OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-21204, Docket DMEA-5008 (zinc-lead), dated June 12, 1958, with

The New Jersey Zinc Company
160 Front Street
New York 38, New York
and
Austinville, Virginia

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Chaffin Tract located in the Austinville Area of Wythe County, Virginia, during the period June 12, 1958, through July 1, 1960.

A certification of discovery or development was issued on March 15, 1960, and, in accordance with Article 8 and Annexes I and II of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 30 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated February 15, 1960, indicated accepted costs under the exploration contract amounting to $64,418.00 with the Government's contribution on a 50 percent basis being $32,209.00.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review established no sales subject to the Government's royalty for the period. Accordingly, as of July 1, 1960, the royalty account of this project was found to be:

Total Royalty Payable	$ -0-
Total Royalty Paid	-0-
Balance of Royalty Due	$ -0-

E. D. Talbert
E. D. Talbert, OME Auditor

June 12, 1962

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced for a maximum of 30 years from (1) the land thereunder and (2) any lands within 1500 feet thereof, if the Operator or any subsidiary acquires any interest therein before June 12, 1968. The term "minerals" includes limestone and dolomite products derived from processing ores.

At the time this contract was executed, the land thereunder consisted of a tract of 970 acres, more or less, known as the Chaffin Mineral Reservation and located in the Lead Mine District. The Operator owned all of the mineral rights and limited surface rights in the property.

Exploration work under the contract was completed on November 12, 1959. No minerals were produced during the exploration period. Examinations of the property and consultations with the Operator's officials disclosed no production thereafter through the period under review.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The files contain no evidence of production from the property under the contract during the period covered by this review; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible royalty which might be disclosed.

JUN 12 1962

Memorandum

To: Chief, Fiscal Section, Division of Administrative Services, Office of the Secretary

From: Chief, Division of Field Operations, OSE

Subject: DMEA-5088 (Zinc-Lead)
The New Jersey Zinc Company
Chaffin Tract
Wythe County, Virginia
Contract Idm-21204

Enclosed for your files is the original of a Report of Royalty Review on the subject contract.

George C. Selfridge

Enclosure

GCSelfridge/hb (6/12/62)
cc to: Docket DMEA-5088
Director's Reading File
CA&A Division
G.C.Selfridge
R. A. Laurence, USGS, Reg. IV, w/cy of Report of Royalty Review dtd 6/12/62 & orig. cy of memo dtd 6/12/62 to Chf., Div. of Field Operations from CA&A Division.
Avery Reed, USBM, Reg. IV, w/cy of en. item sent to Mr. Laurence.

Memorandum

To: Chief, Division of Field Operations

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMCA-5008 (Zinc-Lead)
The New Jersey Zinc Company
Chaffin Tract
Wythe County, Virginia
Contract Idm-21204

Enclosed are the original and two copies of a Report of Royalty Review covering the subject Region IV contract. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary; and

(b) Two copies to Region IV files.

This report is for OME record purposes only; therefore, no copy has been provided for the Operator.

As evidence of your concurrence, a copy of your memorandum transmitting the original of the report to the Department's Fiscal Section should be furnished this Division. If for any reason you do not concur, the original and both copies should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 6-12-62

cc:
Docket
Director's Reading File
CA & A Division
Mr. Rothrock

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

The New Jersey Zinc Company
Austinville, Virginia

pertaining to Exploration Project Contract No. 1Am-21304, DMEA No. 3008, including Amendments Nos. 1 and 2, for August 1958 to October 1959 inclusive, covering a zinc-lead project in the Austinville District, Wythe County, Virginia.

My review involved an examination of the Monthly Reports (Form MV-104) and supporting documents, comparison of the claimed costs with the contract and pertinent schedules, verification of work performed by reference to Field Team reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the reasons given in the attached schedule.

The findings of this review are stated in the following summary and the attached schedule:

Total cost billed by Operator			$44,323.75
Exceptions:			
Prior to this review	$139.75		
Less: Reinstatements	32.00	$107.75	
Herewith		-0-	107.75
Total acceptable cost			$44,216.00

The contract calls for a 50 percent contribution of the allowable costs by the Government. Therefore, if the project is otherwise accepted as having met the terms of the contract, payments as follows are valid and proper:

Payable on audited claim	$22,108.00
Paid to date	21,717.06
Balance due Operator	$ 391.94

E. D. Talbert, OME Auditor

February 15, 1960

Reasons for Report of Review in lieu of a final audit:

(a) the Monthly Reports were supported by documentary proof of that portion ($57,155.00) of the costs covering work performed at unit rates under independent contract, as well as the costs ($2,005.00) of assays and core boxes;
(b) the balance ($5,280.00) of the costs was under a contract provision for payment by the Government at fixed unit costs for work performed; and
(c) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible further disallowances.

Exceptions prior to this review:

(a) EX size core drilling in hole A-537 claimed at AX size unit costs, 451 feet @ $.25	$107.75
(b) Core boxes in excess of contract estimate, improperly disallowed as being in excess of contract maximum, reinstated by this review, 17 ea@ @ $2.50	42.50
	$150.25

Acceptable costs:

Category (1) Independent Contracts -				
Drilling, to 1,000' depth	15,365'	AX	@ $2.25	$34,571.25
	6'	EX	@ $2.00	12.00
1,000' - 1,500' depth	6,057'	AX	@ $2.50	15,082.50
	425'	EX	@ $2.25	956.25
over 1,500' depth	2,167'	AX	@ $3.00	6,501.00
Total (15 holes)	24,020'			57,155.00*
Category (7) Miscellaneous -				
Samples assayed	90 ea.		@ $2.00	180.00
Core boxes	730 ea.		@ $2.50	1,825.00
Incidental Allowance	24,000 ft.		@ $ .22	5,280.00
				$64,418.00

*Actual costs as invoiced by Joy Manufacturing Company:

Drilling - 0 - 1,000'	16,000'		@ $2.25	$36,000.00
1,000 - 1,500'	6,962'		@ $2.50	17,405.00
1,500 - 2,000'	2,072'		@ $3.00	6,216.00
over 2,000'	368'		@ $3.50	1,288.00
	25,402'			60,909.00

Idm-5117A The New Jersey Zinc Company [illegible]

Standby time	74 hrs.	@ $4.00	$ 592.00
Casing left in hole:			
NX casing	1,703'	@ $2.16	3,678.48
NX caps	2 ea.	@ $4.00	17.00
			$[illegible]

FEB 16 1960

Memorandum

To: Executive Officer, OMM Field Team, Region V

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. ~~MMA-1208~~ 5002 (Zinc)
The New Jersey Zinc Company
Chaffin Tract
Wythe County, Virginia
Contract No. ~~14s-2104~~

The original and three copies of a Report of Review on the subject project, as requested in your February 1 memorandum, are attached.

If you concur with the facts as stated therein, please forward the original and one copy to the regional certifying officer, submit one copy to the Operator, and retain one copy in your files. If for any reason you do not concur, please return the original and all copies to this Division with your comments.

The original of the Operator's certification as to the costs of assays and core boxes is being returned to Mrs. Miller, as an attachment to a copy of this memorandum, for filing with the final MP-104.

Attachments

EDTalbert/ama
February 16, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Mrs. Helen R. Miller
Mr. Talbert

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

P. O. BOX 217
NORRIS, TENNESSEE

February 12, 1960

Memorandum

To: E. D. Talbert, Office of Minerals Exploration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Norris, Tennessee

Subject: DMEA-5008, Idm-E1204 (Zinc), The New Jersey Zinc Company, Chaffin Tract, Wythe County, Virginia

With reference to your memorandum of February 8th and compliance with your request, a certification as to actual costs of sample assays and core boxes is attached hereto.

Helen Miller
Helen R. Miller

Attachment
/nbm
Norris files
Day files

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 15 1960

DATE	INITIALS	CODE
2-15	gad	220
		800

FEB 8 1960

VIA CERTIFIED MAIL

Memorandum

To: Mrs. Helen R. Miller, Administrative Assistant
Bureau of Mines, Region V

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. DMRA-5004 (Zinc-Lead)
The New Jersey Zinc Company
Chaffin Estate Tract
Wythe County, Virginia
Contract No. 14-[illegible]

Returned herewith are the original of the final (October 1959) MF-104 and MF-104A with attachments, together with the 18 drilling invoices and 14 laboratory reports applicable to prior forms MF-104.

The audit review, requested by your February 2 memorandum submitting the attached documents, has been performed. However, preparation of a Report of Review must be withheld pending your submission of documentary proof of the actual costs of the 795 core boxes and 90 sample sacks claimed by the Operator. Please obtain the required documentary evidence from the Operator and then submit it to this Division for completion of the Report of Review.

It is to be noted that the subject contract provides for contribution by the Government on the basis of the actual costs incurred for core boxes and sacks but not in excess of $2.50 for each box and $1.00 for each sample. Some other contracts with the same Operator (for instance, 14m-[illegible], DMRA-4007) provide for contribution by the Government on the basis of fixed unit costs for these items regardless of actual costs incurred.

Enclosures

EDTalbert/amm
February 5, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Laurence
Mr. Talbert

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

CERTIFIED MAIL

P. O. BOX 217
NORRIS, TENNESSEE

February 2, 1960

Memorandum

To: E. D. Talbert, Office of Minerals Exploration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Norris, Tennessee

Subject: DMEA-5008, Idm-E1205 (Zinc), New Jersey Zinc Company, Chaffin Tract, Wythe County, Virginia

A Report of Review in Lieu of Final Audit is requested on the subject contract. The following documents are attached hereto:

1. Original MF-104, 104A, and attachments covering final voucher

2. Letter from Acting Executive Officer, OME, Region V regarding completion of work and receipt of acceptable final engineering and geological report

3. Invoices covering previously paid vouchers (18 Joy Manufacturing Company's invoices and 14 Laboratory Sample Reports - total of 32)

Helen R. Miller
Helen R. Miller

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 5 1960

DATE	INITIALS	CODE
2/5	RCW	225
		800
		500
		225

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

ROOM 11 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 5 1960

DATE	INITIALS	CODE

February 1, 1960

Memorandum

To: Contract Administration and Audit Division, OME

From: Acting Executive Officer, OME - Region V

Subject: DMEA-5008, Idm-E1204(zinc) New Jersey Zinc Co. Chaffin Tract, Wythe County, Virginia

Work under the subject contract was completed November 12, 1959.

The number of units of work completed by the Operator and accepted by the Field Team as conforming to contract specifications were:

Diamond drilling:	24,000	feet
Core Boxes used :	730	
Samples analyzed:	90	

An acceptable final engineering and geological report has been received.

A total of $31,717.06 has been paid to the Operator to date and $470.68 has been withheld pending final audit or review.

The original copy of the October 1959 Monthly Report and Voucher is attached. A Report of Review in lieu of final audit is requested.

V. J. Lynch

F-104 (Rev.)
ril 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PASS ON VOUCHER & SCHEDULE OF PAYMENTS K-27

FEB 23 1960
O.M.E.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 195 9 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Va.
Contract Amount, $ 66,906 Government Participation: 50 % Amount, $ 33,453

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	834.75	56406.00	57240.75	834.75	56,298.25	57133.00
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	25.00	1800.00	1825.00	67.50	1757.50	1825.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		180.00	180.00	–	180.00	180.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $.22/ft.	81.62	5198.38	5280.00	81.62	5198.38	5280.00
TOTALS	941.37	63584.38	64525.75	983.87	63,434.13	64,418.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 11/12/59 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.
By [signature] Title Genl. 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:

$ 491.94

Signature Helen R. Muller
(Authorized Certifying Officer)

Date FEB 19 1960 Vou. No. 41
(See other side)

13 x 7 C 10/19/59 491.94

(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-1204 in accordance with the terms of the contract.

Signature W. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date FEB 1 1960

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date FEB 18 1960

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.

MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

FEB 23 1960
O.M.E.

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

Month of October 195 9 Docket No. DMEA 5008 Contract No. IDM-E-1204
Operator's Name The New Jersey Zinc Company Minerals Zinc, Lead
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 0-1000	Ft.	834.75	371	57240.75	24000	2.39	24000	2.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
xxxxx Sample Assay Spls				180.00	90	2.00	300	2.00
xxxxx Core Trays	Tray	25.00	10	1825.00	730	2.50	600	2.50
Incidental Allowances @ $.22/ft.		81.62	371	5280.00	24000	.22	24000	.22
Total Distributed Costs		941.37		64525.75				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		941.37		64525.75				66906.00

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 Nov. 12, 1959 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. Supt.

Remarks: Allowable costs incurred for Hole A-545.
$42.50 added to core trays See Report of Review.

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)

[signature]
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

CERTIFICATION

Re: Contract IDM-E-1204
Docket No. DMEA 5008 (Zinc-Lead)
Chaffin Estate Tract
Wythe County, Virginia

The assays of drill core samples were made in our laboratory and the core boxes were made in our shops.

I hereby certify that the actual costs, as indicated by our records, were as follows:

Assay Samples $3.00 each

Core Boxes $3.50 each

Bertha Mineral Division
THE NEW JERSEY ZINC CO.

J. E. Pritt

J. E. Pritt
Chief Accountant

February 11, 1960

In quintuplicate

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

November 12, 1959

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B, Post Office Building
Knoxville 2, Tennessee

Subject: October Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract
Austinville, Virginia

Dear Sir:

Attached is our October Monthly Report on the diamond drilling of the Chaffin Tract, Austinville, Virginia. This will be the last monthly report as the maximum footage, 24,000 feet, is reached herewith.

No narrative report or diamond drill logs are included, as those submitted in September (Quarterly) report were carried beyond the total maximum footage noted.

A Final Report for the project will be prepared shortly.

Very truly yours,

W. L. Albers
General Superintendent

RMK
RayMKnutson:rjl
In quintuplicate
Attachments

RECEIVED
NOV 16 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID OUTSTANDING VOUCHER & SCHEDULE
CHECK NO. K- 21

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September 195 9 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead

Address Austinville, Va.

Contract Amount, $ 66,906 Government Participation: 50 % Amount, $ 33,453

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:	4061.00	52345.00	56406.00			
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	130.00	1670.00	1800.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment		180.00	180.00			
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $.22/ft.	371.14	4827.24	5198.38			
					58,871.99	63,434.13 amd
TOTALS	~~4562.14~~	~~59022.24~~	~~63584.38~~	~~4562.14~~	~~59022.24~~	~~63584.38~~

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

Date 10/7/59 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Allen Title Genl. 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:

$ 2281.07

Signature Helen R. Miller
(Authorized Certifying Officer)

Date JAN 12 1960 Vou. No. 34
(See other side)

12 2281.07

(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-1204 in accordance with the terms of the contract.

Signature [signature] Title MINING ENGINEER U. S. BUREAU OF MINES Date JAN 11 1960

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date JAN 11 1960

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

JAN 14 1960
O.M.E.

Month of September 195 9 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead

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 0-1000	Ft.	2250.00	1000	56406.00	23629	2.39	24000	2.50
Churn 1000-1500	Ft.	1250.00	500					
Auger 1500-2000	Ft.	561.00	187					
Stripping								
Trenching								
Test Pits Sample Assay	Samp			180.00	90	2.00	300	2.00
Core Trays	Tray	130.00	52	1800.00	720	2.50	600	2.50
Roads and Trails								
Incidental Allowances @ $.22/Ft	Ft.	371.14	1687	5198.38	23629	.22	24000	.22
Total Distributed Costs		4562.14		63584.38				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								$66906.00

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 10/7/59 Operator Bertha Mineral Div. The New Jersey Zinc Co.

Per Nels Allersfgn Title Genl. Supt.

Remarks: Includes costs of A-544

→ 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)

R. 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 REPORT - CHAFFIN TRACT

Hole A-545 was incomplete at 714 feet at the beginning of the month. Blocky ground and a sand filled cavern caused slow drilling and the hole was at 1530 feet, barren and incomplete, at the end of the month.

Hole A-546 was incomplete at 45 feet the beginning of the month. It is now incomplete at 1986 and barren. The hole confirmed the presence of a large fault with about 1800 feet displacement.

