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| DATE | INITIALS | CODE |
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| 11/25 | gb | 220 |
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INTERIM REPORT

DMEA-4178, Idm-E960(zinc)

Operator: The New Jersey Zinc Co., Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

The following errors due to a transposition of numbers in interim reports on the Beaver Creek project should be corrected:

| Date of interim report | Footage shown | Corrected footage |
|---|---|---|
| June 28, 1957 | 9,379 | 9,739 |
| July 26, 1957 | 10,010 | 10,370 |

Inspected: November 21, 1957

Helmuth Wedow, Jr., Geologist
Geological Survey

V. J. Lynch, Mining Engineer
Bureau of Mines

Form MF-109 (Rev.) (April 1952)

RECEIVED DEC 23 1957 D.M.E.A.

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

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE PAYMENTS K- 31

Month of August, 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Va.

Contract Amount, $44,800.00 Government Participation: 50 % Amount, $22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent / Short Form Contracts: | | | | | | |
| Drilling | 1516.20 | 23596.05 | 25112.25 | 12/27/57 | | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | 7.00 | 7.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft | 334.43 | 5161.67 | 5496.10 | | | |
| | 1850.63 | 28764.72 | 30615.35 | | | |
| TOTALS | | | | 1850.63 | 28764.72 | 30615.35 |

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

Date 9/10/57 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per W. L. Allerson, Jr. Title Superintendent

*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:

$ 925.33

Signature Helen R. Meier (Authorized Certifying Officer)

Date DEC 20 1957 Vou. No. 101 (See other side)

10 & 7

T 8/30/57

925.30

(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-960 in accordance with the terms of the contract.

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date DEC 17 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date DEC 17 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED DEC 23 1957 D.M.E.A.

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

Month of August 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

| OPERATION | Unit | Costs This Month | Units This Month | Costs to Date | Units to Date | Unit Costs to Date | Authorized by Contract: Units | Authorized by Contract: Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 550.00 | 250 | 25112.25 | 10370 | 2.422 | 15000 | 2.45 |
| ~~Churn~~ 250-500 | " | 612.50 | 250 | | | | | |
| ~~Auger~~ 500-631 | " | 353.70 | 131 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| ~~Test Pits~~ Sample Assays Sample | | | | 7.00 | 7 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowance @ $0.53/ft | Ft | 334.43 | 631 | 5496.10 | 10370 | 0.53 | 15000 | 0.53 |
| Total Distributed Costs | | 1850.63 | | 30615.35 | | | | Total Costs Authorized by Contract |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| Total Costs | | 1850.63 | | 30615.35 | | | | $44,800.00 |

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 9/10/57 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Superintendent
W. L. Albers

Remarks: Covers costs of BC-16

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)

GEOLOGIST, U. S. G. S.
SEP 16 1957

## 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

Narrative Report - Beaver Creek Area

Diamond drilling in the Beaver Creek Area was suspended with the completion of hole BC-16. This hole was collared in the Kingsport (?) Formation and was bottomed in the Copper Ridge Formation. A total of 631 feet was drilled. Two feet of zinc mineralization, estimated at 2-3% Zn, was encountered in the Copper Ridge Formation.

Because of topography, BC-16 was not located on the drill fence as planned, but was off set about 125 feet to the east.

Diamond Drill Log - BC-16

Location: (Based on Virginia Grid System)

217,100 N 1,072,680 E

Inclination: Vertical Elevation: 2267

Object: To test for down dip extent of BC-5 mineralization.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 44 | 44 | 0 | Overburden |
| 44 | 113 | 69 | 50 | Light medium gray fine grained dolomite, local sand grains, rare chert, local abundant diagenetic breccia, Kingsport (?) Formation. |
| 113 | 150 | 37 | 36 | Medium to dark gray fine grained dolomite, few partings, local sand-grains, locally bleached. |
| 150 | 216 | 66 | 58 | Medium and dark gray fine grained dolomite, few partings, locally faintly mottled. |
| 216 | 249 | 33 | 32 | Light medium gray fine grained dolomite, thin wavy partings, local sand-grains. |
| 249 | 263 | 14 | 13 | Medium gray fine grained limestone, abundant thick partings, Longview Formation. |
| 263 | 280 | 17 | 15 | Light gray fine grained dolomite, local thick partings. |
| 280 | 290 | 10 | 9 | Medium gray fine grained limestone and dolomite, few thick partings. |
| 290 | 370 | 80 | 73 | Light to dark gray fine grained dolomite, local limestone, local thin wavy partings, local bleached diagenetic breccia. |
| 370 | 383 | 13 | 9 | Fault zone |
| 383 | 443 | 60 | 36 | Light to medium gray fine to finely saccharoidal dolomite, few wavy partings. |

X-1086 150M

COPY

Austinville, Va.
September 10, 1957

Regional Executive Officer
Defense Minerals Exploration Adminiatration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: August Monthly Report
DMEA-4178, Contract 960
Beaver Creek Area, Virginia

Dear Sir:

Enclosed is our monthly report of the Beaver Creek area. With the completion of BC-16, this area has been recessed pending termination procedures.

Very truly yours,

W. L. Albers

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
SEP 16 1957

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 23 1957

| DATE | INITIALS | CODE |
|---|---|---|
| 8/23 | Com | 100 |
| 8/26 | Klug | 500 |
| | | |
| | | |
| | | |

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Diamond drilling on the Beaver Creek project of the New Jersey Zinc Company is currently recessed pending termination of the project. Final reports on the project by the Operator and the Field Team are in preparation.

Inspected: August 15, 1957

Helmuth Wedow, Jr.
Geologist
U. S. Geological Survey

Form MF-104 (Rev. April 1952)

RECEIVED AUG 22 1957 D.M.E.A.

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 7

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

Contract Amount, $ 44,800.00 Government Participation: 50 % Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 1464.90 | 22131.15 | 23596.05 | 8/22/57 | A.H.K. | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | 1.00 | 6.00 | 7.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental allowance @ $0.53/ft | 324.36 | 4837.31 | 5161.67 | | | |
| TOTALS | 1790.26 | 26974.46 | 28764.72 | 1790.26 | 26974.46 | 28764.72 |

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

Date 8/6/57 *Payee Bertha Mineral Division The New Jersey Zinc Company

By [signature] Title Superintendent

*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:

$ 895.13

Signature Helen R. Miller (Authorized Certifying Officer)

Date AUG 20 1957 Vou. No. 32

(See other side)

895.13

(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-960 in accordance with the terms of the contract.

Signature V. J. Lynch Title U. S. BUREAU OF MINES Date AUG 14 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lauren Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date AUG 15 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

## DEFENSE MINERALS EXPLORATION ADMINISTRATION

## OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Units | Unit Costs |
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 550.00 | 250 | 23596.05 | 9739 | 2.423 | 15000 | 2.45 |
| 250-500 | " | 612.50 | 250 | | | | | |
| 500-612 | " | 302.40 | 112 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| Sample Assays | Sample | 1.00 | 1 | 7.00 | 7 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowance @ $0.53/ft | | 324.36 | 612 | 5161.67 | 9739 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 1790.26 | | 28764.72 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | 1790.26 | | 28764.72 | | | | $44,800.00 |

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 8/6/57 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

By W. L. Albers Title Superintendent

W. L. Albers

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)

MINING ENGINEER
U. S. BUREAU OF MINES

## 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

Narrative Report - Beaver Creek Area

Exploration continued in the Beaver Creek area with the completion of hole BC-15. This hole was collared in the Kingsport (?) Formation and was bottomed in the Copper Ridge Formation at a depth of 612 feet. Two feet of mineralization assaying 3.64% Zn, 1.56% Fe and Nil Pb was encountered in the expected zone at a depth of 539-541 feet.

The drill was moved to a location approximately 200 feet down dip from BC-12.

Diamond Drill Log - BC-15

Location: (Based on Virginia Rectangular Grid System)

217,900 N 1,073,162 E

Inclination: Vertical Elevation: 2428

Object: To test for strike extension of BC-5 mineralization.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 53 | 53 | 0 | Overburden |
| 53 | 82 | 29 | 27 | Light to dark gray fine grained dolomite, few partings, local diagenetic breccia, local sandgrains, Kingsport (?) formation. |
| 82 | 191 | 109 | 96 | Light to medium gray fine to finely saccharoidal dolomite, local diagenetic breccia, local partings. |
| 191 | 207 | 16 | 16 | Medium gray fine grained limestone, local thick partings few thin partings, Longview Formation. |
| 207 | 220 | 13 | 12 | Light to medium gray fine grained dolomite, few thick partings. |
| 220 | 232 | 12 | 12 | Medium gray fine grained limestone, abundant thick partings, local dolomite. |
| 232 | 393 | 161 | 151 | Light to dark gray fine grained locally finely saccharoidal dolomite, local diagenetic breccia, local partings, local chert. |
| 393 | 419 | 26 | 25 | Medium gray fine grained limestone, abundant partings, local diagenetic breccia, locally dolomitic, Chepultepec Formation. |
| 419 | 449 | 30 | 30 | Medium gray fine grained limestone, local wavy partings, locally shaly. |
| 449 | 470 | 21 | 21 | Medium gray fine grained dolomite, abundant thin straight partings, locally limy. |
| 470 | 477 | 7 | 7 | Medium gray fine grained limestone abundant wavy partings, locally dolomitic. |

DDL - BC-15 - Cont.

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 477 | 529 | 52 | 47 | Light to medium gray fine grained dolomite, local abundant wavy partings, rare chert, Copper Ridge Formation. |
| 529 | 538 | 9 | 8 | Light medium gray saccharoidal dolomite locally slightly oxidized. |
| 538 | 540 | 2 | 1½ | Medium gray fine to finely saccharoidal dolomite, rare parting, 3.64% Zn, 1.56% Fe, Nil Pb. |
| 540 | 561 | 21 | 15 | Light to medium gray fine to finely saccharoidal dolomite, local partings, local thin quartzite-sand grain. |
| 561 | 562 | 1 | 1 | Light gray finely saccharoidal to saccharoidal dolomite, few blebs sphalerite. |
| 562 | 587 | 25 | 19 | Light gray fine to finely saccharoidal dolomite, few partings, local quartzite. |
| 587 | 590 | 3 | 1 | Fault zone |
| 590 | 612 | 22 | 17 | Light medium gray fine to finely saccharoidal dolomite, wavy partings, local quartzite. |
| | 612 | | | Bottom |

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 443 | 527 | 84 | 73 | Medium gray fine grained limestone, abundant partings, local sand grains, local dolomite, Chepultepec Formation. |
| 527 | 560 | 33 | 29 | Light to medium gray fine grained dolomite, few thin partings, Copper Ridge Formation. |
| 560 | 565 | 5 | 1 | Fault Zone |
| 565 | 581 | 16 | 8 | Light to medium gray fine to finely saccharoidal dolomite, rare parting. |
| 581 | 583 | 2 | 2 | Medium gray finely saccharoidal dolomite, fractured, ZnS (est. 2-3% Zn) in fractures. |
| 583 | 631 | 48 | 35 | Light to medium gray fine grained dolomite, local sand grains, local thin quartzite. |
| | 631 | | | Bottom |

2986 150M

COPY

Austinville, Va.
August 6, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report - Beaver Creek Area, Smyth County, Virginia - Docked #DMEA 4178, Contract #960

Dear Sir:

Enclosed is our July monthly report on the Beaver Creek project. BC-16, the last of the proposed holes in this area, has been completed but is not covered by this report since vouchers of the drilling costs have not been received by us.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G. Rmk
RCGilbert/mjf
In quintuplicate

RECEIVED
AUG 14 1957

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 1/31

Referred to:

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

Note comments in report regarding:

1. Correct total of completed
2. footage should be 10,390'.

Talbut 8/2/57

3.

4.

and take appropriate action.

- - - - - - - - - -

Action taken by Division:

Robert E. Adams

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 31 1957

| DATE | INITIALS | CODE |
|---|---|---|
| 8/1 | Com | 100 |
| 8/2 | Klag | 500 |

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Diamond drilling on the Beaver Creek project completed to date and since the last inspection on July 12, 1957 is summarized as follows:

Drilling completed:

| | |
|---|---|
| Footage in holes completed since the last inspection . . . | 631 |
| Total footage in holes completed to date . . . . . | 10,010 |
| Number of holes completed since last inspection . . . . . | 1 |
| Total number of holes completed to date . . . . . | 16 |
| Number of holes showing commercial zinc ore . . . . . | 0 |
| Number of holes showing non-commercial zinc mineralization . . . . . | 14 |
| Number of barren holes . . . . . | 2 |

The one hole completed since the last inspection is summarized as follows:

| Hole No. | Property | Depth | Remarks |
|---|---|---|---|
| BC-16 | Kestner | 631 ft. | Base of Longview dolomite at 453 ft.<br>Chepultepec fm. at 453-490 ft.<br>Top of Copper Ridge dolomite at 490 ft.<br>2 ft. of estimated 2% Zn at 581-583 ft. |

Exploration completed to date has failed to reveal an ore body. It is our opinion that additional work under the contract is not warranted. The Operator is in agreement and plans to request termination by mutual agreement (see interim report, June 14, 1957).

Inspected: July 26, 1957

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

Dewey H. Amos, Geologist
U. S. Geological Survey

| EXTRA COPY DMEA RECEIVED JUL 22 | | |
|---|---|---|
| DATE | INITIALS | CODE |
| 7/22 | REJ | 110 |
| ~~7/24~~ | ~~RCM~~ | ~~500~~ |
| | | |
| | | |
| | | |

July 18, 1957

Memorandum

To: Jay L. Chambers, Defense Minerals Exploration Administration, DMEA, Interior Building, Washington 25, D. C.

From: Personal Assistant, Electrotechnical Experiment Station, Norris, Tennessee

Subject: Monthly reports and vouchers

We are enclosing two copies each of the following monthly reports and vouchers:

Idm-E960 — The New Jersey Zinc Company
Docket No. DMEA-4178
8th payment - month of June
Amount $1109.42

Idm-E970 — The New Jersey Zinc Company
Docket No. DMEA-4173
7th payment - month of June
Amount $1274.87

Idm-E990 — American Zinc Company of Tennessee
Docket No. DMEA-4209
11th payment - month of June
Amount $13,779.75

Idm-F1067 — Mitch-Lincoln Mining Company
Docket No. DMEA-4537
2nd payment - month of June
Amount $645.00

Idm-E1079 — Ralph Burdette
Docket No. DMEA-4615
1st payment - month of June
Starting Date: 6/11/57
Amount $417.75

Idm-E1082

Moody Rock Mining Company
2nd payment - month of June
Docket No. DMFA-4625
Amount $594.00

Helen R. Miller

Attachments
/hbm
Copies to R. A. Laurence
V. J. Lynch
Norris files
Day files

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

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 3

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $44,800.00 Government Participation: 50% Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 1824.00 | 20,307.15 | 22,131.15 | 7/26/57 W.P.K. | | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | 6.00 | 6.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft. | 394.85 | 4442.46 | 4837.31 | | | |
| TOTALS | 2218.85 | 24755.61 | 26974.46 | 2218.85 | 24755.61 | 26974.46 |

RECEIVED JUL 22 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 7/5/57 *Payee Bertha Mineral Division The New Jersey Zinc Company
Per [signature] Title Superintendent

*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:
$ 1109.43
Signature Helen R. Miller (Authorized Certifying Officer)
Date JUL 18 1957 Vou. No. 11
(See other side)

1109.43

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

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date JUL 15 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title DMEA - REGION V EXECUTIVE OFFICER Date JUL 16 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

## DEFENSE MINERALS EXPLORATION ADMINISTRATION

## OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT Units | AUTHORIZED BY CONTRACT Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 550.00 | 250 | 22,131.15 | 9127 | 2.425 | 15000 | 2.45 |
| Churn 250-500 | Ft | 612.50 | 250 | | | | | |
| Auger 500-745 | Ft | 661.50 | 245 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| Sample Analysis Sample | | | | 6.00 | 6 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | Ft | 394.85 | 745 | 4,837.31 | 9127 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 2218.85 | | 26.974.46 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | 2218.85 | | 26,974.46 | | | | $44,800.00 |

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

Date 7/5/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. E. Albers Title Superintendent

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)

RECEIVED JUL 22 1957 D.M.E.A.

GEOLOGIST, U. S. G. S.

JUL 15 1957

## 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".

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GPO 872894

## Narrative Report - Beaver Creek Area, Smyth County, Va.

Exploration in the Beaver Creek area continued with the completion of diamond drill hole BC-14, located 200 feet down dip from BC-13. This hole was collared in the Kingsport (?) Formation and was bottomed in the Copper Ridge Formation at a depth of 745 feet. A mineralized zone one foot thick and estimated at less than 1% Zn was encountered at a depth of 626-627.

BC-15 is shown on the section but is not covered by a detailed log or voucher in this report.

## Quarterly Summary

Exploration by diamond drilling was resumed in the Beaver Creek area during the quarter ending June 30. Hole BC-12 encountered 10 feet of 2.9% Zn at the expected zone of the Copper Ridge formation. This hole is located 200 feet down dip from BC-6.

A second fence of three holes 600 feet east of the first fence has been completed with only thin beds or traces of zinc mineralization encountered.

EXTRA COPY
D M E A
RECEIVED JUL 22 1957

| DATE | INITIALS | CODE |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Diamond Drill Log - BC-14

Location (Based on Virginia Rectangular Grid System)

217,500 N 1,073,165 E

Inclination: Vertical Elevation: 2398

Object: To test for an eastern extension of BC-4 mineralization.

