DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 1206 — DMEA NO. 490

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [x] Certification of Discovery
- [ ] Closing Letter
- [x] Cost Audits Report of Review - 11/3/59
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [x] Contract Amendments
- [x] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [x] Project summary (final)
- [x] Work Completed analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab) 11/10/59
- [x] Operator's Final Report (Tab) 10/21/59
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2 : Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Field Team Interim Reports
- [x] Operator's Monthly Reports with transmittal, narrative and maps. with drill logs

Folders No. 3 : Maps (Use pocket folder or envelope)

Folders No. _____ : Settlement Sheets

Folders No. _____ : Drill Logs See Folder #2 with Opr.'s Monthly Reports

Folders No. _____ : Royalty material

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-51206, Docket DMEA-4907 (fluorspar-zinc-lead), dated June 16, 1958, with

The New Jersey Zinc Company
160 Front Street
New York 38, New York
and
Box 252
Platteville, Wisconsin

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 Project II located in Pope County, Illinois, during the period June 16, 1958, through September 14, 1960.

A certification of discovery or development was issued on December 4, 1959, and, in accordance with Article 8 of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 10 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 November 3, 1959, indicated accepted costs under the exploration contract amounting to $35,988.15 with the Government's contribution on a 50 percent basis being $17,994.07.

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 September 14, 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, OME Auditor

June 12, 1962

Idm-K1206 The New Jersey Zinc Company DMEA-4907

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 from (1) the land thereunder and (2) any land within 1,000 feet thereof if the Operator or any subsidiary acquires any interest therein before June 16, 1968. The land under the contract consists of four contiguous tracts, aggregating approximately 775 acres, situated in secs. 27, 28, and 33, T. 12 S., R. 7 E., southern Illinois fluorspar district. At the time the contract was executed the Operator was in possession of the properties by virtue of three leases with options to purchase the mineral rights. Consents to Lien and Subordination Agreements were waived.

Exploration work under the contract was completed during April 1959. The files indicate that no minerals were produced during the exploration or thereafter through the period covered by this review.

The Operator terminated its leases and options on the property under the contract by notices dated June 27, 1960. In a letter dated June 24, 1960, from the Operator's Legal Department advising of its intent to terminate control of the properties, its continuing royalty obligation was acknowledged. Prior to this action by the Operator, an OME field representative was advised by the Ozark-Mahoning Company that it had purchased the land under the contract.

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 any mineral 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.

Docket copy

WD
Forwarded
J. Lynch
Vernon
Appr. Sol. Off.
Talbyd
Selfridge

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. Idm-E1206, dated June 16, 1958 (Docket No. IMEA-4907), 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:

Diamond drilling from surface has indicated an appreciable tonnage of fluorite with subordinate sphalerite and galena in a gangue of calcite and barite, occurring as cavity-filling deposits along faults in the Fredonia, Renault, and Levias limestone members of the Chester and Meramec series of Upper Mississippian age.

Dated: DEC 1 1959

JWAlt/gla 11-27-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, USBM
Harold Kirkemo, USGS
Div. of Contract Adm. & Audit
Finance Office
OME Field Team, Region V (2)
Code 500
Chron
Docket

THE UNITED STATES OF AMERICA

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

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

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

pertaining to Exploration Project Contract No. Ida-R1206, DMEA No. 4907, including Amendments Nos. 1, 2, and 3, for September 1958 to April 1959, inclusive, covering a fluorspar project in the Rosiclare fluorspar District, Hope County, Illinois.

My review included an examination of the Monthly Reports (Forms MP-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		$37,867.15
Exceptions:		
Prior to this review	$2,020.75	
Herewith	-0-	2,020.75
Acceptable cost claimed by Operator		$35,846.40
Acceptable costs not claimed, to partially offset exceptions		141.75
Total acceptable cost		$35,988.15

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	$17,994.07
Paid to date	16,634.17
Balance due Operator	$ 1,359.90

Gd. April '59 MF104
on 11/10/59

E. D. Talbert, OME Auditor

November 3, 1959

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

(a) the Monthly Reports were supported by documentary proof of that portion ($31,798.05) of the costs covering work performed at unit rates under independent contract;
(b) the balance ($4,190.10) 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 by Certifying Officer and accepted by this review:

(a)	Error in calculation of AX drilling costs on March 1959 MF-104			$ 75.00
(b)	Incomplete drill hole W-8 as claimed on January 1959 MF-104,			
	39' BX drilling	@ $2.95/ft.	$ 115.05	
	580' AX "	@ 2.65/ft.	1,537.00	
	619' Incidental Allowance	@ .30/ft.	185.70	1,837.75
(c)	Hole surveys claimed on January, February, and March 1959 MF-104 at $3.00/hr. rather than invoiced cost of $6.00/hr., 22 hrs. @ difference of $2.00/hr.			44.00
(d)	Hauling core claimed as lost time on January and February 1959 MF-104, 8 hrs. @ $8.00/hr.			64.00
	Total			$2,020.75

Acceptable costs not claimed by Operator:

(a)	Hole surveys and other lost time invoiced but not claimed by Operator 17 hrs. @ $6.00/hr.		$ 102.00
(b)	BX/L drilling in hole W-15,		
	Acceptable - 829' @ $2.65/ft.	$2,196.85	
	Claimed - 814' @ $2.65/ft.	2,157.10	39.75
	Total		$ 141.75

Summary of Acceptable Costs

	Stage I		Stage II	
Independent Contract Costs:				
NX drilling @ $2.95/ft.	10'	$ 29.50	185'	$ 545.75
BX drilling @ $2.95/ft.	400'	1,180.00	-	-
BXWL drilling @ $2.65/ft.	667'	1,767.55	4,815'	12,759.75
AX drilling @ $2.65/ft.	5,440'	14,416.00	-	-
Sub-totals	6,517'	$17,393.05	5,000'	$13,305.50
Reaming @ $1.75/ft.	10'	17.50	160'	280.00
Cementing @ $8.00/hr.	71 hr.	568.00	-	-
Hole surveys @ $6.00/hr.	-	-	27 hr.	162.00
Other lost time @ $6.00/hr.	-	-	12 hr.	72.00
Total (Category 1)		$17,978.55		$13,819.50
Fixed Unit Costs:				
Incidental allow.@ $.30/ft.	6,517'	1,955.10	5,000'	1,500.00
Core boxes @ $3.00/each	175 ea.	525.00	-	-
Samples assays @ $6.00/ea.	3 ea.	18.00	32 ea.	192.00
Totals		$20,476.65		$15,511.50

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

February 20, 1959

OFFICIAL FILE COPY
O. M. E.
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DATE	INITIALS	CODE
2/24	C	220
		130
		600

Memorandum

To: Operating Committee, OME - Washington

From: Acting Executive Officer, OME - Region V

Subject: Signed Amendment No.3. DMEA-4907, Idm-E1206. The New Jersey Zinc Co., Project Two, Pope County, Illinois.

Enclosed are the Government and Audit copies of the subject signed amendment.

The usual distribution of the other copies has been made by this office.

V. J. Lynch

V. J. Lynch

Government Copy

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 24 1959

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT

THE NEW JERSEY ZINC COMPANY

Docket No. DMEA-4907

AMENDMENT No. 3

It is agreed this 16th day of February 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and The New Jersey Zinc Company, the Operator, that exploration Project Contract Idm-E1206 (Docket No. DMEA-4907) dated June 20, 1958, is hereby further amended as follows:

1. In Article 3 of the Contract, the period for completion of the work is extended from March 20, 1959 to May 20, 1959.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the amount of any item designated as "maximum," nor the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE NEW JERSEY ZINC COMPANY

By [signature]

Title VICE PRESIDENT

[signature]
V. J. Lynch, Acting
Executive Officer, OME
Field Team, Region V

z

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

ORIGINAL COPY
DMEA
RECEIVED JUL 28 1958

DATE	ENTRY	CODE
7/28	C	220
		600

July 25, 1958

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V - Knoxville, Tenn.

Subject: Signed Amendment No.2. The New Jersey Zinc Company, Project Two, Pope County, Illinois

Attached are the original and Audit Copies of the subject amendment signed by S. S. Goodwin, Vice President of the company.

The usual distribution of the other copies has been made.

Robert A. Laurence

Robert A. Laurence

Government's copy

Long
Sawyer

App'd. Sol. Off.

Hoch
Talbot
Martin
Johnson

EXPLORATION PROJECT CONTRACT
NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4907

AMENDMENT NO. 2

It is agreed this 18th day of July, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the New Jersey Zinc Company, that Exploration Project Contract No. Idm-E-1206 (Docket No. DMEA-4907), dated June 16, 1958, as amended, is further amended as follows:

In Article 3 of the Contract, the date fixed for commencement of the work is extended from "30 days after date of Contract," or July 16, 1958, to August 11, 1958.

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 "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 C Mittendorf
Administrator, Defense Minerals
Exploration Administration

NEW JERSEY ZINC COMPANY

By J Boudwin

Title VICE PRESIDENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

July 17, 1958

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region V

Subject: Amendment No. 1, DMEA-4907, Idm-E1206, Fluorspar-zinc-lead. The New Jersey Zinc Company Project Two, Pope County, Illinois

Transmitted are the Government and Audit copies of the subject signed amendment.

The usual distribution of the other copies has been made.

V. J. Lynch

Government's copy

Original File Copy
DMEA
RECEIVED JUL 21 1958

Long
Hunter
App'd. Sol. Off.
Hook
Chambers
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4907

AMENDMENT NO. 1

It is agreed this 9th day of July, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the New Jersey Zinc Company, that Exploration Project Contract No. Idm-E-1206 (Docket No. DMEA-4907), dated June 16, 1958, is amended as follows:

In Article 3 of the Contract, on line 4, in the blank following the words "and on or before", insert the date "March 20, 1959."

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 "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 C. Mittendorf
Administrator, Defense Minerals
Exploration Administration

NEW JERSEY ZINC COMPANY

By L F Johnson

Title VICE PRESIDENT

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Government's copy

Docket No. DMEA 4907

Commodity Fluorspar

Contract No. Idm-E 1206

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 16 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] 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 one map

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 Illinois, County of Pope, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of ~~a~~ [6] three leases, [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: interest of lessors

(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: Consent to Lien and Subordination Agreements of owners of land are waived.

(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 fluorspar, zinc, and lead. The work to be performed is described in Exhibit "A." The Operator on or before 30 days after date of contract shall commence the work, and on or before ..... (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~[illegible]~~ Exhibit ~~[illegible]~~, except as otherwise provided in Exhibit "A" with respect to stages of work. 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 $39,192.00. The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $19,596.00: *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; [redacted] 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.

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 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.

(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.

(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.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O Mitchenor
Administrator, Defense Minerals
Exploration Administration

NEW JERSEY ZINC COMPANY
(Operator)

By S S Goodwin

Title VICE PRESIDENT

I, SAMUEL RIKER, JR., certify that I am the ---------- secretary of the corporation named as Operator herein; that S. S. GOODWIN 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.

James F Ring Jr

[CORPORATE SEAL]

Long
Dougen
App'd. Sol. Off.
Anderson
Hook
Chambers
Selfridge
Johnson

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

35485

EXPLORATION PROJECT CONTRACT
NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4907

ANNEX I

The land referred to in Article 2 of the Contract, known as Project II, consists of 4 contiguous tracts, situated in Sections 27, 28, and 33, R. 7 E., T. 12 S., eastern Pope County, Illinois, in the western part of the southern Illinois fluorspar district about five miles west of the town of Rosiclare, as shown on the attached map, entitled "Project II, The New Jersey Zinc Company, DMEA-4907".

The various tracts of land are described in the agreements listed below. Copies of the agreements are in Docket No. DMEA-4907 and the descriptions in said agreements and the references therein are incorporated herein by reference.

1. Approximately 40 acres described in a Lease Agreement, dated March 15, 1958, by and between William T. O'Roark and wife Vaughany O'Roark, and the New Jersey Zinc Company.

2. Approximately 469 acres described in Agreement dated June 21, 1954, by and between Laura Baumer, a spinster, and the New Jersey Zinc Company.

3. Approximately 264 acres described in an Agreement dated July 29, 1954, by and between Robert S. Barnett and wife, Marjorie W. Barnett, and the New Jersey Zinc Company.

In the event the Operator or any subsidiary thereof at any time during 10 years from the date of this Contract acquires any interest, title, or equity (exclusive of agreements granting rights only to explore, purchase, or acquire a lease) in any land situate within 1,000 feet of the land described in this Contract, it is agreed that such land shall thereupon automatically be included as land subject to the provisions of this Contract.

EXPLORATION PROJECT CONTRACT
NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4907

ANNEX II

Article 13. Changes and added provisions.--

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work, except as otherwise provided in Exhibit 'A' with respect to stages of work."

(b) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon is deleted.

(c) Categories (2) through (7) of Article 6(a) are deleted.

(d) 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.

(e) In the last sentence of Article 6(c) the words "Article 8" are substituted for the words "Article 9".

(f) Nothwithstanding any other provision 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 the 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
NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4907

EXHIBIT "A"

Description of the Work

General Provisions

Exploration for fluorspar shall be performed by diamond drilling, collaring holes with NX and/or BX size bits and completing with AX and/or BXWL bits, in the area indicated on the map, entitled "Project II, The New Jersey Zinc Company, DMEA-4907", attached and made a part hereof.

The Government shall not contribute to the cost of an uncompleted hole, or one that bottoms less than AX size.

Records of each hole drilled, together with assay certificates of samples taken and type of rock penetrated, shall be submitted with the Operator's monthly progress report, which shall also include a map showing the location, inclination, and direction of all holes drilled during the reporting period. All samples shall be properly identified as to drill hole number and depths represented.

The holes shall be drilled as nearly normal as possible to the strike of and into the fault zones as indicated on the map. The location, inclination, direction, and extent of all drilling are subject to the approval of the Government.

The work shall be divided into two stages as hereinafter described. The Operator shall complete Stage I, and shall perform as much of Stage II as the Government approves in writing.

Stage I

At the approximate locations indicated on the map, drill ten diamond core holes aggregating not more than 7,160 feet, as specified in the following tabulation:

Hole No.	Property	Bearing	Inclination	Estimated Depth
2	Baumer	N.45°W.	-45°	700 ft.
4	Barnett	N.45°W.	-55°	750 ft.
6	Barnett	N.45°W.	-60°	800 ft.
11	Barnett	N.45°W.	-45°	750 ft.
12	Barnett	N.45°W.	-60°	800 ft.
15	Barnett	N.45°W.	-45°	260 ft.
16	Barnett	N.45°W.	-60°	700 ft.
17	Barnett	N.45°W.	-60°	800 ft.
19	O'Roark	N.45°W.	-60°	800 ft.
20	O'Roark	N.45°W.	-60°	800 ft.

The holes shall be drilled in numerical sequence beginning with Hole No. 2 as shown on the map, except when information obtained from completed holes indicates that deviation from the numerical sequence, change of location, or omission of holes is advisable. Such changes may be made only with prior Government approval.

Stage II

Stage II shall consist of not more than 5000 feet of diamond drilling. The number, locations, inclinations, and depths of the holes shall be determined by agreement of the Operator and the Government. The holes shall be drilled as nearly normal as possible to the strikes of the fault zones. No hole shall intersect the fault zone at closer than 100 feet from the nearest hole.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts[1]

100 feet of overburden drilling @$2.95/ft.	$ 295.00
150 feet of NX or BX diamond drilling to collar holes @$2.95/ft.	442.50
6910 feet of AX and/or BXWL diamond drilling @$2.65/ft.	18,311.50
300 feet of reaming @$1.75/ft.	525.00
60 hours of cementing @$8.00/hr.	480.00
40 hours of hole survey or other lost time @$8.00/hr.	320.00

Categories (2) through (7) None

Fixed Unit Costs (See Article 13 of the Contract)

Incidental allowance for each foot of drilling completed[2], 7160 feet @$0.30/ft.	$ 2,148.00
175 wooden core boxes @$3.00/box	525.00
32 samples to be assayed for CaF_2, Pb, and Zn @$6.00/sample	192.00
Estimated Total Cost, Stage I	$23,239.00

Stage II

Actual Costs

Category (1) Independent Contracts[1]

80 feet of overburden drilling @$2.95/ft.	$ 236.00
120 feet of NX or BX diamond drilling to collar holes @$2.95/ft.	354.00
4800 feet of AX or BXWL diamond drilling @$2.65/ft.	12,720.00
210 feet of reaming @$1.75/ft.	367.50
43 hours of cementing @$8.00/hr.	344.00
30 hours of hole survey or other lost time @$8.00/hr.	240.00

Categories (2) through (7) None

Fixed Unit Costs (See Article 13 of the Contract)

Incidental allowance for each foot of drilling completed[2], 5000 feet @$0.30/ft.	$ 1,500.00
32 samples to be assayed for CaF_2 Pb, and Zn @$6.00/sample	192.00
Estimated Total Cost, Stage II	$15,953.50

SUMMARY

Estimated total cost Stage I	$23,239.00
Estimated total cost Stage II	15,953.50
Estimated total cost of project (rounded)	$39,192.00
Government participation @50%	$19,596.00

1/ Includes charges for moving in and out, changing of locations, water supply, replacement of bits, and all charges which may be incurred by the diamond drill contractor. Casing left in the hole at option of the Operator will not be accepted as a charge to the Contract.

2/ Includes all costs that otherwise would be allowable costs under Categories (1) through (7) except as scheduled in Exhibit "A".

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)

CABLE ADDRESS
"JERSEZINC"

160 FRONT STREET
NEW YORK 38, N.Y.

HORSE HEAD PRODUCTS ®

AIR MAIL- SPECIAL DELIVERY

June 12, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1958

DATE		

United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. L.G. Houk, Room 4451

Re: Docket No. DMEA-4907; Fluorspar Zinc and Lead; The New Jersey Zinc Co., Project Two, Pope County Illinois

Dear Mr. Houk:

In accordance with our telephone conversation this morning and pursuant to your request, I enclose herewith a photocopy of the long form option agreement between ourselves and Laura Baumer. Also attached hereto are voucher receipts for yearly extension payments through June 21, 1958, in accordance with paragraph three of the agreement. You will note that the agreement is renewable for an additional period to July 1, 1959 by payment of $703.50 to the owner on or before June 21, 1958. Attached to such agreement is a photocopy of a letter to Mr. J.M. Hague, our Resident Geologist in charge of this project, in which our Secretary forwarded our check for such renewal payment for transmittal to the owner.

Also enclosed, in accordance with your further request, is a photocopy of our agreement with the Barnetts including receipted vouchers for extension payments through July 29, 1958. We propose extending the agreement for an additional period, as contemplated in paragraph three of the agreement, and assure you that tender therefore will be made on or before the renewal date, as is our practice.

I trust that you will find the enclosed conforms with your request and satisfies the same. If there is anything further that your office requires, please advise me promptly as we do not wish this matter to be delayed unnecessarily.

With kind regards, I remain

Very sincerely yours,

Lindley G. Miller

Legal Department

LGMiller:jm

GENERAL OFFICE VOUCHER

[illegible]

[illegible] NEW YORK 22, N. Y.

TO Robert S. Barnett & Marherie Barnett DR.

ADDRESS Equality, Illinois

DATE July 5, 1957

Yearly extension payment as set forth in Paragraph 3 of a lease and option agreement (dated July 29, 1954) and covering land in Section 28, Township 12 South, Range 7 East in Pope County, Illinois.	$396	00
NY Check No. 4869		
Received by Robert S. Barnett		

CORRECT	APPROVED	CALCULATIONS CORRECT
J McGuire		AUDITED AND ENTERED

[illegible]

GENERAL OFFICE VOUCHER

TO Robert S. Barnett and Marjorie Barnett

ADDRESS Equality, Illinois

DATE July 5, 1956

Yearly extension payment as set forth in Paragraph 3 of a lease and option agreement (dated July 29, 1954) and covering land in Pope County, Illinois.	$396.00
NY Check No. 58963	
Received by Robert S. Barnett	

CORRECT	APPROVED	CALCULATIONS CORRECT
J M Hagner		AUDITED AND ENTERED

LEASE AND OPTION

This AGREEMENT made and entered into this 29th day of July, 1954, by and between Robert S. Barnett and Marjorie W. Barnett, his wife, R.S.B. M.W.B.

of Equality, Gallatin County, State of Illinois, parties of the first part, hereinafter called the "Owners," and THE NEW JERSEY ZINC COMPANY, a Corporation qualified to do business in Illinois, party of the second part, hereinafter called the "Company."

1. In consideration of Seven hundred ninety two dollars ($792.00) cash in hand paid, the receipt whereof is hereby acknowledged, the Owners hereby lease and grant to the Company for a period of two years from the date hereof the rights hereinafter set forth with respect to the following described premises:

The South West Fourth (SW¼) of the South West Quarter (SW¼) (except that part lying south and east of Big Grand Pierre Creek, containing 1 acre, more or less), 39 acres;

The South West (SW) Part of the North West Fourth (NW¼) of the South West Quarter (SW¼), bounded on the north and east by a creek known as Grand Pierre Creek, 25 acres, more or less;

All the above being in Section 27, Township 12 South, Range 7 East of the Third Principal Meridian, in Pope County, Illinois. The South West (SW) Part of the North East Fourth (NE¼) of the North East Quarter (NE¼), being a tract 42 rods north and south by 39 rods east and west, 10 acres, more or less;

The South One half (S½) of the North West Fourth (NW¼) of the North East Quarter (NE¼), 20 acres, more or less;

The South East Fourth (SE¼) of the North East Quarter (NE¼), 40 acres, more or less;

The South East One half (SE½) of the South East Fourth (SE¼) of the North West Quarter (NW¼), 40 acres, more or less;

The North East Fourth (NE¼) of the South West Quarter (SW¼), 40 acres, more or less;

The North East Fourth (NE¼) of the South East Quarter (SE¼), 40 acres, more or less;

The North (N) Part of the North West Fourth (NW¼) of the South East Quarter (SE¼), being a tract 20 rods north and south by 80 rods east and west, 10 acres, more or less;

The North One half (N½) of the South East Fourth (SE¼) of the South East Quarter (SE¼), 20 acres, more or less.

All the above being in Section 28, Township 12 South, Range 7 East in Pope County, Illinois.

2. The Company shall have, the exclusive right to prospect for, explore, examine, mine or remove, process and store all the minerals, mineral substances, metals, ores, ore-bearing materials, and rock of every kind, (all of which are hereinafter referred to as Minerals), in, under or on the premises, including the following rights for said purposes: the right to enter upon the premises with workmen, tools, rigs, appliances and other property necessary or convenient for said purposes; the right to remove samples; the right, insofar as the Owners have the right to grant the same, to utilize and divert water upon or appurtenant to the premises; the right to drain into any water course on the premises, and to drain through and from the premises, any water from operations conducted therein or thereon or from other properties in, or with respect to which, the Company has or may acquire any right or interest; the right to use so much surface as may be necessary for the said purposes or any thereof; the free and uninterrupted right of ingress and egress in, on, from, through, under and across the premises for said purposes, or any thereof, and for the purpose of conducting operations on, in or under any other properties in, or with respect to which, the Company has or may acquire any right or interest; and all other rights of any kind necessary or convenient in order to exercise the rights hereinabove set forth. It is understood that the Company shall have title to any and all waste and tailings resulting from the exercise of the aforesaid rights.

3. The Company may extend this agreement (hereinafter sometimes referred to as "lease") for additional periods of one year each, by tendering to the Owners the sum of Three hundred ninety six dollars ($396.00) for each yearly extension, on or before the first day of each such year period. The

provisions of this agreement shall be in full force and effect during each extended period. Any sums paid or tendered in accordance with this paragraph and the sum paid upon execution hereof shall be considered as advance royalties and shall go to reduce the subsequent royalty payments to become due hereunder and shall be applied against the purchase price in the event that the option to purchase hereinafter set forth is exercised. Payment or tender may be made by Company check.

~~4. The Company will pay for all damages done by the mining, removing and prospecting activities to the fences, buildings, structures and growing crops on the premises which it holds said lease. If the parties hereto should not be able to agree upon the amount or extent of such damage, the same shall be determined by arbitration, the Owners to select one arbitrator, the Company to select one arbitrator and the two arbitrators so selected to select a third arbitrator. The award made by a majority of said arbitrators shall be binding and conclusive upon the parties hereto. Should the Company exercise its option to purchase, the lease shall contain the foregoing provisions as to damages.~~

5. Minerals removed from the leased premises may be commingled and may be processed with other Minerals, as the Company may elect. However, before commingling, any ores from the leased premises shall be weighed and assayed. All net weights shall be determined by the Company's scales or on public scales in the area and shall be computed on a dry weight basis. The Owners shall have the right to check weights and assays at any reasonable time.

6. The Company agrees to pay royalties to the Owners on all Minerals mined or removed from the leased premises during the term of this lease at the rate of twelve and one-half (12.5%) per cent

of the value thereof in their crude state at the ground level as follows: if such crude Minerals are sold, the "value" shall be deemed to be the gross price received from such sale less all surface transportation and handling costs; if they are not sold and the Company processes such crude Minerals or has them processed, the "value" thereof shall be the price which responsible buyers in the area would have paid for such crude Minerals at the time and place the same were raised from underground. All royalties shall be due and payable on the last day of the month following the month in which said crude Minerals are removed from the leased premises. All royalties paid to Owners shall be deductible from the purchase price herein described in the event the Company shall exercise its option to purchase as set forth in Paragraph 10 hereof.

Owners shall have no interest in any subsidy, bonus, premium, or similar payment made by any government or any agency thereof with respect to the Minerals mined or removed from the leased premises and no royalty shall be paid on any such payment received by the Company.

7. At the termination of this lease, other than by the exercise of the option to purchase, the Company will, if requested by the Owners within 30 days of such termination, furnish to the Owners a factual record of any holes drilled in the premises together with a map showing the location of such holes.

8. The Company agrees to keep an accurate record of all Minerals mined or removed from the leased premises and of all calculations relative to royalty payments hereunder. Such records may be inspected by the Owners at all reasonable times.

9. In case of failure of the Company to keep and perform the terms and obligations of this lease, the Owners may give thirty (30) days written notice of the breach, violation or default complained of, in which case the Owners shall specify the details of

the same in order that the Company may be fully informed with respect thereto, and the Company shall have said thirty (30) days within which to remedy the same, if it can reasonably be remedied within such period, and if not, the Company shall within said thirty (30) days period take action to remedy the same and diligently prosecute it to completion. In the event the Company shall fail to do so, then this lease shall terminate at the option of the Owners which shall be evidenced by notice in writing to the Company, and which remedy shall be exclusive. No forfeiture, however, shall be asserted or based on a breach, violation or default hereunder or on a failure to remedy or correct the same, when occasioned by fire, riot or civil commotion, strikes or other labor controversies, inability to obtain labor or materials or equipment on the open market, delay of carriers, breakage of machinery or equipment, government regulation or interference, war, whether declared or not, acts of nature, or any other cause beyond the control of the Company, whether or not of a like nature to the foregoing and whether or not the same could have been foreseen or prevented.

10. The Owners also grant to the Company the exclusive option to purchase at any time during the term of this lease or any extension thereof but not later than July 29, 1959, for Thirty nine thousand six hundred dollars ($39,600.), all Minerals in, under or on the premises, together with the rights mentioned in Paragraph 2 hereof.

11. The Company shall have the right to remove from the premises all of its property of every kind and description within 60 days after the expiration or termination of this lease other than by the exercise of the option to purchase. If the Company exercises its option to purchase, the deed shall provide that the Company may at any time or times remove any or all property of every kind and description which it at any time may have placed upon the premises.

12. Should the Company elect to purchase hereunder, it will mail written notice to the Owners, ~~including therein the identification of any surface which it desires to purchase~~ The said notice shall set forth the time and place for delivery by the Owners of a proper deed, which time shall in any case be not more than sixty days subsequent to the expiration of the lease period then in effect. The Owners will deliver to the Company a General Warranty deed with the following covenants: that at the time of making and delivery of such deed they were lawfully seized of an indefeasible estate in fee simple in and to the premises therein described, and had good right and full power to convey the same; that the same were then free from all encumbrances; that they warrant to the Company, its successors and assigns, the quiet and peaceable possession of such premises, and will defend the title thereto against all persons who may lawfully claim the same; that the Owners have committed no act or acts which will at any time in the future encumber, or cause a lien to be placed against, the premises; and for further assurances of title. Said deed will convey to the Company, by metes and bounds description to be furnished by the Company, a good, marketable title to the said Minerals, together with the rights herein referred to, ~~and to so much of the surface as the Company may, in accordance with the provisions of Paragraph 14 hereof, elect to purchase. Upon purchase of any such surface as aforesaid provided the Company shall have the entire ownership of that portion of the premises with respect to which the surface purchase is made, and the deed shall so provide.~~ Upon delivery of the deed the Company will pay to the Owners the agreed purchase price which may be due under Paragraphs 10 ~~and 14~~ hereof, less any monies deductible as provided for in Paragraphs 3 and 6 hereof. If the

title tendered is not, in the judgment of the Company, a good, marketable title, the Company may notify the Owners, and if the defects are not promptly remedied, the Company may proceed to remedy the defects and retain sufficient from the purchase price to cover the necessary costs thereof.

13. During the original term hereof, or any extension thereof, the Company may terminate this lease at any time by giving written notice thereof to the Owners, and thereupon any liabilities or obligations of the Company hereunder, excepting those that may have already accrued, shall immediately cease and terminate. Such notice shall be of sufficient formality to be admitted on record and to release the premises from the terms of this lease.

~~14. The Owners also grant to the Company the right to purchase not exceeding _____ acres of surface area of the above described and demised premises by the payment of _____ dollars (~~[illegible]~~) per acre, the location thereof to be determined by the Company and designated by metes and bounds. Such surface area so designated shall not have included property upon which the present residence and attendant outbuildings are located, or within a distance of 100 feet of any such building. The Company may purchase such surface area only if it exercises the option to purchase set forth in Paragraph 10 hereof, and if it desires to purchase such surface area, it must do so at the time it exercises [illegible]~~

15. Notices and tenders to the Owners pursuant hereto shall be addressed to them at Equality, Illinois _____. Notice to the Company shall be addressed to it at No. 160 Front Street, New York 38, New York. Either party may, by written notice to the other, designate another address to which notice or tender is to be sent. Any notice or tender shall be deemed given or made when mailed by registered mail, postage prepaid, addressed as above provided, or when delivered personally to either one of the Owners.

16. The parties hereto agree that the whole agreement between them is written herein and in a short form agreement of even date herewith which is intended to be recorded, and the parties hereto are not bound by any agreements, understandings or conditions otherwise than as set forth herein and in said short form agreement.

17. The term "parties of the first part" as herein used shall be construed to mean, "the parties of the first part, their heirs, assigns and successors in title howsoever such succession may be accomplished" and the term "party of the second part" shall be construed to mean "party of the second part, its assignees, designees and successors in title howsoever such succession may be accomplished."

IN WITNESS WHEREOF the parties of the first part have hereunto set their hands and seals the day and year first above written.

Approved as to form

address Equality, Illinois

Robert L. Gandy (Seal)

Benjamin H. Gandy (Seal)

ATTEST:

Walter R. Ayers
its Secretary

THE NEW JERSEY ZINC COMPANY

By
EXECUTIVE Vice President

STATE OF ILLINOIS)
) SS:
COUNTY OF GALLATIN)

I, Lowden F. Pruett, a Notary Public in and for said County, in the State aforesaid, do hereby certify that Robert S. Barnett and Marjorie W. Barnett, his wife,

personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement appeared before me this day in person, and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 29th day of July, 1954.

Lowden F. Pruett
Notary Public
Commission expires April 30, 1957
~~[illegible]~~

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

I, John T. Hourigan, a Notary Public; do hereby certify that C. H. George to me personally known to be the EXECUTIVE Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey Corporation, and Walter R. Anyan, personally known to me to be the _____ Secretary of said Corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said instrument as such EXECUTIVE Vice President and _____ Secretary respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said Corporation, as their free and voluntary act and as the free and voluntary act and deed of said Corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 23rd day of September, 1954.

John T. Hourigan
Notary Public
JOHN T. HOURIGAN
NOTARY PUBLIC, State of New York
No. 30-6977000
Qualified in Nassau County
Cert. filed with New York County clerk
Commission Expires March 30, 1956

X 1086 150M

COPY

1-ACD-4

May 23, 1958

Mr. J. M. Hague, Platteville, Wisconsin

Enclosed please find our check in the amount of $703.50 to Mrs. Laura Baumer representing extension payment, due before June 21, 1958, on mining lease and option covering property in Pope County, Illinois.

Will you please deliver the check to the payee against a receipt and forward the latter to this office.

Arnold Jansons
For Secretary

AJ:JN

Enc.

cc: Mr. W. H. Callahan
✓ File

NOTED
S. R. A.

Y 1699 (REV. 11-50) 15M 6-52

GENERAL OFFICE VOUCHER

THE NEW JERSEY ZINC COMPANY
160 FRONT STREET, NEW YORK 38, N. Y.

31 A

TO Miss Laura Baumer DR.

ADDRESS Old Cairo Road, Route No. 7, Paducah, Ky.

DATE May 20, 1957

Yearly extension payment as set forth in Paragraph 3 of a lease and option agreement dated June 21, 1954, and covering land in Pope County, Illinois.	$703	50
Check No. 99773 N.Y.		
Received by Laura Baumer		

CORRECT	APPROVED.	CALCULATIONS CORRECT
McGagne		AUDITED AND ENTERED

Y 1639 (REV. 11-50) 15M 6-52

GENERAL OFFICE VOUCHER

THE NEW JERSEY ZINC COMPANY
160 FRONT STREET, NEW YORK 38, N. Y.

TO Miss Laura Baumer DR.

ADDRESS Old Cairo Road, R # 7, Paducah, Kentucky

DATE June 21, 1956

Yearly extension payment as set forth in Paragraph 3 of a lease and option agreement (dated June 21, 1954) and covering land in ~~[illegible]~~ Pope County, Illinois.	$703	50
Check No. NY 055692		
Received by Laura Baumer		

CORRECT
It is (~~[illegible]~~) It is Pope County
amount - Yes
for one year

APPROVED

CALCULATIONS CORRECT

AUDITED AND ENTERED

OPTION AGREEMENT

~~LEASE AND OPTION~~

This AGREEMENT made and entered into this 21 day of June, 1954, by and between Laura Baumer, a ~~xxxxxx~~ spinster, of Old Cairo Road, Route 7, Paducah, Kentucky.

~~xx~~ _____ ~~x~~ _____ ~~xxxxxx~~

~~xxxxxxxx~~ _____, parties of the first part, hereinafter called the "Owners," and THE NEW JERSEY ZINC COMPANY, a Corporation qualified to do business in Illinois, party of the second part, hereinafter called the "Company."

1. In consideration of Fourteen hundred seven dollars ($1407.00) cash in hand paid, the receipt whereof is hereby acknowledged, the Owners hereby ~~leases and~~ grant to the Company for a period of two years from the date hereof the rights hereinafter set forth with respect to the following described premises:

1 The West three-fourths (W 3/4) of the North One-half (N½) of the North East Quarter (NE¼), 60 acres, more or less;

2 The North East Fourth (NE¼) of the North West Quarter (NW¼), 40 acres, more or less;

3 Five (5) acres, more or less, in the North East Corner of the North West Fourth (NW¼) of the South West Quarter (SW¼), being all of said quarter quarter section lying north of Grand Pierre Creek;

4 South East Fourth (SE¼) of the North West Quarter (NW¼), 40 acres, more or less;

5 South One-half (S½) of the North East Quarter (NE¼) except five (5) acres lying east of Grand Pierre Creek, 75 acres, more or less;

6 North One-half (N½) of the South East Quarter (SE¼), 80 acres, more or less;

7 All that part of the South West Fourth (SW¼) of the South East Quarter (SE¼) lying North West of Grand Pierre Creek and containing 19 acres, more or less;

All the above, aggregating 319 acres, being in Section 33, Township 12 South, Range 7 East of the Third Principal Meridian in Pope County, Illinois.

The North One-half (N½) of the North West Fourth (NW¼) of the North East Quarter (NE¼), 20 acres, more or less;

West One-half (W½) of the South East Quarter (SE¼) except 10 acres off the North end thereof, 70 acres, more or less;

South East Fourth (SE¼) of the South West Quarter (SW¼), 40 acres, more or less;

South One-half (S½) of the South East Fourth (SE¼) of the South East Quarter (SE¼), 20 acres, more or less;

All the above, aggregating 150 acres, being in Section 28, Township 12 South, Range 7 East of the Third Principal Meridian, in Pope County, Illinois.

2. The Company shall have, the exclusive right to prospect for, explore, and examine ~~, mine or remove, process and store~~ all the minerals, mineral substances, metals, ores, ore-bearing materials, and rock of every kind, except oil and gas (all of which are hereinafter referred to as Minerals), in, under or on the premises, including the following rights for said purposes: the right to enter upon the premises with workmen, tools, rigs, appliances and other property necessary or convenient for said purposes; the right to remove samples; the right, insofar as the Owners have the right to grant the same, to utilize and divert water upon or appurtenant to the premises; the right to drain into any water course on the premises, and to drain through and from the premises, any water from operations conducted therein or thereon or from other properties in, or with respect to which, the Company has or may acquire any right or interest; the right to use so much surface as may be necessary for the said purposes or any thereof; the free and uninterrupted right of ingress and egress in, on, from, through, under and across the premises for said purposes, or any thereof, and for the purpose of conducting operations on, in or under any other properties in, or with respect to which, the Company has or may acquire any right or interest; and all other rights of any kind necessary or convenient in order to exercise the rights hereinabove set forth. ~~It is understood that the Company shall have title to any and all waste and tailings resulting from the exercise of the aforesaid rights.~~

3. The Company may extend this agreement ~~(hereinafter sometimes referred to as "lease")~~ for additional periods of one year each to June 21, 1958, by tendering to the Owners the sum of *Seven hundred three & 50/100* dollars ($*703.50*) for each yearly extension, on or before the first day of each such year period, ~~The~~ and may further extend this agreement to and including July 1, 1959 by tendering to the owner the sum of *Seven hundred three & 50/100* Dollars ($*703.50*) for said period, on or before June *21*, 1958.

The provisions of this agreement shall be in full force and effect during each extended period. Any sums paid or tendered in accordance with this paragraph and the sum paid upon execution hereof shall be ~~considered as advance royalties and shall go to reduce the subsequent royalty payments to become due hereunder and shall be~~ applied against the purchase price in the event that the option to purchase hereinafter set forth is exercised. Payment or tender may be made by Company check. L.B.

4. The Company will pay for all damages done by its ~~mining~~ ~~removing and~~ prospecting and exploring activities to the fences, buildings, structures and growing crops on the premises while it holds ~~said lease~~ this agreement. If the parties hereto should not be able to agree upon the amount or extent of such damage, the same shall be determined by arbitration, the Owners to select one arbitrator, the Company to select one arbitrator and the two arbitrators so selected to select a third arbitrator. The award made by a majority of said arbitrators shall be binding and conclusive upon the parties hereto. Should the Company exercise its option to purchase, the deed shall contain the foregoing provisions as to damages. L.B.

~~5. Minerals removed from the leased premises may be commingled and may be processed with other minerals, at the Company's elect. However, before commingling, any ores from the leased premises shall be weighed and assayed. All net weights shall be determined by the Company's scales or on public scales in the area and shall be computed on a dry weight basis. The Owners shall have the right to check weights and assays at any reasonable time.~~ L.B.

~~6. The Company agrees to pay royalties to the Owners on all minerals mined or removed from the leased premises during the term of this lease at the rate of twelve and one-half (12.5%) per cent~~

4a. It is understood and agreed that planting, cultivating and tending of crops ~~foregoing provisions~~ by the Owner or her tenants may continue during the term of this Agreement, or any extension thereof.

~~of the value thereof in the ground, less at the ground level as follows: if such crude Minerals are sold, the "value" shall be deemed to be the gross price received from such sale less all surface transportation and handling costs, if they are not sold and the Company processes such crude Minerals or has them processed, the "value" thereof shall be the price which would be payable by an independent refiner in the area could have paid for such crude Minerals at the time and place the same were mined from underground. All royalties shall be due and payable on the last day of the month following the month in which said crude Minerals are removed from the leased premises. All royalties paid to Owners shall be deductible from the purchase price herein described in the event the Company shall exercise its option to purchase as set forth in Paragraph 10 hereof.~~

~~Owners shall have no interest in any subsidy, bonus, premium or similar payment made by any government or agency thereof with respect to the Minerals mined or removed from the leased premises and no royalty shall be paid on any such payment received by the Company.~~

7. At the termination of this agreement, ~~lease~~, other than by the exercise of the option to purchase, the Company will, if requested by the Owners within 30 days of such termination, furnish to the Owners a factual record of any holes drilled in the premises together with a map showing the location of such holes.

~~8. The Company agrees to keep an accurate record of all Minerals mined or removed from the leased premises and of all calculations relative to royalty payments hereunder. Such records may be inspected by the Owners at all reasonable times.~~

9. In case of failure of the Company to keep and perform the terms and obligations of this agreement, ~~lease~~, the Owners may give thirty (30) days written notice of the breach, violation or default complained of, in which case the Owners shall specify the details of

the same in order that the Company may be fully informed with respect thereto, and the Company shall have said thirty (30) days within which to remedy the same, if it can reasonably be remedied within such period, and if not, the Company shall within said thirty (30) days period take action to remedy the same and diligently prosecute it to completion. In the event the Company shall fail to do so, then this ~~lease~~ agreement shall terminate at the option of the Owners which shall be evidenced by notice in writing to the Company, and which remedy shall be exclusive. No forfeiture, however, shall be asserted or based on a breach, violation or default hereunder or on a failure to remedy or correct the same, when occasioned by fire, riot or civil commotion, strikes or other labor controversies, inability to obtain labor or materials or equipment on the open market, delay of carriers, breakage of machinery or equipment, government regulation or interference, war, whether declared or not, acts of nature, or any other cause beyond the control of the Company, whether or not of a like nature to the foregoing and whether or not the same could have been foreseen or prevented.

L.B.

10. The Owners also grant to the Company the exclusive option to purchase the premises described in paragraph 1. hereof, in fee simple absolute, at any time after the date hereof ~~at any time during the term of this lease or any extension thereof~~ but not later than July 1, 1959, for Seventy five thousand dollars ($75,000.), the Owner, however, to reserve for herself, her heirs, devisees, executor, administrator or assigns all oil ~~under or on the premises, together with the rights mentioned in~~ and gas in and on said premises together with the exclusive right to ~~Paragraph 9 hereof,~~ prospect for and exploit the same, in compliance with paragraph 3, herein.

L.B.

11. The Company shall have the right to remove from the premises all of its property of every kind and description within 60 days after the expiration or termination of this ~~lease~~ agreement other than by the exercise of the option to purchase. ~~If the Company exercises its option to purchase, the deed shall provide that the Company may at any time or times remove any or all property of every kind and description which it at any time may have placed upon the premises.~~

L.B.

12. Should the Company elect to purchase hereunder, it will mail written notice to the Owners, ~~including therein the identification of any surface which it desires to purchase~~ L.B. The said notice shall set forth the time and place for delivery by the Owners of a proper deed, which time shall in any case be not more than sixty days subsequent to the expiration of the lease period then in effect. The Owners will deliver to the Company a General Warranty deed with the following covenants: that at the time of making and delivery of such deed they were lawfully seized of an indefeasible estate in fee simple in and to the premises therein described, and had good right and full power to convey the same; that the same were then free from all encumbrances; that they warrant to the Company, its successors and assigns, the quiet and peaceable possession of such premises, and will defend the title thereto against all persons who may lawfully claim the same; that the Owners have committed no act or acts which will at any time in the future encumber, or cause a lien to be placed against, the premises; and for further assurances of title. Said deed will convey to the Company, by metes and bounds description to be furnished by the Company, a good, marketable fee simple title to the said premises. L.B. Said deed shall, however, contain a reservation of all the Oil and gas in and under said lands with the exclusive right to prospect for and exploit the same ~~hereof, elect to purchase. Upon purchase of said surface and as above provided the Company shall have the entire ownership of that portion of the premises with respect to which the surface purchase is made, and the deed shall so provide.~~ Upon delivery of the deed the Company will pay to the Owners the agreed purchase price which may be due under Paragraphs 10 ~~and 11~~ hereof, less any monies deductible as provided for in Paragraphs 3 ~~and 6~~ hereof. If the

title tendered is not, in the judgment of the Company, a good, marketable title, the Company may notify the Owners, and if the defects are not promptly remedied, the Company may proceed to remedy the defects and retain sufficient from the purchase price to cover the necessary costs thereof.

13. During the original term hereof, or any extension thereof, the Company may terminate this agreement at any time by giving written notice thereof to the Owners, and thereupon any liabilities or obligations of the Company hereunder, excepting those that may have already accrued, shall immediately cease and terminate. Such notice shall be of sufficient formality to be admitted on record and to release the premises from the terms of this agreement

~~14. The Owners shall grant to the Company the right to purchase not exceeding _____ acres of surface of the above described premises by the payment of _____ dollars ($_____) per acre, the location thereof to be determined by the Company and designated by metes and bounds. Such surface area so designated shall not however include property upon which the present residence and attendant outbuildings are located, nor within a distance of 300 feet of any such building. The Company may purchase such surface area only if it exercises the option to purchase set forth in Paragraph 10 hereof, and if it desires to purchase such surface area, it must do so at the time it exercises the option.~~

15. Notices and tenders to the Owners pursuant hereto shall be addressed to them at Old Cairo Road, Route 7, Paducah, Kentucky _____. Notice to the Company shall be addressed to it at No. 160 Front Street, New York 38, New York. Either party may, by written notice to the other, designate another address to which notice or tender is to be sent. Any notice or tender shall be deemed given or made when mailed by registered mail, postage prepaid, addressed as above provided, or when delivered personally to ~~either one of~~ the Owners.

16. The parties hereto agree that the whole agreement between them is written herein and in a short form agreement of even date herewith which is intended to be recorded, and the parties hereto are not bound by any agreements, understandings or conditions otherwise than as set forth herein and in said short form agreement.