QUARTERLY SUMMARY

During the quarter ending September 30, 1959, the following holes were completed with the results noted below:

Hole	Depth	Collar	Bottom	Results
A-542	2366	Post TM	Patterson	Barren
A-543	2002	Post TM	Austinville Dolomite	5' 1% Zn estimated
A-544	1687	Post TM	Patterson	Barren

DIAMOND DRILL LOG A-54

Location: Chaffin Area, Section 219, second hole on Exploratory Fence

1086 N 9139 E

Inclination: Vertical Elevation: 2158

Started: 8/7/59 Completed:

RESULTS

From	To	Dist	Recov.	Description
0	58	58	-	Red clay
58	172	108	108	Saccharoidal dolomite locally silicified. Much "soft rock" 144-156
172	173	1	1	Oxidized low grade
173	189	16	10	Strongly metamorphosed dolomite
189	203	14	4	Saccharoidal dolomite, much "soft rock"
203	209	6	4	Buff dolomite with sand grains
209	245	36	36	Fractured saccharoidal
245	253	8	4	Fractured, oxidized, mylonite, much "soft rock"
253	269	16	13	Same, "soft rock" @ 266
269	299	30	30	Saccharoidal
299	302	3	No Core	
302	380	78	78	Varied dolomites
380	389	9	9	Archie dolomite
389	411	22	22	Varied dolomites
411	415	4	4	Pseudo sand grains
415	431	16	2	Saccharoidal "soft rock"
431	455	24	24	Varied dolomites
455	489	34	34	Dense, pseudo sand grains
489	550	61	61	Varied dolomites
550	552	2	2	Mottled dolomite
552	570	18	8	Saccharoidal dolomite
570	589	19	18	Strong met dolomite
589	650	61	57	Varied dolomites
650	658	8	7	Shaly dolomite
658	714	56	56	Varied dolomites
714	896	168	159	Light grey dolomite
896	927	31	31	Strong met Arch Reef
927	939	12	11	Light grey dolomite
939	976	37	6	"Soft rock"
976	1011	35	31	Light grey dolomite
1011	1033	22	4	"Soft rock"
1033	1056	23	23	Light grey dolomite
1056	1058	2	1/2	Soft rock
1058	1092	34	31	Varied dolomite
1092	1120	28	25	Taylor Marker?

From	To	Dist.	Recov.	Description
1120	1138	18	18	Faint Mot Pseudo Sand Grains
1138	1228	84	84	Light grey dolomite
1228	1250	22	21	Arch
1250	1255	5	0	Cavity
1255	1357	102	92	Slight local strong metamorphism
1357	1360	3	3	Pseudo sand grains and sand grains
1360	1388	28	27	Varied dolomites
1388	1457	69	63	Slight local strong metamorphism
1457	1463	6	6	Arch
1463	1478	15	15	Saccharoidal stylolites
1478	1490	12	12	Strong metamorphism
1490	1500	10	10	Faint mottling
1500	1526	26	26	Ribbony ellips Black Rock?
1526	1530	4	4	Light grey dolomite

DIAMOND DRILL LOG A-546

Location: Chaffin Area, Section 181, Hole in Exploratory Fence

1761 S 9297 E

Inclination: Vertical Elevation: 2107

Started: 8/31/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	12	12		Red clay
12	45	33	32	Breccia with varied fragments
45	48½	3½	0	Cavity
48½	91	42½	42	Limestone and dolomite
91	119	28	28	Interbed limestone & shale
119	152	33	33	Diagenetic breccia
152	211	59	59	Strong metamorphism
211	361	150	150	Interbed shale & limestone breccia
361	463	102	102	Varied dolomites
463	550	87	87	Dolomites paint type mottling
550	649	99	99	Varied dolomites
649	666	17	17	Limestone & dolomite ellips & shale partings
666	768	102	102	Varied dolomite
768	797	29	29	Abundant Arch Mottled Marker
797	879	82	82	Varied dolomite
879	920	41	41	Bleached diagenetic breccia - top of Patterson or Ribbon
920	1240	320	319	Bleached banded and ribbony
1240	1354	114	114	Poor ellips
1354	1376	22	22	Banded ribbony
1376	1563	197	197	Ellips ribbony limestone
1563	1594	31	31	Same with peripheral oolites
1594	1654	60	60	Inter limestone & dolomites, pyrite mineralization
1654	1662	8	8	Mylonite, Fault
1662	1708	46	46	Ellips, sheared & dragged
1708	1712	4	4	Saccharoidal, mylonite, fault
1712	1721	9	9	Sheared and dragged
1721	1775	54	54	Saccharoidal mylonite, fault
1775	1970	195	195	Inter shale and limestone breccia
1970	1986	16	16	Varied dolomites

Recorded

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

Budget Bureau No. 42-R1036.5

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

PAID ON VOUCHER & SCHED OF PAYMENTS ⓚ- 9

Month of August, 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Va.
Contract Amount, $ 66,906 Government Participation: 50 % Amount, $ 33,453

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	5006.00	47339.00	52345.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	155.00	1515.00	1670.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	--	180.00	180.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allow. @ $.22/ft.	440.44	4386.80	4827.24			
					53,270.55	58,871.99
TOTALS	5601.44	53420.80	59022.24	5601.44	53,420.80	59,022.24

SEP 14 1959 O.M.E.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 9/4/59 *Payee Bertha Mineral Division ~~THE NEW JERSEY ZINC CO.~~
Per [signature] Title Genl. 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:
$ 2800.72
Signature Helen R. Miller (Authorized Certifying Officer)
Date SEP 10 1959 Vou. No. 14
(See other side)

11 2800.72

(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-1204 in accordance with the terms of the contract.

Signature [signature] Title U. S. BUREAU OF MINES Date SEP 9 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date SEP 9 1959

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
JLM

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195 9 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
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 0-1000	Ft.	2250.00	1000	52345.00	21942	2.39	24000	2.50
Chum 1000-1500	Ft.	1250.00	500					
Auger 1500-2000	Ft.	1500.00	500					
~~Stripping~~ 2000-2500	Ft.	6.00	2					
~~Dressing~~ Sample Assay	Samp			180.00	180	2.00	300	2.00
~~Test Pits~~ Core Trays	Trays	155.00	62	1670.00	668	2.50	600	2.50
Roads and Trails								
Incidental Allow. @ $.22/ft.	Ft.	440.44	2002	4827.24	21942	0.22	24000	.22
Total Distributed Costs		5601.44		59022.24				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								$66,906.00

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 9/4/59 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. Supt.

Remarks: Includes costs of A-543

→ 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)

[signature]
GEOLOGIST, U. S. G. S.
SEP 9 '59

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 - CHAFFIN PROJECT

Hole A-543 on Section 219 was incomplete at 1908 feet at the beginning of the month. The hole was bottomed at 2002. No additional mineralization was discovered.

Hole A-544 was collared 1600 feet down dip from A-542 on Section 181. This hole penetrated a shale interbedded with breccia about 150 feet thick in the upper part of the hole. The shale zone was repeated by a fault. Three hundred and forty-one feet below the shale an Archie reef is correlated with the Mottled Marker. The bed 116 feet below the Mottled Marker is tentatively correlated with the top of the Ribbon. The Ribbon is made up of bleached ribbony beds, bleached diagenetic breccia beds, and typical ellipsoidal limestone. The hole was bottomed at 1687 feet in the Ribbon.

Although the correlations are not firm, this hole seems to indicate a reverse fault between A-544 and A-542 with the order of 1800 feet displacement. The presence of the Ribbon at 1272 indicates that the country south of the fault is relatively shallow and drillable.

Hole A-545 was collared 820 feet northwest of A-543 on Section 219. The hole has been in nondescript grey dolomite of Malden type and no definite markers have been observed. It was incomplete at 714 feet the end of the month.

Hole A-546 was collared half way between A-542 and A-544 which are 1600 feet apart. It was down 45 feet in sedimentary breccia the end of the month.

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
AUG 19 1959
OMPTROLLER OF PAYMENTS R-5

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July 1959 Docket No. DMEA 5008 Contract No. O.M.E. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc & Lead
Address Austinville, Virginia
Contract Amount, $ 66,906 Government Participation: ____ % Amount $ 53,453

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	6098.00	41,241.00	47339.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	190.00	1,325.00	1515.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	-	180.00	180.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $.22/ft.	520.52	3,866.28	4386.80			
				6808.52	46,462.03	53,270.55 amn
TOTALS	6808.52	46,612.28	53420.80	~~[illegible]~~	46612.28	53420.80

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

Date 8/10/59 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per [signature] Title General 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:

$ 3404.26

Signature Helen R. Miller (Authorized Certifying Officer)

Date AUG 17 1959 Vou. No. 7

(See other side)

3404.26

(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-1204 in accordance with the terms of the contract.

Signature R. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date AUG 11 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date AUG 11 1959

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

AUG 19 1959
O.M.E.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead
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 0-1000	Ft	2250.00	1000	47339.00	19940	2.37	24000	2.50
Churn 1000-1500	Ft	1250.00	500					
Auger 1500-2000	Ft	1500.00	500					
~~Stripping~~ 2000-2500	Ft	1098.00	366					
~~Trenching~~ Sample Assay	Sample	-	-	180.00	91	2.00	300	2.00
~~Test Pits~~ Core Trays	Trays	190.00	76	1515.00	606	2.50	600	2.50
Roads and Trails								
Incidental Allow. @ $.22/ft	Ft	520.52	2366	4386.80	19940	.22	24000	.22
Total Distributed Costs		6808.52		53420.80				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		6808.52		53420.80				$66,906

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

Remarks: Includes costs of A-542

Date 8/10/59 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title General 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)

(For Government use only)

[signature]
GEOLOGIST, U. S. G. S.
AUG 11 '59

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 - CHAFFIN PROJECT

Hole A-542, on Section 181, which was incomplete at 1711 feet last month was bottomed at 2366 feet. No mineralization was encountered in the hole. Due to facie changes, correlations with the holes up dip were difficult. Two quite different beds, one metamorphosed, were suspected of being the Mottled Marker. The hole was carried 150 feet below the lower bed.

Hole A-543, on Section 219, which was incomplete at 366 feet last month was still incomplete at 1908 feet the end of the month. An Archie reef practically identical with that at Fossil Point was penetrated from 1320 to 1377. One foot of estimated 3% Zn was encountered between 1443 and 1444 and five feet of estimated 1% Zn 1578 to 1583. The Mottled Marker was encountered from 1832 to 1847.

Hole A-544 was spotted 1600 feet down dip from A-542 on Section 181 at tentative location "G" shown on the map forwarded last month. This location was chosen to get on the upthrow side of a suspected fault near location "F" and to avoid hitting the fault. The hole has encountered typical upper horizon material including a total of 134 feet of black shale. It was incomplete at 398 feet the end of the month.

DIAMOND DRILL LOG - A-542

Location: Chaffin Area, Section 181, 1600 ft. Down Dip from A-530

S 1191 E 8728

Inclination: Vertical Elevation: 2105

Started: 6/1/59 Completed: 7/15/59

RESULTS

From	To	Dist.	Recov.	Description
0	10	10	0	Red clay
10	85	75	75	Mud flakes, Pseudo sand grains, Oolites, Mass dolomite
85	87	2	2	Mylonite, Fault
87	186	99	99	Mud flakes, Oolites, Pseudo sand grains, Occasional Archies
186	195	9	9	Black augen, mud flakes, occasional archies
195	293	98	98	Black augen, Abundant archies
293	296	3	3	Thin bedded dark gray
296	330	34	34	Diagenetic breccia, mud flakes, Pseudo sand grains, Oolites
330	414	84	84	Mud flakes, Pseudo sand grains, Oolites, Massive
414	423	9	9	Archies and augen
423	451	28	28	Black augen and thin bedded
451	459	8	8	Archies
459	470	11	11	Saccharoidal dolomite
470	534	64	64	Diagenetic breccia, pseudo sand grains & Mud flakes
534	566	32	32	Black augen and bleached black
566	600	34	34	Pseudo sand grains and Oolite, Massive
600	604	4	4	Shear zone, fault
604	610	6	6	Pseudo sand grains and oolites
610	612	2	2	Shaly dolomite
612	641	29	29	Miscl. dolomites
641	697	56	56	Pseudo sand grains, massive
697	754	57	57	Diagenetic mottling
754	768	14	14	Abundant oolites, local archies
768	810	42	42	Abundant pisolites and oolites
810	811	1	1	Shaly dolomite
811	831	20	20	Diagenetic breccia, black augen
831	862	31	31	Massive, mud flakes, local banding
862	1027	165	165	Miscl., Mottled, diagenetic breccia, etc.
1027	1040	13	13	Pseudo sand grains and oolites
1040	1125	85	85	Diagenetic breccia, oolites, pseudo sand grains and black augen
1125	1139	14	14	Limestone diagenetic breccia
1139	1161	22	22	Dolomite diagenetic breccia

From	To	Dist.	Recov.	
1161	1163	2	2	Shear zone, fault
1163	1222	59	59	Bleached black augen
1222	1232	10	10	Mass locally bedded
1232	1332	100	100	Bleached black augen and diagenetic breccia
1332	1356	24	24	Bedded limestone, oolites in bedding
1356	1365	9	9	Banded dolomite
1365	1391	26	26	Fault, Mylonite, Shear
1391	1408	17	17	Saccharoidal dolomite
1408	1490	92	92	Banded straight bands
1490	1514	24	24	Interbedded shale and diagenetic breccia
1514	1564	50	50	Mass limestone
1564	1671	107	107	Interbedded limestone and shale
1671	1707	36	36	Massive limestone
1707	1712	5	5	Mass dolomite pseudo sand grains
1712	1759	47	47	Saccharoidal dolomite
1759	1799	40	40	Strongly metamorphosed Mottled Marker?
1799	1812	13	13	Limestone, composite shale partings
1812	1857	45	45	Shale partings and stylolites
1857	1878	21	21	Metamorphosed dolomite
1878	1934	56	56	Pseudo sand grains, shale partings and composite shale partings
1934	1958	24	24	Mottled bed
1958	1983	25	25	Coarse banded split by one foot Shaly Bed
1983	2005	22	21	Dense locally mottled
2005	2019	14	14	Strongly metamorphosed
2019	2050	31	31	Ribbony shale partings
2050	2059	9	9	Saccharoidal dolomite
2059	2070	11	11	Ribbony ellipsoidal limestone
2070	2089	19	19	Locally banded, locally ribbony
2089	2105	16	16	Strongly metamorphosed dolomite
2105	2152	47	47	Mottled and ribbony locally limestone
2152	2209	57	57	Mottled Marker?
2209	2262	53	53	Ribbony limestone and dolomite
2262	2276	14	14	Dense stylolites and shale partings
2276	2309	37	37	Saccharoidal banded at top
2309	2330	21	21	Dense, archies
2330	2366	36	36	Dense stylolites and shale partings

BOTTOM

DIAMOND DRILL LOG - A-543

Location: Chaffin Area, Section 219, First Hole on Exploratory Fence

506 N 9718 E

Inclination: Vertical Elevation: 2105

Started: 6/24/59 Completed: 8/5/59

RESULTS

From	To	Dist.	Recov.	
0	53	53	0	Red clay
53	217	164	164	Varied detrital dolomites
217	252	35	35	Bleached black augen
252	264	12	12	Slightly metamorphosed dolomite
264	313	49	49	Bleached black augen
313	314	1	1	Mass solid oolites
314	330	16	16	Coarse saccharoidal dolomite
330	334	4	4	Black composite shale partings
334	411	77	77	Miscl. dolomites
411	412	1	1	Composite shale partings
412	416	4	4	Strongly metamorphosed dolomite
416	432	16	16	Breccia, Pseudo sand grains, composite shale partings
432	481	49	49	Black augen and bleached
481	483	2	2	Oolite rock
483	520	37	37	Mud flakes and pseudo sand grains
520	530	10	10	Strongly metamorphosed dolomite
530	647	117	117	Breccia, mud flakes and pseudo sand grains
647	676	29	29	Strongly metamorphosed dolomite
676	740	64	64	Black augen and bleached black
740	759	19	19	Fault zone, mylonite
759	791	32	32	Black augen and bleached black
791	803	12	12	Strongly metamorphosed dolomite
803	854	51	50	Dense and saccharoidal dolomite
854	881	27	25	Saccharoidal, composite shale partings top and bottom
881	934	53	53	Saccharoidal and breccia
934	942	8	8	Archies
942	962	20	20	Shale partings and composite shale partings
962	988	26	26	Saccharoidal
988	991	3	3	Fault
991	1078	87	87	Black augen and bleached
1078	1094	16	16	Abundant pseudo sand grains
1094	1098	4	4	Fault
1098	1320	222	222	Local stylolites and shale partings
1320	1377	57	57	Archie reef, limestone and dolomite

From	To	Dist.	Recov.	Description
1377	1404	27	27	Ribbony limestone
1404	1466	62	62	Stylolites and pseudo sand grains One foot of estimated 3% 1443 to 1444
1466	1472	6	6	Banded mottling
1472	1489	17	17	Ribbony limestone
1489	1578	89	89	Saccharoidal limestone
1578	1583	5	5	Low grade estimated 1% Zn
1583	1626	43	43	Saccharoidal dolomite
1626	1636	10	10	Dense limestone
1636	1644	8	8	Mottled dolomite
1644	1654	10	6	Saccharoidal dolomite
1654	1670	16	16	Archie limestone
1670	1694	24	24	Ribbony limestone
1694	1712	18	18	Shale partings and composite shale parting limestone
1712	1729	17	17	Archie limestone
1729	1739	10	10	Composite shale parting limestone
1739	1764	25	25	Dense limestone
1764	1785	21	21	Ribbony and composite shale partings limestone
1785	1796	11	11	Archie and mottled limestone
1796	1799	3	3	Archie and mottled dolomite
1799	1832	33	33	Highly fractured dolomite fault
1832	1847	15	15	Mottled Marker?
1847	1884	35	35	Stylolites and mottled dolomite
1884	1908	24	24	Composite shale partings, dolomite

DIAMOND DRILL LOG A-544

Location: Chaffin Tract, 1600 ft. down dip from A-542 on Section 181

2322 S 9860 E

Inclination: Vertical Elevation: 2139

Started: 7/18/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	32	32	0	Red clay
32	103	71	71	Saccharoidal dolomite
103	121	18	18	Massive Oolite rock
121	144	23	23	Massive mud flakes and pseudo sand grains
144	233	89	78	Limestone edgewise conglomerate
233	318	85	85	Black shale
318	339	21	21	Limestone edgewise conglomerate
339	388	49	49	Black shale
389	398	9	9	Saccharoidal sandy dolomite

Incomplete

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

August 7, 1959

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B, Post Office Building
Knoxville 2, Tennessee

Subject: July Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract
Austinville, Virginia

Dear Sir:

Attached is our July Monthly Report on the diamond drilling of the Chaffin Tract, Austinville, Virginia.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:lmc
In quintuplicate
Attachment

RECEIVED
AUG 11 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

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

Budget Bureau No. 42-R1036.5

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

PAID OR VOUCHER & SCHEDULE OF PAYMENTS K-

JUL 20 1959 O.M.E.

