assay - Core Stage II	Ea.	60.00	20	522.00	174	3.00	5,900	3.00
Drilling Core Stage II	Ft.			331.46	98	3.3822	10,500	3.3822
Auger								
Stripping								
Trenching	Hrs.			10,262.59	864	11.878	864	11.878
Drilling Core Stage I	Ft.			59,692.44	8,576	6.96	8,700	6.96
Assays	Ea.			6,582.00	2,194	3.00	3,100	3.00
Reaming - Stage I	Ft.			2,862.50	1,145	2.50	1,700	2.50
TOTAL DISTRIBUTED COSTS		6,165.88		121,421.17				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		6,165.88		121,421.17				

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 3, 1955 Operator Calera Mining Company

Per [signature] Title [signature]

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)

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

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 21 1955

February 3, 1955

Mr. A. G. Weissenborn
Executive Office - Region 2
D.M.E.A. Field Team
South 157 Howard Street
Spokane, Washington

Re: Docket No. D.M.E.A. 3143
Contract No. Idm-E645

Dear Mr. Weissenborn:

We enclose herewith, the maps and assays covering the underground advance of the D.M.E.A. Project No. 3143, for the Month of January, 1955.

The work of driving the 7400 Drift North was resumed on a three-shift basis in the early part of the month. This heading was advanced, 93-feet. Standing of drift timber was continued and 75-feet of the drift required the driving of spiling. A total of 19 sets of drift timber were stored.

The last round blasted contained visible fine grained cobaltite.

Very truly yours,

CALERA MINING COMPANY
BLACKBIRD DIVISION

E. B. Douglas, Manager

Enclosures

20 SAMPLES

ASSAY RECORD

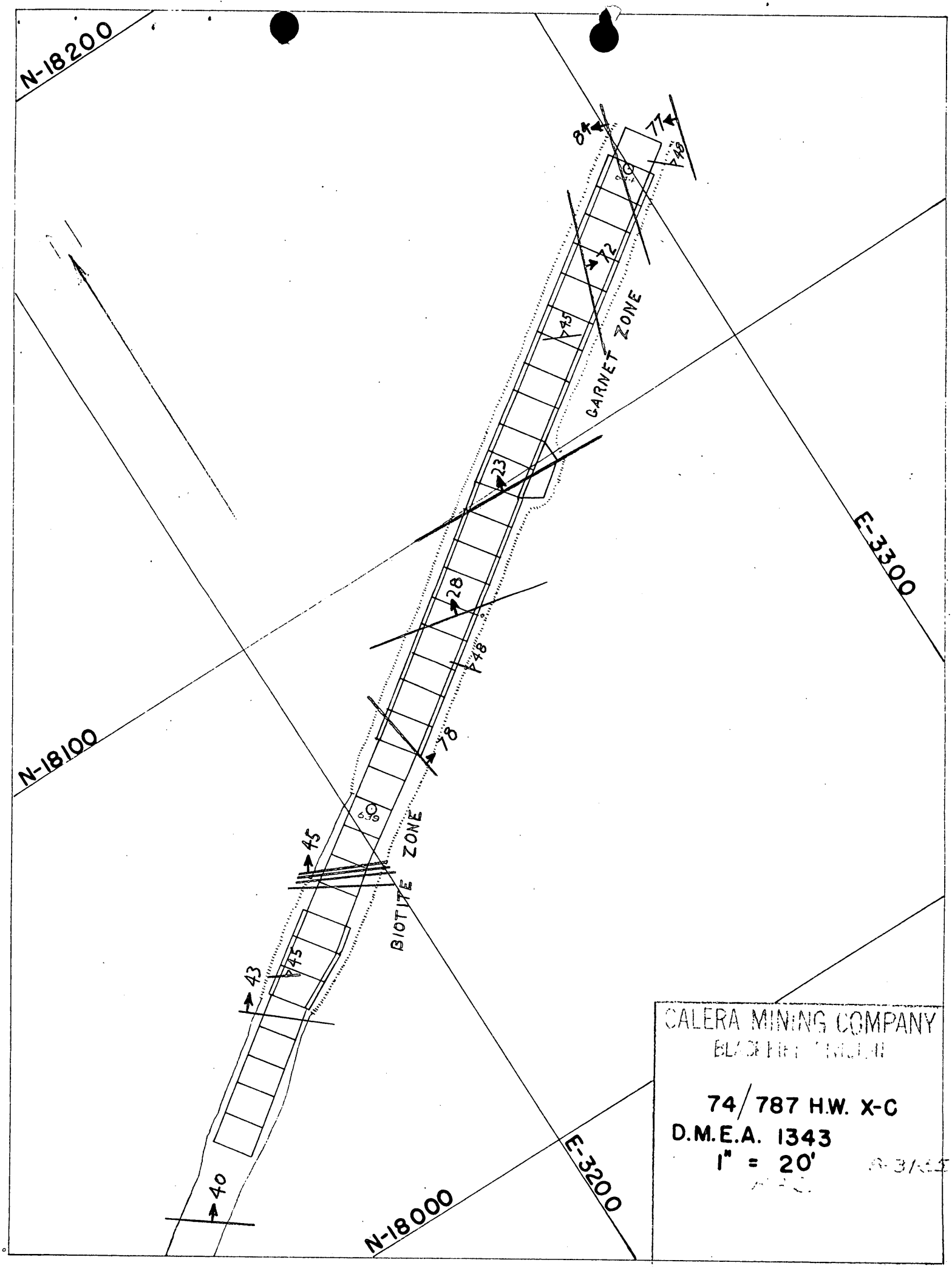
CALERA MINING CO.

Chute Sect. _____ Level, 2400

Drift [illegible] Working 2400 Drift [illegible]