17. The term "parties of the first part" as herein used shall be construed to mean, "the parties of the first part, their heirs, assigns and successors in title howsoever such succession may be accomplished" and the term "party of the second part" shall be construed to mean "party of the second part, its assignees, designees and successors in title howsoever such succession may be accomplished."

IN WITNESS WHEREOF the parties of the first part have hereunto set their hands and seals the day and year first above written.

Fannie Freeman (Seal)

_____ (Seal)

ATTEST:

Walter R. Amyan
Its Secretary

THE NEW JERSEY ZINC COMPANY

[illegible]
Its Vice President

COMMONWEALTH OF KENTUCKY
~~STATE OF KENTUCKY~~)
) SS:
COUNTY OF MC CRACKEN)

I, Alice F. Miller, a Notary Public in and for said County, in the State aforesaid, do hereby certify that Laura Baumer, a spinster

personally known to me to be the same person whose name are subscribed to the foregoing Lease and Option Agreement appeared before me this day in person, and acknowledged that she signed, sealed and delivered the said instrument as her free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 21st day of June, 1954.

My Comm. ex 12-4-56

Alice F. Miller (nee Zimmerman)
Notary Public
Ky State at Large

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

I, John T. Hourigan, a Notary Public; do hereby certify that C. H. George to me personally known to be the EXECUTIVE Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey Corporation, and Walter R. Anyan, personally known to me to be the Secretary of said Corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said instrument as such EXECUTIVE Vice President and Secretary respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said Corporation, as their free and voluntary act and as the free and voluntary act and deed of said Corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 1st day of July, 1954.

John T. Hourigan
Notary Public
JOHN T. HOURIGAN
NOTARY PUBLIC, State of New York
No. 30-6972060
Qualified in Nassau County
Cert. filed with New York County clerk
Commission Expires March 30, 1956

RECORDED IN THE OFFICE OF THE RECORDER
OF DEEDS OF POPE COUNTY, ILLINOIS, ON
APRIL 21, 1958, IN MORTGAGE RECORD 32,
AT PAGE 429.

OFFICIAL FILE COPY
RECEIVED APR 30 1958
DATE | REC

LEASE AGREEMENT

THIS LEASE AGREEMENT made and entered into as of the 15th day of March, 1958, by and between WILLIAM THURSTON O'ROARK and VAUGHANY O'ROARK, his wife, of 19060 Norton Street, East Detroit, Michigan, parties of the first part, hereinafter called "the Owners", and THE NEW JERSEY ZINC COMPANY, a New Jersey corporation qualified to do business in Illinois, party of the second part, hereinafter called "the Company";

W I T N E S S E T H:

That for and in consideration of the sum of ONE ($1.00) DOLLAR and other good and valuable considerations in hand paid, the receipt of which is hereby acknowledged, the Owners lease and grant to the Company for a period of two (2) years from the date hereof, with the privilege of extension thereafter, the exclusive right to prospect for, explore and examine, mine and remove, process and store all the minerals, mineral substances, metals, ores, ore-bearing materials and rock of every kind except oil and gas in, under or on all of the following described premises:

> The southwest fourth (SW1/4) of the northeast quarter (NE1/4) of Section 28, Township 12 South, Range 7 East of the Third Principal Meridian, in Pope County, Illinois, 40 acres, more or less.

together with the right to enter thereon, to use available water and to remove samples, in accordance with the terms of a LEASE AGREEMENT of even date herewith entered into between the parties hereto. The terms of this Agreement are fully set out in said LEASE AGREEMENT, which is here referred to and made a part hereof as if fully set out at length.

The term "parties of the first part" as herein used shall be construed to mean, "the parties of the first part, their heirs, assigns and successors in title howsoever such succession may be

accomplished" and the term "party of the second part" shall be construed to mean "party of the second part, its assignees, designees and successors in title howsoever such succession may be accomplished".

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals as of the day and year first above written.

/s/ William Thurston O'Roark (Seal)
William Thurston O'Roark

/s/ Vaughany O'Roark (Seal)
Vaughany O'Roark

S E A L

THE NEW JERSEY ZINC COMPANY

Attest:

By (Sgd.) S. S. Goodwin
its Vice President

(Sig.) R. A. Oberfell
its Assistant Secretary

OFFICIAL FILE COPY
D M E A
RECEIVED APR 30 1958
DATE

STATE OF ~~MICHIGAN~~ Illinois)
) SS:
COUNTY OF Saline)

I, Harold Parker, a Notary Public in and for said County, in the State aforesaid, do hereby certify that WILLIAM THURSTON O'ROARK and VAUGHANY O'ROARK, his wife, personally known to me to be the same persons whose names are subscribed to the foregoing LEASE AGREEMENT appeared before me this day in person, and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 15 day of April, 1958.

S E A L

/s/ Harold Parker
Notary Public

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

I, John T. Hourigan, a Notary Public, do hereby certify that S. S. Goodwin to me personally known to be the Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, and R. A. Oberfell, personally known to me to be the Assistant Secretary of said Corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing LEASE AGREEMENT, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said instrument as such Vice President and Assistant Secretary respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said Corporation, as their free and voluntary act and as the free and voluntary act and deed of said Corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 17th day of April, 1958.

S E A L

SEAL

(Sig.) John T. Hourigan
Notary Public

JOHN T. HOURIGAN
NOTARY PUBLIC, State of New York
No. 30-6977000
Qualified in Nassau County
Cert. filed with New York County Clerk
Commission Expires March 30, 1960

THE NEW JERSEY ZINC COMPANY

(ESTABLISHED 1848)

HORSE HEAD PRODUCTS ®

OFFICE OF THE
VICE PRESIDENT

100 FRONT STREET

NEW YORK 38, N.Y.

December 30, 1957

OFFICE FILE COPY
DMEA
RECEIVED DEC 31 1957
DATE | CODE

Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

D.M.E.A. EXPLORATION PROJECT TWO
POPE COUNTY, ILLINOIS
THE NEW JERSEY ZINC COMPANY

Gentlemen:

Submitted herewith in behalf of The New Jersey Zinc Co. is our application for aid in an exploration project in southern Illinois. Form MF 103, revised October, 1957, has been prepared in quadruplicate as required by D.M.E.A. Order 1, Revised.

If any additional information is required, we shall be glad to furnish it. If this project is approved, we shall be ready to proceed as soon as the contract is received.

Very truly yours,

S. S. Goodwin
Vice President

SSG/JBC:alb

Attachments: Form MF 103
Sheet 1 - Applicant's Property Rights
Sheets 2 and 2a - Physical Description
Sheet 3 - Accessibility of Project
Sheets 4 and 4a - The Exploration Project
Sheet 5 - Experience
Sheet 6 - Estimate of Costs
Sheet 7 - Cost Division
Exhibits A and B - Property Agreements
*Exhibits C, D, and E - Diamond Drilling Proposals
Drawings - #AX-Ill-19, #AX-Ill-12, #AX-Ill-23
#AX-Ill-26 and #AX-Ill-27

*NOTE: Omitted herewith. Will forward in a few days.

Form MEA 103
Revised 12-1957

RECEIVED DEC 31 1957 DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1035.3
Approval expires June 30, 1958

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

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

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA 4907
Date Received: 12-31-57
Government Participation %:
Region: Region V
Division Code: 600

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [X]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized: New Jersey

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
R. L. McCann	160 Front St., N.Y.38	President
C. Howard George	"	Executive Vice President
S. S. Goodwin	"	Vice President
E. E. Schwegler	"	Vice Pres. & Comptroller
R. G. Kenly	"	Vice President
L. F. Johnson	"	Vice President
P. M. Ginder	"	Vice President
Samuel Riker	"	Secretary & Treasurer

Mineral(s) for which you wish to explore: Fluorspar, zinc, lead

Estimated Cost of Project: $ 40635

LOCATION OF PROPERTY

Name	County	State
Project Two	Pope	Illinois

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order-I, Revised, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals,* of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dec. 30, 1957
Dated

J. Goodwin
BY *(Signature)*

VICE PRESIDENT
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Revised.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 25960

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

1. Applicant's Property Rights

(a) The New Jersey Zinc Company wants to explore two tracts in Pope County, Illinois in Sections 27, 28 and 33, T 12 S, R 7 E. The legal descriptions of these tracts are given in the two agreements which are attached hereto as Exhibits A and B. The area is shown on the attached geologic map, AX-Ill-23, with a red outline.

Exhibit	Name of Property Owner	Acreage of Mineral Rights
A	Laura Baumer	469
B	Robert S. Barnett	264
		733

Four other tracts may later be covered by agreements now under negotiation. These will be added to this D.M.E.A. project if they are signed. However, they are not necessary to the successful prosecution of exploration on the land already held under agreement.

Name of Owner	Acres	Description
John Crain	40	NW¼ SW¼ Section 28
Clyde Flick	80	SW¼ SW¼ Section 28 and NW¼ NW¼ Section 33
Raleigh Stacy	69	Part S½ NW¼ Section 28
W. T. O'Roark	40	SW¼ NE¼ Section 28

The company also has agreements covering adjoining tracts which are not now considered as part of this D.M.E.A. project application. They are described as follows and are shown on the attached map with a blue outline.

Name	Acres	Location
P. Flach-J. Bruce	75	SW¼ NW¼, NW¼ SW¼ Section 33
Virgil Anderson, et al.	153.6	in Section 34
Luster Rains	110	in Section 15
U.S.A. Shawnee National Forest (Prospecting permit #BLM-A-037778)	966.6	in Sections 10, 15, 16, 17, 21, 33 and 34, T 12 S, R 7 E and Sec. 4, T 13 S, R 7 E

(b) The two tracts are known as the Laura Baumer farm and the R. S. Barnett mineral rights tract. W. T. O'Roark owns the surface of the Barnett tract.

(c) Our interest is as lessee and option holder with right to purchase mineral rights. Please see attached agreements.

(d) No mortgages or liens known to be outstanding on the two tracts under option.

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

2. Physical Description

(a) No mine workings lie within the boundaries of the tracts in this project. Three old pits lie near the boundary of the Barnett and Shain (Ozark-Mahoning) tracts along the Wolrab Mill Fault zone. The location of these pits is shown on the attached geologic maps, AX-Ill-23 and AX-Ill-26.

(b) The company had no interest in the property at the time the pits were dug.

(c) No recorded production.

(d) No ore reserves.

(e) The geological feature which makes this project an interesting venture is the Wolrab Mill Fault zone which traverses the northwest part of the property under option.

One-half mile northeast of the property line, the Ozark-Mahoning Company has recently developed a new fluorspar-zinc-lead orebody southwest of the VanCleave or "Grand Pierre" shaft. We believe this ore is oriented along or parallel to the Wolrab Mill Fault as a vein deposit within a strand of the fault zone. High grade lead mineralization was seen in a shear zone in the creek bottom near the VanCleave shaft in 1949. Cores from Ozark's recent drilling in this vicinity show very good intersections of fluorspar and sphalerite, and an unknown amount of galena. If the ore is similar to that found in the Mackey-Humm mine in Section 23, it will probably spread out from the vein a short distance in favorable beds to form a combination vein and bedded type ore deposit.

Still farther to the northeast, several shafts have been opened up on this same vein zone on the Holloman or Belford property, but the fluorspar production from here is probably small.

Considerable barite has been found on the dumps of the pits which have been opened at the north boundary of the property. In the Southern Illinois district, barite commonly accompanies fluorite ore and is considered to be a good guide to ore.

The location of the fault strands on the New Jersey Zinc property has been determined by geological field mapping and photo geology. Lineaments found from the study of aerial photos are shown on maps AX-Ill-23 and AX-Ill-26.

Outcrops of surface formations are indicated on the geologic map by dip and strike symbols. A likely possibility exists that other faults or veins which outcrop northeast of the property continue southwesterly across the Barnett and Baumer tracts. The extension of these is partly hidden by

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

the alluvium deposited in Big Grand Pierre Creek valley; but these other veins are not our immediate target.

(f) We expect to find ore in or associated with the several strands of the Wolrab Mill Fault zone. Ore has already been found in this zone northeast of the property. The surface indications point to a continuation of the ore bearing zone toward the southwest and a geochemical survey of the soils has given some indication that zinc or lead mineralization may have leaked up along the fault zone to form trace concentrations in the formations overlying the ore.

On a map drawn to the same scale as the larger geologic map, the results of a geochemical soil survey have been plotted. Soil samples were taken with an auger bit driven by hand with pipe sections. In all cases an attempt was made to reach bedrock before collecting the soil sample for analysis. Our purpose in so doing was to obtain a sample of the residual soil rather than the loess overburden. The samples were analyzed in the Jefferson City, Tennessee laboratory of The New Jersey Zinc Company by the dithizone method. The results are shown on map AX-Ill-26 in parts per million of zinc-lead-copper complex.

The background for soils in this area appears to be 55 to 90 ppm. The soils are sandy and hence show lower background values than one would expect in residual limestone soils. Samples showing 100 ppm or more probably represent anomalous areas. The anomalies are weak and discontinuous, but this should be expected because the favorable horizons are several hundred feet below the surface and our primary target mineral, fluorspar, does not contain elements for which we analyze. Zinc and lead concentrations in nearby mines are usually spotty and not as continuous as the fluorspar mineralization.

(g) Maps which are included with this application are as follows:

Index Map	AX-Ill-19
Stratigraphic Section	AX-Ill-12
Geologic Map - Project Two	AX-Ill-23
Geology, Soil Samples and Proposed Holes	AX-Ill-26
Cross Sections for Proposed Drill Holes	AX-Ill-27

All of these prints may be retained with the report.

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

3. Accessibility of Project

(a) Project Two is in Pope County, Illinois. It is under the supervision of the Harrisburg, Illinois exploration office of The New Jersey Zinc Company. Mr. Rupert Bing, geologist, is in charge of this office and may be addressed c/o The New Jersey Zinc Company, 106 North Main Street, Harrisburg, Illinois. The office telephone number is Clearbrook 3-7013. He will be glad to meet the D.M.E.A. representative and show him the property at any time. From Harrisburg, Illinois, the property may be reached by driving south on Highways 34 and 146 toward Golconda, a distance of about 27 miles from Harrisburg. Highway 146 crosses the northwest corner of the project. The nearest mine is the VanCleave shaft of the Ozark-Mahoning Company, one-half mile northeast of the project and 150 feet south of the bridge that takes Route 146 over Big Grand Pierre Creek. This mine is now under development and the workings are accessible.

(b) The nearest city to Project Two is Paducah, Kentucky. The Illinois Central runs a branch line along the north bank of the Ohio River to Rosiclare. Golconda is the nearest town to Project Two and is a station on this Illinois Central branch; it is about seven miles south on Highway 146. Most employees would probably reside in Golconda or in Rosiclare, which is seven miles east of the project. Rosiclare is a distress area in the national unemployment situation. Fluorspar can be shipped by rail from Golconda or by barge from loading stations along the Ohio River. The smaller fluorspar mines in the Pope County area haul by truck to concentrating mills of the Ozark-Mahoning Company or the Aluminum Company of America, both in Rosiclare.

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

4. The Exploration Project

(a) This exploration project proposes to explore by diamond drilling the series of faults or lineaments which run across the northwest side of the Baumer and Barnett properties. Exploration by other parties in sections 15 and 22 has shown this series of shear zones and minor breaks to be mineralized with fluorspar, sphalerite and galena. A series of drill holes on sections across the strike is planned to cut several of these zones and an additional pair of holes is planned to test a soil anomaly not associated with a known lineament or fault.

The proposed location of these holes is shown on map AX-Ill-26, and on the cross sections drawn on sheet AX-Ill-27. A reference line for the sections extends S 45° W from the northeast corner of Section 28. The sections are numbered according to hundreds of feet southwest along this line from the northeast corner. Sections are drawn along N 45° W lines and looking N 45° E.

Holes 1 through 6 are planned on section 16 to test the branches of the Wolrab Mill Fault zone as they enter the property from the northeast. Hole 1 tests the existence and attitude of the west or "W" lineament or fault. Hole 2 is placed to test the intersection of this fault with the favorable Renault to Fredonia horizons. Its position should be shifted according to the results of hole 1. Hole 3 tests the location and attitude of the central or "C" lineament. Hole 4 explores the deeper intersection of this fault with the lower horizons. Hole 5 (drilled to the southeast) explores the attitude of the east or "E" fault. Hole 6 tests the deeper intersection of the "E" fault with the Rosiclare and Fredonia members. This series of 6 holes overlaps in such a way that any unknown faults or veins which exist in this section should be cut by one of the holes.

Holes 7 and 8 are laid out on cross-section 34 to test the roots of a geochemical soil anomaly found near the crest of the wooded slope which lies east of the Baumer farm. If the steep wooded location for hole 7 is impracticable for a drill site, it can be moved to the west and the hole pointed in the opposite direction to the southeast. The two holes test the existence of an unknown vein, fault or shear zone crossing the area of the anomaly.

Holes 9, 10, 11 and 12 are laid out on cross-section 48 to test the "C" and "E" fault zones near the west edge of the Barnett tract.

Holes 13 and 14 are on cross-section 52 to test the intersection of a north-south diagonal "D" lineament with the "E" fault. At the west boundary line, a soil anomaly suggests that this may be a mineralized area.

(continued)

These proposed holes may be summarized as follows:

Hole No.	Dip and Direction	Inclined Depth in feet
1	45° NW	350
2	45° NW	700
3	45° NW	350
4	55° NW	750
5	45° SE	400
6	60° NW	800
7	45° NW	400
8	70° SE	750
9	45° NW	350
10	60° NW	700
11	45° SE	300
12	60° NW	800
13	45° NW	450
14	60° NW	800
		7900

The planned holes require a total of 7,900 feet of drilling. This would be the first stage of a two stage program. The second stage would be additional drilling to develop any ore sections found in the initial stage. Such additional drilling would not go beyond a rough delineation of the ore. We estimate that five holes making about 3,800 additional feet might be required to develop any ore intersections. The estimated total drilling required then becomes 11,700 feet. If nothing of interest is found in the first stage of drilling, then the second stage will be abandoned and the project stopped at that point. This same reasoning applies to each of the targets listed above. That is, if the short hole finds no fault, vein or mineralization, then the deeper hole to explore that area becomes unnecessary.

The stratigraphic thicknesses of the formations lying over the favorable Fredonia limestone have been plotted according to results in our recent drilling in Hardin County and figures the Illinois Geological Survey reports as average thicknesses for Pope County. These thicknesses may vary somewhat locally, but it now appears that the deepest holes will be about 800 feet to the Spar Mountain horizon in the Fredonia limestone, and the average inclined depth of all holes will be 550 feet.

(b) No access road is required to reach the project. Short truck trails may be required to place the drill rigs in the desired positions; these will be constructed by the diamond drilling contractor as required.

(c) If an exploration contract with D.M.E.A. is executed, the work can be started within four weeks. We anticipate an average rate of advance of about 40 feet per diamond drill shift, and we plan to use either one drill for two shifts or two drills working one shift. At this rate, the project will require about six months for completion.

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

5. Experience

The New Jersey Zinc Company has had a long experience with exploration projects in other mining districts in the United States. During the past year, two diamond drill rigs have been operating in our Project One in Hardin County, Illinois, on a somewhat similar fluorspar project.

A D.M.E.A. application, in three parts, was submitted for Project One in Hardin County on June 25, 1956. In October, 1956, these applications were denied without prejudice with the suggestion that additional work might make them suitable for submission at a later date. This application, for Project Two, has no connection with the earlier Project One. However, because of the geologic setting, the nearness of known ore deposits, and the additional work which has been done on soil sampling and geology in Project Two, we feel that it is more in the nature of "exploration" and less a "prospecting venture", with a higher "geologic probability of discovery" as required in Section 6 of D.M.E.A. Order 1.

The project will be under the general supervision of Mr. W. H. Callahan, Manager of Exploration for The New Jersey Zinc Company. The geologist in charge on the job will be Mr. Rupert C. Bing, who has been supervising the drilling in Hardin County.

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

6. Estimate of Costs

(a) Independent Contracts

The following estimate of the cost of the proposed diamond drilling is based on prices in our present contract with E. J. Longyear Company. Their proposal is attached along with two alternate proposals as Exhibits C, D and E.

Diamond Drilling:

0-1000 ft., BX-wire line, recovering 1 1/8" core or AX-standard, recovering 1 1/8" core	$2.65 per foot
NX-size for collaring holes:	$3.25 per foot
Surveying, cementing, and delays	$7.00 per hour

The contract cost of 11,700 feet of drilling is estimated as follows:

Collaring holes - NX: 800 ft. @ $3.25 =	$2600	
Wire line BX or standard AX 10900 ft. @ $2.65 =	28885	
Cementing and surveying--80 hrs. @ $7 =	560	
Casing or pipe left in hole at collar	800	
		$32845

(b) Personal Services

Supervision:		
1 geologist - 6 months	$3000	
Technical service:		
2 surveyors - 3 months	2500	
		$5500

(These men will be available for the project)

(c) Operating material and supplies

Core boxes and field storage bin (200 trays @ $4)	$800

(d) Operating equipment

Expense for automobile furnished by Company; 8,500 miles @ 8¢	$680

(Fair market value of automobile $600)

(e) Rehabilitation and Repairs

None

(f) New Buildings and Improvements

None

(g) Miscellaneous

(Maintenance of auto included in mileage rate)

Analytical work, 50 assays @ $6.00	$300	
Accounting and secretarial charges ($30/mo.)	180	
Workmen's Compensation 1% of $5500	55	
Insurance and Payroll Taxes 5% of $5500	275	
		$810
Total cost of Project		$40,635

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

7. Cost Division:

(a) The company is prepared to furnish its share (50%) of the cost of the proposed project in accordance with Section 7 of D.M.E.A. Order 1, amended.

(b) The proper share of the cost of diamond drilling will be furnished in money. Services, materials and automotive equipment will be furnished as listed in the Estimate of Costs above.

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

THIS AGREEMENT made and entered into on this 29th day of July, 1954, by and between Robert S. Barnett and Marjorie W. Barnett, his wife, of Equality, Gallatin County, Illinois

hereinafter called the Owners, parties of the first part, and THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, authorized to do business in the State of Illinois, party of the second part, hereinafter called the Company:

W I T N E S S E T H :

That for and in consideration of the sum of ONE ($1.00) DOLLAR and other good and valuable considerations in hand paid, the receipt of which is hereby acknowledged, Owners lease to the Company for a period of two years from the date hereof, with the privilege of extension for further one year periods thereafter, upon payment of sums of money agreed upon, the exclusive right to prospect for, explore and examine, mine or remove, process and store all the minerals, mineral substances, metals ores, ore-bearing materials and rock of every kind in, under or on all of the following described premises:

The South West Fourth (SW¼) of the South West Quarter (SW¼)(except that part lying south and east of Big Grand Pierre Creek, containing 1 acre, more or less), 39 acres;

The South West (SW) Part of the North West Fourth (NW¼) of the South West Quarter (SW¼), bounded on the north and east by a creek known as Grand Pierre Creek, 25 acres, more or less;

All the above being in Section 27, Township 12 South, Range 7 East of the Third Principal Meridian, in Pope County, Illinois. The South West (SW) Part of the North East Fourth (NE¼) of the North East Quarter (NE¼), being a tract 42 rods north and south by 39 rods east and west, 10 acres, more or less;

The South One-half (S½) of the North West Fourth (NW¼) of the North East Quarter (NE¼), 20 acres, more or less;

The South East Fourth (SE¼) of the North East Quarter (NE¼), 40 acres, more or less;

The South East One half (SE½) of the South East Fourth (SE¼) of the North West Quarter (NW¼), 20 acres, more or less;

The North East Fourth (NE¼) of the South West Quarter (SW¼), 40 acres, more or less;

The North East Fourth (NE¼) of the South East Quarter (SE¼), 40 acres, more or less;

The North (N) Part of the North West Fourth (NW¼) of the South East Quarter (SE¼), being a tract 20 rods north and south by 80 rods east and west, 10 acres, more or less;

The North One-half (N½) of the South East Fourth (SE¼) of the South East Quarter (SE¼), 20 acres, more or less.

All the above being in Section 28, Township 12 South, Range 7 East in Pope County, Illinois.

together with the right to enter thereon, to use available water and to remove samples, in accordance with the terms of a LEASE AND OPTION AGREEMENT of even date herewith entered into between the parties hereto. Also for and in the same consideration the Owners grant to the Company the option to purchase, at any time during the life of the aforesaid lease up to July 29, 1959, all the minerals, mineral substances, metals, ores, ore-bearing materials, and rock of every kind, in, under or on the above described premises together with the right to prospect for, mine or remove, process or store the same, water rights, the right of ingress and egress, ~~and the right to purchase surface acreage,~~ all in accordance with the terms of the said LEASE AND OPTION AGREEMENT of even date herewith. The terms of this agreement are fully set out in said LEASE AND OPTION AGREEMENT, which is here referred to and made a part hereof as if fully set out at length.

The term "parties of the first part" as herein used shall be construed to mean, "the parties of the first part, their heirs, assigns and successors in title howsoever such succession may be accomplished" and the term "party of the second part" shall be construed to mean "party of the second part, its assignees, designees and successors in title howsoever such succession may be accomplished."

IN WITNESS WHEREOF the parties of the first part have hereunto set their hands and seals the day and year first above written.

Approved as to form

Robert S. Barnett (Seal)

Margaret V. Barnett (Seal)

ATTEST:

Walter R. Amyan
its Secretary

THE NEW JERSEY ZINC COMPANY

By
EXECUTIVE Vice President

STATE OF ILLINOIS)
) SS:
COUNTY OF GALLATIN)

I, Lowden F. Pruett, a Notary Public in and for said County, in the State aforesaid, do hereby certify that Robert S. Barnett and Marjorie W. Barnett, his wife,

personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement appeared before me this day in person, and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 29th day of July, 1954.

Lowden F. Pruett
Notary Public

Commission expires April 30, 1957

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

I, John T. Hourigan, a Notary Public; do hereby certify that C. H. Georg to me personally known to be the Executive Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey Corporation, and Walter R. Anwan, personally known to me to be the Executive Secretary of said Corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said instrument as such Executive Vice President and Executive Secretary respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said Corporation, as their free and voluntary act and as the free and voluntary act and deed of said Corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 23rd day of September, 1954.

John T. Hourigan
Notary Public
JOHN T. HOURIGAN
NOTARY PUBLIC, State of New York
No. 30-6977000
Qualified in Nassau County
Cert. filed with New York County clerk
Commission Expires March 30, 1956

#15710

STATE OF ILLINOIS, }
POPE COUNTY }

RECORDER'S OFFICE

I, Cressie Ragan, Clerk of the Circuit Court and ex-Officio Recorder within and for the County and State aforesaid, do hereby certify that the within and foregoing instrument of writing was filed for record on the 28th day of Sept A.D. 1954 at 9:00 o'clock A. M., and duly recorded in volume 30 of Mortgages on page 526

In testimony whereof, I have hereunto set my hand the day and date aforesaid.

Cressie Ragan, Clerk

_____, Deputy

Docket copy

PROJECT SUMMARY REPORT

By J. W. Alt

November 27, 1959

1. Docket No. DMEA-4907 (Fluorspar)
   Contract No. Idm-E1206

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

   Property: Project 2
   Pope County, Illinois

   Operator's Property Rights:

   Lease Agreement - Dated March 15, 1958, William T. O'Roark and wife, Vaughany O'Roark - Approximately 40 acres

   Agreement - Dated June 21, 1954, Laura Baumer - Approximately 469 acres

   Agreement - Dated July 24, 1954, Robert S. Barnett and wife, Marjorie W. Barnett - Approximately 264 acres.

2. Contract Form MF-200 (Revised June 1954), dated June 16, 1958

   To start not later than 30 days of date of contract
   Completion - not stated.

Exploration for fluorspar shall be performed by diamond drilling.

Stage I

Drill ten diamond drill holes aggregating not more than 7,160 feet. The holes located as specified in Exhibit "A".

Stage II

This stage shall consist of not more than 5,000 feet of diamond drilling.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

100 feet of overburden drilling @ $2.95/ft.	$295.00
150 feet of NX or BX diamond drilling to collar holes @ $2.95/ft.	442.50
6,910 feet of AX and/or BXWL diamond drilling @ $2.65/ft.	18,311.50
300 feet of reaming @ $1.75/ft.	525.00
40 hours of cementing @ $8.00/hr.	480.00
40 hours of hole survey or other lost time @ $8.00/hr.	320.00

Fixed Unit Costs

Incidental allowance for each foot of drilling completed, 7,160 feet @ $0.30/ft.	$2,148.00
175 wooden core boxes @ $3.00/box	525.00
32 samples to be assayed for Ca T_2, Pb, and Zn @ $6.00/sample	192.00
Estimated Total Cost, Stage I	$23,239.00

Stage II

Actual Costs

Category (1) Independent Contracts

80 feet of overburden drilling @ $2.95/ft.	$236.00
120 feet of NX or BX diamond drilling to collar holes @ $2.95/ft.	354.00
4,800 feet of AX or BXWL diamond drilling @ $2.65/ft.	12,720.00
210 feet of reaming @ $1.75/ft.	367.50
43 hours of cementing @ $8.00/hr.	344.00
30 hours of hole survey or other lost time @ $8.00/hr.	240.00

Fixed Unit Costs

Incidental allowance for each foot of drilling completed, 5,000 feet @ $0.30/ft.	$1,500.00
30 samples to be assayed for CaF_2, Pb and Zn @ $6.00/sample	192.00
Estimated Total Cost, Stage II	$15,953.50

Summary

Estimated total cost Stage I	$23,239.00
Estimated total cost Stage II	15,953.50
Estimated total cost of project (rounded)	$39,192.00
Government participation @ 50%	19,596.00

Amendments -

No. 1 Agreed July 9, 1958:
Completion date, March 20, 1959, inserted in Article 3 of the Contract.

No. 2 Agreed July 18, 1958:
Commencement of the work is extended from 30 days after date of Contract to August 11, 1958

No. 3 Agreed February 16, 1959:
Completion time extended from March 20, 1959 to May 20, 1959

Work Completed -

A total of 9 drill holes was completed under Stage I of the Contract and 5 drill holes under Stage II.

Total amount of drilling 11,517 feet, total cost	$35,988.15
Government Participation @ 50%	$17,994.07

Final Reports -

Operator's final report dated October 15, 1959, received October 23, 1959
Field Team's final report dated June 6, 1959, received November 12, 1959

Work under the terms of the Contract began July 17, 1958 and ended on April 4, 1959

3. Audit Report of Review, made in lieu of a final audit, dated November 3, 1959.

Total cost as billed by Operator	$37,867.15
Exception: Prior to this review	2,020.75
Acceptable cost claimed by Operator	$35,846.60
Acceptable costs not claimed, to partially offset exceptions	141.75
Total Acceptable Cost	$35,988.15
Government Participation @ 50%	$17,994.07

4. Certification of discovery issued December 4, 1959.

5. Comments:

The exploration done under this contract was the first systematic work done in the project area. The contract drilling penetrated favorable stratigraphic units at intersections with several faults. An ore body was discovered along faults in the northeastern part of the project area. Because of the insufficient drilling in the vicinity, it is not certain whether the mineralization is continuous or whether it occurs as isolated deposits. Throughout the remainder of the area, only scattered traces of ore minerals were encountered at the favorable structural and stratigraphic positions.

The mineralization discovered in the northeastern part of the area consists of mixed sphalerite and fluorite with subordinate amounts of galena in a gauge of calcite. It occurs as veins which fill cavities in major faults, as cavity filling in fault breccia and brecciated wall rock, and as minor replacement of carbonate wall rock.

The reserve estimate by the Field Team is 54,000 tons of 23.46% fluorspar, 6.48% zinc, and 2.38% lead. These are reserves of marginal economic status, and the Operator considered them to be uneconomic. But the Field Team considers that within the 10-year repayment period, this small reserve may be eoonomic to some other Operator, and, therefore, recommends that a certification of discovery be issued.

Additional exploration is warranted in the northeastern part of the project area, and this is being done by the Operator.

J. W. Alt

J. W. Alt

JWAlt:kb - November 27, 1959
cc to: Docket
Director's reading file
Mr. Johnson
Mr. Alt
Chron.

MME Form 17
Mar. 59

Stages I & II

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

___ Certified — After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: New Jersey Zinc Company — Actual Cost: X

State: Illinois — Commodity: Fluorspar — Agreed Unit Cost: X

Final Report of Audit: — Docket No.: DMEA-4907

Final Report of Review: November 3, 1959 — Contract No.: Idm-I 1206

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Reaming	510'	$892.50	170'	$297.50	
~~Drifting & Crosscutting~~ Cementing	103 hrs	824.00	71 hrs.	568.00	
Hole Survey - Lost Time	70 hrs	560.00	39 hrs	234.00	
~~Raising~~ Incidental Allowance	12,160'	3,648.00	11,517'	3,455.10	
~~Shafts~~ Core boxes	175	525.00	175	525.00	
~~Winzes~~ Samples	64	384.00	35	210.00	
Drilling (Specify) Overburden	180'	531.00			
NY or BX Diamond	270'	796.50	595'	1,755.25	
AX or BXWL Diamond	11,710'	31,031.50	10,922'	28,943.30	
Total Drilling	12,160'		11,517'	$30,698.55	
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals (Rounded)		$39,192.00		$35,988.15	2/

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by J. W. [illegible] Date 11/16/59

52616

MME Form 17
Mar. 59

OFFICE OF MINERALS EXPLORATION

Stage I

WORK COMPLETED ANALYSIS

___ Certified — After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: New Jersey Zinc Company — Actual Cost: X

State: Illinois — Commodity: Fluorspar — Agreed Unit Cost: X

Final Report of Audit: — Docket No.: DMEA-4907

Final Report of Review: November 3, 1959 — Contract No.: Idm-I 1206

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Drifting & Crosscutting: Reaming	300'	$525.00	10'	$17.50	
Cementing	60 hrs	480.00	71 hrs	568.00	
Hole Survey - Lost Time	40 hrs	320.00			
~~Raising~~ Incidental Allowance	7,160'	2,148.00	6,517'	1,955.10	
~~Shafts~~ Core boxes	175	525.00	175	525.00	
~~Winzes~~ Samples	32	192.00	3	18.00	
Drilling (Specify): Overburden	100'	295.00	410'	1,209.50	
NX or 8X - Diamond	150'	442.50			
AX or BXWL - Diamond	6,910'	18,311.50	6,107'	16,183.55	
Total Drilling	7,160'		6,517	17,393.05	
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$23,239.00		$20,476.65	2/

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by _____ Date _____

52616

MME Form 17
Mar. 59

OFFICE OF MINERALS EXPLORATION

Stage II

WORK COMPLETED ANALYSIS

___ Certified — After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: New Jersey Zinc Company — Actual Cost: X

State: Illinois — Commodity: Fluorspar — Agreed Unit Cost: X

Final Report of Audit: — Docket No.: DMEA-4907

Final Report of Review: November 3, 1959 — Contract No.: Idm-I 1206

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
~~Drifting & Crosscutting~~ Reaming	210'	$367.50	160'	$280.00	
Cementing	43 hrs.	344.00	—		
Hole Survey - Lost Time	30 hrs	240.00	39 hrs	234.00	
~~Raising~~ Incidental Allowance	5,000'	1,500.00	5,000'	1,500.00	
~~Shafts~~ Core boxes					
~~Winzes~~ Samples	32	192.00	32	192.00	
Drilling (Specify) Overburden	80'	236.00	185'	545.75	
NX or BX Diamond	120'	354.00			
AX or BXWL Diamond	4,800'	12,720.00	4815'	12,759.75	
Total Drilling	5,000'		5,000'	13,305.50	
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$15,953.50		15,511.50	2/

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by _____ Date _____

52616

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/20		110
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OCT 20 1967

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Enclosed is a copy of a letter dated October 17, 1967, from Ozark-Mahoning Company, reporting on the estimated production from the Barnett and O'Roark tracts under the subject contract for the second and third quarters of 1967.

The calculated value of the reported production amounts to $316,800.17. Royalty at 5 percent would amount to $15,840.01, which is greatly in excess of the balance of the Government's contribution to costs under the contract amounting to $2,324.16.

We will greatly appreciate receiving your check in the amount of $2,324.16, payable to the Geological Survey, so that we may close this account.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120

Enclosure

FEJohnson/bih 10/20/67

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/30/67		110
		220

The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Attention: Mr. William H. Callahan
Manager of Exploration

Re: MMSA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-H1206

Gentlemen:

17,994.07

Thank you for your letter of October 26, 1967, enclosing a check in the amount of $2,324.16, which pays in full the Government's participation of [redacted] in the subject exploration contract. As a result of the repayment, the Government retains no lien or claim against the property or on any future production therefrom.

We appreciate your interest and participation in the MMSA program.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to: Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

cc: Director's Reading File
Division File
Economic Geology File
Branch of Budget & Finance
OME Docket
OME Reading File
OME Region IV w/cy incoming letter
130

GLAult/a 10-30-67

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

October 26, 1967

Mr. Frank E. Johnson
Chief, Office of Minerals Exploration
U. S. Geological Survey
Washington, D. C. 20242

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

Receipt of your letter of October 20th along with a copy of a letter from Ozark-Mahoning of October 17th is herewith acknowledged. In accordance therewith, I am pleased to enclose our check in the sum of $2,324.16 payable to the Geological Survey and understand that this now completes our account with respect to the above project. Let me say that we certainly do appreciate your cooperation and fine assistance in this matter and I hope that we shall see you soon again especially as we now don't owe you any money.

Kindest regards and many thanks again, I remain,

Very sincerely yours,

William H. Callahan/rms

William H. Callahan
Manager of Exploration

LGM/rms
Encl.

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 30 1967
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OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget & Finance

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
10-30-67	$2,324.16	Chase Manhattan	New Jersey Zinc Co.	DMEA 4907 E-1206	Royalty

OFFICIAL COPY
O. L. E.
RECEIVED
OCT 30 1967
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REMARKS: (List smelter or mill lot numbers covered by royalties)

10/30/67
Date Prepared

Catherine A Curtis
Person Preparing Abstract

Date Received

Person Receiving Remittance

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/20		110
		220

OCT 20 1967

Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMRA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-B1206

Attention: Mr. C. W. Sohosky
Chief Accountant

Gentlemen:

Thank you for your letter of October 17, 1967, reporting on the estimated production from the Barnett and O'Roark tracts under the subject contract.

The information furnished should enable us to close our books and records on this account.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
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FEJohnson/bih 10/20/67

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Ref. 2,324.16

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

October 17, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
OCT 19 1967

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Copy - 130

United States Department of the Interior
Office of Minerals Exploration
Washington, D. C. 20242

Attention: Mr. Frank E. Johnson, Chief

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

We wish to advise that our production from the Barnett and O'Roark tracts is estimated to be 10,683.88 tons of crude ore mined during the second and third quarters of 1967. This tonnage estimate is made from cars of ore pulled from these two tracts and has been checked against the total amounts mined and found to be as nearly correct as possible.

The crude ore analysis, based on the over-all tonnage mined from the mine, is estimated to be 51.40% CaF_2, 3.89% Zn and 0.98% Pb. This tonnage would convert to 5,141.43 tons of fluorspar products, 605.66 tons of zinc concentrates and 163.69 tons of lead concentrates. Estimated values of these products during the second and third quarters of 1967 are as follows:

Fluorspar	$ 44.27
Zinc	108.93
Lead	141.82

These are values received by us for shipments of concentrates made during this period.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C W Sohosky

Chief Accountant

CWSohosky/phs

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/10/67		110
		220

OCT 1 0 1967

Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Attention: Mr. C. W. Sohosky
Chief Accountant

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

Reference is made to our letter of August 7, 1967, requesting your estimate of production, if any, from the Barnett and O'Roark tracts of land under the subject contract.

Please furnish the requested data through September 30, 1967, if possible. If the value of the production for the second quarter of this year was approximately the same as for the first quarter, sufficient royalty would be due the Government to repay the balance of its contribution to exploration costs under the contract and the account could be closed.

Your cooperation in this matter is appreciated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
OME Region IV
130

FEJohnson/gla 10-10-67

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
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AUG 7 1967

Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Attention: Mr. C. W. Sobosky

Gentlemen:

This is with reference to your letter of May 11, 1967, concerning production from the Barnett and O'Roark tracts of land.

Will you kindly furnish your estimate of production, if any, from these two tracts for the second quarter of this year, based upon car count and over-all assay of ore treated, and values.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
130

FEJohnson/bih 8/7/67

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

June 5, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 7 1967

INITIALS	CODE
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Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington, D. C. 20025

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

This is to acknowledge receipt of your letters of May 17 and 24, 1967 concerning royalty due to the Government for the first quarter of 1967.

Enclosed please find our check in the amount of $7,169.96 which represents the royalty payment in accordance with your statement.

Very truly yours,

Arnold Jansons
For Manager of Exploration

AJ/rms
Encl.

copy to R.A. Lawrence, OME-P-IV

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget and Finance

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
/2/67	$7,169.96	Chase Manhattan Bk. N. Y., N. Y.	New Jersey Zinc Co.	DMEA 4907 E-1206	Royalties

REMARKS: (List smelter or mill lot numbers covered by royalties)

6/7/67
Date Prepared

Catherine Curtin
Person Preparing Abstract

Date Received

Person Receiving Remittance

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/24		110
5/24/67	Kubomo	120
		220

MAY 24 1967

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Reference is made to our letter to you of May 17, 1967, concerning estimated production from the land under the subject contract and royalty due thereon.

The figures given in the calculations shown on page two of our letter are incorrect. The figures for estimated production and royalties due thereon should read as follows:

2,380.93	tons of fluorspar concentrates @ $41.97 -	$99,927.63
295.59	" " zinc concentrates @ $118.39 -	33,811.00
65.27	" " lead concentrates @ $148.01 -	9,660.61
Total value -		$143,399.24
Government royalty @ 5 percent -		$ 7,169.96

We regret this error in the calculations and hope it has not caused you any undue inconvenience.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson /bih 5/24/67

23263

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(1/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/17		110
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MAY 2 8 1967

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

This is with reference to your letter of May 3, 1967, advising that you are prepared to propose a mutually agreeable lump-sum settlement of the unpaid balance of the Government's contribution to the cost of exploration under the subject contract.

We have discussed your letter with our solicitor's office and have been informed that apparently we have no authority to accept a compromise settlement; but would have to refer a proposal for such settlement to the General Accounting Office. We also have received a letter (copy enclosed) dated May 11, 1967, from Ozark-Mahoning Company, reporting on the estimated production from the Barnett and O'Roark Tracts for the first quarter of 1967. At the rate of production indicated the Government's contribution to exploration costs under the contract could be repaid in full well before the expiration date of the repayment period. We appreciate the advantages of closing-out this account; but to do this expeditiously, it appears that only a lump-sum payment in full of the balance of the Government's contribution would be acceptable.

Based upon the estimated production by Ozark-Mahoning Company for the first quarter of 1967, the royalty due the Government on such production is calculated as follows:

2,380.93 tons of fluorspar concentrates @ $41.97 -		$99,927.63
285.59 " " zinc concentrates @ $118.39 -		3,381.10
65.27 " " lead concentrates @ $148.01 -		1,436.59
Total value -		$104,745.32
Government royalty @ 5% -		$ 5,237.27

Please forward your check payable to the U. S. Geological Survey in the amount of $5,237.27 to this office.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cy inc. ltr.
120-M

FEJohnson/bih 5/17/67

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

May 3, 1967

MINERALS
DEPT
O. I. E.
RECEIVED
MAY 5 1967
INITIALS CODE
120
120
120

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington, D. C. 20025

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

It was indeed a pleasure talking to you again this afternoon. As indicated to you, this has become quite a complicated and time-consuming matter due to the fact that we have to await a quarterly report from Ozark-Mahoning using a car count and averaging the ore grade of all milled material which is not the most accurate way of computing value. Furthermore, there is approximately only one year left under our contract commitment.

Accordingly, we are prepared to propose a lump-sum settlement of this indebtedness at a discounted figure mutually agreeable, having in mind (a) that the contract commitment may expire well before complete repayment and (b) in view of current metal market conditions, there may not be continuous production at the present rate during the ensuing fourteen months of the commitment. A settlement in this manner will save all of us considerable time and effort. However, before approaching you with a lump-sum settlement figure, we would appreciate your advising us whether the Department would consider such a proposal.

With kind regards, I remain,

Sincerely yours,

William H. Callahan

William H. Callahan
Manager of Exploration

LGM:WHC:pm

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/17		110
		220

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosielare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Thank you for your letter of May 11, 1967, reporting on the estimated production for the first quarter of 1967, from the Barnett and O'Roark tracts under the subject contract.

Your continued cooperation in furnishing similar information for the second quarter of 1967 will be appreciated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region III w/cy inc.ltr.

FEJohnson/bih 5/17/67

23263

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

May 11, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 15 1967
INITIALS CODE
120
110
120
220

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Attention: Mr. Frank E. Johnson, Chief

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

We have your letter of May 4th regarding the first quarter production from the Barnett and O'Roark Tracts. Our mine superintendent has counted the number of cars pulled from these two tracts and advises that approximately 4,932.03 dry tons of Barnett and O'Roark crude ore were mined during the first quarter. Based on the over-all assay of ore treated, this material will assay as follows:

51.83% CaF_2
3.94% Zn
0.98% Pb

This tonnage would convert to 2,380.93 tons of fluorspar concentrates, 285.59 tons of zinc concentrates and 65.27 tons of lead concentrates. This recovery is based on the over-all recovery of ore milled from this tract of land.

The values for the first quarter of 1967 should be approximately the same as those in December of 1966.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C. W. Sohosky

Chief Accountant

CWSohosky/phs

IN REPLY REFER TO:

I-66-2010.11

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

MAY 11 1967

Memorandum

To: Chief, Office of Minerals Exploration

From: Assistant Solicitor
Oil and Gas and Minerals Exploration

Subject: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

We have reviewed your memorandum of May 8, 1967 and the docket in connection with the Operator's proposal of May 3, 1967 regarding a mutually agreeable lump-sum settlement of the indebtedness under the subject contract.