Month of June 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead
Address Austinville, Virginia
Contract Amount, $ 66,906 Government Participation: ____% Amount, $ 33,453

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	7838.50	33402.50	41,241.00	7838.50	33,294.75	41,133.25
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	282.50	1042.50	1,325.00	282.50	1000.00	1282.50
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	26.00	154.00	180.00	26.00	154.00	180.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $.22/Ft	725.56	3140.72	3,866.28	725.56	3140.72	3866.28
TOTALS	8872.56	37739.72	46,612.28	8872.56	37,589.47	46,462.03

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

Date 7/9/59 *Payee Bertha Mineral Division The New Jersey Zinc Company

Per [signature] Title General 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:

$ 4436.28

Signature [signature] (Authorized Certifying Officer)

Date JUL 17 1959 Vou. No. 2

(See other side)

4436.28

(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-1204 in accordance with the terms of the contract.

Signature [signature] Title GEOLOGIST, U. S. G. S. Date JUL 13 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [signature] Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date JUL 13 1959

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

JUL 20 1959 O.M.E.

Month of June 1959 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead

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 0-1000	Ft	4500.00	2000 ✓	41,241.00	17574	2.35	24000	2.50
~~Churn~~ 1000-1500	Ft	2777.50	1111					
~~Auger~~ 1500-2000	Ft	561.00	187					
~~Stripping~~ Samp.&Assay	Samp	26.00	13	180.00	91	2.00	300	2.00
~~Trenching~~ Core Trays	Trays	282.50	113	1,325.00	530	2.50	600	2.50
Test Pits								
Roads and Trails								
Incidental Allowances ~~Ft.~~ @ .22/Ft	Ft	725.56	3298	3,866.28	17574	.22	24000	.22
Total Distributed Costs		8872.56		46,612.28				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		8872.56		46,612.28				$66,906

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

Remarks: Includes Costs of A-540, A-541, A-531 (Deepened) A-532 (Deepened) and A-536 (Deepened)

Date 7/9/59 Operator Bertha Mineral Division The New Jersey Zinc Co

Per [signature] Title General Supt.

→ 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)

[signature]
GEOLOGIST, U. S. G. S.

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 - CHAFFIN PROJECT

Hole A-541 was at 1131 the beginning of the month. The mineralized ground reported last month between 1115 and 1129 assayed 4.83% Zn and 0.08% Pb. A second penetration between 1167 and 1215 assayed 3.1% Zn and 1.1% Pb. The hole was bottomed at 1340.

Hole A-542 was collared 800 feet down dip from A-538 on Section 181. At the end of the month the hole was incomplete at 1711. The correlation between this hole and the others up dip is not yet clear.

Hole A-543 was collared on Section 219 as the first hole in an exploratory fence, 5100 feet southeast of the Base Line. At the end of June the hole was at 366 feet in the Mystery Series.

After the discovery of the 28-foot thickness of ore between 1361 and 1389 in A-537, it was decided to deepen four of the neighboring holes to test their horizon.

A-531 was deepened from 1321 to 1441. Ore was penetrated from 1412 to 1424 running 3.97% Zn and 0.83% Pb.

A-532 was deepened from 1443 to 1498. No ore was found, but strong metamorphism was encountered.

A-535 was entered in an attempt to deepen it but conditions in the hole were so bad that the attempt was abandoned and no deepening was done.

A-536 was deepened from 1327 to 1423. Ore was encountered from 1362 to 1373 running 5.9% Zn and 0.2% Pb. This hole completed the deepening project.

QUARTERLY SUMMARY

During the quarter ending June 30, 1959, the following holes were completed with the results noted below:

Hole	Depth	Collar	Bottom	Results
A-537	1425	Post TM	Austinville Dolomite	14' 1.8% Zn, 0.1% Pb 40' Barren 9' 7.2% Zn, 1.0% Pb 193' Barren 10' 0.74% Zn, 0.15% Pb 28' 5.8% Zn, 0.23% Pb
A-538	1821	Post TM	Austinville Dolomite	12' 1.33% Zn, Nil Pb 42' Barren 13' 0.15% Zn, Nil Pb 82' Barren 8' 3.28% Zn, 0.21% Pb 581' Barren 10' 0.71% Zn, 0.22% Pb 24' 3.46% Zn, 0.29% Pb 11' 0.2% Zn, Nil Pb
A-539	1212	Post TM	Austinville Dolomite	22' 2.09% Zn, Nil Pb
A-540	1687	Post TM	Austinville Dolomite	Mineralized
A-541	1340	Post TM	Austinville Dolomite	15' 3.9% Zn, 0.8% Pb 32' Barren 48' 3.1% Zn, 1.1% Pb
A-531 (Deepened)	1441	Austinville Dolomite	Austinville* Dolomite	12' 3.97% Zn, 0.83% Pb
A-532 (Deepened)	1498	Austinville Dolomite	Austinville* Dolomite	Barren
A-536	1423	Austinville Dolomite	Austinville* Dolomite	11' 5.9% Zn, 0.2% Pb

*Start of Deepening

DIAMOND DRILL LOG A-541

Location: Chaffin Area, Section 163, 100 feet Down Dip from A-539

6848 S 585 E

Inclination: Vertical Elevation: 2174

Started: 5/11/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	26	20		Red clay
26	114	88	84	Black augen & bleached black
114	115	1	1	Shaly dolomite
115	128	13	13	Light grey saccharoidal
128	144	16	16	Composite shale partings
144	357	213	213	Black augen and bleached black
357	358	1	1	Straticulate
358	376	18	18	Black augen
376	379	3	3	Limey straticulate
379	661	282	282	Interbedded black augen and dense black
661	665	4	4	Pseudo sand grains
665	681	16	16	Bleach black augen
681	691	10	10	Dense massive and thin bedded
691	739	48	48	Black augen and bleached
739	767	28	28	Thin bedded and massive
767	768	1	1	Oolite
768	914	146	146	Leached buff
914	921	7	6	Taylor Marker type Mottling, Taylor Marker?
921	923	2	0	Soft rock
923	942	19	19	Miscl. textures
942	943	1	0	Soft rock
943	952	9	8	Miscl. textures
952	966	14	0	Soft rock
966	1017	41	24	Fractured and broken dolomite
1017	1026	9	4	Shale partings, fractured
1026	1036	10	5	Saccharoidal, galena @ 1033
1036	1038	2	0	Cavity
1038	1047	9	4	Light grey occasional mineralization
1047	1050	3	1	Estimated 10% sphalerite
1050	1111	61	20	Light grey saccharoidal sphalerite @ 1110
1111	1115	4	4	Mottled dolomite
1115	1129	14	14	✓Ore, 4.83% Zn, 0.08% Pb
1129	1130	1	1	✓Fault zone, ore, 3.08% Zn, 0.09% Pb
1130	1134	4	4	Mylonite, fault zone
1134	1158	24	11	Strongly metamorphosed dolomite
1158	1167	9	4	Mottled dolomite
1167	1185	18	17	Mottled Marker
1167	1215	48	45	✓Ore, 3.1% Zn, 1.1% Pb
1215	1250	35	22	Mineralized Dolomite
1250	1340	110	83	Varied dolomites

BOTTOM

DIAMOND DRILL LOG - A-542

Location: Chaffin Area, Section 181, 1600 ft. Down Dip from A-530

S 1191 E 8728

Inclination: Vertical Elevation: 2105

Started: 6/1/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	10	10	0	Red clay
10	85	75	75	Mud flakes, Pseudo sand grains, Oolites, Mass dolomite
85	87	2	2	Mylonite, Fault
87	186	99	99	Mud flakes, Oolites, Pseudo sand grains, Occasional Archies
186	195	9	9	Black augen, mud flakes, occasional archies
195	293	98	98	Black augen, Abundant archies
293	296	3	3	Thin bedded dark gray
296	330	34	34	Diagenetic breccia, mud flakes, Pseudo sand grains, Oolites
330	414	84	84	Mud flakes, Pseudo sand grains, Oolites, Massive
414	423	9	9	Archies and augen
423	451	28	28	Black augen and thin bedded
451	459	8	8	Archies
459	470	11	11	Saccharoidal dolomite
470	534	64	64	Diagenetic breccia, pseudo sand grains & Mud flakes
534	566	32	32	Black augen and bleached black
566	600	34	34	Pseudo sand grains and Oolite, Massive
600	604	4	4	Shear zone, fault
604	610	6	6	Pseudo sand grains and oolites
610	612	2	2	Shaly dolomite
612	641	29	29	Miscl. dolomites
641	697	56	56	Pseudo sand grains, massive
697	754	57	57	Diagenetic mottling
754	768	14	14	Abundant oolites, local archies
768	810	42	42	Abundant pisolites and oolites
810	811	1	1	Shaly dolomite
811	831	20	20	Diagenetic breccia, black augen
831	862	31	31	Massive, mud flakes, local banding
862	1027	165	165	Miscl., Mottled, diagenetic breccia, etc.
1027	1040	13	13	Pseudo sand grains and oolites
1040	1125	85	85	Diagenetic breccia, oolites, pseudo sand grains and black augen
1125	1139	14	14	Limestone diagenetic breccia
1139	1161	22	22	Dolomite diagenetic breccia

From	To	Dist.	Recov.	
1161	1163	2	2	Shear zone, fault
1163	1222	59	59	Bleached black augen
1222	1232	10	10	Mass locally bedded
1232	1332	100	100	Bleached black augen and diagenetic breccia
1332	1356	24	24	Bedded limestone, oolites in bedding
1356	1365	9	9	Banded dolomite
1365	1391	26	26	Fault, Mylonite, Shear
1391	1408	17	17	Saccharoidal dolomite
1408	1490	92	92	Banded straight bands
1490	1514	24	24	Interbedded shale and diagenetic breccia
1514	1564	50	50	Mass limestone
1564	1671	107	107	Interbedded limestone and shale
1671	1707	36	36	Massive limestone
1707	1711	4	4	Mass dolomite pseudo sand grains

DIAMOND DRILL LOG - A-543

Location: Chaffin Area, Section 219, First Hole on Exploratory Fence

506 N 9718 E

Inclination: Vertical Elevation: 2105

Started: 6/24/59 Completed:

RESULTS

From	To	Dist.	Recov.	
0	53	53	0	Red clay
53	217	164	164	Varied detrital dolomites
217	252	35	35	Bleached black augen
252	264	12	12	Slightly metamorphosed dolomite
264	313	49	49	Bleached black augen
313	314	1	1	Mass solid oolites
314	330	16	16	Coarse saccharoidal dolomite
330	334	4	4	Black composite shale partings
334	366	32	32	Miscl. dolomites

DIAMOND DRILL LOG A-531 (Deepened)

Location: Chaffin Area, Section 181, 100 Feet Up Dip from A-530

7.72 N 7525.64 E

Inclination: Vertical Elevation: 2175.82

Started: 6/17/59 Completed: 6/20/59

RESULTS

From	To	Dist.	Recov.	Description
1321	1323	2	2	Low grade disseminated ore
1323	1343	20	20	Saccharoidal dolomite
1343	1348	5	5	Low grade breccia ore
1348	1376	28	24	Mineralized dolomite
1376	1393	17	17	Dolomite with sand grains
1393	1412	19	19	Low grade disseminated ore
1412	1424	12	12	✓Ore, 3.97% Zn, 0.83% Pb
1424	1441	17	17	Dolomite

BOTTOM

DIAMOND DRILL LOG A-532 (Deepened)

Location: Chaffin Area, Section 181, 100 ft. Down Dip from A-530

134.41 S 7666.29 E

Inclination: Vertical Elevation: 2163.64

Started: 6/16/59 Completed: 6/16/59

RESULTS

From	To	Dist.	Recov.	Description
1443	1473	30	30	Gray dolomite
1473	1496	23	23	Strongly metamorphosed dolomite
1496	1498	2	2	Gray dolomite

BOTTOM

DIAMOND DRILL LOG A-536 (Deepened)

Location: Chaffin Area, Section 173

210 S 7175 E

Inclination: Vertical Elevation: 2184

Started: 6/12/59 Completed: 6/12/59

RESULTS

From	To	Dist.	Recov.	Description
1327	1344	17	17	Dolomite
1344	1362	18	18	Strongly metamorphosed dolomite
1362	1373	11	11	Ore, 5.9% Zn, 0.2% Pb
1373	1423	50	50	Dolomite

BOTTOM

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

DDH 541 and 536

DATE 6-17-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	CAR	DRY	ZN	PB	FE		
234	6-13	Sample NO. 17242	1115 - 1122	7'	4.83	.08			
235		17243	1122 - 1130	8'	3.08	.09			
236		17244	1167 - 1179	12'	4.44	1.83			
237		17245	1179 - 1185	6'	2.35	1.01			
238		17246	1185 - 1192	7'	.80	.14			
239		17247	1192 - 1200	8'	1.34	.79			
240		17248	1200 - 1208	8'	4.40	1.07			
241		17249	1208 - 1214	6'	2.94	1.01			
242		17250	1214 - 1215	1'	10.76	5.47			
243		4501	1362 - 1367	5'	8.51	.30			
244		4502	1367 - 1373	6'	3.88	.04			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

Geologist

WLS Chemist

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. DDH A-531 DATE 6-30-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	CAR	DRY	ZN	PB	FE		
260	6-29	Samp.No. 4503	1412 - 1416	4'	1.08	1.10			
1		4504	1416 - 1424	8'	5.42	.70			

Certified True Copy
THE NEW JERSEY ZINC CO.

L. O. Walter Bunn
Geologist

RGB. Chemist

Form 11F-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

JUN 18 1959 O.M.E.

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1959 Docket No. DMEA 50081 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Va.
Contract Amount, $ 44,920.00 Government Participation: 50 % Amount, $ 22,460.00

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	7243.00	26159.50	33402.50	7135.25	26159.50	33294.75
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	222.50	820.00	1042.50	180.00	820.00	1000.00
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	34.00	120.00	154.00	34.00	120.00	154.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $.22/ft.	667.26	2473.46	3140.72	667.26	2473.46	3140.72
TOTALS	8166.76	29572.96	37739.72	8016.51	29572.96	37589.47

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

Date June 9, 1959 Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per [signature] Title Genl. 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:

$ 4008.25

Signature Helen R. Muller (Authorized Certifying Officer)

Date JUN 16 1959 Vou. No. 118

(See other side)

8

4008.26

(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-1204 in accordance with the terms of the contract.

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date JUN 10 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER OME REGION V Date JUN 10 1959

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.

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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.

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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.

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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

JUN 18 1959
O.M.E.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
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		4498.50		33294.75				
Drilling: Core 0-1000	Ft.	~~4500.00~~	2000	~~33402.50~~	14276	2.34	16000	2.50
~~Churn~~ 1000-1500 Ft		1383.75 ~~1780.00~~	712					
~~Auger~~ 1500-2000 Ft		963.00	321					
~~Stripping~~ Samp&Assay	Samp	34.00	17	154.00	78	2.00	200	2.00
~~Trenching~~ Core Trays	Tray	~~222.50~~	89	~~1042.50~~	417	2.50	400	2.50
Test Pits		180.00		1000.00				
Roads and Trails								
Incidental Allowances @ $0.22/Ft.	Ft.	667.26	3033	3140.72	14276	.22	16000	.22
TOTAL DISTRIBUTED COSTS		~~3166.76~~ 8016.51		~~37739.72~~ 37589.47				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
		8016.51		37589.47				
TOTAL COSTS		~~3166.76~~		~~37739.72~~				$44,920.00

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 6/9/59 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. Supt.

REMARKS: Includes costs of A-538 and A-539

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)

[signature]
GEOLOGIST, U. S. G. S.
JUN 10 1959

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

June 16, 1959

The New Jersey Zinc Company

Austinville, Virginia

Re: Contract Idm-F120k
Docket No. DMEA-5008

Gentlemen:

Reference is made to your May 1959 voucher covering contract Idm-F120k, Docket No. DMEA-5008, Chaffin Estate, Austinville Area, Wythe County, Virginia.