January 1955

Date	Sample Number	Location From	Location To	Kind	Wth.	% Co	% Cu	Oz. Au		REMARKS
1/4/55	X3519	A5[illegible]	95-100	[illegible]	6	01	Tr			
1/5	X35[illegible]	[illegible]	100	"	6	Tr	Tr			
1/12	X3524	107	112	"	5	Tr	Tr			
1/18	X4013	[illegible]	118	"	6	Tr	Tr			
1/14	X3563	118	123	"	5	Tr	Tr			
1/17	X4044	123	128½	"	[illegible]	01	Tr			
1/13	X3527	A5[illegible] +[illegible]	[illegible]	"	7	02	02			
1/17	X3525	A536+[illegible]	47½	"	6	08	Tr			
1/18	X3521	47½	53	"	5½	14	19			
1/21	X3526	A532+[illegible]	53-58	"	5	07	Tr			
1/22	X4048	A534+[illegible]	11-16	"	2½	03	[illegible]			
1/23	X3531	16	24	"	5½	[illegible]	05			
1/24	X3532	24	29	"	5	05	Tr			
1/25	X3533	[illegible]	33½	"	4½	05	05			
1/26	X3534	33½	38	"	4½	06	Tr			
1/27	X3535	38	47½	"	9½	06	05			
1/31	*	47½	54	"	6½	32	09			* COMPOSITE OF X3532, X3533, X3536
1/22/55	X3548	A54[illegible]	+16	CHIP	4½	07	Tr			LEFT SIDE FACE
	X3549			"	3½	06	01			RIGHT SIDE FACE - FRONT SCALE
1/23	X4047	A543	+18½		4.0	32	42			RIGHT SIDE FACE - REAR SCALE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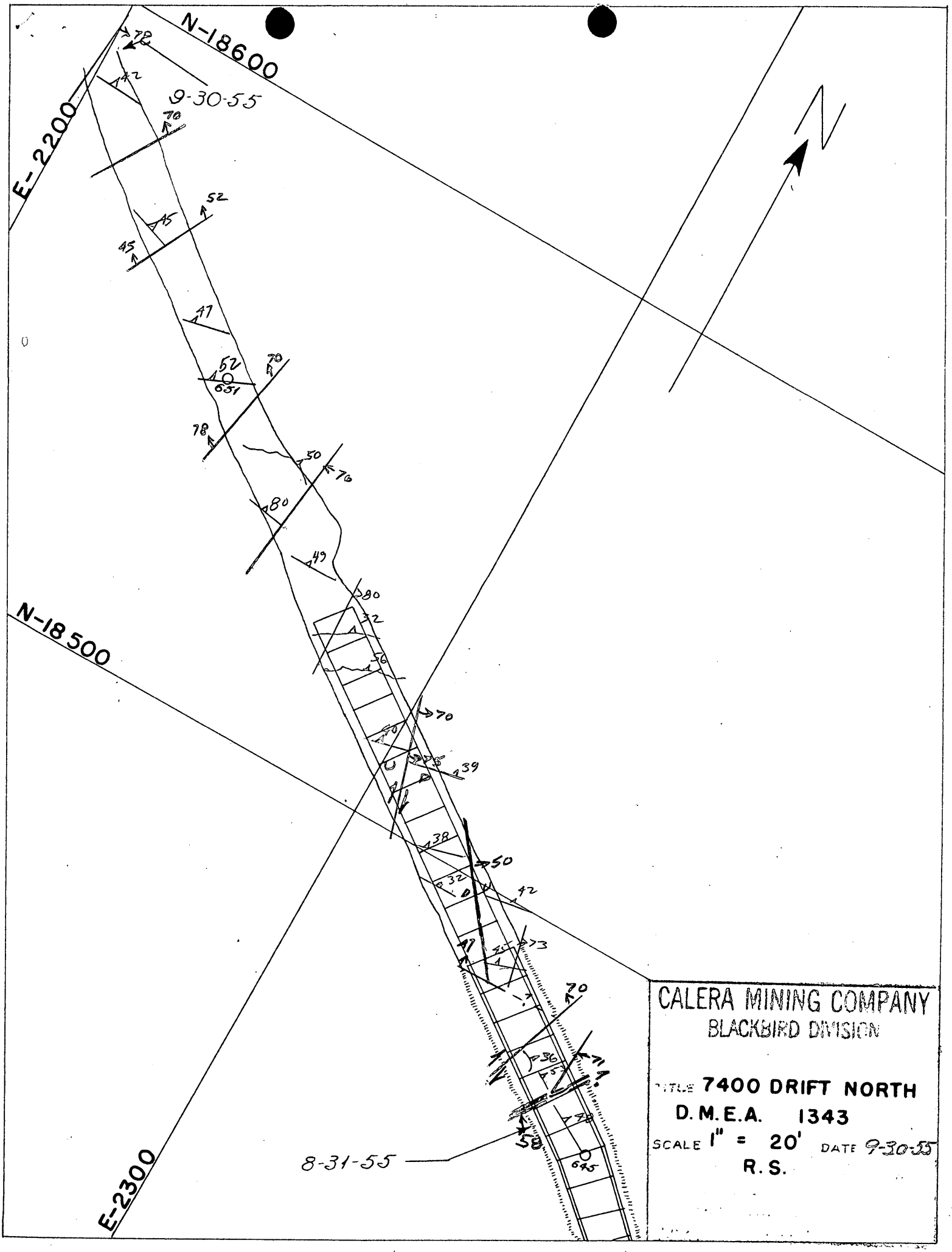
N-18000
E-3300
E-3200
84
77
49
72
45
GARNET ZONE
23
28
48
78
6.39
45
BIOTITE ZONE
43
45
40
CALERA MINING COMPANY
74/787 H.W. X-C
D.M.E.A. 1343
1" = 20'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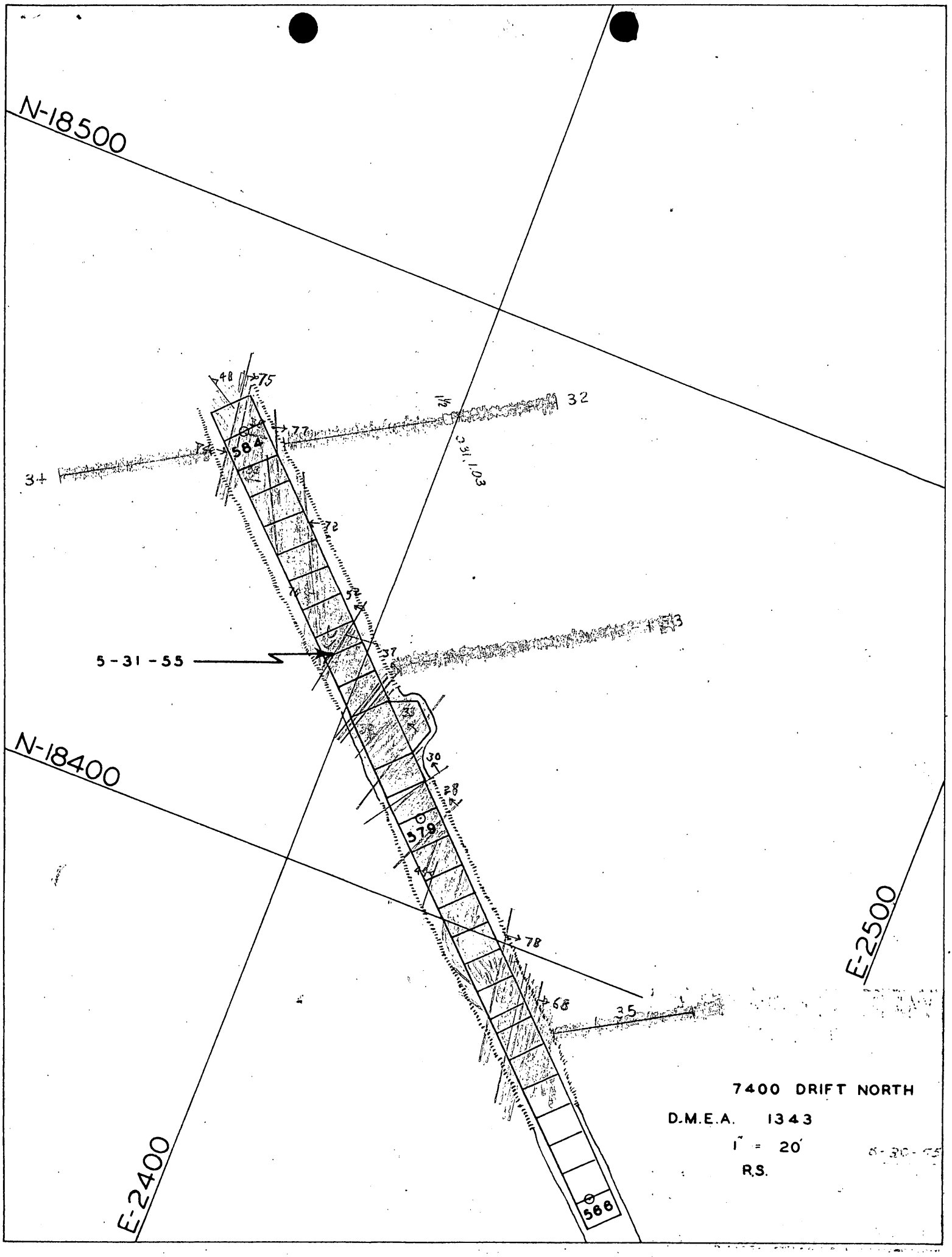
E-2200
9-30-55
N-18500
E-2300
8-31-55
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 7400 DRIFT NORTH
D.M.E.A. 1343
SCALE 1" = 20'
DATE 9-30-55
R.S.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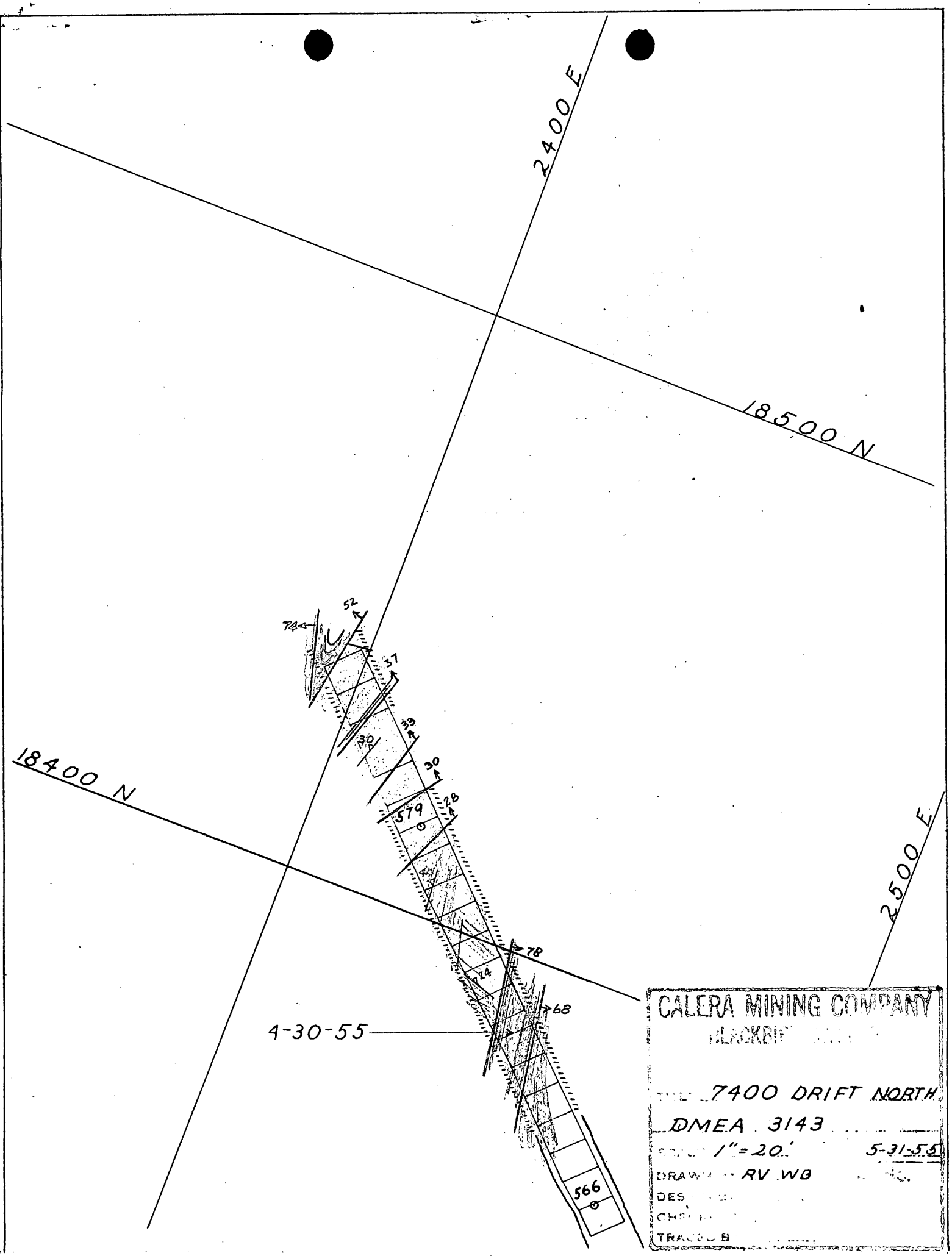
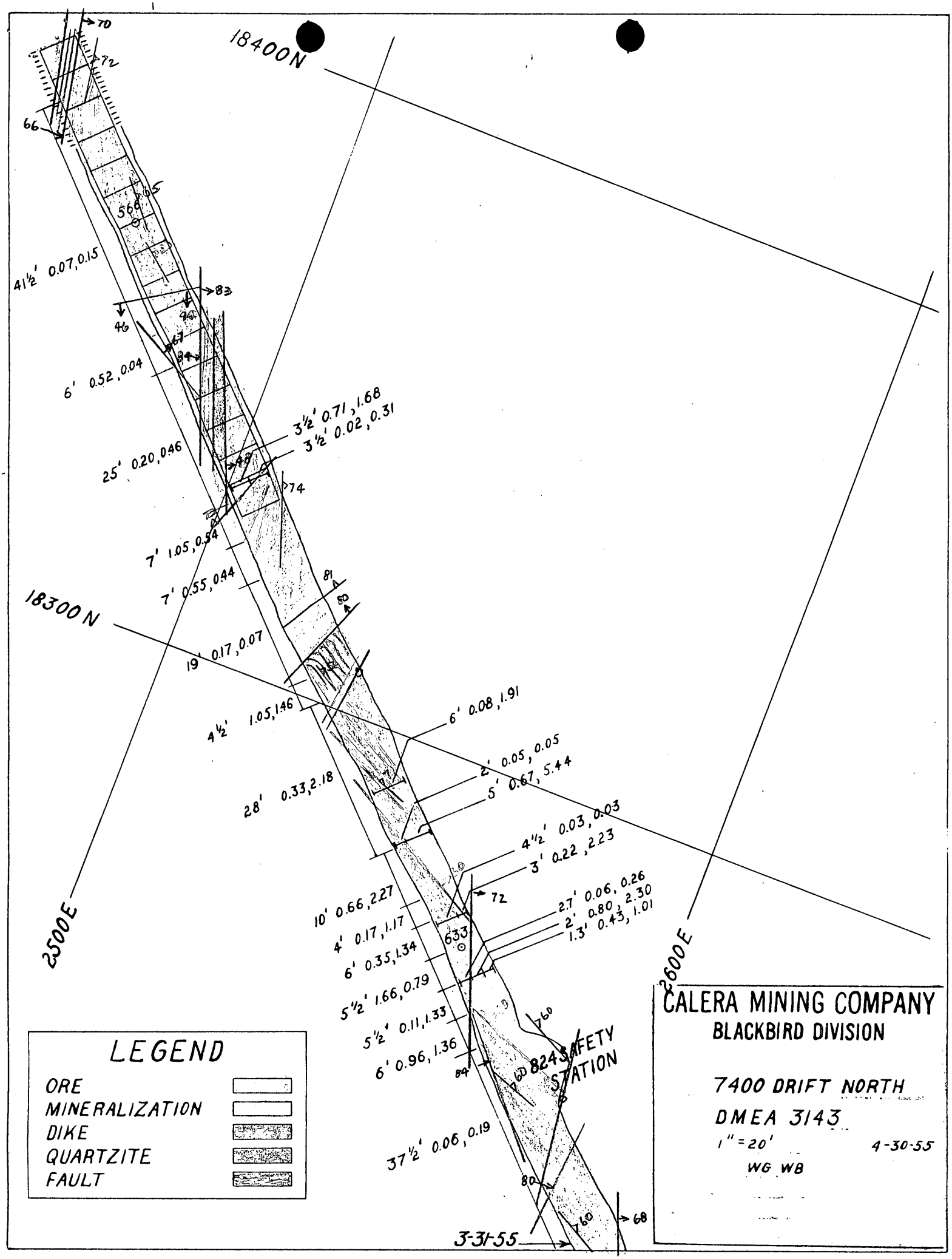
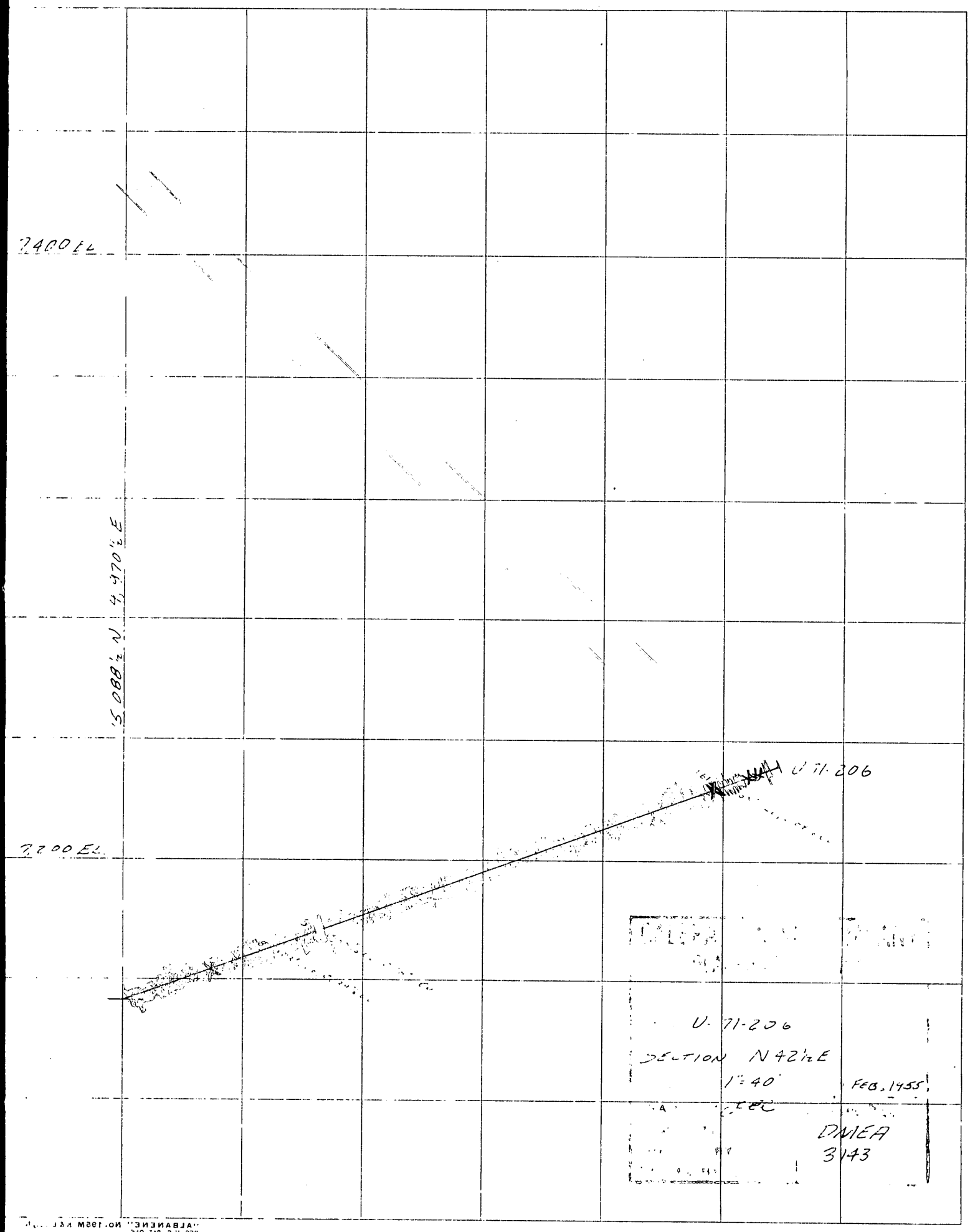
N-18400
E-2400
E-2500
5-31-55
584
579
566
7400 DRIFT NORTH
D.M.E.A. 1343
1" = 20'
R.S.