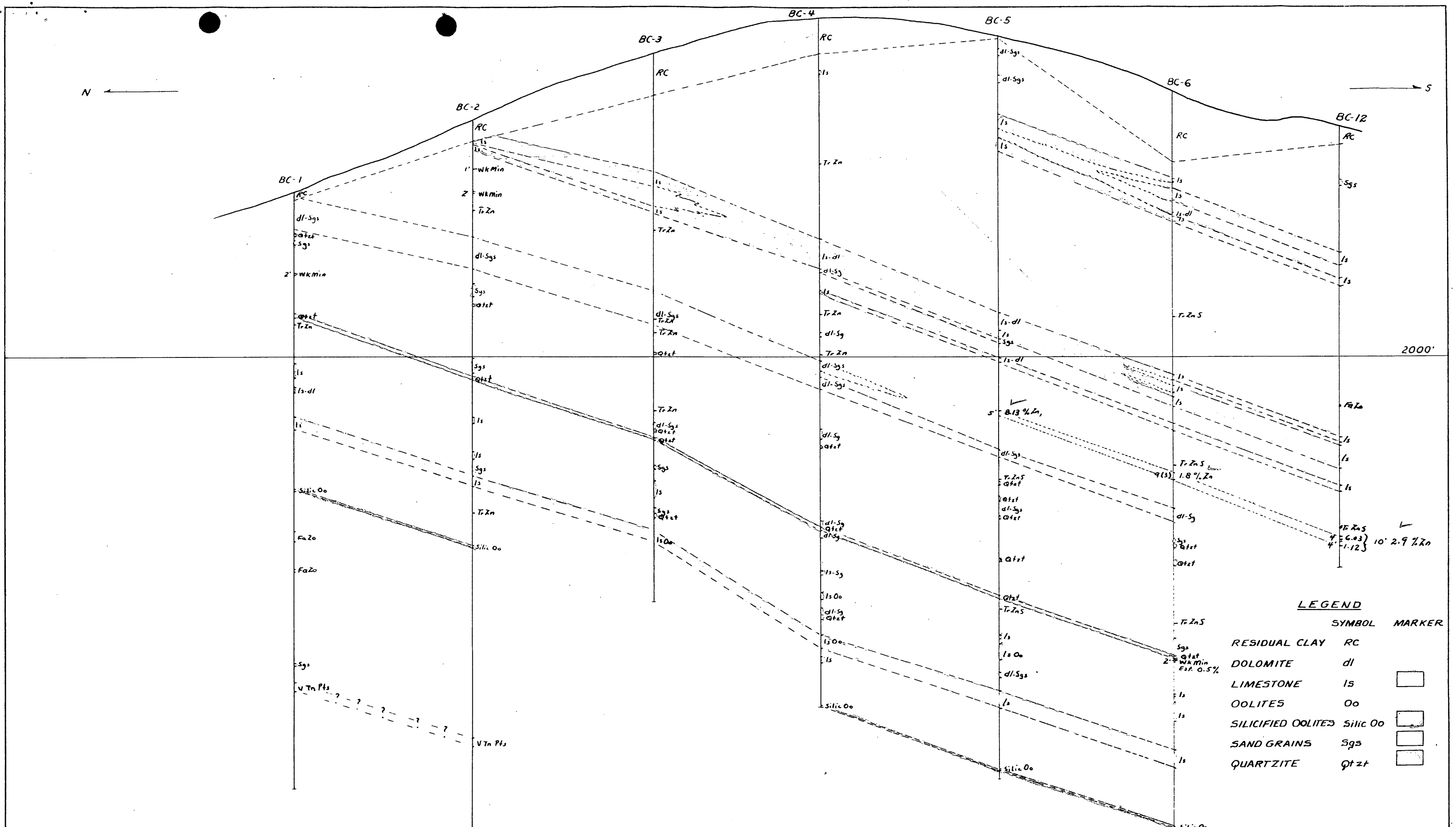
RECEIVED JUL 22 1957 D.M.E.A.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 96 | 96 | 0 | Overburden |
| 96 | 330 | 234 | 213 | Light to light medium gray local dark gray fine grained dolomite, local chert, local diagenetic breccia, few partings, Kingsport (?) formation. Bleb ZnS @ 204. |
| 330 | 346 | 16 | 14 | Medium gray fine grained limestone abundant wavy partings, few sand grains Longview Formation. Few tiny blebs ZnS in limestone @ 330. |
| 346 | 359 | 13 | 12 | Light to medium gray fine grained dolomite, local abundant thin straight partings. |
| 359 | 371 | 12 | 11 | Interbedded medium gray fine grained limestone and dolomite, wavy partings, local diagenetic breccia. |
| 371 | 396 | 25 | 25 | Medium gray fine to finely saccharoidal dolomite, local wavy partings, local thin straight partings. |
| 396 | 437 | 41 | 41 | Dark gray fine grained limestone, locally bleached, local wavy partings. |
| 437 | 534 | 97 | 83 | Light to medium gray local dark gray fine grained dolomite, local chert, local diagenetic breccia, partings. |
| 534 | 563 | 29 | 26 | Interbedded medium gray fine grained limestone and dark gray fine grained dolomite, local diagenetic breccia, wavy partings, Chepultepec Formation, bleb ZnS @ 546. |

DDL - BC-14 (Cont.)

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 563 | 571 | 8 | 8 | Light medium gray fine grained limestone abundant wavy partings, local dolomite. |
| 571 | 609 | 38 | 31 | Light to medium gray fine grained dolomite local thin straight partings, local sand grains. |
| 609 | 623 | 14 | 12 | Medium gray fine grained limestone, few partings, local dolomite, rare thin bed of chert. |
| 623 | 626 | 3 | 3 | Light medium gray fine grained dolomite, abundant wavy partings. Copper Ridge Formation. |
| 626 | 627 | 1 | 1 | Light medium gray fine grained dolomite, abundant wavy partings, disseminated fine grained ZnS, estimated less than 0.1% Zn. |
| 627 | 684 | 57 | 52 | Light to medium gray fine grained dolomite, local diagenetic breccia few partings, local shattering, local sand grains, local bleaching. |
| 684 | 745 | 61 | 50 | Light to dark gray fine grained dolomite, few partings local diagenetic breccia, local sandgrains and quartzite. |
| | 745 | | | Bottom |




Note: Rock is dolomite unless otherwise indicated.

| | | | | |
|---|---|---|---|---|
| POSTED TO DATE 12-4-56 | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 10-10-56 TRACED SCALE 1"=100' | GEOLOGIC SECTION NO. I BEAVER CREEK AREA I | DISTRICT SMYTH COUNTY, VA. FILE NO. 7GB-4223 |

X 5407 B 1M 3-53

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D M E A
RECEIVED JUL 22 1957

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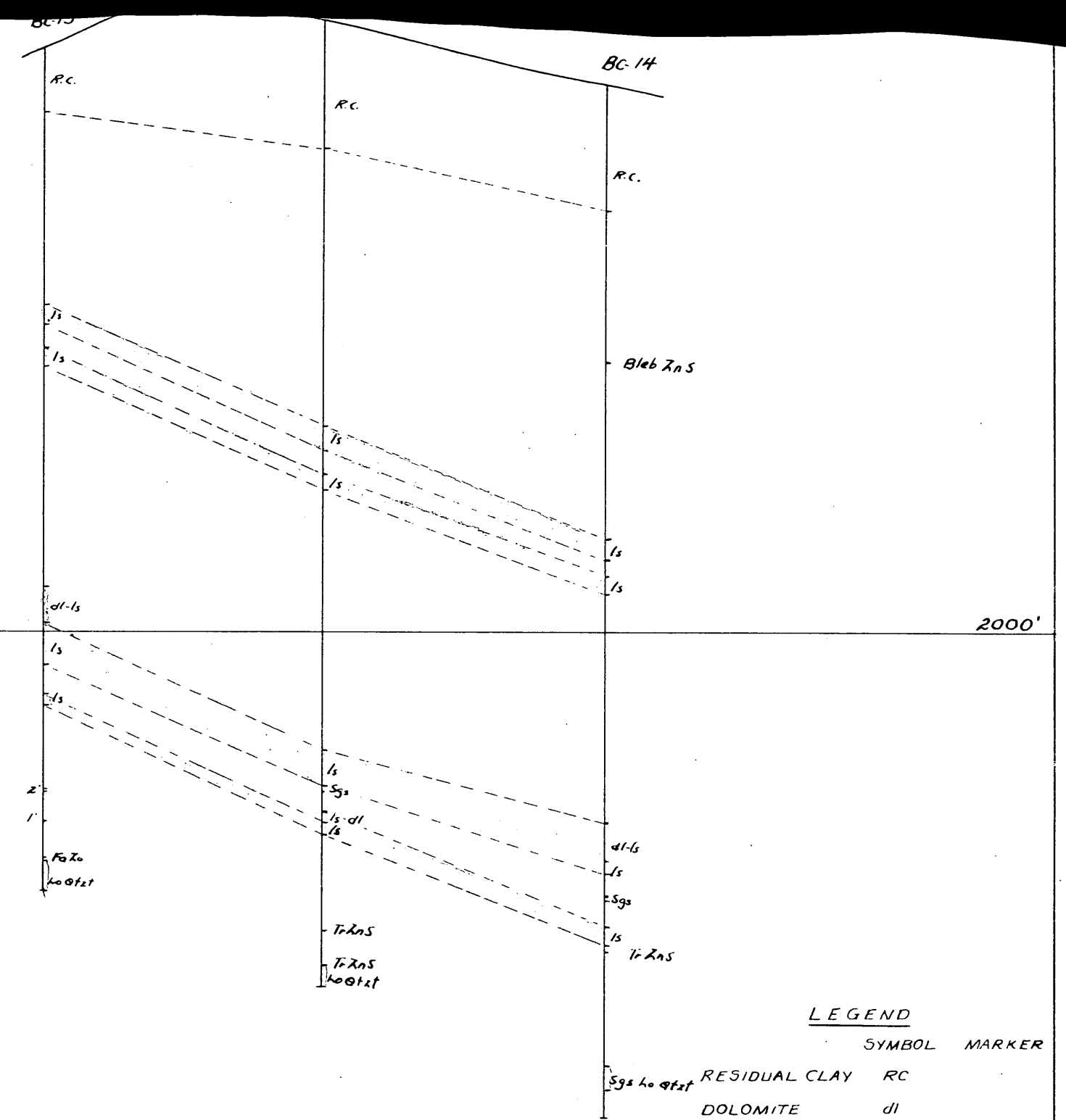


## LEGEND

| | SYMBOL | MARKER |
|---|---|---|
| RESIDUAL CLAY | RC | |
| DOLOMITE | dl | |
| LIMESTONE | ls | |
| OOLITES | Oo | |
| SILICIFIED OOLITES | Silic Oo | |
| SAND GRAINS | Sgs | |
| QUARTZITE | Qtzt | |

| | | | |
|---|---|---|---|
| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 7-8-57<br>TRACED SCALE 1"=100' | GEOLOGIC SECTION II<br>BEAVER CREEK AREA I | DISTRICT SMYTH CO., VA.<br>FILE NO. |

X 5407 B 1M 3-53

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COPY

Austinville, Va.
July 10, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report and Quarterly Summary
Beaver Creek Area, Smyth County, Va.
DMEA 4178, Contract 960

Gentlemen:

Enclosed is our June monthly report and quarterly summary for the Beaver Creek project. Hole BC-15 has been completed and is shown on the geologic section but is not covered by a detailed log since we have not as yet received a supporting voucher for the cost of drilling.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

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ACTION ON INTERIM
OR FINAL FIELD TE[illegible] REPORT

Date 7/19

Referred to:

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

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - - - - -

Action taken by Division:

Robert E. Adams

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INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

No diamond drill-holes were completed on the Beaver Creek project since the last inspection on June 28, 1957. Available data on the one hole drilling at the time of the current inspection are summarized as follows:

| Hole no. | Property | Depth | Est. depth | Remarks |
|---|---|---|---|---|
| BC-16 | Kestner | 245 | 575 | Collared in Kingsport formation and currently drilling in Longview dolomite. |

Inspected: July 12, 1957

V. J. Lynch, Mining Engineer,
U. S. Bureau of Mines

Helmuth Wedow, Jr,, Geologist
U. S. Geological Survey

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INTERIM REPORT
DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Diamond drilling on the Beaver Creek project completed to date and since the last inspection on June 14, 1957 is summarized as follows:

| | |
|---|---|
| Footage in holes completed since the last inspection . . . | 612 |
| Total footage in holes completed to date . . . . . | 9,379 |
| Number of holes completed since last inspection . . . . . | 1 |
| Total number of holes completed to date . . . . . | 15 |
| Number of holes showing commercial zinc ore . . . . . | 0 |
| Number of holes showing non-commercial zinc mineralization . . . . . | 13 |
| Number of barren holes . . . . . | 2 |

The one hole completed since the last inspection is summarized as follows:

| Hole no. | Property | Depth | Remarks |
|---|---|---|---|
| BC-15 | Kestner | 612 | Collared in Longview dolomite; bottomed in Copper Ridge dolomite; strong shines of sphalerite @ 539-540 and 562. |

Although mineralization was encountered at the target zone in Hole BC-15, there was not sufficient sphalerite to warrant drilling further on the fence. The drill will therefore move back to the first fence and drill one hole 200 feet south of Hole BC-12. Because of difficult terrain conditions at the site 200 feet directly south of Hole BC-12, the site of Hole BC-16 is being offset 100 feet east. At the time of inspection thedrill was moving to the site of the new hole, which will bottom at a depth of about 500 feet.

Inspected: June 28, 1957

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

g

ACTION ON INTERIM
OR FINAL FIELD TEAM R RT
Date 6-21

Referred to:
1. ~~Mr. McConnell~~
~~2. Mr. Johnson~~
~~3. Mr. Chambers~~
4. Docket Control Mails and Files
5. Division
6. Docket Control Mails and Files
7. 500

Note comments in report regarding:
1. Probable termination soon
2.
3.
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert E. Adams

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|---|---|---|
| 6/21 | C | 220 |
| 25 | CDM | 100 |
| ~~6/25~~ | ~~Khf~~ | ~~500~~ |

ORT

60 - Zinc

y, Austinville, Virginia

ounty, Virginia

aver Creek ~~project of the New~~
and since the last in-
s follows:

| | |
|---|---|
| last inspection .. | 745 |
| to date ..... | 9,127 |
| last inspection ... | 1 |
| to date..... | 14 |
| al zinc ore ..... | 0 |
| ercial zinc..... | |
| ..... | 12 |
| ..... | 2 |

on the one hole completed
below:

Remarks

in Copper Ridge dolomite; slight
sphalerite @ 646. The trace of
ed occurs above the mineralized
horizon and the hole is essentially
barren.

Hole BC-15, located 200 feet north (up dip) from Hole BC-13, was drilling in overburden at the time of inspection. It will bottom at about 550 feet. Should Hole BC-15 also prove to be barren or show only weak traces of zinc, the drill will move to a site about 200 ft south of Hole BC-12. To date the drilling in the fence to the east of the first fence (Holes BC-1 through BC16, and BC-12) has been discouraging. Hence, unless ore-grade mineralization is encountered in Holes BC-15 and/or BC-16 it appears that the project should be considered as unsuccessful and termination should be recommended.

Inspected: June 14, 1957

V. J. Lynch, Mining Engineer
Bureau of Mines

Helmuth Wedow, Jr.
Geologist,
Geological Survey

z

| EXTRA COPY DMEA RECEIVED JUN 17 1957 | | |
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| | | |

June 14, 1957

Memorandum

To: Jay L. Chambers, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Electrotechnical Experiment Station, Norris, Tennessee

Subject: Monthly reports and vouchers

We are enclosing two copies each of the following monthly reports and vouchers:

Idm-E960 — The New Jersey Zinc Company
Docket No. DMEA-4178
7th payment - month of May
Amount $1030.29

Idm-E970 — The New Jersey Zinc Company
Docket No. DMEA-4173
6th payment - month of May
Amount $1481.75

Idm-E1008 — John Phillips
Docket No. DMEA-4332
7th and final payment - month of May
Completion Date: 5/25/57
Amount $452.63

Idm-E1026 — John Phillips
Docket No. DMEA-4439
5th and final payment - month of May
Completion Date: 5/16/57
Amount $484.50

Helen R. Miller

Enclosures
/hbm
Copies to R. A. Laurence
V. J. Lynch
Norris files
Day files

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

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS No. 75

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $44,800.00 Government Participation: 50% Amount, $22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 1691.70 | 18615.45 | 20307.15 | 7/26/57 | W.P.K. | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | 6.00 | 6.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft | 368.88 | 4073.58 | 4442.46 | | | |
| TOTALS | 2060.58 | 22695.03 | 24755.61 | 2060.58 | 22695.03 | 24755.61 |

RECEIVED JUN 17 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 6/5/57 *Payee Bertha Mineral Division The New Jersey Zinc Company
Per [signature] Title Superintendent

*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:
$ 1030.29
Signature Helen R. Muller
(Authorized Certifying Officer)
Date JUN 14 1957 Vou. No. 203
(See other side)

1030.29

(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-960 in accordance with the terms of the contract.

Signature D. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date JUN 10 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date JUN 10 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

## DEFENSE MINERALS EXPLORATION ADMINISTRATION

## OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Units | Unit Costs |
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 550.00 | 250 | 20307.15 | 8382 | 2.423 | 15000 | 2.45 |
| Churn 250-500 | " | 612.50 | 250 | | | | | |
| Auger 500-696 | " | 529.20 | 196 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| ~~Trenching~~ Sample Assays | Sample | | | 6.00 | 6 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | Ft | 368.88 | 696 | 4442.46 | 8382 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 2060.58 | | 24755.61 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| | | 2060.58 | | 24755.61 | | | | |
| TOTAL COSTS | | | | | | | | $44,800.00 |

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

Date 6/5/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

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)

RECEIVED JUN 17 1957 D.M.E.A.

Kenneth Lucas Jr.
GEOLOGIST, U. S. G. S.
JUN 10 '57

## 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

Narrative Report - Beaver Creek Area, Smyth County, Va.

Exploration continued in the Beaver Creek Area with the completion of BC-13, located 600 feet east of BC-5. Only traces of mineralization were encountered in the expected zone.

BC-13 was collared in the Longview (or possibly younger beds) formation and was bottomed in the Copper Ridge Formation at a depth of 696 feet.

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Diamond Drill Log - BC-13

Location: (Based on Virginia Military grid system)

217,700 N 1,073,170 E

Inclination: Vertical Elevation: 2440

Object: To test for BC-5 mineralization to the east.