This voucher is being processed for payment in the amount of $4008.25, which is 50% of the approved monthly total of $8016.51. The following disallowances have been made:

(1) Disallowance of $107.75 drilling cost. Overpayment on April Voucher of 431 feet at AX cost instead of EX cost (Hole A-537) - cost as stated in the exploration contract

(2) Disallowance of $42.50 for core trays. Contract calls for a total of 400 trays in the total amount of $1000.00.

Helen R. Miller

/hbm
Copies to R. A. Lawrence
V. J. Lynch
E. D. Talbert, OME, Washington, D. C.
Norris files
Day files

NARRATIVE REPORT - CHAFFIN PROJECT

Hole A-538 was at 1756 the beginning of the month. It was continued through shale parting and stylolitic ground to 1821 where it was bottomed.

Hole A-539 was at 1092 the beginning of the month. It was continued through the Mottled Marker ore horizon which was barren and through the Lower Black Rock and bottomed at 1212 feet.

Hole A-540 was collared 100 feet up dip from A-538 on Section 181 to determine whether the A-538 ore extended up dip. The hole encountered considerable mineralization but no ore and was bottomed at 1687.

Hole A-541 was started 100 feet down dip from A-539 on Section 163, testing for ore on the A-530 - A-537 trend. The rock was altered and broken. Fourteen feet of estimated 3% Zn was encountered between 1115 and 1129. The hole was incomplete at 1131 at the end of the month.

DIAMOND DRILL LOG - A-538

Location: Chaffin Area, Section 181
800 ft. down dip from A-530

627 S 8165 E

Inclination: Vertical Elevation: 2165

Started: 4/4/59 Completed: 5/1/59

RESULTS

From	To	Dist.	Recov.	Description
0	44	44	0	Red clay
44	46	2	2	Pisolites
46	76	30	25	Bleach black augen
76	77	1	1	Pisolites
77	167	90	86	Saccharoidal
167	179	12	12	Abundant archies
179	248	69	69	Black augen
248	260	12	12	Abundant archies
260	268	8	8	Mottled dolomite
268	269	1	1	Oolite bed
269	317	48	46	Abundant pseudo sand grains
317	462	145	145	Bleached black augen
462	466	4	4	Dense black composite shale partings
466	555	89	88	Bleached black augen
555	560	5	5	Pseudo sand grains
560	700	140	140	Bleached black augen
700	704	4	4	Shale partings
704	761	57	55	Bleached black augen
761	763	2	2	Banded mottling
763	777	14	14	Saccharoidal
777	789	12	12	Mineralized 1.33% Zn, Nil Pb ✓
789	810	21	19	Strong metamorphism
810	831	21	21	Dense and straticulate
831	844	13	13	Mineralized 0.15% Zn, Nil Pb ✓
844	869	25	25	Black augen
869	926	57	57	Banded mot and banded dolomite
926	934	8	8	Mineralized 3.28% Zn, 0.21% Pb ✓
934	1029	95	95	Bleached black augen
1029	1046	17	17	Composite shale partings and pseudo sand grains
1046	1142	96	88	Varied
1142	1284	142	142	Shale partings
1284	1300	16	16	Detrital material, three sand grains Taylor Marker?
1300	1490	190	190	Varied grey dolomite
1490	1515	25	25	Mineralized
1515	1525	10	10	Mineralized 1.21% Zn, 0.22% Pb ✓
1525	1549	24	24	Ore, 3.46% Zn, 0.29% Pb Mottled Marker ✓

From	To	Dist.	Recov.	Description
1549	1560	11	11	Mineralized
1560	1565	5	5	Lower black rock
1565	1579	14	14	Mineralized
1579	1626	47	47	Varied partings
1626	1635	9	9	Mineralized
1635	1742	107	107	Stylolitic shale partings
1742	1760	14	14	Mottled, archie
1760	1774	14	14	Diagenetic breccia
1774	1794	20	20	Multiple shale partings Ellipsoids
1794	1821	27	27	Stylolitic shale partings

BOTTOM

DIAMOND DRILL LOG - A-539

Location: Section 163, 565 feet S 63½ W from A-537

514 S 6778 E

Inclination: Vertical Elevation: 2176

Started: 4/11/59 Completed: 5/7/59

RESULTS

From	To	Dist.	Recov.	Description
0	48	48	0	Red clay
48	78	30	28	Black augen
78	82	4	4	Buff shaley bed
82	228	146	145	Bleached black augen
228	238	10	10	Stylolitic shale partings
238	276	38	38	Bleached black augen
276	286	10	10	Stylolitic and thick shale partings
286	340	54	54	Bleached black augen
340	345	5	5	Archies
345	537	192	192	Bleached black augen
537	541	4	4	Archies
541	664	123		Bleached black augen
664	676	13	11	Abundant partings
676	727	51	50	Bleached black augen
727	748	21	5	Strong metamorphism
748	858	110	104	Bleached black augen
858	920	62	59	Taylor Marker
920	942	22	18	Fine saccharoidal
942	964	22	22	Mineralized 2.09% Zn, 0.3% Pb
964	965	1	1	Fault
965	1029	64	62	Saccharoidal
1029	1038	9	9	Mylonite Fault top and bottom
1038	1055	15	14	Oxidized shale partings
1055	1090	35	0	Cavity
1090	1118	28	23	Strong metamorphism
1118	1139	21	20	Mottled Banded, Mottled Marker?
1139	1142	3	3	Mottled
1142	1163	21	18	Composite shale partings Lower Black Rock?
1163	1181	8	8	Mottled
1181	1184	Cavity		
1184	1212	28	2"	Soft Rock

BOTTOM

DIAMOND DRILL LOG - A-540

Location: Chaffin Area, Section 181, 100 ft. Up Dip from A-538

556 S 8094 E

Inclination: Vertical Elevation: 2165

Started: 5/4/59 Completed: 5/29/59

RESULTS

From	To	Dist.	Recov.	Description
0	78			Red clay
78	142	64	45	Bleach Black Augen Bed
142	177	35	35	Archie bed
177	230	53	53	Pseudo sand grain and speckled
230	243	13	13	Archie Bed
243	296	56	56	Bleached black augen bed
296	305	9	9	Archie Bed
305	489	184	184	Black and bleached black augen
489	500	11	11	Pseudo sand grains and mud flakes
500	529	29	29	Black augen
529	541	12	12	Pseudo sand grains in clusters
541	615	74	74	Black augen
615	648	33	33	Stylolitic shale partings
648	737	89	89	Varied dolomite
737	739	2	2	Straticulate bed
739	786	47	47	Black augen
786	797	11	11	Mineralized
797	808	11	11	Black augen
808	809	1	1	Mineralized black straticulate
809	840	31	31	Black augen
840	860	20	20	Banded Mottled Bed
860	872	12	12	Mineralized
872	975	103	103	Black augen and miscl.
975	1028	53	53	Straticulate bed
1028	1173	145	145	Black augen and straticulate
1173	1200	27	27	Mud flakes and pseudo sand grains
1200	1226	26	26	Light grey saccharoidal
1226	1255	29	26	Taylor Marker? Pseudo sand grain and TM type Mottling
1255	1298	43	43	Light grey saccharoidal
1298	1309	11	11	Thick shale partings
1309	1424	115	115	Light grey saccharoidal
1424	1437	13	13	Shale partings
1437	1463	26	26	Light grey saccharoidal
1463	1480	17	17	Mineralized composite shale partings
1480	1496	16	16	Composite shale partings

From	To	Dist.	Recov.	Description
1496	1525	29	29	Archies, strong Met, Mottled Marker?
1525	1554	29	29	Composite and stylolitic shale partings
1554	1558	4	4	Mineralized Mottled
1558	1570	12	12	Light grey saccharoidal
1570	1578	8	8	Mineralized
1578	1608	30	30	Shale partings and shaly
1608	1614	6	6	Mineralized
1614	1633	19	19	Stylolitic
1633	1635	2	2	Estimated 5% Zn
1635	1687	52	52	Stylolitic shale partings

BOTTOM

DIAMOND DRILL LOG - A-541

Location: Chaffin Area, Section 163, 100 feet Down Dip from A-539

6848 S 585 E

Inclination: Vertical Elevation: 2174

Started: 5/11/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	26	20		Red clay
26	114	88	84	Black augen & bleached black
114	115	1	1	Shaly dolomite
115	128	13	13	Light grey saccharoidal
128	144	16	16	Composite shale partings
144	357	213	213	Black augen and bleached black
357	358	1	1	Straticulate
358	376	18	18	Black augen
376	379	3	3	Limey straticulate
379	661	282	282	Interbedded black augen and dense black
661	665	4	4	Pseudo sand grains
665	681	16	16	Bleach black augen
681	691	10	10	Dense massive and thin bedded
691	739	48	48	Black augen and bleached
739	767	28	28	Thin bedded and massive
767	768	1	1	Oolite
768	914	146	146	Leached buff
914	921	7	6	Taylor Marker type Mottling Taylor Marker?
921	923	2	0	Soft rock
923	942	19	19	Miscl. textures
942	943	1	0	Soft rock
943	952	9	8	Miscl. textures
952	966	14	0	Soft rock
966	1017	41	24	Fractured and broken dolomite
1017	1026	9	4	Shale partings, fractured
1026	1036	10	5	Saccharoidal, galena @ 1033
1036	1038	2	0	Cavity
1038	1047	9	4	Light grey occasional mineralization
1047	1050	3	1	Estimated 10% sphalerite
1050	1111	61	20	Light grey saccharoidal sphalerite @ 1110
1111	1115	4	4	Mottled dolomite
1115	1129	14	14	Estimated 3% zinc
1129	1131	2	2	Fault zone, mineralized galena

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole A-538 DATE 5-5-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	Footage	DRY	ZN	PB	FE		
144	5-1	Samp.No. 17225	1515 - 1520		1.50	.43			
5		17226	1520 - 1525		.92	.01			
6		17227	1525 - 1532		2.16	.23			
7		17228	1532 - 1537		2.40	.06			
8		17229	1537 - 1542		4.55	.13			
9		17230	1542 - 1546		5.14	.54			
50		17231	1546 - 1549		4.18	.77			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

Geologist

RGB. Chemist

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Holes A-538 & 539 DATE 5-8-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	~~XXX~~ Footage	DRY	ZN	PB	FE	Acetic Acid Sol.Zn	
151	5-4	Samp.No. 17232	926 - 930		3.20	.22			A-538
2		17233	930 - 934		3.35	.20			
3		17234	777 - 783		1.90	nil			
4		17235	783 - 789		.76	nil			
5		17236	831 - 838		.15	nil			
6		17237	838 - 844		.15	nil			
7		17238	942 - 947		1.87	nil		.58	A-539
8		17239	947 - 952		2.40	nil		.19	
9		17240	952 - 957		2.65	nil		.10	
60		17241	957 - 964		1.64	nil		.34	

Certified True Copy
The New Jersey Zinc Company

Geologist

RGB Chemist

MAY 19 1959

Memorandum

To: Mrs. Helen R. Miller, Administrative Assistant,
Bureau of Mines, Region V

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. DMFA-5008 (Zinc-Lead)
The New Jersey Zinc Company
Chaffin Estate, Austinville Area
Wythe County, Virginia
Contract No. Idm-K1204

The recently received copy of the April 1959 MF-104 for the subject project indicates that costs were claimed and approved for payment on the basis of diamond drill hole A-537 bottoming AX size at 1,425 feet. However, the Operator's narrative for March 1959 and, also, the Field Team's interim report of inspection on April 9, 1959, state that core size in this hole was reduced to EX at a depth of 994 feet.

It is suggested that an appropriate disallowance be taken in the approval of the next MF-104. Unless the drilling contractor's prices are less than the EX costs per foot stated in the exploration contract, the disallowance will be $107.75 (i.e. 431 feet @ $.25).

EDTalbert/ama
May 19, 1959

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Laurence
Mr. Talbert

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- 61

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Va.
Contract Amount, $ 44,920.00 Government Participation: 50 % Amount $ 22,460.00

MAY 18 1959 O.M.E.

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	3312.50	22847.00	26159.50			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	95.00	725.00	820.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	22.00	98.00	120.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Incidental Allowance @ $0.22/ft.	313.50	2159.96	2473.46			
TOTALS	3743.00	25829.96	29572.96	3743.00	25829.96	29572.96

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

Date 5/7/59 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. 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:

$ 1871.50

Signature Helen R. Miller
(Authorized Certifying Officer)

Date MAY 14 1959 Vou. No. 110
(See other side)

7th 1871.50

(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. F-1204 in accordance with the terms of the contract.

Signature [signature] Title GEOLOGIST, U. S. G. S. Date MAY 8 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [signature] Title ACTING EXECUTIVE OFFICER DMEA REGION V Date MAY 8 1959

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

MAY 18 1959 O.M.E.

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

Month of April 195 9 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
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 0-1000	Ft.	2250.00	1000	26159.50	11243	2.33	16000	2.50
xxx Churn 1000-1500	Ft.	1062.50	425					
Auger								
xxxxx Stripping Sample Assay	Sample	22.00	11	120.00	61	2.00	200	2.00
xxxxxx Trenching Core Trays	Tray	95.00	38	820.00	328	2.50	400	2.50
Test Pits								
xxxxxxxxxx Roads and Trails								
Incidental Allowances @ $0.22/ft.		313.50	1425	2473.46	11243	.22	16000	.22
Total Distributed Costs		3743.00		29572.96				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		3743.00		29572.96				$44,920.00

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 5/7/59 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

By [signature] Title Genl. Supt.

Remarks: Includes costs of A-537

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)

[signature]
GEOLOGIST, U. S. G. S.

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 - CHAFFIN PROJECT

At the beginning of the month, diamond drill hole *A-537 was at a depth of 1204 feet. The hole was continued and four feet of 1.6% Zn, Trace Pb was encountered in the Mottled Marker. Mineralized ground was encountered from 1351' to 1361' running 0.74% Zn and .15% Pb., and ore from 1361' to 1389' running 5.8% Zn and 0.23% Pb. This ore was 106 feet below the Mottled Marker at a new horizon. The hole was bottomed at 1425 feet.

A second drill was started drilling hole A-538 the 4th of April and located 800 feet down dip on Section 181 from A-530. This location is shown as hole "D" on the map accompanying our recent application to the DMEA. This hole encountered mineralization running 1.33% Zn and Nil Pb between 777' and 789'; between 831' and 844' running .15% Zn and Nil Pb; and between 926' and 934' running 3.28% Zn and 0.21% Pb. Very doubtful Taylor Marker was penetrated at 1290' and ore was discovered in the Mottled Marker between 1525' and 1549' running 3.46% Zn, 0.29% Pb. The hole was incomplete at 1756 feet, the end of the month.

Hole A-539 was located on Section 163, S 63½ W, from A-537. Taylor Marker was penetrated from 858' to 920' and mineralized ground from 942' to 964'. At 1055' a 35-foot cavity was encountered which may be associated with the Callahan Fault. The hole was incomplete at 1092' the end of the month.