As we understand the situation, Contract No. Idm-E 1202, DMEA-4907 was entered into on June 16, 1958, the land involved consisted of three parcels held under leases in Pope County, Illinois, the Government contributed $17,994.07, the project was certified, the period for royalty payments expires June 16, 1968, the Operator terminated its leases, the Ozark-Mahoning Company is presently mining the property and as a result of their production New Jersey Zinc Co. has paid the following royalty:

Production July 1965 - July 1966	$ 4,290.34
Production for October 1966	979.26
Production for Nov. & Dec. 1966	3,230.35
Total	$ 8,499.95

This leaves a balance of unpaid Government participation of $9,494.12. Ozark-Mahoning has purchased the mineral rights from the owners and has unitized its mining operation and as a result they are not segregating any ore from any of the various tracts and are unable to account for ore mined from particular tracts. In the circumstances, New Jersey Zinc does not believe that there is an accurate way of computing royalties on production which they are obligated for under the contract and accordingly they have inquired about a lump-sum settlement.

The Federal Claims Collection Act of July 19, 1966 (P. L. 89-508, 80 Stat. 308) and the standards issued pursuant thereto in the Federal Register of October 15, 1966 (31 CFR 13382) do not appear to be applicable to the type

of compromise involved in this situation. That Act and the regulations authorize the heads of agencies to compromise claims if the Government cannot collect the full amount because of (a) the debtor's inability to pay in full within a reasonable time, or (b) the refusal of the debtor to pay in full and the Government's inability to enforce collection in full within a reasonable time by enforced collection proceedings. Accordingly, any settlement of the type proposed by New Jersey Zinc would have to be referred to the General Accounting Office pursuant to 31 U.S.C. 71.

In considering whether or not you desire to invite a compromise proposal from New Jersey Zinc, for submission to the General Accounting Office we suggest you inquire from the Bureau of Mines and others regarding the present market for fluorspar lead, zinc and cadmium and estimates on the future market as well as estimates on the mines future production. As noted above, production for November and December 1966 resulted in royalties of $3,230.35 and to date there is no report for January - April 1967. The Ozark-Mahoning Company indicated in their March 10, 1967 letter that it is possible to make a truck count or count of ore loads coming from the Barnett and O'Roarke Tracts.

R. W. Long

R. W. Long
Assistant Solicitor
Oil and Gas and Mineral Exploration

ME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/8		110
		230

MAY 8 1967

Memorandum

To: Assistant Solicitor--Oil and Gas and Minerals Exploration

From: Chief, Office of Minerals Exploration

Subject: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Enclosed is the Operator's letter of May 3, 1967, requesting advice on the acceptability of a negotiated lump sum payment of the unpaid balance of the Government's contribution to the cost of the exploration under the subject contract. May we have your opinion on this proposal.

By the letter dated June 24, 1960, the Operator notified OME that it was terminating its control of the properties covered by the contract because it felt that the mineralization disclosed by the exploration work did not warrant the purchase of one of the properties for $75,000 as provided in its lease and option, or retention of its interest in the other two properties. The Operator acknowledged its continuing royalty obligation under the contract until June 16, 1968. This letter was replied to on June 28, 1960. The leases and options were terminated on June 27, 1960.

Subsequently, the Ozark-Mahoning Company acquired lease and option agreements on two of the tracts of land formerly held by the New Jersey Zinc Company.

Production was made by Ozark-Mahoning from one of the properties and royalty on this production was paid to the Government by New Jersey Zinc Company.

Ozark-Mahoning Company purchased the mineral rights held under lease and option in this area and unitized its operations. Effective January 1, 1967, it will no longer be in a position to furnish us with the tonnage of ore produced and assay values for ore mined from

individual tracts of land for the purpose of calculating the Government's royalty. Consequently, only estimates of tonnages and average grades of concentrates recovered can be made on production for the remaining time of the royalty period under the contract.

The status of the account is as follows:

Government participation	$17,994.07
Royalty paid to date	8,499.95
Unpaid balance of Government participation	$ 9,494.12

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
120-M
Roy H. w/cy inc. Ltr.
FEJohnson/bih 5/8/67

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/3		110
		220

MAY 4 1967

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Reference is made to your letter of March 10, 1967, concerning production from the Barnett and O'Roark tracts of land under the subject contract and our reply of March 17.

Please advise as to your estimate of production, if any, from these two tracts for the first three months of this year, based upon car count and average concentrate analyses or other available data.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file

FEJohnson/bih 5/3/67

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

March 21, 1967

ORIGINAL COPY
G. M. B.
RECEIVED
MAR 22 1967

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington, D. C. 20025

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

This is to acknowledge receipt of your letters of March 7 and 17 concerning computation of royalty due to the Government in accordance with the terms of the subject Contract.

Ozark-Mahoning Company's suggestion to estimate royalty by using the count of ore cars from tracts covered by the Contract and by the average ore grade of all milled material is being presently considered here. We will advise you after a decision has been reached.

Enclosed please find our check in the amount of $3,230.35 which represents royalty due for November and December according to the Ozark-Mahoning statements of November 30 and December 31, 1966.

Very truly yours,

William H. Callahan/rms

William H. Callahan
Manager of Exploration

AJ/WHC/rms
Encl.

4/27/67
No royalty due.
As of 3/21/67
GP - $17,999.07
Roy Paid - 8,999.95
Balance 9,999.12

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget and Finance

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
3/21/67	$3,230.35	Chase Manhattan Bank	New Jersey Zinc Co.	DMEA 4907 E-1206	Royalty

REMARKS: (List smelter or mill lot numbers covered by royalties)

3/22/67
Date Prepared

C Curtis
Person Preparing Abstract

Date Received

Person Receiving Remittance

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/17		110
		220

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

MAR 17 1967

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Reference is made to our letter of March 7, 1967, concerning computation of royalty due the Government on production from the land under the subject contract and enclosing a copy of a letter dated February 27, 1967, from Mr. C. W. Sohosky of the Ozark-Mahoning Company.

Mr. Sohosky has now advised that estimates of production from the Barnett and O'Roark tracts may be made by using the count of ore cars coming from these tracts and the average grade of all material milled. The company is willing to furnish future estimates based upon this information. We will be pleased to have your comments on this suggestion.

We are enclosing copies of the production records for November and December 1966, showing the value of production from the Barnett Tract during these months as $64,606.98. Royalty at 5% due the Government on the production is $3,230.35. Please forward your check payable to the U. S. Geological Survey in the amount of $3,230.35 to this office.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 3/17/67

Enclosures

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/17		110
		220

MAR 17 1967

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Thank you for your letter of March 10, 1967, covering the computation of royalty due the Government on production from the land under the subject contract and enclosing copies of the production records for November and December 1966.

We will appreciate receiving monthly reports on estimated production as heretofore based upon the count of cars trammed from the various portions of the mine and average grade and value of the concentrates produced.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cy inc.ltr. & encs.
120-M

FEJohnson/bih 3/17/67

43683

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

March 10, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 13 1967

INITIALS	CODE
	120
	110
	120

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Attention: Mr. Frank E. Johnson, Chief
Office of Minerals Exploration

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

In your letter of March 7th you request certain information regarding the possibility of our making a truck count or count of ore loads coming from the Barnett and O'Roark Tracts which you originally had under a drilling program with New Jersey Zinc. I have talked to the Mine Superintendent, Mr. Forrest H. Hansen, and he advises that it is possible that we could keep this information for you. Therefore, we will do our best to keep track of the ore coming from these two tracts of land in order to furnish the information you have requested.

Attached to this letter you will find a summary of the ore mined during the months of November and December 1966. These figures are actual figures and complete the period in which the ore was kept segregated. Future reports will be estimates based on the count of ore cars trammed from the various portions of the mine.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C W Sohosky

Chief Accountant

CWSohosky/phs

Enclosures

1 - O.M.E.
1 - File

December 31, 1966

United States Dept. of Interior
Office of Mineral Exploration
Geological Survey
Washington, D. C.

Re - DMEA-4908 (Fluorspar, Zinc & Lead)
New Jersey Zinc Co.
Project E
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand	November 30, 1966	920.334
Ore Mined in	December	1152.163
Ore Treated H-M in	December	-
H-M Conc Produced in	December	-
*Ore Treated Rosiclare in	December	1705.449
Ore on Hand	December 31, 1966	367.048

* Concentrates Produced from this tonnage

1025.86	dry tons Fluorspar Concentrates @	41.97	43055.34
136.92	dry tons Zinc Concentrates @	118.39	16209.96
36.09	dry tons Lead Concentrates @	148.01	5341.68

Total Value $64606.98

Average Analysis of Concentrates Produced

92.70	CaF_2
61.72	Zn
70.18	Pb

1 - O.M.E.
1 - File

November 30, 1966

United States Dept. of Interior
Office of Minerals Exploration
Geological Survey
Washington, D. C.

Re - DMEA-6207 Fluorspar, Zinc & Lead
New Jersey Zinc Co.
Project X
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand	October 31, 1966	685.913
Ore Mined in	November	234.421
Ore Treated H-M in	November	None
H-M Cons Produced in	November	None
*Ore Treated Rosiclare in	November	None
Ore on Hand	November 30, 1966	920.334

* Concentrates Produced from this tonnage

	dry tons Fluorspar Concentrates	0
	dry tons Zinc Concentrates	0
	dry tons Lead Concentrates	0

Total Value None

Average Analysis of Concentrates Produced None

CaF_2
Zn
Pb

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/6		110
3/6/67	Kirkham	120
		220

MAR 7 1967

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

We appreciate the position of your company in unitizing the operations on the small tracts of land and co-mingling of all ores as expressed in your letter of February 27, 1967, however, there must be some way in which the production from each tract can be reasonably calculated.

Perhaps, a truck count of ore loads to skip from areas involved in the contract, plus average grade of all material to mill during the period of contract activity would suffice.

We would greatly appreciate any suggestions from you for obtaining reasonable tonnage and grade figures for the production from the land under the exploration contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME region IV w/cy inc.ltr.
120-M

EEJohnson/bih 3/6/67

43683

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

February 27, 1967

OFFICIAL COPY
O. M. E.
RECEIVED
MAR 2 1967
INITIALS | CODE
110

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Attention: Mr. Frank E. Johnson, Chief
Office of Minerals Exploration

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

We have your letter of February 21st regarding the production of ore from the above contract. We wish to advise that we are unable to give you an accounting of the ore mined from this tract of land. As I advised you in my letter of November 14th, it was our intention to start co-mingling all ores mined through our shaft and we would be unable to furnish this information.

Due to the fact that there were a number of landowners involved and small tonnages involved on each tract of land, we decided it would be more economically feasible for us to purchase the mineral rights from these landowners and make one mine out of this ore body. We, therefore, have purchased these mineral rights and do not have to make an accounting to any of the landowners. We are mining this as one continuous mine and are not segregating any ore from any of the various tracts of land which were involved in the past drilling.

We would be glad to cooperate to the fullest extent with any of your engineers who would desire to come into our mine and attempt to measure the blocks of ore mined on the various properties. However, they would be unable to ascertain the analysis

of the ore mined on the various properties, since this has all been mingled together and we have only one analysis covering all the ore mined from our mine which we identify now as the Barnett Complex.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C W Sohosky

Chief Accountant

CWSohosky/phs

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/6		110
3/6/67	Kirkham	120
		220

MAR 7 1967

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Enclosed is a copy of self-explanatory letter dated February 27, 1967, from Mr. C. W. Sohosky of the Ozark-Mahoning Company concerning the operations on the land under the subject contract.

Without some basis for production figures for the individual tracts, we are unable to compute the royalty due the Government. It is doubtful that stope measurements as suggested by Mr. Sohosky would be helpful. Also, we do not have the personnel available to make regular visits to the property. May we have your suggestions as to how a mutually satisfactory means of determining the amount of royalty due the Government on the production from the Barnett tract can be arranged.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 3/6/67

Enclosure

43683

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/21		110
		220

FEB 2 1 1967

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Reference is made to your letter of November 14, 1966, concerning production from the land under the subject contract and our reply of November 17, 1966.

Please advise if any production has been made from this property since your report of October 14, 1966, and if so furnish us with settlement data for such production so that we may compute the royalty due the Government from New Jersey Zinc Company.

Your continued cooperation in this matter will be greatly appreciated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV

FEJohnson/bih 2/21/67

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
12/2		110
12/2/66	Kirkham	120
		220

DEC 2

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMMA-4907 (Fluorspar-Zinc-Lead)
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Thank you for your letter of November 29, 1966, and enclosed check in the amount of $979.26 covering royalty due on production from the Barnett Tract for the month of October 1966.

We share in your concern regarding production data from the Ozark-Mahoning Company, and therefore, have requested that the company continue to furnish the information necessary to compute the Government's royalty. As the Lease and Option Agreements held by Ozark-Mahoning Company require that the ore be weighed and assayed before commingling with other ores, the required data should be available.

When we receive a reply to our inquiry to Ozark-Mahoning Company on this matter we will advise you accordingly.

Sincerely yours,

(FH)

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME REgion IV
120-M

FEJohnson/bih 12/2/66

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

OFFICIAL COPY
O. M. E.
RECEIVED
NOV 30 1966

INITIALS	CODE
	110
	120 M

November 29, 1966

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington, D. C. 20025

RE: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

This is to acknowledge receipt of your letter of November 17, with enclosures, concerning the above matter. In accordance therewith, I am pleased to enclose our check payable to the United States Geological Survey in the sum of $979.26, the royalty due on production from the Barnett Tract for the month of October, 1966.

Included in the enclosures with your November 17 letter to me is a letter dated November 14 from Ozark-Mahoning Company, and I am quite concerned about the statement in the third paragraph thereof to the effect that Ozark will not furnish production figures from the Barnett Tract after the first of the year as it will then be mining ore from other properties. All of the ore will be commingled, and it is stated that they will not be in a position to give separate production records for the subject property. This is interesting as, if they are operating under a lease agreement, they will be in a difficult position on royalty payments to each property owner. But, more important to us, is how our payments are going to be established. I specifically direct your attention to Article 8 of the subject Contract with special emphasis on sub-paragraphs (b) and (c).

Mr. Frank E. Johnson
Chief

November 29, 1966

Would you please advise us on this at your early convenience. With very kind regards, I remain

Sincerely yours,

William H. Callahan

William H. Callahan
Manager of Exploration

LGM:WHC:ll
Enc.

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget & Financa

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
11/29/66	$979.26	Chase Manhattan Bank	N. J. Zinc. Co.	DMEA--4907 E-1206	Royalty

REMARKS: (List smelter or mill lot numbers covered by royalties)

12/1/66
Date Prepared

Person Preparing Abstract

Date Received

Person Receiving Remittance

MME Form 7
(2/63)

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Date	Surname	Code
11/17		110
		120
		220

NOV 17 1966

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: MMA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Callahan:

Reference is made to your letter of November 1, 1966, concerning prices for zinc and lead concentrates used in computing royalties due the Government on production from the land under the subject contract and our reply of November 4, 1966.

Enclosed is a copy of a letter dated November 14, 1966, from the Ozark-Mahoning Company with copies of Settlement Sheets covering sales of zinc and lead concentrates for the period July 1965 - July 31, 1966. We trust that these documents are satisfactory support for the prices reported.

Also, enclosed is a copy of the production record of Ozark-Mahoning Company for the Barnett Tract during the month of October 1966, showing the value of such production as $19,585.28. Royalty due the Government on this production at 5 percent is $979.26.

Please forward your check payable to the U. S. Geological Survey in the amount of $979.26 to this office.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 11/17/66

Enclosures

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(2/63)

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Date	Surname	Code
11/17		110
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		220

NOV 17 1966

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: MMA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-X1206

Dear Mr. Sohosky:

Thank you for your letter of November 14, 1966, enclosing copies of Settlement Sheets covering sales of lead and zinc concentrates for the period covered by your report of October 14, 1966.

We note your comments concerning the average prices used and commingling of ores from the Barnett and O'Roark Tracts with ore from other tracts beginning the first of the year.

In order for us to compute the royalty due the Government on production from the land under the subject contract, we will need to know the tons of ore from such properties milled in your concentrating plant with the head feed assays, and the tons of product produced therefrom and the values for the periods covered. This information would be comparable to that furnished the owners of the properties under your Lien and Option Agreements.

Your cooperation in continuing to furnish us with the data necessary for computation of the Government's royalty will be greatly appreciated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cy inc.lts.& encs.
120-M

FEJohnson/bih 11/17/66

23263

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

November 14, 1966

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O. M. E.
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NOV 16 1966
TWO TRUE COPY
two
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220

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Attention: Mr. Frank E. Johnson, Chief
Office of Minerals Exploration

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

As requested in your letter of November 4, 1966, we are attaching herewith copies of Settlement Sheets covering sales of lead and zinc concentrates for the period covered by our report of October 14, 1966.

We wish to point out that the average of these will not necessarily represent the average price used, as more concentrates were produced in some months than in others during the initial period. However, it will be somewhat close and does substantiate the prices used.

We also wish to advise you that beginning about the first of the year it will be impossible for us to furnish the figures for the Barnett Tract, as at that time we expect to mine considerable crude ore from other properties out of this shaft. This will all be mingled together and we will have no way of giving separate tonnages or analyses of the crude ore mined from the Barnett or O'Roark Tracts.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C.W. Sohosky

Chief Accountant

CWSohosky/phs
Enclosures

Final Settlement of Ozark-Mahoning Zinc Concentrates
which arrived at [redacted] in July 1966

A S S AY S

Lot No.	Wet Wgt.	Dry Wgt.	Buyer Zinc	Buyer CD	Seller Zinc	Seller CD	Settlement Zinc	Settlement CD	Zinc Content	Cadmium Content
9	1420941	1298941	61.23	.67	61.07	.65	61.15	.66	794,302	8573.0106
10	1484980	1352200	61.06	.66	60.97	.67	61.015	.665	825,045	8992.1300
	2905921	2651141							1619,347	17565.1406

86% of 1619347 lb. = 1392,638 lbs. x $14.50 — $20193251
50% of 17565.1406 lb. = 8782.5703 lb. x $2.05 — 1800427
21993678

Less:
Treatment charge 1325.5705 ton @ $50.00 nt. — $66278.53
Freight — 261279 — 6889132

Due Ozark Mahoning Co. — $ 15104546

Final settlement of Ozark Mahoning zinc Concentrates
which arrived at [redacted] in March 1966

Lot Number	Wet Weight Lbs.	Wet Weight Lbs.	Buyer Zinc	Buyer Cd	Seller Zinc	Seller Cd	Umpire Cd	Settlement Zinc	Settlement Cd	Zinc Content Lbs.	Cadmium Content Lbs.
3	1513,067	1361,678	61.04	.69	60.66	.75	.67	60.85	.69	828,581	9395.5782

86% of 828,581 lbs = 712,580 lbs x $14.50		$103,324.10
50% of 9395.5782 lbs = 4697.7891 lbs x $2.05		9,630.47
Less:		
Treatment charge 680.839 tons @ $48.50	$33,020.69	
Less adjustment of cadmium lots 1 and 2	40.18	
Less freights lots 1 and 2	2,022.70	
Less freight lot 3	1,887.76	
Less umpire charge	19.00	36,990.33
Due Ozark-Mahoning Co.		$ 75,964.24

Final settlement of Ozark Mahoning zinc concentrates which arrived at [redacted] in April, 1966.

A S S A Y S

Lot Number	Wet Weight Lbs.	Dry Weight Lbs.	Buyer Zinc	Buyer Cd	Seller Zinc	Seller Cd	Umpire Cd	Settlement Zinc	Settlement Cd	Zinc Content Lbs.	Cadmium Content Lbs.
4	1332,094	1206,856	61.47	.67	61.36	.44	.68	61.415	.67	741,191	8085.9352
5	1403,366	1257,275	61.35	.66	61.53	.54	.66	61.44	.66	772,470	8298.015
	2735,460	2464,131								1513,661	16383.9502

86% of 1513,661 lbs. = 1301,748 lbs. x 14.50		$188,753.46
50% of 16383.9502 lbs. = 8191.9751 lbs. x $2.05		16,793.55
		$205,547.01
Less:		
Treatment charge 1232.0655 tons @ $50.00nt	$61,603.28	
Freight	2,447.79	
Umpire charge	42.00	64,093.07
Due Ozark Mahoning Company		$141,453.94

Lead Concentrates accepted from Ozark Mahoning Company, 1870 South Boulder, [redacted]sa, Oklahoma 74119

Shipped from: [redacted] Date: [redacted]

Received at [redacted] Date: [redacted]

Car Initials: [redacted] Shipper's Lot No.: [redacted]

Car Number: [redacted] Smelter Lot No.: [redacted]

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Assays:

	Lead	Silver
Seller	[redacted]	
[redacted]	[redacted]	[redacted]
Umpire	—	
Settlement	[redacted]	[redacted]

Settlement:

Per Cent Lead [redacted] %, Lead Content [redacted] #, 90% Lead Cont. [redacted] #

Silver per ton [redacted] oz., Silver Cont. [redacted] oz., 90% Silver Cont. [redacted] oz.

Value of 90% of Lead Content @ $ [redacted] Cwt. $ [redacted]
(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted]ess .70¢ cwt.)

Value of 90% Silver Content @ $ [redacted] oz. $ [redacted] $ [redacted]
(Handy & Harmon N.Y. quotation for refined silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.)

Less:

Freight [redacted] to [redacted] Mo. $ [redacted]
(Frt. bill attached)

Treatment charges @ [redacted] per ton dry weight $ [redacted]

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty

$ 0

Total Deductions [redacted]

Net Value of Concentrates $ [redacted]

Less: Amount paid for Umpire —
Amount Advanced —

[redacted] Net Amount Due Ozark Mahoning Company, [redacted] $ [redacted]

[redacted] [redacted]

Copies to:

Ozark Mahoning	- 2	Div. Mgr.	- 1
[redacted]	- 1	File	- 1
Acctg. Dept.	- 2		

Lead Concentrates accep[redacted] [redacted]ark Mahoning Company, [redacted]70 South Boulder,
[redacted]sa, Oklahoma 74119

[redacted] Rosiclare, Illinois Date: March 28, 1966

Received at [redacted] Date: April 1, 1966

Car Initials: P & L E Shipper's Lot No.: -
Car Number: 12093 Smelter Lot No.: OMC-7

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
205,500	59,640	145,860	6.2	136,817

Assays:

	Lead	Silver
Seller	71.77	-
[redacted]	71.50	6.80
Umpire	-	-
Settlement	71.635	6.80

Settlement:
Per Cent Lead [redacted] Content 98,009 #, 90% Lead Cont. 88,208 #
Silver per ton 6.8 oz., Silver Cont. 465.18 oz., 90% Silver Cont. 418.66 oz.

Value of 90% of Lead Content @ $ 15.30 Cwt. $ 13,495.82
(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted] less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.289 oz. $ 539.65 $ 14,035.47
(Handy & Harmon N.Y. quotation for refined silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.)

Less:
Freight Rosiclare, Illinois to Herculaneum, Mo. $ 401.84
(Frt. bill attached)

Treatment charges @ $20.00 per ton dry weight $ 1,368.17

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty
				$ 0

Total Deductions 1,770.01

[redacted] Net Value of Concentrates $ 12,265.46

Less: Amount paid for Umpire -
[redacted] Advanced -

Net Amount Due Ozark Mahoning Company $ 12,265.46

Lead Concentrates accepted from Ozark Mahoning Company, 1870 South Boulder, [redacted]lsa, Oklahoma 74119

Shipped from: [redacted], Illinois Date: [redacted] 25, 1966

Received at [redacted] Date: March 2, 1966

Car Initials: [redacted] Shipper's Lot No.: Bemo

Car Number: 82251 Smelter Lot No.: [redacted]

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
206,140	60,580	145,560	7.2	135,060

Assays:

	Lead	Silver
Seller	71.07	-
[redacted]	70.70	6.4
Umpire	-	-
Se[redacted]lement	70.885	6.4

Settlement:

Per Cent Lead 70.885 %, Lead Content 95,721 #, 90% Lead Cont. 86,176 #

Silver per ton 6.4 oz., Silver Cont. 432.86 oz., 90% Silver Cont. 389.93 oz.

Value of 90% of Lead Content @ $ 15.30 Cwt. $ 13,186.93

(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @[redacted] less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.283 oz. $ 500.15 $ 13,686.93

(Handy & Harmon N.Y. quotation for refined silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @[redacted] Smelter.)

Less:

Freight Rockdale, Illinois to [redacted] $ 601.02

(Frt. bill attached)

Treatment charges @ 20.00 per ton dry weight $ 1,350.00

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty

$ 0

Total Deductions 1,721.02

Net Value of Concentrates $ 11,934.57

Less: Amount paid for Umpire

Amount Advanced

Net Amount Due Ozark Mahoning Company $ 11,934.57

[redacted] April 13, 1966

Copies to:

Ozark Mahoning	- 2	Div. Mgr.	- 1
[redacted]	- 1	File	- 1
Acctg. Dept.	- 2		

Lead Concentrates accepted from Ozark Mahoning Company, 1870 South Boulder, [redacted]sa, Oklahoma 74119

Shipped from: Rossiclare, Illinois — Date: March 7, 1966

Received at [redacted] — Date: March 14, 1966

Car Initials: L & N — Shipper's Lot No.: -

Car Number: 56531 — Smelter Lot No.: OMC-5

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
175,940	43,680	132,260	8.7	120,753

Assays:

	Lead	Silver
Seller	68.82	6.0
[redacted]	68.60	-
Umpire	-	-
Settlement	68.71	6.0

Settlement:

Per Cent Lead 68.71 %, Lead Content 82,969 #, 90% Lead Cont. 74,672 #

Silver per ton 6.0 oz., Silver Cont. 362.26 oz., 90% Silver Cont. 326.03 oz.

Value of 90% of Lead Content @ $ 15.30 Cwt. — $ 11,424.82
(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted] Smelter less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.289 oz. — $ 420.25 — $ 11,845.07
(Handy & Harmon N.Y. quotation for refined silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.)

Less:

Freight Rossiclare, Ill. to [redacted] — $ 364.38
(Frt. bill attached)

Treatment charges @ 20.00 per ton dry weight — $ 1,207.53

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty	
OMC-5	1.29	.32	60.3765	19.32	$ 19.32

Total Deductions — 1,591.23

Net Value of Concentrates — $ 10,253.84

Less: Amount paid for Umpire
Amount Advanced

Net Amount Due Ozark Mahoning Company — $ 10,253.84

[redacted] March 25, 1966

Copies to:

Ozark Mahoning	- 2	Div. Mgr.	- 1
[redacted]	- 1	File	- 1
Acctg. Dept.	- 2		

Lead Concentrates accepted from [redacted] Ozark Mahoning Company, 1070 South Boulder, Tulsa, Oklahoma 74119

Shipped from: [redacted], Illinois — Date: February 22, 1966

Received at [redacted] — Date: February 27, 1966

Car Initials: B. C. — Shipper's Lot No.: None

Car Number: 97071 — Smelter Lot No.: [redacted]-4

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
[redacted]	[redacted]	[redacted]	5.4	[redacted]

106.910 — 70.25

Assays:

	Lead	Silver
Seller	[redacted]	-
[redacted]	67.70	5.9
Umpire	-	-
Settlement	67.58	5.9

Settlement:

Per Cent Lead 67.58 %, Lead Content 86,974 #, 90% Lead Cont. 78,277 #

Silver per ton 5.9 oz., Silver Cont. 379.66 oz., 90% Silver Cont. 341.69 oz.

Value of 90% of Lead Content @ $ 15.30 Cwt. — $ 11,976.38

(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted] less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.289 oz. — $ 440.44 — $ 12,416.82

(Handy & Harmon N.Y. quotation for refined Silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.

Less:

Freight Rosiclare, Illinois to [redacted] — $ 387.08

(Frt. bill attached)

Treatment charges @ 20.00 per ton dry weight — $ 1,286.98

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty
[redacted]-4	2.42	.61	[redacted]	39.25

$ 39.25

Total Deductions — 1,712.31

Net Value of Concentrates — $ 10,703.51

Less: Amount paid for Umpire

Amount Advanced

Net amount due Ozark Mahoning Company — $ 10,703.51

[redacted] March 14, 1966

Ozark-Mahoning

Copies to:

[redacted] - 2 — Div. Mgr. - 1

[redacted] - 1 — File - 1

Acctg. Dept. - 2

166.3353

Lead Concentrates accepted from [redacted] Tulsa, Oklahoma 74119

Shipped from: Rosc[redacted]ro, Illinois — Date: [redacted]ebruary 14, 1966

Received at [redacted] — Date: February 19, 1966

Car Initials: I.C. — Shipper's Lot No.: None

Car Number: 97011 — Smelter Lot No.: [redacted]-3

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
186,520	60,760	125,760	8.4	115,196

Assays:

	Lead	Silver
Seller	65.65	-
[redacted].	66.70	5.2
Umpire	-	-
Settlement	66.675	5.2

Settlement:

Per Cent Lead 66.675 %, Lead Content 76,807 #, 90% Lead Cont. 69,126 #

Silver per ton 5.2 oz., Silver Cont. 299.51 oz., 90% Silver Cont. 269.56 oz.

Value of 90% of Lead Content @ $ 15.30 Cwt. — $ 10,576.28

(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted] Smelter less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.289 oz. — $ 347.46 — $ 10,923.74

(Handy & Harmon N.Y. quotation for refined Silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.

Less:

Freight Roseclare, Illinois to [redacted]. — $ 346.47

(Frt. bill attached)

Treatment charges @ 20.00 per ton dry weight — $ 1,151.96

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty
[redacted]-3	3.325	.83	57.5930	47.80

$ 47.80

Total Deductions — 1,546.23

Net Value of Concentrates — $ 9,377.51

Less: Amount paid for Umpire

Amount Advanced

Net amount due Ozark Mahoning Company — $ 9,377.51

[redacted] March 14, 1966

Copies to:

Ozark Mahoning[redacted]. - 2 — Div. Mgr. - 1

[redacted] - 1 — File - 1

Acctg. Dept. - 2

Lead Concentrates accepted from Ozark Mahoning Company, 1870 South Boulder, [redacted]sa, Oklahoma 74119

Shipped from: Rosiclare, Illinois Date: June 28, 1966

Received at [redacted] Date: July 4, 1966

Car Initials: I. C. Shipper's Lot No.: -
Car Number: 99015 Smelter Lot No.: OMC-12

[redacted] smelter weights and moisture determination:

Gross	Tare	Net	% Moisture	Dry Weight
164,160	47,920	116,540	7.1	108,266

Assays:

	Lead	Silver
Seller	70.30	-
[redacted]	69.30	5.6
Umpire	69.89	-
Settlement	69.89	5.6

Settlement:
Per Cent Lead 69.89 %, Lead Content 75,687 #, 90% Lead Cont. 68,180 #
Silver per ton 5.6 oz., Silver Cont. 303.14 oz., 90% Silver Cont. 272.83 oz.

Value of 90% of Lead Content @ $ 14.30 Cwt. $ 9,739.30
(N.Y. ave price of common lead as quoted by E&MJ Metal & Mineral markets for calendar week of arrival @ [redacted] Smelter less .70¢ cwt.)

Value of 90% Silver Content @ $ 1.289 oz. $ 351.68 $ 10,089.98
(Handy & Harmon N.Y. quotation for refined silver adjusted to the basis applicable to silver contained in unrefined silver-bearing material, as published in E&MJ Metal & Mineral markets, averaged for calendar week of arrival @ [redacted] Smelter.)

Less:
Freight Rosiclare, Illinois to [redacted] Mo. $ 321.07
(Frt. bill attached)

* Treatment charges @ $21.50 per ton dry weight $ 1,163.86

Penalties:

Lot No.	Grade Under 70%	Penalty Per ton @ 25¢ Unit	Dry Tons	Penalty	
OMC-12	.11	.0275	54.1330	1.49	$ 1.49

Total Deductions 1,486.42

Net Value of Concentrates $ 8,603.56

Less: Amount paid for Umpire -
Amount Advanced

Remit Net Amount Due Ozark Mahoning Company, Rosiclare, Ill. $ 8,603.56

[redacted] August 17, 1966

* Treatment charge increased effective 7-1-66.

Copies to:

Ozark Mahoning	- 2	Div. Mgr.	- 1
[redacted]	- 1	File	- 1
Acctg. Dept.	- 2		

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/4		110
11/4/66	Kirkemo	120
		220

NOV 4 1966

Mr. William H. Callahan
Manager of Exploration
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMRA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-X1206

Dear Mr. Callahan:

Thank you for your letter of November 1, 1966, and enclosed check in the amount of $4,290.34, representing royalty payment on production from the land under the subject contract.

We note your comments on this payment and the prices of zinc and lead concentrates prevailing during the production period involved. In accordance with your request we are writing to Ozark-Mahoning Company for documentation of the prices reported.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cy inc.ltr.
120-M

EEJohnson/bih 11/4/66

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
160 FRONT STREET
NEW YORK, NEW YORK 10038

NJZ

November 1, 1966

OFFICIAL COPY
O. M. E.
RECEIVED
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INITIALS	CODE
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	120 m

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington 25, D. C.

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

Your letter of October 19, 1966 and the statement of computation of royalty is herewith acknowledged. Enclosed is our check in the amount of $4,290.34 which represents royalty payment according to the computation.

However, we are making the payment under protest, inasmuch as the prices of zinc and of lead concentrates, on which the computation is based, appear to be considerably higher than prevalent prices in the concentrate market during the production period involved.

We request that you obtain from Ozark-Mahoning Company some documentation of the prices they reported.

Very truly yours,

William H. Callahan

William H. Callahan
Manager of Exploration

WHC/rms
Encl.

THE NEW JERSEY ZINC COMPANY

REMITTANCE STATEMENT

INVOICE DATE MO.	INVOICE DATE DA.	VENDOR INVOICE NUMBER AND REMARKS	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
10	24		4 290 34		4 290 34
			4 290 34		4 290 34

THIS CHECK IS IN FULL PAYMENT OF ALL ITEMS LISTED ABOVE. ENDORSEMENT IS SUFFICIENT RECEIPT. IF AMOUNT IS INCORRECT PLEASE RETURN PAPERS AND CHECK.

DETACH THIS STATEMENT BEFORE DEPOSITING CHECK

IBM D32623

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY

TO: Budget & Finance

FROM: Office of Minerals Exploration

- ABSTRACT OF REMITTANCES -

Date	Amount	Bank, City and State	Name of Remitter	Docket & Contract Numbers	Purpose
11/3/66	$4,290.34	Chase Manhattan Bank NA New York, N. Y.	New Jersey Zinc Co.	DMEA 4907 E-1206	Royalty

REMARKS: (List smelter or mill lot numbers covered by royalties)

11/3/66
Date Prepared

Person Preparing Abstract

Date Received

Person Receiving Remittance

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/4		110
11/4/66	Kirkeiner	120
		220

NOV 4 1966

Mr. C. W. Sohosky
Assistant S ecretary
Ozark-Mahoning Company
Mining Division
Resiclare, Illinois 62982

Re: DMLA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-B1206

Dear Mr. Sohosky:

Reference is made to our letter of October 10, 1966, and the production reports on the Barnett Tract of land dated October 14, 1966, forwarded to this office.

The New Jersey Zinc Company has questioned the prices of zinc and lead concentrates for the period July 1965-July 31, 1966, as set forth in your report.

Please furnish us with documentation for the prices reported for the period involved.

Sincerely yours,

Harold Kirkeiner for
~~FRANK E. JOHNSON~~

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 11/4/66

23263

1 - O.M.E.
1 - File

OFFICIAL COPY
O. M. E.
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NOV 7 1966
INITIALS | CODE
~~170~~
110
120
220

October 31, 1966

United States Dept. of Interior
Office of Mineral Exploration
Geological Survey
Washington, D. C.

Re - [illegible] Mineral [illegible]
New Jersey Zinc Co.
Project [illegible]
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand	September 30, 1966	927.275
Ore Mined in	October	321.677
Ore Treated H-M in	October	-
H-M Cons Produced in	October	-
*Ore Treated Roseclare in	October	563.039
Ore on Hand	October 31, 1966	685.913

* Concentrates Produced from this tonnage

290.68	dry tons Fluorspar Concentrates @	42.03	12217.28
51.20	dry tons Zinc Concentrates @	114.00	5836.80
10.56	dry tons Lead Concentrates @	145.00	1531.20
		Total Value	19585.28

Average Analysis of Concentrates Produced

92.54	CaF_2
61.00	Zn
70.94	Pb

MME Form 7
(2/63)

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Date	Surname	Code
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10/19/66	Kirkham	120
		220

OCT 19 1966

Mr. S. S. Goodwin
Vice President
The New Jersey Zinc Company
160 Front Street
New York, New York 10038

Re: DMRA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Goodwin:

Reference is made to our letter of September 7, 1966, and your reply of September 19, 1966, concerning production from the Barnett Tract of land under the subject contract.

Enclosed are copies of the production record on the property for the period July 1965 - July 1966, furnished by the Ozark-Mahoning Company, showing the value of such production as $85,806.87. Under the terms of the exploration contract, the royalty on this production is 5 percent, or $4,290.34.

Your check in the amount of $4,290.34 should be made payable to the U. S. Geological Survey and mailed to this office.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: reading
Director's/file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cys prod.rpt.
120-M

FEJohnson/bih 10/19/66

Enclosures

23263

from Ozark, Oklahoma

Jobs

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O. M. E.
RECEIVED
OCT 17 1966

INITIALS	CODE
	120
	110
	120K
	220

October 14, 1966

United States Dept. of Interior
Office of Mineral Exploration
Geological Survey
Washington, D. C.

Re - DMEA-6301 (Fluorspar, Zinc & Lead)
New Jersey Zinc Co.
Project X
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand		
Ore Mined in July 1965 - July 31, 1966		3,065.568
Ore Treated H-M in	"	539.914
H-M Cons Produced in	"	262.350
*Ore Treated Rosiclare in	"	2,591.760
Ore on Hand July 31, 1966		196.244

* Concentrates Produced from this tonnage

1,668.21	dry tons Fluorspar Concentrates @	42.28	70,531.92
82.57	dry tons Zinc Concentrates @	113.55	9,375.82
34.66	dry tons Lead Concentrates @	170.20	5,899.13
178544			

Total Value $85,806.87

Average Analysis of Concentrates Produced

92.76	CaF_2
61.19	Zn
70.24	Pb

October 14, 1966

United States Dept. of Interior
Office of Minerals Exploration
Geological Survey
Washington, D. C.

Re - DMEA-4XX (Fluorspar, Zinc & Lead)
New Jersey Zinc Co.
Project II
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand	July 31, 1966	196.244
Ore Mined in	August	454.152
Ore Treated H-M in	August	-
H-M Cons Produced in	August	-
*Ore Treated Rosiclare in	August	-
Ore on Hand	August 31, 1966	650.396

* Concentrates Produced from this tonnage

-	dry tons Fluorspar Concentrates	0
-	dry tons Zinc Concentrates	0
-	dry tons Lead Concentrates	0
	Total Value	None

Average Analysis of Concentrates Produced

-	CaF_2
-	Zn
-	Pb

October 14, 1966

United States [illegible] of Interior
Office of Mineral Exploration
Geological Survey
Washington, D. C.

Re - [illegible] Fluorspar, Zinc & Lead
[illegible] Co.
Project H
Pope County, Illinois

Production Report Barnett Tract

Ore on Hand	August 31, 1966	650.396
Ore Mined in	September	276.879
Ore Treated H-M in	September	-
H-M Conc Produced in	September	-
*Ore Treated Roetchre in	September	-
Ore on Hand	September 30, 1966	927.275

* Concentrates Produced from this tonnage

-	dry tons Fluorspar Concentrates	
-	dry tons Zinc Concentrates	
-	dry tons Lead Concentrates	

[illegible] None

Average Analysis of Concentrates [illegible]

-	CaF_2
-	Zn
-	Pb

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/3	Johnson	110
10/6/66	Kirbano	120
	Long	140
		110
		220

OCT 10 1966

FROM SOLICITOR
OCT 7
FOR SIGNATURE

Mr. C. W. Sohosky
Chief Accountant
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois 62982

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Thank you for your letter of September 28, 1966, concerning production from the Barnett Tract under the subject contract.

As outlined in your letter, it will be satisfactory for you to furnish us with the tons of ore milled in your concentrating plant with the head feed assays of this tonnage and also the tons of product produced on this basis and values. Of course, we will need the dollar value as well as the assay value of the product produced. We also should be furnished with the tons of crude ore produced each month, or stockpiled.

Sincerely yours,

FRANK E. JOHNSON

(pk)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
SOL/Mr. Long-Room 6554-Int.
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 10/3/66

23263

Ozark-Mahoning Company

MINING DIVISION

Area Code 618 ROSICLARE, ILLINOIS 62982 Telephone: 285-6232

September 28, 1966

OFFICIAL COPY
O. M. E.
RECEIVED
SEP 30 1966

INITIALS	CODE
9/30 M	~~100~~
	110
	120
	220

United States
Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.
Geological Survey

Attention: Mr. Frank E. Johnson, Chief
Office of Minerals Exploration

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

We have your letter of a recent date requesting further information on the Barnett Tract. We wish to advise that we would prefer to make these reports on the basis of quantities of crude ore treated in our mill rather than on the basis of mine production. Our mine production is sometimes stockpiled and therefore we are unable to ascertain an analysis or give a value on ore that is still in the stockpile. It is our practice to maintain a sizeable stockpile of various ores to insure uniform operation of our concentrating plant. Therefore, at this time we have not milled all of the ore mined, as indicated in our report of August 25, 1966.

Will you please advise if it is satisfactory for us to furnish the tons of ore milled in our concentrating plant with the head feed assays of this tonnage and also the tons of product produced on this basis and values. Since we do not have the other information available, we feel that this would have to be satisfactory at this time.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C W Sohosky

Chief Accountant

CWSohosky/phs

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/23		110
		120

SEP 23 1966

Mr. C. W. Sohosky
Assistant Secretary
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

Reference is made to our letter to you of June 25, 1965, concerning the property under the subject contract and payment of royalty due the Government on any production therefrom.

On the reverse side of the form letter dated August 17, 1966, returned by you to this office, production of 2,705 tons of crude ore was reported from the land subject to the contract. In order for us to advise the New Jersey Zinc Company of the amount of royalty due the Government on this production, please furnish us with the dates of production, assay data, gross value per ton of crude ore produced and delivered f.o.b. concentrating plant, and two copies of the settlement documents covering this production.

We will appreciate receiving the same information relating to any future production on a monthly basis.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV
120-M

FEJohnson/bih 9/23/66

23263

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)

OFFICE OF THE
VICE PRESIDENT

160 FRONT STREET

NEW YORK, NEW YORK 10038

NJZ

CERTIFIED MAIL

September 19, 1966.

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
United States Department of the Interior
Geological Survey
Washington 25, D. C.

OFFICIAL COPY
O. M. E.
RECEIVED
SEP 21 1966

INITIALS	CODE
	130 M
	110

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

Your letter of September 7, 1966 to us concerning the above matter is herewith acknowledged, and I certainly regret doing so at this late date but I have been away on business.

As you will recall, by our letter to you of June 24, 1960 we notified you of our decision to abandon the properties in this project, such abandonment having been accomplished, and by letter of June 28, 1960 you acknowledged such notice. In our letter of June 24, 1960 we acknowledged our continuing royalty obligation on production from the properties covered under the contract until June 16, 1968 and agreed to pay royalty out of any production therefrom. The procedure (Article 8 of the DMEA contract) for doing so appears somewhat difficult to apply, as we have no relationship with the present Operator. If you could obtain for us the basis for computation of the royalty, as well as the amount now due and owing the Government, we would be most pleased to remit such sum promptly. It would be very difficult for us to obtain this information, as we are no longer active in Southern Illinois.

We shall look forward to hearing from you with respect to the above, and please let me assure you that we shall be as cooperative as possible under the circumstances.

Very sincerely yours,

S. S. Goodwin
Vice President

SSG:HE

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/1	Johnson	110
9/1/66	Kiebens	120
9/2/66	Fong	140
9/7	on book	110
		220

SEP 7 1966

The New Jersey Zinc Company
160 Front Street
New York 28, New York

Re: IMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

Under the terms of the subject contract dated June 16, 1958, and the Certification of Discovery or Development issued December 4, 1959, the New Jersey Zinc Company is obligated to pay royalty to the Government on any production on the land described in the contract until June 16, 1968.

We have been informed that 2,705 tons of crude ore from the Barnett Tract of land under the subject contract has been shipped to the Ozark-Mahoning Company, Rosiclare, Illinois.

Please furnish an accounting for this production, including copies of sales documents, and remit to this office any royalty due the Government by check or U. S. Money Order, payable to the U. S. Geological Survey.

Sincerely yours,

Harold Kiebens

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region IV w/cy 63 dated 9/7
Solicitor

FEJohnson/bih 9/1/66

Copy to: The New Jersey Zinc Company
P. O. Box 252
Platteville, Wisconsin

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

August 17, 1966

Mr. C. W. Sohosky
Assistant Secretary
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 31 1966

INITIALS	CODE
8/31 M	120 M
	210

Dear Mr. Sohosky:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

MME Form 63
Revised 7-65

90 DAYS

REQUEST FOR INFORMATION ON CERTIFIED PROJECT
AND PROJECT UNDER ROYALTY AGREEMENT
Barnett Tract

1. Since **June 1965**, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes [ ] No [X]

2. Since **June 1965**, has there been any production from the land subject to the contract? - **We have no contract.** Yes [X] No [ ]

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
Ozark-Mahoning Company Concentrating Plant Rosiclare, Illinois	2,705 Tons Crude Ore	

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes [ ] No [ ]

   If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name C. W. Sohosky Title Chief Accountant

Address Rosiclare, Illinois Date 8-25-66

Docket DMEA-4907

OFFICIAL FILE COPY

Date	Surname	Code
	[illegible]	800
	[illegible]	120
6/25	[illegible]	110
	[illegible]	100

MME Form 7
(2/63)

JUN 25 1965

Mr. C. W. Sohosky, Assistant Secretary
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

There are two properties in addition to the O'Roark property referred to in your letter dated June 16, 1965, which are subject to the above mentioned exploration contract. Descriptions of the properties are as follows:

1. Approximately 469 acres described in Agreement dated June 21, 1954, by and between Laura Baumer, a spinster, and the New Jersey Zinc Company, recorded in Volume 32 of Mortgages, page 48, in the Office of the Recorder of Pope County, Illinois.