Results:

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| From | To | Dist. | Recov | Description |
|---|---|---|---|---|
| 0 | 96 | 96 | 0 | Overburden |
| 96 | 160 | 64 | 45 | Light gray finely saccharoidal to saccharoidal dolomite local sand grains, local chert, Longview (?) Formation. |
| 160 | 295 | 135 | 124 | Light to dark gray fine grained locally finely saccharoidal dolomite, local diagenetic breccia, local partings. |
| 295 | 312 | 17 | 16 | Medium gray fine grained limestone, local thick partings. |
| 312 | 328 | 16 | 16 | Light to light medium gray fine grained dolomite, local bleaching, local partings. |
| 328 | 340 | 12 | 11 | Medium gray fine grained limestone, local abundant thick partings. |
| 340 | 527 | 187 | 175 | Light to dark gray fine graimed dolomite, locally finely saccharoidal, local diagenetic breccia, local chert, local partings. |
| 527 | 553 | 26 | 24 | Medium gray fine grained limestone, local thick wavy partings, Chepultepec Formation. |
| 553 | 580 | 27 | 26 | Light to dark gray fine grained dolomite, local sandgrains, few partings, local banding. |
| 580 | 587 | 7 | 7 | Medium gray fine grained limestone, few thick partings. |
| 587 | 605 | 18 | 16 | Medium to dark gray fine grained dolomite, local straight partings Copper Ridge Formation |

DDL - BC-13 - (Cont)

| From | To | Dist. | Recov | Description |
|---|---|---|---|---|
| 605 | 607 | 2 | 2 | Medium gray saccharoidal dolomite, diagenetic breccia. |
| 607 | 656 | 49 | 46 | Light to medium gray fine local finely saccharoidal dolomite, local partings, local vugs. |
| 656 | 660 | 4 | 4 | Light to light medium gray saccharoidal dolomite, rare parting, trace of sphalerite at 657. |
| 660 | 679 | 19 | 13 | Light to dark gray fine grained dolomite, local thin straight partings. |
| 679 | 683 | 4 | 3 | Light to light medium gray saccharoidal dolomite, massive, trace of sphalerite at 681. |
| 683 | 696 | 13 | 12 | Light to dark gray fine grained dolomite, local shattering, local thin quartzite. |
| | 696 | | | Bottom |

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| DATE | INITIALS | CODE |
|---|---|---|
| 6/12 | JWB | 220 |
| 12 | Com | 100 |
| 6/19 | Cmg | 500 |
| | | |
| | | |
| | | |

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Diamond drilling on the Beaver Creek project of the New Jersey Zinc Company completed to date and since the last inspection on May 3, 1957 is summarized as follows:

| | |
|---|---|
| Footage in holes completed since last inspection . . . . | 696 |
| Total footage in holes completed to date . . . . . | 8,382 |
| Number of holes completed since last inspection . . . . | 1 |
| Total number of holes completed to date . . . . . | 13 |
| Number of holes showing commercial zinc ore . . . . . | 0 |
| Number of holes showing non-commercial zinc mineralization . . . . . | 11 |
| Number of barren holes . . . . . | 2 |

Data on the hole completed since the last inspection are given below:

| Hole no. | Property | Depth | Remarks |
|---|---|---|---|
| BC-13 | D. R. Kestner | 696 | Located 600 feet due east of Hole BC-5; collared in Longview dolomite and bottomed in Copper Ridge dolomite; shines of sphalerite @ 656 and 682; shine hole. |

Data on the hole currently drilling follow:

| Hole no. | Property | Depth | Est. depth | Remarks |
|---|---|---|---|---|
| BC-14 | D. R. Kestner | 262 | 775 | Located 200 feet due south from Hole BC-13; collared in Kingsport formation(?) and currently drilling in Longview dolomite--base of Kingsport(?) @ 110(?). |

On the completion of Hole BC-14 it is planned to have the drill move to a site 200 feet north of Hole BC-13.

Inspected: May 28, 1957

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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DMEA
RECEIVED MAY 16 1957

| DATE | INITIALS | CODE |
|---|---|---|
| 5/16 | JWG | 220 |
| 5/17 | CDW | 100 |
| 5/17 | WPK | 500 |
| | | |
| | | |
| | | |

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Drilling on the Beaver Creek project was resumed on April 15, 1957. The drilling completed to date and since the drilling was resumed is summarized as follows:

| | |
|---|---|
| Footage in holes completed since resumption of drilling | 512 |
| Total footage completed to date | 7,686 |
| Number of holes completed since resumption of drilling | 1 |
| Total number of holes completed to date | 12 |
| Number of holes showing commercial zinc ore | 0* |
| Number of holes showing non-commercial zinc mineralization | 10 |
| Number of barren holes | 2 |

* For a hole to be classed as ore by the New Jersey Zinc Company it must contain 50 units (thickness in feet X percent Zn).

Data on the hole completed since resumption of drilling are summarized below:

| Hole no. | Property | Depth | Remarks |
|---|---|---|---|
| BC-12 | D. R. Kestner | 512 | Located 200 ft south of Hole BC-6; collared in Longview dol; top of Chepultepec fm @ 361; top of Copper Ridge dol @ 424; bottomed in Copper Ridge dolomite.<br>Zinc mineralization as follows:<br>466-467; trace of sphalerite<br>477-481; 4 ft @ 6.03 % Zn)<br>481-483; 2 ft @ 0.22 % Zn)- 477-487; 10 ft @ 2.9 %<br>483-487; 4 ft @ 1.12 % Zn) |

Hole BC-13 is currently drilling on the Kestner property. It is located 600 feet east of Hole BC-5. At the time of inspection it was set up and drilling in overburden. Because of extremely difficult topographic conditions at the site 200 feet south of BC-12 and the need to move the drill rig back to the ridge crest to occupy this site, it was decided to drill 2 or 3 holes in a second fence 600 feet east of the first fence before moving back down the slope. The gain of both elevation and stratigraphy at the site of BC-13 will increase the depth to be drilled to about 750 feet.

Inspected: May 3, 1957

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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RECEIVED APR 22 1957

| DATE | INITIALS | CODE |
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| 4/22 | C | 220 |
| 23 | Com | 100 |
| 4/26 | Plug | 500 |
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| | | |

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Operations on the Beaver Creek project have been resumed. With drilling on the Porter Bank project recessed pending termination of that project the rig used there was moved to Beaver Creek on April 8, 1957. Current plans at Beaver Creek call for drilling Hole BC-12 at a site 200 feet south of Hole BC-6 in the exploration fence on the D. R. Kestner property. At the time of inspection water lines were being laid and the drill was being set up at the hole site. Actual drilling is expected to begin about April 15. The location of the additional holes to be drilled on the Beaver Creek project will be determined by the results shown by Hole BC-12. The depth of Hole BC-12 is expected to be about 550 feet.

Inspected: April 12, 1957

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

Day
Bailey

May 15, 1957

Memorandum

To: Jay L. Chambers, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Electrotechnical Experiment Station, Morris, Tennessee

Subject: Monthly reports and vouchers

We are enclosing two copies each of the following monthly reports and vouchers:

| | |
|---|---|
| Idm-E960 | The New Jersey Zinc Company<br>Docket No. DMEA-4178<br>6th payment - month of April<br>Amount $734.63 |
| Idm-E970 | The New Jersey Zinc Company<br>Docket No. DMEA-4173<br>5th payment - month of April<br>Amount $618.88 |
| Idm-E990 | American Zinc Company of Tennessee<br>Docket No. DMEA-4209<br>9th payment - month of April<br>Amount $8625.37 |

Helen R. Miller

EXTRA COPY
D M E A
RECEIVED MAY 17 1957
MINERALS
DATE | CODE

Attachments
/hbm
Copies to R. A. Laurence
V. J. Lynch
Morris files
Day files

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 69

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 44,800.00 Government Participation: 50% Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE | | | FOR GOVERNMENT USE ONLY | | |
|---|---|---|---|---|---|---|
| | Monthly Total | Totals Previously Reported | Totals To Date | Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 1194.90 | 17420.55 | 18615.45 | 5/28/57 WPH | | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | 3.00 | 3.00 | 6.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowance @ $0.53/ft | 271.36 | 3802.22 | 4073.58 | | | |
| TOTALS | 1469.26 | 21225.77 | 22695.03 | 1469.26 | 21225.77 | 22695.03 |

RECEIVED MAY 17 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 5/8/57 *Payee Bertha Mineral Division The New Jersey Zinc Company
By [signature] Title Superintendent

*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:
$ 734.63
Signature Helen R. Miller (Authorized Certifying Officer)
Date MAY 15 1957 Vou. No. 189
(See other side)

734.63

(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-960 in accordance with the terms of the contract.

Signature Kenneth Weaver Title GEOLOGIST, U. S. G. S. Date MAY 14 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Zygnerski Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date MAY 14 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

## DEFENSE MINERALS EXPLORATION ADMINISTRATION

# OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Units | Unit Costs |
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 550.00 | 250 | 18615.45 | 7686 | 2.422 | 15000 | 2.45 |
| 250-500 | " | 612.50 | 250 | | | | | |
| 500-512 | " | 32.40 | 12 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| Sample Assays | Sample | 3.00 | 3 | 6.00 | 6 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | Ft | 271.36 | 512 | 4073.58 | 7686 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 1469.26 | | 22695.03 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | | | | | | | $44,800.00 |

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

Date 5/8/57 Operator Bertha Mineral Division
The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

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

(Instructions on reverse)

REMARKS:

(For Government use only)

RECEIVED MAY 13 1957 D.M.E.A.

GEOLOGIST, U. S. G. S.

MAY 14 1957

## 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

Narrative Report - Beaver Creek Area

Drilling has been resumed on the Kestner Property in the Beaver Creek Area. Hole BC-12, located 200 feet down dip from BC-6, was collared in the Longview Formation and was bottomed in the Copper Ridge Formation at a depth of 512 feet. Ten feet of mineralized ground, assaying 2.9% Zn, was encountered between 477 and 487 feet.

The drill has been moved to a location 600 feet east of BC-5 to determine the strike extent of the mineralization.

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RECEIVED MAY 17 1957

| DATE | INITIALS | CODE |
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Diamond Drill Log - BC-12

Location: (Based on Virginia Rectangular Grid System)

217,355 N 1,072,565 E

Inclination: Vertical Elevation: 2268 (?)

Object: To test for down dip extent of mineralization encountered in BC-6

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RECEIVED MAY 17 1957

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Results:

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 0 | 22 | 22 | 0 | Overburden |
| 22 | 148 | 126 | 121 | Light to medium gray fine grained dolomite, local sand grains, few partings, local diagenetic breccia, Longview Formation. |
| 148 | 187 | 39 | 37 | Interbedded medium gray fine grained limestone and medium gray fine grained dolomite, local partings. |
| 187 | 327 | 140 | 136 | Light to medium gray fine grained dolomite, local thin chert, few scattered sand grains, local partings. |
| 327 | 328 | 1 | 1 | Fault zone |
| 328 | 361 | 33 | 25 | Medium gray fine to finely saccharoidal dolomite, local abundant partings. |
| 361 | 398 | 37 | 35 | Interbedded medium gray fine grained limestone, abundant partings and dark gray fine grained dolomite. Chepultepec Formation. |
| 398 | 418 | 20 | 20 | Dark gray fine grained dolomite, local abundant thin straight partings. |
| 418 | 424 | 6 | 6 | Medium gray fine grained limestone, local thin partings. |
| 424 | 466 | 42 | 41 | Light to dark gray fine grained dolomite, local thin straight partings, locally finely saccharoidal, Copper Ridge Formation. |
| 466 | 467 | 1 | 1 | Dark gray finely saccharoidal dolomite, traces Zn. |
| 467 | 477 | 10 | 10 | Light gray fine grained dolomite, local thick partings. |

DDL - BC-12 (Cont)

| From | To | Dist. | Recov | Description |
|---|---|---|---|---|
| 477 | 481 | 4 | 4 | Medium gray finely saccharoidal to saccharoidal dolomite, few vugs. Disseminated Zn (Assay: 6.03% Zn) |
| 481 | 483 | 2 | 2 | Medium gray finely saccharoidal to saccharoidal dolomite. Disseminated pyrite, local zinc (Assay: 0.22% Zn). |
| 483 | 487 | 4 | 4 | Medium gray finely saccharoidal dolomite, disseminated Zn (Assay: 1.12% Zn) |
| 487 | 512 | 25 | 22 | Light to dark gray fine grained dolomite, locally finely saccharoidal, few partings. |
| | 512 | | | Bottom |

x 1066 150M

COPY

Kluge[illegible]

| EXTRA COPY DMEA RECEIVED APR 22 1957 | | |
|---|---|---|
| DATE | INITIALS | CODE |
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| | | |
| | | |

Austinville, Va.
April 12, 1957

Regional Executive Officer
Defense Minerals Exploration Activities
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Quarterly Summary, Beaver Creek Area,
Smyth County, Va., Docket #DMEA ~~4173~~ 178
Contract #960

Dear Sir:

Enclosed is our first quarter 1957 summary for the Beaver Creek Project. Drilling was recessed in this area in January. Further exploration by diamond drilling on the Kestner property will begin during April.

Very truly yours,

W. L. Albers

W. L. Albers,
Superintendent

R.C.G. [illegible]
RCGilbert/mjf
In quintuplicate

Quarterly Summary - Beaver Creek Area, Smyth County, Va.

Only two holes were drilled in the Beaver Creek Area, both on the Ray McAllister Property, during the quarter. These holes, BC-10 and BC-11, were collared in the Copper Ridge and bottomed in the same formation. A total of 888 feet were drilled. No zinc mineralization was encountered.

Drilling at this property has been recessed and will be considered as non-productive. However, plans have been made to further prospect the Kestner Property by drilling at least three additional holes. At the completion of the drilling of the Kestner Property, final recommendations will be considered for the Beaver Creek Area.

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DMEA
RECEIVED APR 22 1957

| DATE | INITIALS | CODE |
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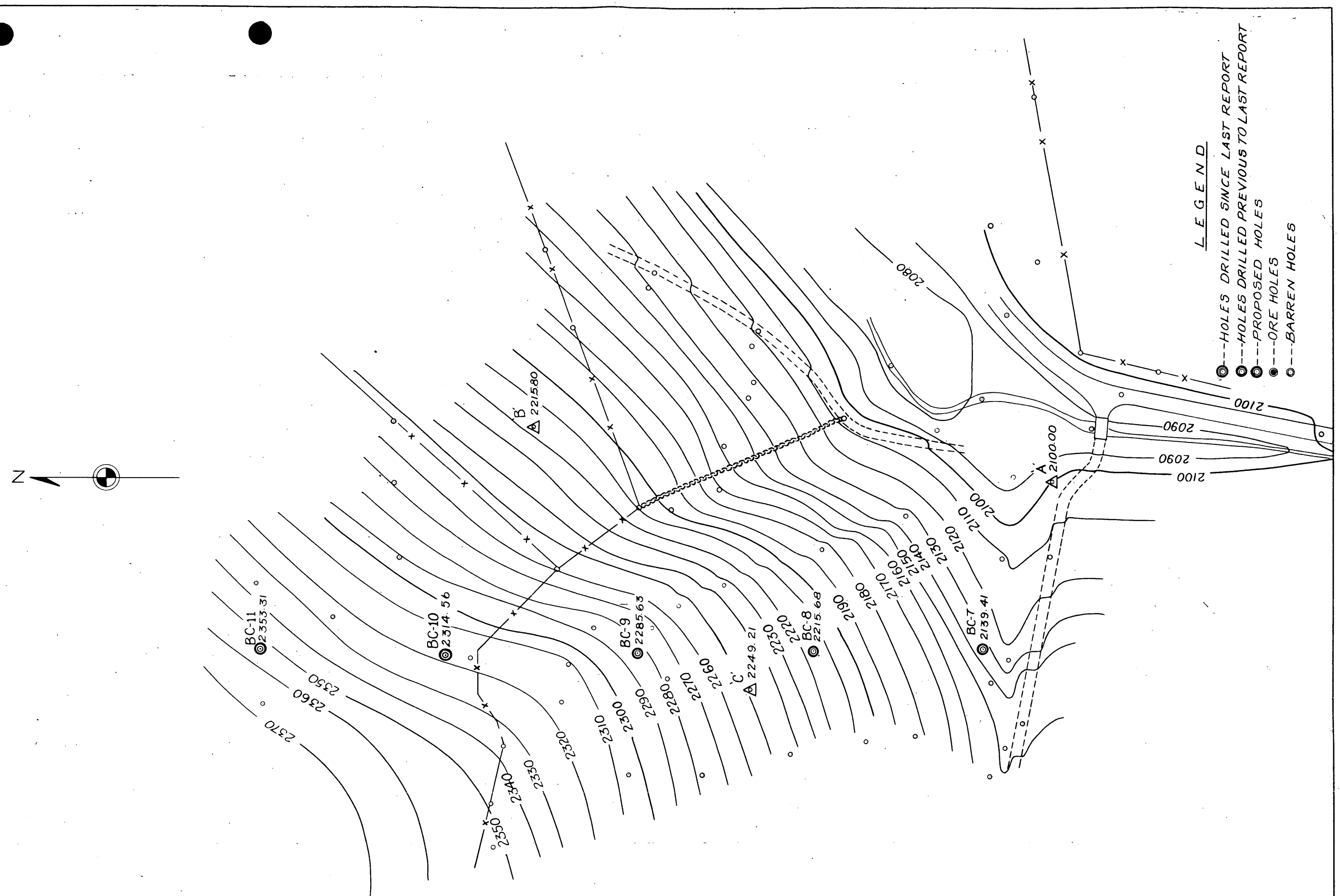


NOTE: ELEVATIONS BASED ON APPROXIMATE DATA

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY<br>AUSTINVILLE, VIRGINIA. | DRAWN DATE 12/13/56<br>TRACED E.E.F. SCALE 1"=100' | BEAVER CREEK AREA II | DISTRICT SMYTH COUNTY, VA.<br>FILE NO. |
|---|---|---|---|---|