* EX from 994' per March narrative.
Talbert
5/19/59

DIAMOND DRILL LOG A-537

Location: Chaffin Area, Section 173 Midway between A-535 and A-536

255 S 7270 E

Inclination: Vertical Elevation: 2187

Started: 2/23/59 Completed: 4/8/59

RESULTS

From	To	Dist.	Recov.	Description
0	70	70		Red clay
70	171	101	76	Black augen dolomite
171	173	2	0	Cavity
173	205	32	24	Black augen dolomite
205	256	51	50	Black augen beds, locally bleached
256	259	3	3	Local sand grains and "mud flakes"
259	296	37	37	Black augen beds, locally bleached
296	346	50	49	Local partings and detritus
346	633	287	273	Black augen beds, locally bleached, local partings and "soft" drilling: Archaeocyathus 595, 607
633	643	10	10	Abundant thick partings
643	703	60	59	Saccharoidal
703	711	8	8	Abundant large Archaeocyathus: "Archy" Bed
711	947	236	232	Saccharoidal to finely saccharoidal, local partings and very local "mud flakes"
947	1031	84	67	Taylor Marker: "mud flakes", mottling, partings. 979-81: Fault
1031	1095	64	40	Generally saccharoidal
1095	1149	54	27	Weak mineralization
1149	1158	9	8	7.2% Zn, 1.0% Pb
1158	1161	3	3	Mineralization, abundant partings: Black Rock Marker
1161	1193	32	24	Locally abundant partings: Black Rock Marker
1193	1205	12	9	Mineralization. Est. 0.5% Zn, 0.2% Pb
1205	1225	20	14	Medium grey & buff few partings
1225	1228	3	3	Mineralized fine saccharoidal
1228	1231	3	3	Light grey saccharoidal
1231	1236	5	4	Mottled Marker
1236	1240	4	4	1.6% Zn, Tr Pb Mottled Marker
1240	1255	15	9	Mottled Marker
1255	1294	39	38	Saccharoidal dolomite
1294	1325	31	31	Mineralized
1325	1351	26	24	Saccharoidal dolomite Stylolitic partings

From	To	Dist.	Recov.	Description
1351	1361	10	10	Mineralized 0.74% Zn, 0.15% Pb
1361	1389	28	28	Ore, 5.8% Zn, 0.23% Pb
1389	1391	2	2	Medium-Dark Grey
1391	1399	8	6	Mineralized
1399	1425	34	17	Fine saccharoidal

BOTTOM

DIAMOND DRILL LOG - A-538

Location: Chaffin Area, Section 181
800 ft. down dip from A-530

627 S 8165 E

Inclination: Vertical Elevation: 2165

Started: 4/4/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	44	44	0	Red clay
44	46	2	2	Pisolites
46	76	30	25	Bleach black augen
76	77	1	1	Pisolites
77	167	90	86	Saccharoidal
167	179	12	12	Abundant archies
179	248	69	69	Black augen
248	260	12	12	Abundant archies
260	268	8	8	Mottled dolomite
268	269	1	1	Oolite bed
269	317	48	46	Abundant pseudo sand grains
317	462	145	145	Bleached black augen
462	466	4	4	Dense black composite shale partings
466	555	89	88	Bleached black augen
555	560	5	5	Pseudo sand grains
560	700	140	140	Bleached black augen
700	704	4	4	Shale partings
704	761	57	55	Bleached black augen
761	763	2	2	Banded mottling
763	777	14	14	Saccharoidal
777	789	12	12	Mineralized 1.33% Zn, Nil Pb
789	810	21	19	Strong metamorphism
810	831	21	21	Dense and straticulate
831	844	13	13	Mineralized 0.15% Zn, Nil Pb
844	869	25	25	Black augen
869	926	57	57	Banded mot and banded dolomite
926	934	8	8	Mineralized 3.28% Zn, 0.21% Pb
934	1029	95	95	Bleached black augen
1029	1046	17	17	Composite shale partings and pseudo sand grains
1046	1142	96	88	Varied
1142	1284	142	142	Shale partings
1284	1300	16	16	Detrital material, three sand grains Taylor Marker?
1300	1490	190	190	Varied grey dolomite
1490	1515	25	25	Mineralized
1515	1525	10	10	Mineralized 1.21% Zn, 0.22% Pb
1525	1549	24	24	Ore, 3.46% Zn, 0.29% Pb Mottled Marker

From	To	Dist.	Recov.	Description
1549	1560	11	11	Mineralized
1560	1565	5	5	Lower black rock
1565	1579	14	14	Mineralized
1579	1626	47	47	Varied partings
1626	1635	9	9	Mineralized
1635	1742	107	107	Stylolitic shale partings
1742	1756	14	14	Mottled, archie

DIAMOND DRILL LOG - A-539

Location: Section 163, 565 feet S 63½ W from A-537

514 S 6778 E

Inclination: Vertical Elevation: 2176

Started: 4/11/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	48	48	0	Red clay
48	78	30	28	Black augen
78	82	4	4	Buff shaley bed
82	228	146	145	Bleached black augen
228	238	10	10	Stylolitic shale partings
238	276	38	38	Bleached black augen
276	286	10	10	Stylolitic and thick shale partings
286	340	54	54	Bleached black augen
340	345	5	5	Archies
345	537	192	192	Bleached black augen
537	541	4	4	Archies
541	664	123		Bleached black augen
664	676	13	11	Abundant partings
676	727	51	50	Bleached black augen
727	748	21	5	Strong metamorphism
748	858	110	104	Bleached black augen
858	920	62	59	Taylor Marker
920	942	22	18	Fine saccharoidal
942	964	22	22	Mineralized 2.09% Zn, 0.3% Pb
964	965	1	1	Fault
965	1029	64	62	Saccharoidal
1029	1038	9	9	Mylonite Fault top and bottom
1038	1055	15	14	Oxidized shale partings
1055	1090	35	0	Cavity
1090	1092	2	2	Strong metamorphism

AGB 3940 :M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole A-537 DATE 4-9-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	CAR Footage	DRY	ZN	PB	FE		
130	4-9	Samp. No. 17215	1095 - 1101		2.90	.16			
1		17216	1101 - 1109		.96	Nil			
2		17217	1236 - 1240		1.60	Trace			
3		17218	1351 - 1356		.45	.30			
4		17219	1361 - 1366		5.27	Nil			
5		17220	1366 - 1371		2.30	.50			
6		17221	1371 - 1376		.17	Nil			
7		17222	1376 - 1382		10.96	.16			
8		17223	1382 - 1389		8.10	.43			

Certified True Copy
THE NEW JERSEY ZINC CO.

Geologist

Chemist

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole A-537 DATE 4-13-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	CAR Footage	DRY	ZN	PB	FE		
139	4-13	Samp.No. 17224	1356 - 1361		1.04	nil			

Certified True Copy
THE NEW JERSEY ZINC CO.

Geologist

RGB. Chemist

AGB 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole No. A-537 DATE 3-31-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	~~KAR~~ Footage	DRY	ZN	PB	FE		
129	3-31	Samp.No. 17214	1149 - 1158		7.22	.97			

Certified True Copy
THE NEW JERSEY ZINC CO.

Ray McKnutson
Geologist

RGB. Chemist

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

April 9, 1959

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B, Post Office Building
Knoxville 2, Tennessee

Subject: March Monthly Report and Quarterly Summary, Chaffin Tract, Austinville, Va., DMEA 5008, Contract IDM-E-1204

Dear Sir:

Attached is our March Monthly Report and Quarterly Summary of exploration on the Chaffin Tract, Austinville, Virginia.

No drill contractor's invoice was received since that reported last month. Consequently, no cost report or voucher is enclosed.

Very truly yours,

W. L. Albers
General Superintendent

RMK
RayMKnutson:rjl
In quintuplicate
Attachments

EXTRA COPY
O. M. E.
RECEIVED APR 20 1959
DATE | INITIALS | CODE

RECEIVED
APR 13 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

NARRATIVE REPORT - CHAFFIN TRACT

DDH A-537 was at 205 feet at the month's beginning. Intermittent "Black Augen" beds continued to 633. At 703-711 the Archaeocyathus Bed was penetrated, and at 947-1031 the Taylor Marker. Weak mineralization appeared at 1095-1149, followed by 9 feet which assayed 7.2% Zn, 1.0% Pb. This has the stratigraphic position of the main ore horizon of A-530. The hole was at 1204 feet at the month's end, still short of Mottled Marker and the less mineralized horizons.

The drillers' rods became stuck, forcing a reduction to EX core size at 994 feet, using standard rather than wire line equipment.

Trotter-Pajari Surveys

As noted in the December quarterly report, Trotter-Pajari surveying of the Chaffin holes was begun but was disrupted due to loss of the special rods. These were since replaced, but the instrument proper then broke down. Its repair has been delayed because the manufacturer has either moved or quit the business. Pending the instrument's return, we submit results of surveying to date.

Two maps of the results are attached. That which is labeled "Factual Plotting" omits deviations for holes not surveyed. This map plots all data as objectively read.

The second map is labeled "Interpretive Plotting". On this the survey of one hole, A-533, is modified. Because its vertical angles were all within two degrees of vertical, we concluded that bearings were unreliable and have substituted a northerly bearing which is the average of A-531 and A-532. The discovery hole, A-530, was blocked at depth and the three holes on Section 173 remain unsurveyed. For these four holes the average bearing and deviation of A-531 and A-532 was assumed. Sectional plotting is based throughout on this interpretive plotting.

The excess wandering of A-534 is well established. It is at least in part due to deviation which maintained as of the first hard rock drilling below the rock-soil interface. Study of the origin of this deviation is still in progress, with a view toward its elimination in future drilling. Study of A-534's location at the ore horizon shows that the hole was of little value in terms of a drill fence normal to the northeasterly trending pencils.

When the Tro-Pari instrument is again available, further surveys will be made and their results reported.

QUARTERLY SUMMARY

During the quarter ending March 31, 1959, the following holes were completed with the results noted below:

Hole No.	Depth	Collar	Bottom	Results
A-536	1327	Post-TM	Austinville Dolomite	20' 0.8% Zn, 0.8% Pb 5' 0.4% Zn, Nil Pb

April 15, 1959

Memorandum

To: E. D. Talbert, Office of Minerals Exploration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Morris, Tennessee

Subject: DMEA-9008, Idm-E1204, The New Jersey Zinc Company, (Zinc), March Monthly Report and Quarterly Summary

Attached are two copies of the subject reports of the Chaffin Tract, Wythe County, Virginia.

No invoices were received and no costs claimed on this report.

Helen R. Miller

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

EXTRA COPY
O. M. E.
RECEIVED APR 20 1959

DATE	INITIALS	CODE
		800

EXTRA COPY
O. M. E.
RECEIVED APR 20 1959

DATE	INITIALS	CODE

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

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 51

MAR 16 1959
O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Virginia
Contract Amount, $ 44,920.00 Government Participation: 50 % Amount, $ 22,460.00

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	3067.50	19779.50	22847.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	92.50	632.50	725.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	6.00	92.00	98.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.22/ft.	291.94	1868.02	2159.96			
TOTALS	3457.94	22372.02	25829.96	3457.94	22372.02	25829.96

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

Date March 10, 1959 Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. 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:

$ 1728.97

Signature Helen R. Meller
(Authorized Certifying Officer)

Date MAR 12 1959 Vou. No. 93

(See other side)

1728.97

(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-1204 in accordance with the terms of the contract.

Signature W. A. Beck Title MINING ENGINEER U. S. BUREAU OF MINES Date MAR 11 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER DMEA REGION V Date MAR 11 1959

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.

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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 February 1959 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead

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 0-1000	Ft.	2250.00	1000	22847.00	9818	2.33	16000	2.50
~~Core~~ 1000-1500	Ft.	817.50	327					
Auger								
~~Stripping~~ Sample Assay	Samp	6.00	3	98.00	50	2.00	200	2.00
~~Trenching~~ Core Trays	Tray	92.50	37	725.00	290	2.50	400	2.50
Test Pits								
Roads and Trails								
Incidental Allowances @ $0.22/ft.		291.94	1327	2159.96	9818	.22	16000	.22
TOTAL DISTRIBUTED COSTS		3457.94		25829.96				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3457.94		25829.96				$44920.00

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 March 10, 1959 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. Supt.

REMARKS: Includes costs of A-536

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
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 - CHAFFIN PROJECT

At the beginning of the month, diamond drill hole A-536 was at 620 feet. This was thirteen feet above the Archeocyathus Bed. The Taylor Marker, Black Rock and Mottled Marker were penetrated in turn. Seventy-nine feet of strongly metamorphosed dolomite was penetrated in the Malden horizon and considerable scattered mineralization encountered. A twenty foot run of 0.8% Zn and 0.8% Pb was the best run found. The hole was bottomed at 1327 feet.

Hole A-537 was collared between 535 and 536 on the belief that these holes had straddled ore. It had reached 205 feet, still in the black augen bed, by the end of the month.

DIAMOND DRILL LOG A-536

Location: Chaffin Area on Section 200 feet NW of A-535

210 S 7175 E

Inclination: Vertical Elevation: 2184

Started: 1/2/59 Completed: 2/18/59

RESULTS

From	To	Dist	Recov	Description
0	70	70	0	Red clay
70	80	10	7	Varied dolomite
80	120	40	0	Cavity
120	128	8	1	Fault
128	139	11	4	Black augen type dolomite, bleached
139	144	5	0	Cavity
144	154	10	2	Black augen dolomite, bleached
154	161	7	0	Cavity
161	188	27	5	Drillers log as "Soft Rock" Black augen bleached
188	593	405	374	Black augen zone, usually bleached, locally pseudo sand grains
593	620	27	27	Fine saccharoidal dolomite
620	633	13	13	Bleached grey saccharoidal dolomite - Base of Black Augen?
633	649	16	16	Archeocyathus Marker
649	901	252	247	Varied Dolomites
901	1010	109	98	Taylor Marker Zone, possibly repeated
1010	1023	13	13	Moderate metamorphism
1023	1028	5	5	Grey Dolomite
1028	1030	2	2	Mineralized, estimated .5% Pb
1030	1078	48	46	Strong metamorphism
1078	1109	31	31	Strong metamorphism with very weak mineralization
1109	1131	22	22	Black Rock Marker
1131	1182	51	51	Varied Dolomites
1182	1200	18	18	Mineralized Dolomite
1200	1212	12	12	Grey dolomite
1212	1244	32	30	Mottled Marker
1244	1259	15	15	Varied Dolomites
1259	1279	20	19	0.8% Zn & 0.8% Pb
1279	1284	5	5	0.4% Zn, Nil Pb
1284	1286	2	2	Mineralized
1286	1306	20	17	Grey dolomite
1306	1327	21	21	Sand grains, dolomite. Locally mineralized

BOTTOM

DIAMOND DRILL LOG A-537

Location: Chaffin Area, Section 173 Midway between A-535 and A-536

255 S 7270 E

Inclination: Vertical Elevation: 2187

Started: 2/23/59 Completed:

RESULTS

From	To	Dist.	Recov.	Description
0	70	70		Red clay
70	171	101	76	Black augen dolomite
171	173	2	0	Cavity
173	205	32	24	Black augen dolomite

Incomplete

AGR 3940 2M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole No. A-536 DATE 2-24-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	Footage	DRY	ZN	PB	FE		
80	2-24	Samp.No. 17211	1259 - 1269		.78	.35			
1		17212	1269 - 1279		.95	1.30			
2		17213	1279 - 1284		.45	nil			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

Geologist

RGB. Chemist

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

Austinville, Va.
March 10, 1959

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B Post Office Building
Knoxville 2, Tennessee

Subject: February Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract, Austinville, Va.

Dear Sir:

Attached is our February monthly report on the diamond drilling of the Chaffin Tract, Austinville, Virginia.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:rjl
In quintuplicate
Attachment

RECEIVED
MAR 11 1959
U. S. Geological Survey
Knoxville, Tenn.

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-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Virginia
Contract Amount, $ 44920.00 Government Participation: 50 % Amount, $ 22460.00

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	3172.50	16607.00	19779.50			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	102.50	530.00	632.50			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	6.00	86.00	92.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.22/ft.	301.18	1566.84	1868.02			
TOTALS	3582.18	18789.84	22372.02	3582.18	18789.84	22372.02

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

Date Feb. 4, 1959 Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Title Genl. 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:

$ 1791.09

Signature Helen R. Muller
(Authorized Certifying Officer)

Date FEB 6 1959 Vou. No. 86

(See other side)

1791.09

(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-1204 in accordance with the terms of the contract.

Signature V. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date FEB 5 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date FEB 5 1959

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

FEB 9 1959 M.E.

Month of January 1959 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
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 0-1000	Ft.	2250.00	1000	19779.50	8491	2.33	16000	2.50
~~Auger~~ 1000-1500	Ft.	922.50	369					
~~Sampling~~ Sample Assays	Samp.	6.00	3	92.00	47	2.00	200	2.00
~~Trenching~~ Core Trays	Tray	102.50	41	632.50	253	2.50	400	2.50
Test Pits								
Roads and Trails								
Incidental Allowances @ $0.22/ft.		301.18	1369	1868.02	8491	.22	16000	.22
Total Distributed Costs		3582.18		22372.02				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		3582.18		22372.02				$44920.00

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 Feb. 4, 1959 Operator Bertha Mineral Div. THE NEW JERSEY ZINC CO.

Per [signature] Title Genl. Supt.

Remarks: Includes costs of A-535

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)

[signature]
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 - CHAFFIN PROJECT

Diamond drill hole A-536 was collared January 2. Freezing weather and a stuck bit and broken core barrel which had to be fished out, limited progress during the month.

Three openings - one a 40-foot one - were penetrated in the first 161 feet. Nearly the entire footage drilled was typical black augen bed, usually bleached. The bottom of the black augen was probably penetrated at 593. At the end of the month, the hole was at 620 feet.

DIAMOND DRILL LOG A-536

Location: Chaffin Area on Section 200 feet NW of A-535

210 S 7175 E

Inclination: Vertical Elevation: 2184

Started: 1/2/59 Completed:

RESULTS

From	To	Dist	Recov	Description
0	70	70	0	Red clay
70	80	10	7	Varied dolomite
80	120	40	0	Cavity
120	128	8	1	Fault
128	139	11	4	Black augen type dolomite, bleached
139	144	5	0	Cavity
144	154	10	2	Black augen, dolomite, bleached
154	161	7	0	Cavity
161	188	27	5	Drillers log as "Soft Rock" Black augen bleached
188	593	405	374	Black augen zone, usually bleached, locally pseudo sand grains
593	620	27	27	Fine saccharoidal dolomite

AGB 3940 M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology Dept. Diamond Drill Hole No. A-535 DATE 1-3-59 19

SERIAL NO.	SAMPLE DATE	MATERIAL	Feet	DRY	ZN	PB	FE		
1	1-3	Samp.No. 17195	656 - 662		1.75	.23			
2		17196	662 - 669		.96	nil			
3		17197	685 - 694		.05	1.29			

Certified True Copy

THE NEW JERSEY ZINC COMPANY

Geologist

RGB. Chemist

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

Austinville, Va.
February 4, 1959

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B Post Office Building
Knoxville 2, Tennessee

Subject: January Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract, Austinville, Va.