2. Approximately 264 acres described in an Agreement dated July 29, 1954, by and between Robert S. Barnett and wife, Marjorie W. Barnett, and the New Jersey Zinc Company, recorded in Volume 30 of Mortgages, page 556, in the Office of the Recorder of Pope County, Illinois.

The Government will look to the New Jersey Zinc Company for the payment of royalty on the value of any production from the three properties as provided by the terms of the exploration contract and the certification of discovery or development through June 16, 1968, or until the amount of the Government's contribution to the exploration costs have been fully repaid, whichever occurs first.

23263

The Office of Minerals Exploration will appreciate advice from you regarding any mineral production from these properties during the remainder of the period for which the Government is entitled to royalty.

A review of the files of this office has disclosed one additional project in the general region on which the Government retains a lien for royalty on production through June 3, 1968. This relates to an exploration project by Reynolds Metals Company on property referred to as the Watson Project consisting of three contiguous tracts, known as the Tyner, Hicks and Watson prospects, which are situated in the western Kentucky fluorspar district, near the west-central border of Crittenden County, Kentucky, about nine miles southwest of the town of Marion.

Sincerely yours,

George Fumich, Jr.

Acting Director

CEFisher:fh rewritten 6/25/65

cc: Region IV,
Director's reading file
CA&A Division
120 M
Mr. Selfridge
Docket DMEA-4907
Docket DMEA-4962

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Fisher	500
		270
		110
		220

Mr. C. W. Sohosky, Assistant Secretary
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

There are two properties in addition to the O'Roark property referred to in your letter dated June 16, 1965, which are subject to the above mentioned exploration contract. Descriptions of the properties are as follows:

1. Approximately 469 acres described in Agreement dated June 21, 1954, by and between Laura Baumer, a spinster, and the New Jersey Zinc Company, recorded in Volume 32 of Mortgages, page 48, in the Office of the Recorder of Pope County, Illinois.

2. Approximately 264 acres described in an Agreement dated July 29, 1954, by and between Robert S. Barnett and wife, Marjorie W. Barnett, and the New Jersey Zinc Company, recorded in Volume 30 of Mortgages, page ~~186,~~ 59, in the Office of the Recorder of Pope County, Illinois.

The Government will look to the New Jersey Zinc Company for the payment of royalty on the value of any production from the three properties as provided by the terms of the exploration contract and the certification of discovery or development through June 16, 1968, or until the amount of the Government's contribution to the exploration costs have been fully repaid, whichever occurs first.

Sincerely yours,

Acting Director

CEFisher:cc rewritten 6/24/65
cc: Region IV,
Director's reading file
CA&A Division
120M
Mr. Selfridge
DMEA Do-6-E 4962

23263

MME Form 7
(2/63)

OFFICE FILE COPY

Date	Surname	Code
	Fisher	8.0
	Selfridge	120
		110
		220

Mr. C. W. Sohosky, Assistant Secretary
Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Sohosky:

There are two properties in addition to the O'Roark property referred to in your letter dated June 16, 1965, which are subject to the above mentioned exploration contract. Descriptions of the properties are as follows:

1. Approximately 469 acres described in Agreement dated June 21, 1954, by and between Laura Baumer, a spinster, and the New Jersey Zinc Company, recorded in Volume 32 of Mortgages, page 48, in the Office of the Recorder of Pope County, Illinois.

2. Approximately 264 acres described in an Agreement dated July 29, 1954, by and between Robert S. ~~Bennett and wife, Marjorie W. Bennett~~ Barnett, and the New Jersey Zinc Company, recorded in Volume 30 of Mortgages, page 186, in the Office of the Recorder of Pope County, Illinois.

Barnett

We have no record of a "Barnett" property, and presume that you intended referring to the Bennett property.

The Government will look to the New Jersey Zinc Company for the payment of royalty on the value of any production from the three properties as provided by the terms of the exploration contract and the certification of discovery or development through June 16, 1968, or until the amount of the Government's contribution to the exploration costs have been fully repaid, whichever occurs first.

Sincerely yours,

Acting Director

CEFisher:fh/6/23/65
cc: Region IV, Knoxville, Tenn.
Director's reading file
Mr. Selfridge
Code 120M
Docket CA&A Div.

23263

Ozark-Mahoning Company

MINING DIVISION

Area Code 618

ROSICLARE, ILLINOIS

Telephone: 285-6232

June 16, 1965

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 18 1965
INITIALS CODE
~~800~~
120m
~~120~~

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Attention: Mr. George C. Selfridge, Chief
Division of Exploration Operations

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Gentlemen:

On February 12th we received from you a notice that the William Thurston O'Roark lease, which we now have, was subject to the above contract. We would appreciate your advising us whether there is additional property involved under this Project II Contract which New Jersey Zinc Company had and to whom the responsibility to pay the royalty falls if there should be ore mined from any of these tracts covered.

Any information that you may furnish us regarding the exploration works contracts on this O'Roark property, the Barnett, or other properties involved in this area would be appreciated, as we have purchased other property in this area and also anticipate mining ore from these some time in the distant future.

Very truly yours,

OZARK-MAHONING COMPANY
Mining Division

C W Sohosky

Assistant Secretary

CWSohosky/phs

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

February 12, 1965

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

George C. Selfridge

George C. Selfridge, Chief
Division of Exploration Operations

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 18 1965

INITIALS	CODE
ama	800
	~~900~~
92	170
Mm 2/23	120
	~~120~~

520

MME Form 63
Revised 3-62

DMEA-4907
Idm-E1206

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since July 1960 , has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes [X] No [ ]

Ozark-Mahoning Co. leased a tract of land from W. T. O'Roark and V. O'Roark on May 1, 1964 in Pope County, Illinois which may be the tract referred to on this form. See copy of lease attached.

2. Since July 1960 , has there been any production from the land subject to the contract? Yes [ ] No [X]

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes [ ] No [ ]

A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Ozark-Mahoning Company Title Assistant Secretary

Address C. W. Sohosky Rosiclare, Illinois Date February 16, 1965

4511

LEASE AND OPTION AGREEMENT

THIS CONTRACT AND AGREEMENT made and entered into this 1st day of May, 1964, by and between WILLIAM THURSTON O'ROARK and VAUGHANY O'ROARK, husband and wife, of 19060 Norton Street, East Detroit, Michigan, hereinafter designated as the "Owners," and OZARK-MAHONING COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and duly authorized to do business in the State of Illinois, hereinafter referred to as the "Lessee," WITNESSETH:

WHEREAS, Owners hereby warrant that they are the fee owners of the hereinafter described real estate, situated in the County of Pope, State of Illinois, to-wit:

> The Southwest Fourth (SW-1/4) of the Northeast Quarter (NE-1/4) of Section Twenty-eight (28), Township Twelve (12) South, Range Seven (7) East of the Third Principal Meridian, containing forty (40) acres, more or less,

and

WHEREAS, Lessee is interested in securing the entire and exclusive right to prospect for, mine, mill and otherwise prepare for market any or all minerals or mineral substances of every kind and character, excepting oil and gas, in, upon, beneath and underlying the above described real estate; and

WHEREAS, Owners desire to have such minerals and mineral substances mined from said premises as above stated and Lessee desires the right and privilege of entering upon said premises and working the same by the use of suitable machinery, equipment, fixtures and buildings, for mining and milling and related purposes which Lessee may desire to place upon the premises and mining and recovering from said premises minerals and mineral substances for the purpose of sale and in the exploitation and determination of the possibilities obtaining, and the same is agreeable to Owners:

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable considerations paid or to be paid to the Owners, the receipt and sufficiency of which is hereby acknowledged, and the covenants and agreements to

be kept and performed by the Lessee as hereinafter expressed, the Owners have and by these presents do give and grant to said Lessee the exclusive right to enter upon said premises for the purpose of removing said minerals and mineral substances, erecting buildings to be used in connection, either directly or indirectly, with the operations of Lessee upon the above premises, installing machinery, tipples, sinking shafts, drifting, drilling or using any and all methods known to the science of mining, milling, or refining or otherwise preparing ores, minerals, or mineral substances for market, with the exclusive right to so conduct prospecting, mining, milling and related operations upon the above described premises, together with the right of ingress and egress and to build and construct over and across said lands, roads, trams and other means of conveyance and transportation for the purpose of transporting ores, minerals and other valuable substances found thereon or thereunder; however, any or all roads constructed upon said premises shall follow existing fence lines or old road beds until they enter the above described forty-acre parcel.

Lessee agrees that no shaft shall be sunk or mine buildings erected within five hundred (500) feet of the dwelling now located upon said premises.

Lessee shall have the right to use sufficient surface of the above described premises as may be needed for prospecting, mining, disposal of waste materials, or any other purpose necessary in said mining operations, and have full use of any water from creeks and springs located on said property for mining, milling or related purposes during the term of this lease or any renewal or extension thereof.

1. The term of this lease and option shall be for a period of five (5) years from the date hereof and as long thereafter as the terms and conditions set forth in this agreement are complied with or the minimum monthly royalty is paid to Owners.

2. Commencing on the 1st day of May, 1964, the minimum royalty shall be Twenty-five Dollars ($25.00) per month, payable quarterly. Minimum royalties shall be credited by Owners to Lessee upon earned royalties only in the calendar year in which same accrue.

3. As full compensation to the Owners for all ores mined and milled from the property above described, Lessee shall pay to the Owners a royalty of seven and one-half per cent (7 1/2 %) of the selling price of the fluorspar concentrates produced therefrom, and shall pay to the Owners a royalty of ten per cent (10%) of the selling price of the lead and zinc concentrates produced therefrom, based on the average prices actually received for fluorspar, lead and zinc concentrates as same are milled and sold. On all other minerals produced and sold from the above described property, the royalty shall be ten per cent (10%) of the selling price. There is no obligation on the part of the Lessee to pay royalty on the zinc and lead content of the crude ore when the zinc or lead assay is below 0.5%. The net weight of the crude ore, dry weight basis, is to be determined at scales of Lessee. Owners shall have the right to check weights as often as they deem necessary.

Payment of all royalty shall be due and payable on the last day of the third month following the date the tonnage is sold by Lessee.

4. The ore mined from said premises is to be milled at the plant of the Lessee located at Rosiclare, Illinois, or any other milling plant which the Lessee may designate. It shall not be mixed or commingled with ores from other lands until it has been crushed and sampled by the Lessee for the purpose of determining the lead, zinc and fluorspar content. The resulting sample is to be assayed at the laboratory of Lessee, and Owners may, upon request, receive an assay certificate showing the lead, zinc and fluorspar content of each day's run. In addition thereto, Owners may receive, upon request, pulp of each day's composite sample; provided, however, there is no obligation on Lessee to keep pulps for a period longer than thirty (30) days. In case of dispute as to analyses the pulp prepared from the sample shall be referred to any umpire acceptable to both Owners and Lessee and the findings of the umpire shall be binding on both parties.

5. This lease is granted primarily for the purpose of prospecting, mining and selling fluorspar, lead and zinc from the premises, and while provision is made herein for royalty covering other valuable substances, minerals and metals, the prospecting and mining of such other minerals, metals and valuable substances

is at the option of the Lessee and there is no requirement hereunder for it so to do.

6. It is agreed that if Owners own a less interest in the above described property than the entire undivided fee simple estate therein, then the royalties and rentals to be paid by Lessee shall be only in the proportion that Owners' interest bears to the whole and undivided mineral estate.

7. Lessee shall have the right to mine and remove ore from the leased premises by means of shafts and drifts located on adjacent ground; Lessee shall further have the right to mine and remove ore from adjacent property through shafts and drifts located on the leased premises; provided, however, that ores so mined and removed shall not be mixed or commingled prior to the determination of the grade thereof.

8. Owners shall have the right to examine such books, papers and records of the Lessee as may be necessary to determine the amount of royalty due.

9. Owners shall also have the right to examine all cores or cuttings removed in the drilling operations upon said premises, but all information obtained by such examinations shall be held strictly confidential. Lessee shall keep such maps of the mine workings as may, in Lessee's opinion, be required for the conduct of the mining operations and such maps shall be available to Owners' representatives for examination at reasonable times.

10. Lessee is hereby granted, for a period of five (5) years from the date of this agreement, the exclusive right to purchase the above described mineral estate for the sum of Thirty Thousand Dollars ($30,000.00).

11. If the Lessee elects to exercise the option herein given, it shall give the Owners a written notice of its intention so to do during the life of this option and agreement, whereupon Owners shall furnish the Lessee anabstract of title to the said real estate and the whole thereof.

In the event Lessee exercises the option to purchase herein granted, the Lessors have the privilege of having the purchase price paid in ten equal payments, payable yearly, the Lessee paying four per cent (4%) interest per annum to Lessors on the unpaid balance of the purchase price, however the Lessors may have payments

accelerated by giving written notice to Lessee.

12. The Lessee shall have thirty (30) days in which to examine said abstract. If the abstract shows a good and merchantable title in the Owners, the Lessee shall then pay the purchase price and Owners shall make, execute and deliver to the Lessee a warranty deed conveying the above described real estate, free and clear of all liens and encumbrances. Should examination of the abstract disclose that defects exist in the title to the real estate or any part thereof, the Owners immediately shall take such steps as may be necessary to perfect the title so that same shall be good and merchantable, and if the Owners do not take such steps within thirty (30) days, the Lessee may perfect said title and deduct the amount of expense thereby incurred from the purchase price. If it is found that the title cannot be perfected, this contract shall be of no further force or effect.

13. Should Lessee fail or neglect to make all payments or to perform any of the covenants and agreements herein set forth and should still fail to do so after receiving written notice from Owners regarding the same and should fail to take proper steps to meet said conditions within a period of thirty (30) days after the receipt of said written notice, then in that event this lease shall be canceled and terminated. However, in any event, Lessee shall be liable under this contract and agreement only for such royalty payments as may be due and payable at the time such actual cancellation and termination becomes effective as above set forth.

14. Lessee shall carry Workmen's Compensation and Public Liability Insurance for and during the term of this lease or any renewal or extension thereof; provided, however, that with the permission of the proper authority the Lessee may carry its own insurance as to Workmen's Compensation and Public Liability or any other insurance exacted or provided for under the laws of the State of Illinois, but in such event, Lessee shall save and hold the Owners harmless from any liability for damage occasioned to a stranger or to the employees of Lessee resulting from said operations.

15. Lessee expressly reserves the right to cancel and surrender this lease at any time and be relieved from all liability hereunder of every kind and

character, except to account for royalties due at the time of such surrender for minerals or other valuable substances mined from said premises prior to the date of such surrender. No minimum royalties or earned royalties shall accrue after termination of this lease agreement or purchase of the premises by the Lessee or its assigns.

16. Lessee reserves the right to remove from the premises any or all buildings, machinery and other personal property of Lessee placed thereon by Lessee, at the expense of Lessee, after the termination, surrender or forfeiture of this agreement, and shall have six (6) months in which to make such removal.

17. The Owners shall pay all taxes assessed against the property leased but the Lessee shall pay all taxes assessed against any buildings, improvements, equipment or other personal property placed upon said premises by it.

18. Any notice herein mentioned to be given by Lessee to Owners shall be in writing and shall be sent by registered or certified mail addressed to Owners at 19060 Norton Street, East Detroit, Michigan. Any notice herein mentioned to be given by the Owners to the Lessee shall be in writing and shall also be sent by registered or certified mail addressed to Lessee at Rosiclare, Illinois.

19. All parties hereto agree and understand that all the rights of either party hereto may be assigned, and the privilege of assigning or subletting in whole or in part is expressly allowed, and all the covenants and agreements hereunder shall inure to, continue and be binding upon the heirs, legal representatives, successors and assigns of the parties hereto, but no change in the ownership of the land or assignment of royalties shall be binding on the Lessee until after the Lessee has been furnished with a written, recorded transfer or assignment, or a true copy thereof.

IN WITNESS WHEREOF, the parties have signed, sealed and delivered this instrument in duplicate, each to be original, the day and year first above written.

William Thurston O'Roark (Seal)

Vaughany O'Roark (Seal)

Owners

OZARK-MAHONING COMPANY,
a Corporation

By _____
Vice President

Attest:

_____
Assistant Secretary

Lessee

STATE OF MICHIGAN)
) ss.
COUNTY OF MACOMB)

I, William Schwartz, a Notary Public in and for and residing in said County, in the State aforesaid, do hereby certify that William Thurston O'Roark and Vaughany O'Roark, husband and wife, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

GIVEN under my hand and notarial seal, this 4 day of May, A. D. 1964.

William Schwartz
Notary Public

My commission expires:

WILLIAM SWARTZ
Notary Public, Oakland County, Mich.
My Commission Expires May 12, 1966
(ACTING IN MACOMB)

STATE OF ILLINOIS)
) ss.
COUNTY OF HARDIN)

I, F. L. Sohosky, a Notary Public in and for the County and State aforesaid, do hereby certify that W. W. Fowler, personally known to me to be the Vice President of Ozark-Mahoning Company, a corporation, and C. W. Sohosky, personally known to me to be the Assistant Secretary of said corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Vice President and Assistant Secretary they signed and delivered the said instrument as Vice President and Assistant Secretary of said corporation, and caused the corporate seal of said corporation to be affixed thereto as their free and voluntary act, and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and notarial seal, this the 7th day of May, A. D. 1964.

F. L. Sohosky
Notary Public

My commission expires:
April 9, 1966

JAMES C. GULLETT
ATTORNEY AND COUNSELOR AT LAW
PITTSFIELD, ILLINOIS

LEASE AND OPTION AGREEMENT

WILLIAM THURSTON O'ROARK and VAUGHANY O'ROARK, Husband and Wife,

Owners,

OZARK-MAHONING COMPANY, a Corporation,

Lessee.

STATE OF ILLINOIS
POPE COUNTY } ss
RECORDER'S OFFICE

I, Cressie Ragan, Recorder of Deeds within and for the County and State aforesaid, do hereby certify that the within and foregoing instrument of writing was filed for record on the 11 day of May A.D. 1964 at 2:00 o'clock P. M. and duly recorded in volume 33 of Misc. on page 390

In testimony whereof, I have hereunto set my hand the day and date aforesaid.

Cressie Ragan Recorder

JAMES G. GULLETT
ATTORNEY AND COUNSELLOR AT LAW
ELIZABETHTOWN, ILLINOIS

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Selfridge	120
2/11	[illegible]	120M
2/11	[illegible]	110
	[illegible]	100
		220

FEB 1 2 1965

Ozark-Mahoning Company
Mining Division
Rosiclare, Illinois

Re: EMRA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-21206

Gentlemen:

Recently we were informed that your company had leased certain land from the William Thurston O'Marks which, in part, made up the land under the subject contract.

In order to carry out our obligation as the successor agency to the Defense Minerals Exploration Administration, and as there remains a royalty obligation to the Government on any production from the land in the contract until June 16, 1968, will you please complete the enclosed forms and return two copies to us. Your cooperation in this matter will be sincerely appreciated.

Sincerely yours,

George Fumich, Jr.

Acting Director

Enclosures
GCSelfridge/mm (2/11/65)
cc: Director's Reading File
Region IV, Knoxville, Tenn.
Docket
Mr. Selfridge
Code 120M

23263

220

4907

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☒ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

Robert S. Bennett

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED 11-20-64

SHOW WHERE DELIVERED *(only if requested)*

C55—16—71548-5—F GPO

DMEA 4907

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

November 27, 1963

OFFICIAL FILE COPY
O. M. E
RECEIVED DEC 6 1963

DATE	INITIALS	CODE
12/16	Murphy	500
		320

The New Jersey Zinc Company
P. O. Box 252
Platteville, Wisconsin

Re: DMEA-4907 (Fluorspar)
~~The New Jersey Zinc Co.~~
~~Project Two~~
~~Pope County, Illinois~~
Contract Idm-E1206

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

F M Murphy

F. M. Murphy, Acting Chief
Division of Minerals

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since October 1, 1962, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☒

Mr. R. S. Barnett, Equality, Illinois, is the owner of the major portion of this project.. So far as we know he has not leased it to another party but we have not had contact with Mr. Barnett for several years.

2. Since October 1, 1962, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

No production known to us at this time.

	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☒

A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name J. M. Hague
J. M. Hague

Title Chief Geologist, Upper Mississippi Valley

Address The New Jersey Zinc Co.
Box 252
Platteville, Wisconsin

Date December 4, 1963

4511

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		120
11/19	Johnson	110
9	[illegible]	100
		220

NOV 17 1964

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Mr. and Mrs. Robert S. Barnett

Equality, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-21206

Dear Mr. and Mrs. Barnett:

On September 30, 1964, we wrote you concerning land involved in the subject contract. For your convenience, a copy of the letter is enclosed. It will be appreciated if you will inform us if the Ozark-Mahoning Company purchased or leased any part of the land subsequent to its release by the New Jersey Zinc Company; and if so, will you please furnish us the details of the transaction.

Sincerely yours,

George C. Selfridge (gla)

George C. Selfridge, Chief
Division of Exploration Operations

Enclosure

GCSelfridge/mm (11/17/64)
cc: Director's Reading File
R. A. Laurence, Knoxville, Tenn.
Docket
Mr. Selfridge
Code 120M

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Selfridge	120
10/23	Johnson	110
10-18	[illegible]	100
		220

OCT 1 5 1964

Miss Laura Baumer
Old Cairo Road
Route 7
Paducah, Kentucky

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Miss Baumer:

Thank you for your letter of October 5 in reply to ours of September 30, 1964.

The land under the subject contract was comprised of several parcels owned by various individuals. Although these individuals or lessors have no financial responsibility under the contract, there is a financial obligation on any production from the land in the contract until June 16, 1968. As we had heard that some of the land had been sold, without being definitely informed as to what part, and thought that there might have been production, we made inquiry of all of the owners in order to carry out our obligation as the successor agency to the Defense Minerals Exploration Administration.

Sincerely yours,

George Fumich, Jr.

Acting Director

GCSelfridge/mm
10/15/64
cc: Director's Reading File
R. A. Laurence w/cy of incoming letter
Docket
Mr. Selfridge
Code 120M

23263

4907

Paducah, Kentucky

October 5, 1964

Mr. George C. Selfridge, Chief
Division of Exploration Operations
United States Department of the Interior
Washington 25, D.C.

Dear Mr. Selfridge:

Referring to your letter of September 30, 1964, requesting information as to land reportedly sold to Ozark-Mahoning Company and previously leased to The New Jersey Zinc Company.

None of the above property has been sold.

Please advise as to why you have requested this information.

Yours very truly

Laura Baumer

(Miss Laura Baumer)
Old Cairo Road
Route 7
Paducah, Kentucky

OFFICIAL FILE COPY
O. M. E
RECEIVED OCT 12 1964

DATE	INITIALS	CODE
10/13	ml Leave	120
		~~120~~
		220

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 8 1964

DATE	INITIALS	CODE
10/9	EEF	800
10/9	release	120 M
		~~120~~
	SEP 30 1964	

Mr. and Mrs. William Thurston O'Roark
19060 Norton Street
East Detroit, Michigan

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. and Mrs. O'Roark:

In a Lease Agreement of March 15, 1958, the New Jersey Zinc Company leased from you for exploration and other purposes approximately 40 acres of land in sec. 28, T. 12 S., R. 7 E. in Pope County, Illinois. In a Notice of June 27, 1960, to you the Company terminated its interest in the lease agreement.

It has been reported to us that the Ozark-Mahoning Company later purchased this land or at least a part of it. If this is so, will you please furnish us a description of the land sold.

Sincerely yours,

George C. Selfridge

George C. Selfridge, Chief
Division of Exploration Operations

Mr Geo C. Selfridge
Dear Sir:
The Ozark Mahoning Co. only leased the 40 acres of Land for Mineral Rights. For a Five Year Peiod.

William T. O'Roark

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	GCS	120
9/30	Johnson	110
	[illegible]	100
		220

SEP 30 1964

Miss Laura Baumer
Old Cairo Road
Route 7
Paducah, Kentucky

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Miss Baumer:

In an Option Agreement of June 21, 1954, the New Jersey Zinc Company leased from you for exploration and other purposes 150 acres in sec. 28, T. 12 S, R. 7 E. in Pope County, Illinois. In a Notice of June 27, 1960, to you the Company terminated its interest in the aforesaid agreement.

It has been reported to us that the Ozark-Mahoning Company later purchased this land or at least a part of it. If this is so, will you please furnish us a description of the land sold.

Sincerely yours,

George C. Selfridge
mm

George C. Selfridge, Chief
Division of Exploration Operations

GCSelfridge/mm
9/30/64
cc: Director's Reading File
R. A. Laurence, Knoxville, Tenn.
Docket
Mr. Selfridge
120 M

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	GCS	120
9/30	Johnson	110
		100
		220

SEP 3 0 1964

Mr. and Mrs. William Thurston O'Roark
19060 Norton Street
East Detroit, Michigan

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

Dear Mr. and Mrs. O'Roark:

In a Lease Agreement of March 15, 1958, the New Jersey Zinc Company leased from you for exploration and other purposes approximately 40 acres of land in sec. 28, T. 12 S., R. 7 E. in Pope County, Illinois. In a Notice of June 27, 1960, to you the Company terminated its interest in the lease agreement.

It has been reported to us that the Ozark-Mahoning Company later purchased this land or at least a part of it. If this is so, will you please furnish us a description of the land sold.

Sincerely yours,

George C. Selfridge
mm

George C. Selfridge, Chief
Division of Exploration Operations

GCSelfridge/mm
9/30/64
cc: Directors Reading File
R. A. Laurence, Knoxville, Tenn.
Docket
Mr. Selfridge
120 M

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	GCS	120
9/30	Johnson	110
		100
		220

SEP 30 1964

Mr. and Mrs. Robert S. Barnett

Equality, Illinois

Re: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-K1206

Dear Mr. and Mrs. Barnett:

In a Lease and Option Agreement of July 29, 1954, the New Jersey Zinc Company leased from you for exploration and other purposes 264 acres in sec. 28, T. 12 S, R. 7 E. in Pope County, Illinois. In a Notice of June 27, 1960, to you the Company terminated its interest in the aforesaid lease.

It has been reported to us that the Ozark-Mahoning Company later purchased this land or at least a part of it. If this is so, will you please furnish us a description of the land sold.

Sincerely yours,

George C. Selfridge
mm

George C. Selfridge, Chief
Division of Exploration Operations

GCSelfridge/mm
9/30/64
cc: Director's Reading File
R. A. Laurence, Knoxville, Tenn.
Docket
Mr. Selfridge
120 M

23263

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

September 27, 1962

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Co.
Project Two
Pope County, Illinois
Contract Idm-E1206

The New Jersey Zinc Company
Box 252
Platteville, Wisconsin

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold, Chief
Division of Minerals

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 9 1962

DATE		CODE
10/9		800
10/9		100
10/9		110
10/10		500
10/10		500
		220

MME Form 63
Revised 3-62

DMEA-4907
Idm-E1206

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since September 14, 1960, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☒

   Not to our Knowledge.

2. Since September 14, 1960, has there been any production from the land subject to the contract? Yes ☐ No ☒

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☒

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name John M. Hague Title Superintendent

Address Box 252 Date Oct. 1, 1962

Platteville, Wis

4511

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/13	GCS	120
		225

JUN 13 1962

Memorandum

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

From: Chief, Division of Field Operations, OME

Subject: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract Idm-E1206

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

George C. Selfridge (2HB)

Enclosure

GCSelfridge/hb (6/13/62)
cc to: Docket DMEA-4907
Director's Reading File
CA&A Division
GCSelfridge
R. A. Laurence, USGS, Reg. IV, w/cy of Report of Royalty Review dtd 6/12/62 & orig. cy of memo dtd 6/13/62 to Chf., Division of Field Operations from CA&A Division.
Avery Reed, USBM, Reg. IV, w/cy of ea. item sent to Mr. Laurence.

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

JUN 13 1962

Memorandum

To: Chief, Division of Field Operations

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

Subject: [illegible]A-4507 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract ICr- 1206

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 OIA 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

43683

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
100 FRONT STREET
NEW YORK 38, N.Y.

CABLE ADDRESS
"JERSEZINC"

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 21 1960

DATE	INITIALS	CODE
9/26	Houk	124

September 19, 1960

Mr. Laurence G. Houk
Acting Field Officer, OME
Region IV
U.S. Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Houk:

We are returning herewith a completed form of Request for Information relating to the subject contract. Attached are photostat copies of notices to property owners terminating our control of the properties in this contract.

By our letter of June 24, 1960, we notified Mr. Frank E. Johnson, Acting Director, of our decision to abandon the properties, which notice was acknowledged by Mr. Johnson on June 28, 1960.

Very truly yours,

Arnold Jansons
For Manager of Exploration

AJ/rms
Encl.

REQUEST FOR INFORMATION
FROM OPERATOR ON CERTIFIED PROJECT
AND PROJECT UNDER ROYALTY AGREEMENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

From: ACTING Field Officer, OME
Region IV
Washington 25, D. C.

Concerning:
Docket No. DMEA-4907
Property Project Two

Location Pope County, Illinois
Contract Idm-E1206

Date: August 29, 1960

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

With the certification of the exploration project identified above, you were asked to inform our office about changes in the status of the property and production from it.

To assist you to furnish this information and to assure the accuracy of our records, we ask that you answer the questions below and return one copy to this office with copies of any pertinent documents.

ACTING Field Officer Laurna G. Houk

1. Since Dec. 31, 1959, has there been a change in ownership, lease, or sublease about which the OME has not been notified? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents. Yes ☒ No ☐
The three lease and option agreements have been cancelled. Copies of the cancellation are attached.
2. Since Dec. 31, 1959, has there been any production from the property?* Yes ☐ No ☒

A. If so and it was shipped, give name and address of purchaser?

	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

Submitted by:

Name John M. Hague
Title Superintendent
Address The New Jersey Zinc Company Box 252 Platteville, Wisconsin
Date 9/14/60

MME Form 63 8-60 * Property means land subject to the contract. 79340-60

RECEIVED
SEP 16 1960
THE NEW JERSEY ZINC CO.
CORNING DEPARTMENT
NEW YORK

TERMINATION NOTICE

THIS INDENTURE made this 27th day of June, 1960, between THE NEW JERSEY ZINC COMPANY, a New Jersey corporation qualified to do business in the State of Illinois, party of the first part, and

Laura Baumes

of Paducah, County, State of Kentucky, party of the second part;

W I T N E S S E T H:

WHEREAS, the parties hereto, or the assignors or predecessors in interest of the parties hereto, entered into a certain LEASE AND OPTION AGREEMENT under date of June 21 1954, of which a short form Agreement thereof of even date was recorded in Book/Volume 32 of Mortgages, page 48, in the Office of the Recorder of Pope County, Illinois; and

WHEREAS, the said party of the first part in accordance with the terms of said AGREEMENT desires to terminate the same and release the therein described premises from the terms thereof.

NOW, THEREFORE, in consideration of good and valuable consideration, party of the first part does hereby terminate the said AGREEMENT and does hereby further release the therein described premises from the terms thereof.

IN WITNESS WHEREOF, the said party of the first part has hereunto caused its name to be subscribed by its proper officers the day and year first above written.

S E A L

SEAL

THE NEW JERSEY ZINC COMPANY

Attest:

By (Sgd.) S. S. Goodwin
Vice President

(Sig.) R. A. Oberfell

its ASSISTANT Secretary

STATE OF NEW YORK :
:Ss:
COUNTY OF NEW YORK:

I, Richard J. Mackessy, a Notary Public, do hereby certify that S. S. Goodwin to me personally known to be the Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, and R. A. Oberfell, personally known to me to be the ASSISTANT Secretary of said corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing INDENTURE, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said INDENTURE as such Vice President and ASSISTANT Secretary, respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation, as their free and voluntary act and as the free and voluntary act and deed of said corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this of June, 1960.

SEAL

S E A L

RICHARD J. MACKESSY
NOTARY PUBLIC, State of New York
No. 60-[illegible]
Qualified in West Chester County
Cert. filed in New York County
Commission Expires March 30, 1962

Notary Public

RECEIVED
SEP 16 1960
THE NEW JERSEY ZINC CO.
MINING DEPARTMENT
NEW YORK

Recorded Vol 33 Mtg. [redacted] 33 **TERMINATION NOTICE**

July 12 1960 THIS INDENTURE made this 27th day of [redacted], 19[redacted], between THE NEW JERSEY ZINC COMPANY, a New Jersey corporation qualified to do business in the State of Illinois, party of the first part, and

[redacted]

of [redacted], [redacted]
County, State of [redacted], parties of the second part;

W I T N E S S E T H:

WHEREAS, the parties hereto, or the assignors or predecessors in interest of the parties hereto, entered into a certain LEASE AND OPTION AGREEMENT under date of [redacted] 19[redacted], of which a short form Agreement thereof of even date was recorded in [redacted]/Volume [redacted] of [redacted], page [redacted], in the Office of the Recorder of [redacted] County, Illinois; and

WHEREAS, the said party of the first part in accordance with the terms of said AGREEMENT desires to terminate the same and release the therein described premises from the terms thereof.

NOW, THEREFORE, in consideration of good and valuable consideration, party of the first part does hereby terminate the said AGREEMENT and does hereby further release the therein described premises from the terms thereof.

IN WITNESS WHEREOF, the said party of the first part has hereunto caused its name to be subscribed by its proper officers the day and year first above written.

S E A L

SEAL

THE NEW JERSEY ZINC COMPANY

Attest:

(Sgd.) R. A. Oberfell

(Sgd.) S. S. Goodwin

By _____
Vice President

its ASSISTANT Secretary

STATE OF NEW YORK :
:ss:
COUNTY OF NEW YORK:

I, Richard J. Mackessy, a Notary Public, do hereby certify that S. S. Goodwin to me personally known to be the Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, and R. A. Oberfell, personally known to me to be the ASSISTANT Secretary of said corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing INDENTURE, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said INDENTURE as such Vice President and ASSISTANT Secretary, respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation, as their free and voluntary act and as the free and voluntary act and deed of said corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 28th day of [redacted], 19[redacted].

SEAL

S E A L

RICHARD J. MACKESSY
NOTARY PUBLIC, State of New York
No. 60 7554200
Qualified in Westchester County
Certified in New York County
Commission Expires March 30, 1962

_____
Notary Public

RECEIVED
SEP 16 1960
THE NEW YORK EDISON CO.
LIGHTING DEPARTMENT
NEW YORK

TERMINATION NOTICE

THIS INDENTURE made this 27th day of June, 1960, between THE NEW JERSEY ZINC COMPANY, a New Jersey corporation qualified to do business in the State of Illinois, party of the first part, and

William Thurston O'Roark and Vaughany O'Roark, his wife

of East Detroit, County, State of Michigan, parties of the second part;

WITNESSETH:

WHEREAS, the parties hereto, or the assignors or predecessors in interest of the parties hereto, entered into a certain LEASE ~~AMENDMENT~~ AGREEMENT under date of March 15 1958, of which a short form Agreement thereof of even date was recorded in ~~Book~~/Volume 32 of Mortgages, page 429, in the Office of the Recorder of Pope County, Illinois; and

WHEREAS, the said party of the first part in accordance with the terms of said AGREEMENT desires to terminate the same and release the therein described premises from the terms thereof.

NOW, THEREFORE, in consideration of good and valuable consideration, party of the first part does hereby terminate the said AGREEMENT and does hereby further release the therein described premises from the terms thereof.

IN WITNESS WHEREOF, the said party of the first part has hereunto caused its name to be subscribed by its proper officers the day and year first above written.

SEAL

THE NEW JERSEY ZINC COMPANY

By [signature]
Vice President

Attest:

[signature]
its ~~ASSISTANT~~ Secretary

STATE OF NEW YORK :
:ss:
COUNTY OF NEW YORK:

I, Richard J. Mackessy, a Notary Public, do hereby certify that ~~R. A. Gerfell~~ to me personally known to be the Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, and R. A. Oberfell, personally known to me to be the ~~ASSISTANT~~ Secretary of said corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing INDENTURE, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said INDENTURE as such Vice President and ~~ASSISTANT~~ Secretary, respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation, as their free and voluntary act and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 28th day of June, 1960.

RICHARD J. MACKESSY
NOTARY PUBLIC, State of New York
No. 60-7654200
Qualified in Westchester County
Cert. filed in New York County
Commission expires March 30, 1962

SEAL

[signature]
Notary Public

RECEIVED
SEP 16 1960
THE MEDICAL LIBRARY, DUKE U.
CLINICAL DEPARTMENT
NEW YORK

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/28	Griswold	500
6/29	J. Lynch	140
	[illegible]	140
6/29	App'd. Sol. Off. [illegible]	800
6/29	Selfridge	120
		110
6/28	[illegible]	220
		225

JUN 28 1960

Mr. Lindley G. Miller
Legal Department
The New Jersey Zinc Company
160 Front Street
New York 28, New York

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Miller:

We have your June 24 letter, covering the cited project, in which you state that you are relinquishing your control on the three properties involved in the contract. We further note that your company is cognizant of its royalty obligations under the contract as pertains to such lands.

Your letter will be incorporated into the docket covering this project.

SOLICITOR

JUN 28 1960

INTERIOR DEPT.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

WRGriswold/gla
6-28-60
cc to: Director's Reading File
Contract Administration and Audit Division
Region IV (2) w/2 cys incoming letter
Docket
Chron
Code 500

FROM SOLICITOR
JUN 29 1960
FOR SIGNATURE

43683

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUN 27 1960

DATE	INITIALS	CODE
6-27	Coe	210
"	FE	210
		220
"	Stewart	500
		800
		222

THE NEW JERSEY ZINC COMPANY

(ESTABLISHED 1848)

CABLE ADDRESS
"JERSEZINC"

160 FRONT STREET

NEW YORK 38, N.Y.

June 24, 1960

Mr. Frank E. Johnson,
Acting Director
United States Department of the Interior
Office of Minerals Exploration
Washington 25, D.C.

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Johnson:

It was indeed a pleasure to speak to you again yesterday, and this morning I received your letter of June 22 with respect to the above matter.

It is my understanding that OME has no authority to permit our Company to terminate the above contract prior to its normal termination date and, in consideration for such early termination, accept from the Company a reduced amount in repayment of the money advanced for exploratory purposes. However, you indicated that many companies abandoned property in projects previously certified without governmental approval hoping that there would be no production therefrom during the contractual period. I advised you that we did not wish to proceed in this manner without your approval, and you indicated that, if our explanation for so doing was satisfactory, such approval would be granted.

There are three (3) properties involved in the contract, one of which is now subject to litigation and a second requires a purchase by us of the land for the sum of $75,000 on or before July 1 next. We do not believe that the mineralization disclosed in the venture is commercial; and, therefore, we have reached the conclusion that we must terminate our control of the properties in the above contract. This is now

being done. However, this Company acknowledges its continuing royalty obligation on production from the properties covered under the contract until June 16, 1968 and agrees to pay royalty out of any production therefrom as it may become due until such date. In return, we request your Office's approval permitting us to terminate our interests in the three properties in question.

We sincerely appreciate your kind cooperation and assistance in this matter, and trust that we shall hear from you on the above at your very early convenience. With kind regards, I remain,

Very truly yours,

Lindley G. Miller

Legal Department

LGMiller:sw

I merely told Mr. Miller to write us a letter explaining M. J. position, in forming us they were dropping properties, giving reasons, and stating they would guarantee payment of royalties on any production. I agreed that we would acknowledge his letter.
6/27/60 FEJ

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/22	Selfridge	120
		110
6-22	gad	220

JUN 22 1960

AIR MAIL

Mr. Lindley G. Miller
Legal Department
The New Jersey Zinc Company
160 Front Street
New York 28, New York

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Dear Mr. Miller:

Reference is made to your telephone conversations of early June with Messrs. Griswold and Selfridge concerning Article 2(d) of the subject Contract and abandonment of the land described thereunder.

I sincerely regret to inform you that OME can neither enter into an agreement consenting to the abandonment of the land, although preserving the Company's royalty liability, nor negotiate a compromise settlement of the Government's royalty claim by a cash payment. If the Company has any doubts concerning the language of Article 2(d) and abandonment, I suggest it write notifying OME of the abandonment and reasons therefor and acknowledge the Company's continuing royalty obligation until June 16, 1968.

Sincerely yours,

(signed) FRANK E. JOHNSON
Acting Director

(hb)

GCSelfridge/hb (6/22/60)
Copy to: Docket (DMEA-4907)
Director's Reading File
G. C. Selfridge

43683

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Selfridge, OME DATE: 6/13/60

FROM : Cn Seller

SUBJECT: DMEA 4907 - N.J. Zinc Co.

This is OK, really, but as a matter of legal semantics I prefer the phrase "doubt as question" to that of "qualms (scruples)" in the Miller letter. Do you agree?

Seller

MME Form 7
(10-58)

SOLICITOR

JUN 9 - 1960

INTERIOR DEPT.

OFFICIAL FILE COPY

Date	Surname	Code
6/8	GCS	120
6/13	J. Lynch	140
		120

June 8, 1960

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Chief, Division of Field Operations

Subject: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Attached is a draft of a letter written along the lines we recently discussed. Will you please review it to see if it is suitable to send the Company on Mr. Johnson's return June 20, 1960.

George C. Selfridge

(HB)

Attachments

GCSelfridge/hb (6/8/60)
Copy to: Docket
Director's Reading File
G. C. Selfridge

RECEIVED
JUN 9 1960
ASSOC. SOLICITOR
MINERAL RESOURCES

43683

DRAFT
GCSelfridge/hb (6/8/60)

Mr. Lindley G. Miller
Legal Department
The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Lds-81206

Dear Mr. Miller:

Reference is made to your telephone conversations of early June with Messrs. Griswold and Selfridge concerning Article 2(d) of the subject Contract and abandonment of the land described thereunder.

I sincerely regret to inform you that GSE can neither enter into an agreement consenting to the abandonment of the land, although preserving the Company's royalty liability, nor negotiate a compromise settlement of the Government's royalty claim by a cash payment. If the Company has any doubts its qualms (scruples) concerning the language of Article 2(d) and abandonment, I suggest it write notifying GSE of the abandonment and reasons therefor and acknowledge the Company's continuing royalty obligation until June 16, 1968.

Sincerely yours,

Acting Director

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/8	GCS	128
		225

June 2, 1960

Memorandum

To: The File

From: Chief, Division of Field Operations

Subject: DMEA-4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract Idm-E1206

Reference is made to Mr. Griswold's memorandum to the file of June 2, 1960, concerning Mr. Lindley Miller's call to him.

Mr. Miller called the writer on June 2, 1960, to discuss essentially the same matters he had discussed with Mr. Griswold. Briefly, the New Jersey Zinc Company would like to abandon the land under the contract because of a $75,000.00 payment which is due on July 1, 1960. Mr. Miller proposed either that the Government enter into an agreement with the Company permitting abandonment but retaining the royalty liability or settling the Government's claim for a cash payment of approximately 15 percent of the Government's participation. The writer informed Mr. Miller that under the subject type of contract DMEA-OME had never entered into or agreed to such suggestions. The writer informed him that he would look into the matter at once and take it up with Mr. Johnson on his return from the West. The matter was later discussed with Mr. Soller.

GCSelfridge/hb (6/8/60)
Copy to: Director's Reading File
Docket File
G. C. Selfridge

ME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/7	~~Mr. Alt~~	~~500~~
		225

June 2, 1960

Memorandum

To: The File

From: W. R. Griswold, Chief
Division of Minerals

Subject: Docket No. DMEA-4907 (Fluorspar, Zinc, Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Mr. Lindley Miller, attorney for the New Jersey Zinc Company, phoned with regard to the cited project. He stated that a certification had been made by the Government and consequently his company is in a quandry as to what to do with the land pertaining to the contract. He stated that there are three parcels and that a cash payment is due on one parcel of $75,000,00 on July 1, 1960.

Since the New Jersey Zinc Company did not consider that the amount and grade of ore proven under the exploration project could warrant an operation within the foreseeable future, they desire to drop such lands and surrender their options. He stated that an attempt had been made to dispose of such lands to other fluorspar-operating companies, without success.

His company has tentatively considered a separate agreement with the Government, accepting future royalty responsibilities in return for the Government consenting to a dropping of the options by the company at this time. Consideration has also been given to the idea of a possible compromise settlement of the Government claim by some cash payment.

The undersigned suggested that he phone Mr. Selfridge for suggestions and advice.

W. R. Griswold

WRGriswold/gla
6-7-60
cc to: Mr. Selfridge
Docket
Chron

43683

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 25 1960

DATE	INITIALS	CODE
2-25	gad	220
2/25	[illegible]	800
"	[illegible]	~~500~~
		225

February 23, 1960

Memorandum

To: Operating Committee, OME - Washington

From: OME Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4907, Idm-E1206($Zn-Pb-CaF_2$) The New Jersey Zinc Co. Project Two, Pope County, Illinois

Mr. Dewey Amos reports that Ozark-Mahoning Company has informed him that they recently purchased from The New Jersey Zinc Company the land on which the subject exploration project was conducted. This has been certified as a discovery.

Ozark-Mahoning has a mine on adjacent property, and plans to work this property, at some indefinite future date, from their mine.

The New Jersey Zinc Company did some drilling after completion of the DMEA project, but we have no information concerning the results.

Robert A. Laurence
Robert A. Laurence
Executive Officer, OME
Region V

V J Lynch zm
V. J. Lynch, Member
Bureau of Mines

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/27	[illegible]	500
	[illegible]	500
11/30	[illegible]	140
	[illegible]	140
	Appld. Sol. Off.	
12/2	[illegible]	800
12/4	[illegible]	130
12/4	[illegible]	130
12-4	[illegible]	130
		~~110~~ 220
12-4	gad	225

RECEIVED
NOV 30 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

DEC 4 1959

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

Re: Docket No. DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

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 the minerals mined or produced from June 16, 1958, to June 16, 1968, are subject to the Government's percentage royalty as set forth in the contract until the sum of $17,994.07 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 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 rights 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.