2400 E
18500 N
18400 N
2500 E
52
74
37
33
30
30
28
579
41
78
24
68
4-30-55
566
CALERA MINING COMPANY
7400 DRIFT NORTH
DMEA 3143
1"=20'
5-31-55
RV WB


18400N
18300N
2500E
2600E
70
72
66
566
65
41½' 0.07, 0.15
83
46
67
84
6' 0.52, 0.04
3½' 0.71, 1.68
3½' 0.02, 0.31
25' 0.20, 0.46
40
74
7' 1.05, 0.54
7' 0.55, 0.44
81
80
19' 0.17, 0.07
4½' 1.05, 1.46
6' 0.08, 1.91
2' 0.05, 0.05
5' 0.67, 5.44
28' 0.33, 2.18
4½' 0.03, 0.03
3' 0.22, 2.23
72
10' 0.66, 2.27
4' 0.17, 1.17
6' 0.35, 1.34
633
2.7' 0.06, 0.26
2' 0.80, 2.30
1.3' 0.43, 1.01
5½' 1.66, 0.79
5½' 0.11, 1.33
6' 0.96, 1.36
84
760
824 SAFETY STATION
37½' 0.06, 0.19
80
760
68
3-31-55
LEGEND
ORE
MINERALIZATION
DIKE
QUARTZITE
FAULT
CALERA MINING COMPANY
BLACKBIRD DIVISION
7400 DRIFT NORTH
DMEA 3143
1" = 20'
4-30-55
WG WB


7400 EL.
7200 EL.
15,088½ N. 4,970½ E
U 71-206
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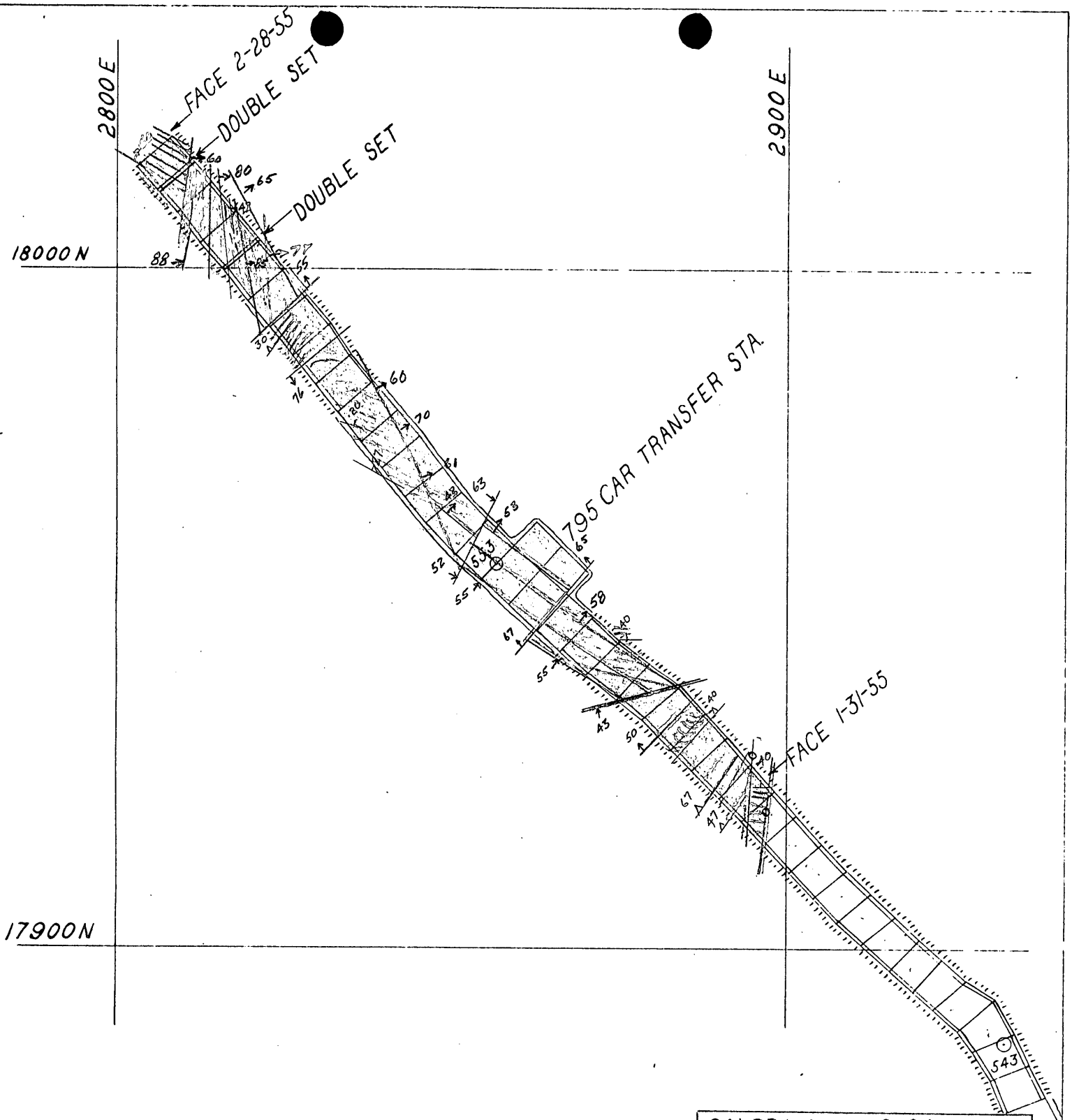
SECTION N 42½ E
1" = 40'
FEB. 1955
DMEA
3143



CALERA MINING COMPANY
BLACKBIRD DIVISION

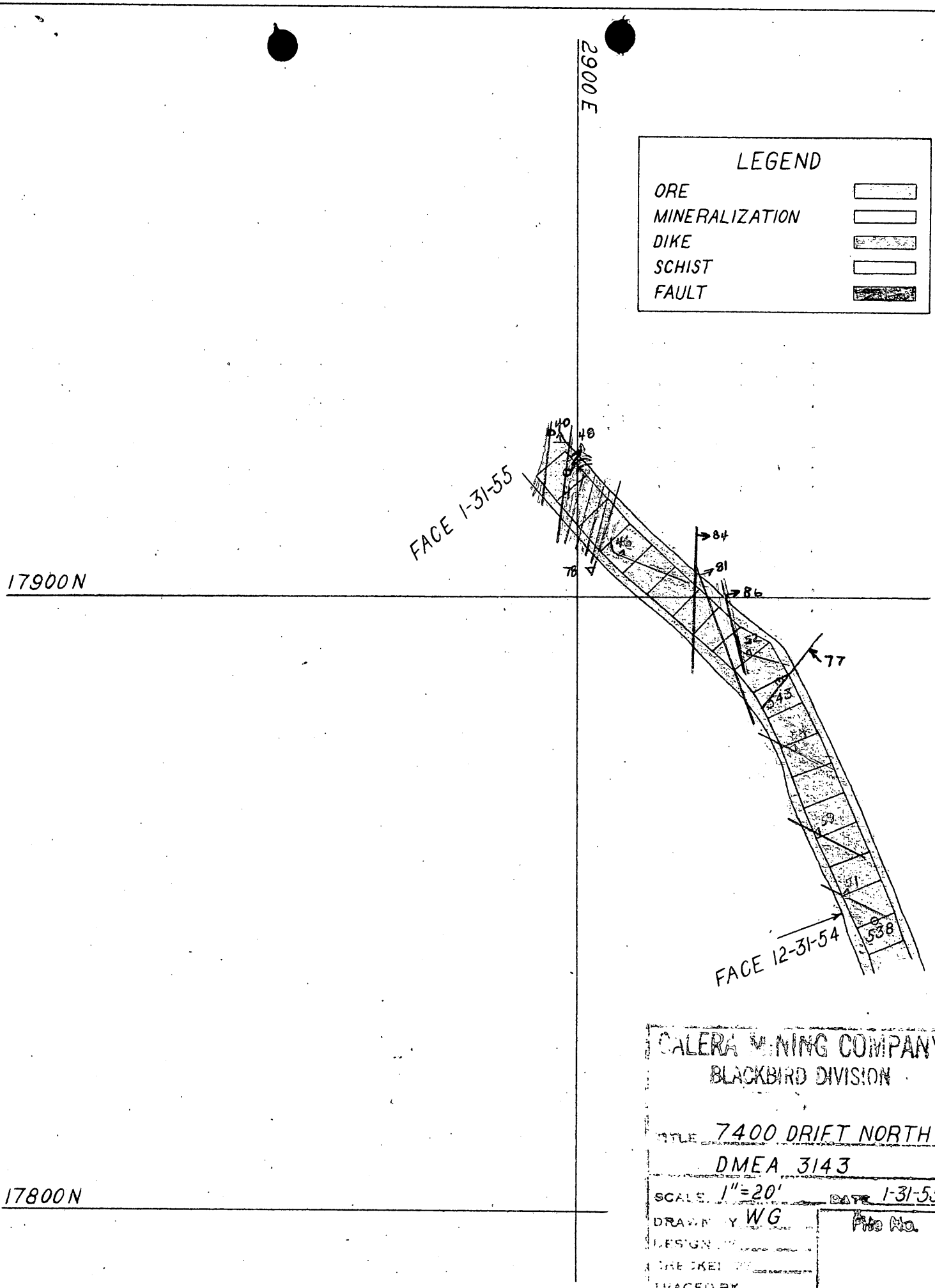
TITLE 7400 DRIFT NORTH
D.M.E.A 3143

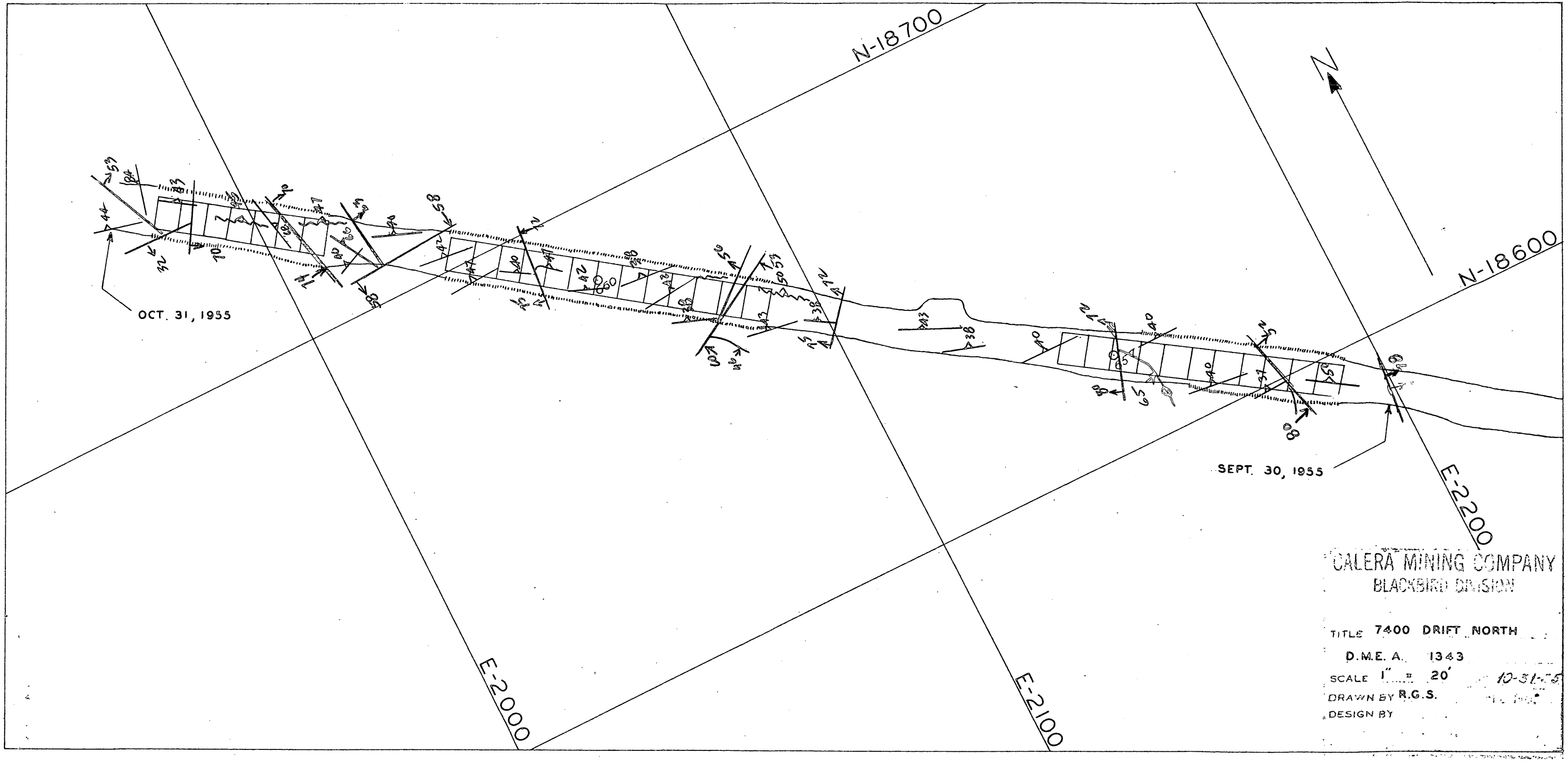
SCALE 1" = 20' DATE 2-28-55

DRAWN BY W.G.