X 5407 B 1M 3-53

EXTRA COPY
DMEA
RECEIVED APR 22 1957

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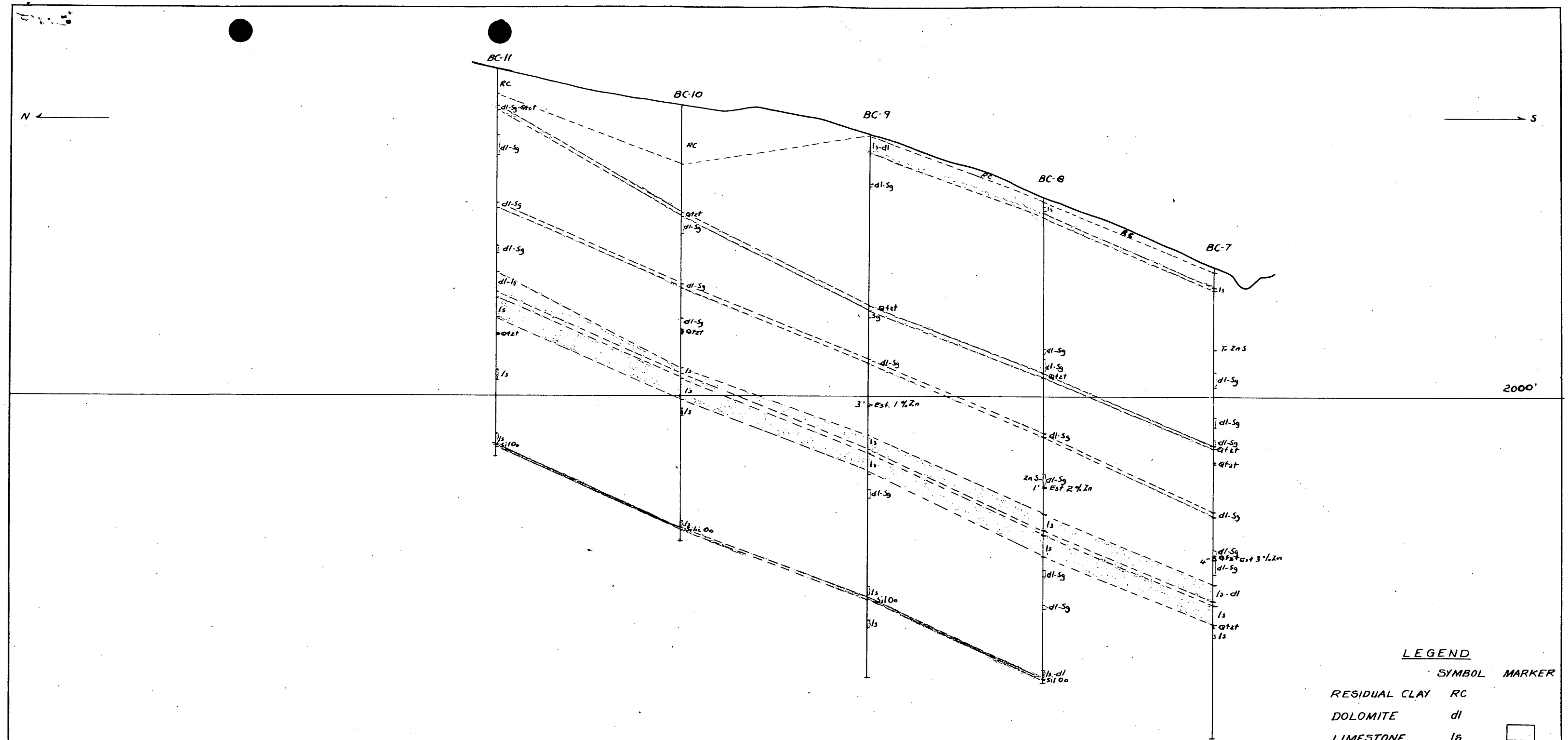


Note: Rock is dolomite unless otherwise indicated

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 1-3-57 TRACED SCALE 1"=100' | GEOLOGIC SECTION NO. I. BEAVER CREEK AREA II | DISTRICT SMYTH COUNTY, VA. FILE NO. |
|---|---|---|---|---|

X 5407 B 1M 3-53

EXTRA COPY
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RECEIVED APR 22 1957

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INTERIM REPORT

DMEA-4178, Idm-E960 (Zinc)

RECEIVED FEB 21 1957 D.M.E.A.

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

Diamond drilling on the Beaver Creek project of the New Jersey Zinc Company continues recessed. The Operator, however, informed the writer that an extension to the lease on the D. R. Kestner property had been obtained and that the drilling would recommence sometime in April. The current plan is to await the completion of the last two holes scheduled in the present drilling on the Porter Bank project (DMEA-4178), moving the drill rig used there to the Beaver Creek area. The Operator agrees that the next hole at Beaver Creek should be on the original fence 200 feet south of Hole BC-6, but that because of difficult terrain it may not be possible to spot the drill site precisely. In fact, because of the extremely steep topography, it may be necessary to reoccupy the site of Hole BC-6 and drill an inclined hole to intersect the "ore zone" at the anticipated depth 200 feet horizontally south of BC-6. The details of these problems will be discussed further with the Operator's geologists at the time of the next inspection of other Virginia projects in the early part of March.

Inspected: February 15, 1957

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 47

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1957 Docket No. DMEA 4178 Contract No. 960

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

Contract Amount, $44,800.00 Government Participation: 50% Amount, $22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 2050.60 | 15369.95 | 17420.55 | | | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | 3.00 | 3.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft | 470.64 | 3331.58 | 3802.22 | | | |
| TOTALS | 2521.24 | 18704.53 | 21225.77 | 2,521.24 | 18,704.53 | 21,225.77 |

3/27/57

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

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

Date 2/4/57 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Superintendent

*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:

$ 1260.62

Signature [signature] (Authorized Certifying Officer)

Date FEB 12 1957 Vou. No. 128

(See other side)

5

1260.62

(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 960 in accordance with the terms of the contract.

Signature Kenneth Weaver Title GEOLOGIST, U. S. G. S. Date FEB 11 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date FEB 11 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

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

Month of January 1957 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Co. Minerals Zinc
Address Austinville, Virginia

| OPERATION | Unit | Costs This Month | Units This Month | Costs to Date | Units to Date | Unit Costs to Date | Authorized by Contract: Units | Authorized by Contract: Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 1100.00 | 500 | 17420.55 | 7174 | 2.428 | 15000 | 2.45 |
| ~~Chip~~ 250-500 | Ft | 950.60 | 388 | | | | | |
| Auger | | | | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| ~~Exploration~~ Sample Assays | Sample | | | 3.00 | 3 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | | 470.64 | 888 | 3802.22 | 7174 | 0.53 | 15000 | 0.53 |
| Total Distributed Costs | | 2521.24 | 888 | 21225.77 | | | | Total Costs Authorized by Contract |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| Total Costs | | 2521.24 | | 21225.77 | | | | $44800.00 |

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 2/4/57 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Superintendent

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)

Hermann Lowenstein
GEOLOGIST, U. S. G. S.
FEB 11 1957

## 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

Narrative - Beaver Creek Area - January 1957

Diamond drill hole BC-10 was collared and bottomed in the Copper Ridge Formation, and was drilled to a depth of 470 feet. No zinc mineralization was encountered.

Diamond drill hole BC-11 was collared in the Copper Ridge Formation and bottomed at a depth of 418 feet in the Copper Ridge. This hole was barren.

With the completion of BC-11 the proposed fence of five holes on the McAllister property is finished. Only scattered traces and thin beds of low grade mineralization were encountered. No further testing is planned for this area.

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Diamond Drill Log - BC-10

Location: 600 feet north of BC-7

Elevation: 2315 (?) Incl: Vertical

Object: To test down dip extent of mineralization that crops out and is marked by a geochemical anomaly.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 62 | 62 | 0 | Overburden |
| 62 | 65 | 3 | 3 | Light medium gray fine grained dolomite, few partings, local bleaching. Copper Ridge Formation. |
| 65 | 66 | 1 | 1 | Quartzite |
| 66 | 113 | 47 | 31 | Light to medium gray fine grained dolomite, local partings, local diagenetic breccia. |
| 113 | 118 | 5 | 5 | Quartzite |
| 118 | 239 | 121 | 95 | Light to medium gray fine grained dolomite, local abundant sand grains, local partings, local diagenetic breccia. |
| 239 | 242 | 3 | 3 | Quartzite |
| 242 | 284 | 42 | 33 | Light to medium gray fine to fine saccharoidal dolomite local partings, local diagenetic breccia. |
| 284 | 290 | 6 | 6 | Medium gray fine grained limestone, abundant thick wavy partings. |
| 290 | 294 | 4 | 4 | Light gray fine grained dolomite, abundant bleached diagenetic breccia. |
| 294 | 319 | 25 | 24 | Medium gray oolitic limestone. |
| 319 | 327 | 8 | 8 | Medium gray fine grained dolomite, local thin straight partings. |
| 327 | 333 | 6 | 6 | Medium gray fine grained locally oolitic limestone, few partings. |

DDL - BC-10 (CONT.)

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 333 | 449 | 116 | 106 | Light to medium gray fine grained dolomite, local abundant partings, local diagenetic breccia, locally bleached. |
| 449 | 455 | 6 | 5 | Medium gray fine grained limestone, abundant thick wavy partings. |
| 455 | 459 | 4 | 2 | Silicified oolites in chert matrix. |
| 459 | 470 | 11 | 11 | Medium to dark gray fine grained dolomite partings. |
| | 470 | Bottom | | |

Diamond Drill Log - BC-11

Location: 800 feet north of BC-7

Elevation: 2353 (?) Inclination: Vertical

Object: To test ground down dip from mineralized outcrop and a geochemical anomaly.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 28 | 28 | 0 | Overburden |
| 28 | 94 | 66 | 58 | Light to light medium gray fine grained dolomite, local sand grains, local partings, local thin quartzite, Copper Ridge Formation. |
| 94 | 220 | 126 | 70 | Light to medium gray fine grained dolomite, local abundant sandgrains, local thin quartzite, local diagenetic breccia, few partings. |
| 220 | 243 | 23 | 17 | Interbedded oolitic limestone and medium gray fine grained dolomite with sand grains. |
| 243 | 248 | 5 | 5 | Light gray fine grained dolomite, abundant bleached diagenetic breccia. |
| 248 | 270 | 22 | 13 | Medium gray oolitic limestone. |
| 270 | 287 | 17 | 7 | Light medium gray fine grained dolomite, few partings. |
| 287 | 289 | 2 | 1 | Quartzite |
| 289 | 328 | 39 | 38 | Light to medium gray fine grained dolomite, local diagenetic breccia, local abundant partings, locally limy. |
| 328 | 338 | 10 | 10 | Medium gray fine grained limestone, abundant thick partings. |
| 338 | 396 | 58 | 45 | Light to medium local dark gray fine grained dolomite, local thick partings, local diagenetic breccia. |
| 396 | 407 | 11 | 11 | Medium gray fine grained limestone, abundant thick wavy partings. |
| 407 | 410 | 3 | 3 | Silicified oolites in chert, diagenetic breccia. |
| 410 | 418 | 8 | 8 | Medium gray fine grained dolomite, local partings, local limestone. |
| | 418 | Bottom | | |

Austinville, Va.
February 8, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: January Report - Beaver Creek, Virginia
Docket #DMEA 4178, Contract #960

Dear Sir:

Enclosed is our January monthly report on the Beaver Creek project. Hole BC-11 completes the initially proposed fence of five holes on the McAllister property, and the results do not indicate further work on this property. We are investigating the feasibility of a limited amount of additional drilling on the Kestner property.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

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FEB 11 1957

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FEB 14 1957
D.M.E.A.

INTERIM REPORT

DMEA-4178, Idm-E960 (Zinc)

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

The drilling on the Beaver Creek project was recessed on January 13, 1957 with the completion of Hole BC-11 on the Ray McAllister property at the western end of the project area. The drilling completed to date on this project is summarized as follows:

| | |
|---|---|
| Footage in holes completed since last inspection . . . . | 418 |
| Total footage completed to date . . . . . | 7,174 |
| Number of holes completed since last inspection . . . . | 1 |
| Total number of holes completed to date . . . . . | 11 |

Hole BC-11, the last hole to be completed before the recessing of the project was collared in the Copper Ridge dolomite and was bottomed at a depth of 418 feet in the same formation. It was reported to have shown no evidence of zinc mineralization.

On January 29, 1957 the writer visited Austinville and reviewed available data, including drill core, on the Beaver Creek exploration with Messrs. Brown, Gilbert, and Knudsen of the Geological Department of the New Jersey Zinc Company, with the view to recommend continuation or termination of the project. Later, the D. R. Kestner property in the project area was visited with Messrs. Gilbert and Knudsen to review the field problems that might be encountered should the drilling be continued.

Subsequently, after discussion with Messrs. Laurence and Lynch in Knoxville, it was decided to recommend continuation of the drilling on the D. R. Kestner property in order to test more adequately the "open end" of the mineralization found in Holes BC-5 and BC-6. In Hole BC-5, the five feet of core from a depth of 435 to 440 feet contains 8.13 percent zinc with the basal 1 foot assaying 24.65 percent zinc. In hole BC-6, the 9-foot run from a depth of 445 to 454 feet contains 1.81 percent zinc, but in this case only 3 feet of core were recovered from the run and such material as was recovered shows considerable evidence of grinding. There is a strong possibility that the core loss may have involved soft oxidized zinc ore inasmuch as the high-grade 1-foot run in Hole BC-5 was at least partially oxidized. Thus, the data showing a grade of only 1.8 percent zinc for Hole BC-6 are only inconclusive. The suggestion has been made to the Company that drilling should proceed as soon as possible and begin with a hole 200 feet south of Hole BC-6 on the original dip fence, to be followed with an additional dip fence parallel to and at least 600 feet east of the original

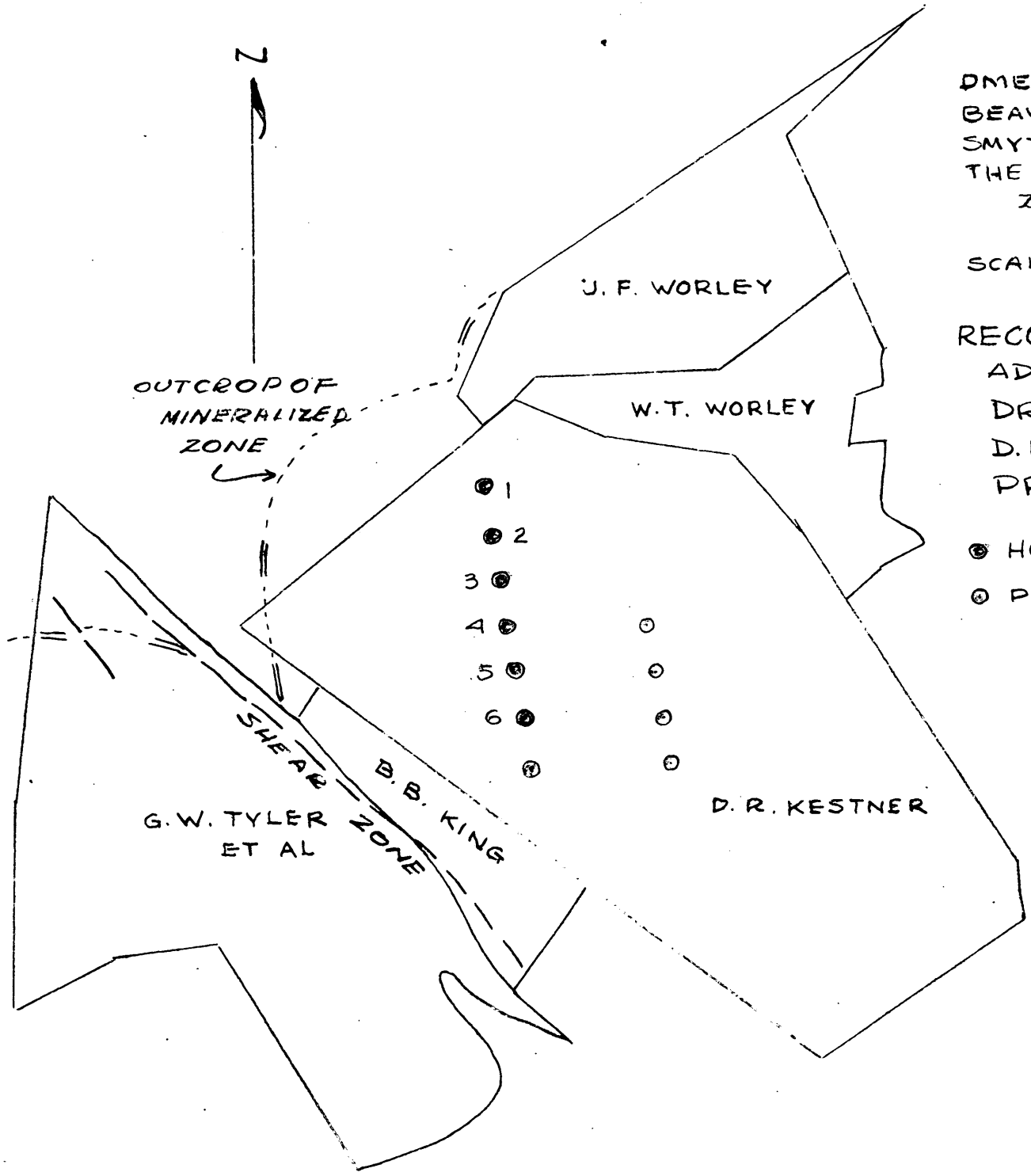
fence. The location of holes on the second dip fence should await the completion of the additional hole on the original fence, in case the results obtained from this hole indicate the desirability of continuing on the first fence or drilling on a fence to the west. The suggestion of a second fence to the east is based on the possibility that the ore body is pencil-shaped and pitches at a low angle to the east. At this time it is believed that the "second stage" holes on the Kestner property need not be drilled to the same depths as the first six holes, but rather need be drilled only to such a depth as to insure penetration of the "ore zone" approximately 50 feet, stratigraphically below the top of the Copper Ridge dolomite. There appears to be adequate footage remaining under the present contract for the proposed additional drilling as only 7,174 feet of the 15,000 feet of drilling authorized has been completed.

The above recommendations for continued drilling at Beaver Creek were made to Mr. W. L. Albers, Superintendent of the Company at Austinville, in a letter dated February 6, 1957, a copy of which has been forwarded to the Operating Committee. In this letter it was also pointed out that if the Company prefers to request termination instead of continuing the project, they should so inform the Field Team immediately in order that the request may be referred to the Operating Committee for final action.

Inspected: January 29, 1957

Helmuth Wedow, Jr.
Geologist
U. S. Geological Survey

g




DMEA - 417B (ZINC)
BEAVER CREEK AREA
SMYTH COUNTY, VA.
THE NEW JERSEY ZINC COMPANY

SCALE: 1 INCH = 660 FEET

RECOMMENDED ADDITIONAL DRILLING ON THE D. R. KESTNER PROPERTY

● HOLES DRILLED

⊙ PROPOSED HOLES

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

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JAN 22 1957
D.M.E.A.