JWAlt/gla
11-27-59
cc to: Director's Reading File
Operating Committee
Frank E. Johnson
Div. of Audit Adm.
Frank D. Lamb, USBM
Enclosure
Harold Kirkemo, USGS
OME Field Team, Region V (2)
Code 500
Docket

Sincerely yours,

Frank E. Johnson (for)

Acting Director

43683

MME Form 7
(10-58)

DEC 4 1959

RECEIVED
NOV 30 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

OFFICIAL FILE COPY

Date	Surname	Code
11/27	[illegible]	500
	[illegible]	500
11/30	[illegible]	140
	Vernon	140
	Asst. Sol. Off.	
12/3	[illegible]	800
12/4	[illegible]	130
12/4	Lamb	130
12/4	Kirkemo	130
		~~110~~
12-4	gad	220
		225

Mr. C. A. Fredell, Director
Technical Research and Development Division
Defense Materials Service
General Services Administration
6018 GSA Building
Washington 25, D. C.

Re: Docket No. DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development issued under the subject contract.

The contract was dated June 16, 1958, with the Government participating to the extent of 50 percent in an exploration project estimated to cost $39,192.00. Actual expenditures were $35,988.15, with the Government's share being half of such amount, or $17,994.07.

The total amount of work provided for under the contract consisted of 12,160 feet of diamond drilling. Work actually completed consisted of 11,517 feet of such work.

The discovery consisted of fluorite with subordinate sphalerite and galena as cavity-filling deposits along faults with minor replacement of adjacent wall rock in Fredonia, Renault, and Levias limestones of the Upper Mississippian age. The reserves are estimated to be 54,000 tons of ore averaging 23.46 percent CaF_2, 6.58 percent Zn, and 2.38 percent Pb.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

JWAlt/gla 11-27-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, USBM
Harold Kirkemo, USGS
OME Field Team, Region V (2)
Docket
Chron
Code 500

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 11 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 10, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1959

DATE	INITIALS	CODE
11-12	gad	220
11-12	HB	130
"	JEJ	110
11-17	HB	130
11-17	gad	220
"	JEJ	110
11/19	[illegible]	800
"	alt	500

Memorandum

To: Operating Committee, OME - Washington

From: OME Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4907, Idm-E12064 zinc, lead, fluorspar)
The New Jersey Zinc Co., New York, N.Y.
Project Two, Pope County, Illinois

Enclosed are the original and two copies of the Field Team final report on the subject contract, written by Dewey H. Amos.

Reserve estimates of Mr. Amos and the Operator's geologist are as follows:

	Amos	Weinberg
Tons	54,000	70,000
% Fluorspar	23.46	17.93
% Zinc	6.48	3.95
% Lead	2.38	1.73

These are certainly reserves of marginal economic status, and the Operator considers them to be uneconomic. However, a small reserve like this may well be economic to some other operator within the 10-year repayment period. We, therefore, agree with Mr. Amos' recommendation for issuance of a certification of discovery.

FINAL FIELD TEAM REPORT

Robert A. Laurence
Robert A. Laurence
Executive Officer, OME
Region V

Reviewed by
OME OPERATING COMMITTEE
11-17-59
(date)

V. J. Lynch
V. J. Lynch, Member
U. S. Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF MINERAL EXPLORATION
REGION V

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1959

DATE	INITIALS	CODE
11-12	HB	130
Sec 7-7	memo 11/10	110
11-17	HB	130
		225

FINAL REPORT

PROJECT II AREA
Pope County, Illinois
DMEA-4907 (fluorspar) Idm-E1206

By

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

June 6, 1959

Reviewed by
OME OPERATING COMMITTEE
11-17-59
(date)

FINAL REPORT
DMEA-4907 Idm-E1206

Operator: New Jersey Zinc Company, Harrisburg, Illinois

Location: Project II area, Pope County, Illinois

SUMMARY

A total of 9 drill holes were completed under Stage I of the contract and 5 drill holes under Stage II. Zinc-lead-fluorspar mineralization of ore grade and possible commercial extent was discovered in three holes all of which were located near the northeastern corner of the project area. The remaining holes penetrated well-defined structures at favorable stratigraphic horizons but encountered only traces of mineralization or were barren. Additional exploration is warranted in the northeastern part of the project area and is currently being done by the Operator. As ore-grade mineralization of possible commercial extent was discovered by the work completed under the contract, a certification of discovery should be issued.

LOCATION

The Project II area consists of three tracts (Laura Baumer, 469 acres; Robert S. Barnett, 264 acres; and W. T. O'Roark, 160 acres) in sections 27, 28, and 33, R.7E., T.12S., eastern Pope County, Illinois. All of the work done under the contract was confined to section 28. The area is in the western part of the southern Illinois fluorspar district and is about 5 miles west of the town of Rosiclare. Access is by Illinois State Highway No. 146 which crosses the northern part of the project area.

WORK COMPLETED

Nine drill holes totaling 6,517 feet were completed under Stage I of the contract and 5 drill holes totaling 5,223 feet under Stage II. Of the footage drilled in the 5 Stage II holes, 223 feet was done entirely at the Operator's expense. Work under the contract began July 17, 1958 and was ended on April 4, 1959. The 14 holes completed under the contract (locations, inclinations and bearings are shown on the attached map) are as follows:

Hole No.	Contract Location No.	Total Depth in Feet	Remarks
Stage I			
W-1	2	721	Barren hole.
W-2	4	804	Speck trace hole.
W-3	6	842	Trace hole.
W-4	19	805	Trace hole.
W-5	11	912	Speck trace hole.
W-6	20	716	Trace hole.
W-7	15	280	Barren hole.
W-9	16	750	Barren hole.
W-10	17	687	Indicative hole.
Stage II			
W-11	--	1105	Ore hole.
W-12	--	1115	Ore hole.
W-13	--	952	Ore hole.
W-14	--	946	Trace hole.
W-15	--	1105	Trace hole.

An additional Stage I hole (Contract Location No. 12) was provided in the contract. A hole (W-8 on the attached map) was drilled to a depth of 619 feet near this proposed location during the effective period of the contract. The field examiner regarded this hole (W-8) as meeting the terms of the contract as a completed hole based on geologic evidence and so informed the Operator. The Washington office of OME disallowed this hole as contract drilling on the basis that the hole was incomplete and, thus, did not meet the terms of the contract.

GEOLOGY

The southern Illinois fluorspar district is underlain by flat-lying sedimentary beds of Upper Mississippian age which are displaced by many normal faults. The faults commonly have steep dips and the major ones have a northeasterly strike. Many minor faults of limited displacement and extent occur transverse to the regional structural trend. Mineralization in the district consists of fluorite with subordinate galena and sphalerite in a gangue of calcite and barite. It occurs as cavity-filling deposits along the faults and occasionally as minor replacement of wall rock adjacent to the faults.

Stratigraphic units present in the vicinity of the Grimes property are as follows:

	Stratigraphic Unit	Thickness in Feet
	Glen Dean limestone	60
Chester series	Golconda limestone and shale	145
	Cypress sandstone	110
	Paint Creek shale	25
	Bethel sandstone	75
	Renault limestone and shale	90
Meramac series	Ste. Genevieve formation	
	Levias limestone member	20
	Rosiclare sandstone member	20
	Fredonia limestone member	205
	St. Louis limestone	500

Detailed lithologic descriptions of these units are given in Illinois Geological Survey Bulletin 76.

The deposits of the district are predominantly of cavity-filling origin and the major mineralization is restricted along the faults to places

where both walls consist of competent rock units (massive limestone and/or sandstone). Significant mineralization occurs at certain favored stratigraphic positions along the faults; namely, (1) the middle and upper part of the Fredonia limestone member, (2) the upper part of the Renault limestone, and (3) the upper part of the Levias limestone member and the basal portion of the Renault limestone. The largest deposits of the southern Illinois district occur where at least one wall of the faults consist of the Fredonia limestone member of the Ste. Genevieve formation. Individual ore bodies commonly have a strike extent of 400 to 1000 feet and may have a dip extent up to 350 feet. Such bodies are often most productive at or near fault intersections.

The Project II area lies along the Wolrab Mill fault zone, one of the important producing units of the district. The Wolrab Mill fault zone is about 1200 feet wide in the project area and trends in a N.40°E. direction. Drilling completed under the contract confirmed that the fault zone consists of several parallel faults of considerable displacement and also indicated that numerous transverse faults probably exist in the area (see attached map and the cross sections submitted in the Operator's monthly reports).

No production of fluorspar has been obtained from the project area. Prior to this contract only limited exploration had been conducted by shallow pitting on the properties. This prior work was not done in a systematic manner and most of the favorable structures were not tested. None of this exploration was conducted at depth along the faults at the more favorable stratigraphic horizons.

The exploration done under this contract was the first systematic work done in the project area. The contract drilling penetrated favorable stratigraphic units at intersections with several faults. An ore body was

discovered along faults in the northeastern part of the project area. Because of insufficient drilling in the vicinity, it is not certain whether the mineralization is rather continuous or whether it occurs as scattered isolated deposits. Throughout the remainder of the area only scattered traces of ore minerals were encountered at the favorable structural and stratigraphic positions.

The mineralization discovered in the northeastern part of the area consists of mixed sphalerite and fluorite with subordinate amounts of galena in a gangue of calcite. It occurs as veins which fill cavities in major faults, as cavity filling in fault breccia and brecciated wall rock, and as minor replacement of carbonate wall rock. The zinc:fluorite ratio of the mineralization is unusually high (see attached assays) for this district. Actually, the mineralization could not be considered ore-grade if it were not for the high zinc values.

RESERVES

The weighted average of assays of the significant mineralization in holes completed under the contract are as follows:

Hole No.	Depth in Feet	True Thickness	%CaF_2	%Zn	%Pb
W-11	1033-1042	about 6 ft.	0.11	3.63	0.26
W-12	932-942	about 7 ft.	1.05	10.12	2.72
	1019-1036	about 11 ft.	0.12	4.90	0.93
	1085-1096½	about 8 ft.	0.04	6.83	0.12
W-13	730-764	about 20 ft.	51.8	5.41	4.55
	783-798	about 10 ft.	39.1	9.29	2.37

In this district ore can be regarded as indicated 50 feet along strike in both direction from each penetration and 50 feet updip and a similar distance downdip. Based on this usage of indicated ore the number of tons and average grade ~~for each penetration~~ of the significant mineralization is as follows:

Ore Body	Holes	Tons ore	Average % CaF_2	Av.% Zn.	Av.% Pb
1	W-12 & W-13	23,500	38.8	6.61	4.08
2	W-12 & W-13	18,300	18.6	6.98	1.67
3	W-11 & W-12	12,200	0.07	5.47	0.18

Ore body 1 consists of the mineralization at 932-942 feet in hole W-12 and at 730-764 feet in Hole W-13; ore body 2 consists of the mineralization at 1019-1036 feet in hole W-12 and at 783-798 in hole W-13; and ore body 3 consists of the mineralization at 1033-1042 feet in hole W-11 and 1085-1096½ feet in hole W-12.

RECOMMENDATIONS

As mineralization of ore grade and possible commercial extent was discovered by work completed under the contract, it is recommended that a certification of discovery be issued. Additional exploratory work is warranted and is currently being done by the Operator.

EXPENDITURES

Total of contract.....	$39,192.00
Total cost of project.....	35,988.15
Govt.'s share of cost @ 50%..	17,994.07
Govt.'s share unexpended.....	1,601.93
Value of production during contract.....	none

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

z

SUMMARY LOG OF HOLE W-1

Depth in Feet	Lithology
0-20	Overburden.
20-171½	Cypress sandstone.
171½-220	Paint Creek shale and sandstone.
220-377	Bethel sandstone.
377-475	Renault limestone and shale.
475-481½	Fault zone.
481½-535	Bethel sandstone.
535-664	Renault limestone.
664-682	Levias limestone.
682-718½	Rosiclare sandstone.
718½-721	Fredonia limestone.
721	Bottom.

Inclination -45°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-2

Depth in Feet	Lithology
0-20	Overburden.
20-118	Golconda limestone and shale.
118-246½	Cypress sandstone.
246½-313	Paint Creek shale and sandstone.
313-407	Bethel sandstone; speck traces of galena and fluorite at 369-407 feet.
407-534	Renault limestone and shale.
534-555	Levias limestone.
555-581½	Rosiclare sandstone.
581½-804	Fredonia limestone.
804	Bottom.

Inclination -55°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-3

Depth in Feet	Lithology
0-7	Overburden.
7-80	Hardinsburg sandstone.
80-276½	Golconda limestone and shale.
276½-441	Cypress sandstone.
441-512	Paint Creek shale.
512-608	Bethel sandstone.
608-610½	Renault limestone.
610½-612	Fault zone.

(con't)

(con't)

612-619	Renault limestone.
619-637	Levias limestone.
637-655	Rosiclare sandstone.
655-842	Fredonia limestone; scattered traces of sphalerite, fluorite and galena.
842	Bottom.

Inclination -50°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-4

Depth in Feet	Lithology
0-6	Overburden.
6-72	Hardinsburg sandstone.
72-241	Golconda limestone and shale.
241-334	Cypress sandstone.
334-401	Paint Creek shale; faults at 334, 377, and 400 feet.
401-464	Bethel sandstone.
464-571	Renault limestone and shale; fault at 477 feet.
571-595	Levias limestone.
595-623	Rosiclare sandstone; traces fluorite at 603 feet.
623-805	Fredonia limestone; traces of fluorite at 751-752 and 790-793 feet.
805	Bottom.

Inclination -60°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-5

Depth in Feet	Lithology
0-13	Overburden.
13-60	Hardinsburg sandstone.
60-272	Golconda limestone and shale.
272-406	Cypress sandstone.
406-479	Paint Creek shale; faults at 445 and 450 feet; traces of sphalerite at 448 feet.
479-658	Bethel sandstone; barite veinlet at 570 feet and traces of galena at 607 and 629 feet.
658-682	Renault limestone and shale.
682-685	Fault zone.
685-783	Bethel sandstone; trace of fluorite at 690 feet.
783-912	Renault limestone and shale.
912	Bottom.

Inclination -45°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-6

Depth in Feet	Lithology
0-9	Overburden.
9-58	Hardinsburg sandstone.
58-226	Golconda limestone and shale.
226-336	Cypress sandstone.
336-384	Paint Creek shale.
384-385	Fault zone.
385-429	Bethel sandstone; traces of fluorite at 400, 406, and 415 feet.
429-545	Renault limestone and shale.
545-564	Levias limestone.
564-592	Rosiclare sandstone.
592-716	Fredonia limestone.
716	Bottom.

Inclination -59°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-7

Depth in Feet	Lithology
0-27	Overburden.
27-42	Glen Dean limestone.
42-149	Hardinsburg sandstone; faults at 89 and 115 feet.
149-280	Golconda limestone and shale.
280	Bottom.

Inclination -45°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-9

Depth in Feet	Lithology
0-13	Overburden.
13-179	Golconda limestone and shale.
179-286	Cypress sandstone.
286-370	Paint Creek shale.
370-471	Bethel sandstone.
471-599	Renault limestone and shale.
599-612	Levias limestone.
612-643½	Rosiclare sandstone.
643½-750	Fredonia limestone.
750	Bottom.

Inclination -60°
Bearing N.45°W.

SUMMARY LOG OF HOLE W-10

Depth in Feet	Lithology
0-10	Overburden.
10-25	Hardinsburg sandstone.
25-215	Golconda limestone and shale.
215-307	Cypress sandstone.
307-354	Paint Creek shale.
354-438	Bethel sandstone; traces of barite at 363 and 390 feet.
438-537½	Renault limestone and shale.
537½-567	Levias limestone.
567-596	Rosiclare sandstone; traces of fluorite at 578 feet.
596	Fault.
596-687	Fredonia limestone.
687	Bottom.

Inclination -60°
Bearing N.45°W.

SUMMARY OF HOLE W-11

Depth in Feet	Lithology
0-15	Overburden.
15-60	Golconda limestone and shale.
60-201	Cypress sandstone.
201-286	Paint Creek shale.
286-377	Bethel sandstone.
377-513	Renault limestone and shale.
513-530	Levias limestone.
530-544	Rosiclare sandstone.
544-673	Fredonia limestone.
673-674	Fault.
674-883	Fredonia limestone; traces of fluorite;(see assay).
883-905	Calcite vein with sphalerite, galena and fluorite; (see assays).
905-1023	Fredonia limestone; traces of fluorite; (see assays).
1023-1043½	Calcite vein with sphalerite, galena and fluorite; (see assays).
1043½-1105	St. Louis limestone.
1105	Bottom.

Inclination -45°
Bearing S.50°E.

SUMMARY LOG OF HOLE W-12

Depth in Feet	Lithology
0-15	Overburden.
15-95	Golconda limestone and shale.
95-227	Cypress sandstone.
227-314	Paint Creek shale.
314-399	Bethel sandstone.
399-518½	Renault limestone and shale.
518½-534	Levias limestone.
534-554	Rosiclare sandstone.
554-928½	Fredonia limestone; brecciated in places.
928½-942	Calcite vein with sphalerite, galena and fluorite; (see assays).
942-1019	Fredonia limestone.
1019-1036	Calcite vein with sphalerite, galena and fluorite; (see assays).
1036-1057	Fredonia limestone
1057-1115	St. Louis limestone; shines of sphalerite; (see assays).

Inclination -45°
Bearing S.45°E.

SUMMARY LOG OF HOLE W-13

Depth in Feet	Lithology
0-10	Overburden.
10-98	Golconda limestone and shale.
98-243	Cypress sandstone.
243-324	Paint Creek shale.
324-351	Bethel sandstone.
351-354	Fault zone with shines of fluorite and barite.
354-388	Bethel sandstone.
388-520½	Renault limestone and shale.
520½-534	Levias limestone.
534-561½	Rosiclare sandstone.
561½-722	Fredonia limestone.
722-749	Fault zone with high-grade fluorite, galena and sphalerite; (see assays).
749-764	Fault zone with high-grade fluorite and sphalerite; (see assays).
764-783	Fredonia limestone.
783-798	Fault zone with fluorite and sphalerite; (see assays).
798-873	Fredonia limestone.
873-888	Calcite vein.
888-912	Fredonia limestone.
912-952	St. Louis limestone.
952	Bottom.

Inclination -45°
Bearing S.45°E.

SUMMARY LOG OF HOLE W-14

Depth in Feet	Lithology
0-20	Overburden.
20-257	Golconda limestone and shale.
257-340	Cypress sandstone.
340-391	Paint Creek shale.
391-405	Fault zone.
405-496	Paint Creek shale.
496-578	Bethel sandstone.
578-709	Renault limestone; fault at 638 feet.
709-724	Levias limestone.
724-752	Rosiclare sandstone.
752-946	Fredonia limestone; traces of fluorite at 806, 823, 909, 929, and 940 feet.
946	Bottom.

Inclination -45°
Bearing S.45°E.

SUMMARY LOG OF HOLE W-15 *

Depth in Feet	Lithology
0-15	Overburden.
15-35	Hardinsburg sandstone.
35-260	Golconda limestone and shale.
260-406	Cypress sandstone; faults at 291½ and 303½ feet.
406-491½	Paint Creek shale.
491½-563½	Bethel sandstone.
563½-682	Renault limestone.
682-691	Fault zone.
691-712½	Levias limestone.
712½-732	Rosiclare sandstone.
732-950	Fredonia limestone; traces of fluorite at 923 and 927½-928 feet.
950-1105	St. Louis limestone; traces of fluorite at 965-967, 970-977, 1059, 1101 and 1104 feet.
1105	Bottom.

Inclination -44°
Bearing N.45°W.

*223 feet of this hole was drilled entirely at the Operator's expense.

ASSAYS OF HOLE W-11

Depth in Feet	%CaF_2	%Zn	%Pb
833-837½	7.98	0.42	0.026
883-888	0.81	0.74	0.29
888-893	0.16	0.16	0.055
893-898	0.07	1.51	0.030
898-903	0.23	0.49	0.020
903-905½	0.04	0.019	0.008
925-932	0.09	0.21	0.22
959-963	0.09	0.72	0.033
1023-1028	0.05	0.016	0.073
1028-1033	0.03	0.009	0.016
1033-1038	0.03	0.09	0.004
1038-1042	0.18	7.17	0.51

ASSAYS OF HOLE W-12

Depth in Feet	%CaF_2	%Zn	%Pb
932-936	0.23	18.35	3.62
936-942	1.59	4.63	2.12
1019-1021	0.10	6.30	0.36
1021-1024	0.49	14.39	2.22
1024-1027	0.03	1.24	1.37
1027-1031	0.03	6.81	0.99
1031-1036	0.05	0.43	0.34
1085-1086½	0.10	21.17	0.16
1093-1096½	0.08	13.35	0.33

Assays of Hole W-13

Depth in Feet	%CaF_2	%Zn	%Pb
722-730	3.11	0.032	0.025
730-734	50.21	0.06	2.94
734-742	78.10	2.27	3.81
742-747	41.94	6.15	4.28
747-752	43.34	3.89	4.38
752-757½	24.45	11.40	2.18
757½-764	57.63	8.11	8.82
783-787	48.23	9.04	1.29
787-790½	26.70	27.83	6.68
790½-794½	6.70	0.22	0.15
794½-798	78.08	1.40	1.85

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

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DATE	INITIALS	CODE
11-12	gad	VVO
11/12	[illegible]	800
		500

November 10, 1959

Mr. John M. Hague
Resident Geologist
The New Jersey Zinc Company
P.O. Box 252
Platteville, Wisconsin

Re: DMEA-4907, Idm-E1206- CaF_2
Project Two, Pope County,
Illinois

Dear Mr. Hague:

Enclosed is the Operator's copy of the Report of Review in lieu of a final audit on the Pope County exploration project. Upon receipt of this Report, we have forwarded your final voucher to the fiscal office of the Bureau of Mines for payment.

As we have only this one copy for the Operator, I am sending it to you rather than to your New York office.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Region V

RAL/sm
cc
Lynch
Files

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
11/3	gad	220
11/4	alt	500

NOV 3 1959

Memorandum

To: Executive Officer, OME Field Team, Region V

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

Subject: Docket No. DMEA-4907 (Fluorspar)
The New Jersey Zinc Company
Project II
Pope County, Illinois
Contract No. Idm-E1206

As requested by your October 21 memorandum a Report of Review, in lieu of a final audit of the referenced project, has been prepared. The original and three copies of the report with two supporting schedules are attached.

Please note the following differences in accepted costs as shown in this Report of Review in comparison with the units of work reported as accepted by the Field Team in your October 21 memorandum:

(1) Your memorandum states 167 core trays were used, whereas the Operator has claimed and the Certifying Officer has approved the allowable costs of 175 core boxes. Furthermore, invoices of the vendor (Bob Mitchell) indicate that the project was supplied with 181 core boxes at a cost of $670.50 (6 boxes and $145.50 in excess of the maximum allowable under the contract).

(2) Your memorandum confirms the approval of 30 hours of Stage II lost time, which is the same amount claimed by the Operator (apparently on the erroneous impression that the estimate of 30 hours is a contractual maximum). The March 1959 MF-104 indicates approval by the Certifying Officer of the costs of 22 hours of lost time at $6.00/hr., or $132.00, which agrees with the total shown on the driller's invoices through March. However, the invoice supporting the April MF-104 lists 5 hours of survey time and 12 hours of other delays, making an invoiced total of 39 hours lost time.

43683

If you concur with the facts as stated in this Report of Review, and specifically agree that the costs of 175 core boxes and 39 hours of lost time are acceptable, please make the normal distribution. If for any reason you do not concur please return the original and all copies of the report and attachments to this Division with your comments.

The original of the final (April 1959) MF-104, MF-104A, and supporting documents, together with the invoices covering previously paid vouchers, are being returned by certified mail to Mrs. Miller with a copy of this memorandum.

Attachments

EDTalbert/ama
November 3, 1959

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

Operating Committee

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O. M. E.
RECEIVED OCT 26 1959

DATE	INITIALS	CODE
10-26	gad	770
10/26	[illegible]	800
10/26	aet	500

October 21, 1959

Memorandum

To: Mr. E. L. Talbert, Acting Chief
Contract Administration & Audit Division, OME
Washington 25, D. C.

From: Acting Executive Officer, OME Field Team, Region V

Subject: Docket No. IFEA-4907 (Fluorspar)
New Jersey Zinc Company
Project II
Pope County, Illinois
Contract No. Idr-E1206

Work under the subject contract was terminated by Amendment No. 3, effective May 20, 1959.

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

Stage I -	Core drilling	6,517 feet
	Reaming	10 "
	Assays	3
	Hours cementing	71
	Core trays used	167
Stage II -	Core drilling	5,000 feet
	Reaming	160 "
	Assays	32
	Lost time approved	30 hours

An acceptable final engineering and geological report was received from the Operator on October 19, 1959.

DMEA-1907

A total of $16,634.17 has been paid to date to the Operator, $1,289.03 having been withheld pending final audit or review.

A Report of Review, in lieu of final audit, is in order and requested.

V. J. Lynch

VJL/mg
cc - Mr. E. D. Talbert
Operating Committee (2)
Finance Office
Mr. R. A. Laurence
Mr. V. J. Lynch
Mr. D. H. Ames

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

ROOM 11 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

October 21, 1959

OFFICIAL FILE COPY O. M. E. RECEIVED OCT 23 1959		
DATE	INITIALS	CODE
10-23	gad	220
10/24	[illegible]	800
10/26	alt	500

Memorandum

To: Operating Committee, OME, Washington 25, D. C.

From: Acting Executive Officer, OME Field Team, Region V

Subject: DMEA-4907, Contract No. Idm-E1206 (Fluorspar)
New Jersey Zinc Company
Project II, Pope County, Illinois

Enclosed are three copies of the final engineering and geological report on the subject contract.

V. J. Lynch

V. J. Lynch

Enclosures 3

COPIES FINAL REPORT

X 1088G 24M 1-54

OFFICIAL FILE COPY

DATE	INITIALS	CODE

THE NEW JERSEY ZINC COMPANY

O. M. E.
RECEIVED OCT 23 1959

EXPLORATION DEPARTMENT

P. O. Box 252
Platteville, Wisconsin
October 15, 1959

Mr. R. A. Laurence
Executive Officer, OME Field Team, Region V
Post Office Building
Knoxville 2, Tennessee

Final Report on DMEA 4907 - Contract Idm-E 1206
Pope County, Illinois

Dear Mr. Laurence:

Five copies are enclosed of the final report on our Project Two for fluorspar, zinc and lead in Pope County, Illinois. This report is intended to include a geological and engineering evaluation of the results of the work performed under the contract, an estimate of the "ore reserves", complete assay data, geological maps and sections, and a summary of the work performed and costs incurred; but the report does not exactly follow that sequence.

A narrative summary of all diamond drilling was included in the last monthly report dated April 23, 1959; this summary is repeated briefly in the introduction to the final report.

We hope to hear from you soon as to your findings for this project. If you require additional information, Mr. Weinberg or I will be glad to supply it. We have enjoyed the opportunity to work with your team and regret only that the results of the project have not been more encouraging.

Very truly yours,

John M. Hague

John M. Hague
Resident Geologist

JMH :geh
In quintuplicate 5
cc: Mr. W. H. Callahan
Mr. E. L. Weinberg
Wis. Ex. file

RECEIVED
OCT 19 1959

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O. M. E.
RECEIVED OCT 23 1959

DATE	INITIALS	CODE

FINAL REPORT

Project Two
Pope County, Illinois

DMEA 4907(Zn-Pb-CaF_2)
Contract No. Idm-E 1206

The New Jersey Zinc Company
Harrisburg, Illinois
August 1959

RECEIVED
OCT 19 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

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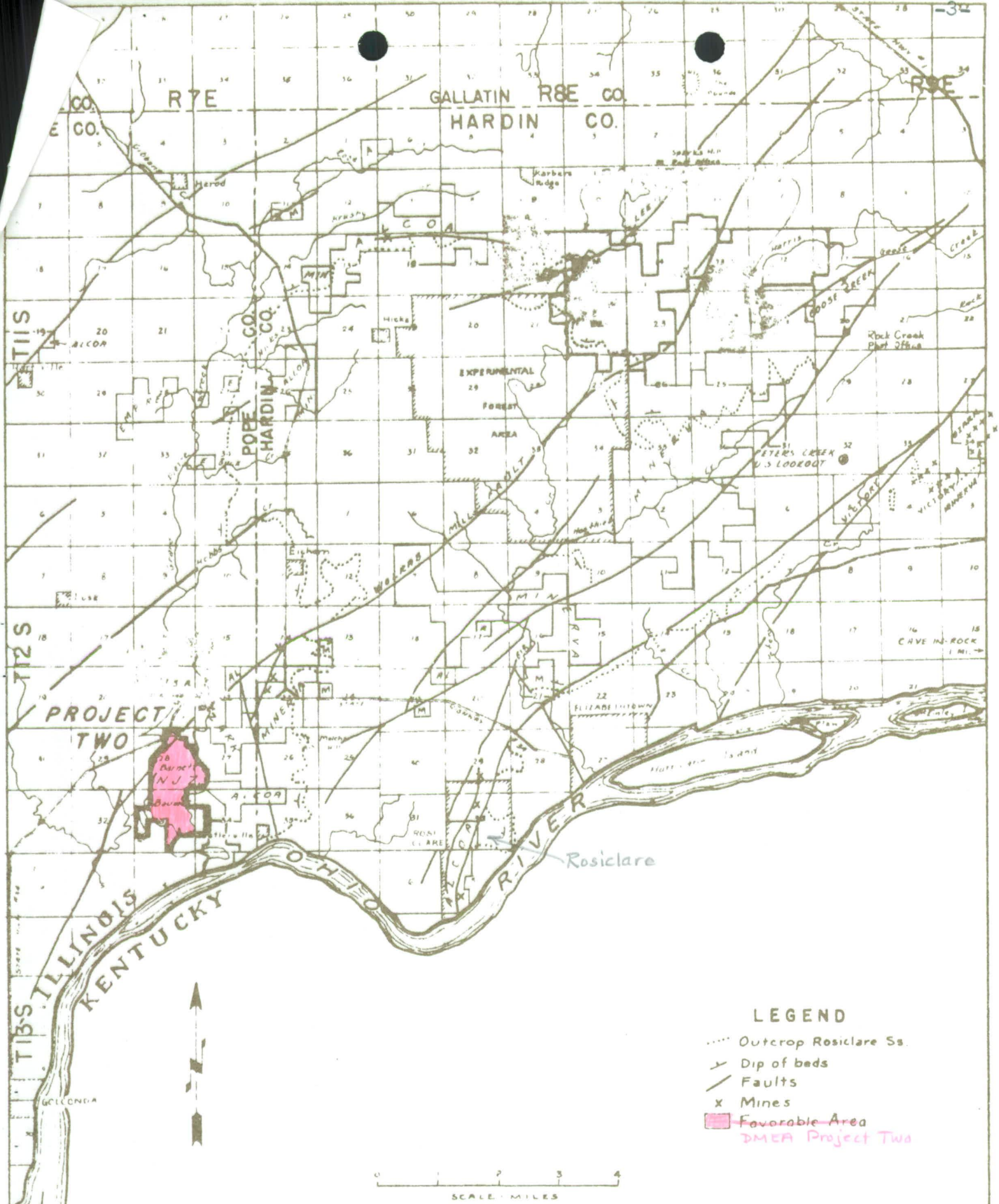
LIST OF ILLUSTRATIONS

Map No.	Title	Scale	Page
AX-ILL-46-C-A	Project II, Pope Co. Plan & longitudinal Section	1"= 200'	Pocket
AX-ILL-19	Index Map Southern Illinois Exploration	1"= 2 miles	3
AX-ILL-42-A-A	Section line 26, Hole W-4	1"= 200'	5
AX-ILL-43-A-A	Section line 34, Hole W-6	1"= 200'	6
AX-ILL-44-A-A	Section line 41, Holes W-7, 9, 10	1"= 200'	7
AX-ILL-45-A-A	Section line 48, Holes W-5, 8	1"= 200'	8
AX-ILL-47-A-A	Section line 16, Holes W-1, 2, 3, 11	1"= 200'	9



POSTED TO DATE 12/10/57 JMH 10/18/58 JMH 7/1/59 JMH	THE NEW JERSEY ZINC COMPANY HARRISBURG, ILLINOIS	DISTRICT ILLINOIS
DRAWN DATE 11-26-56 TRACED JMH SCALE 1" = 2MI	INDEX MAP Southern Illinois Exploration	FILE NO. AX - ILL - 19

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I Summary & Introduction

Summary

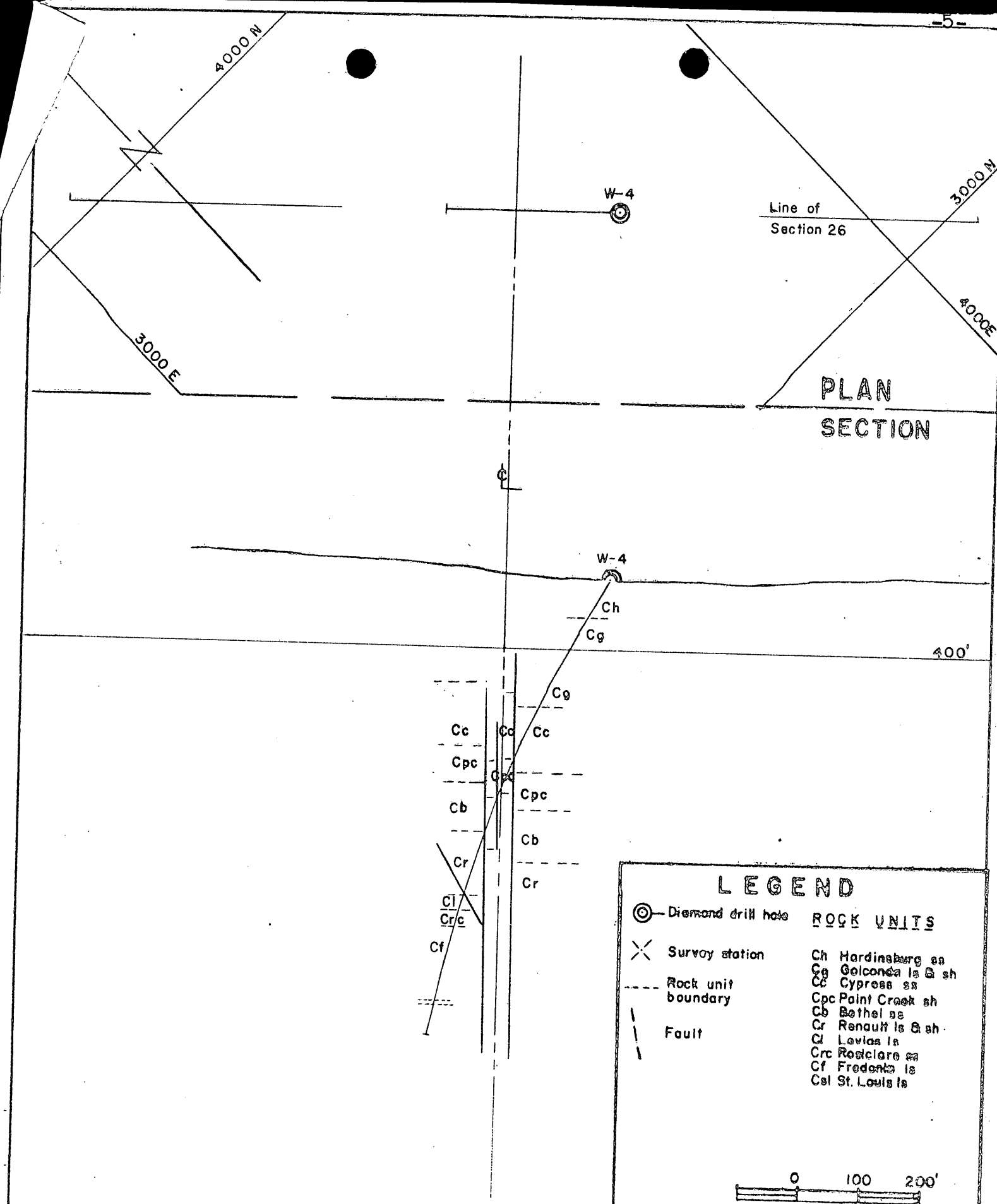
Drilling of fifteen holes on Project II, Pope County, Illinois, has indicated 46,750 tons of vein material assaying 17.93% fluorspar, 1.73% lead and 3.95% zinc. To this may be added 70,200 tons of inferred "ore" at the same grade. Costs and minimum tonnages are investigated for the mineralized body and the conclusion has been reached that extraction would be uneconomic.

Introduction

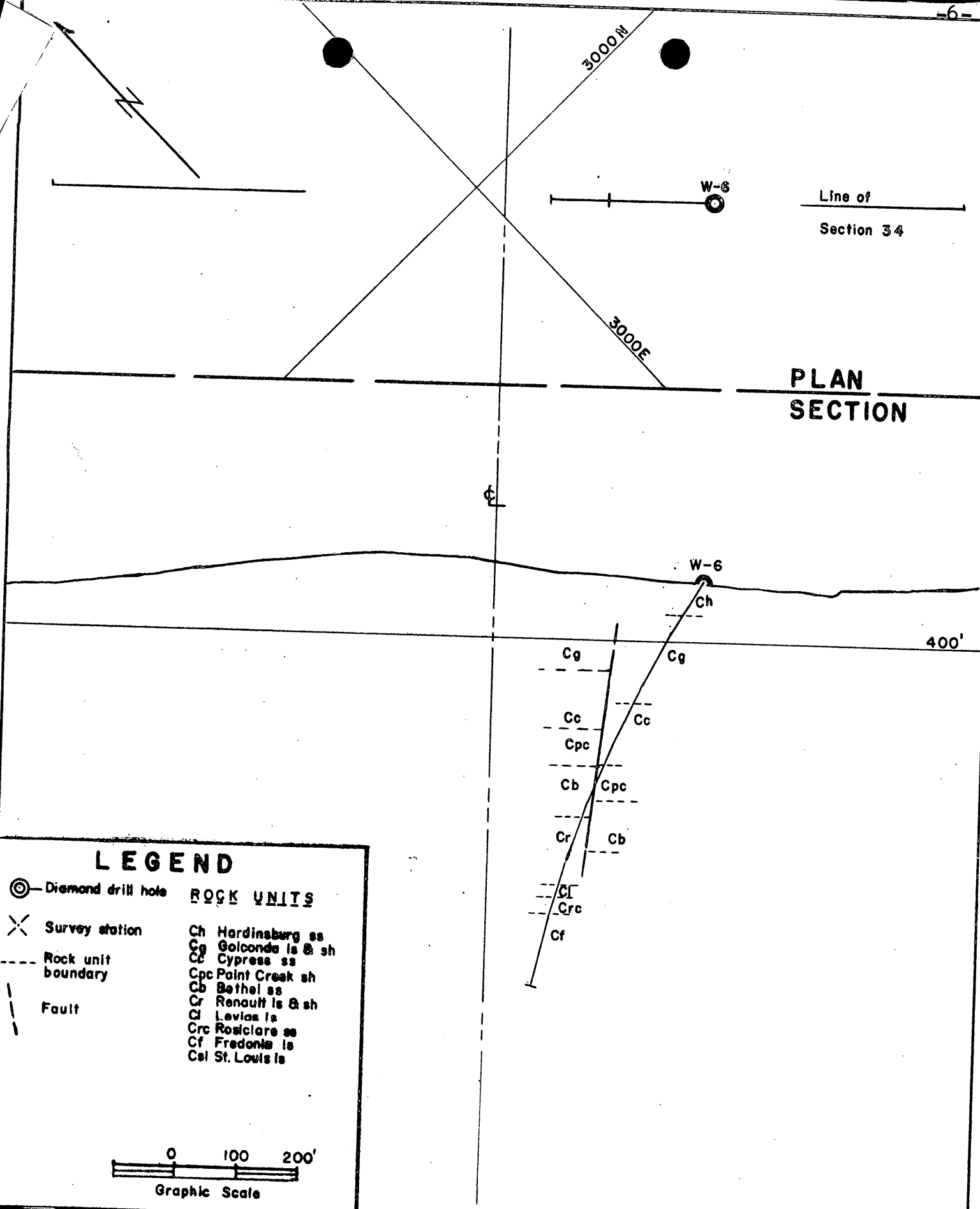
Project II is located in southeastern Illinois, in Pope County, approximately five miles west of Rosiclare (see index map AX-ILL-19).

Work was begun to clear the first drill hole site on August 11, 1958 and hole W-15, the last hole under DMEA supervision, was completed on April 4, 1959.

Drilling in holes W-1 thru W-15 aggregated 12,359 feet along a northeast-southwest distance of approximately 3,300 feet. Logs and sections for all the holes were submitted with the monthly vouchers and narrative reports. All holes following W-10 were surveyed for inclinations at various depths, and thereafter revised sections of some of the earlier holes were drafted showing average postulated "droops." Drawings AX-ILL-42 thru 45 and AX-ILL-47 have been included in this report to indicate this revised concept and to indicate the source of some of the data for the plan and longitudinal section of AX-ILL-46-C-A.