LEGEND

ORE
MINERALIZATION
DIKE
SCHIST
FAULT


2900 E
LEGEND
ORE
MINERALIZATION
DIKE
SCHIST
FAULT
FACE 1-31-55
17900N
17800N
FACE 12-31-54
40
48
84
81
86
77
78
543
538
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 7400 DRIFT NORTH
DMEA 3143
SCALE 1"=20'
DATE 1-31-55
DRAWN BY WG
DESIGN
CHECKED
TRACED BY
File No.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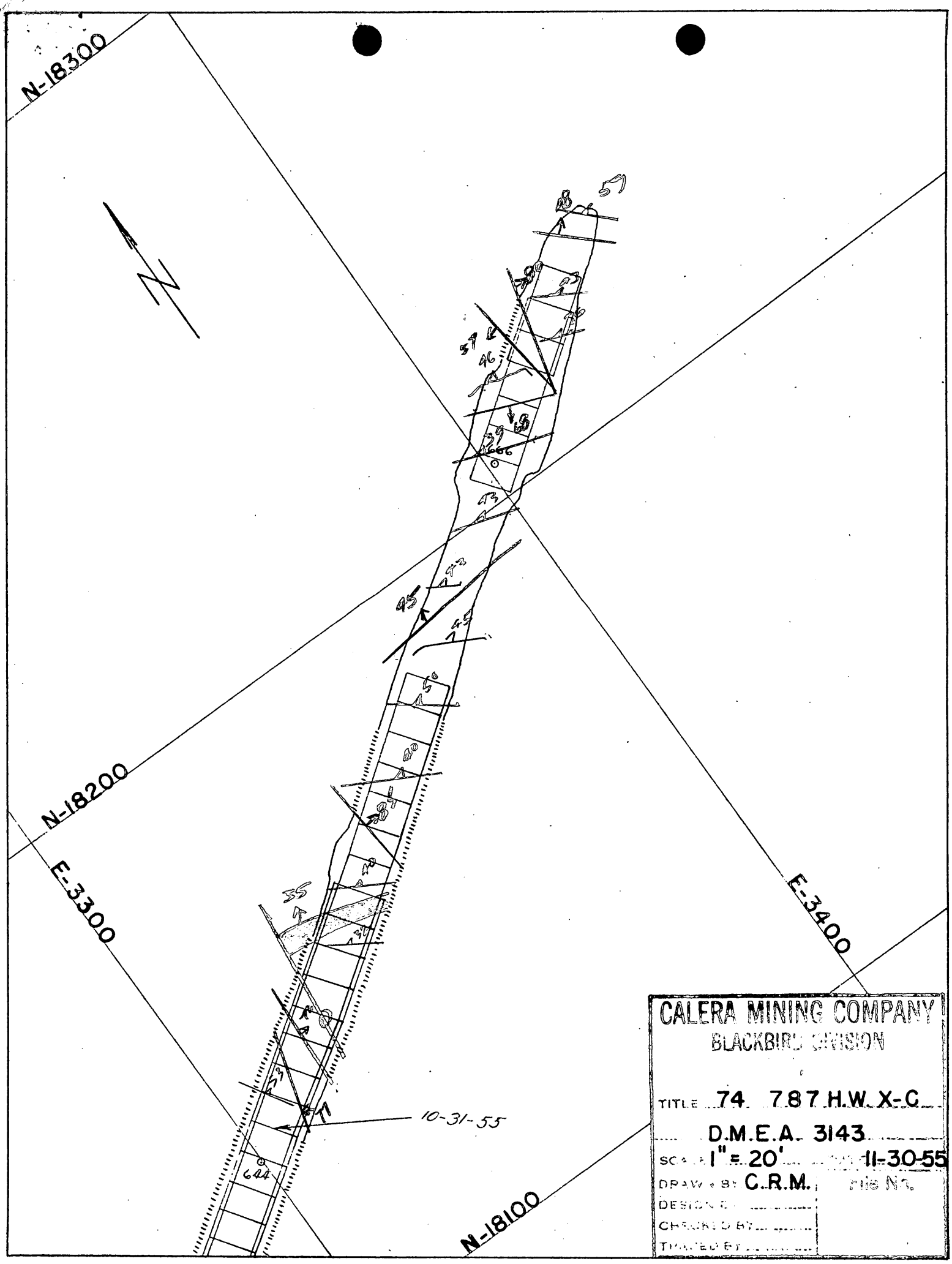
N-18600
E-2000
E-2100
E-2200
N
OCT. 31, 1955
SEPT. 30, 1955
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 7400 DRIFT NORTH
D.M.E.A. 1343
SCALE 1" = 20'
DRAWN BY R.G.S.
DESIGN BY
10-31-55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N-18100
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E-3400
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CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 74 787 H.W. X-C
D.M.E.A. 3143
SCALE 1" = 20'
11-30-55
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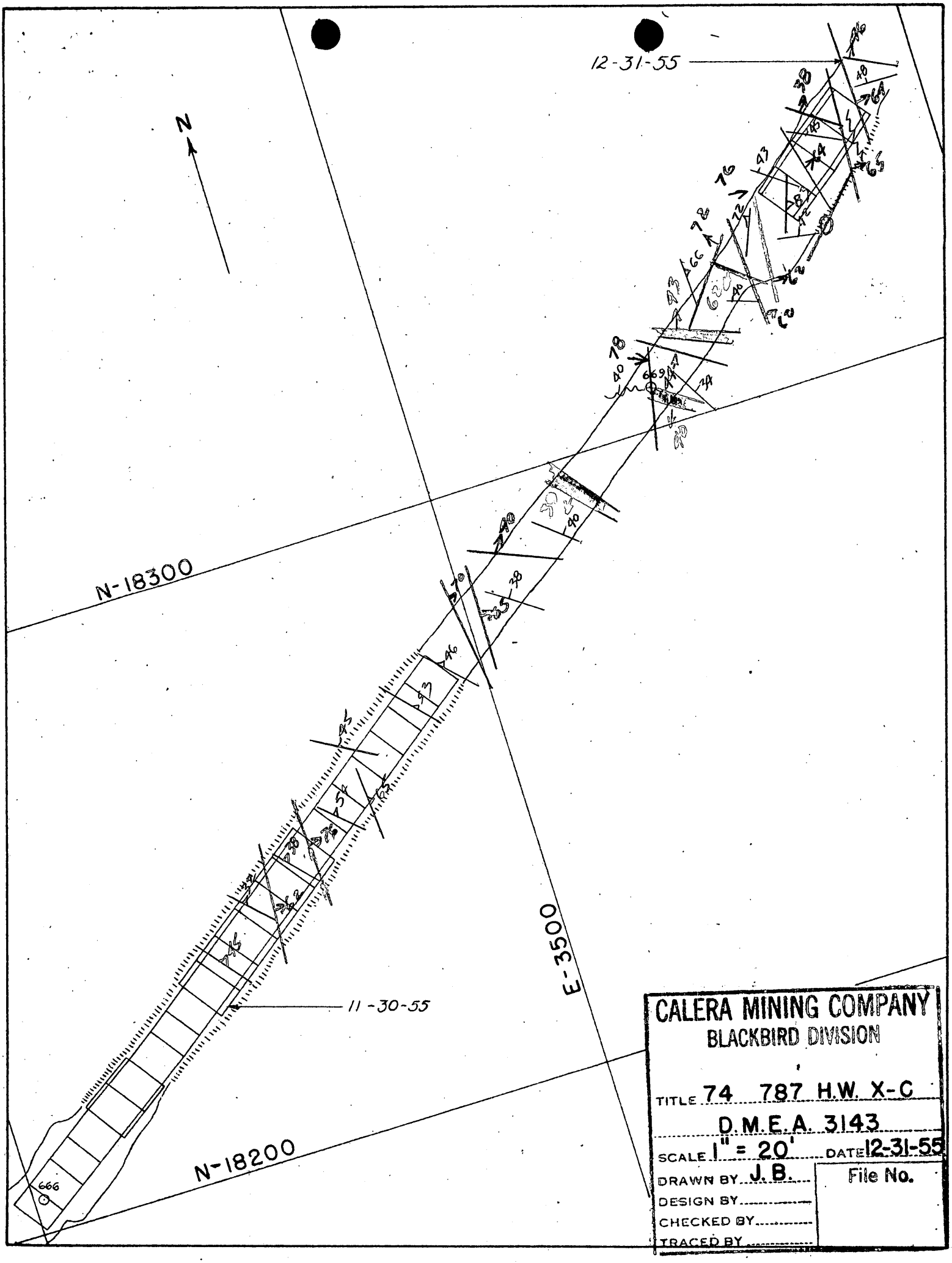
FILE NO.
DESIGNED BY
CHECKED BY
TRACED BY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E-3500
11-30-55
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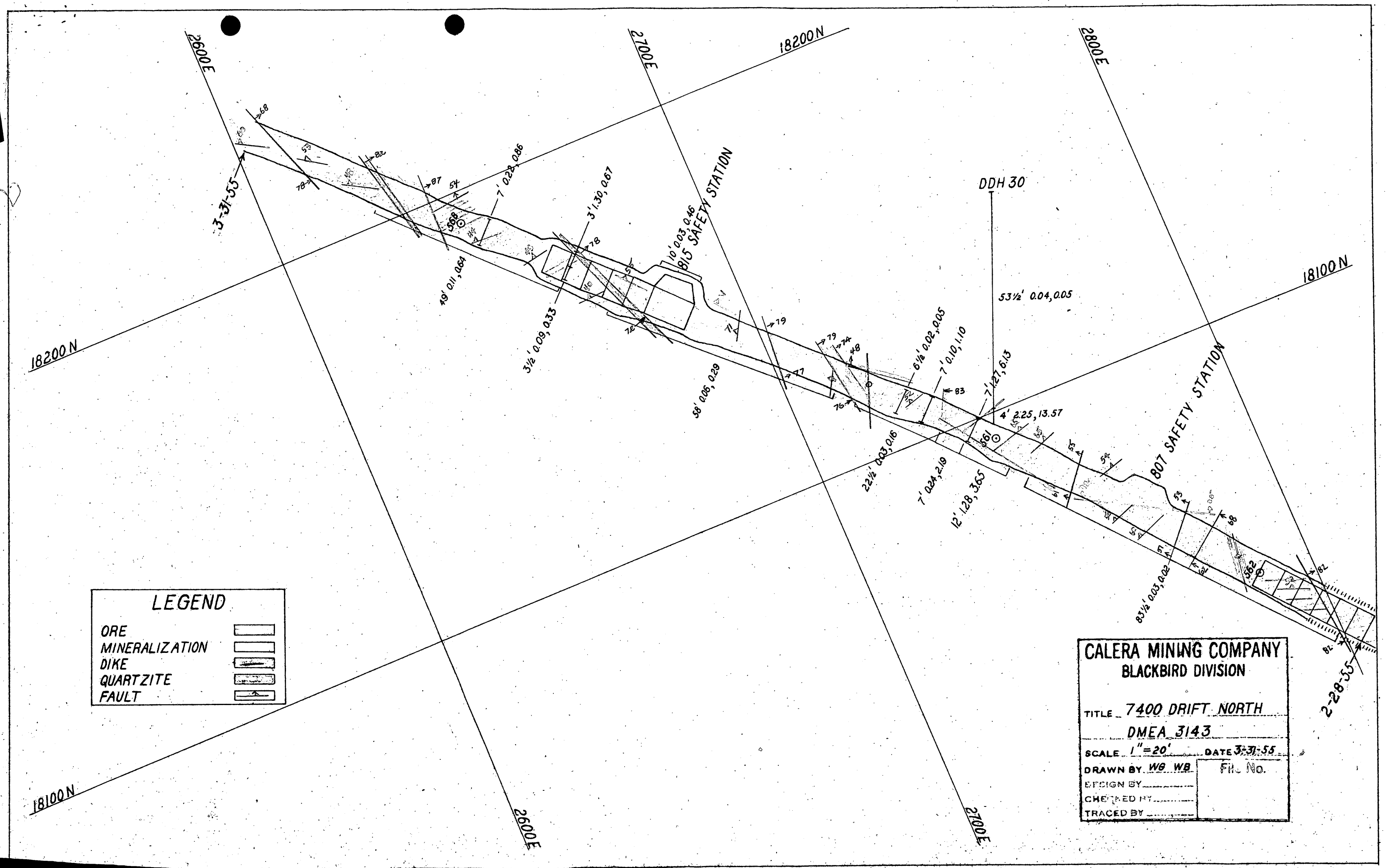
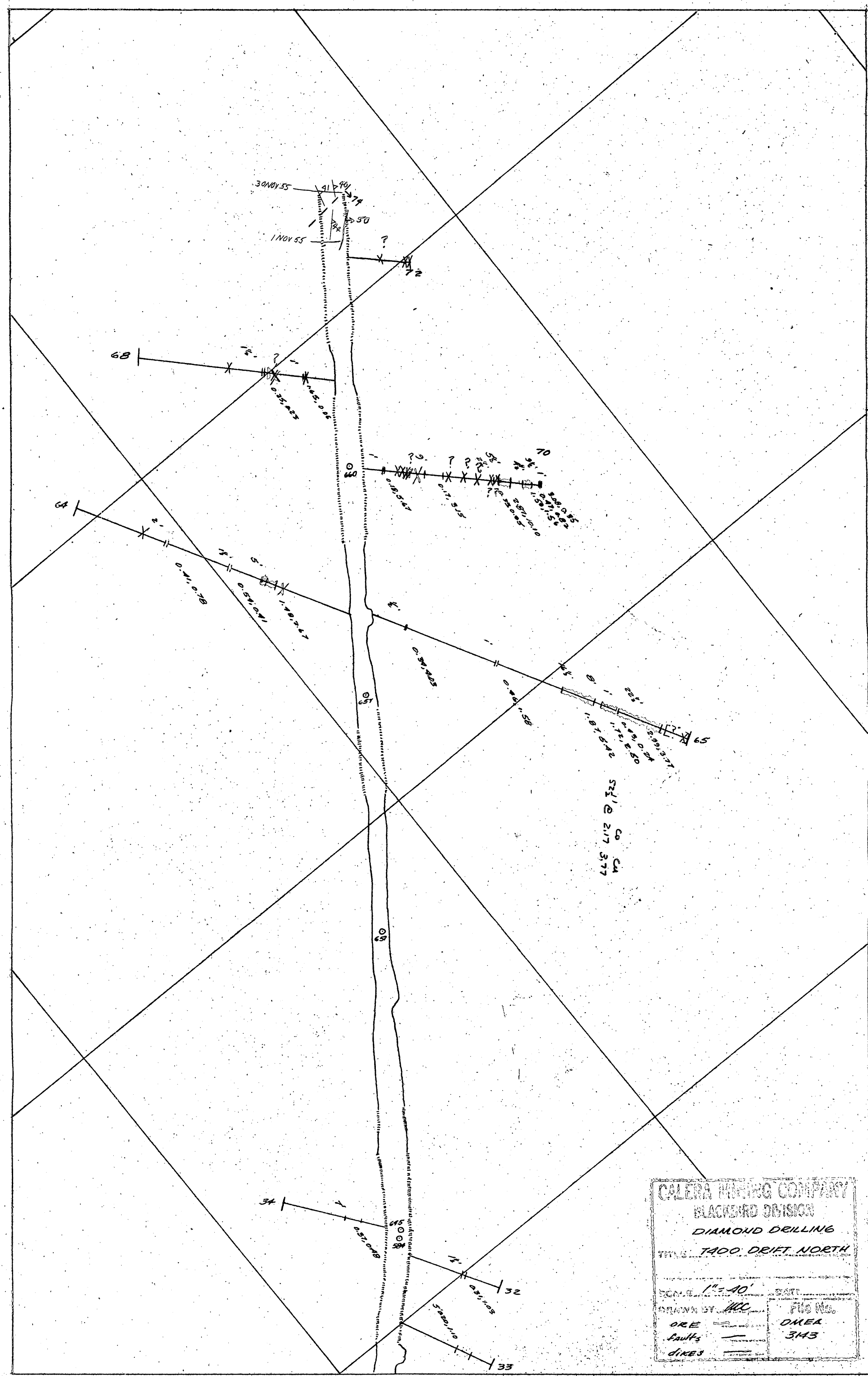
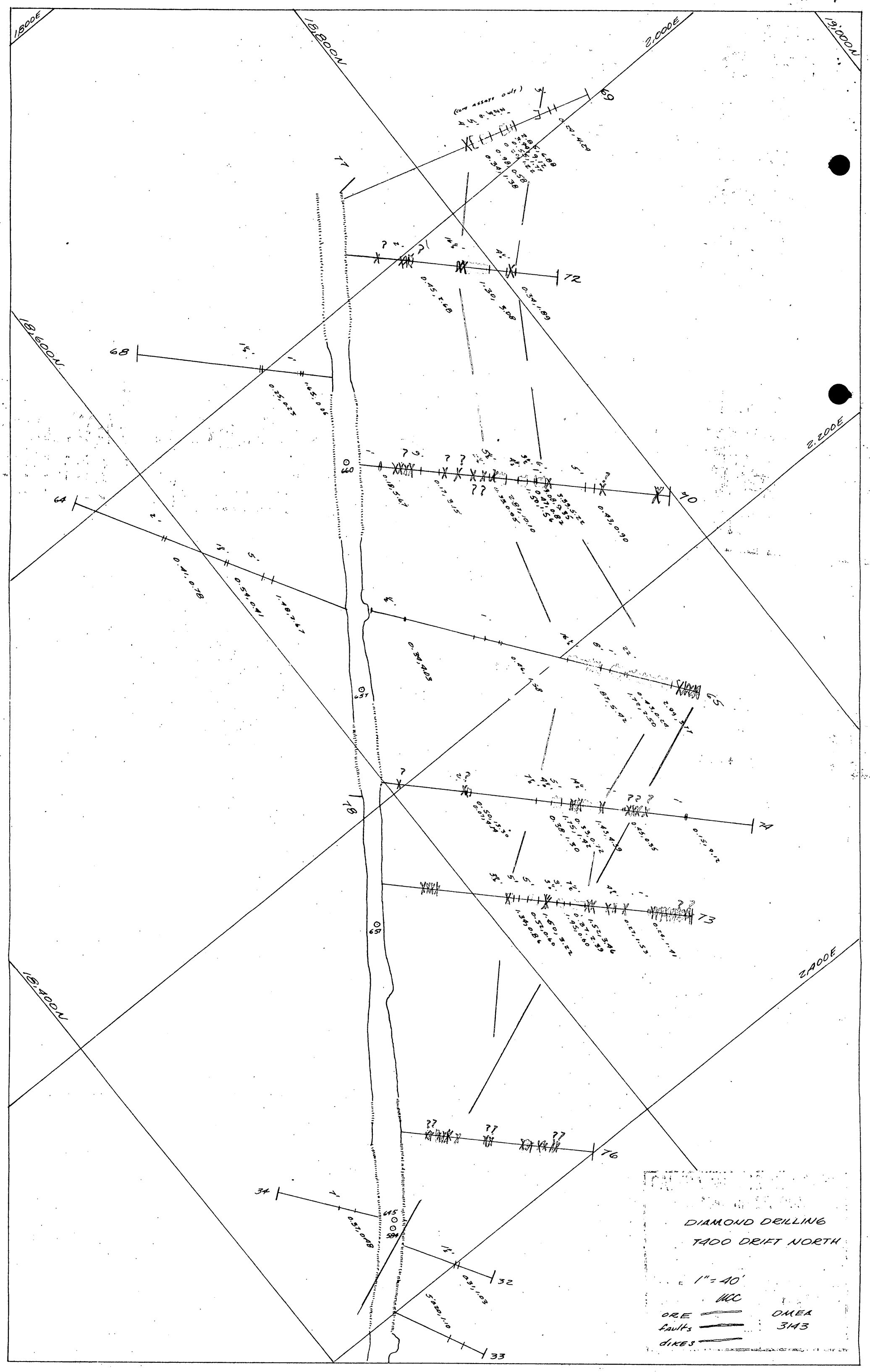
666
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 74 787 H.W. X-C
D.M.E.A. 3143
SCALE 1" = 20'
DATE 12-31-55
DRAWN BY J.B.
DESIGN BY
CHECKED BY
TRACED BY
File No.