# INTERIM REPORT
## DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Data on completed drilling on the Beaver Creek project are summarized as follows:

| | |
|---|---|
| Footage in holes completed since last inspection --- | 1,058 |
| Total footage completed to date ---------- | 6,756 |
| Number of holes completed since last inspection ---- | 2 |
| Total number of holes completed to date ---------- | 10 |
| Number of holes showing commercial zinc ore -------- | 0 |
| Number of holes showing non-commercial zinc mineralization ---------- | 9 |
| Number of barren holes ---------- | 1 |

Available data on the two completed holes are logged in summary as follows:

| Hole No. | Property | Depth | Remarks |
|---|---|---|---|
| BC-9 | McAllister | 588 | Collared in Chepultepec fm; top of Copper Ridge fm @ 21; bottomed in Copper Ridge fm. Shine hole; 3 ft est @ 1 % ZnS from 291 to 294. Located 400 feet north of BS-7. |
| BC-10 | McAllister | 470 | Collared and bottomed in Copper Ridge formation. Barren hole. Located 600 feet north of BC-7. |

Data on the diamond-drill hole in progress at the time of inspection follow:

| Hole No. | Property | Depth | Est.Depth | Remarks |
|---|---|---|---|---|
| BC-11 | McAllister | 236 | 450 | Collared in Copper Ridge fm. Located 800 feet north of BC-7. |

On completion of Hole BC-11 on the McAllister property drilling at Beaver Creek will be recessed temporarily to permit the drill to be used by the drilling company on a short-term job elsewhere. During the recess period all available data will be reviewed in order to determine whether drilling should continue or whether termination of the contract should be recommended. Although Company officials appear inclined to favor termination in view of the limited amount of mineralization discovered to date, the possibility that the ore potential of the Tyler, King, and Kestner properties has not been sufficiently tested to warrant termination at this time, should be thoroughly considered. After further consultation with Company officials a recommendation will be submitted.

Inspected: January 11, 1957

V. J. Lynch
Mining Engineer
U. S. Bureau of Mines

Helmuth Wedow, Jr.
Geologist
U. S. Geological Survey

RECEIVED
DEC 21 1956
D.M.E.A.

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

DRILLING COMPLETED

To date on New Jersey Zinc's Beaver Creek project a total of 5,693 feet has been completed in eight diamond-drill holes. Since the last inspection on November 30, 1956, Hole BC-8 on the McAllister property was completed with a bottom depth of 523 feet. It was collared in the Chepultepec formation; the top of the Copper Ridge dolomite was logged at a depth of 21 feet; and the hole was bottomed in the Copper Ridge dolomite. A 1-foot run estimated to contain 1 percent zinc occurs at a depth of 312 to 313 feet, and a trace of sphalerite was noted at 306 feet. Also noted was a trace of fluorite at a depth of 522 feet.

Although no blank holes have been drilled to date on this project, the only zinc mineralization noted has been non-commercial.

DRILLING IN PROGRESS

Hole BC-9, also on the McAllister property and 200 feet horizontally north of Hole BC-8, has reached a depth of 330 feet and will be bottomed at approximately 550 feet. The hole was started in the Chepultepec formation and is currently drilling in the Copper Ridge formation, the top of which was encountered at a depth of 21 feet.

Inspected: December 14, 1956

Helmuth Wedow, Geologist
U. S. Geological Survey

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

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 41

# OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 44,800.00 Government Participation: 50% Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 2624.70 | 12745.25 | 15369.95 | 1/30/57 | 40.PK | Betty |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | 3.00 | 3.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft | 588.83 | 2742.75 | 3331.58 | | | |
| TOTALS | 3213.53 | 15491.00 | 18704.53 | 3213.53 | 15491.00 | 18704.53 |

RECEIVED JAN 18 1957 D.M.E.A.

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

Date 1/7/57 *Payee Bertha Mineral Division The New Jersey Zinc Co.

Per [signature] Title Superintendent

*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:

$ 1606.76

Signature [signature]
(Authorized Certifying Officer)

Date JAN 16 1957 Vou. No. 108

(See other side)

1606.77

(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-960 in accordance with the terms of the contract.

Signature V. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date JAN 15 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date JAN 15 1957

# MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

Month of December 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Va.

| OPERATION | Unit | Costs This Month | Units This Month | Costs to Date | Units to Date | Unit Costs to Date | Authorized by Contract: Units | Authorized by Contract: Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | 1100.00 | 500 | 15369.95 | 6286 | 2.445 | 15000 | 2.45 |
| ~~Churn~~ 250-500 | | 1225.00 | 500 | | | | | |
| ~~Auger~~ 500-750 | | 299.70 | 111 | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| ~~Assay~~ Sample Assays | Sample | | | 3.00 | 3 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | Ft | 588.83 | 1111 | 3331.58 | 6286 | 0.53 | 15000 | 0.53 |
| Total Distributed Costs | | 3213.53 | 1111 | 18704.53 | | | | Total Costs Authorized by Contract |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| Total Costs | | | | | | | | $44,800.00 |

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

Date 1/7/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

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

(Instructions on reverse)

Remarks:

(For Government use only)

N. J. Lynch
MINING ENGINEER
U. S. BUREAU OF MINES

## 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

Narrative - Beaver Creek - December 1956

Hole number BC-8 was collared in the Chepultepec Formation and was bottomed in the Copper Ridge. One foot of mineralization (estimated 2% Zn) was intercepted at a depth of 312-313 feet. This hole bottomed at 523 feet.

Hole number BC-9 was collared in the Chepultepec and bottomed in the Copper Ridge Formation. Three feet of mineralized ground (estimated 1% Zn) was cut at a depth of 291 to 294. This hole was bottomed at a depth of 588 feet.

Quarterly Summary - October-December 1956

Five holes totalling 3,340 feet were completed during the quarter ending December 31. Holes BC-5 and BC-6 completed the proposed fence on the Kestner property, and holes BC-7, BC-8 and BC-9 were drilled on the Ray McAllister property.

Hole BC-5 cut 5 feet that averaged 8.13% Zn and BC-6 cut 9 feet (3 feet recovered) of 1.81% Zn. Since the mineralization was too thin to be of economic value, it was decided, by mutual consent, to recess the drilling on this property.

Holes BC-7, BC-8 and BC-9, totalling 1622 feet, were drilled on the McAllister property, being three holes on a proposed fence of 5 holes. Only thin intercepts of low grade mineralization have been cut during the drilling. The mineralization occurs at the expected horizon in the Copper Ridge.

Holes BC-5 and BC-6 were collared in the Longview formation, cut through the Chepultepec, and bottomed in the Copper Ridge. Holes BC-7, BC-8 and BC-9 collared in the Chepultepec and bottomed in the Copper Ridge.

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Diamond Drill Log, Hole No. BC-8

Location: 200 feet north of BC-7

Elevation: 2215 (?) Inclination: Vertical

Object: To test ground down dip from a mineralized outcrop that is marked by a geochemical anomaly.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 6 | 6 | | Overburden |
| 6 | 11 | 5 | 5 | Medium gray fine grained dolomite, wavy partings Chepultepec formation. |
| 11 | 15 | 4 | 4 | Medium gray fine grained limestone, wavy thick partings. |
| 15 | 18 | 3 | 3 | Light medium gray fine grained dolomite, abundant sand grains, few parts. |
| 18 | 21 | 3 | 3 | Medium gray fine grained limestone, abundant wavy partings. |
| 21 | 165 | 144 | 121 | Light to medium gray fine, local saccharoidal, dolomite, local diagenetic breccia, local partings local vugs, Copper Ridge Formation. |
| 165 | 191 | 26 | 25 | Light to medium gray fine grained dolomite, local abundant sand grains, few partings. |
| 191 | 194 | 3 | 3 | Quartzite |
| 194 | 264 | 70 | 69 | Medium gray fine grained dolomite, local diagenetic breccia, local partings. |
| 264 | 268 | 4 | 4 | Light gray fine grained dolomite, abundant sand grains. |
| 268 | 299 | 31 | 31 | Light to dark gray fine grained dolomite, local diagenetic, local thick partings. |
| 299 | 310 | 11 | 11 | Light to medium gray fine grained dolomite, local abundant sand grains, local diagenetic breccia, few partings. |
| 310 | 343 | 33 | 30 | Medium to dark gray fine grained local saccharoidal dolomite, local diagenetic breccia, few partings 312-313 1' est. 2% Zn. |

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 343 | 360 | 17 | 17 | Medium gray fine grained limestone, abundant oolites, local thick partings, local sand grains. |
| 360 | 364 | 4 | 4 | Light gray fine grained dolomite, abundant bleached diagenetic breccia. |
| 364 | 389 | 25 | 25 | Medium gray fine grained dolomite, abundant oolites, rare thin partings. |
| 389 | 402 | 13 | 13 | Interbedded medium gray fine grained limestone and dolomite, few partings, local oolites. |
| 402 | 514 | 112 | 112 | Light to medium gray fine grained dolomite, local thin sandgrain bed, local diagenetic breccia, few partings. |
| 514 | 521 | 7 | 6 | Interbedded medium gray fine grained dolomite and limestone. |
| 521 | 522 | 1 | 1 | Silicified oolites in chert. Trace fluorite. |
| 522 | 523 | 1 | 1 | Fault zone |
| | 523 | | | Bottom |

Diamond Drill Log - BC-9

Location: 400 feet north of BC-7

Elevation: 2285 (?) Inclination: Vertical

Object: To test ground down dip from mineralization that crops out and is marked by a geochemical anomaly.

Results:

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 2 | 2 | | Overburden |
| 2 | 21 | 19 | 6 | Medium gray fine grained limestone, few wavy partings, locally dolomitic, Chepultepec formation. |
| 21 | 186 | 165 | 121 | Light to medium gray fine grained dolomite, local partings, diagenetic breccia, rare sand grains, Copper Ridge formation |
| 186 | 188 | 2 | 2 | Quartzite |
| 188 | 190 | 2 | 2 | Medium gray fine grained dolomite, few partings. |
| 190 | 191 | 1 | 1 | Quartzite |
| 191 | 291 | 100 | 93 | Light medium to medium gray fine grained dolomite, local abundant sandgrains, local partings, local diagenetic breccia. |
| 291 | 294 | 3 | 3 | Estimated 1% ZnS, disseminated. |
| 294 | 326 | 32 | 24 | Light to medium gray fine grained dolomite, few partings, local diagenetic breccia. |
| 326 | 327 | 1 | 1 | Fault zone. |
| 327 | 340 | 13 | 13 | Medium gray oolitic limestone, few styolites. |
| 340 | 344 | 4 | 4 | Light gray fine grained dolomite, abundant diagenetic breccia, generally bleached. |
| 344 | 365 | 21 | 21 | Medium gray fine grained limestone, locally oolitic, local diagenetic breccia. |
| 365 | 367 | 2 | 2 | Quartzite |

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 367 | 384 | 17 | 14 | Interbedded medium gray fine grained limestone, local diagenetic breccia, and medium gray fine grained dolomite local partings. |
| 384 | 392 | 8 | 4 | Light gray fine grained dolomite, abundant sand grains, local quartzite. |
| 392 | 488 | 96 | 94 | Medium gray fine grained dolomite, local partings, local diagenetic breccia. |
| 488 | 499 | 11 | 11 | Medium gray fine grained limestone, local thick partings, local diagenetic breccia. |
| 499 | 501 | 2 | 2 | Silicified oolites in chert. |
| 501 | 525 | 24 | 22 | Light to medium gray fine grained dolomite, few partings. |
| 525 | 531 | 6 | 6 | Medium gray fine grained limestone, few thick wavy partings. |
| 531 | 588 | 57 | 57 | Light to medium gray fine grained dolomite, local abundant partings, local diagenetic breccia. |
| | 588 | | | Bottom |

ACTION ON INTERIM
OR FINAL FIELD TEAM REP

Date 22 JAN 1957

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. Rate Matters Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Possible termination (Recessed)
2.
3.
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Noted W.P.K.

Robert S. Adams

X-1066 150M.

COPY

Austinville, Va.
January 10, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: December and fourth Quarterly Report
Beaver Creek, Virginia
Docket #DMEA 4178 Contract #960

Dear Sir:

Enclosed is our monthly report on the Beaver Creek project for December together with the quarterly report for quarter ending December 31, 1956.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G. 11/22
RCGilbert/mjf
In quintuplicate

RECEIVED
JAN 15 1957

INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

RECEIVED DEC 10 1956 DMEA

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek area, Smyth County, Virginia

## DRILLING COMPLETED

Seven holes with a total of 5,175 feet of diamond drilling have been completed on the Beaver Creek project. Since the last inspection date (November 16, 1956) hole No. BC-7 on the McAllester property was completed on reaching a depth of 511 feet. A trace of zinc mineralization occurs at a depth of 90 feet; from 216-216½, ½ foot is estimated to contain 1 percent zinc; and from 312-312½, ½ foot is estimated to contain 4 percent zinc.

Only non-commercial zinc mineralization has been discovered in the seven holes completed to date. No blank holes have been drilled.

## DRILLING IN PROGRESS

Hole No. BC-8 also located on the McAllester property, is currently drilling. It has reached a depth of 197 feet and has an estimated bottom depth of 500 feet. It was collared in the Chepultepec formation and is now in the Copper Ridge formation.

Inspected: November 30, 1956

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

Helmuth Wedow, Jr., Geologist
U. S. Geological Survey

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NOV 23 1956
D.M.E.A.

INTERIM REPORT

DMEA 4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Co., Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Six drill holes totaling 4,664 feet of diamond drilling have been completed on this project. One hole has been completed since the last interim report. A summary of this hole is as follows:

| Property & Hole No. | Depth | Remarks |
|---|---|---|
| D. R. Kestner - BC-6 | 859 | 9 ft. of esti. 1.5% Zn @ 445-454 ft |

Upon completion of Hole No. BC-6 the drill was moved to the Ray McAllester property where a hole is currently drilling. A summary of this hole is as follows:

| Property & Hole No. | Depth | Esti.depth | Remarks |
|---|---|---|---|
| McAllester -BC-7 | 15 | 475 | Collaring hole |

Of the 6 holes completed, all have revealed non-commercial zinc mineralization.

Inspected: November 16, 1956

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

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

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-

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

Month of November, 1956 Docket No. DMEA 4178 Contract No. 960

Operator's Name THE NEW JERSEY ZINC COMPANY Minerals Zinc

Address Austinville, Virginia

Contract Amount, $ 44,800.00 Government Participation: 50% Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 5510.30 | 7234.95 | 12,745.25 | 1/8/57 | WRA | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | 3.00 | | 3.00 | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances @ $0.53/ft | 1181.37 | 1561.38 | 2742.75 | | | |
| TOTALS | 6694.67 | 8796.33 | 15491.00 | 6694.67 | 8796.33 | 15491.00 |

RECEIVED DEC 17 1956 D.M.E.A.

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

Date 12/7/56 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per [signature] Title Superintendent

*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:

$ 3347.33

Signature [signature] (Authorized Certifying Officer)

Date DEC 14 1956 Vou. No. 93

(See other side)

3347.34

(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-960 in accordance with the terms of the contract.

Signature V. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date DEC 13 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Laurence Title EXECUTIVE OFFICER DMEA REGION V Date DEC 13 1956

# 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 DEC 17 1956

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

Month of November 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name THE NEW JERSEY ZINC COMPANY Minerals Zinc
Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT Units | AUTHORIZED BY CONTRACT Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | ft | 1650.00 | 750 | 12,745.25 | 5175 | 2.462 | 15000 | 2.45 |
| ~~Churn~~ 250-500 | ft | 1837.50 | 750 | | | | | |
| ~~Auger~~ 500-750 | ft | 1379.70 | 511 | | | | | |
| ~~Sub-drill~~ 750-1000 | ft | 643.10 | 218 | | | | | |
| Trenching | | | | | | | | |
| ~~Test Pits~~ Sample Assays | Sample | 3.00 | 3 | 3.00 | 3 | 1.00 | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances @ $0.53/ft | | 1181.37 | 2229 | 2742.75 | 5175 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 6694.67 | | 15491.00 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | 6694.67 | | 15491.00 | | | | 44,800.00 |

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 12/7/56 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Superintendent

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)

U. S. BUREAU OF MINES

## 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

Narrative - Beaver Creek Area - November 1956

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Hole number BC-5, which was collared in the Longview Formation, cut through the Chepultepec, and was bottomed in the Copper Ridge Formation, intercepted ore-grade mineralization. Two samples of core were assayed, a four (4) foot sample assaying 4.00 per cent zinc and a one (1) foot sample assaying 24.65 per cent zinc, for a total of five (5) feet averaging 8.13 per cent zinc. This zinc mineralization is at the expected ore zone in the Copper Ridge formation, at a depth of 435-440. A total of 659 feet was drilled in this hole.

Hole number BC-6 was collared in the Longview Formation, cut through the Chepultepec, and was bottomed in Copper Ridge formation. Nine (9) feet of mineralization was encountered at a depth of 445-454. Only three feet of core was recovered in the mineralized horizon. This mineralization, from the expected ore zone in the Copper Ridge formation, analyzed 1.81 per cent zinc. A total of 659 feet was drilled in this hole.

Since the mineralization in holes BC-5 and BC-6 was too thin to be commercial, it was decided by mutual agreement to recess the testing program on this property. By consent, testing was begun on the Ray McAllister property, which lies about two miles to the southwest.

Hole number BC-7, the southernmost hole on a proposed north-south fence of five (5) holes on the Ray McAllister property, was collared in the Chepultepec formation and bottomed in the Copper Ridge formation. Traces of zinc mineralization were found at 315 feet. This hole bottomed at a depth of 511 feet.

Diamond Drill Log - BC-5

Location: 800 feet south of BC-1

Elevation: 2370' ?  Incl: Vertical

Object: To test ground east of mineralization that crops out along Beaver Creek and is marked by a geochemical anomaly.

Results

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 1 | 1 | | Residual Clay |
| 1 | 89 | 88 | 84 | Light to medium gray fine grained dolomite, local diagenetic breccia, local partings local sandgrains. |
| 89 | 106 | 17 | 15 | Light medium gray fine grained limestone, abundant wavy partings. |
| 106 | 117 | 11 | 11 | Light gray fine grained dolomite, local diagenetic breccia, local partings. |
| 117 | 131 | 14 | 14 | Light to medium gray fine grained limestone, abundant wavy partings. |
| 131 | 320 | 189 | 186 | Light to medium gray fine grained dolomite local partings, local diagenetic breccia. |
| 320 | 378 | 58 | 58 | Light to medium gray fine grained limestone, local abundant wavy partings interbedded with dolomite, local sand grains. Chepultepec formation. |
| 378 | 435 | 57 | 55 | Light gray fine grained dolomite, local abundant sandgrains, local partings, local diagenetic breccia. Copper Ridge formation. |
| 435 | 440 | 5 | 5 | 8.13% Zn |
| 440 | 578 | 78 | 67 | Light to medium, local dark gray fine to saccharoidal dolomite, local sand grains, local partings local diagenetic breccia. |
| 578 | 696 | 118 | 107 | Light to medium gray fine grained dolomite, abundant sand grains, local quartzite, locally oolitic, local diagenetic breccia, local partings. |

BC-5 - Cont.