POSTED TO DATE	THE NEW JERSEY ZINC COMPANY HARRISBURG	DISTRICT ILLINOIS
DRAWN ELW DATE 7/20/59 TRACED SCALE 1"=200'	SECTION LINE 26, Project II, Pope County, Ill.	FILE NO. AX-ILL-42-A-A



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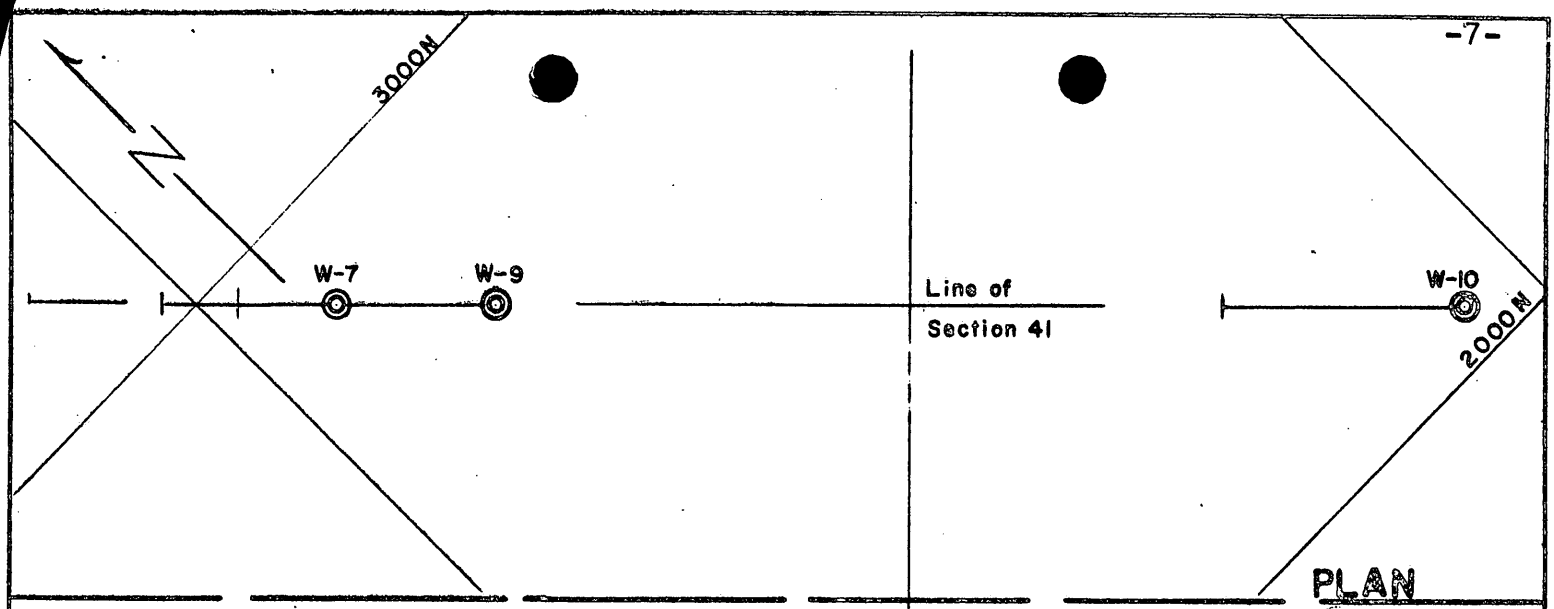
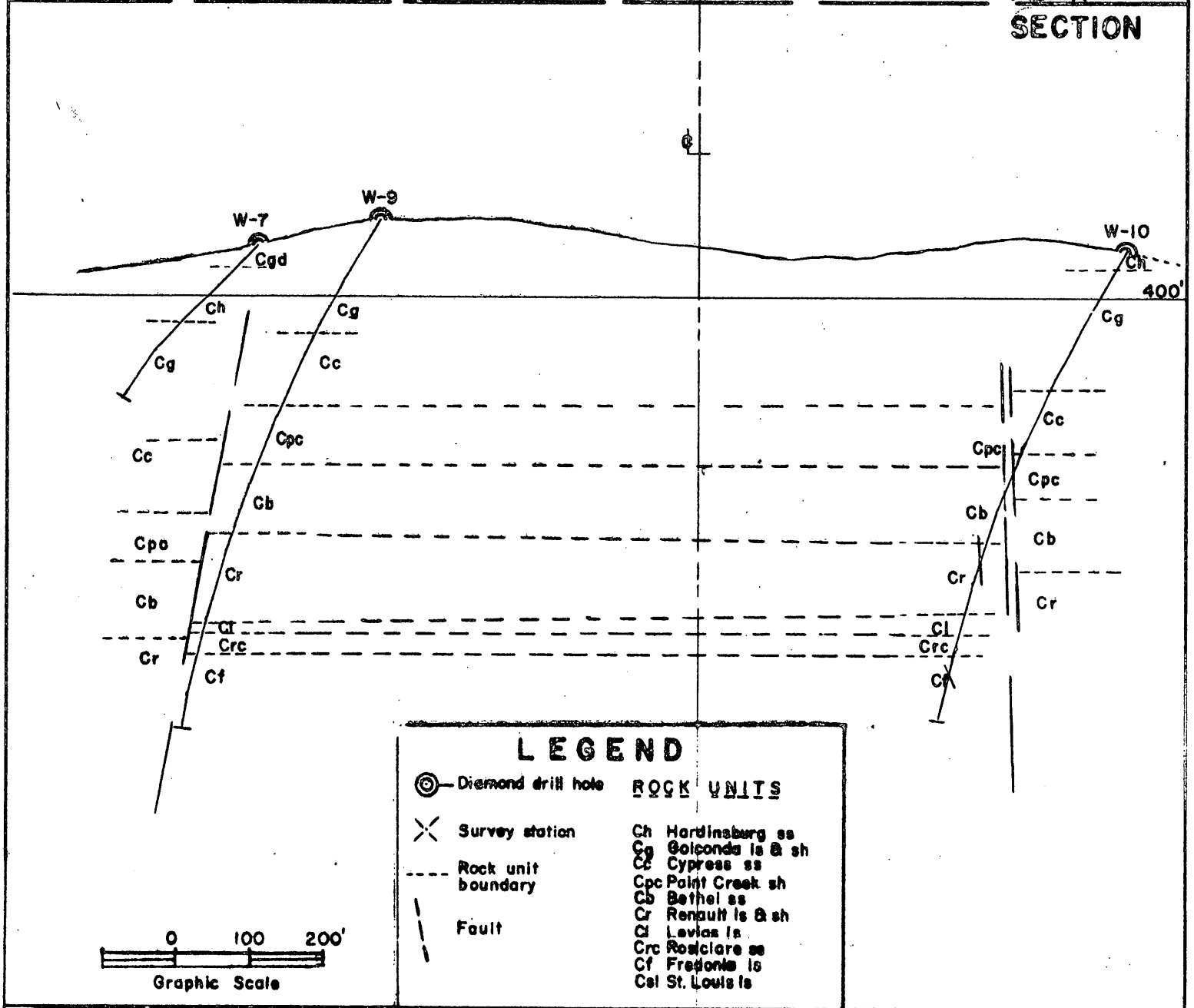
DRAWN ELW DATE 7/20/59 TRACED SCALE 1"=200'	SECTION LINE 34, Project II, Pope County, Ill.	FILE NO. AX-ILL-43-A-A

X 5407 C 1M 3-59



PLAN

SECTION



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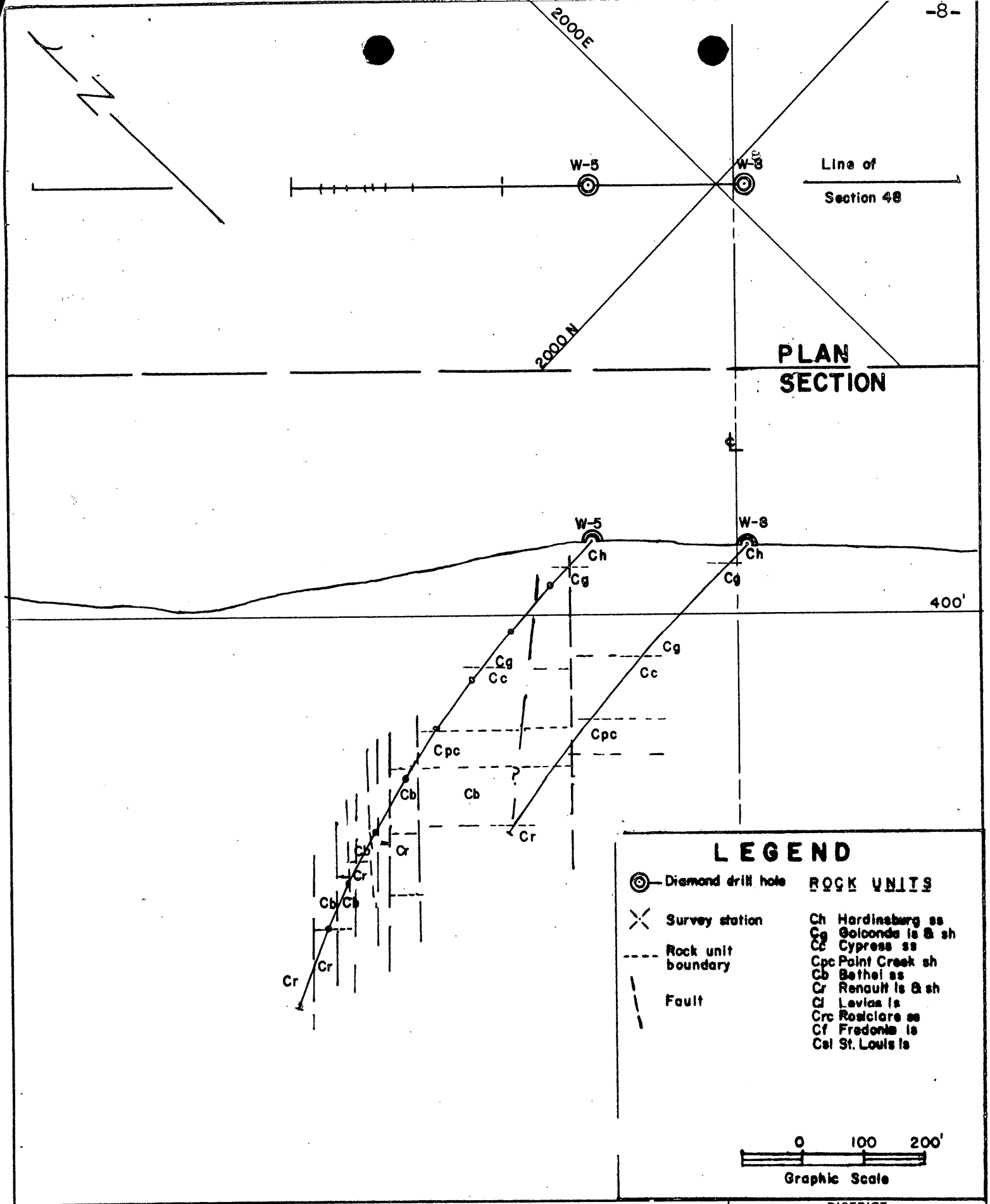
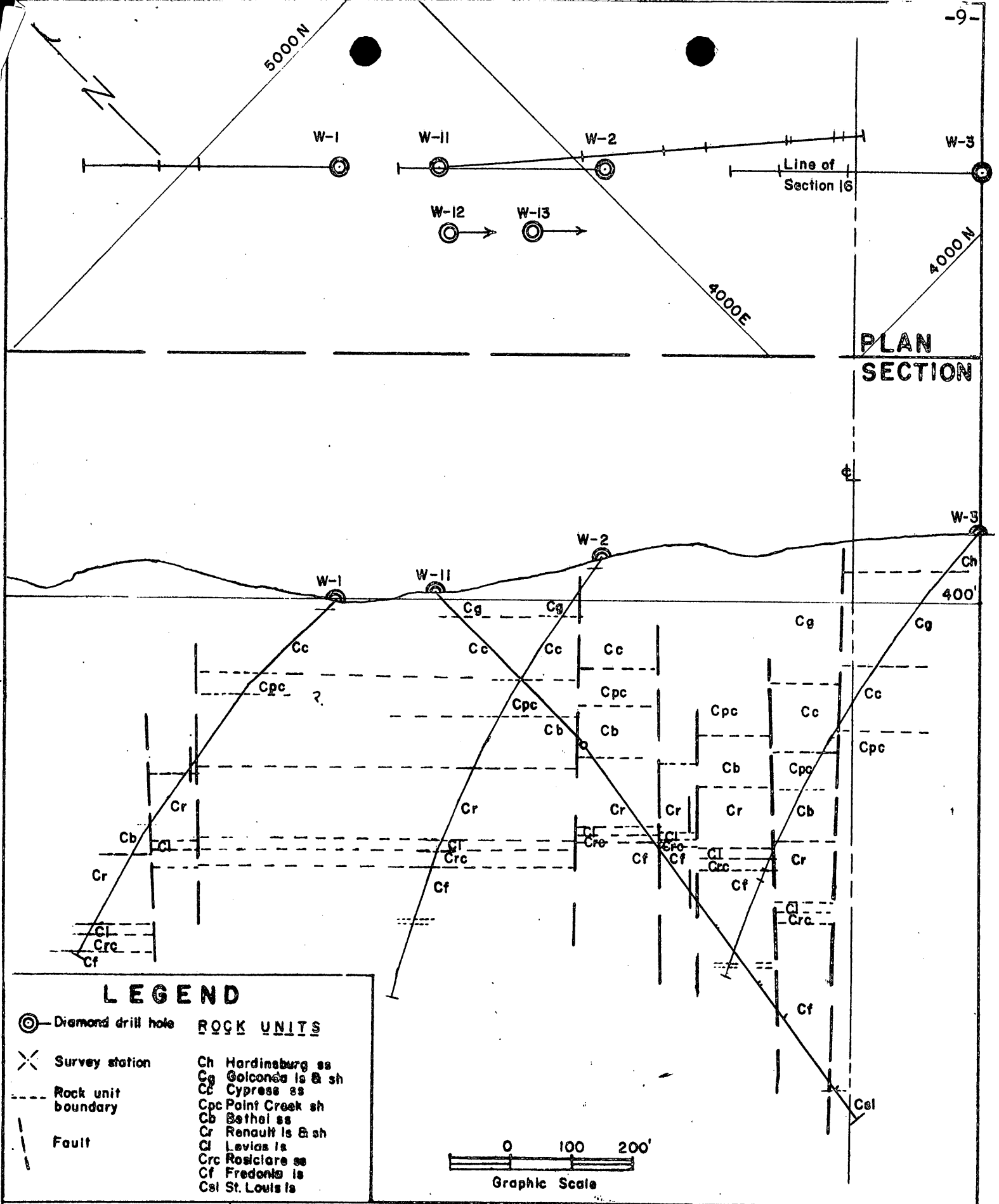
DRAWN ELW DATE 7/20/59 TRACED SCALE	SECTION LINE 41, Project II, Pope County, Ill.	FILE NO. AX-ILL-44-A-A

X 5407 C 1M 3-53



POSTED TO DATE	THE NEW JERSEY ZINC COMPANY HARRISBURG	DISTRICT ILLINOIS
DRAWN ELW DATE 7/20/59 TRACED SCALE 1"=200'	SECTION LINE 48, Project II, Pope County, Ill.	FILE NO. AX-ILL-45-A-A

X 5407 C 1M 3-53



POSTED TO DATE	THE NEW JERSEY ZINC COMPANY HARRISBURG	DISTRICT ILLINOIS
DRAWN E L W DATE 7/20/59 TRACED SCALE 1" = 200'	SECTION LINE 16, Project II, Pope County, Ill.	FILE NO. AX-ILL-47-A-A

X 5407 C 1M 8-53

II Data

Two categories of data are included herewith - The first, drilling costs, includes both actual costs and those chargeable to the program. The second, reserves, is calculated from assay and hole survey information.

A. Drilling Costs

(1) Summary.

Hole No.	Feet Overburden	Feet NX-BX	Feet BXWL	Feet Reamed	N.J.Zinc Cost	DMEA Contribution
W-1	20	10	691	--	2430.75	1182.97
W-2	20	56	728	--	2531.35	1227.30
W-3	7	85	750	--	2638.20	1290.27
W-4	7	26	772	--	2596.00	1233.47
W-5	13	21	878	--	3132.68	1459.32
W-6	9	21	686	--	2243.15	1061.12
W-7	27	38	215	--	939.65	372.77
W-8	12	27	580	--	1905.75	873.35 *
W-9	13	17	720	--	2341.70	1096.50
W-10	00	20	667	10	2161.85	1022.57
Stage I	128	321	6687		22,921.08	10,819.64
W-11	15	15	1075	--	3667.55	1702.37
W-12	15	25	1075	--	3698.65	1688.12
W-13	10	12	930	60	3401.07	1533.50
W-14	20	20	906	100	3451.56	1488.85
W-15	15	38	1052	--	3715.38	1289.02
Stage II	75	110	5038		17,934.21	7,701.86
Stages I and II					40,855.29	

* DMEA contribution not yet paid as status of hole still in question.

(2) Detailed Costs.

Drill Hole	Description of Work & Actual Costs		DMEA Contribution (50% of Chargeable Costs) rate	
W-1	Drilling			
Laura Baumer	OB 20'@2.95	59.00	@2.95	29.50
721'	NX 10'@2.95	29.50	@2.95	14.75
Stage I	AX691'@2.65	1831.15	@2.65	915.57
	Reaming --			
	Cementing 22 hrs@8.00	176.00	@8.00	88.00
	Incidental allowance 721'@0.30	216.30	@0.30	108.15
	Casing left in hole 10'BX@2.16	21.60	---	
	Cap --	4.50	---	
	Core boxes 18@4.25	76.50	@3.00	27.00
	Lost time or other 4 bags cement @4.05	16.20		
Sub total		2430.75		1182.97
Project total thru W-1		2430.75		1182.97

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs		DMEA Contribution (50% of Chargeable Costs)	
W-2				
R.S.Barnett	Drilling		rate	
804'	OB 20'@2.95	59.00	@2.95	29.50
Stage I	NX 56'@2.95	165.20	@2.95	82.60
	AX 728'@2.65	1929.20	@2.65	964.60
	Reaming			
	Cementing			
	Incidental allowance			
	804'@0.30	241.20	@0.30	120.60
	Casing left in hole			
	20' BX@2.16	43.20	----	
	Cap			
		4.50	----	
	Core boxes			
	20 @4.25	85.00	@3.00	30.00
	Lost time, etc.			
	1 bag cement@4.05	4.05		
Sub total		2531.35		1227.30
Project total thru W-2		4962.10		2410.27
W-3	Drilling		rate	
R.S.Barnett	OB 7'@2.95	20.65	@2.95	10.32
842'	NX 85'@2.95	250.75	@2.95	123.90
Stage I	AX 750'@2.65	1987.50	@2.65	993.75
	Reaming			
	Cementing			
	Incidental allowance			
	842'@0.30	252.60	@0.30	126.30
	Casing left in hole			
	10' BX @2.16	21.60		
	Cap			
		8.10		
	Core boxes			
	20 @4.25	85.00	@3.00	30.00
	Lost time, etc.			
	Assays			
	2 @6.00	12.00	@6.00	6.00
Sub total		2638.20		1290.27
Project total thru W-3		7600.30		3700.54

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-4	Drilling			rate	
W.T.O'Roark	OB 7'	@2.95	20.65	@2.95	10.32
805'	NX 26'	@2.95	76.70	@2.95	-----(over
Stage I	AX 772'	@2.65	2045.80	@2.65	1022.90 limit)
	Reaming			@1.75	
	Cementing				
	12 hrs	@8.00	96.00	@8.00	48.00
	Incidental allowance				
	805'	@0.30	241.50	@0.30	120.75
	Casing left in hole				
	10' BX	@2.16	21.60		
	Cap		4.50		
	Core boxes				
	21	@4.25	89.25	@3.00	31.50
	Lost time, etc.				
	--				
	Assays				
	--	@6.00		@6.00	
Sub total			2596.00		1233.47
Project total thru W-4			10196.30		4934.01
W-5	Drilling				
R.S.Barnett	OB 13'	@2.95	38.35	@2.95	19.17
912'	NX 21'	@2.95	61.95	@2.95	over limit
Stage I	AX 878'	@2.65	2326.70	@2.65	1163.35
	Reaming				
	Cementing				
	37 hrs	@8.00	296.00	@8.00	104.00 (11 hrs non-chargeable)
	Incidental allowance				
	912'	@0.30	273.60	@0.30	136.80
	Casing left in hole				
	13' BX	@2.16	28.08		
	Cap		6.00		
	Core boxes				
	24	@4.25	102.00	@3.00	36.00
	Lost time, etc.				
	Assays				
Sub total			3132.68		1459.32
Project total thru W-5			13,328.98		6,393.33

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-6	Drilling			rate	
W.T.O'Roark	OB 9'	@2.95	26.55	@2.95	13.27
716'	NX 21'	@2.95	61.95	@2.95	over limit
Stage I	AX 686'	@2.65	1817.90	@2.65	908.95
	Reaming				
	Cementing				
	Incidental allowance				
	716'	@0.30	214.80	@0.30	107.40
	Casing left in hole				
	10'NX	@2.92	29.20		
	Cap				
			6.00		
	Core boxes				
	19	@4.25	80.75	@3.00	28.50
	Lost time, etc.				
	Assays				
	1	@6.00	6.00	@6.00	3.00
Sub total			2,243.15		1,061.12
Project total thru W-6			15,572.13		7,454.45
W-7	Drilling			rate	
R.S.Barnett	OB 27'	@2.95	79.65	@2.95	35.40 (3' non-
280'	NX 38'	@2.95	112.10	@2.95	chargeable)
Stage I	AX 215'	@2.65	569.75	@2.65	284.87
	Reaming				
	Cementing				
	Incidental allowance				
	280'	@0.30	84.00	@0.30	42.00
	Casing left in hole				
	20' NX	@2.92	58.40		
	Cap				
			6.00		
	Core boxes				
	7	@4.25	29.75	@3.00	10.50
	Lost time, etc.				
	Assays				
Sub total			939.65		372.77
Project total thru W-7			16,511.78		7,827.22

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-8	Drilling			rate	
R.S.Barnett	OB 12'	@2.95	35.40	@2.95	over limit
619'	NX 27'	@2.95	79.65	@2.95	over limit
Stage I	AX 580'	@2.65	1537.00	@2.65	768.50
	Reaming				
	Cementing				
	Incidental allowance				
	619'	@0.30	185.70	@0.30	92.85
	Casing left in hole				
	Cap				
	Core boxes				
	16	@4.25	68.00	@3.00	12.00 (only 8 charged)
	Lost time				
	Assays				
Sub total			1,905.75		873.35
Project total thru W-8			18,417.53		8,700.57
W-9	Drilling			rate	
R.S.Barnett	OB 13'	@2.95	38.35	@2.95	over limit
750'	NX 17'	@2.95	50.15	@2.95	over limit
Stage I	AX 720'	@2.65	1908.00	@2.65	954.00
	Reaming				
	Cementing				
	Incidental allowance				
	750'	@0.30	225.00	@0.30	112.50
	Casing left in hole				
	10' NX	@2.92	29.20		
	Cap				
			6.00		
	Core boxes				
	20	@4.25	85.00	@3.00	30.00
	Lost time, etc.				
	Assays				
Sub total			2,341.70		1,096.50
Project total thru W-9			20,759.23		9,797.07

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-10	Drilling			rate	
Laura Baumer	OB	0' @2.95	-----	@2.95	over limit
687'	NX	20' @2.95	59.00	@2.95	over limit
Stage I	AX	667' @2.65	1767.55	@2.65	883.77
	Reaming	10' @1.75	17.50	@1.75	8.75
	Cementing				
	Incidental allowance	687' @0.30	206.10	@0.30	103.05
	Casing left in hole	10' NX @2.92	29.20		
	Cap		6.00		
	Core boxes	18 @4.25	76.50	@3.00	27.00
	Lost time, etc.				
	Assays				
Sub total			2,161.85		1,022.57
Project total thru W-10			22,921.08		10,819.64
W-11	Drilling			rate	
R.S.Barnett	OB	15' @2.95	44.25	@2.95	22.12
1105'	NX	15' @2.95	44.25	@2.95	22.13
Stage II	AX	820' @2.65	2173.00	@2.65	1424.37
	AX	255' @3.00	765.00		
	Reaming			@1.75	---
	Cementing			@8.00	---
	Incidental allowance	1105' @0.30	331.50	@0.30	165.75
	Casing left in hole	30' BX @2.16	64.80		
	Cap		6.00		
	Core boxes	29 @4.25	123.25		
	Lost time, etc.				
		3 hrs @4.50	13.50		
		5 hrs @6.00	30.00	@8.00	32.00
	Assays	12 @6.00	72.00	@6.00	36.00
Sub total			3,667.55		1,702.37
Project total thru W-11			26,588.63		12,522.01

(2) Detailed Costs continued

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-12	Drilling			rate	
R.S.Barnett	OB 15'	@2.95	44.25	@2.95	22.12
1115'	NX 25'	@2.95	73.75	@2.95	36.88
Stage II	AX 810'	@2.65	2146.50	@2.65	1424.37
	AX 265'	@3.00	795.00		
	Reaming			@1.75	---
	Cementing			@8.00	---
	Incidental allowance				
	1115'	@0.30	334.50	@0.30	167.25
	Casing left in hole				
	40' BX	@2.16	86.40		
	Cap				
			6.00		
	Core boxes				
	27	@4.25	114.75		
	Lost time, etc.				
	3½ hrs	@6.00	21.00	@6.00	10.50
	5 hrs	@4.50	22.50	(only 3½ hrs allowed)	
	Assays 9	@6.00	54.00	@6.00	27.00
Sub total			3,698.65		1,688.12
Project total thru W-12			30,287.28		14,210.13

W-13	Drilling			rate	
R.S.Barnett	OB 10'	@2.95	29.50	@2.95	14.75
952'	NX 12'	@2.95	35.40	@2.95	17.70
Stage II	AX 828'	@2.65	2194.20	@2.65	1232.25
	AX 102'	@3.00	306.00		
	Reaming				
	60'	@1.75	105.00	@1.75	52.50
	Cementing				
	Incidental allowance				
	952'	@0.30	285.60	@0.30	142.80
	Casing left in hole				
	82' BX	@2.16	177.12		
	Cap				
			6.00		
	Core boxes				
	25	@4.25	106.25		
	Lost time, etc.				
	7½ hrs	@6.00	45.00	(only 13½ hrs allowed)	
	10 hrs	@4.50	45.00	13½@6.00	40.50
	Assays				
	11	@6.00	66.00	@6.00	33.00
Sub total			3,401.07		1,533.50
Project total thru W-13			33,688.35		15,743.63

(2) Detailed Costs concluded

Drill Hole	Description of Work & Actual Costs			DMEA Contribution (50% of Chargeable Costs)	
W-14	Drilling			rate	
R.S.Barnett	OB 20'	@2.95	59.00	@2.95	29.50
946'	NX 20'	@2.95	59.00	@2.95	29.50
Stage II	AX 810'	@2.65	2146.50 }	@2.65	1200.45
	AX 96'	@3.00	288.00 }	@	
	Reaming				
	100'	@1.75	175.00	@1.75	87.50
	Cementing				
	Incidental allowance				
	946'	@0.30	283.80	@0.30	141.90
	Casing left in hole				
	136'	@2.16	293.76		
	Cap				
			6.00		
	Core boxes				
	23	@4.25	97.75		
	Lost time, etc.				
	6 hrs	@6.00	36.00	@8.00	over limit
	1½ hrs	@4.50	6.75		
	Assays				
	0	@6.00	---	@6.00	---
Sub total			3,151.56		1,488.85
Project total thru W-14			37,139.91		17,232.48

W-15	Drilling			rate	
R.S.Barnett	OB 15'	@2.95	44.25	@2.95	22.12
1105'	NX 38'	@2.95	112.10	@2.95	56.05
Stage II	AX 797'	@2.65	2112.05 }	@2.65	1078.55 (238'
	AX 255'	@3.00	765.00 }		non-chargeable)
	Reaming			@1.75	---
	Cementing			@8.00	---
	Incidental allowance				
	1105'	@0.30	331.50	@0.30	132.30 (223'
	Casing left in hole				non-chargeable)
	53' BX	@2.16	114.48		
	Cap				
			6.00		
	Core boxes				
	28	@4.25	119.00		
	Lost time, etc				
	12 hrs	@6.00	72.00		non-chargeable
	5 hrs	@6.00	30.00		
	2 hrs	@4.50	9.00		
Sub total			3,715.38		1,289.02
Project total thru W-15			40,855.29		18,521.50

B. Reserves

1. Assays

Herewith are listed all assays from holes W-1 thru W-15.

Hole No.	Footage	CaF_2%	Pb%	Zn%
W-3	728 - 729	1.95	0.01	0.10
	729 - 736	2.71	0.31	0.16
	*728 - 736	2.62	0.27	0.18
W-6	704 - 704½	4.18	----	----
W-11	833 - 837½	7.98	0.026	0.42
	883 - 888	0.81	0.29	0.74
	888 - 893	0.16	0.055	0.16
	893 - 898	0.07	0.03	1.51
	898 - 903	0.23	0.02	0.49
	903 - 905½	0.04	0.008	0.019
	*883 - 903	0.32	0.10	0.73
	925 - 932	0.09	0.22	0.21
	959 - 963	0.09	0.033	0.72
	1023 -1028	0.05	0.073	0.016
	1028 -1033	0.03	0.016	0.009
	1033 -1038	0.03	0.004	0.09
	1038 -1042	0.18	0.51	7.17
	*1023 -1042	0.07	0.13	1.54
W-12	932 - 936	0.23	3.62	18.35
	936 - 942	1.59	2.12	4.63
	* 932 - 942	1.05	2.72	10.12
	1019 -1021	0.10	0.36	6.30
	1021 -1024	0.49	2.22	14.39
	1024 -1027	0.03	1.37	1.24
	1027 -1031	----	0.99	6.81
	*1019 -1031	0.15	1.29	7.23
	1031 -1036	0.05	0.34	0.43
	1085 -1086½	0.10	0.16	21.17
	1093 -1096½	0.08	0.33	13.35
W-13	722 - 730	3.11	---	0.032
	730 - 734	50.21	2.94	0.06
	734 - 742	78.10	3.81	2.27
	742 - 747	41.94	4.28	6.15
	747 - 752	43.34	4.38	3.89
	752 - 757½	24.45	2.18	11.40
	757½- 764	57.63	8.82	8.11
	* 730 - 764	51.80	4.55	5.41
	783 - 787	48.23	1.29	9.04
	787 - 790½	26.70	6.68	27.83
	790½- 794½	6.70	0.15	0.22
	794½- 798	78.08	1.85	1.40
	*783 - 798	39.10	2.37	9.29

* weighted average

2. Indicated Reserves

A plan and longitudinal section, AX-ILL-46-C-A is attached which includes the area of the Project II drilling. The vertical section was drawn parallel to our center line of survey, although it is evident that the vein strikes more northerly than the N 45° E direction of the line of section. Points in the holes were projected to the section if they were within 100 feet of the plane of section. Intersections of the holes and the plane of section are shown by large circles.

Two and possibly three parallel veins were penetrated by holes W-3, 11, 12 and 13 and these veins have been labelled "1", "2" and "3" proceeding from northwest to southeast. Vein "1" is continuous between holes W-11, 12 and 13. Vein "2" is intersected by holes W-11, 12 and 13. Vein "3" only appears in hole W-13.

The formations shown are in their approximate position on the hanging wall of vein "1" and the contacts are displaced downward for the hanging walls of veins "2" and "3".

The following assumptions have been made in calculating reserve tonnages:

(1) Each vein penetration has been assumed to spread laterally at least 5 feet for each foot of vein

thickness. On the longitudinal section, this area of influence is shown as a broken circle and the bounding lines of the various tonnage blocks are drawn tangent to these circles rather than directly to the middle of the vein penetrations.

(2) The blocks are bounded by lines joining vein penetrations or by formational contacts. To be classified as indicated ore a block must include vein penetrations at each of at least three apices. Block~~s~~ I ~~and II are~~ is indicated "ore" in vein "1" and block ~~IV~~ II is indicated ore in vein "2".

(3) Assays and widths for each block are simple averages of the assays and widths of the bounding penetrations.

(4) The composite assay is weighted according to the volume of each of the contributory blocks.

(5) A tonnage factor of 11 is used, based on information supplied by Alcoa geologists from their "Blue Diggings" vein.

(6) The final tonnage is multiplied by 2/3 to allow for horses and pillars in the mining operation and to conform with district experience in continuity of mineralized zones.

Block I on vein 1 is penetrated by holes W-12, W-13 and W-11. Hole W-3 crosses vein 1 high in the section, in the Renault formation where the fault is barren. The average width of Block I is 15.4 feet; its average assay is 22.43% fluorspar, 4.28% zinc and 2.10% lead. The area of Block I projected to the longitudinal section is 39,600 sq. ft., hence the volume is 609,840 cu. ft. and the mass 55,440 tons.

Block II on vein 2 is penetrated by holes W-11, 12 and 13. Its average width is 7.9 feet; its average assay is 0.86% fluorspar, 2.72% zinc and 0.36% lead. The area of Block II is computed as 20,400 sq. ft., hence the volume is 161,160 cu. ft. and the mass 14,650 tons.

Blocks I and II combine to give a mass of 70,090 tons with a weighted assay of 17.93% fluorspar, 3.95% zinc and 1.73% lead. If this mass is reduced one-third to allow for "horses" and pillars, the net mass is 46,750 tons of indicated vein material.

3. Inferred Reserves

Tonnage additional to that indicated may be inferred because mineralization appears to occur along the Rosiclare and Saint Louis contacts. The vertical stratigraphic interval over which a vein is productive is fairly predictable in the district after the local limits have been determined.

Therefore, the interval between the top of the Rosiclare and the top of the St. Louis has been filled out by adding Block III on vein 1 and Block IV on vein 2 for inferred reserves outside of the indicated blocks. If Blocks III and IV are given the same average widths and assays as Blocks I and II respectively, they may be calculated as follows:

Block III average thickness 15.4 feet, area 43,600 sq. ft., volume 671,440 cu. ft., mass 61,040 tons.

Block IV average thickness 7.9 feet, area 61,600 sq. ft., volume 486,640 cu. ft., mass 44,240 tons.

Reduced inferred tonnage 105,280 x 2/3 = 70,200 tons

III Analysis

Exploration costs (incl. DMEA share):	$40,855.29
Capital costs:	
Shaft sinking 1100 ft. @ $200	$220,000
Hoisting equipment	100,000
Surface plant	75,000
Mining equipment	150,000
	$545,000

Estimated cost per ton for a 100,000 ton ore body:

Exploration	$ 0.46
Capital	4.30
Royalty	0.26
Mining	7.00
Transportation	1.50
Cost per ton	$13.52

The last three items ($8.76) are fixed regardless of tonnage. The first two items will decrease as tonnage increases. A minimum cost for any tonnage is $8.76.

Returns (Based upon an average mill schedule, as of July 1959, supplied by a large local producer)

Fluorspar	No quotation below 30%	$ --
Zinc	3.93 -1.00 x 0.80	2.36
Lead	1.73 -0.50 x 1.00	1.23
	Value per ton	$3.59

Summary	Total development and mining costs	$13.52
	Total value of ore at mine	3.59
	Net loss	$ 9.93

No profit can be anticipated from this operation as the grade of the combined mineralization is too low.

E. L. Weinberg

E. L. Weinberg

ELW/rms

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 12, TENN.

October 12, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 14 1959

DATE	INITIALS	CODE
10/14	RCW	225
10/14	[illegible]	800
10/15	alt	500

Mr. E. L. Weinburg
The New Jersey Zinc Co.
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206
Project Two
Pope County, Illinois
(Fluorspar, lead, zinc)

Dear Mr. Weinburg:

As we are anxious to close our files on the subject project, we would appreciate receiving your final engineering and geologic report as soon as possible.

We are still holding the final (April 1959) voucher in suspense, and cannot process it for payment until the final report is received.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Region V

RAL/sm
cc
Opr. Com-2
Amos
Lynch
Files

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9/23	[illegible]	500
	[illegible]	500
9-25	Rcd on leave	130
		~~100~~
9-28	gad	220
		500

SEP 25 1959

Memorandum

To: Executive Officer, OME Field Team, Region V

From: ACTING Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4907 (Fluorspar)
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

As the cited contract by Amendment No. 5 was terminated on May 20, 1959, we are anxious to close our files on this project. Please advise us as to when we may expect to receive the final Field Team report, and also the Operator's final report. The last correspondence in our files, dated August 6, is your letter to the Operator requesting its final engineering and geologic report.

/s/ Frank E. Johnson

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Harold Kirkemo
Member, Geological Survey

cc: Docket
Director's Reading File
Operating Committee
Harold Kirkemo, USGS
R. B. McDougal, USBM
Chron.

JWAlt/GMcC
September 23, 1959

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

August 6, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 10 1959

DATE	INITIALS	CODE
8-10	gad	210
8/10	[illegible]	800
"	alf	500

Mr. E. L. Weinberg
Resident Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907(Zn-Pb-CaF_2)
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Weinberg:

We are still holding the final voucher on this project, as we cannot process it until we receive your final engineering and geologic report.

Please let me have this report at your earliest convenience, so that we may request a final audit and process your final voucher.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, Region V

RAL/mm
cc
Opr. Com-2
Lynch
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 29 1959

DATE	INITIALS	CODE
4/29	G	220
4/30	[illegible]	800
5/4	[illegible]	500

April 27, 1959

Mr. E. L. Weinberg
Resident Geologist
The New Jersey Zinc Co.
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907 (zinc-lead CaF_2)
Project Two,
Pope County, Illinois
Idm-E1206

Dear Mr. Weinberg:

Your final voucher and narrative monthly report for the subject project have been received.

Because our regulations require receipt of the Operator's final engineering and geologic report before payment of the final voucher, we will have to hold this here until the final report is received.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, REgion V

RAL/zm
cc:
Opr; Com-2
Lynch

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 26, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 30 1959

DATE	INITIALS	CODE
3/30	C	220
		600

Mr. W. L. Weinberg, Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206
The New Jersey Zinc Co.
Project II, Pope County,
Illinois (Fluorspar)

Dear Mr. Weinburg:

This will confirm the verbal approval given by Mr. Dewey Amos to drill Hole No. W-15, 300 feet S67°E from the collar of Hole No. W-3. The hole is to be drilled in a N45°W direction and inclined -45°.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, Region V

VJL/sm
cc
Opr. Com-2
Lynch
Amos
Burmeister
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 17, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 19 1959

DATE	INITIALS	CODE
3-19	C	220
3/25	Hook	600

Memorandum

To: Operating Committee, OME, Washington 25, ~~D. C.~~

From: Field Team, OME, Region V, Knoxville, Tennessee

Subject: DMEA-4907, Idm-E1206 (Fluorspar, lead, zinc)
The New Jersey Zinc Company, New York, N. Y.
Project Two, Pope County, Illinois

Enclosed are two copies of a letter from Mr. Amos, commenting on your letter of March 2, 1959.

As pointed out in our earlier memo, this type of difficulty is bound to result from infrequent inspections but as both personnel and funds for adequate inspection visits are unavailable for more than one visit per month, proper control and reporting are impossible.

Please note Mr. Amos' fourth paragraph concerning the dates of beginning and completion. There is, of course, no way now to establish exact dates with certainty.

It should be pointed out that there would be no reason for New Jersey Zinc Company to attempt to mislead us about the reason for loss of hole W-8. If, as you have suggested, the hole had been lost without any decision to call it complete at 619 feet, New Jersey Zinc could have refused payment to the drilling contractor.

It is our opinion that Mr. Amos and the Operator's geologists made a bona fide decision to complete hole W-8 at 619 feet; on the basis of later information they decided to deepen the hole. Thus it seems to us that the commitment should be followed, and the hole be completed at 619 feet. Any other course of action leaves the field men in a completely untenable situation

and would require them to obtain confirmation before making any decisions in the field.

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch
Member, Bureau of Mines

Enclosures 2

SOUTHERN ILLINOIS UNIVERSITY
CARBONDALE, ILLINOIS
Geology Department
March 12, 1959

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

Mr. Robert A. Laurence
United States Geological Survey
Knoxville, Tenneessee

Re: DMEA - 4907

Dear Mr. Laurence:

Refer to the letter from the Operating Committee; dated March 2, 1959, concerning the subject contract.

It's hard to know how to answer such a letter because so much is out of context and so many errors appear.

The main geologic control in this part of the district is structure; not stratigraphy. Thus, the prime target is normal faults of moderate displacement. Ore bodies may occur, and do, at any stratigraphic horizon. They are somewhat more common at the Fredonia limestone horizon.

The letter (page 5) has hit on part of the mix-up. Some of the dates given in the Operator's reports are in error. I don't know the correct dates as that would have required a daily inspection. To the best of my knowledge Hole W-8 was started before W-5 was bottomed, even though the Operator's reports indicate otherwise.

Note that Bing and I had the drill on W-8 to stop drilling on December 5, and to stand-by until December 30th. This was obviously, done in order to obtain geologic information from holes in progress in the vicinity of W-8. When W-8 was started it was not known that Fault E was southeast of W-8 as the letter from the O.C. maintains. It was not definitely known that Fault E was southeast of W-8 until W-10 was bottomed (about December 19). Of course, Mr. Hague could say on December 31 that Fault E was southeast of W-8 -- the basis for which the O.C. claims Bing and I knew that Fault E was southeast of W-8, a hole started about November 19. Admitted, Bing and I suspected from results of W-4 & W-6 that Fault E was southeast of the position shown on the contract map in the vicinity of W-8, although not nearly as far southeast as W-10 subsequently proved it to be. Also, prior to drilling W-8 Bring and I considered the possibility that Fault E branched (common in district) southwestward from W-3 along strike with one branch located as shown on the contract map and the other subparallel and to the southeast.

March 12, 1959

Mr. Laurence -

The mineralization encountered near the bottom of W-5 was never regarded by Bing, Weinberg or I as of major importance. Mr. Hague was the only person who was enthused by results of W-5. It should be pointed out that Mr. Hague is not familiar with the district and thus, not much weight should be placed on his opinions.

Several errors occur in the O.C.'s letter, some of which are as follows:

(1) W-5 was stopped because it penetrated and explored the structures outlined in the contract; not because of proximity to property line (see footnote to table in O.C. letter).

(2) W-7 was drilled to explore for ore and was stopped after it was obvious that structures were not located as originally believed (see footnote to table in O.C. letter).

Sincerely,

Dewey

Dewey H. Amos

P.S. See notes on attached cross sections

jes/DHA

cc: Brumeister, College Park

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 16, 1959

Mr. W. L. Weinberg, Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

DMEA-4907 (fluorspar)
The New Jersey Zinc Company
Project II, Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Weinberg:

This will confirm the verbal approval given by Mr. Amos to drill Hole No.14 under Stage II of the contract. The hole is to be collared 220 feet S21°W of the collar of Hole No. 13 and is to be drilled at a -45° inclination in a S45°E direction.

Robert A. Laurence

VJL/am
cc
Burmeister
Amos
Opr. Com-2
Lynch
Files

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 18 1959
DATE | INITIALS | CODE
3/18 | | 220
3/25 | Hook | 600

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/27	Selfridge	120
		130
3/2	Hirsh	600
3/2	J Ramon	110
		600
3/3	C	220

MAR 2 1959

MEMORANDUM

To: Mr. Robert A. Laurence, Executive Officer,
OME Field Team, Region V

From: George C. Selfridge, Chairman, Operating Committee

Subject: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-K1206

Please refer to your memorandum of February 5, 1959.

We have now carefully reviewed all of the docket and found part of the information necessary to make a clean-cut decision regarding payment of Hole W-8 (12) either conflicting or lacking. The review did show that more careful reporting could have been done by both the Operator and the Government. As you know, Washington has to be guided by the data in the docket files, which if not complete may lead to misunderstandings. For this reason we are giving you a detailed account of our review and the conclusions that can be drawn therefrom.

One of the first questions that comes to mind is "What was the stratigraphic target"?

In the application the Operator mentions, "The stratigraphic thicknesses of the formations lying over the favorable Fredonia limestone have been plotted according to the results in our recent drilling in Hardin County and figures the Illinois Geological Survey reports as average thicknesses for Pope County. These thicknesses may vary somewhat locally, but it now appears that the deepest holes will be about 800 feet to the Spar Mountain horizon in the Fredonia limestone, and the average inclined depth of all holes will be 550 feet." The Operator proposed 14 holes in two groups, a shallow one to probe for structures and a deeper one to test the favorable horizons, including the Fredonia limestone.

In the Region V on-site examination report of April 19, 1958, the statement is made that "Significant mineralization occurs at certain

8623

favored stratigraphic positions along the faults; namely, (1) the middle and upper part of the Fredonia limestone member, (2) the upper part of the Renault limestone, and (3) the upper part of the Levias limestone member and the basal portion of the Renault limestone. The largest deposits and the major production of the western part of the southern Illinois district occur where at least one wall of the faults consist of the Fredonia limestone member of the Ste. Genevieve formation." The report also mentions, "All of these faults are favorable sites for mineralization (open, normal-type faults) and have the most favorable stratigraphic unit of the area (Fredonia limestone) along at least one wall at a reasonably shallow depth." The Fredonia limestone is again mentioned as follows: "The most favorable stratigraphic unit of the area, the Fredonia limestone member of the Ste. Genevieve formation, is present along all of the known faults on the properties at depths less than the economic mining limits of the district."

In Mr. Amos' letter of December 10, 1958, to you he reiterates the favorability of the Fredonia formation by mentioning, "Since the most favorable place for mineralization is along faults where the hanging wall is the upper part of the Fredonia, Hole No. 6 (W-3) intersected the most favorable position about 115 feet too far updip."

In the on-site examination report all of the shallow group of the Operator's proposed holes were eliminated as either being too near the exterior property line or too high stratigraphically for most favorable mineralization. The deeper proposed holes of the Operator and those added by the field examiners with one exception have lengths estimated to reach at least the Rosiclare and Fredonia members. The exception was Hole No. W-7 (15) which was drilled for the C and D structures and which appears to have been as close to the property line as some of the applicant's holes that were eliminated for that reason.

Based on the information outlined above and the fact that the majority of the first 10 holes drilled penetrated the Fredonia limestone member, one can only conclude that the prime target was the Fredonia limestone where intersected by faults. Holes W-5 (11) and W-7 (15) were stopped because of the nearness of property lines.

Information in the docket regarding Hole No. W-8 (12) is as follows:

On November 24, 1958, the Field Team confirmed Mr. Amos' approval for Hole No. W-8 (12) changing the inclination from 60° to 45°.

In Mr. Amos' interim report of November 25, 1958, mention is made that Hole No. W-5 (11) had been completed and that Hole No. W-8 (12) was at a depth of 223 feet.

A map of cross-sections dated 12/5/58--scale 1" equals 660'--accompanying Mr. Amos' letter of December 10, 1958, to you shows Hole No. W-8 (12) with a contemplated length of 1,221 feet to test the fractures penetrated by Hole No. W-5 (11).

In the interim report of December 30, 1958, mention is made that (1) Hole No. W-8 (12) is at 619 feet, (2) Stage I of the contract will be finished upon completion of this hole, (3) it is estimated an additional 400 feet of drilling will be required to complete this hole and (4) as only about 222 feet of AX drilling remains unless the Operator plans to complete the hole at its expense.

Up until the time of the interim report of January 13, 1959, no specific mention had been made of the target of Hole No. W-8 (12). This report states, "In the last interim report which covered an inspection made on December 30, 1958 Hole No. W-8 was reported as incomplete at a depth of 619 feet. The original target planned for this hole was cut above this depth (see attached cross section). Results obtained from Hole No. W-5 indicated a second target could be explored by deepening Hole No. W-8 about 400 feet. The writer gave verbal permission to use the footage remaining in Stage I of the contract (about 222 feet) to continue this hole to the second target. The additional footage required beyond the 222 feet was to be done entirely at the Operator's expense. Shortly after this decision the hole was lost a few feet beyond a depth of 619 feet and had to be abandoned. The nature of the second target as revealed by Hole No. W-5 would not warrant drilling an entirely new hole (about 1000 feet as compared to 400 feet if it had been possible to deepen W-8). Hole No. W-8 should be regarded as completed at a depth of 619 feet under the contract."

In our letter of January 27, 1959, to you we questioned the status of Hole No. W-8 (12). Your reply of January 30, 1959, to us mentions, "Hole W-8 was started before W-5 was complete. Results of earlier drilling, including hole W-5, suggested that the preferred target in W-8 was in the lower Bethel. When this depth was reached, and while W-5 was still being drilled, hole W-8 was stopped at 619 feet and considered as complete by both Mr. Amos and the Operator's geologist, with the reservation that it might be deepened, if results of W-5 were favorable. Completion of W-5 indicated only a weak target at that depth; as it was impossible, by that time, to deepen W-8 and as both Mr. Amos and the Operator's geologist agreed that the target did not justify a new hole from the surface."

Mr. John M. Hague's reply of December 31, 1958, to Mr. Burmeister's letter of December 19 to Mr. Weinberg states, "Hole W-8 was located to replace contract location 12. ... Originally location 12 was designed to explore the supposed continuation of "E" lineament, but we are now aware that this fault really has a different strike than at first supposed and

hence would cross section 48 southeast of the collar of W-8 (12). However, a minor fracture system was encountered in the upper portion of hole W-5 (11) and we thought that hole W-8 would serve its original purpose by exploring the Bethel-Renault horizon near its intersection with this fracture system. The hole was started on November 19 and temporarily stopped on December 5 at 629 feet. No mineralization was found at the Bethel-Renault contact. At the end of December, the drill rig is still standing over the hole ready to deepen it if further study shows that deepening is required."

The same letter mentions, "Hole W-5 was started on October 20 with a second drill rig to explore the faulted section in the southwest part of the Barnett-O'Roark property. ... The hole crossed a few fractures near the collar and then went on to cut faults or veins at 445, 570, 605, 685 and 795. The first three contain respectively 12" of barite, 6" of barite, galenat and calcite, and 18" of barite, ankerite and minor fluorspar. The hole was stopped at 912 before reaching the Fredonia limestone because the bottom was approaching the property line. ... Although no economic mineralization is reported from this hole, it has penetrated a region of multiple fracturing and mineralization which might conceivably produce economic deposits at the Spar Mountain or Rosiclare horizons."

The "Summary of Stage I and Conclusion" section of Mr. Hague's letter states, "The nine drill holes completed so far, to accomplish the work of Stage I, have been rather disappointing in that no economic mineralization has been found in the core. However, two sites of mineralization are interesting enough to suggest worthwhile targets for stage II drilling. The first of these. ... The other mineralized section is in the lower part of hole W-5 (11), between faults "C" and "B". In the opinion of company geologists, this showing in W-5, although not spectacular, is interesting enough to warrant deepening hole W-8."

In your memorandum of February 5, 1959, to the Operating Committee you mention the "key to this situation lies in the fact that results of the drilling indicated that fault "E" lies to the southeast of the originally projected position. But as W-5 and W-8 had already been started, the original target (fault E) of W-8 thus did not exist; therefore, Mr. Ames and Mr. [illegible] agreed that the intersection of the weak fractures with the Bethel-Renault contact was the principal objective, with a possibility of extending it, contingent upon results of W-5."