2600E
2700E
2800E
18200N
18100N
3-31-55
2-28-55
DDH 30
815 SAFETY STATION
807 SAFETY STATION
7' 0.28, 0.86
3' 1.30, 0.67
10' 0.03, 0.46
49' 0.11, 0.64
3½' 0.09, 0.33
58' 0.06, 0.29
6½' 0.02, 0.05
7' 0.10, 1.10
7' 1.27, 6.13
53½' 0.04, 0.05
4' 2.25, 13.57
22½' 0.03, 0.16
7' 0.24, 2.19
12' 1.28, 3.65
83½' 0.03, 0.02
LEGEND
ORE
MINERALIZATION
DIKE
QUARTZITE
FAULT
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 7400 DRIFT NORTH
DMEA 3143
SCALE 1"=20'
DATE 3-31-55
DRAWN BY WG WB
DESIGN BY
CHECKED BY
TRACED BY
FILE No.


30NOV55
1NOV55
CALERA MINING COMPANY
BLACKBIRD DIVISION
DIAMOND DRILLING
TITLE: 7400 DRIFT NORTH
SCALE: 1" = 40'
DATE:
DRAWN BY: MCC
FILE NO.
DMEA
3143
ore
faults
dikes


1,800E
18,800N
2,000E
19,000N
18,600N
2,200E
18,400N
2,400E
(Core assays only)
DIAMOND DRILLING
T400 DRIFT NORTH
1" = 40'
WCC
ORE
faults
dikes
OMEA
3143

D.M.E.A.

DIAMOND DRILL HOLES

AND

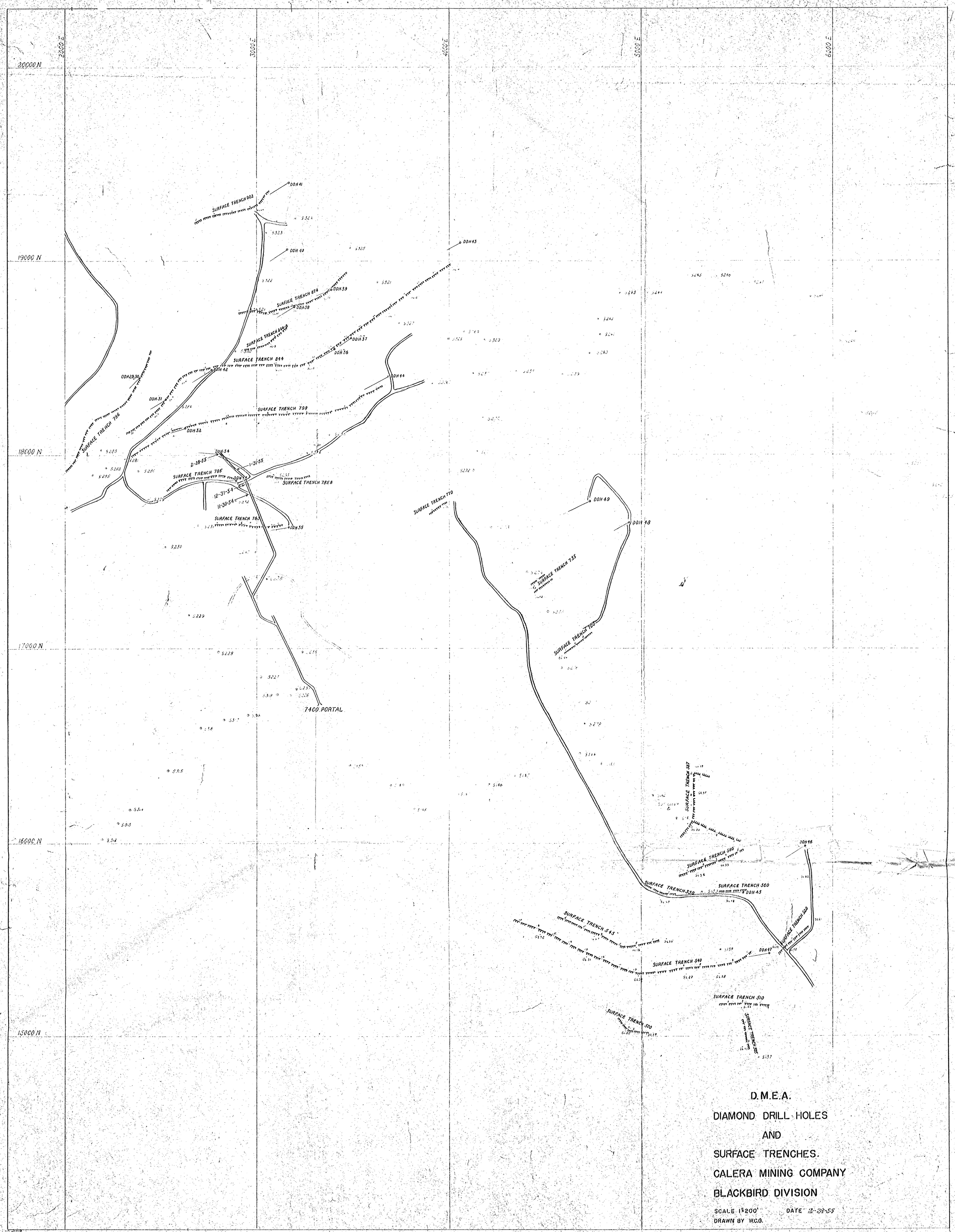
SURFACE TRENCHES.