Dear Sir:

Attached is our January monthly report on the diamond drilling of the Chaffin Tract, Austinville, Virginia.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:rjl
In quintuplicate
Attachment

RECEIVED
FEB - 6 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

January 12, 1959

EXTRA COPY
O. M. E.
RECEIVED JAN 20 1959

DATE		

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B Post Office Building
Knoxville 2, Tennessee

Subject: December Monthly Report and Quarterly Summary, Chaffin Tract, Austinville, Va., DMEA 5008, Contract IDM-E-1204

Dear Sir:

Attached is our December Monthly Report and Quarterly Summary of the exploration work on the Chaffin Tract, Austinville, Virginia.

No drill contractor's invoice was received during the month; therefore, no cost report or voucher is enclosed herewith.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:vhc
In quintuplicate
Attachments

RECEIVED
JAN 13 1959
U. S. GEOLOGICAL SURVEY

NARRATIVE REPORT - CHAFFIN TRACT

The month started with DDH A-535 just below the Ivanhoe Member or Archeocyathus (Archy) Bed as it is usually known. The hole penetrated the Taylor Marker which was repeated by a fault; encountered 46 feet of strong metamorphism in the Malden ore horizon, then penetrated the Black Rock and Mottled Markers before bottoming at 1369 feet. The hole encountered no ore but the mineralization found above the Archy Bed last month and the presence of the metamorphosed ground is believed to indicate that there is ore within 200 feet. Freezing weather delayed progress during December.

Hole A-536 was collared 200 feet northwest of A-535 but no progress was made during the month.

During the month, a survey of the deflections of the holes with a Tro-pari compass was started. Due to an accident in which the aluminum rods were lost, the job could not be completed. New rods have been ordered, and we expect to show the corrected location of the holes in the next quarterly report.

QUARTERLY SUMMARY

During the quarter ending December 31, the following holes were completed with the results noted below:

Hole No.	Depth	Collar	Bottom	Results
A-533	1384	Post T.M.	Austinville Dolomite	Barren
A-534	1370	Post T.M.	Austinville Dolomite	Barren
A-535	1369	Post T.M.	Austinville Dolomite	13' 1.3% Zn, 0.1% Pb 16' Barren 9' 0.9% Zn, 1.3% Pb

DIAMOND DRILL LOG A-535

Location: Chaffin Area on Austinville Grid
S 45 W from A-530 on Section 173

330 S 7330 E

Inclination: Vertical Elevation: 2187

Started: 11/14/58 Completed: 12/29/58

Results

From	To	Dist.	Recov.	Description
0	76	76	--	Red Clay
76	101	25	23	Black augen zone
101	103	2	0	Cavity
103	159	56	54	Black augen zone
159	160	1	1	Abundant "forams"
160	171	11	10	Black augen zone
171	172	1	0	Cavity
172	252	80	58	Black augen zone
252	277	25	20	Light gray with few sand frains
277	656	379	372	Black augen zone. 656 Base of augen
656	669	13	13	Mineralized, 1.3% Zn, 0.1% Pb
669	685	16	16	Mud flake dolomite
685	694	9	9	Mineralized .9% Zn, 1.3% Pb
694	747	53	53	Dirty dolomite
747	768	21	20	Mud flakes and sand grains
768	769	1	0	Cavity
769	777	8	3	Light gray dolomite
777	788	11	8	Archybed
788	1049	261	248	Varied dolomites; Locally mineralized
1049	1061	12	8	Dolomite sand grains Taylor Marker/
1061	1064	3	2	Fault Mineralized
1064	1095	31	31	Varied dolomite
1095	1105	10	10	Dolomite sand grains Taylor Marker
1105	1174	69	68	Varied dolomite
1174	1220	46	46	Strong met dolomite
1220	1250	30	30	Miscellaneous dolomite
1250	1262	12	12	Shale partings - Black Rock
1262	1298	34	32	Dolomite locally metamorphosed
1298	1312	14	14	Mottled Marker
1312	1369	57	51	Varied dolomites

BOTTOM

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-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1958 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Co. Minerals Zinc - Lead
Address Austinville, Virginia
Contract Amount, $44,920.00 Government Participation: 50 % Amount, $22,460.00

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	3175.00	13432.00	16607.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	105.00	425.00	530.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	None	86.00	86.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.22/Ft	301.40	1265.44	1566.84			
TOTALS	3581.40	15208.44	18789.84	3581.40	15208.44	18,789.84

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

Date 12/9/58 *Payee Bertha Mineral Div. THE NEW JERSEY ZINC CO

Per W. L. Allen Title General 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:

$1790.70

Signature Helen R. Miller
(Authorized Certifying Officer)

Date DEC 11 1958 Vou. No. 68
(See other side)

1790.70

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1240 in accordance with the terms of the contract.

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date DEC 10 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Alternate ACTING EXECUTIVE OFFICER

Signature [illegible] Title ONE FIELD TEAM REGION V Date DEC 10 1958

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.

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED DEC 15 1958 O.M.E.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 195 8 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead

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 0-1000	Ft	2250.00	1000	16607.00	7122	2.33	16000	2.50
Churn 1000-1500	Ft	925.00	370					
Auger								
Stripping								
~~Trenching~~ Sample Assays	Samp	None	None	86.00	43	2.00	200	2.00
~~Test Pits~~ Core Trays	Tray	105.00	42	530.00	212	2.50	400	2.50
Roads and Trails								
Incidental Allowances @ $0.22/Ft	Ft	301.40	1370	1566.84	7122	.22	16000	.22
TOTAL DISTRIBUTED COSTS		3581.40		18789.84				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3581.40		18789.84				44920.00

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 12/9/58 Operator Bertha Mineral Div. The New Jersey Zinc Co

Per W. L. Allen Title General Supt.

REMARKS: Includes costs of A-534

→ 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.

DEC 10 1958

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

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

Austinville, Va.
December 9, 1958

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B Post Office Building
Knoxville 2, Tennessee

Subject: November Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract, Austinville, Va.

Dear Sir:

Attached is our November monthly report on the diamond drilling of the Chaffin Tract, Austinville, Virginia.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:rjl
In quintuplicate
Attachment

RECEIVED
DEC 10 1958

NARRATIVE REPORT -- CHAFFIN PROJECT

The month started with DDH-A-534 immediately above the Ivanhoe Member at a depth of 855 feet. The hole was drilled to a bottom at 1370 and the Ivanhoe Marker, Taylor Marker, Black Rock Marker, and Mottled Marker were recognized. No ore and only two slight traces of mineralization were found. Instead of ore the drill penetrated strongly metamorphosed ground above the Black Rock.

DDH-A-535 was collared alongside the road southwest of A-530. The hole is characterized by a lack of limestone and good development of the Black Augen beds. Thirteen feet of estimated one half percent zinc and lead combined and 9 feet of 1% estimated zinc and lead combined were penetrated above the Taylor Marker. The hole is incomplete at 795 feet.

Attached is a geochemical map of the Chaffin tract included at the request of Mr. Wedow.

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

Budget Bureau No. 42-R1036.5

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

RECEIVED NOV 13 1958 PAID ON VOUCHER & SCHEDULE FOR PAYMENTS K-O.M.E.

Month of October, 1958 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals zinc-lead

Address Austinville, Virginia

Contract Amount, $ 44,920.00 Government Participation: 50% Amount, $ 22,460.00

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	3210.00	10222.00	13432.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core trays @ $2.50	102.50	322.50	425.00			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	None	86.00	86.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.22/ft.	304.48	960.96	1265.44			
TOTALS	3616.98	11591.46	15208.44	$3616.98	$11,591.46	$15208.44

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

Date 11/7/58 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per W. L. Allen Title Genl. 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)

$1808.49

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

$1,808.49

Signature Helen R. Meier
(Authorized Certifying Officer)

Date NOV 12 1958 Vou. No. 55
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1204 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER U. S. BUREAU OF MINES Date NOV 10 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date NOV 10 1958

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 NOV 13 1958 O.M.E.

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

Month of October 195 8 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead

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 0-1000	Ft.	2250.00	1000	13432.00	5752	2.34	16000	2.50
1000-1500	Ft.	960.00	384					
Auger								
Stripping								
Sample Assay	Samp	None	None	86.00	43	2.00	200	2.00
Core Trays	Tray	102.50	41	425.00	170	2.50	400	2.50
Roads and Trails								
Incidental Allowance @ $0.22/ft.	Ft.	304.48	1384	1265.44	5752	.22	16000	.22
TOTAL DISTRIBUTED COSTS		3616.98		15208.44				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3616.98		15208.44				$44,920.00

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 11/7/58 Operator Bertha Mineral Div. The New Jersey Zinc Co.

Per M. L. Allen Title Gen. Supt.

REMARKS: Includes costs of A-533

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)

H Gerdom

GEOLOGIST, U. S. G. S.

NOV 10 '58

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

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

November 7, 1958

Regional Executive Officer
Defense Minerals Exploration Admn.
Room 2-B, Post Office Building
Knoxville 2, Tennessee

Subject: October Monthly Report
DMEA 5008, Contract IDM-E-1204
Chaffin Tract, Austinville, Va.

Dear Sir:

Attached is our October monthly report on the Chaffin Tract, Austinville, Virginia

Very truly yours,

W. L. Albers/pgr

W. L. Albers
General Superintendent

WHB

WHoratioBrown:rjl
In quintuplicate
Attachments

RECEIVED
NOV 7 - 1958
U. S. Geological Survey
Contracts Section

Narrative Report - Chaffin Project

The month started with DDH A-533 at a depth of 733 feet. The hole encountered only traces of sphalerite mineralization and was bottomed in the sand grain beds below the Mottled Marker at a depth of 1384 feet.

Hole A-534 was collared 200 feet southeast of A-533 but was lost and was moved 5 feet northwest. At the end of the month, the hole was incomplete immediately above the Ivanhoe Member at a depth of 855 feet.

During the month, considerable success was achieved in stratigraphic correlations. We can now recognize the Ivanhoe or Carbide Member, the Taylor Marker sometimes, the Black Rock Marker, the Mottled Marker, and the lower sand grain horizons below the Mottled Marker.

DIAMOND DRILL LOG A-533

Location: Chaffin Area on Austinville Grid
N 65 E 470 feet from A-530 on Section 189

128.06 N 7980.15 E

Inclination: Vertical Elevation: 2151.27
Started: 9/23/58 Completed: 10/10/58

Results

From	To	Dist.	Recov.	Description
0	75	75	-	Red clay
75	115	40	40	Arch limestone
115	211	96	92	Varied dense limestone
211	230	19	19	Arch Reef
230	267	37	35	Foraminifera or Oolites?
267	597	330	226	Interbedded limestone and dolomite - sand grains 514
597	616	19	19	Taylor Marker? and T.M. Mot.
616	714	98	98	Interbedded LGy Sach and Black Augen dolomite
714				Base of Black Augen
714	733	19	19	Light Grey Sach Dolomite
733	747	14	14	Varied dolomite mud flakes and shale partings
747	784	37	37	Arch Reef - Ivanhoe Member
784	871	87	87	Varied dolomite with shale partings and mud flakes
871	886	15	15	Mud flake Bd Marker
886	914	28	28	Slightly metamorphosed saccharoidal dolomite
914	922	8	8	Stylolitic Parting Bd
922	1209	287	284	Varied types of dolomite
1209	1245	36	36	Shale Parting - Black Rock Marker
1245	1289	44	44	Varied dolomites
1289	1295	6	6	Sach Dolomite rare sand grains
1295	1312	17	17	Mottled Marker
1312	1320	8	8	Varied dolomites
1320	1332	12	12	Saccharoidal dolomite with sand grains
1332	1355	23	23	Saccharoidal dolomite
1355	1366	11	11	Fine dolomite few sand grains
1366	1372	6	2	Fault zone. Mylonite
1372	1384	12	12	Saccharoidal dolomite with sand grains

BOTTOM

DIAMOND DRILL LOG A-534

Location: Chaffin Area on Austinville Grid
S 45 E 195 feet from A-533 on Section 189

14 S 8114 E

Inclination: Vertical Elevation: 2152

Started: 10/11/58 Completed:

Results

From	To	Dist.	Recov.	Description
0	78	78		Red clay
78	269	191	172	Limestone cavernous upper part, Black augen and sedimentary breccia types
269	273	4	4	Black Augen Dolomite
273	502	229	229	Limestone, Black Augen and sedimentary breccia type
502	553	51	51	Black Augen dolomite
553	614	61	61	Limestone, Black Augen and shale partings
614	628	14	14	Limestone with few small sand grains
628	676	48	48	Limestone, Black Augen
676	682	6	6	Dolomite, fine saccharoidal
682	713	31	30	Well bedded dolomite
713	720	7	5	Mylonite, fault zone
720	727	7	0	Cavity
727	747	20	19	Massive limestone
747	760	13	13	Saccharoidal dolomite
760	779	19	16	Strong met dolomite
779	839	60	60	Saccharoidal dolomite
839	855	16	16	Saccharoidal dolomite with mud flakes. Mud flake bed

Incomplete

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED OCT 17 1958 O.M.E.

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1958 Docket No. DMEA 5608 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead
Address Austinville, Virginia
Contract Amount, $ 44,920.00 Government Participation: 50% Amount, $ 22,460.00

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	6410.00	3812.00	10222.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	205.00	117.50	322.50			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	44.00	42.00	86.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Incidental Allowance @ $0.22/ft.	608.08	352.88	960.96			
TOTALS	7267.08	4324.38	11591.46	7267.08	4324.38	11591.46

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

Date 10/9/58 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Allen Title General 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:

$3,633.54

Signature Helen R. Mellin (Authorized Certifying Officer)

Date OCT 15 1958 Vou. No. 18

(See other side)

$3,633.54

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1204 in accordance with the terms of the contract.

Signature [illegible] Title U. S. BUREAU OF MINES Date OCT 14 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lamenace Title EXECUTIVE OFFICER REGION V Date OCT 14 1958

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.

F-104A
(ii 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 195 8 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc-Lead

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 0-1000	Ft.	4500.00	2000	10222.00	4368	2.34	16000	2.50
1000-1500	Ft.	1910.00	764					
~~Blast Hole~~ XXXX								
~~Auger~~								
Stripping								
~~Trenching~~ Sample Assays	Samp	44.00	22	86.00	43	2.00	200	2.00
~~Test Pits~~ XXXX Core Trays	Trays	205.00	82	322.50	129	2.50	400	2.50
Roads and Trails								
Incidental Allowances @ $0.22/Ft.	Ft.	608.08	2764	960.96	4368	.22	16000	.22
TOTAL DISTRIBUTED COSTS		7267.08		11591.46				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		7267.08		11591.46				$44,920.00

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

REMARKS: Includes costs of A-531 and A-532

Date 10/9/58 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Allen Title General Supt.

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 OCT 17 1958 O.M.E.

GEOLOGIST, U. S. G. S.

OCT 14 '58

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 - Chaffin Project

The month started with A-531 at a depth of 1234 feet. This hole can be seen on Section 7GB-2189A. The hole was continued through the Mottled Marker and just past the up dip projection of the lower ore in A-530 without discovering any further mineralization. It was bottomed at 1321 feet.

A-532 was collared 100 feet southeast of A-530 as shown on 7GB-2189A. The hole was characterized by a big increase in limestone in the top 700 feet and by a lack of definite known district-wide markers in the upper 1100 feet. However, enough local markers that can be traced from hole to hole are found to give a fair picture.

Hole A-533 was collared N65E 430 feet from A-530 on Section 189. To date the hole is very similar to A-532 with the top 600 feet predominantly limestone. The best marker found to date in the upper horizons is the bed of either foraminifera or oolites found in holes A-530 and 532. The hole was incomplete at 733 feet at the end of the month.

Quarterly Summary

During the quarter ending September 30, the following holes were completed with the noted results:

Hole No.	Depth	Collar	Bottom	Results	
A-530	1604	Post TM	Austinville Dolomite	106'	4.0% Zn, 1.2% Pb
				23'	2.0% Zn, 0.9% Pb
				9'	2.0% Zn, Nil Pb
A-531	1321	Post TM	Austinville Dolomite	15'	7.1% Zn, 2.4% Pb
A-532	1443	Post TM	Austinville Dolomite	6'	2.4% Zn, 0.2% Pb
				12'	7.1% Zn, 0.5% Pb
				8'	4.1% Zn, 1.1% Pb
				61'	1.8% Zn, 0.2% Pb

Form M10-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August 1958 Docket No. DMEA 5008 Contract No. 1204
Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead
Address Austinville, Va.
Contract Amount, $ 44,920.00 Government Participation: 50% Amount, $ 22,460.00

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	$3812.00	None	$ 3812.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Core Trays @ $2.50	117.50	None	117.50			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	42.00	None	42.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Incidental Allowances $0.22/ft.	352.88	None	352.88			
TOTALS	4324.38	None	4324.38	4,324.38		4,324.38

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

Date 9/5/58 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per W. H. Allen Title General 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:

$ 2,162.19

Signature Peter R. Miller
(Authorized Certifying Officer)

Date SEP 10 1958 Vou. No. 34
(See other side)

5 1/3

2162.19

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1204 in accordance with the terms of the contract.