The table below was compiled from text and the drill hole logs.

Hole No.	Drill Rig No.	Date Started (1958)	Date Finished (1958)	Depth Drilled-ft.	Morison Penetrated
W-1(8)	1	8/19	9/ 5	721	Fredonia
W-2(4)	1	9/ 8	9/24	654	Fredonia
W-3(6)	1	10/ 2	10/13	842	Fredonia
W-4(10)	1	10/16	10/30	805	Fredonia
W-5(11)	2	10/20	11/17	918	Renault 1956 1/
W-6(20)	1	10/31	11/11	716	Fredonia
W-7(15)	1	11/15	11/20	280	Golconda 2/
W-8(12)	2	11/19	12/ 5	619	Renault 3/
W-9(16)	1	11/22	12/ 8	750	Fredonia
W-10(17)	2	12/ 5	12/19	687	Fredonia

1/ Hole stopped because of proximity to property line.
2/ Hole drilled for structure and stopped because close to property line.
3/ Hole lost.

You will note that Hole No. W-5(11) was started with a second drill on October 24 and was completed on November 17 as shown by pages 3 and 4 of said drill hole log. Hole No. W-8 (12) was started on November 19 and reportedly temporarily stopped on December 5. The November 17 date for finishing Hole No. W-5 (11) and the starting date of November 19 for Hole W-8 (12) are absolutely contrary to the statements listed above implying that Hole No. W-5 (11) was still being drilled while Hole W-8 (12) was in progress. These dates already show that all of the information to be gained from the core of Hole No. W-5 (11) was available before Hole No. W-8 (12) was started. In arriving at the drill rig distribution, thought was given to the possibility that the drill contractor may have moved in a third drill, but this seemed unlikely in view of the poor results that had been obtained while nearing the end of Stage I work. To us it seemed more logical that drill rig No. 2 was moved from Hole No. W-5 (11) to Hole No. W-8 (12) to Hole No. W-10 (17) than to ship in a third drill. Hole No. W-10 (17) could not have been started on December 5 by rig No. 1 because Hole No. W-9 (16) was not finished until December 8.

A study of the drill log of Hole No. W-5 shows nothing of interest until the Paint Creek Shale was penetrated where (1) a 1/2" seam of pyrite was intersected at 414 feet, (2) a 3" vein with 1/2" of sphalerite and 1-1/2" of calcite, ankerite and fluorite was intersected at 445 feet, (3) a 2" vein of calcite, ankerite and barite was intersected at 472-73 feet, and (4) a 3" barite vein was intersected at 533 feet. Plotting these narrow veinlets on Section 48 of a map titled "Profiles in Project 8" dated December 19, 1958--scale 1" equals 200'--shows that Hole No. W-8 (12) would have had to reach a depth of at least 800 feet before intersecting

any of these showings if they had near-vertical dips. As most of the structures appear to be vertical or dip steeply to the west it seems unlikely that they could have been intersected with a drill hole of any less minimum depth.

Further study of the drill log shows that a 12" vein of heavy barite was intersected at 570 feet, a 6" vein of barite, galena and calcite at 605 feet, and an 18" vein of barite, ankerite and spar at 726 feet, respectively, in the Bethel Sandstone (not at 445, 570, and 605 feet as shown in Mr. Hague's letter of December 31, 1958).

Why the geologists should pick the weaker upper structures and a secondary stratigraphic horizon for an original target is not understandable and more so when information relating to the much better showings in the lower part of Hole No. W-5 ([redacted] available. It was also known at that time that Fault E was to east; and as the target and the depth of Hole No. W-8 (12) had been changed, shouldn't Mr. Amos have handled the matter as he did the changes for previous holes?

May we suggest again that the field men give their tentative approvals in writing for confirmation by the Executive Officer, with a copy to the Operator and to the Executive Officer in order to avoid misunderstandings and also such corrections in correspondence as were made for this project. Please give us your comments on this analysis, and on their receipt we shall notify you of our decision regarding the payment of Hole No. W-8 (12).

George C. Selfridge

Chairman, Operating Committee (JHB)

Approved:

H. G. Iverson

Member, Bureau of Mines (JHB)

N. E. Nelson

Member, Geological Survey (JHB)

LGHouk/GCSelfridge/gad/esf
2/27/59
Copy to: Dir. R. File
Operating Committee
Mr. Kiilsgaard, 5224
Mr. McDougal, 3405
Mr. Houk
Mr. Selfridge

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/13	Houk	600
		130
		110
		220
2/15	Talbert	800

600

Mr. Robert A. Laurence
Executive Officer, OME
Field Team, Region V
Room 2-B, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4907-Fluorspar
Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Laurence:

Reference is made to your memorandum to the Operating Committee of February 5, 1959, reaffirming your position that hole W-8 should be considered as a completed hole at 619 feet.

We note in the report of December 31, 1958, by Mr. John M. Hague, on Page 6: "In the opinion of company geologists, this showing in W-5, although not spectacular, is interesting enough to warrant deepening hole W-8." Page 4 of the same report states: "Although no economic mineralization is reported from this hole (W-5), it has penetrated a region of multiple fracturing and mineralization which might conceivably produce economic deposits at the Spar Mountain or Rosiclare horizons."

We realize the many difficulties of administering contracts in the field, and do not consider we are reversing the original commitment of Mr. Amos. The reversal comes from the change of position taken by the Field. If the target was favorable before the hole W-8 was lost, it remains so. We consider W-8 as an incompleted hole, and no payment should be made by the Government unless it is completed to intersect the favorable horizons mentioned in the Operator's December report.

Sincerely yours,

Approved:

Member, Bureau of Mines

Chairman, Operating Committee

Member, Geological Survey

LGHouk:gad 2/13/59
Copy to: Dir. R. File
Operating Committee
Mr. Kiilsgaard
Mr. McDougal, 3405
Mr. Houk

not sent
see memo
3-2-59 to
Reg V.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

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February 16, 1959

Mr. E. L. Weinburg, Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206, CaF_2
Project Two
Pope County, Illinois

Dear Mr. Weinberg:

This will confirm the verbal approval given to you by Mr. Amos to drill Hole No.W-13, under Stage II of the subject contract.

V. J. Lynch, Acting
Executive Officer, OME
Region V

VJL/xm
cc
Burmeister
Lynch

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Opr/ Com-2/
Lynch
Files

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February 16, 1959

Mr. S. S. Goodwin, Vice President
The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: Amendment No.3
DMEA-4907, Ldg-E1206-zinc
Project Two, Pope County, Ill.

Dear Mr. Goodwin:

Attached are the original and four copies of a proposed amendment No.3, on the subject contract extending the completion date to May 20, 1959. Please sign all copies, keep the Operator's copy and return all the other to this office.

Sincerely yours,

V. J. Lynch, Acting Executive Officer
OME Field Team, Region V

xx.
cc
Opr. Com-2
Amos
Burmeister
Lynch
Files

X 1-8 M 1-54

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THE NEW JERSEY ZINC COMPANY

EXPLORATION DEPARTMENT

February 13, 1959

P. O. Box # 129
Harrisburg, Ill.

Mr. R. A. Laurence, Executive Officer
OME Field Team, Region V
Room 2-8, Post Office Building
Knoxville, 2, Tennessee

Re: DMEA- 4907 (Fluorspar, zinc, lead)
Contract Idm - E 1206
The New Jersey Zinc Company
Project Two, Pope County, Illinois
Termination Date

Dear Mr. Laurence:

With the completion of hole W-12 there still remains approximately 2800 feet of allowable drilling unused in Stage II. The mineralization in holes W-11 and W-12 has been such that additional drilling is indicated on this project. We have called this to your attention since the termination date noted in Article 3 of the contract is March 20, 1959.

Since it appears unlikely that we will be able to complete this program before the termination date, we would request an extension of 60 days beyond the March 20, 1959 date.

Yours truly,

E. L. Weinberg

E. L. Weinberg

ELW/hwd
in quintuplicate

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
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February 5, 1959

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Memorandum

To: Operating Committee, OME - Washington, D. C.

From: Field Team, OME - Region V - Knoxville, Tennessee

Subject: DMEA-4907, Idm-E1206 (fluorspar, zinc, lead)
The New Jersey Zinc Company, New York, N.Y.
Project Two, Pope County, Illinois

Reference is made to your letter of January 27, and our reply dated January 30.

Enclosed are the original and two copies of a letter from the Operator's geologist, explaining the circumstances relating to Hole W-8 (contract location 12).

We have carefully reviewed the file on this contract, and have talked by telephone with both Mr. Amos and Mr. Burmeister. It is our opinion that Hole W-8 should be considered a completed hole at 619 feet. We will, however, hold the January voucher (when it is received) until we hear from you; if specifically instructed by you to do so, we will withhold payment for this hole but if our own judgment is permitted, we will approve payment.

The key to this situation lies in the fact that results of the drilling indicated that fault "E" lies to the southeast of the originally projected position. But as W-5 and W-8 had already been started, the original target (fault E) of W-8 thus did not exist; therefore Mr. Amos and Mr. Bing agreed that the intersection of the weak fractures with the Bethel-Renault contact was the principal objective, with a possibility of extending it, contigent upon results of W-5. This is documented in the Operator's December report, both in the paragraph quoted in Mr. Hague's February 2 letter and in the map and sections, and also in Mr. Amos' interim report of January 13. It should be understood that the fault zone shown in Mr. Amos' sketch of January 13 is not fault "E", as fault E lies somewhere to the right of the sketch, beyond the drill holes.

It is extremely difficult to administer a contract if commitments made by the field geologist or engineer, based upson sound geologic judgement after deliberate consideration of the results already obtained, are to be reversed here or in Washington. It will become almost impossible in fiscal 1960 when, as we understand, drastic cuts in available funds will virtually prohibit long-distance phone calls and travel.

Robert A. Laurence

Robert A. Laurence, Executive Officer
Field Team, OME - Region V

V. J. Lynch

V. J. Lynch, Member
Bureau of Mines

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
CABLE ADDRESS
"JERSEZINC"
160 FRONT STREET
NEW YORK 38, N.Y.

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FEB - 4 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

February 2, 1959

PLEASE ADDRESS REPLY TO
P. O. Box # 129
Harrisburg, Illinois

Mr. Robert A. Laurence, Executive Officer
OME Field Team, Region V
Room 2-B, Post Office Building
Knoxville, 2, Tennessee

Re: Docket No. DMEA - 4907 (fluorspar, zinc and lead)
Project II, Stage I, Pope County, Ill.
Contract No. Idm-E1206

Dear Mr. Laurence:

We are in receipt of your letter of January 30, 1959 in which you state that W-8 may not have reached its primary target and therefore may not be considered complete. Our information indicates that this hole did reach the primary target prior to its bottom at 619 feet and in support of this we list the following points:

1. Our report of December 31, 1958 by Mr. J. M. Hague, addressed to Mr. H. L. Burmeister, stated the following: (page 5, paragraph 1, third sentence) "However a minor fracture system was encountered in the upper portion of hole W-5 (11) and we thought that hole W-8 would serve its original purpose by exploring the Bethel-Renault horizon near its intersection with this fracture system. The hole was started on November 19 and temporarily stopp ed on December 5 at 619 feet. No mineralization was found at the Bethel-Renault contact. At the end of December, the drill rig is still standing over the hole ready to deepen it if further study shows that deepening is required." This quote indicates that the primary target was the Bethel-Renault contact and that this primary target was reached prior to bottoming at 619 feet.

2. During a subsequent conference with Dr. Amos in H a rrisburg on January 13, 1959, a decision was reached concerning drilling in hole W-8. We considered it agreed that the primary target had been reached at the Bethel-Renault contact but that it might be desireable to extend W-8, if technically feasible, to deeper targets indicated in hole W-5. As it turned out it was not technically feasible to continue W-8 since a partial string of drill tools became stuck in the hole and the expense of either removing them, or otherwise clearing the hole would have been prohibitive. Therefore, in accordance with our January 13 decision we considered hole W-8 complete at 619 feet

Mr. Robert A. Laurence, Knoxville, Tennessee Feb. 2, 1959

and so informed our drillers.

Yours truly,

E. L. Weinberg

E. L. Weinberg

ELW/hwd
in quintuplicate

X 1086G 24M 12-56

COPY

THE NEW JERSEY ZINC COMPANY — EXPLORATION DEPARTMENT

Box 217
Platteville, Wisconsin
December 31, 1958

Mr. E. L. Burmeister
Mine Exploration and Examination Engineer
United States Bureau of Mines
College Park, Maryland

DMEA 4907 (fluorspar), Idm-E 1206
The New Jersey Zinc Company, Project II, Pope County, Illinois
December, 1958

Dear Mr. Burmeister:

Your letter of December 19 to Mr. Weinberg has come to my attention here at Platteville. Mr. Weinberg takes charge of the DMEA project in Pope County as of January 2, hence he is not responsible for the misdemeanors we have committed during the past three months. The project has been under my supervision since 1953, and will continue so, and I shall endeavor to supply the information you request. Mr. Weinberg will probably be delighted to make his report for January, but I hope he can start with no backlog of unfinished report writing. Hence my reply to your letter will include the December report.

Let me try to answer your questions and comments in the order given in your letter. As our partner in this venture you are entitled to a complete story.

Coordinates for Holes

Your first question inquires about the coordinates on our 1"=200' plan map No. AL-III-32. The coordinates ruled thereon are for the draftman's convenience only, whereas the coordinates of drill holes which appear on the log sheets are determined by the following system. All holes are located within the forty acre tract in which they are drilled by distances north and east from the southwest corner of that forty acre quarter-quarter (or "lot" in some locations). If the boundaries of the forty acre tract are not due north and due east, but skewed, the coordinate distances are measured true north and true east from the southwest corner; this corner is fixed by fences, roads or monuments, or by projection from the nearest known land divisions. The various corners used

to locate holes on map AX-III-32 (1"=200') are now shown thereon by penciled quadrants.

A list of drill hole survey data is enclosed with Mr. Burmeister's copy of this letter. I would rather not give the survey coordinates of the holes wide distribution because the use of two systems is confusing to persons who are not engineers. Furthermore the calculated survey coordinates lose their meaning and usefulness in a few years after our stakes are destroyed and when new entrepreneurs establish a different system. The log location by land subdivisions, on the other hand, is permanent and allows a geologist to locate the hole collar years later as long as our present system of land subdivision survives.

Maps and Sections

We regret that only one copy of the 200 scale map was sent to you earlier; five prints are being sent to you now in a separate tube. You may attach them to the various copies of this report, folded, or you may pass them to suitable parties unfolded, as you choose. Also in the tube are five prints of a newly prepared set of profile sections, at a scale of 1"=200', drawing No. AX-III-34. We hope this new set of sections will answer your requirements.

Narrative

The narrative with the November report is rather brief, I admit; Mr. Bing preferred action to words. I shall give the history of holes W-1 to W-10 in the following paragraphs and so include more complete narrative material for your November, as well as December reports.

Separation of Stages I and II

With the completion of hole No. W-10 (DMEA contract no. 17), the work proposed for stage I has been completed, except for possible extension of W-8. A possible stage II hole is being considered for section 16. It would be drilled from a collar position between W-1 (2) and W-2 (4), S 50° E, at -45°, to explore mineralization in fault 'K' in the Fredonia horizon southeast of the trace mineralization found in the Fredonia in hole W-3 (6). Its tentative position is shown on the attached sketch of cross-sections, AX-III-33.

Location W-11 requires discussion and approval before commencement of drilling. Both drills are now idle and only one will be used for stage II work.

Review of Stage I

This seems an appropriate time to review the work done under stage I.

Hole W-1 was drilled at contract location 2 as the first step in developing cross-section 16. The necessary clearing and moving in of machinery and equipment began on August 11 as allowed by Amendment No. 2 to our contract. The collar location is a short distance southeast of the planned location to allow a better set-up position. The bearing and inclination are as planned, N 45° W, 45°. The hole was completed on September 9 at 721 feet. A fault cut at 475 feet was not mineralized; only small amounts of barite, pyrite and calcite appeared in other sections of the core.

Hole W-2 was drilled at contract location 4, inclination and bearing as planned, N 45° W, 57°. No faults were discovered but several fractures and veinlets contained traces of fluorite and galena. No assays were required. The hole was completed September 24 at 804 feet.

Hole W-3 was placed close to contract location 6 and drilled at the planned bearing, N 45° W. The inclination was changed from 60° to 50° because surface geologic study had indicated that the fault we were exploring is actually steeper than shown in the application cross-sections and the collar of the hole was lower in the geologic section than previously shown, tending to raise (in effect) the target location. Nevertheless the hole crossed the fault too high, at 612, in the Renault shale. A zone of weak mineralization was cut in the Fredonia at 728 to 736, beyond and away from the fault. Two assays were made of samples from core at this point. The hole was begun October 2, and finished at 842 feet on October 13, completing the three holes planned for section 16.

Hole W-4 was moved southeastward about 90 feet from contract location no. 19 on section 26. It was drilled N 45° W at 60° as planned. A letter authorizing the change was received from Mr. Laurence. The reason for the move was the apparent swing to the south observed for 'E' fault after plotting its position as shown by the intersection in hole W-1. Three fault zones were cut in hole W-4 at 334, 401 and 477 feet; all are thought to be part of the 'E' fault system. None showed interesting mineralization; we would have preferred cutting these faults lower in the section. Only narrow veinlets of fluorite were seen in

the Rosiclare sandstone and Fredonia limestone. The hole was finished at 805 feet on October 30.

Hole W-5 was started on October 20 with a second drill rig to explore the faulted section in the southwest part of the Barnett-O'Roark property. The set-up was made on section 48 very near contract location no. 11. The bearing was N 45° W, 45°, as planned. The hole crossed a few fractures near the collar and then went on to cut faults or veins at 445, 570, 605, 685 and 795. The first three contained respectively 12" of barite, 6" of barite, galena and calcite, and 18" of barite, ankerite and minor fluorspar. The hole was stopped at 912 before reaching the Fredonia limestone because the bottom was approaching the property line. The droop of the hole, though not measured, is surely sufficient to keep the bottom of the hole over 100 feet from the line. Although no economic mineralization is reported from this hole, it has penetrated a region of multiple fracturing and mineralization which might conceivably produce economic deposits at the Spar Mountain or Rosiclare horizons.

Hole W-6 was placed to continue the exploration of the 'E' fault system as originally planned at contract location no. 20 on section 26. The bearing is N 45° W as planned, the inclination is 59°, varying slightly from the planned 60° inclination because of some inaccuracy on the part of the drillers. The collar location was moved southeastward along the section 270 feet from location no. 20 so as to accommodate the eastward bend or change in strike in the 'E' fault system as discovered by holes W-3 (6) and W-4 (19). Permission for this move was intended to be covered by Mr. Laurence's letter of November 10, but the numbers and distances seem to have become confused in telephone conversation. Actually the discussion concerned drill hole 20 rather than 19, as 19 was already finished at that time. I may have caused the confusion by not specifying the number more carefully. Hole W-6 (20) was begun on October 31 and finished at 716 feet on November 11. The main fault was cut at 417, near the Bethel-Renault contact, but again too high in the section to make a useful test. No significant mineralization was encountered except for a 6 inch bed of disseminated fluorspar at 704 near the Spar Mountain horizon. (Sample No. C-18, 704-704½, 4.18% CaF_2, green limy shale core.) As in hole W-3 (6) this bedded mineralization may represent a tongue reaching out from a nearby fault system.

Hole W-7 was placed within fifty feet of contract location no. 15 on section 41. It was drilled at the planned bearing and angle, N 45° W, 45°, beginning November 15 and finishing November 20 at 280 feet. Its purpose was to locate 'C' or 'D' faults so as to help in locating hole W-9 (16) which was to explore these holes at deeper horizons. We concluded that 'D' fault was near

the collar of W-7 and the hole should have been continued to search for 'C' fault beyond 280 feet; however it was approaching the property line and was discontinued for that reason. The contract footage allowance for this hole turns out to be rather scanty, now that the geology is better known. The hole did serve its purpose to some extent by locating the down-faulted block between 'C' and 'D' lineaments. No economic mineralization was seen.

Hole W-8 was located to replace contract location 12. The collar was moved about 50 feet northwestward along section 48, the planned bearing, N 45° W, was set, but the inclination changed from 60° to 45°. Originally location 12 was designed to explore the supposed continuation of 'E' lineament, but we are now aware that this fault really has a different strike than at first supposed and hence would cross section 48 southeast of the collar of W-8 (12). However a minor fracture system was encountered in the upper portion of hole W-5 (11) and we thought that hole W-8 would serve its original purpose by exploring the Bethel-Renault horizon near its intersection with this fracture system. The hole was started on November 19 and temporarily stopped on December 5 at 619 feet. No mineralization was found at the Bethel-Renault contact. At the end of December, the drill rig is still standing over the hole ready to deepen it if further study shows that deepening is required.

Hole W-9 has been drilled at contract location 16 as planned on section 41, with bearing N 45° W, inclination 60°. Its purpose was to explore lineaments 'C' and 'D' at the deeper ore bearing horizons. When the hole was started on November 22, it appeared to be in the correct position after studying section 48 and the log of W-7. However, it failed to cross either fault; 'D' fault must dip westward almost parallel to the hole and 'C' fault must be nearly vertical, so that they intersect beyond the hole bottom. W-9 (16) was bottomed at 750 on December 8. No interesting mineralization is reported for this hole; its only useful function has been to move the 'C-D' fault system westward.

Hole W-10 is located to explore 'E' fault near contract location 17. The collar location was moved about 490 feet southeastward along section 41 so that the hole would hit 'E' fault at its revised location near the Rosiclare-Fredonia contact. This move was approved at a conference in Harrisburg on December 2, and I believe a letter has been received authorizing the move. The hole was started on December 5 and finished December 19 at a depth of 687 feet. It crossed the fault at approximately the right horizon at 600 feet; no mineralization was found in the fault and only minor amounts of calcite and fluorite in the lesser shears above and below the fault. This hole completed the exploration of section 41 as planned for

stage I. We now have the impression that 'E' fault is dying out and splitting along strike toward the southwest; the fault displacement at hole W-10 (17) seems to be less than at W-3 (6).

Summary of Stage I and Conclusion

The nine drill holes completed so far, to accomplish the work of stage I, have been rather disappointing in that no economic mineralization has been found in the core. However, two sites of mineralization are interesting enough to suggest worthwhile targets for stage II drilling. The first of these is in the lower part of hole W-3 (6), in the Fredonia west of 'E' fault. Hole W-11 is suggested in the position sketched on section 16 on drawing AX-III-33 to search for more intense mineralization nearer to the fault or perhaps in the fault. The other mineralized section is in the lower part of hole W-5 (11), between faults 'C' and 'D'. (In the opinion of company geologists, this showing in W-5, although not spectacular, is interesting enough to warrant deepening hole W-8.)

Other targets may come up for discussion as possibilities for stage II drilling at a conference that we hope to hold with Mr. Amos in Harrisburg early in January.

Mr. Amos has been very helpful and accommodating during the prosecution of stage I drilling and I want to take this opportunity to thank both of you for your kindness and forbearance. Our reports have been somewhat sketchy and incomplete during the last few months, partly because of our inexperience and partly because of Mr. Bing's recent illness. I am sure that Mr. Weinberg will carry on the report writing expeditiously and with an experienced hand. Please do not hesitate to call on either Mr. Weinberg or myself for further information which you think either of us may have.

Very truly yours,

John M. Hague

John M. Hague
Resident Geologist

cc: Mr. H. L. Burmeister - for DMEA (4)
Mr. W. H. Callahan (2)
Wis. Ex.
Ill. Ex.

Enclosures:

AX-III-23 map
AX-III-33 sections
Drill hole survey data (to Mr. Durmeister)
~~Log for W-8 (3 sheets)~~
Log for W-9 (3 sheets)
Log for W-10 (3 sheets)
Sheet of abbreviations
Form MF-104
Form MF-104A
Invoices for holes

(AX-III-32 map and AX-III-34 profiles under separate cover)

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January 30, 1959

Memorandum

To: Operating Committee, OME, Washington, D. C.

From: Field Team, OME, Region V, Knoxville, Tennessee

Subject: Docket No. DMEA-4907, Contract No. Idm-E1206
The New Jersey Zinc Company, P. O. Box 129, Harrisburg, Ill.
Project Two (Fluorspar, Zinc and Lead), Pope County, Ill.

Reference is made to your letter of January 27.

This situation resulted because hole W-8 was started before W-5 was complete. Results of earlier drilling, including hole W-5, suggested that the preferred target in W-8 was in the lower Bethel. When this depth was reached, and while W-5 was still being drilled, hole W-8 was stopped at 619 feet and considered as complete by both Mr. Amos and the Operator's geologist, with the reservation that it might be deepened, if results of W-5 were favorable. Completion of W-5 indicated only a weak target at that depth; as it was impossible, by that time, to deepen W-8 and as both Mr. Amos and the Operator's geologist agreed that the target did not justify a new hole from the surface.

Hole W-8 has not been paid for, and unless the Operator submits satisfactory justification for considering it to be complete, we will not approve payment for that footage when the January voucher is received.

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch
Member, Bureau of Mines

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1/29	Johnson	110
		220
1/27	Talbert	800
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1/28	C	220

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JAN 27 1959

Mr. Robert A. Laurence
Executive Officer, OME
Field Team, Region V
Room 2-B, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Laurence:

Reference is made to the interim report of inspection of January 13, 1959, and the recommendation of Mr. Dewey Amos that hole No. 8 be regarded as completed at a depth of 619 feet.

As diamond drill hole W-8, contract hole 12, did not cut either the upper or middle Fredonia, the upper Renault, or the upper Levias, or any of the main breaks along fault E, we do not consider that the target has been penetrated. The contract set up diamond drill hole 12 to be drilled at minus 60° for approximately 800 feet. The vertical section submitted with this interim report showing holes W-5 and W-8 verifies, in our opinion, that the target was not reached. In addition, the Operator's acceptance of verbal permission to deepen the hole, and the subsequent loss of the hole, makes this an incompleted hole under the terms of the contract.

The Operator's reporting has been substandard and the monthly maps required by contract should be on a 100 or 200 feet to the inch scale. Unless reporting improves and better maps are submitted, we suggest withholding payment to the New Jersey Zinc Company until these faults are corrected.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (H/B)

Approved:

C. T. BAROCH (H/B)
Member, Bureau of Mines

N. E. Nelson (H/B)
Member, Geological Survey

LGHouk:gad 1/27/59

Copy to: Dir. R. File
Operating Committee
Mr. Kiilsgaard
Mr. McDougal, 3405
Mr. Houk
Mr. Talbert

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

January 19, 1959

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Mr. E. L. Weinberg, Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907(fluorspar, zinc)
Project Two
Pope County, Illinois
Contract, Idm-E1206.

Dear Mr. Weinberg:

As requested in your letter of January 15, the error which occurred in my letter of January 13 is corrected.

Thus, hole W-11 is to be drilled approximately in a 350°E direction. I regret any inconvenience this may have caused you.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, Region V

RAL/mm
cc
Opr. Com-2
Amos
Burmeister
Lynch
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1086G 24M 12-58

COPY

Operating Comm.

THE NEW JERSEY ZINC COMPANY

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Harrisburg, Ill.
January 15, 1959

P. O. Box # 129
Harrisburg, Ill.

Mr. Robert A. Laurence
Executive Office, OME Field Team
Region V
Room 2-B Post Office Bldg.
Knoxville, Tennessee

Re: DMEA-4907, Idm-E 1206
Project II, Pope County
Illinois (fluorspar)

Dear Mr. Laurence:

Thank you for your letter of January 13, 1959, confirming the verbal consent for us to begin Stage II by drilling hole W-11.

Everything checks with our understanding of the matter except for the direction of hole W-11, mentioned in the last line of your letter as S 45° W. It was our understanding this direction was approved as S 50° E.

Yours sincerely,

E. L. Weinberg

E. L. Weinberg
Geologist

ELW/hwd
in quintuplicate

RECEIVED
JAN 19 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

UNITED STATES
DEPARTMENT OF THE INTERIOR
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January 13, 1959

Mr. E. L. Weinberg
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206
Project II, Pope County
Illinois (fluorspar)

Dear Mr. Weinberg:

This will confirm the verbal approval given by Mr. Dewey Amos to begin Stage II of the subject contract, and to drill the first Stage II hole, no. W-11 at a collar location approximately 260 feet N45°W from hole no. W-2 (contract location No.4), to be drilled at a -45° inclination in a 345°W direction.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, Region V

RAL/sm
cc: Opr. Gem-2
Hurmeister
Amos
Finance office
Lynch
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

EASTERN
EXPERIMENT STATION

COLLEGE PARK, MARYLAND

OFFICIAL FILE COPY
U. M. E.
RECEIVED DEC 22 1958

DATE	INITIALS	CODE
12/22	C	220
12/23	EEF	800
12/24	Vmb	600

December 19, 1958

Mr. E. L. Weinberg
Geologist, New Jersey Zinc Company
P. O. Box 129
Harrisburg, Illinois

Re: DMEA 4907 (fluorspar), Idm-E 1206, New Jersey Zinc Company, Project II, Pope County, Illinois

Dear Mr. Weinberg:

I address this letter to you, as I understand you have been in charge of this project, probably since early this month.

The Operator's report for the month of October contained neither maps nor cross-sections and one copy of a sketchy narrative as part of the transmittal letter. Upon request I did get one copy of your 1" = 200' scale area maps with coordinates, but these coordinates bear no relation to those given in the log to locate the hole. No one else in OME has even this map.

Comments and requests for additional and necessary data was withheld due to my knowledge of Mr. Bing's illness and the probable inexperience of Mr. Davis in making up these reports.

The November report has now been received in the same or worse condition. There is no narrative and the original copy alone contains a plan of the exploration area and a print of drill hole cross-sections. Both plan and sections are on a scale of 1" = 660'. Such a scale for either plan or cross-sections is entirely too small.

Forms MF-104 and MF-104A of the November report are in order but all copies of this report are being held in this office pending receipt of the following material: (1) Five prints of your area map with coordinates to match log locations and to a scale of 1" = 200'. This map to be complete with holes drilled to November 30; (2) Five copies of cross-sections to a reasonable scale, of all holes drilled to November 30, with adequate indication of formations encountered. I note that the section furnished, indicates that holes W-8 and W-9 were completed but no log was furnished for these holes. This is in need of correction although cost of these holes is rightly not vouchered

until you can furnish the driller's invoice. Five copies of a narrative section covering progress during the November period. This should, among other things set forth the footage progress of each hole and record changes made in hole locations, bearings and inclinations.

Having previously worked with you on three New Jersey Zinc contracts in Virginia, I am sure that further detailed requests for data to make an adequate report are not necessary.

Your prompt attention to the above will be greatly appreciated and will also expedite my forwarding the entire report.

Yours very truly,

H. L. Burmeister
Mine Exploration and Examination
Engineer

HLB/bb
cc: L. A. Bank
D. H. Amos
V. J. Lynch
R. A. Lemargue
I. Philippow P. Station Files
Mining
GSE
Reading

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 18 1958

DATE	INITIALS	CODE
12/18	J.g.	225
		600

December 12, 1958

Mr. E. L. Weinberg, Geologist
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206-
(fluorspar,lead, zinc)
The New Jersey Zinc Company
Project Two, Pope County, Ill.

Dear Mr. Weinberg:

This letter confirms the verbal approval given you by Mr. Amos on December 2, to move the collar location of hole No. 17 about 490 feet to the southeast. The inclination, bearing, estimated depth and the geologic target to remain the same.

In Mr. Laurence's letter of November 10, to Mr. Rupert Bing approval was given to drill hole No. 19 about 140 feet southeast of the contract map location instead of 90 feet as originally approved. This should have read hole No.20 rather than hole No. 19, and it should have been approval to move the collar location about 280 feet.

Sincerely yours,

Wm. A. Beck, Alternate Acting
Executive Officer, OME, Region V

WAB/zm
cc
Opr. Com-2
Burmeister
Amos
Finance
Lynch
Laurence

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Geology Department
Southern Illinois University
Carbondale, Illinois
December 10, 1958

RECEIVED
DEC 12 1958
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 18 1958

DATE	INITIALS	CODE
		Re: DMEA-4907
		Idm-E1206

Mr. Robert A. Laurence
U. S. Geological Survey
Room 2-B, Post Office Building
Knoxville, Tennessee

Dear Mr. Laurence:

On December 2 I met with representatives of the Operator of the subject contract at their request. The following representatives of the Operator were present: Mr. Hague, regional geologist from Platteville, Wisc.,; Mr. Bing, geologist of the Harrisburg office; Mr. Wineberg, geologist from Mineral, Virginia who is replacing Bing at Harrisburg; and Mr. Davis, engineer of the Harrisburg office.

Drilling completed to date shows that the trace of Fault E (see attached map) is farther to the southeast than originally believed. This is particulary true at the southwest end of the contract property. The location of the trace of the fault as shown by drilling is marked in blue on the attached map; whereas, red marks the location where the fault was believed prior to the drilling to outcrop. This necessitated moving the collar location of proposed Contract Hole No. 17 a considerable distance in order to intersect Fault E at the most favorable stratigraphic position. During the conference (Dec. 2) I gave verbal permission to move the collar location of this hole about 490 feet to the southeast (see attached map). The inclination, bearing, estimated depth and the geologic target remain the same. If you concur, please send written approval to the Operator.

Completed Contract Hole No. 19 (W-4) was collared 90 southeast of the location shown on the contract map and Completed Hole No. 20 (W-6) was move 271 feet southeast of the location shown on the contract map. Your letter of November 10th should have been approval to move Hole No. 20 rather than Hole No. 19 and it should have been approval to move the collar location a total of 280 feet (actually it was moved 271 feet) rather than 140 feet. Bing and I share the

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

blame for this error as we gave you the wrong information. He and I were both sick and were making the locations via telephone without benefit of maps. I presume these correction should be made by written approval by you.

Tentatively, it appears that at least one Stage II hole may appear warranted on the northeast end of the Contract area (see attached cross-section). Drilling is still very incomplete on the southwest end and the possibility of Stage II holes here can not be considered at this time. Contract Hole No. 6 (W-3) encountered strong trace mineralization in the footwall of Fault E in the upper part of the Fredonia limestone.

Since the most favorable place for mineralization is along faults where the hanging wall is the upper part of the Fredonia, Hole No. 6 (W-3) intersected the most favorable position about 115 feet too far updip. If a Stage II hole is drilled in the northeastern part of the area it should be located as shown on the attached cross-section. A decision as to whether this hole should be drilled will not be made until after Jan. 1st because (1) assay results of Contract Hole No. 6 (W-3) are not completed; (2) Stage I drilling remains to be done on the southwest end of the properties, and (3) the drillers plan to take two weeks vacation during the holidays.

Could you make copies of the attached map and cross-sections and send to Mr. Burmeister?

Sincerely yours,

Dewey H. Amos

DHA/bbb

cc: Burmeister, College Park

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 24, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 26 1958

DATE	INITIALS	CODE
11-26	C	220
		600

Mr. Rupert Bing
The New Jersey Zinc Company
P.O. Box 129
Harrisburg, Illinois

Re: DMRA-4907 (fluorspar)
copper, zinc.
The New Jersey Zinc Co.
Project No.2, Pope County, Ill.
Contract No. Idm-X1206

Dear Mr. Bing:

This will comfirm the verbal approval given by Mr. Amos to drill hole No. 12 at -45° instead of -60°.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Field Team, Region V

RAL/mm
cc
Opr. Com-2
Burmeister
Amos
Lynch
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 10, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1958

DATE	INITIALS	CODE
11/12	C	220
		600

Mr. Rupert Bing
The New Jersey Zinc Co.
P.O. Box 129
Harrisburg, Illinois

Re: BMEA-4907, Idm-E1206,
(fluorspar,lead,zinc)
The New Jersey Zinc Company
Project No.2
Pope County, Illinois

Dear Mr. Bing:

As agreed upon by your and Mr. Amos, it will be satisfactory to drill hole No. 19 about 140 feet southeast of the contract map location, instead of 90 feet as originally approved. This letter constitutes confirmation of the verbal approval of this change, given you by Mr. Amos on October 30.

Sincerely yours,

Robert A. Lawrence
Executive Officer, OME
Field Team, Region V

RAL/wm
cc:
Opr. Com-2
Finance Office
Amos
Burmeister
Lynch
Files

3x 1c66 24M 12-55

COPY

THE NEW JERSEY ZINC COMPANY

EXPLORATION DEPARTMENT

October 13, 1958

Box 129
Harrisburg, Illinois

Harry L. Burmeister
U. S. B. M.
College Park, Maryland

Re: Docket No. DMEA 4907
Fluorspar, Zinc and Lead
The New Jersey Zinc Co.
Project Two, Pope County
Illinois

Dear Mr. Burmeister,

W-1(2) was completed September 9, 1958. The fault was intercepted at 475' and proved to be barren at this horizon. No assays were taken on W-1(2).

On September 24, 1958, W-2(4) was completed. No fault was intercepted with this drill hole although some traces of fluorite and galenn were present in sandstone fractures. No assays were taken on W-2(4).

W-3(6) is now in progress and shall be covered in October's report.

Very truly yours,

R. C. Bing

R. C. Bing

RCB:hwl

b.c.c. Mr. W. H. Callahan
Mr. J. M. Hague
Ill. Ex

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

October 24, 1958

10/27
10/28
C
Hook

Mr. Rupert Bing
The New Jersey Zinc Co.
P.O. Box 129
Harrisburg, Illinois

Re: DMEA-4907 (fluorspar,lead,zinc)
The New Jersey Zinc Co.
Project No.2
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Bing:

This will confirm the verbal approval given by Mr. Amos to drill contract hole No. 19, and to locate the collar of the hole about 90 feet southeast of the site shown on the contract map.

Sincerely yours,

Robert A. Laurence
Executive Officer, OME
Region V

RAL/ms
cc
Opr. Con-2
Burmeister
Ames
Finance
Lynch
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
ROOM 2-B POST OFFICE BLDG.
KNOXVILLE 2, TENN.

October 6, 1958

OFFICIAL FILE COPY O. M. E. RECEIVED OCT 15 1958		
DATE	INITIALS	CODE
10/15	C	220
10/15	Hmb	600

Mr. Rupert C. Bing
The New Jersey Zinc Co.
106 North Main Street
Harrisburg, Illinois

Re: DMEA-4907, Idm-E1206-zinc
Prospect No.2 (fluorspar)
Pope County, Illinois

Dear Mr. Bing:

This will confirm the verbal approval, given by the Field Examiner, Dewey Amos, to change the inclination of D.D.H. No.6 from -60° to -50°.

V. J. Lynch, Acting
Executive Officer, OME
Field Team, Region V

VJL/sm
cc
Opr. Com.-2
Dewey
Finance Office
ynch
iles

orm 7
6)

OFFICIAL FILE COPY

Date	Surname	Code
7/18	Houk	600
7/18	Talbut	800
7/18	Martin	130
"	Johnson	110
"	Gunderson	100
7/21	C	220
		600

600

JUL 18 1958

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4907-
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Laurence:

Reference is made to the memorandum of July 15, 1958, from the Acting Executive Officer, on lack of completion date on the subject contract.

The completion date is March 20, 1959. Please refer to our letter of July 9, 1958.

There are transmitted herewith the original and four copies of Amendment No. 2 which have been signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team. If the amendment meets with your approval, present it to the Operator for signature.

After execution of the amendment, the copies are to be distributed in the usual manner.

Sincerely yours,

Approved:

W. S. Martin
ACTING Chairman, Operating Committee (JHB)

Frank D. Lamb (JHB)
Member, Bureau of Mines

N. E. Nelson (JHB)
Member, Geological Survey

LGHouk:rsi 7/18/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. McDougal, 3405
Mr. Houk

Enclosures 7

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

July 15, 1958

DMEA RECEIVED JUL 17 1958		
DATE	INITIALS	CODE
7/17	H.J.	225
		600

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region V - Knoxville

Subject: DMEA-4907 (fluorspar-zinc-lead) Project Two,
Pope County, Illinois.
The New Jersey Zinc Company.

On the copies of the subject contract sent to this office there is no completion date. Please send us the date of completion issued by your office.

V. J. Lynch

zm

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
CABLE ADDRESS
"JERSEZINC"
160 FRONT STREET
NEW YORK 38, N.Y.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 15 1958

DATE	INITIALS	CODE
7/15	C	220
/15	Conn	100
/		
7/15	Hrub	600

HORSE HEAD PRODUCTS

C
INTERIOR DEPT.
JUL 16 1958
SOLICITOR

RECEIVED
JUL 16 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

July 14, 1958

Mr. C. O. Mittendorf, Administrator
U. S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA - 4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Mittendorf:

It was indeed a pleasure to speak to both you and Mr. Dwyer two weeks ago with reference to the above contract; and, as agreed, I am writing you to bring you up-to-date on the contract property situation. You will recall that our title search uncovered the fact that there was outstanding mining leases on the property to a Donald B. Randall which were entered into in 1946. Mr. Randall, to our knowledge, never performed under the leases however the same contain a provision requiring receipt of a 30-day notice before the leases may be terminated. We had some difficulty locating Mr. Randall but finally found that he is working for Morrison-Knudsen Company in Afghanistan. The 30-day notice was mailed, return receipt by air mail, May 10; and the receipt shows delivery of the letter to Morrison-Knudsen on May 20. After an exchange of cables, we now know that the termination letter was received by Randall some time prior to July 11. Therefore, in accordance with our understanding, we would like to postpone commencement of performance under our contract with DMEA until August 11 next so that neither of our monies will be expended possibly unnecessarily. I enclose herewith a copy of our Purchasing Department's letter to Joy Manufacturing, the proposed driller on the contract, which indicates our intent to proceed at that time provided, of course, the matter is completed. I believe this course of action will be agreeable to you, but I would like either yours or Mr. Dwyer's concurrence therein.

I understand that Congress is considering the legislation to continue your program, and we certainly wish you every success. With kind regards, I remain

Very sincerely yours,

Lindley G. Miller

Legal Department

LGMiller/rm
Enc.

086 150M

COPY

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 15 1
DATE

July 14, 1958

Joy Manufacturing Company
900 Woodland Avenue
Michigan City, Indiana

Attention: Mr. W. J. Pilarski

Diamond Drilling - Pope County,
Southern Illinois 1-X-524

Gentlemen:

Reference is made to our letter to you dated April 24th. We indicated that we assumed that your bid for drilling work as covered in your proposal of January 7th was still active pending application for assistance from DMEA. Please be advised that we now have received a favorable ruling from the DMEA.

Unfortunately, our attorneys have encountered a problem involving title to the property on which the drilling is to be performed. It represents a slight defect which they are presently in the process of clearing.

This letter will serve as a letter of intent to retain the Joy Manufacturing Company for the drilling work involved when the title defect has been corrected. We have no reason to believe that the clearing of the title can not be accomplished in the near future. However, it is likely that it will be after the first of August before we are ready to authorize you to move your equipment into the area.

It should be understood that if for any reason we can not obtain clear title, that we are to be under no obligation as a result of this letter.

Yours very truly,

WSH

WSHutchings/lp

Assistant Manager of Purchasing

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/7	Hall	600
7-7	Chambers	800
7/7	[illegible]	130
"	Johnson	110
[illegible]	[illegible]	100
7/10	C	220
		600

600

JUL 9 1958

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4907-
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois
Contract No. Idm-E1206

Dear Mr. Laurence:

Enclosed are the Finance Office and Field Team copies of the subject contract which have been signed by the Administrator for the Government and executed by the Operator.

Also enclosed are the original and four copies of Amendment No. 1, to provide for completion date of the contract, which have been signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team. After execution of the amendment, the copies are to be distributed in the usual manner.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GLB)

Approved:

Frank D. Lamb (GLB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GLB)
Member, Geological Survey

Enclosures 9

WCAnderson:rsi 7/7/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. McDougal, 3405

8623

Excerpt from Mr. Mittendorf's diary, 6/30/58:

Miller, attorney for New Jersey Zinc Co., phoned from New York this morning about the fluorspar contract (DMEA-4907) which is in his hands for signature. He said under Article 2 of the contract the company asserted that it had good and sufficient title to the ground, but they have now found a flaw in the title to one of the three parcels of land. He said leases were granted on all three parcels back in April and May 1946. Two of these leases contained termination provisions which became effective if work did not start within 30 days. Since it didn't start, they were terminated automatically. The other lease had different language. It said the work must start within 30 days but added that the lease could be terminated only upon 30 days' written notice from the lessor to the lessee. Although the company had a title search made, this flaw was not brought to light.

Miller told me how they worked to find the whereabouts of Mr. Randall, who was the prior lessee. They finally learned that he was working for Morrison and Knudsen and was presently in Afghanistan. They sent him a registered letter, requesting return receipt, on May 10. As I understand it, the letter contained the required 30 days' notice and also a draft of a release of all rights to the land.

Last week when they had not received a reply, they checked through the National City Bank of New York. Miller asked the bank if it would endeavor to contact Randall through one of its correspondent banks, either in Afghanistan or some nearby country. The bank thought it would require too long a time; they estimated 10 or 12 days.

Miller then had the bank president personally contact the president of Morrison and Knudsen in San Francisco. He knew Randall very well and said for the past five years he (Randall) has been a plant superintendent for Morrison and Knudsen in Afghanistan. He offered to contact Randall through their own communications system and inquire if he did receive a registered letter; why he had not replied; and to restate the problem and request a release by international cable. Miller said the official of Morrison and Knudsen promised to phone him today to report whether he had received a reply.

In case the reply was not received, Miller wondered what course his company should take.

Since he had stated the facts in the case, which we would make a part of our record, I as a layman could see no reason why they should hesitate to sign the contract and get it in the mail before midnight tonight. I felt that the Government stood no chance of being injured unless it spent money on the project (the project was certified) and then it developed that the company had no title to the ground.

Miller assured me that they would not spend a cent under the contract unless they could get the release from Randall. As an alternative to the release, he felt there was always the chance to make a deal with Randall.

I told him I would check with Dwyer, and we arranged that Bob would phone Miller this afternoon and present his reaction. Late in the afternoon Bob told me he was phoning Miller and that he would suggest that the company sign the contract today and then continue their efforts to clarify the title problem.