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 696 | 739 | 43 | 43 | Medium gray fine grained limestone, locally oolitic, locally dolomitic, abundant partings, local diagenetic breccia. |
| 739 | 759 | 20 | 20 | Medium gray fine grained dolomite, local sandgrains, local partings, fault zone 746-753. |
| 759 | 780 | 21 | 21 | Medium gray fine grained oolitic limestone, local thick partings. |
| 780 | 850 | 70 | 70 | Light gray fine grained dolomite local partings, local diagenetic breccia. |
| 850 | 852 | 2 | 2 | Silicified oolites in chert. |
| 852 | 859 | 7 | 7 | Medium gray fine grained dolomite, few thick partings. |
| | 859 | | | Bottom |

Diamond Drill Log - BC-6

Location: 1000 feet south of BC-1

Elevation: 2310 (?) Inclination: Vertical

Object: To test ground east of mineralization that crops out along Beaver Creek and is marked by a geochemical anomaly.

Results

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 84 | 84 | 0 | Overburden |
| 84 | 152 | 68 | 62 | Interbedded medium gray fine grained limestone with wavy partings and light to medium gray fine grained dolomite, local diagenetic breccia, partings. Presumably Longview formation. |
| 152 | 330 | 178 | 177 | Light to medium gray fine grained dolomite, partings, local diagenetic breccia, local chert, 189-190 fault zone. Trace ZnS @ 262. |
| 330 | 394 | 64 | 64 | Interbedded medium gray fine grained limestone with wavy partings and light to medium gray fine grained dolomite with partings, local diagenetic breccia, rare chert, presumable Chepultepec formation. |
| 394 | 445 | 51 | 47 | Light to medium gray fine grained dolomite, local abundant sand grains, few partings, Copper Ridge formation. |
| 445 | 454 | 9 | 3 | 1.8% Zn |
| 454 | 519 | 65 | 64 | Light to medium gray fine grained dolomite, local partings, locally oolitic local sandgrains. |
| 519 | 661 | 142 | 135 | Light to medium gray fine grained dolomite, local abundant sand grains, local quartzite beds fault zone 577-583. |
| 661 | 663 | 2 | 2 | Weak mineralization, estimated 0.5% Zn. |
| 663 | 694 | 31 | 29 | Light to medium gray fine grained dolomite, few sand grains, locally oolitic, local diagenetic breccia. |

BC-6 - Cont.

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 694 | 787 | 93 | 93 | Interbedded medium gray oolitic limestone and light to medium gray fine grained dolomite, partings local diagenetic breccia. |
| 787 | 854 | 67 | 66 | Medium gray fine dolomite, locally limy, locally oolitic local diagenetic breccia, partings. |
| 854 | 856 | 2 | 2 | Silicified oolites in chert. |
| 856 | 859 | 3 | 3 | Medium gray fine grained dolomite, partings. |
| | 859 | | | Bottom |

Diamond Drill Log - BC-7

Location: 900 feet west of Ray McAllister - R. G. McAllister corner on line with Olin-Mathieson mineral reservation.

Elevation: 2140 (?) Incl. Vertical

Object: To test for down dip extent of mineralization that crops out and is marked by a geochemical anomaly.

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Results

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 0 | 7 | 7 | | Overburden |
| 7 | 21 | 14 | 13 | Light to dark gray fine grained dolomite, abundant wavy partings, local sandgrains, Chepultepec formation. |
| 21 | 23 | 2 | 2 | Medium gray fine grained limestone, wavy partings. |
| 23 | 193 | 170 | 169 | Light to medium gray fine grained dolomite, local partings, local sand grains, Copper Ridge formation. |
| 193 | 197 | 4 | 4 | Quartzite |
| 197 | 212 | 15 | 15 | Light medium gray fine grained dolomite, local diagenetic breccia, partings. |
| 212 | 214 | 2 | 2 | Quartzite |
| 214 | 312 | 98 | 96 | Light to light medium gray fine grained dolomite, local diagenetic breccia, local sandgrains, partings. Trace ZnS 216-217. |
| 312 | 314 | 2 | 2 | Quartzite |
| 314 | 343 | 29 | 24 | Light to medium gray fine grained dolomite, local sandgrains, partings, local diagenetic breccia. Four inches ZnS at 315 Est. 3%. |
| 343 | 387 | 44 | 44 | Interbedded light to medium gray fine grained limestone, locally oolitic and light to medium gray fine grained dolomite, diagenetic breccia, partings. |

BC-7 - Cont.

| From | To | Dist | Recov | Description |
|---|---|---|---|---|
| 387 | 389 | 2 | 2 | Quartzite |
| 389 | 399 | 10 | 10 | Medium gray fine grained dolomite, abundant partings. |
| 399 | 402 | 3 | 3 | Medium gray fine grained limestone abundant oolites. |
| 402 | 464 | 62 | 62 | Light medium gray fine grained dolomite local sand grains, local diagenetic breccia, partings. |
| 464 | 511 | 47 | 47 | Medium gray fine grained dolomite, local diagenetic breccia, partings. |
| | 511 | | | Bottom |

X 1086 150M 9-52

COPY

Austinville, Va.
December 10, 1956

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: Beaver Creek, Virginia
Docket #DMEA 4178, Contract 960

Dear Sir:

Enclosed is our report on our DMEA contract for the Beaver Creek area for November.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

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U.S. Geologic Division
Knoxville, Tenn.

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INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Hole No.BC-6 was started since the last interim report and is still drilling. A summary of the hole follows:

| Hole No. & Prop. | Depth | Esti.depth | Remarks |
|---|---|---|---|
| BC-6 , Kestner | 556 | 875 | In Copper Ridge fm. Shines at 261 feet. |

On completion of Hole No. BC-6, the drill will be moved to the McAllester property on the west end of the project area.

The total footage in completed holes remains at 3805 ft.

Inspected: October 26, 1956

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

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INTERIM REPORT

DMEA-4178, Idm-E960 - Zinc

Operator: The New Jersey Zinc Company, Austinville, Va.

Location: Beaver Creek Area, Smyth County, Virginia

Five drill holes totalling 3805 feet have been completed to date. One hole was completed since the last interim. A summary of this hole follows:

| Hole No. & Property | Depth | Remarks |
|---|---|---|
| BC-5, D. R. Kestner | 859 | 435 to 440 ft. 8.13% Zn. No other mineralization noted. |

Only one drill in use at this project. It is now being moved to hole No. BC-6. All holes are being drilled to intersect a lower zone which is extensively mineralized in nearby areas.

The Ray McAllester property, at the west end of the project area was examined, and it was tentatively agreed to drill a fence of holes there after completion of the fence on the Kestner property.

Inspected: October 12, 1956

Robert A. Laurence, Geologist
U. S. Geological Survey

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

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4178

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT
Date 10 - 3

Referred to:

1. ~~Mr. Mittenhorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chandler~~
4. ~~Docket Control Mails and Files~~
5. Division
6. Docket Control Mails and Files

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert E. Adams

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# INTERIM REPORT

## DMEA-4178, Idm-E960 (Zinc)

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Three drill holes totaling 2146 feet have been completed on this contract. No holes have bottomed since the last interim report of August 31, 1956. In that report hole BC-3 was erroneously reported as having bottomed at 552 feet. It should have been 635 feet, thus changing the total footage drilled to date from 2063 to 2146 feet.

One hole is in progress. A summary of this hole is as follows:

| Hole No. & Property | Depth | Estim depth | Remarks |
|---|---|---|---|
| BC-4, D.R. Kestner | 754 | 800 | In Copper Ridge dolomite. |

Ore has not been discovered in any of the three completed holes, but all have revealed indicative non-commercial mineralization.

Inspected: September 14, 1956

Wm. A. Beck, Mining Engineer
U. S. Bureau of Mines

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K 83

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

Month of September, 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 44,800.00 Government Participation: 50% Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | 1985.00 | 5249.95 | 7234.95 | 11/14/56 | | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | | | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental Allowances per ft. $0.53/ft | 424.00 | 1137.38 | $1561.38 | | | |
| TOTALS | 2409.00 | 6387.33 | $8796.33 | 2409.00 | 6387.33 | 8796.33 |

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

Date 10/15/56 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per W. A. Albers Title Superintendent

*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:

$ 1204.50

Signature Helen R. Miller
(Authorized Certifying Officer)

Date NOV 5 1956 Vou. No. 83
(See other side)

1204.50

(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-960 in accordance with the terms of the contract.

Signature V. J. Lynch Title Mining Eng. Date 10-19-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Title EXECUTIVE OFFICER DMEA REGION V Date OCT 19 1956

## MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

## DEFENSE MINERALS EXPLORATION ADMINISTRATION

## OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT Units | AUTHORIZED BY CONTRACT Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core 0-250 | Ft | $550.00 | 250 | 7234.95 | 2946 | 2.456 | 15000 | $2.45 |
| ~~Chum~~ 250-500 | | 612.50 | 250 | | | | | |
| ~~Auger~~ 500-750 | | 675.00 | 250 | | | | | |
| ~~Stripping~~ 750-800 | | 147.50 | 50 | | | | | |
| Trenching | | | | | | | | |
| ~~Test Pit~~ Sample Assays | Sample | | | | | | 100 | $1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances | Ft | 424.00 | 800 | 1561.38 | 2946 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 2409.00 | 800 | 8796.33 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | | | | | | | $44,800.00 |

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 10/15/56 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

By W. L. Albers Title Superintendent

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)

V. J. Lynch
Bureau of Mines
10-19-56

## 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.

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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

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NOV 7 1956
D.M.E.A.

Narrative - September 1956

Beaver Creek Area, Smyth County, Virginia

BC-4, located 200 feet south of BC-3, encountered only traces of zinc mineralization. The hole was collared in the Longview formation, cut through the Chepultepec, and was bottomed in the Copper Ridge formation at a depth of 800 feet.

BC-5, located 200 feet south of BC-4, was incomplete at 493 feet as of this report date. However, 5 feet of mineralized ground (8.13 per cent zinc) was cut at 435-440 feet.

Quarterly summary - July-September, 1956

Drilling began July 12 in the Beaver Creek area. To date four holes totalling 2946 feet have been completed with only traces of zinc mineralization encountered in each hole. Only BC-5, which is incomplete, has cut ore-grade material (5 feet of 8.13 per cent Zn). Only one hole is planned on the present fence after the completion of BC-5, unless more mineralization is encountered.

The ore grade mineralization is in the Copper Ridge formation at apparently the same horizon as the surface mineralization.

Hole BC-1 was collared and bottomed in the Copper Ridge formation. BC-2 was collared in Chepultepec and bottomed in Copper Ridge. BC-3 and BC-4 were collared in Longview, cut the Chepultepec, and bottomed in Copper Ridge. BC-5 collared in Longview, cut the Chepultepec and is expected to bottom in Copper Ridge.

DIAMOND DRILL LOG - BC-4

Location: 600 feet south of BC-1

Elevation: (Approximate) 2390 Inclination: Vertical

Object: To test ground east of mineralization that crops out along Beaver Creek and is marked by a geochemical anomaly.

Results:

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 0 | 42 | 42 | 0 | Residual clay |
| 42 | 61 | 19 | 19 | Light gray fine grained dolomite, partings, local diagenetic breccia; probably Longview formation. |
| 61 | 66 | 5 | 5 | Light medium gray fine grained limestone, abundant wavy partings. |
| 66 | 257 | 191 | 188 | Light to medium gray fine to saccharoidal dolomite, local partings, local diagenetic preccia. 171-172 trace ZnS. |
| 257 | 320 | 63 | 63 | Interbedded medium gray fine grained limestone, wavy partings, and medium gray fine grained dolomite, local sand grains, Chepultepec formation. |
| 320 | 365 | 45 | 41 | Light to medium gray fine grained dolomite, local diagenetic breccia local partings, Copper Ridge formation 346 trace ZnS. |
| 365 | 456 | 91 | 73 | Light to medium gray fine grained dolomite, local sand grains, local abundant partings. 391 trace ZnS. |
| 456 | 459 | 3 | 3 | Quartzite |
| 459 | 477 | 18 | 13 | Light gray fine grained dolomite, few partings. |
| 477 | 497 | 20 | 18 | Light to medium gray fine grained dolomite, local abundant sand grains, few partings. |
| 497 | 499 | 2 | 2 | Quartzite |

DDH-BC-4 - Results - Cont.

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 499 | 584 | 85 | 83 | Medium gray fine to fine Saccharoidal dolomite, local diagenetic breccia, local partings. |
| 584 | 592 | 8 | 8 | Light to medium gray fine grained dolomite, local abundant sandgrains. |
| 592 | 597 | 5 | 5 | Quartzite |
| 597 | 604 | 7 | 7 | Medium gray fine grained dolomite abundant sandgrains. |
| 604 | 642 | 38 | 37 | Light to medium gray fine to fine saccharoidal dolomite, local wavy partings. |
| 642 | 684 | 42 | 42 | Interbedded medium gray oolitic limestone and fine grained medium gray dolomite, few partings. |
| 684 | 698 | 14 | 14 | Interbedded light gray fine grained dolomite, abundant sandgrains and quartzite. |
| 698 | 798 | 100 | 100 | Interbedded medium gray fine grained dolomite, local abundant sandgrains, local diagenetic breccia, local abundant partings. |
| 798 | 800 | 2 | 1 | Silicified oolites in chert. |
| | 800 | | | Bottom |

X-1086 150M

COPY

Austinville, Va.
October 15, 1956

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: Beaver Creek, Virginia
Docket #DMEA 4178 Contract #960

Dear Sir:

Enclosed is our report on our DMEA contract for Beaver Creek. We held this report over one extra day hoping to receive an additional invoice, but it did not arrive.

Very truly yours,

W. L. Albers,
Superintendent

WHoratioBrown/mjf
In quintuplicate

INTERIM REPORT

RECEIVED
OCT 3 1956

DMEA-4178, Idm-E960-Zinc

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Four drill holes totaling 2,946 feet have been completed on this contract. One hole has bottomed since the last interim report (Sept. 14, 1956). A summary of this hole follows:

| Hole No. & Prop. | Depth | Remarks |
|---|---|---|
| BC-4, D. R. Kestner | 800 | Trace of Zinc @ 172 ft. |

One hole is in progress. A summary of this hole is as follows:

| Hole No. & Prop. | Depth | Esti. depth | Remarks |
|---|---|---|---|
| BC-5, D. R. Kestner | 451 | 800 | In Copper Ridge dolomite. 5 ft of esti. 6% Zn @ 435-440 ft. |

Ore has not been discovered in any of the three completed holes, but all have revealed indicative non-commercial mineralization.

Inspected: September 28, 1956

Wm. A. Beck, Mining Engineer
U. S. Bureau of Mines

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INTERIM REPORT

DMEA-4178, Idm-E960 (zinc)

RECEIVED
SEP 6 1956

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Three drill holes totaling 2063' feet have been completed on this contract. One hole has bottomed since the last interim report (August 16, 1956). A summary of this hole follows:

| Hole No. and Property | Depth | Remarks |
|---|---|---|
| BC-3, D. R. Kestner | 552 | Scattered traces of sphalerite |

One hole is in progress. A summary of this hole is as follows:

| Hole No. and Property | Depth | Est. Depth | Remarks |
|---|---|---|---|
| BC-4, D. R. Kestner | 448 | 700 | Traces of sphalerite at 171, 346, 370, 380 and 402 ft. In Copper Ridge dolomite |

Ore has not been discovered in any of the three completed holes, but all have revealed indicative non-commercial mineralization.

Inspected: August 31, 1956

Wm. A. Beck, Mining Engineer
U. S. Bureau of Mines

D. H. Amos, Geologist
U. S. Geological Survey

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INTERIM REPORT

DMEA-4178, Idm-E960 (Zinc)

Operator: The New Jersey Zinc Co., Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Two drill holes totaling 1511 feet have been completed on this contract. One hole has been finished since the last interim report (7-24-56). A summary of this hole follows:

| Hole No. & Prop. | Depth | Remarks |
|---|---|---|
| BC-2,D.R.Kestner | 823 | Minor mineralization at 55-56 ft/ and 82 to 84 ft. |

One hole is currently in progress. A summary of this hole is as follows:

| Hole No. & Prop. | Depth | Esti Depth | Remarks |
|---|---|---|---|
| BC-3, D.R. Kestner | 437 | 550 | In upper part of Copper Ridge dolomite. |

Ore has not been discovered in either of the two holes completed to date, but both have revealed non-commercial mineralization.

Inspected: August 16, 1956

D. H. Amos, Geologist
U. S. G. S.

L. E. Shirley, Mining Engineer
U. S. B. M.

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Form MF-10.1 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS

# OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED SEP 24 1956

Month of August, 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 44,800.00 Government Participation: 50 % Amount, $ 22,400.00

| ITEMS OF COSTS | FOR OPERATOR'S USE: Monthly Total | Totals Previously Reported | Totals To Date | FOR GOVERNMENT USE ONLY: Approved Monthly Total | Approved Totals Previously Reported | Approved Totals To Date |
|---|---|---|---|---|---|---|
| (1) Independent Short Form Contracts: | | | | | | |
| Drilling | $5249.95 | None | $5249.95 | 10/1/56 | 20PK | |
| Bulldozing | | | | | | |
| Crosscutting | | | | | | |
| Drifting | | | | | | |
| (2) Labor and Supervision: | | | | | | |
| Labor | | | | | | |
| Supervision | | | | | | |
| Technical Services | | | | | | |
| (3) Operating Mat'ls. and Supplies: | | | | | | |
| Timber | | | | | | |
| Explosives | | | | | | |
| Pipe | | | | | | |
| Track | | | | | | |
| (4) Operating Equipment: | | | | | | |
| Rental | | | | | | |
| Purchase | | | | | | |
| Depreciation | | | | | | |
| (5) Initial Rehabilitation and Repairs | | | | | | |
| (6) New Bldgs., Improvements, etc. | | | | | | |
| (7) Miscellaneous: | | | | | | |
| Repairs to Equipment | | | | | | |
| Sampling and Analysis | | | | | | |
| Payroll Taxes | | | | | | |
| Liability Insurance | | | | | | |
| (8) Contingencies (specify): Incidental allowances per ft. @ $0.53/ft. | $1137.38 | None | 1137.38 | | | |
| TOTALS | $6387.33 | | $6387.33 | 6387.33 | — | 6387.33 |

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

Date 9/14/56 *Payee THE NEW JERSEY ZINC CO.