CALERA MINING COMPANY

BLACKBIRD DIVISION

SCALE 1" = 200' DATE 1-31-55

DRAWN BY W.C.G.



D.M.E.A.

DIAMOND DRILL HOLES

AND

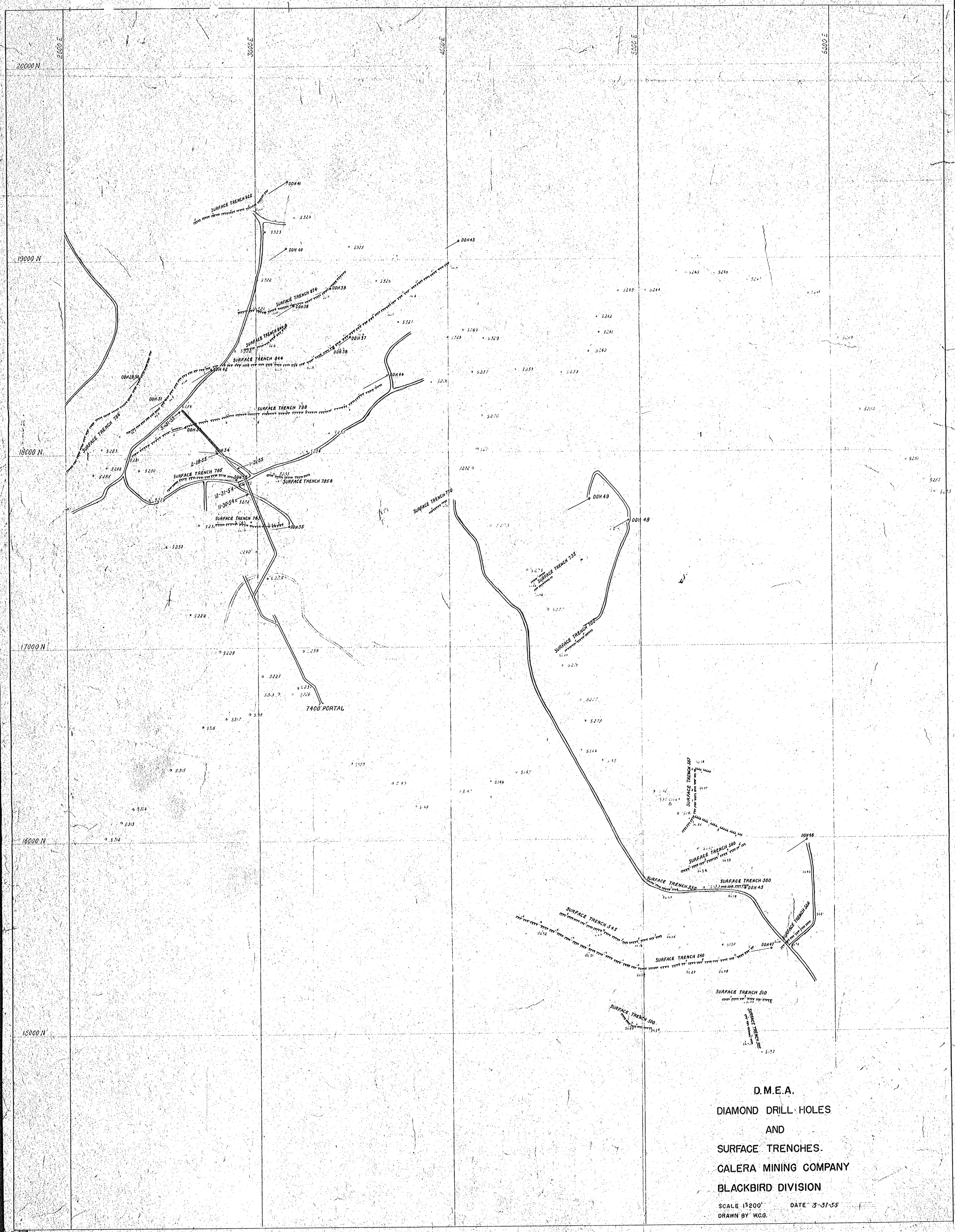
SURFACE TRENCHES.

CALERA MINING COMPANY

BLACKBIRD DIVISION

SCALE 1"=200' DATE 4-28-55

DRAWN BY W.C.G.



D.M.E.A.

DIAMOND DRILL HOLES

AND

SURFACE TRENCHES.

CALERA MINING COMPANY

BLACKBIRD DIVISION

SCALE 1"=200' DATE 3-31-55

DRAWN BY W.C.G.

D.M.E.A.

DIAMOND DRILL HOLES

AND

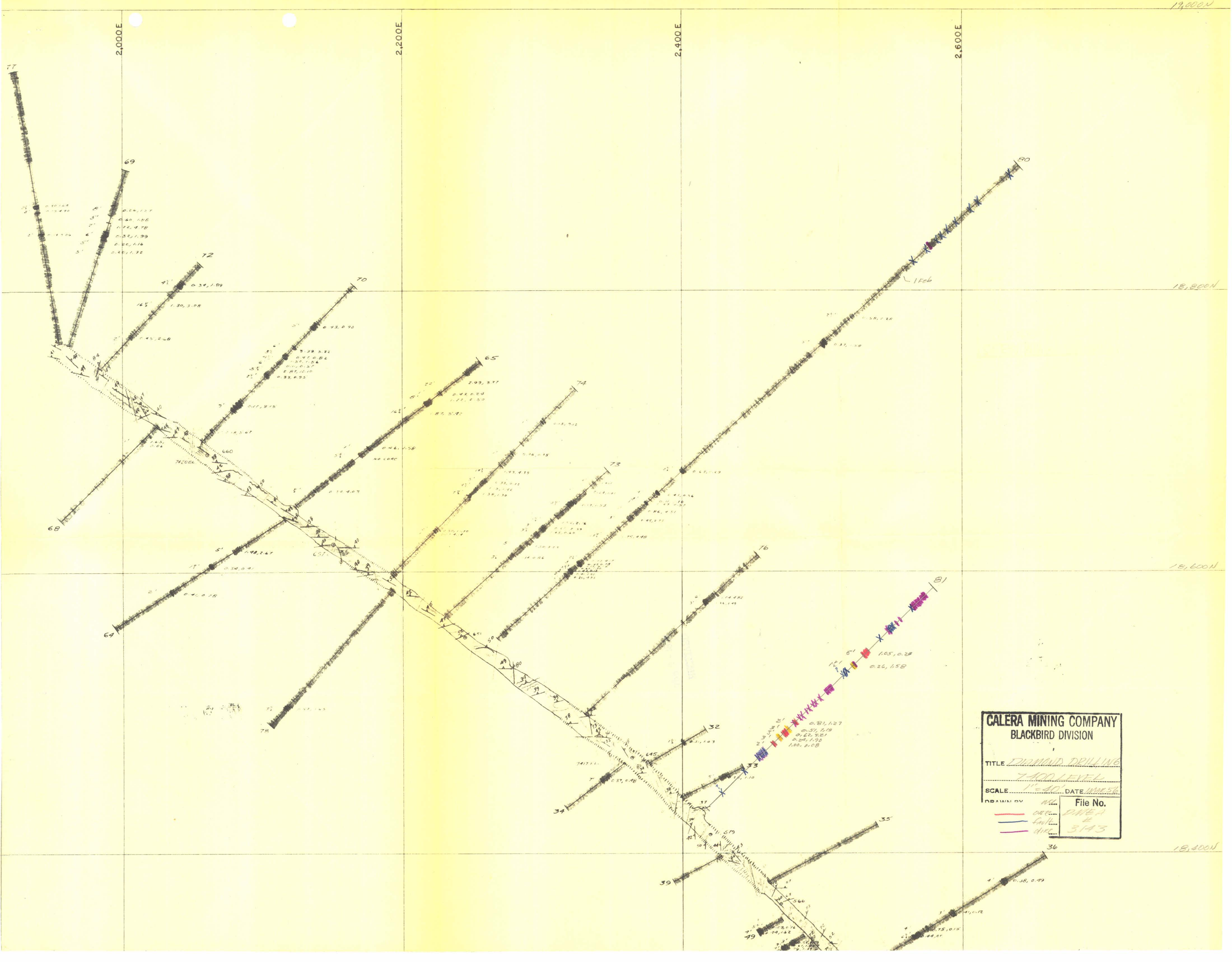
SURFACE TRENCHES.