Signature L. O. Beck Title U. S. BUREAU OF MINES MINING ENGINEER Date SEP 8 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date SEP 8 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195 8 Docket No. DMEA 5008 Contract No. 1204

Operator's Name The New Jersey Zinc Company Minerals Zinc - Lead

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 0-1000	Ft.	2250.00	1000	3812.00	1604	2.377	16000	2.50
~~Core~~ ~~Churn~~ 1000-1500	"	1250.00	500					
~~Auger~~ 1500-1604	"	312.00	104					
Stripping								
Trenching ~~Sample Assays~~	Samp.	42.00	21	42.00	21	1.00	200	2.00
~~Test Pits~~ ~~Core Trays~~	Trays	117.50	47	117.50	47	2.50	400	2.50
~~Roads and Trails~~ Incidental Allowances @ $0.22/ft.	Ft.	352.88	1604	352.88	1604	.22	16000	.22
TOTAL DISTRIBUTED COSTS		$4324.38		$ 4324.38				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4324.38		$ 4324.38				$44,920.00

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

REMARKS: Includes cost of A-530

Date 9/5/58 Operator Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per W. L. Allen Title General Supt.

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 U. S. BUREAU OF MINES

SEP 8 1958

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

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

September 5, 1958

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

Subject: August Monthly Report
DMEA 5008 Contract IDM-E-1204
Chaffin Tract, Austinville, Va.

Dear Sir:

Attached is our August Monthly Report on the Chaffin Tract, Austinville, Virginia.

It is of especial interest in that two ore holes are reported.

Very truly yours,

W. L. Albers
General Superintendent

WHoratioBrown:rjl
In quintuplicate
Attachments

SEP 8 - 1958

Narrative

The month started with DDH A-530 at a depth of 1085 feet. At 1126', the drill encountered ore which over a total distance of 106' assayed 4.0% Zn and 1.2% Pb. A second run was penetrated from 1301' to 1324' which assayed 2.0% Zn and 0.9% Pb. A third run 9' thick was encountered at 1334' and assayed 2.0% Zn and Nil Pb. Scattered mineralization was encountered to the bottom at 1604'. The stratigraphy was characterized by rather unsatisfactory identification of markers.

DDH A-531 was collared 100 feet northwest of A-530. In this hole, markers were even scarcer than in A-530 but it now appears that three or four horizons can be recognized. Opposite the top of the 106-foot run in A-530, 15 feet of ore was encountered at 1113', assaying 7.1% Zn and 2.4% Pb. It would appear from these two penetrations that we have the up dip fringe of the ore especially as strongly metamorphosed ground is present both above and below the A-531 ore placing it above and up dip from the main showing in A-530.

DIAMOND DRILL LOG - A-530

Location: Austinville Grid: 4,000 ft. south of base line on Section 181

61.53 S 7598.15 E

Inclination: Vertical Elevation 2170.97

Object: To test for ore body en echelon from Austinville Orebodies.

Results

From	To	Dist.	Recov.	Description
0	83	83	0	Red clay overburden
83	120	37	26	Dolomite Locally Archies and Mud Flakes
120	124	4	4	Dense limestone
124	139	15	15	Dolomite, fine sach mottled
139	153	14	14	Dense limestone
153	276	123	118	Black Augen dolomite locally leached, archies
276	328	51	50	Archie & Fossil Limestone Ivanhoe Member???
328	647	319	318	Black augen dolomite largely bleached, locally archies
647	689	42	42	Mud flakes, Pseudo sand grains, Rare Partings, Mottled, Taylor Marker??
689	848	159	159	Light medium gray dolomite, local archies, local mottled
848	855	7	7	Medium to dark gray abundant shale partings Black Rock Marker?
855	1002	147	145	Very varied types of dolomite
1002	1003	1	1	Mylonitic fault zone
1003	1036	33	31	Mottled dolomite, Taylor Marker???
1036	1085	49	48	Medium gray sach dolomite
1085	1111	26	26	Medium gray sach dolomite
1111	1126	15	15	Strong Met, locally sach
1126	1130	4	4	Mineralized 1.6% Zn, Nil Pb
1130	1151	21	21	Ore 4.6% Zn, 0.2% Pb
1151	1166	15	15	Ore 3.9% Zn, Nil Pb
1166	1179	13	13	Ore 4.1% Zn, 1.1% Pb
1179	1186	7	7	Ore 14.8% Zn, 8.2% Pb
1186	1194	8	8	Mineralized 0.6% Zn, 0.1% Pb
1194	1206	12	12	Low grade 1.9% Zn, 0.4% Pb
1206	1213	7	7	Ore 9.4% Zn, 4.8% Pb
1213	1220	7	7	Medium gray sach dolomite

DIAMOND DRILL LOG -- A-530 (Cont)

From	To	Dist.	Results Recov.	Description
1220	1232	12	12	Ore 4.5% Zn, 1.2% Pb
1232	1239	7	7	Mineralized
1239	1275	36	36	Medium gray sach
1275	1288	13	13	Mottled Marker?
1288	1301	13	13	Medium gray sach
1301	1324	23	22	Low grade 2.0% Zn, 0.9% Pb
1324	1334	10	10	Mineralized medium gray sach
1334	1343	9	9	Low grade 2.0% Zn, Nil Pb
1343	1368	25	25	Mineralized light medium gray dolomite
1368	1448	80	80	Light medium gray dolomite
1448	1451	3	3	Estimated 2% Zn and .3% Pb
1451	1534	83	83	Varied types of dolomite
1534	1604	70	68	Banded sach dolomite mineralized nearly to bottom.
Bottom				

(N.B.) 476-503 should be added as a marker. It is a lower black rock type multiple shale parting bed.

DIAMOND DRILL LOG A-531

Location: Austinville Grid: 3900 ft. southeast of base line on Section 181

7.72 N 7525.64 E

Inclination: Vertical Elevation: 2175.82

Results

From	To	Dist.	Recov.	Description
0	60	60	0	Red clay overburden
60	168	108	78	Black augen dolomite zone locally bleached
168	286	196	105	Abundant archies. The lower part of this zone may be dolomitized Ivanhoe Member
286	414	128	128	Partly bleached black augen zone
414	451	44	44	Bed of multiple shale partings. Apparently a Marker
451	558	107	107	Bleached? Black augen
558	716	158	152	Varied types of dolomite
716	787	71	71	Zone of abundant partings. Possibly Black Rock Marker.
787	821	34	34	Mud flake dolomite
821	1076	255	255	Varied types of dolomite Fault 954-958
1076	1113	37	37	Strong Met Dolomite
1113	1128	15	15	Ore 7.1% Zn, 2.4% Pb
1128	1141	13	13	Strong Met Dolomite
1141	1234	93	93	Light gray slight Met dolomite

Incomplete

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geol.

Diamond Drill Hole No. A-530 DATE 8-7-58 19

SERIAL NO.	SAMPLE DATE	MATERIAL	~~BARX~~ Feet	DRY	ZN	PB	FE		
607	8-6	Sample No. 17152	1126 - 1130		1.61	.01			
608		17153	1130 - 1136		4.46	.14			
609		17154	1136 - 1143		6.76	.32			
610		17155	1143 - 1151		2.80	.05			
611		17156	1151 - 1158		.46	Nil			
612		17157	1158 - 1166		.27	"			
613		17158	1166 - 1173		3.86	.31			
614		17159	1173 - 1179		6.02	1.97			
615		17160	1179 - 1186		14.81	8.23			
616		17161	1186 - 1194		.59	.11			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

[illegible signature]

Geologist

WLS Chemist

AGB 3940 CM 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Diamond Drill Hole No. A-530 DATE 8-8-58 19

SERIAL NO.	SAMPLE DATE	MATERIAL	~~CAR~~ Feet	DRY	ZN	PB	FE		
617	8-6	Sample No. 17162	1198 - 1206		2.39	.37			
618		17163	1206 - 1213		9.43	4.82			
619		17164	1213 - 1220 1220 - 1226	- - -	- - - -	- - - -	- - 7'	Waste	
620		17165	1226 - 1232		3.22	.44			
621		17166	1232 - 1301 1301 - 1306	- - - -	- - - -	- - - -	- - 69'	Waste	
622		17167	1306 - 1312		1.70	.38			
623		17168	1312 - 1318		1.70	.89			
624		17169	1318 - 1324		3.95	.07			
625		17170	1324 - 1334 1334 - 1338	- - - -	- - - -	- - - -	- - 10'	Waste	
626		17171	1338 - 1343		1.65	"			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

C. O. Mathews Jr.
Geologist

W.S. Chemist

AGB 3940 M 7-55

BERTHA MINERAL DIVISION

THE NEW JERSEY ZINC COMPANY

AUSTINVILLE, VA.

LABORATORY REPORT—SHIPMENTS AND MISCELLANEOUS

Geology

Diamond Drill Hole No. A-530

DATE 8-11-58 19

SERIAL NO.	SAMPLE DATE	MATERIAL	Feet	DRY	ZN	PB	FE		
827	8-8	Sample No. 17172	1194 - 1198		.96	.37			

Certified True Copy
THE NEW JERSEY ZINC COMPANY

Geologist

WLS

Chemist

958
5/13 Sh.9. 825
100
500

DIAMOND [illegible]

Location [illegible]

Inclination: Vertical Elevation: 2370.97

Object: [illegible] from [illegible]ville

Depth	Dist.	Recov.	Description
83	83	0	Red clay overburden
120	37	27	Dolomite Locally Ardmore and Mud Flakes
124	4	4	Dense limestone
135	[illegible]	[illegible]	Dolomite, fine rock mottl[illegible]
152	[illegible]	[illegible]	Dense limestone
276	[illegible]	[illegible]	Black [illegible] dolomite locally [illegible] porchies
328	54	[illegible]	[illegible] Limeston[illegible] [illegible] Member???
647	31	31	Black [illegible] dolomite [illegible] largely bituminous, locally [illegible]
689	42	2	Mud flakes, Pseudo sand [illegible], Bare Partings, M[illegible] [illegible] dolomite
840	151	[illegible]	Light medium gray dolomite [illegible] local mott[illegible]
855	–	[illegible]	Medium to dark gray abund[illegible] shale partings [illegible]
1002	[illegible]	[illegible]	[illegible] dolo[illegible]
1003	1	1	[illegible] zone
1036	33	31	Mottled dolomite, [illegible]
[illegible]	49	49	Medium gray rich dolomite

Incomplete

X 1086 150M

COPY

DMEA
RECEIVED JUL 11 1958

DATE	INITIALS	CODE
7/14	Cou	100
		800

July 8, 1958

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

Subject: Initial Report, Docket DMEA-5008
Contract #IDM-E1204, Chaffin Tract
Austinville, Wythe County, Va.

Dear Sir:

This will advise you that the Joy Manufacturing Company has been moving onto the Chaffin tract for several days, has the drill set up, and expects to start drilling tomorrow.

Very truly yours,

W. L. Albers

W. L. Albers
General Superintendent

WHoratioBrown:rjl
In quintuplicate

RECEIVED
JUL 9 - 1958
U. S. Geological Survey
Denver, Colorado
Knoxville, Tenn.

Contract Division

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

To: The New Jersey Zinc Company
160 Front Street
New York 38, New York

Pursuant to the provisions of Exploration Project Contract No. IAm-[illegible], dated June 12, 1956, (Docket No. [illegible]), hereinafter called the "contract," between The New Jersey Zinc Company, a New Jersey corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows:

Core drilling from the surface, performed under the contract, resulted in the discovery of significant zinc-lead ore deposits on three geological horizons in the Shady dolomite formation of Lower Cambrian age.

Dated: [illegible]

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Acting Director, Office of
Minerals Exploration

FEMurphy/gla 5-9-60
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, WSEM
Harold Kirkham, USGS
Contract Adm. & Audit Division
GMK Field Team, Region V (2)
Finance Office
Docket
Chron
Clarence A. Fredell, BMS, GSA

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

MAR 15 1960

The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: Docket No. DMEA-5008 (Zinc-Lead)
The New Jersey Zinc Company
Chaffin Tract
Austinville Area
Wythe County, Virginia
Contract No. Idm-X1204

Gentlemen:

Enclosed is a certification of discovery or development that covers all the land described in Article 2 of the contract.

By the terms of the Exploration Project Contract, as amended, and the certification, all minerals mined or produced from June 12, 1958, to June 12, 1960, are subject to the Government's percentage royalty as set forth in the contract until the sum of $12,209.00 is repaid to the Government.

Royalty payments should be made to the Executive Officer, OME Field Team, Region V, Room 11, Post Office Building, Knoxville 2, Tennessee, by the purchaser, with checks drawn payable to the Office of Minerals Exploration, the successor to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct royalties from the amount due on each shipment and send the check directly to the Executive Officer. Each check should be accompanied by suitable sales evidence - such as copies of settlement sheets - showing the name of the purchaser, the quantity and grade of the products sold, and the price and charges, certified to be correct by the purchaser.

You are requested to notify the Executive Officer of any changes in ownership or production rights that may have any effect on the Government's right to its percentage royalty. Your attention is called particularly to Article 2(d) of the contract relating to the preservation of the Government's right to a percentage royalty on production. Also when production starts, please notify the Executive Officer. Thereafter, if production ceases for any extended period, please notify him accordingly at six-month intervals.

Sincerely yours,

Frank E. Johnson

Acting Director

FMMurphy/gla 3-9-60

cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, USBM
Harold Hickage, USGS

OME Field Team, Region V (2)
Docket Chron
Contract Adm. & Audit Division

Audit's copy

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-5008

AMENDMENT NO. 2

It is agreed this 24th day of July, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government," and The New Jersey Zinc Company, hereinafter called the "Operator," that Contract No. Idm-11204, Docket No. DMEA-5008, dated June 18, 1958, as amended, is further amended as of the date of the Contract as follows:

In Amendment No. 1: Delete Item 1, and substitute:

1. Paragraph 5 of Exhibit "A" is revised to read as follows:

5. It is estimated that approximately 16 holes will be required, having an average depth of approximately 1,500 feet, with a maximum depth for any hole of approximately 2,500 feet. Not more than 24,000 feet of drilling shall be performed.

Under Item 2, Exhibit "A", "Estimated Cost of the Project," delete:

Diamond drilling from 1,500- to 2,000-feet depth, AX size, 5,050 feet @ $3.00/ft.	$15,150.00
EX size @ $2.75/ft.	------

Substitute:

Diamond drilling in excess of 1,500-foot depth, AX size, 5,050 feet @ $3.00/ft.	$15,150.00
EX size @ $2.75/ft.	---------

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate

total amount which the Government may be required to contribute, the amount of any item designated as "maximum", or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
Acting Director, Office of
Minerals Exploration

THE NEW JERSEY ZINC COMPANY

By W F Johnson

Title VICE PRESIDENT

MME Form 14
Sept. 1958

Contract No. Idm-E) 1204
~~Idm~~23)

Docket No. DMEA) 5008
~~MME~~)

Date of Action June 29, 1959
Executed amendment

DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OBLIGATION DOCUMENT

To: Chief, Accounts Section, Finance Branch, Bureau of Mines

From: Director, Division of Operations Control and Statistics

Please enter the amounts shown below on the accounts of the Office of Minerals Exploration.

Name and Address of Contractor:

New Jersey Zinc Company
160 Front Street
New York 38, New York

Date of Contract	Region	State	Commodity
June 12, 1958	V	Virginia	Zinc-Lead

	Reserve	Obligation
Prior Amount	0	$22,460.00
Increase	0	10,993.00
Decrease	0	0
Revised Amount	0	33,453.00

Remarks:

cc: 800
210

43244

Audit's copy

JUN 29 1959 O.M.E.

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-5008

AMENDMENT NO. 1

It is agreed this 16th day of June 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and The New Jersey Zinc Company, that Contract No. IdM-X1204, Docket No. DMEA-5008, dated June 12, 1958, is amended effective as of the date of the Contract, as follows:

1. Paragraph 5 of Exhibit "A" is revised to read as follows:

5. It is estimated that approximately 16 holes will be required, having an average depth of approximately 1,500 feet, with a maximum depth for any hole of approximately 2,000 feet. Not more than 24,000 feet of drilling shall be performed.

2. Exhibit "A", "Estimated Cost of the Project", is revised to read as follows:

Estimated Cost of the Project

Actual Costs

Category (1) Independent Contracts (See Annex II)

Overburden drilling and diamond drilling to 1,000-foot depth. AX size, 12,000 feet @ $2.25/ft.	$27,000.00	
EX size @ $2.00/ft.	----	
Diamond drilling from 1,000- to 1,500-foot depth. AX size, 6,950 feet @ $2.50/ft.	17,375.00	
EX size @ $2.25/ft.	----	
Diamond drilling from 1,500- to 2,000-foot depth. AX size, 5,050 feet @ $3.00/ft.	15,150.00	
EX size @ $2.75/ft.	----	$59,525.00

Actual Costs, Category (1) Independent Contracts, cont'd.

The above rates include charges for reaming, cementing, water supply, casing, changing of locations, and all other charges by the diamond drill contractor.

Neither the cost nor the value of the casing left in drill holes at the option of the Operator will be accepted as a charge to the contract.