Per [signature] Title Supt.

*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:

$ 3193.66

Signature [signature]
(Authorized Certifying Officer)

Date SEP 21 1956 Vou. No. 49
(See other side)

3193.67

(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. IdmE960 in accordance with the terms of the contract.

Signature W. M. Beck Title Mining Engr USBM Date SEP 20 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date SEP 20 1956

# 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 DIF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 24 1956

# OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1956 Docket No. DMEA 4178 Contract No. 960
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

| OPERATION | UNIT | COSTS THIS MONTH | UNITS THIS MONTH | COSTS TO DATE | UNITS TO DATE | UNIT COSTS TO DATE | AUTHORIZED BY CONTRACT Units | AUTHORIZED BY CONTRACT Unit Costs |
|---|---|---|---|---|---|---|---|---|
| Drifting | | | | | | | | |
| Crosscutting | | | | | | | | |
| Raising | | | | | | | | |
| Shafts | | | | | | | | |
| Winzes | | | | | | | | |
| Drilling: Core | Ft | 5249.95 | 2146 | 5249.95 | 2146 | 2.446 | 15000 | $2.45 |
| Churn | | | | | | | | |
| Auger | | | | | | | | |
| Stripping | | | | | | | | |
| Trenching | | | | | | | | |
| ~~Misc~~ Sample Assays | Sample | | | | | | 100 | 1.00 |
| Roads and Trails | | | | | | | | |
| Incidental Allowances | Ft | 1137.38 | 2146 | 1137.38 | 2146 | 0.53 | 15000 | 0.53 |
| TOTAL DISTRIBUTED COSTS | | 6387.33 | 2146 | 6387.33 | | | | TOTAL COSTS AUTHORIZED BY CONTRACT |
| Operating Equipment Purchased | | | | | | | | |
| Initial Rehabilitation and Repairs | | | | | | | | |
| New Buildings, Improvements, etc. | | | | | | | | |
| TOTAL COSTS | | 6387.33 | | 6387.33 | | | | $44,800.00 |

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.

BERTHA MINERAL DIVISION
THE NEW JERSEY ZINC CO.

Date 9/19/56 Operator

Per [signature] Title Supt.

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)

W. A. Beck, Mining Engineer
USBM

SEP 20 1956

## INSTRUCTIONS

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

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

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

GPO 872894

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SEP 24 1956

(C) Narrative

Diamond drilling was begun July 12, 1956 in the Beaver Creek area of Smyth County, Virginia. The first hole to be drilled was the northernmost of the six holes shown on the DMEA application, and was designated BC-1. BC-1 was collared and bottomed in the Copper Ridge formation, and, as shown in the attached log of the hole, an interval of two feet of mineralized ground was encountered.

Hole BC-2, which is 200 feet south of BC-1, encountered one foot of weakly mineralized ground. BC-1 and BC-2 were drilled deeper than the known mineralized horizon in order to gain necessary stratigraphic information, and to test a deeper horizon that is known to carry mineralization at a nearby locality. BC-2 collared in the Chepultepec formation (mainly limestone) and bottomed in the Copper Ridge (see attached logs).

Hole BC-3, located 200 feet south of BC-2, encountered only scattered traces of mineralization. It was collared above the Chepultepec in dolomite and was bottomed in Copper Ridge.

Unless otherwise stated, the ground drilled is dolomite. Only slightly blocky ground and a few small caves are the only hazard to drilling. The structure of the area appears to be simple.

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SEP 24 1956

DIAMOND DRILL LOG - BC-1

Location: 300 feet south of Kestner-Worley corner on D. R. Kestner property.
Elevation: (Approximate) 2190 Inclination: Vertical
Object: To test for an assumed ore shoot pitching east from a geochemical anomaly and a mineralized outcrop.

Results:

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 0 | 9 | 9 | | Residual clay |
| 9 | 47 | 38 | 26 | Fine grained light to medium gray dolomite, abundant sand grains, locally abundant wavy partings. Copper Ridge formation. |
| 47 | 60 | 13 | 12 | Fine grained light gray dolomite, local abundant sand grains and quartzite. |
| 60 | 93 | 33 | 33 | Fine grained light to medium gray dolomite, partings, local diagenetic breccia. |
| 93 | 95 | 2 | 2 | Weak disseminated zinc mineralization, partially oxidized. Estimated less than 1%. |
| 95 | 141 | 46 | 42 | Light to medium gray fine grained dolomite, local abundant partings, locally oolitic, and local diagenetic breccia. |
| 141 | 146 | 5 | 5 | Quartzite |
| 146 | 199 | 53 | 53 | Medium gray fine grained dolomite, partings, locally oolitic. |
| 199 | 217 | 18 | 18 | Oolitic medium gray limestone |
| 217 | 260 | 43 | 42 | Medium gray fine grained dolomite, abundant partings, local diagenetic breccia, locally limy. |
| 260 | 276 | 16 | 15 | Medium gray fine grained limestone, abundant partings. |
| 276 | 345 | 69 | 69 | Medium gray fine grained dolomite abundant partings, locally oolitic, local diagenetic breccia. |

| From | To | Dist. | Recov. | |
|---|---|---|---|---|
| 345 | 346 | 1 | 1 | Silicified oolites in chert. |
| 346 | 392 | 46 | 40 | Medium gray fine grained dolomite, abundant partings, local diagenetic breccia, locally limy. |
| 392 | 404 | 12 | 4 | Fault zone with strong mylonite. |
| 404 | 438 | 34 | 34 | Medium gray fine grained dolomite, abundant partings. |
| 438 | 440 | 2 | 2 | Fault zone |
| 440 | 515 | 75 | 75 | Medium gray fine grained dolomite, partings, locally oolitic, local diagenetic breccia. |
| 515 | 520 | 5 | 5 | Light gray fine grained dolomite rare partings. |
| 520 | 569 | 49 | 49 | Medium gray fine grained dolomite abundant partings, local sand grains (547-549), local diagenetic breccia. |
| 569 | 579 | 10 | 10 | Straticulate bedded dolomite. |
| 579 | 581 | 2 | 1 | Fault zone |
| 581 | 688 | 107 | 105 | Light to medium gray fine grained dolomite, partings, locally oolitic, local diagenetic breccia, local straticulate bedding. |
| | 688 | | | Bottom |

RECEIVED
SEP 24 1956

DIAMOND DRILL LOG - BC-2

Location: 200 feet south of BC-1
Elevation: (Approximate) 2270 Inclination: Vertical
Object: To test for an assumed ore shoot pitching east from a geochemical anomaly and a mineralized outcrop.

Results:

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 0 | 23 | 23 | | Residual clay |
| 23 | 35 | 12 | 12 | Medium gray fine grained dolomite, local limestone, local abundant partings, sand grains. Apparently Chepultepec formation. |
| 35 | 55 | 20 | 20 | Light to medium gray fine grained dolomite, partings. Copper Ridge formation. |
| 55 | 56 | 1 | 1 | Weakly mineralized ground, traces sphalerite. |
| 56 | 82 | 26 | 16 | Light to medium gray fine grained dolomite local abundant partings, local sandgrains (74-82). |
| 82 | 84 | 2 | 2 | Weakly mineralized ground, traces sphalerite, partially oxidized. |
| 84 | 136 | 52 | 48 | Light gray fine grained dolomite, partings and local sand grains (109-120). |
| 136 | 173 | 37 | 36 | Light gray fine grained dolomite, rare thin partings, abundant sand grains. |
| 173 | 212 | 39 | 38 | Light to medium gray fine grained dolomite, partings, local sandgrains (189-205). |
| 212 | 214 | 2 | 2 | Quartzite |
| 214 | 298 | 84 | 78 | Light to medium gray fine grained dolomite, partings, local diagenetic breccia, local sand grains (277-286, 289-293). |
| 298 | 301 | 3 | 3 | Quartzite |
| 301 | 354 | 53 | 51 | Light to medium gray fine grained dolomite, partings, locally oolitic, local limestone. |
| 354 | 374 | 20 | 20 | Medium gray limestone, few oolites and rare stylolites. |

DDH - BC-2 - Results - Cont.

RECEIVED
SEP 24 1956

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 374 | 412 | 38 | 30 | Interbedded dolomite with shale partings, local sand grains (393-412) and limestone. |
| 412 | 424 | 12 | 8 | Medium gray fine grained limestone, abundant partings. |
| 424 | 495 | 71 | 71 | Medium gray fine grained dolomite abundant partings, local diagenetic breccia. |
| 495 | 497 | 2 | 2 | Silicified oolites. |
| 497 | 658 | 161 | 151 | Medium gray fine grained dolomite, locally abundant partings and local diagenetic breccia. |
| 658 | 664 | 6 | 6 | Light gray fine grained dolomite, rare thin partings. |
| 664 | 780 | 116 | 115 | Light to medium gray fine grained dolomite, local diagenetic breccia, local abundant partings. |
| 780 | 790 | 10 | 10 | Light gray fine saccharoidal dolomite, abundant wavy partings. |
| 790 | 823 | 33 | 23 | Light to medium gray fine grained dolomite, local diagenetic breccia, local partings. |
| | 823 | | | Bottom |

DIAMOND DRILL LOG - BC-3

RECEIVED
SEP 24 1956

Location: 200 feet south of BC-2
Elevation: (Approximate) 2350 Inclination: Vertical
Object: To test for an assumed ore shoot pitching east from a geochemical anomaly and a mineralized outcrop.

Results:

| From | To | Dist. | Recov. | Description |
|---|---|---|---|---|
| 0 | 47 | 47 | | Residual clay |
| 47 | 137 | 90 | 25 | Light to medium gray fine grained dolomite, local diagenetic breccia, partings, apparently Longview formation. |
| 137 | 183 | 46 | 38 | Interbedded medium gray fine grained limestone, wavy partings, and medium gray fine grained dolomite, partings Copper Ridge Formation. |
| 183 | 296 | 113 | 101 | Light to medium gray fine grained dolomite, local diagenetic breccia, partings. |
| 296 | 344 | 48 | 45 | Light to medium gray fine grained dolomite, local abundant sand grains, partings, diagenetic breccia. Rare trace sphalerite. |
| 344 | 346 | 2 | 2 | Quartzite. |
| 346 | 435 | 89 | 89 | Light to medium gray fine to saccharoidal dolomite, local abundant partings, locally oolitic very rare trace sphalerite. |
| 435 | 444 | 9 | 9 | Interbedded dolomite and quartzite. |
| 444 | 493 | 49 | 36 | Light to medium gray fine to saccharoidal dolomite, partings, local diagenetic breccia. |
| 493 | 511 | 18 | 7 | Medium gray oolitic limestone, local dolomite. |
| 511 | 531 | 20 | 16 | Light to medium gray dolomite, fine grained, locally oolitic, partings, local diagenetic breccia. |
| 531 | 535 | 4 | 4 | Quartzite |

DDH - BC 3 - Results - Cont.

| From | To | Dist | Recov. | Description |
|---|---|---|---|---|
| 535 | 551 | 16 | 14 | Medium gray fine grained dolomite, partings, local diagenetic breccia, locally limy. |
| 551 | 566 | 15 | 14 | Light to medium gray fine grained locally oolitic limestone, partings. |
| 566 | 635 | 69 | 67 | Light to medium gray fine grained dolomite, local diagenetic breccia, partings. |
| | 635 | | | Bottom |

RECEIVED
JUL 30 1956

# INTERIM REPORT

## DMEA-4178, Idm-E960 (Zinc)

Operator: The New Jersey Zinc Company, Austinville, Virginia

Location: Beaver Creek Area, Smyth County, Virginia

Work began under this contract July 12, 1956, when a drill was put in operation on the D. R. Kestner Property. To date one hole (designated as BC-1) having a depth of 688 feet has been completed (located at the northwestern-most proposed hole site in the northeastern fence shown on Fig.1. of the Operator's application).

A summary of this hole is as follows:

| Hole No. & Prop. | Depth | Remarks |
|---|---|---|
| BC-1, D. R. Kestner | 688 | Top of Copper Ridge dolomite at 12 ft.<br>Estimated 1% Zn at 93 to 95 ft.<br>Fault zone at 392 to 405 ft. |

The drill is currently being set up for the next hole (designated as BC-2) 200 feet southeast of BC-1.

Inspected: July 24, 1956

V. J. Lynch, Mining Engineer
Bureau of Mines

Dewey H. Amos, Geologist
Geological Survey

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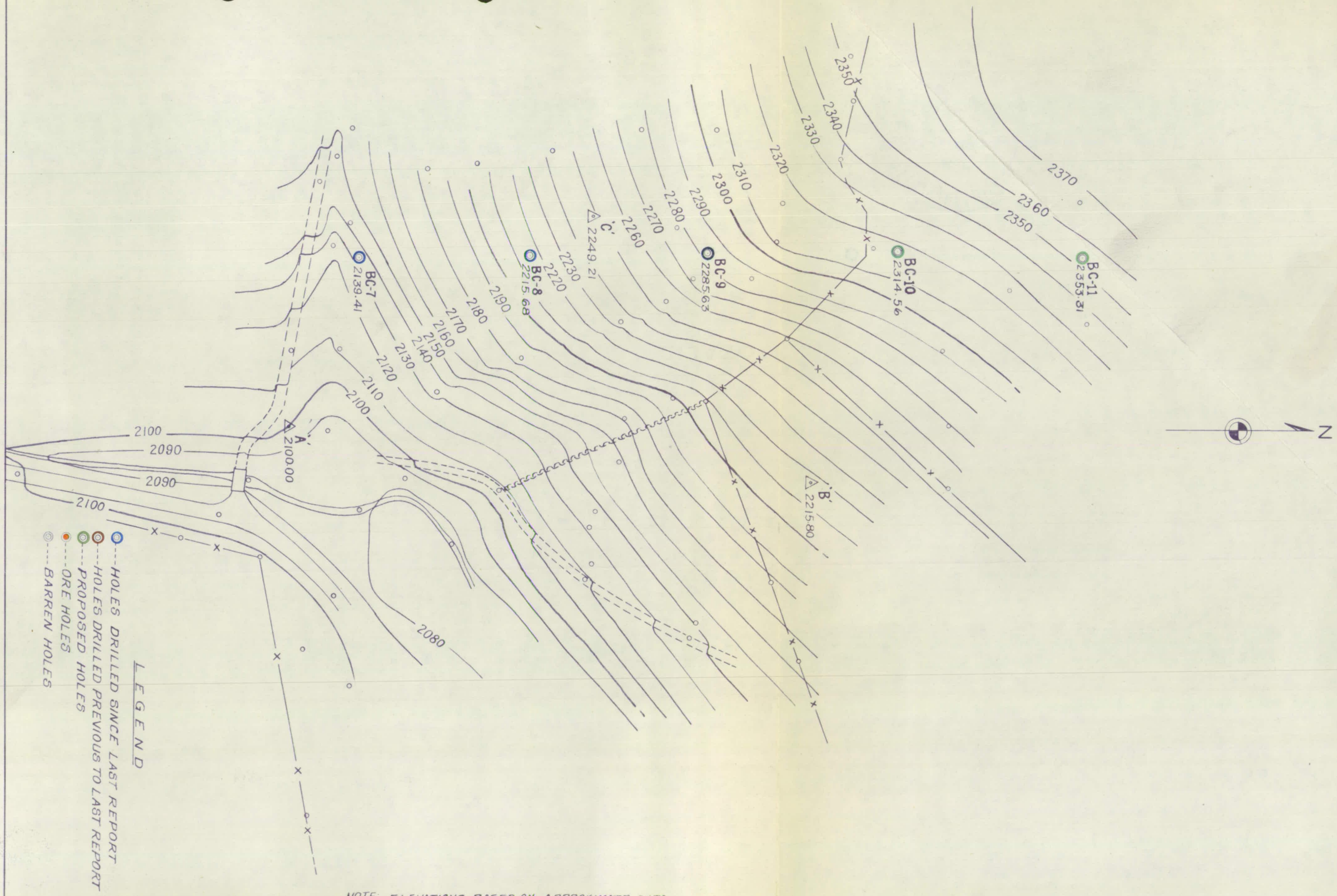


NOTE: ELEVATIONS BASED ON APPROXIMATE DATA

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY<br>AUSTINVILLE, VIRGINIA. | DRAWN DATE 12/13/56<br>TRACED E.E.F. SCALE 1"=100' | BEAVER CREEK AREA II | DISTRICT SMYTH COUNTY, VA.<br>FILE NO. |
|---|---|---|---|---|

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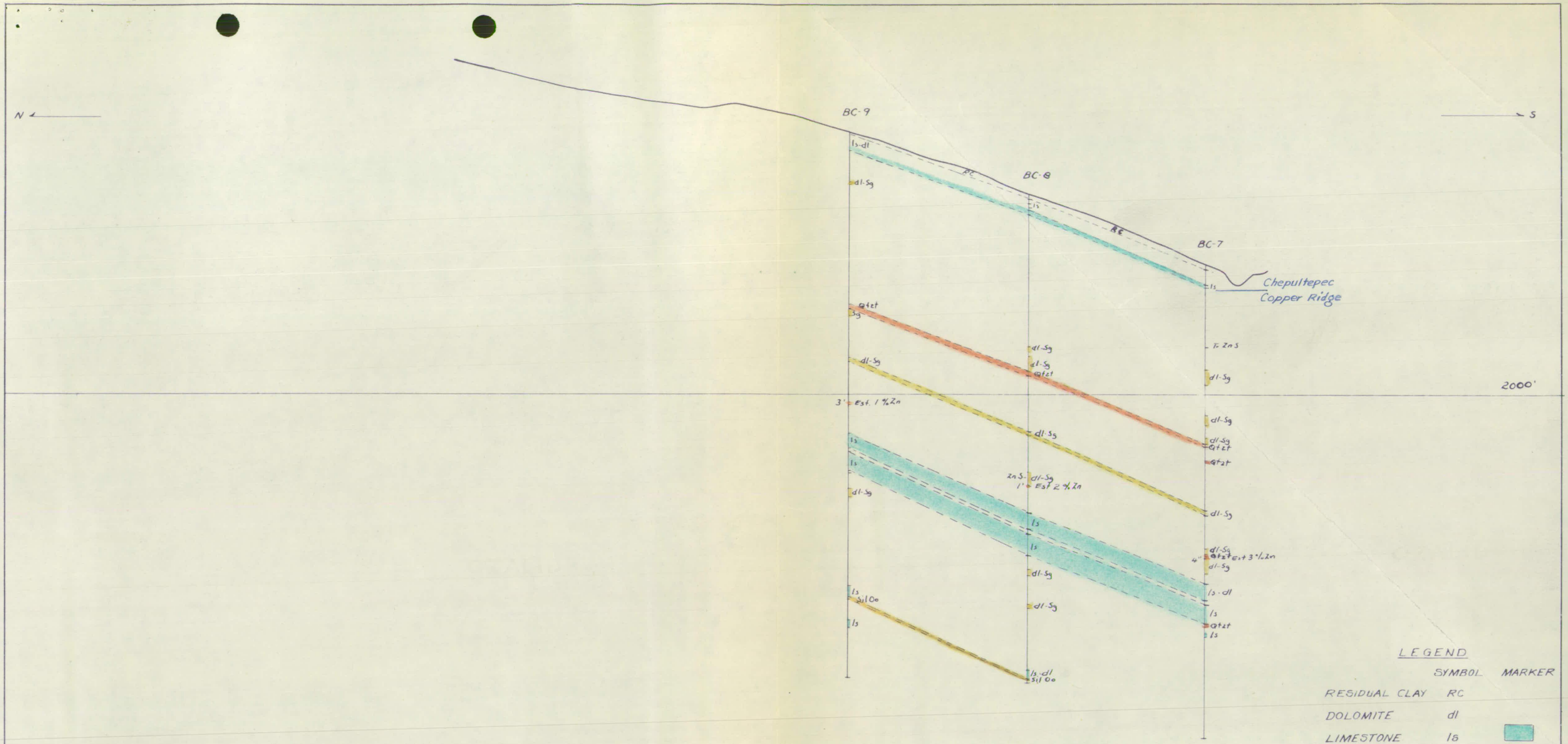