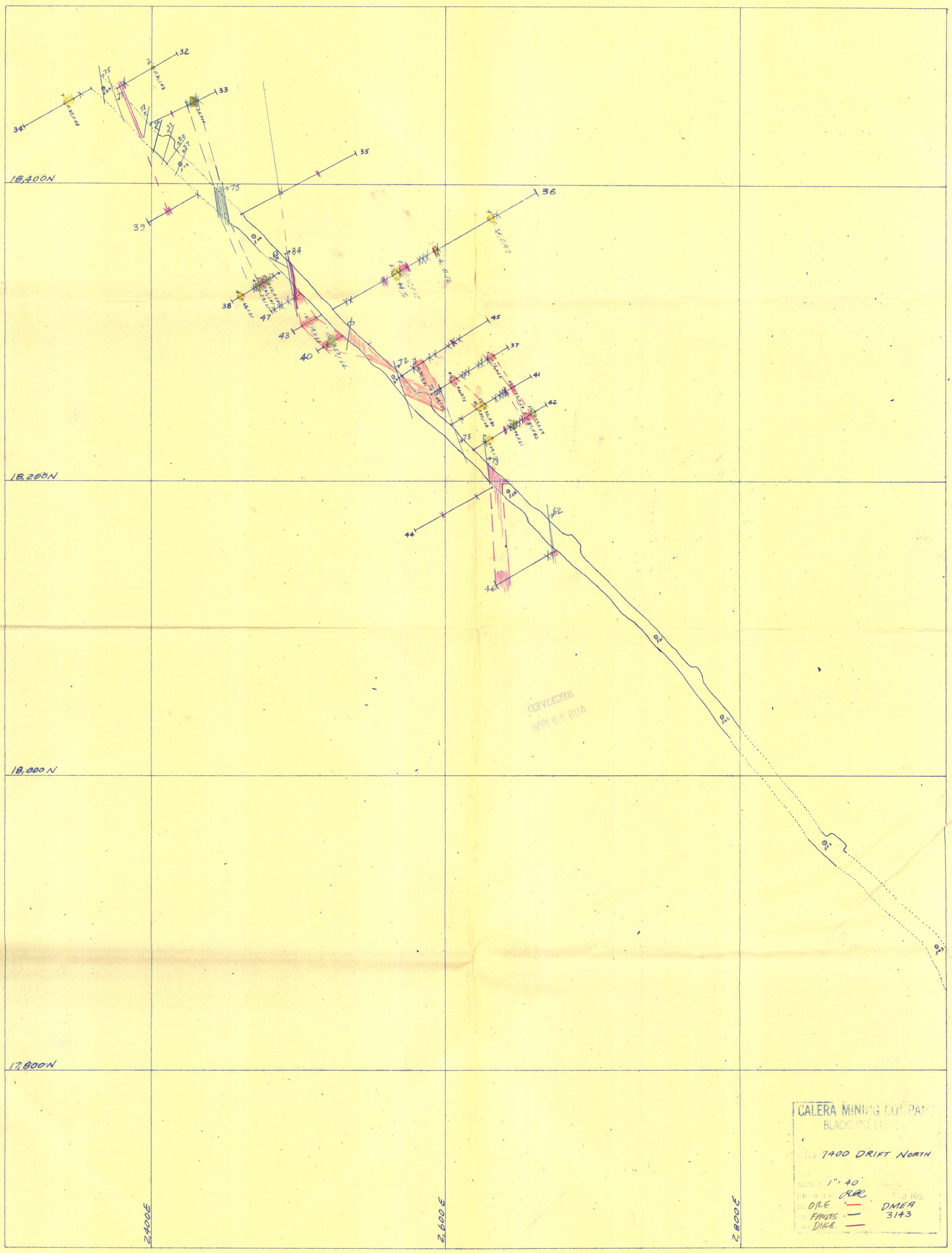
CALERA MINING COMPANY

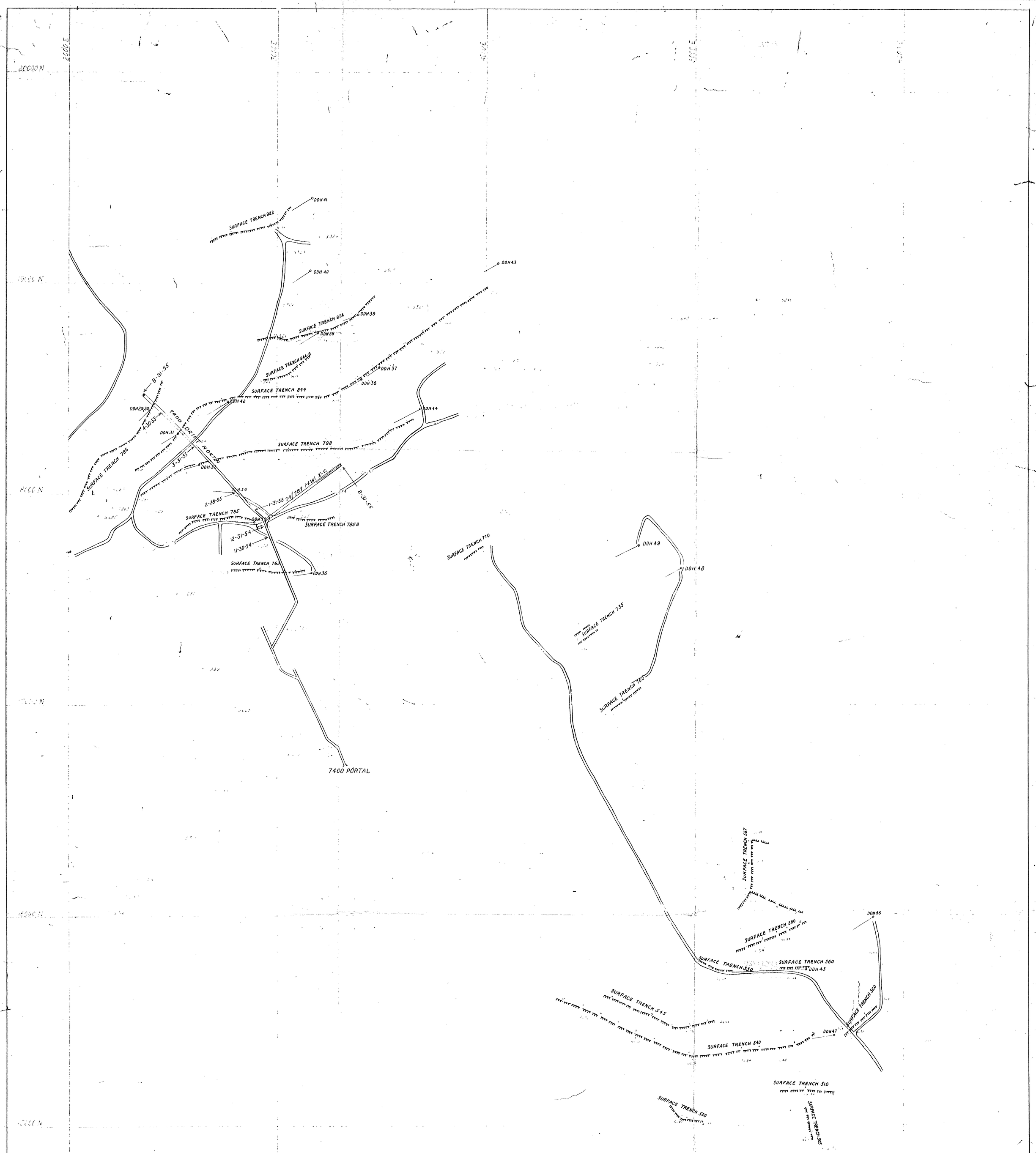
BLACKBIRD DIVISION

SCALE 1" = 200' DATE 4-30-55

DRAWN BY W.C.G.


19,000N
18,800N
18,600N
18,400N
2,000E
2,200E
2,400E
2,600E
77
69
72
70
65
74
73
76
80
81
68
64
78
32
33
34
35
36
39
49
660
7420EL
7417EL
1Feb
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE DIAMOND DRILLING
7400 LEVEL
SCALE 1" = 40'
DATE MAR 56
DRAWN BY
ORE
FAULT
DIKE
File No.
DWEA
#
3143


18,400N
18,200N
18,000N
17,800N
2,400E
2,600E
2,800E
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
72
73
75
84
CALERA MINING COMPANY
BLACKBIRD LEASE
TITLE 7400 DRIFT NORTH
SCALE 1" = 40'
DRAWN BY RRR
DATE
FILE NO.
ORE
FAULTS
DIKE
DMEA
3143



D.M.E.A.

DIAMOND DRILL HOLES

AND

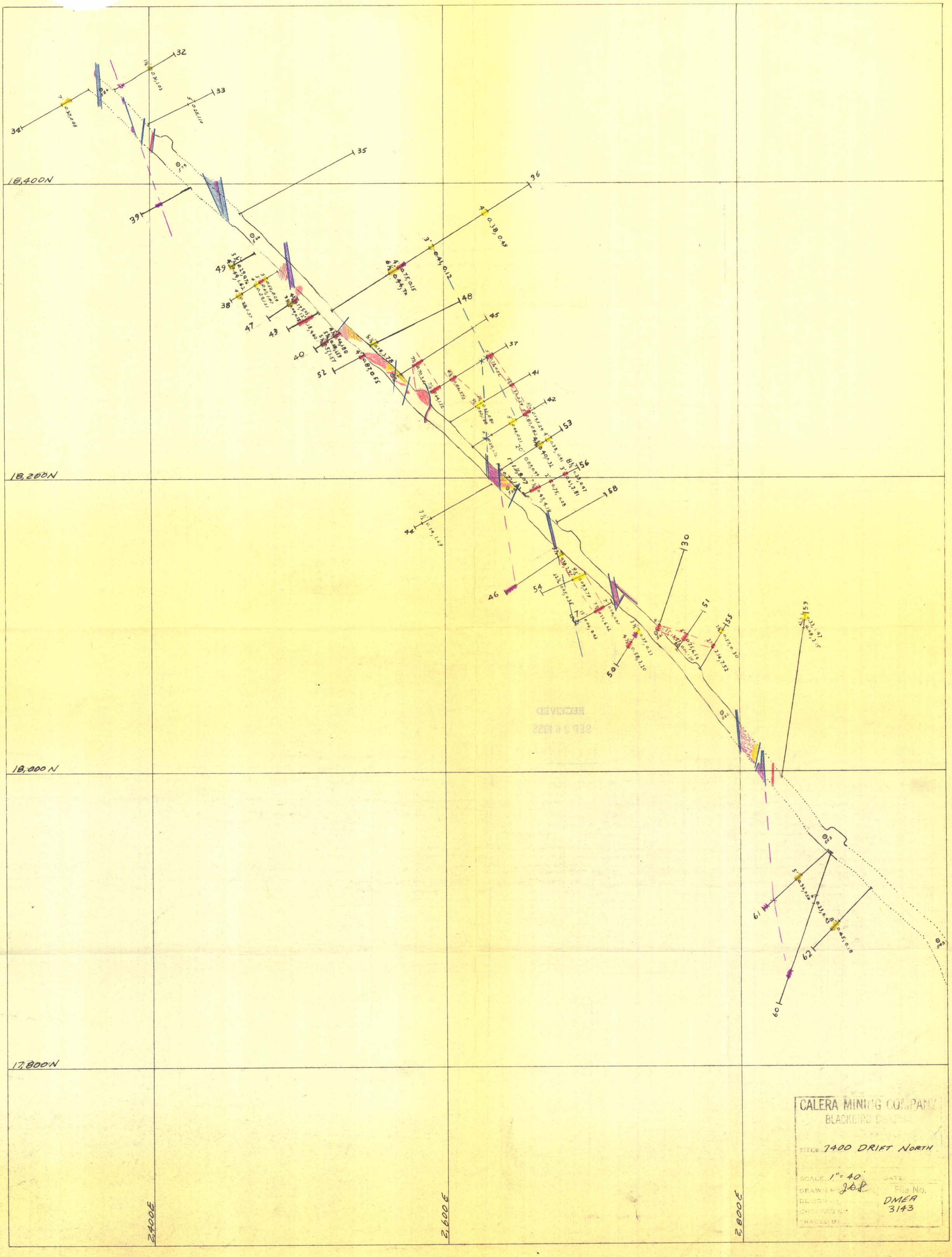
SURFACE TRENCHES.