Category (2) through (6)	None	
Category (7) Miscellaneous None except:		
300 samples assayed @ $2.00*/each sample	$ 600.00	
Core boxes - 600 @ $2.50*/each box	1,500.00	2,100.00

Fixed Unit Costs (See Annex II)

Incidental allowance 1/ for each foot of drilling completed, 24,000 feet @ $0.22/ft.	5,280.00
Estimated Total Cost of the Project (rounded to)	$66,906.00
Government Participation @ 50%	$33,453.00

3. In Article 3 of the Contract the date for completion of the work is extended from "July 30, 1959" to "December 31, 1959".

4. In Article 5 of the Contract the estimated total allowable cost of the project is changed from "$44,920.00" to "$66,906.00", and the figure "$22,460.00" is changed to "$33,453.00".

---

*In addition to the maximum fixed in the contract form, an asterisk indicates maximum.

1/ Includes all costs that might be allowable costs of the project under Categories (1) through (7) of Article 6(a) except as otherwise scheduled in Exhibit "A".

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Salmon
Acting Director, Office of
Minerals Exploration

THE NEW JERSEY ZINC COMPANY

By H Baldwin

Title Vice President

EXTRA COPY O. M. E. RECEIVED OCT 16 1958		
DATE	INITIALS	CODE
		800

October 13, 1958

Mr. W. L. Albers, General Superintendent
Bertha Mineral Division
The New Jersey Zinc Company
Austinville, Virginia

Attention: Dr. W. H. Brown, Chief Geologist

Re: DMEA-5008, Idm-E1204 (Zinc-lead)
Chaffin Estate, Austinville area
Wythe County, Virginia

Dear Mr. Albers:

The plan to drill a hole on the subject project approximately 400 feet southwest of Hole A-530 on strike with Holes A-530 and A-533, as discussed by Messrs. Brown, Lynch, Shirley, and Wedow on October 9, 1958 is hereby approved.

Messrs. Shirley and Wedow plan to make the next inspection of the subject project sometime in the latter part of the week of October 19, probably on Thursday, October 23. We will let you know the precise time within the next few days.

Sincerely yours,

Robert A. Laurence
Executive Officer
Region V

RWjr/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Mr. L. E. Shirley
File

MME Form 14
Sept. 1958

Contract No. Idm-E) 14-23) 1204

Docket No. DMEA) MME) 5608

Date of Action February 29, 1960
Terminated Contract

DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OBLIGATION DOCUMENT

To: Chief, Accounts Section, Finance Branch, Bureau of Mines

From: Director, Division of Operations Control and Statistics

Please enter the amounts shown below on the accounts of the Office of Minerals Exploration.

Name and Address of Contractor:

The New Jersey Zinc Company
160 Front Street
New York, 38 N. Y.

Date of Contract	Region	State	Commodity
June 12, 1958	V	Virginia	Zinc-Lead
	Reserve		Obligation
Prior Amount	0		$33,453.00
Increase	0		0
Decrease	0		1,244.00
Revised Amount	0		$32,209.00

Remarks:

cc: 800
210

43244

DMEA Form 14

Contract No. Idm-E 1204

Docket No. 5008

Executed Contract

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Obligation Document

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
June 12, 1958	V	Virginia	Zinc-Lead

Name and Address of Operator:

New Jersey Zinc Company
160 Front Street
New York 38, New York

	Reserve	Obligation
Prior Amount	22,460.00	0
Increase	0	22,460.00
Decrease	22,460.00	0
Revised Amount	0	22,460.00

Remarks:

(Name)

Allen S. Dakan, Chief, Operations Control and Statistics Division

(Title)

Date delivered to Bureau of Mines, Washington 6/20/58

22845

Audit Copy

MF-200
(Revised June 1954)

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 20 1958

DATE	INITIALS	CODE
		800

Docket No. DMEA-5008

Commodity Zinc-Lead

Contract No. Idm-E 1204

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]

It is agreed this 12 JUN 1958 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] The New Jersey Zinc Company, a New Jersey Corporation, whose mailing address is 160 Front Street, New York 38, New York, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, ~~and~~ Annex II, and Map (Figure 2)

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Virginia, County of Wythe, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] See Annex I of [5] See Annex I in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [7] ..... recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: See Annex I

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached, as follows: None

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Zinc and Lead. The work to be performed is described in Exhibit "A." The Operator on or before July 30, 1958 shall commence the work, and on or before July 30, 1959 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."~~ See Annex II.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $44,920.00. The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $22,460.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; ~~but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of and to the allowable cost of the work~~ See Annex II.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums. See Annex II.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 8. See Annex II.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ~~ten~~ 30 years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. See Annex II.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing. See Annex II.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

See Annex II attached hereto as a part hereof.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C O Mittenbergs
Administrator, Defense Minerals
Exploration Administration

THE NEW JERSEY ZINC COMPANY
(Operator)

By L F Johnson

Title VICE PRESIDENT

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

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

35485

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-5008

ANNEX I

The land referred to in Article 2 of the contract consists of a tract known as the "Chaffin Mineral Reservation", which is shown outlined in blue on the map (Fig. 2) entitled "The New Jersey Zinc Company, Proposed Drilling, Chaffin Estate Tract, Austinville, Virginia, File No. 70B-4367" attached to and made a part hereof.

The land is situate in Wythe County, Virginia, and is described as follows: "That tract containing 970 acres more or less being all the portion lying north of the Austinville-Poplar Camp road of that tract of land situated in the Lead Mine District of Wythe County, Virginia, which was devised by Elizabeth Chaffin to Alex N. Chaffin and Emily W. Crockett by will of record in Clerk's Office of Wythe County in Will Book 15, at page 532, and described in a plat of record in the Clerk's Office of Wythe County in Plat Book 2 at page 33 and title to which has been vested in The New Jersey Zinc Company by decree of the Circuit Court of Wythe County, dated May 5, 1958".

The Operator, by virtue of purchases and the above-identified court decree, has acquired all of the mineral rights and limited surface rights in the tract.

SPECIAL AGREEMENT CONCERNING LAND

1. In the event the Operator or any subsidiary thereof (whether wholly owned or otherwise), at any time during the period expiring ten years from the date of this contract acquires any interest, title, or equity (exclusive of agreements granting the rights to explore, purchase, or acquire leases) in or with respect to any land, including minerals therein, situate within 1500 feet of the land described in this contract, at the contract date and the right to make such acquisition postdates this contract, it is agreed that such land shall thereupon become subject to the provisions of this contract, and the parties hereto shall promptly execute amendments to this contract listing such land as land included in this contract.

2. It is further agreed that the Operator may, at any time prior to furnishing the Government with the final report, request the Government to delete from this contract such land listed in this Annex I, or in any amendments thereto, as has no known value for mineral production. The Government will, if it concurs that the land has no known value for mineral production, promptly prepare amendments removing the specified land from the contract, which amendments shall provide that the Operator:

(a) certifies the land has no known value for mineral production; and

(b) agrees that if the Operator or any subsidiary thereof (whether wholly owned or otherwise) acquires or reacquires any interest, title, or equity (exclusive of agreements granting rights to explore, purchase, or acquire leases) in such land or any minerals produced therefrom or derives any benefit therefrom, before the expiration of thirty years from the date of this contract, such land shall be deemed subject to this contract and any certification until the expiration of thirty years from the date of this contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-5008

ANNEX II

Article 13. Changes and Added Provisions--

1. In Article 3, the words following the reference to Article 10 are deleted, and the following words are substituted: "shall have completed the work."

2. In Article 6(a), that part of the last sentence in the first paragraph beginning after the semicolon is deleted.

3. Categories (2) through (6) of Article 6(a) are deleted.

4. In Article 6(c), the words "Article 9" are changed to "Article 8."

5. In Article 8(b): (1) the word "minerals" includes limestone and dolomite products produced in processing ore; and (2) the words "ten years" are changed to "thirty years."

6. The following clause is added to Article 8(c):

> Provided, however, That so long as the Operator operates smelting facilities as an integrated part of its business, the settlement made by the Operator's smelter to its mine or mill on the ore or concentrates subject to the Government's royalty shall be, for the purpose of calculating the royalty payable to the Government under this contract, on the same settlement basis that the said smelter makes to its independent suppliers under the schedule most favorable to any independent supplier, or should gross income from mining operations for percentage depletion purposes in Federal income tax determination show a greater value for ore or concentrate sales than that value which would result from applying the smelter schedule most favorable to an independent supplier, the greater value will be used as the basis for calculating royalty payable to the Government.

7. In addition to the costs of work estimated in Exhibit "A" by categories of actual costs, the costs of work requirements specified in Exhibit "A" as "Fixed Unit Costs" are allowable costs of the project. The Government will contribute to the fixed unit costs as work units are performed. A "Fixed Unit Cost" is an agreed price for each unit of work to be performed regardless of costs incurred by the Operator. Costs set forth in Exhibit "A" include all allowable costs of the work to be performed under the contract.

8. Notwithstanding any other provisions of the contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-5008

EXHIBIT "A"

Description of the Work

1. The purpose of the project is to explore for ores of zinc and lead by diamond drilling (and such churn drilling of overburden as may be required). Zinc-lead ores in the Austinville and Ivanhoe mines are fracture-filling and replacement bodies in the Lower Cambrian Shady dolomite. The ore deposits in this area are elongated shoots in the plane of the bedding and pitch gently to the northeast. They are generally parallel to strike faults and enlarged at fault intersections. Ore bodies in the Austinville-Ivanhoe district occur in a well-defined en echelon pattern.

2. A series of widely spaced dip and strike fences shall be drilled, with holes spaced at between 100-and 800-foot intervals on the fences.

3. The space intervals between the various fences shall not be less than 400 feet.

4. Drilling shall not be done at locations closer than 200 feet from property lines.

5. It is estimated that approximately 12 holes will be required, having an average depth of approximately 1,500 feet, with a maximum depth for any hole of approximately 2,000 feet. Not more than 16,000 feet of drilling shall be performed.

6. The tentative locations of the initial holes are shown on the attached map, but the actual locations, directions, inclinations and depths of all holes are subject to prior Government approval.

7. All diamond drilling shall be with AX, or larger, size coring bits, except that when it is not feasible to complete a hole with AX size, with Government approval, the hole may be reduced with EX casing and completed with EX size bits. Drill holes shall be reamed and cased or cemented and redrilled as necessary.

The Government will not contribute to the costs of drilling any hole which is not completed.

8. All drill holes shall be logged and all drill core shall be made available to the Government for examination. All significantly mineralized core shall be split and one half thereof shall be properly sampled and the samples assayed for zinc and lead. The remaining half of all significantly mineralized core samples shall be furnished to the Government upon request.

9. All assays shall be reported monthly to the Government, together with the logs of the drill holes and proper plan maps and sections showing the progress of the work and the sample locations.

10. All work of drilling and sample preparation shall be properly supervised by competent engineers and geologists.

Estimated Cost of the Project

Actual Costs

Category (1) Independent Contracts (See Annex II.)

Overburden drilling and diamond drilling to 1,000-foot depth. AX size, 8,000 feet @ $2.25/ft.	$18,000.00	
EX size @ $2.00/ft.	- - - -	
Diamond drilling from 1,000- to 1,500-foot depth. AX size, 4,000 feet @ $2.50/ft.	10,000.00	
EX size @ $2.25/ft.	- - - -	
Diamond drilling from 1,500- to 2,000-foot depth. AX size, 4,000 feet @ $3.00/ft.	12,000.00	
EX size @ $2.75/ft.	- - - -	$40,000.00

The above rates include charges for reaming, cementing, water supply, casing, changing of locations, and all other charges by the diamond drill contractor.

Neither the cost nor the value of the casing left in drill holes at the option of the Operator will be accepted as a charge to the contract.

Categories (2) through (6)	None	
Category (7) Miscellaneous None except:		
200 samples assayed @ $2.00m/each sample	$ 400.00	
Core boxes - 400 @ $2.50m/each box	1,000.00	$ 1,400.00
Fixed Unit Costs (See Annex II.)		
Incidental allowance 1/ for each foot of drilling completed, 16,000 feet @ $0.22/ft.		3,520.00
Estimated Total Cost of the Project		$44,920.00
Government Participation @ 50%		$22,460.00

* In addition to the maximum fixed in the contract form, an asterisk indicates maximum.

1/ Includes all costs that might be allowable costs of the project under Categories (1) through (7) of Article 6(a) except as otherwise scheduled in Exhibit "A".

DMEA Form 14

Contract No. Idm-E 1204

Docket No. 5008

Approved Contract

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Obligation Document

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
June 12, 1958	V	Virginia	Zinc-Lead

Name and Address of Operator: New Jersey Zinc Company
160 Front Street
New York 38, New York

	Reserve	Obligation
Prior Amount	0	0
Increase	22,460.00	0
Decrease	0	0
Revised Amount	22,460.00	0

Remarks:

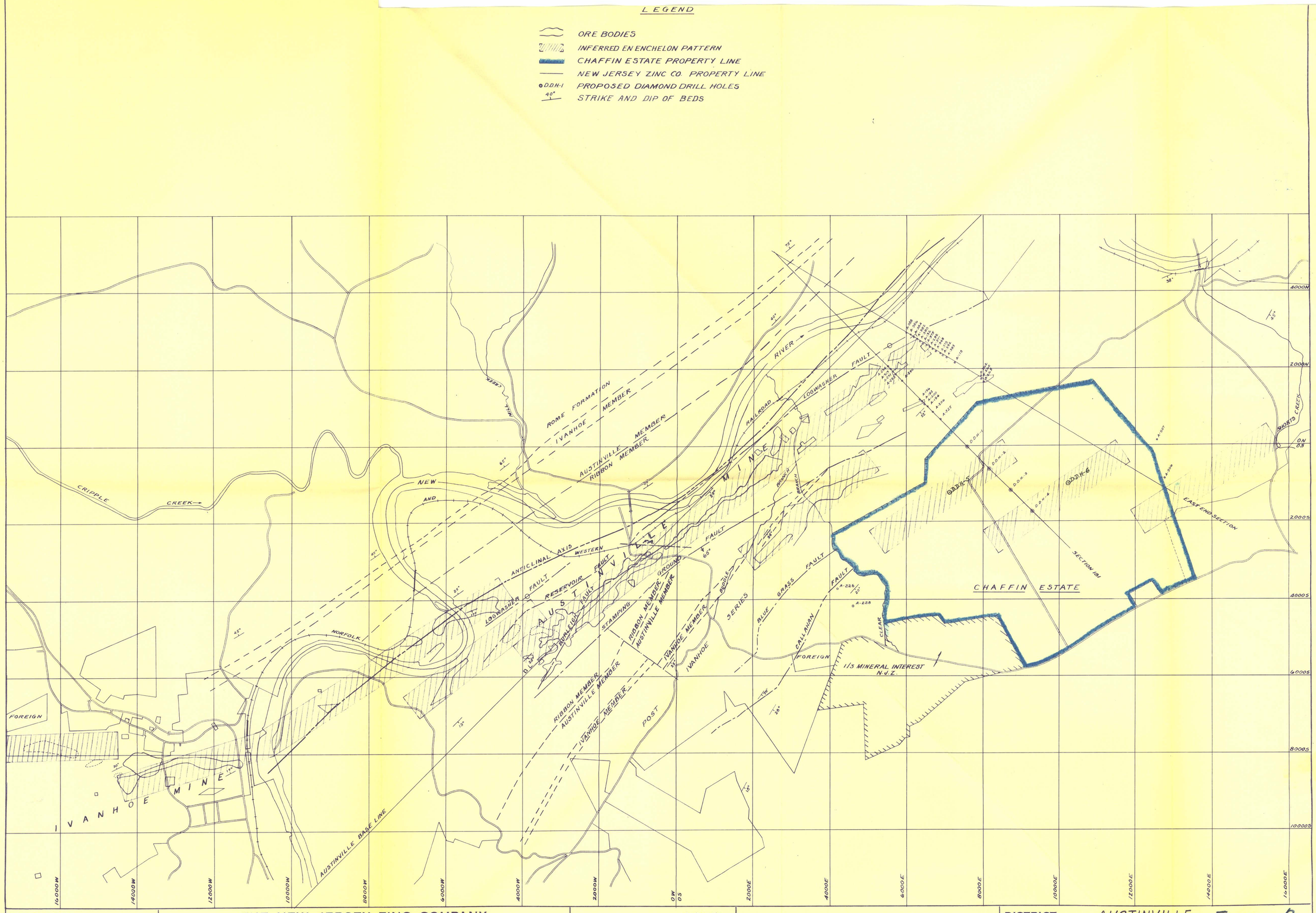
(Name)

Allen S. Dakan, Chief, Operations Control and Statistics Division

(Title)

Date delivered to Bureau of Mines, Washington 6/12/58

22845



POSTED TO DATE	THE NEW JERSEY ZINC COMPANY AUSTINVILLE, VIRGINIA	DRAWN DATE 4-24-58 TRACED E.E.F. SCALE 1"=1320'	PROPOSED DRILLING CHAFFIN ESTATE TRACT AUSTINVILLE, VIRGINIA	DISTRICT AUSTINVILLE Figure 2. FILE NO. TGB-4367