Note: Rock is dolomite unless otherwise indicated

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 1-3-57 TRACED SCALE 1"=100' | GEOLOGIC SECTION NO. II BEAVER CREEK | DISTRICT SMYTH COUNTY, VA. FILE NO. |
|---|---|---|---|---|

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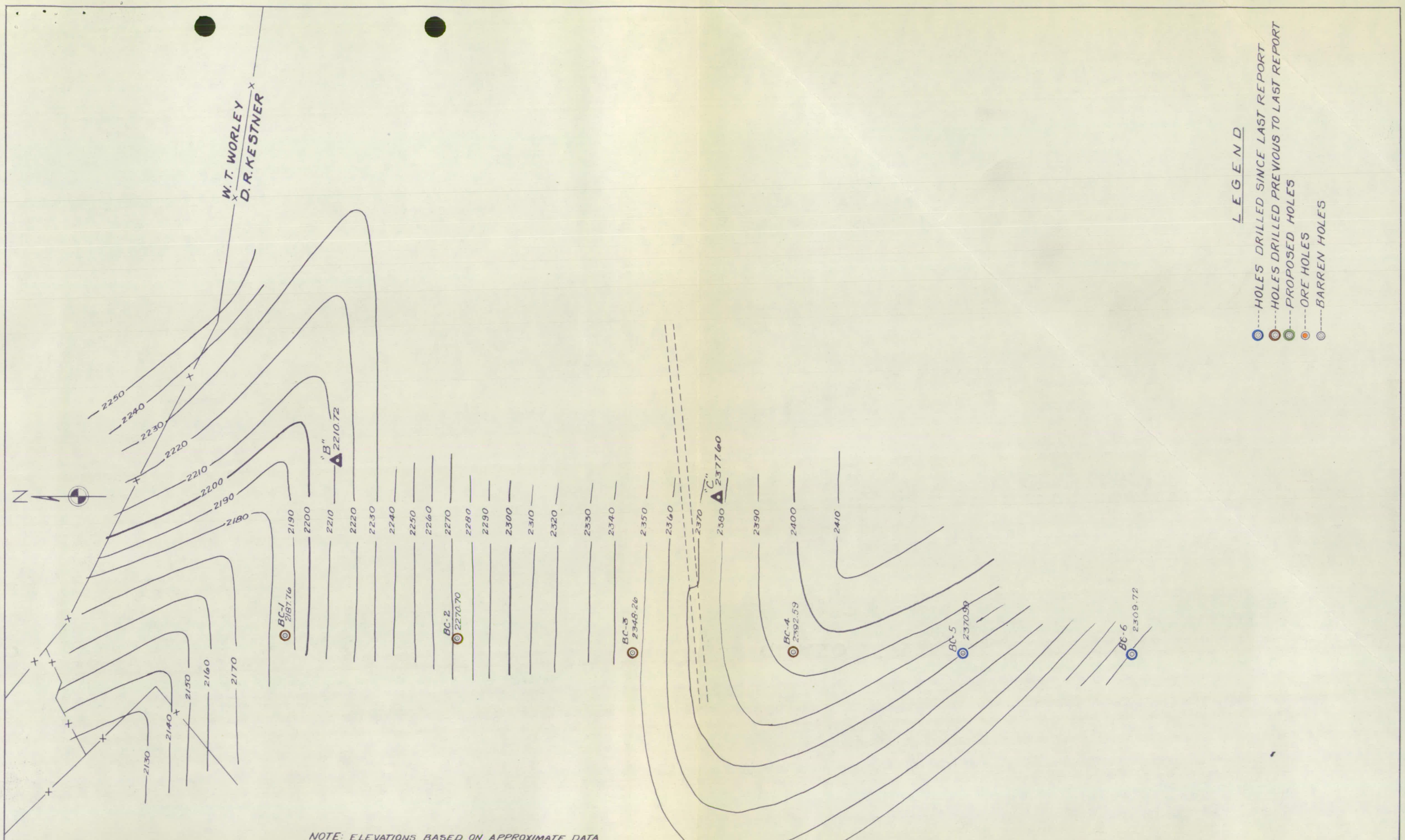
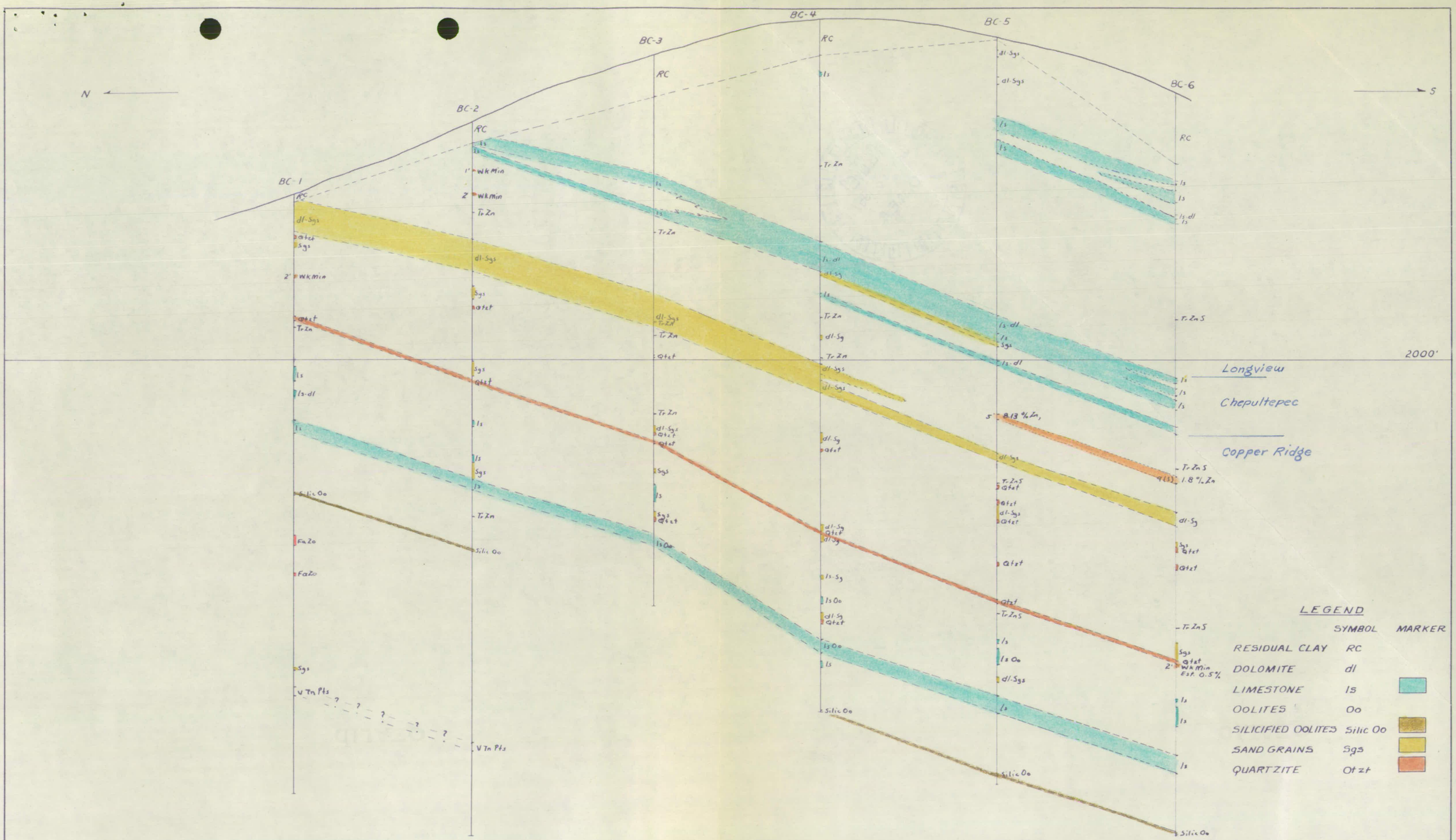



NOTE: ELEVATIONS BASED ON APPROXIMATE DATA

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY<br>AUSTINVILLE, VIRGINIA | DRAWN R.C.G. DATE 10/4/56<br>TRACED E.E.F. SCALE 1"=100' | BEAVER CREEK AREA I | DISTRICT SMYTH COUNTY, VA.<br>FILE NO. 7GB-4222 |
|---|---|---|---|---|

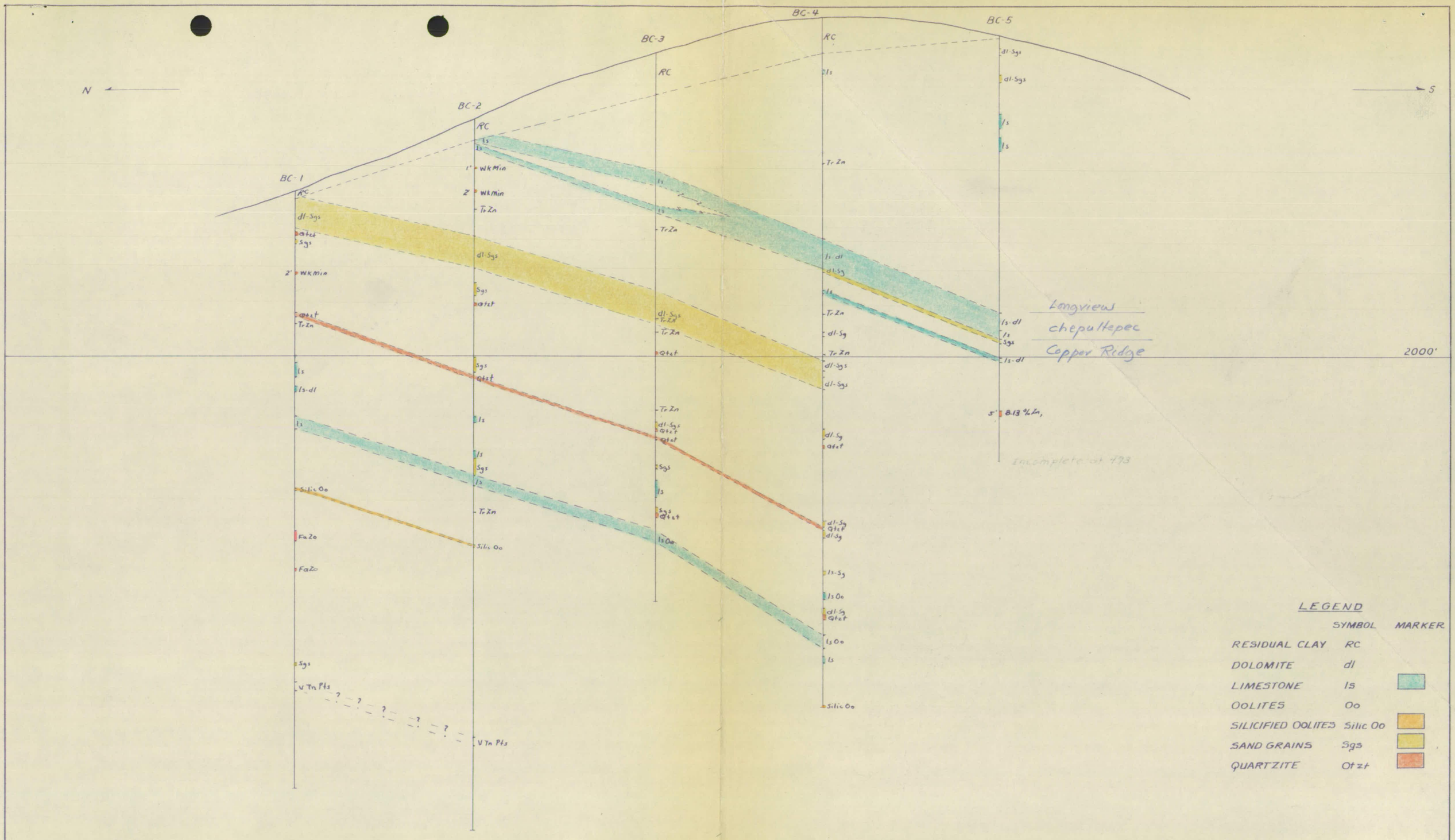
X 5407 B 1M 3-53




Note: Rock is dolomite unless otherwise indicated

| | | | | |
|---|---|---|---|---|
| POSTED TO DATE 12-4-56 | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 10-10-56 TRACED SCALE 1" = 100' | GEOLOGIC SECTION NO. I BEAVER CREEK | DISTRICT SMYTH COUNTY, VA. FILE NO. 7GB-4223 |

X 5407 B 1M 3-53




Note: Rock is dolomite unless otherwise indicated.

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 10-10-56 TRACED SCALE 1" = 100' | GEOLOGIC SECTION NO. 1 BEAVER CREEK | DISTRICT SMYTH COUNTY, VA. FILE NO. 7GB-4223 |
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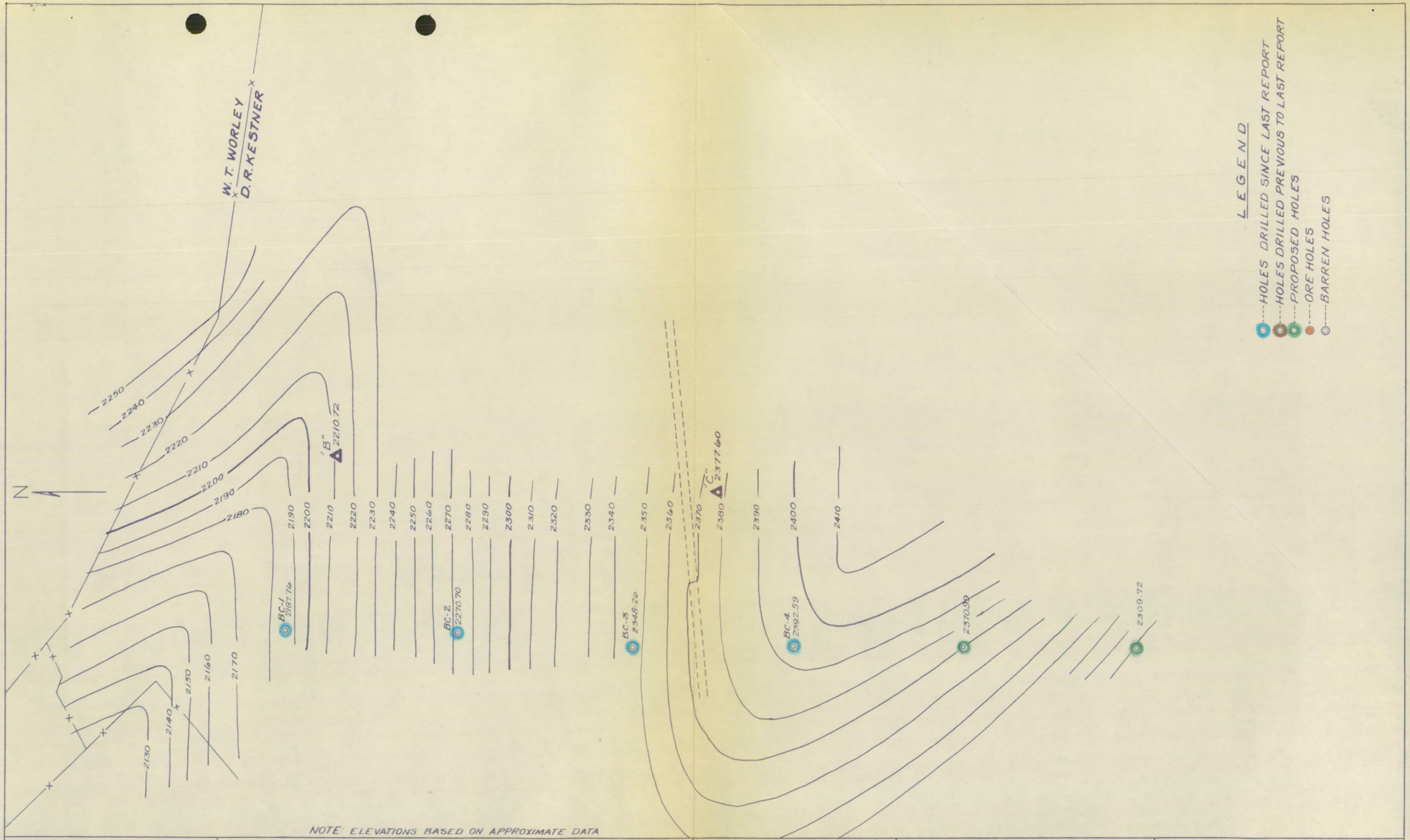


NOTE: ELEVATIONS BASED ON APPROXIMATE DATA

| POSTED TO DATE | THE NEW JERSEY ZINC COMPANY | DRAWN R.C.G. DATE 10/4/56 | BEAVER CREEK AREA | DISTRICT SMYTH COUNTY, VA. |
|---|---|---|---|---|
| | | TRACED E.E.F. SCALE 1" = 100' | | FILE NO. 7GB-4222 |

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