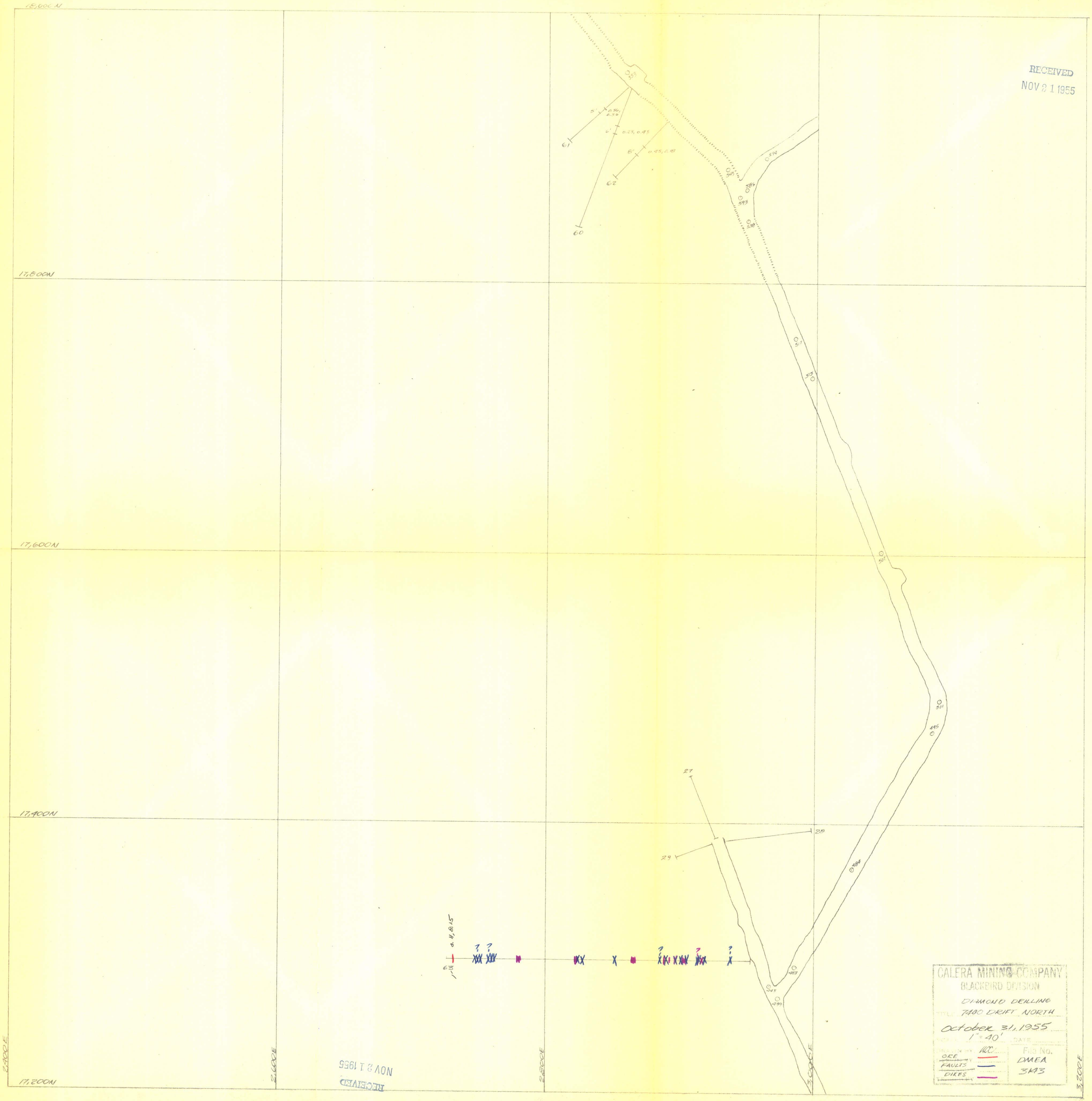
CALERA MINING COMPANY

BLACKBIRD DIVISION

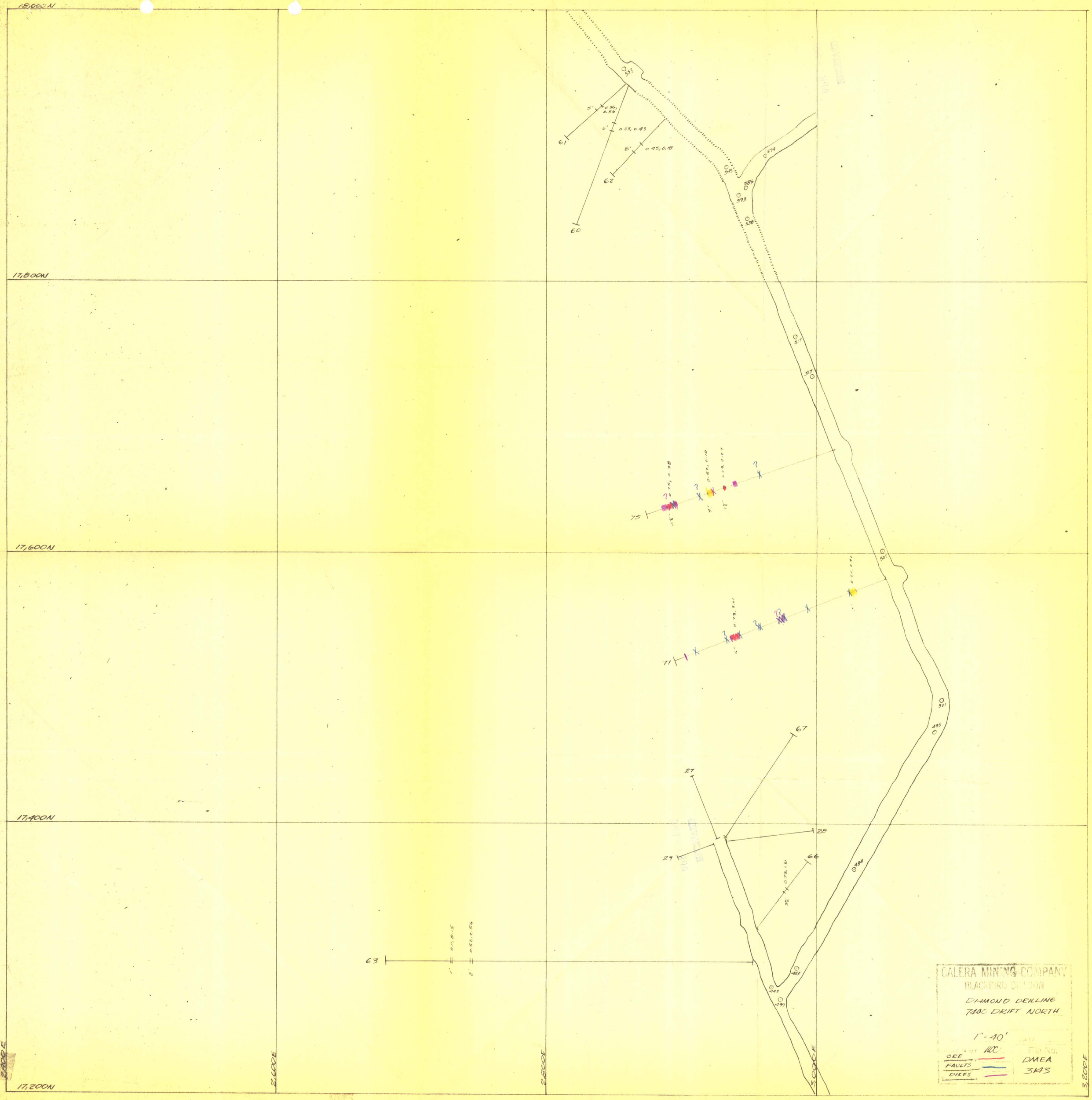
SCALE 1" = 200' DATE 8-31-55

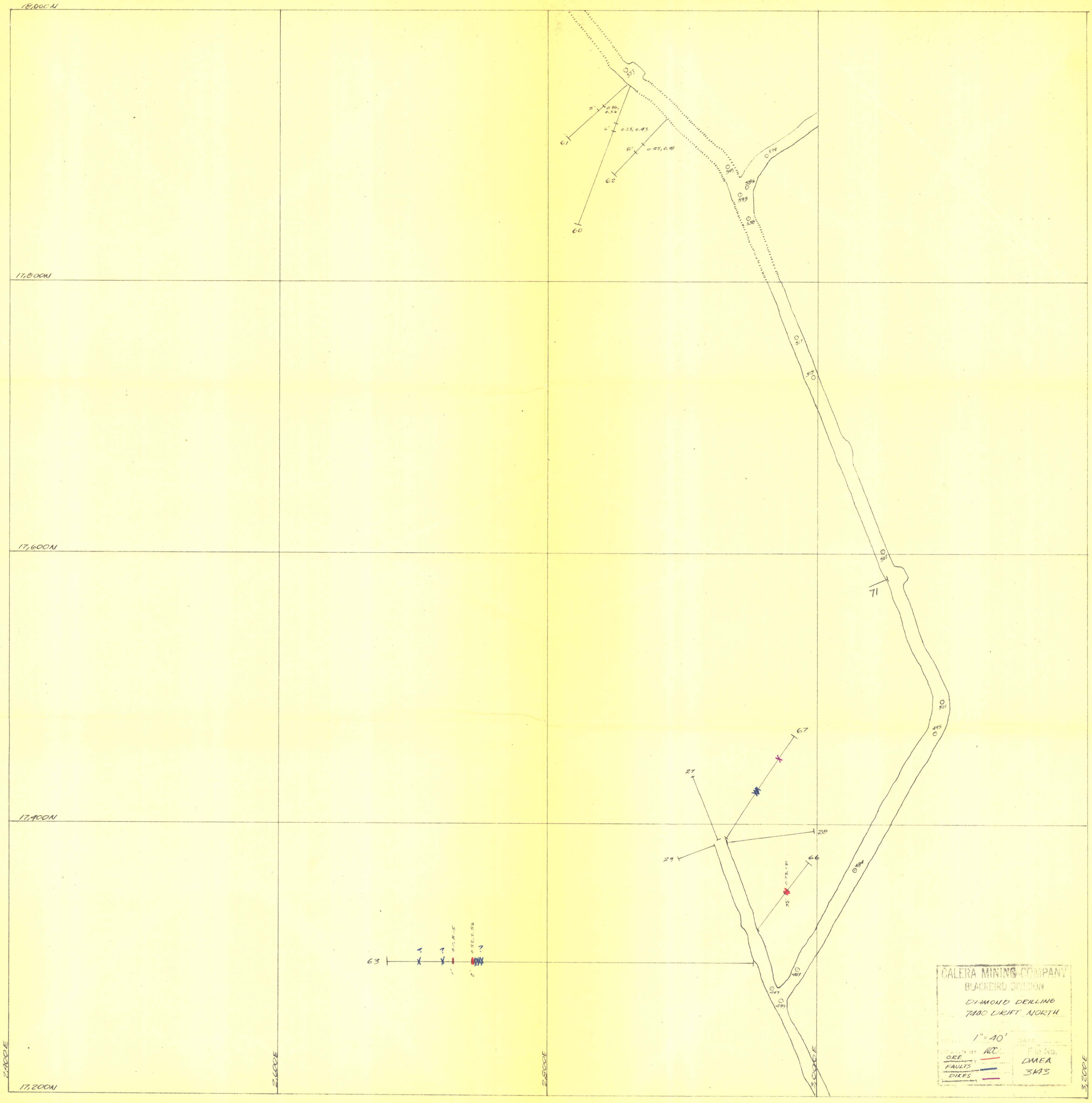
DRAWN BY W.C.G.

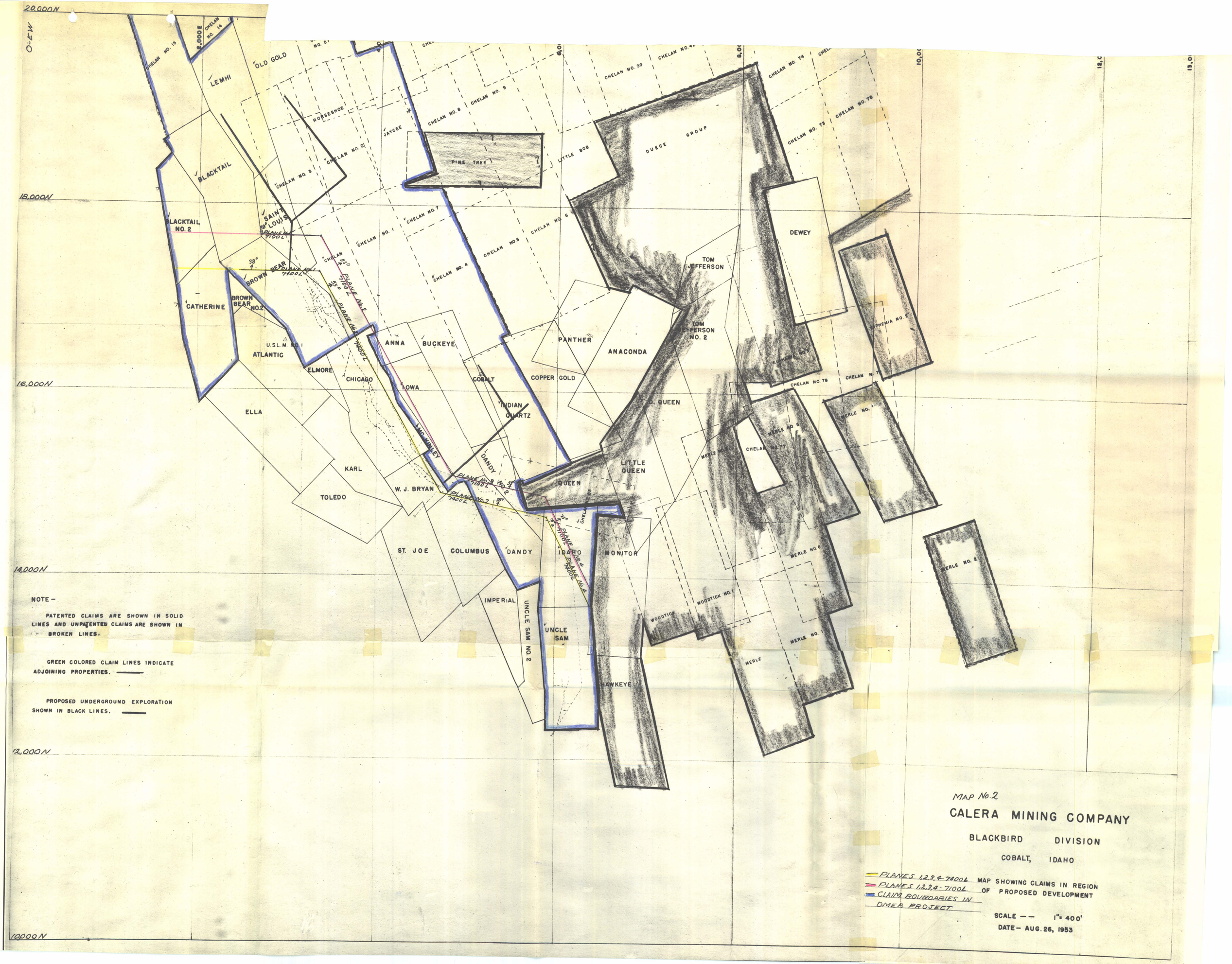

18,400N
18,200N
18,000N
17,800N
2,400E
2,600E
2,800E
CALERA MINING COMPANY
BLACKBIRD DIVISION
TITLE 7400 DRIFT NORTH
SCALE 1" = 40'
DRAWN BY JDS
DATE
File No.
DMEA
3143
DESIGNED BY
CHECKED BY
TRACED BY



RECEIVED
NOV 21 1955


18,000N
17,800N
17,600N
17,400N
17,200N
2,400E
2,600E
2,800E
3,000E
3,200E
61
60
62
63
75
71
67
27
28
29
66
CALERA MINING COMPANY
BLACKBIRD DIVISION
DIAMOND DRILLING
7400 DRIFT NORTH
1"=40'
DATE
DRAWN
FILE NO.
DMEA
3K43
ORE
FAULTS
DIKES


18,000N
17,800N
17,600N
17,400N
17,200N
2,400E
2,600E
2,800E
3,000E
3,200E
5'
0.56, 0.56
6'
0.23, 0.43
8'
0.45, 0.18
61
62
60
71
67
27
28
29
66
63
CALERA MINING COMPANY
BLACKBIRD DIVISION
DIAMOND DRILLING
7400 DRIFT NORTH
1" = 40'
DRAWN BY RCC
DATE
ORE
FAULTS
DIKES
F.P. NO.
DMEA
3143



NOTE –

PATENTED CLAIMS ARE SHOWN IN SOLID LINES AND UNPATENTED CLAIMS ARE SHOWN IN BROKEN LINES.

GREEN COLORED CLAIM LINES INDICATE ADJOINING PROPERTIES. ———

PROPOSED UNDERGROUND EXPLORATION SHOWN IN BLACK LINES. ———

MAP No. 2

CALERA MINING COMPANY

BLACKBIRD DIVISION

COBALT, IDAHO

PLANES 1,2,3,4-7400L
PLANES 1,2,3,4-7100L
CLAIM BOUNDARIES IN DMEA PROJECT

MAP SHOWING CLAIMS IN REGION OF PROPOSED DEVELOPMENT

SCALE — — 1" = 400'

DATE – AUG. 26, 1953