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
CABLE ADDRESS
"JERSEZINC"
160 FRONT STREET
NEW YORK 38, N.Y.
HORSE HEAD PRODUCTS ®

OFFICE OF THE VICE PRESIDENT

June 30, 1958

Mr. C. O. Mittendorf, Administrator
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

re: Docket No. DMEA - 4907 (Fluorspar-Zinc-Lead)
The New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Mittendorf:

Returned herewith are the original and three copies of Contract # Idm-E1206, duly signed in accordance with your letter to Mr. S. S. Goodwin, dated June 16, 1958. We have retained the "Operator's Copy".

Very truly yours,

S. S. Goodwin
Vice President

SSG:ljv

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 1 1 1958

DATE	INITIALS	CODE
7/1	C	220
7/1	B	215
9/1	[illegible]	600

Form 7-
(5)

OFFICIAL FILE COPY

Date	Surname	Code
6/17	Houk	600
6-13	Chamberlin	800
6/16	Selfridge	130
6/13	Lewis	130
6/13	Kilsgaard	130
6/16	Gunn	110
"	Mittendorf	100
6/16	C	220
		600

600

JUN 16 1958

Mr. S. S. Goodwin, Vice-President
The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Goodwin:

We are enclosing the original and four copies of a proposed long-form contract for the cited project, signed by the Administrator, Defense Minerals Exploration Administration. The complete contract includes the contract form (MF-200), Annex I (1 page), Annex II (1 page), Exhibit "A" (4 pages), and one map.

If the contract meets with your approval, please sign all copies, retain the "Operator's Copy" for your files, and transmit the others to this office. In case it should not meet with your approval, please return all copies to us with your comments.

In order to become effective, the contract must be signed and in the mail by June 30, 1958.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

LGHouk:rsi 6/13/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. McDougal, 3405
Mr. Houk

8623

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6)

OFFICIAL FILE COPY

Date	Surname	Code
6/13	Houk	600
6-13	Chamberlin	800
6/16	[illegible]	130
"	Johnson	110
"	Hillenbrand	100
		220

JUN 16 1958 600

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Laurence:

To save valuable time, we are forwarding the original and four copies of a proposed long-form contract to the Applicant's New York City office.

We are enclosing two extra copies, minus the form, for Field Team use. This material consists of Annex I (one page), Annex II (one page), Exhibit "A" (four pages), and one map.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

LGHouk:rsi 6/13/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. McDougal, 3405
Mr. Houk

Approved:

Frank D. Lamb (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

8623

OFFICIAL FILE COPY

Date	Surname	Code
6/13	Houk	600
"	Johnson	110
"	Mittendorf	100
		220

600

June 12, 1958

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: L. G. Houk, Director, Division of Nonmetallic Minerals

Subject: Waiver of Consent to Lien and Subordination Agreement and Performance Bond.
Re: Docket No. DMEA-4907-Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project No. 2

On May 21, 1958, the New Jersey Zinc Company, by letter, requested the waiving of the requirement for an Owner's Consent to Lien and Subordination Agreement and a Performance Bond.

Past performance of this company on other DMEA contracts has been excellent and the company has an excellent reputation in the mineral industry.

I recommend that these requirements be waived.

Lawrence G. Houk

Lawrence G. Houk, Director
Division of Nonmetallic Minerals

LGH:rsi 6/12/58
Copy to: Admr. R. File
Mr. Houk

8623

6/13/58

Memorandum to the File:

Re: Docket No. DMEA-4907-Fluorspar
New Jersey Zinc Company
Project Two
Pope County, Illinois

Mr. Long of Legal finds the long-form Option Agreement between Laura Baumer and the Barnetts as filed in the docket, acceptable for purposes of our letting contract.

LGHouk

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

Memorandum

JUN 11 1958

To: Administrator, Defense Minerals Exploration Administration

Through: Director, Division of Nonmetallic Minerals

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-4907, New Jersey Zinc Company, Project Two, Pope County, Illinois

We have prepared the attached contract as requested. However, your attention is directed to the three lease agreements in the Docket pursuant to the provisions of which New Jersey Zinc Company is in possession of the property. All three of the leases refer to terms and provisions of other leases or option agreements which are not a part of the docket.

The lease between Laura Baumer and New Jersey Zinc Company, dated June 21, 1954, is for a 2-year period "...with the privilege of extension to and including July 1, 1959...".

The lease between Robert S. Barnett and Marjorie Barnett, his wife, and New Jersey Zinc Company, dated July 29, 1954, is for a period of 2 years "...with the privilege of extension for further one-year periods thereafter...". In view of the lack of documentary proof, we are assuming that in both instances the extensions were applied for and granted. However, we recommend that prior to delivery of the contract to the company, the latter furnish evidence of its right to occupy the property for at least such period as is required by the exploration project. It is also noted that the docket contains a request by the company of a waiver of the requirement that either a bond or consents to lien be supplied. We again assume that the request has been granted.

Robert P. Dwyer

Attachments

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)

CABLE ADDRESS
"JERSEZINC"

160 FRONT STREET

NEW YORK 38, N.Y.

May 21, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 22 1958

DATE	INITIALS	CODE
5/22	C	220
5/22	Cop	100
"	Fg	160
		Copy

Mr. C.O. Mittendorf, Administrator
United States Dept. of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-4907;
Fluorspar Zinc and Lead;
The New Jersey Zinc Co.,
Project Two, Pope County,
Illinois

Dear Mr. Mittendorf:

We have your letter of May 16, 1958 to Mr. Goodwin, and he has requested me to answer the same for him. Yesterday afternoon, I tried to reach you by telephone but understand that you were in conference with the Secretary. In any event, I was able to speak to Mr. Johnson, and he was certainly most helpful.

I am pleased to refer you to the above letter which concerns your Docket No. DMEA-4907. In the past on our several exploration contracts in Tennessee and Virginia, the Government has waived the requirement relating to a performance bond or, in the alternative, to a subordination agreement and consent to lien from the holders of legal title to the lands to which the contracts are directed. In this matter, although only three property owners and their respective spouses are concerned, it would be extremely difficult, if not impossible, for us to obtain a subordination agreement and consent to lien from them, especially the O'Roarks. We have been negotiating, as have other companies, with the O'Roarks for the past several years; and it was only very recently and after numerous conferences that we were finally successful in obtaining an agreement from them. I believe that I can state unequivocally that it would be next to impossible to obtain a consent to lien from these owners. Therefore, I respectfully request that this requirement be waived. Secondly, because of our outstanding reputation and leadership for over the

past one hundred years in mining and smelting operations in this country and because of the high regard in which we are held in the financial community, I respectfully request that you waive the requirement of a performance bond on this exploration project.

I trust that I shall hear from you favorably on these requests at your early convenience and that this will not delay the processing of our Application.

Very sincerely yours,

Lindley G. Miller

Legal Department

LGMiller:jm

May 20, 1958

Telephone conversation between Mr. L. G. Houk and Mr. R. A. Laurence, Knoxville, Tenn.

Re: Docket No. DMEA-4907-Fluorspar
New Jersey Zinc Company

Mr. Laurence could not understand why we required a performance bond on New Jersey Zinc while none of the other New Jersey contracts had required them. I ~~stated~~ mentioned that Mr. Burmeister's report stated the company would provide a performance bond in lieu of Consent to Lien and Subordination Agreement according to Rudolph Bing. I stated that we must treat everyone alike and that we must have documentation that an attempt had been made to secure Consent to Lien and Subordination Agreements or performance bonds after which time it was at the discretion of the Administrator to waive or require a third party guaranty.

DEFENSE MINERALS ADMINISTRATION

97023

PRODUCTION EXPANSION DIVISION

PROCUREMENT APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Length of Contract (preproduction plus production) _____

Amount of Metals or Minerals in tons, units or pounds _____

Floor price or Guaranteed price and whether or not escalated _____

Maximum Government Commitment _____

Comments on Contract: _____

_____

_____

_____

_____

_____

Date sent to Legal Division _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to G.S.A. by D.P.A. _____

Date signed into Contract by G.S.A. _____

Additional Remarks: _____

_____

_____

_____

_____

NOTE: If application is denied, or if it is recommended for change into exploration, etc., please state under additional remarks.

Interior—Duplicating Section, Washington, D. C.

Signed _____

Form 7
-56)

OFFICIAL FILE

Date	Surname	Code
5/16	Anderson	600
5/16	Houk	600
"	Johnson	110
"	Mittendorf	100
5/19	C	220
		600

600

MAY 16 1958

Mr. S. S. Goodwin
Vice President, The New Jersey Zinc
Company
160 Front Street
New York 38, New York

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Goodwin:

Reference is made to your application for Government assistance to explore the subject property. We have been informed that you desire to post a performance bond in lieu of Consent to Lien and Subordination Agreement.

Ordinarily an Applicant Lessee is required to furnish Consents to Lien and Subordination Agreements from the owners. However, if you are unable to obtain them from all three owners, you should furnish documentation to that effect, then, we may accept a performance bond for the amount of the Government's participation in the cost of the work.

You will find enclosed copies of a performance bond, showing the penal sum of the bond, which will be acceptable to the Government when properly executed by a surety company. The penal sum of $19,596.00 represents the amount of Government participation if an exploration project on your property is approved.

Upon receipt of the Consents (2 enclosed) to Lien and Subordination Agreement or the performance bond, properly executed, we will continue processing your application.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures 2

WCAnderson:gad 5/16/58

Copy to: Admr. R. File
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Anderson
Mr. Houk

8623

May 13, 1958

Memorandum

To: Files

From: Walter C. Anderson WCA

Subject: Incidental costs - Docket No. DMEA-4907-Fluorspar
New Jersey Zinc Company
Project Two
Pope County, Illinois

1. Supervision

Basis for costs: Use of two drills, double shift, and 6 days a week ~~on each project~~, with supervision consisting of one geologist, 1 geologist assistant, 1 surveyor and assistant, stenographic and accounting help.

Drilling progress - 30 feet per shift/drill, or 120 feet/day.

Footage of drilling - Stage I - 7160
Stage II- 5000
Total 12,160

Time for drilling - 12,160 ÷ 120 = 102 days.

1 geologist (part time) 2½ months @ $500/mo.	$1,250.00
1 assistant - 816 hours @ $1.25/hr.	1,020.00
1 surveyor and helper - 12 days @ $25/day	300.00
Total supervision	$2,570.00

2. Miscellaneous

Engineering and accounting office expenses, 4 months @ $100/mo.	400.00
Payroll taxes and insurance @ 6% on ~~$3,170.00~~ 2970.00	178.20
Core shed rental - 5½ months @ $10/mo.	55.00
Travel - 102 round trips @ 54 miles/day, or 5508 miles @ $0.08/mi.	440.64
Total miscellaneous	$1,073.84
Total incidental costs (exclusive of drilling, core boxes, and assaying)	$3,643.64

3,643.84 ÷ 12,160 = $0.30 per foot of drilling. *

Note: 30 cents for incidentals per foot of drilling as against 28 cents estimated by the Field Team was concurred in by telephone by Mr. Burmeister on May 13, 1958, at 8:30 A.M. He explained he had not allowed enough time for travel.

* This item of cost was discussed with Mr. Selfridge on 5/23/58, and he agreed it was satisfactory - WCA

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/9	Knouse	600
5/9	Houk	600
5/9	Selfridge	120
		110
		100
		220

600

Mr. S. S. Goodwin
Vice President, The New Jersey Zinc
Company
160 Front Street
New York 38, New York

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Goodwin:

With your application to explore the subject property there was enclosed an agreement dated June 21, 1954, between your Company and Laura Baumer.

This agreement does not provide your Company with control of the land for a sufficient period of time for the proposed exploration project or the right to mine or remove ore from the property.

It is the policy of the Defense Minerals Exploration Administration that applicants for exploration assistance have control of the land for at least a two-year period, with the right to extend the period for at least an additional three years. Also, that the applicants have the right to mine and remove ore from the property. You are, therefore, requested to obtain an amendment to the above agreement conferring such rights on the New Jersey Zinc Company, and forward two copies of the amendment to this office.

Sincerely yours,

Not Sent

Lawrence G. Houk, Director
Division of Nonmetallic Minerals

FLKnouse:gad 5/9/58
Copy to: Admr. R. File
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk
Mr. Knouse

8623

OFFICE FILE COPY DMEA RECEIVED MAY 9 1958		
DATE	INITIAL	CODE
5/9	C	220
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

Date May 8, 1958

DMEA Docket No. 4907
DMEA Contract No.
Commodity Fluorspar
Name of Applicant The New Jersey Zinc Co.
Name of property Project II
Location of property Pope County, Illinois
Estimated cost of project Not Known

To: Lawrence G. Houk, Chief, Non-Metallic Division, Defense Minerals Exploration Administration

From: Robert B. McDougal, Commodity Specialist, Branch of Construction and Chemical Materials

Subject: Review of Field Team Report
(~~Application~~, Field Team Report, ~~etc.~~)

1. Date of subject document: 4/28/58. 2. Date received by reviewer: 5/1/58

3. Other reports on this property known to reviewer: Yes ☐ No ☐

4. Other reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked 'yes' above:

8. Factors meeting special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☐
   c. Denial ☐
   d. Agree with Field Team ☒
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)

Copy to: Thor H. Kiilsgaard, Rm. 5222
Frank D. Lamb
Division of Minerals
Br. of Const. & Chem. Mats.
F I L E S

Robert B. McDougal

Robert B. McDougal

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 7 1958

DATE	INITIALS	CODE
5/7	C	220
		680

May 7, 1958

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4907 (Fluorspar) The New Jersey Zinc Company, Project II, Pope County, Ill.

The examining team conclude that conditions on the applicant's property are favorable for the presence of important fluorspar deposits. They recommend approval of a DMEA contract that would provide for an exploration drilling project.

Their decision is based on the facts that the property lies along one of the major producing geologic structures--the Wolrab Mill fault zone; large production has come from nearby areas; the property has been little explored; and the applicant's geochemical surveys are favorable.

I agree with the examining team's recommendations for approval of the application.

W. P. Williams

W. P. Williams

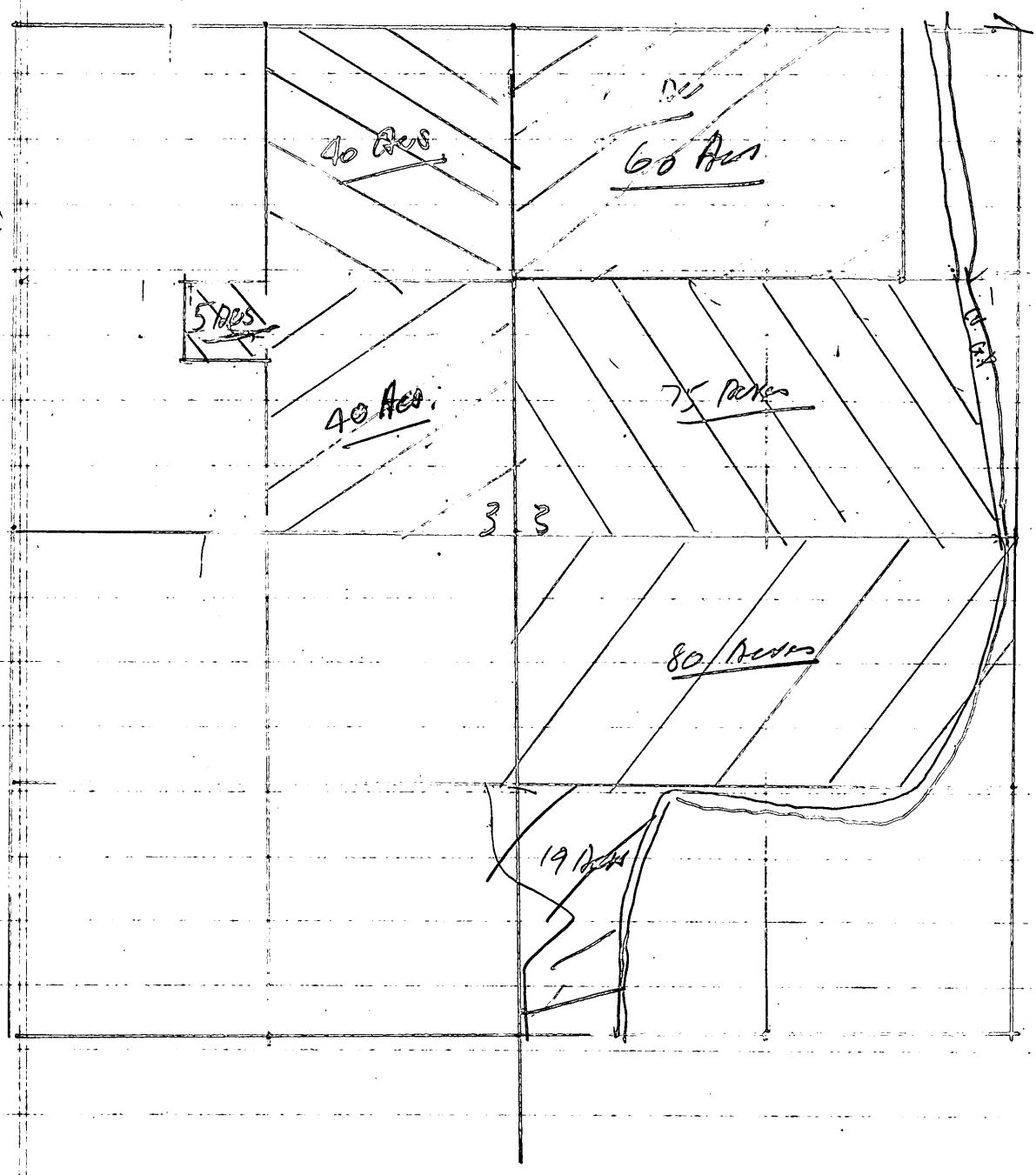
1. W.T. O'Rourke SW1/4 of the NE1/4 Sec 28, T12S, R. 7E S.B.M. 40 acres — OK land.
2 yr. lease from March 15, 1958
No renewal provision.
Lease defaulted June 1954. Rents to July 1, 1959

2. L. Baumer — W 3/4 of the N1/2 of the NE1/4 (60 acres +) The NE1/4 of the NW1/4 (40 acres +) Plus, 5 acres + in the NE cor of the NW1/4 of the SW1/4 being all of said 1/4 1/4 sections
Apply North of Gran Quivira Creek

A = 1/4 Sec

L. Baumer.

Dec. 0.11. Sec 33 - T. 12, S., R. 7. E.



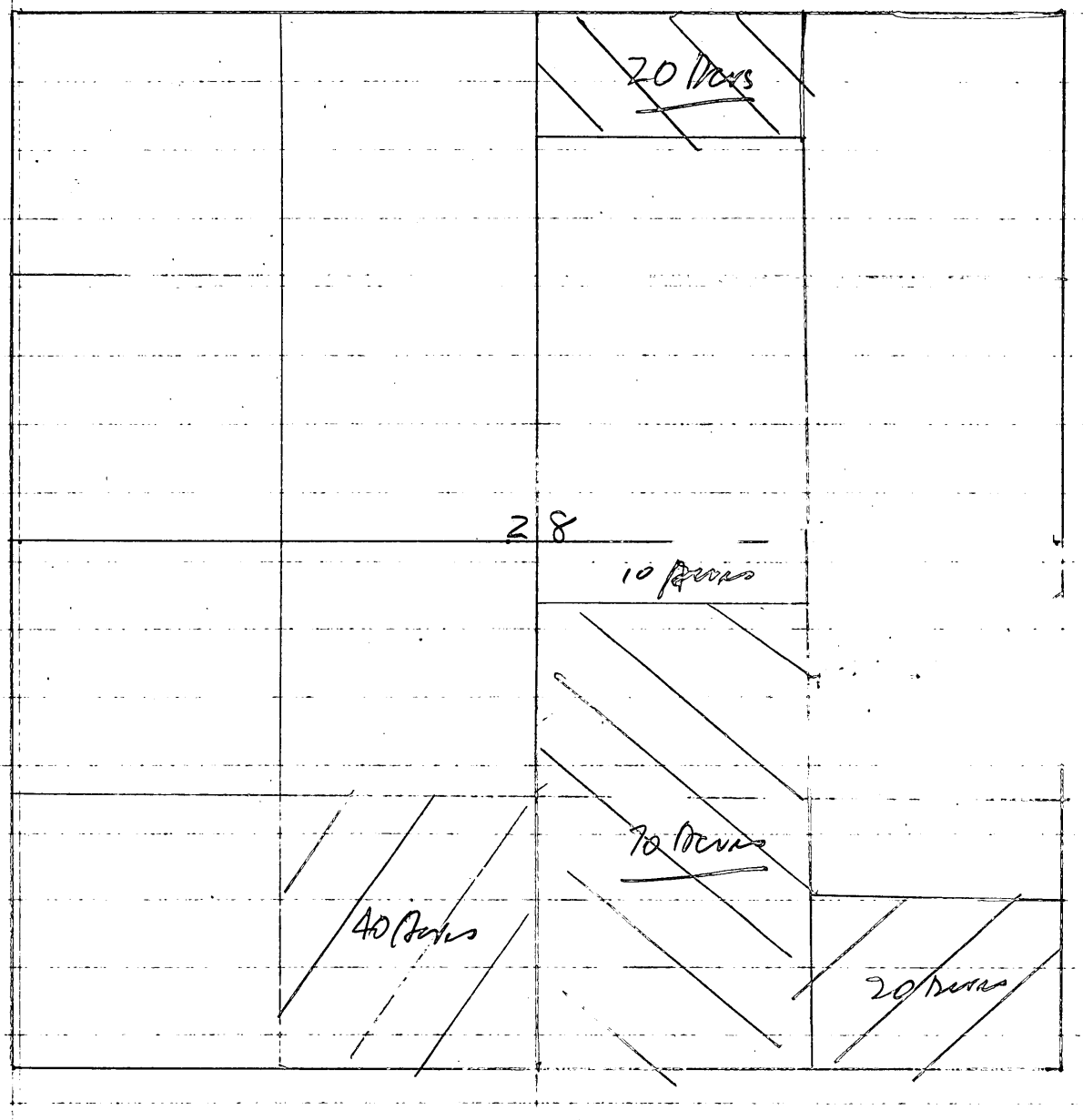
40
40
60
75
80
19
5

319 Acres

contd. next page

L. Banner

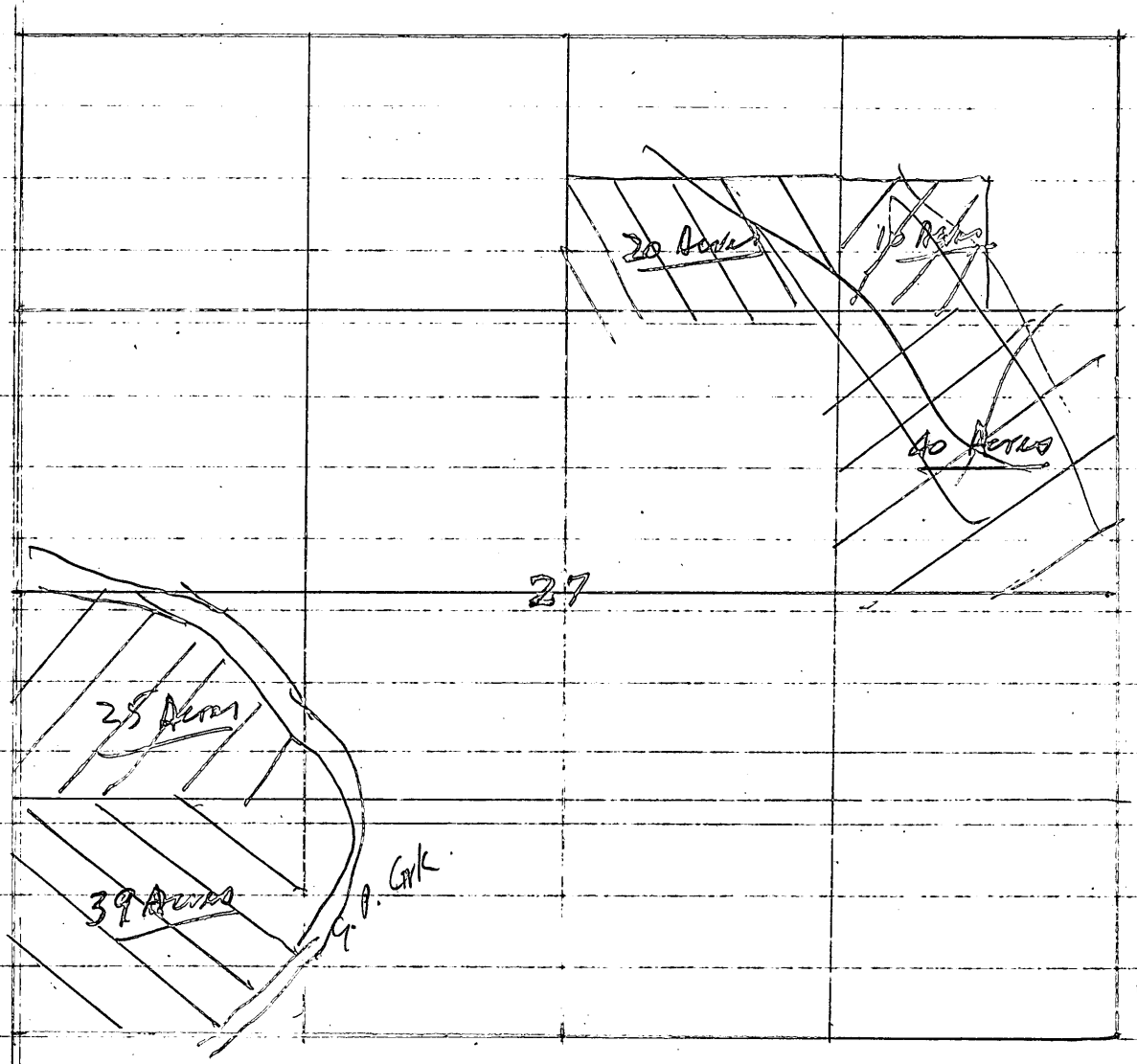
SEC 28



20
70
40
20
150 Acres

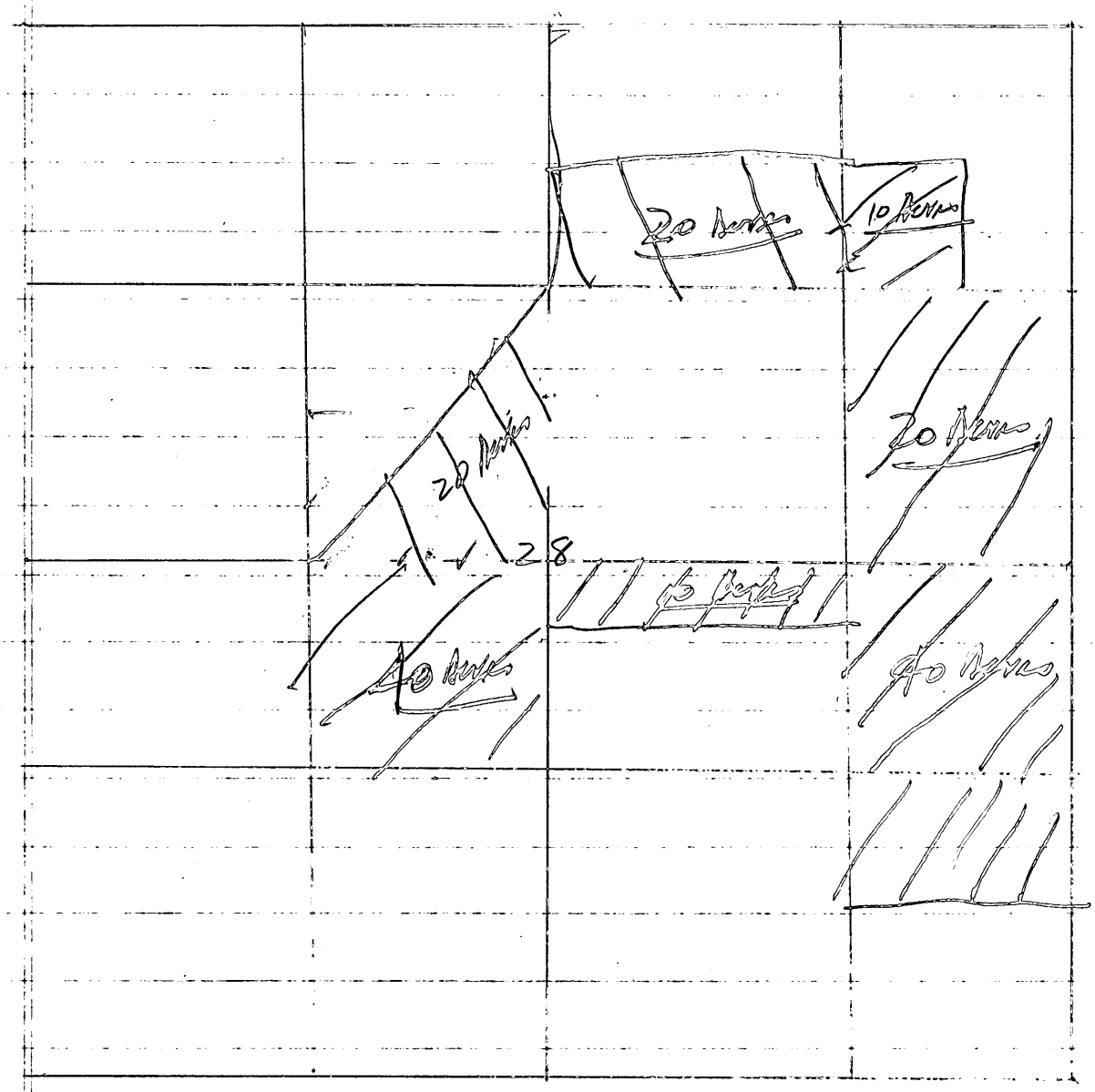
Robt. S. Barnett. July 29, 54

sec. 27



Robt. S. Barnett

SEC. 28



UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 9 1958

DATE	INITIALS	CODE
5/9	C	220
5/9	H	600

May 7, 1958

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, REgion V - Knoxville, Tennessee

Subject: Supplement to Field Examination Report - DMEA-4907, (Fluorspar) The New Jersey Zinc Co., Project II, Pope County, Illinois

Attached are 3 copies of the cost estimates to the subject examination report mailed your office April 28.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Region V

V. J. Lynch
V. J. Lynch, Member
DMEA - Bureau of Mines

z

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DMEA
RECEIVED MAY 9 1958
DATE | INITIAL | CODE

SUPPLEMENT TO
FIELD TEAM REPORT OF EXAMINATION

DMEA 4907, New Jersey Zinc Company
Project II, Pope County, Illinois

Property Rights

On January 21, 1958 the Applicant's representative, Mr. Rupert Bing, informed the engineer that the Applicant expected to post a performance bond rather than procure Consent to Lien from land owners. In a telephone conversation on April 30, 1958, Mr. Bing informed the engineer that the W. T. O'Roark property had been leased and included in the exploration area.

Estimate of Costs

The Applicant's New York office has by telephone, expressed a preference for the core drilling bid of the Joy Manufacturing Company. The engineer concurs in this choice.

Costs have been calculated on the following estimates. (1) Average depth of overburden, 10 feet; (2) Average NX or BX drilling to seat casing, 15 feet; (3) Two drills, each operating 2 shifts per day, 6 days per week and with each shift making an average advance of 30 feet. These estimates were arrived at in conference with the Applicant's representative except that the representative estimated a slightly higher per shift rate of drilling.

Stage I

Independent Contracts

Overburden drilling, 100 ft. @ $2.95/ft.	$ 295.00
NX or BX to collar hole, 150 ft. @ $2.95/ft.	442.50
AX-BXWL ~~BXM-BXL~~, 6910 ft. @ $2.65/ft.	18,311.50
Reaming, 300 ft. @ $1.75/ft.	525.00
Cementing, 60 hrs. @ $8.00/hr.	480.00
Hole survey or other lost time 40 hrs. @ $8.00/hr.	320.00
Total	$20,374.00

Omit, as per telephone instruction from Mr. Burmeister on May 13-58 @ 8:30 A.M.

Carried forward.....$20,374.00

Personal Services

60 working days = $2\frac{1}{2}$ months

1 geologist (part time), $1\frac{1}{2}$ mo. @ $500.00 .....$750.00
1 assistant, 60 days (480 hrs. @ $1.25/hr.) 600.00
1 surveyor and helper (brushing and layout holes)
8 days @ $25.00 ..... 200.00
Stenographic and accounting 1/3 mo. @ $250.00 ..... 75.00

Total .....$ 1,625.00

Rental and Supplies Purchased

Core shed rental, 3 mo. @ $10.00 .....$ 30.00 → Put into incidentals (according to Talbert - 5/12/58)
175 core boxes @ $3.25 ..... 568.75
use $3.00 (note)

Total .....$ 598.75

Miscellaneous

Insurance and payroll taxes on $1,625.00 @ 6% $97.50
Assays for (CaF_2, Zn, Pb) 40 @ $6.00 ..... 240.00
Travel, (54 mi. per day) 3240 mi. @ $.08 mi. 259.20

Total .....$ 596.70

TOTAL STAGE I $23,194.45

An incidental allowance including, personal services $1,625.00, insurance and payroll taxes $97.50 and travel $259.20, totaling $1,981.70, would amount to $0.28 per foot for 7,160 feet of drilling in Stage I.

Why? ← use $0.30 (Concurred in by Burmeister over the telephone on 5/13/58 at 8:30 a.m.)

Stage II

Independent Contracts

4800

Overburden drilling, 80 ft. @ $2.95/ft. ....$ 236.00
NX or BX to collar 120 ft. @ $2.95/ft. 354.00
AX-BXWL-BXM-BXL, 4,800 ft. @ $2.65/ft. 12,720.00
Reaming 210 ft. @ $1.75/ft. 367.50
Cementing 43 hrs. @ $8.00/hr. 344.00
Hole survey or other lost time 30 hrs. @
$8.00/hr. 240.00

Omit - as per telephone instruction from Mr. Burmeister on May 13, 58 at 8:30 A.M.

Total $14,261.50

Carried forward $14,261.50

Personal Services

42 working days = 1 3/4 months

1 geologist (part time) 1 mo. @ $500.00 .....$500.00
1 assistant, 43 days (344 hrs. @ $1.25/hr.) 430.00
1 surveyor and helper (brushing and hole layout)
6 days @ $25.00 ..... 150.00
Stenographic and accounting $\frac{1}{4}$ mo. @ $250.00 ... 62.30

Total 1,142.30

Rental and Supplies Purchased

Core shed rental, $2\frac{1}{2}$ mo. @ $10.00 ..... 25.00

Total 25.00

Miscellaneous

Insurance and payroll taxes on $1,142.30 @ 6% ..$ 68.54
Assays for (CaF_2, Zn, Pb), 32 @ $6.00 ..... 192.00
Travel, (54mi. per day) 2,268 mi. $.08 mi. 181.44

Total 441.98

TOTAL STAGE II $15,870.78

An incidental allowance including, personal services $1,142.30, insurance and payroll taxes $68.54, and travel $181.44, totaling $1,392.28, would amount to $0.28 per foot for 5,000 feet of drilling in Stage II.

Use $0.30 (Concurred in by Burmeister over telephone on 5/13/58 at 8:30 A.M.)

Total estimated cost of Stage I and Stage II - $39,065.23

April, 1958

H. L. Burmeister, Mine Examination
and Exploration Engineer
U. S. Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

April 28, 1958

OFFICIAL MAIL
DMEA
RECEIVED APR 30 1958
DATE | | TIME
4/30 C 220
5/2 JB 130
5/2 C 220
5/5 H 600

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tennessee

Subject: Field Examination Report - DMEA-4907(fluorspar)
The New Jersey Zinc Company
Project II, Pope County, Illinois

Submitted are the original and two copies of the subject examination report and 8 extra copies of the geological map.

Also enclosed is a copy of the lease between Wm. T. O'Roark and wife and The New Jersey Zinc Company which brings the O'Roark property within the proposed contract area.

The Field Examination Report does not contain the cost estimates. These will be forwarded as a supplement to the report as soon as the costs of certain items not now available, are obtained. We thought you might want to be considering the rest of the report while waiting for the costs to be submitted.

We agree with the Field Examiners in recommending a two-stage exploration project for this property.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Region V

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5-2-58
(date)

On-Site Exam Rpt

OFFICIAL FILE COPY
DMEA
RECEIVED APR 30 1958

DATE	INITIAL	
5/2	JHB	150
		220

UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT

REGION V

DMEA-4907 (fluorspar)
Project II
New Jersey Zinc Company
Pope County, Illinois

By

Dewey H. Amos
Geologist
U.S.Geological Survey

and

H.L.Burmeister
Mining Engineer
U.S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5/2/58
(date)

April 19, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 30 1958
DATE | INITIALS | CODE

SUMMARY

The area of proposed exploration lies along the Wolrab Mill fault zone, one of the major producing units of the western part of the southern Illinois fluorspar district. Considerable production of fluorspar has been obtained from the Van Cleve tract located northeast of the Applicant's properties. Several major faults which have not been explored traverse the area of proposed exploration. They are structurally and stratigraphically favorable for significant fluorspar mineralization.

Since the application was submitted, the Applicant has obtained control of the mineral rights on a contiguous tract (O'Roark). Action has been initiated to have this property included in the application. If this tract is included in the exploration area, it is recommended that exploration assistance be granted and a two-stage drilling program is proposed. The Applicant's exploration proposal has been modified considerably to which the Applicant is in agreement.

At the present, costs of certain items are not available; thus, a list of estimated costs is not included in this examination report. As soon as the estimated costs are available they will be submitted in a supplement to this report.

LOCATION

The area of proposed exploration is in section 28, R.7E., T.12S., eastern Pope County, Illinois. It is in the western part of the southern Illinois fluorspar district about five miles west of the town of Rosiclare.

APPLICANT'S PROPERTY RIGHTS

Exploratory assistance was requested in the original application on portions of two tracts (Laura Baumer tract, 469 acres; Robert S. Barnett tract, 264 acres). The Applicant holds leases with options to purchase mineral rights on both parcels of land. Option rights on both of the tracts expire in July, 1959. Privilege to renew the lease on the Baumer tract terminates in July, 1959 but the privilege to renew the Barnett lease is indefinite. A detailed description of the properties and terms of the leases is given in the agreements attached to the application.

Since the application was submitted, the Applicant has obtained a lease on the mineral rights of the W. T. O'Roark tract (SW$\frac{1}{4}$,NE$\frac{1}{4}$,sec.28) which is between the Baumer and the Barnett properties. The field examiners do not know the terms of this lease.

The Applicant is currently negotiating for property rights on the Raleigh Stacy, John Crain and Clyde Flick tracts which are located just west of the area of proposed exploration (see attached map).

ACCESSIBILITY

Illinois State Highway No. 146 which is hard-surfaced crosses the northwest corner of the Baumer tract. An all-weather gravel road extends southward from this highway and traverses

the area of proposed exploration; thus, the area is accessible to drilling equipment. The Rosiclare Branch of the Illinois Central Railroad is about 1½ miles south of the properties and barge transportation on the Ohio River is available at the same place. The area is of relatively rugged relief and is mostly forested; thus, local hinderance to movement of equipment may be encountered.

AVAILABILITY OF LABOR, SUPPLIES, EQUIPMENT, ETC.

As the Applicant plans to have the drilling done under contract, availability of labor, supplies and equipment is not of immediate concern. Experienced mining personnel can be obtained locally. Most kinds of mining materials, supplies and equipment can be purchased in nearby towns. Any other required material could be shipped to Rosiclare by rail.

Water adequate for drilling purposes is available in nearby streams. Any mining operations conducted on the properties would supply sufficient water for milling or other needs. An electric power line crosses the northern part of the area of proposed exploration.

COMPETENCY OF APPLICANT

The Applicant has had considerable exploration experience in fluorspar ores and in the past has conducted exploration similar to that proposed in the application. Any exploration program would be under the direct supervision of competent personnel of the Harrisburg, Illinois, Office of the New Jersey Zinc Company who have had experience in the district.

PAST EXPLORATION AND RESERVES

Past exploration conducted on the properties under consideration has been very limited. Three shallow prospect pits are present in the northeastern corner of the proposed exploration area (see attached map) near the boundary between the Barnett property and the adjacent Shain tract. These pits are along the main fault ("Fault E") which traverses the area. The history of this work is not known.

The Applicant has conducted systematic geochemical prospecting on the Baumer, Barnett and O'Roark tracts during the last two years. Results of this work are given on the geologic map attached to the application. The concentration of zinc-lead in the residual soil immediately overlying bedrock was determined. In this district zinc and lead minerals occur only in association with fluorspar mineralization. Zinc-lead concentrations are usually spotty and not as continuous as the fluorspar mineralization; thus, the absence of a zinc-lead anomaly does not preclude the presence of fluorspar mineralization.

Two high zinc-lead anomalies were discovered in the geochemical work; one in the southwestern part of the area near the common corner of the Barnett, Baumer and Crain properties and the other in the central part of the area along the boundary between the Baumer and Barnett tracts. The Applicant is currently conducting detailed geochemical prospecting in the vicinity of the two anomalies.

No reserves of fluorspar are known in the area of proposed exploration nor can any be inferred. Mining operations are currently being conducted by the Ozark-Mahoning Company on the Van Cleve property about one-half mile northeast of the area of proposed exploration. The mineralization is along the Wolrab Mill fault zone. Considerable reserves are believed to exist on the property.

GEOLOGY

The western part of the southern Illinois fluorspar district is underlain by flat-lying sedimentary beds of Mississippian age which are displaced by numerous normal faults. The faults commonly have steep dips and the major ones have a northeasterly strike. Many minor faults of limited displacement and extent occur traverse to the regional structural trend. Mineralization consists of fluorite with subordinate sphalerite and galena in a gangue of calcite and barite. It occurs as cavity-filling deposits along the faults and is accompanied by minor replacement.

Stratigraphic units present in the vicinity of the area of proposed exploration are as follows:

	Stratigraphic Unit	Thickness
Chester series	Tar Springs sandstone	90 ft.
	Glen Dean Limestone and shale	60 ft.
	Hardinsburg sandstone	90 ft.
	Golconda limestone and shale	145 ft.
	Cypress sandstone	110 ft.
	Paint Creek shale	25 ft.
	Bethel sandstone	25 ft.
	Renault limestone and shale	90 ft.
Meramac series	Ste. Genevieve formation	
	Levias limestone member	20 ft.
	Rosiclare sandstone member	20 ft.
	Fredonia limestone member	205 ft.
	St. Louis limestone	500 ft.

Since the deposits are predominately of cavity-filling origin, major mineralization is restricted along the faults to places where both walls consist of competent rock units (massive limestone and/or sandstone). Significant mineralization occurs at certain favored stratigraphic positions along the faults; namely, (1) the middle and upper part of the Fredonia limestone member, (2) the upper part of the Renault limestone, and (3) the upper part of the Levias limestone member and the basal portion of the Renault limestone. The largest deposits and the major production of the western part of the southern Illinois district occur where at least one wall of the faults consist of the Fredonia limestone member of the Ste. Genevieve formation. Individual ore bodies commonly have a strike extent of 500 to 1000 feet and may have a dip extent up to 250 feet. Such bodies are generally most productive at or near fault intersections.

The area of proposed exploration lies along the Wolrab Mill fault zone, one of the important producing units of the district. In the vicinity of the properties under consideration the Wolrab Mill fault zone is 950 to 1250 feet wide and trends in a N.45°E. direction. This zone is bounded by two major faults which are approximately parallel; "Fault E" on the southeast side and an unnamed fault on the northwest side (see attached map). Several cross-faults traverse the fault zone on or near the Baumer, Barnett and O'Roark properties. As exposures of bedrock are poor in the area, several other cross-faults probably exist.

Production of fluorspar is currently being obtained from the Van Cleve property about one-half mile northeast of the area of proposed exploration. In addition, the Ozark-Mahoning Compnay controls drilled reserves between the current mining operation and the properties under consideration. The amount, extent and exact location of these reserves are not known. The mineralization occurs along "Fault E" (see attached location map).

Past exploration conducted on the Baumer, Barnett and O'Roark properties has been limited to shallow test pitting and geochemical prospecting. All of the test pitting has been along "Fault E" and has been confined to the northeastern end of the area. Barite is common in the dumps of these pits. This mineral is commonly associated with fluorspar in this district and is regarded as a favorable guide to ore.

The faults which traverse the area of proposed exploration have not been explored. All of these faults are favorable sites for mineralization (open, normal-type faults) and have the most favorable stratigraphic unit of the area (Fredonia limestone) along at least one wall at a reasonably shallow depth. This favorable stratigraphic unit occurs at a depth not in excess of 400 feet along all the known faults underlying the Baumer, Barnett and O'Roark properties.

APPLICANT'S PROPOSAL

The Applicant proposes to explore for fluorspar mineralization along all the major faults which traverse the Baumer,

Barnett and O'Roark properties. A two-staged exploratory program is proposed; all exploration is to consist of diamond core drilling. It is proposed that Stage I consist of drilling 14 holes totaling an estimated 7,900 feet. Stage I holes would be drilled along all the known faults that underlie the properties. Any significant mineralization encountered in Stage I holes would be explored further by Stage II drilling. The Applicant proposes that an additional 3,800 feet of drilling be provided for in Stage II.

RECOMMENDATIONS

It is recommended that exploration assistance be granted on the Baumer, Barnett and O'Roark properties. The following factors favor discovery of significant deposits of fluorspar:

(1) The properties lie along the Wolrab Mill fault zone, one of the important producing structures of the southern Illinois fluorspar district.

(2) Production is currently being obtained from the Van Cleve property which is located about one-half mile northeast of the area of proposed exploration.

(3) Several favorable structures which have not been explored traverse the properties.

(4) Prospect pitting and geochemical prospecting conducted on the properties has indicated the presence of minerals that are associated with fluorspar mineralization.

(5) The most favorable stratigraphic unit of the area, the Fredonia limestone member of the Ste. Genevieve formation, is present along all of the known faults on the properties at depths less than the economic mining limits of the district.

A two-stage exploration program consisting of diamond core drilling is recommended. This drilling should be of Ax, BxWL BxM size. Stage I should consist of 10 holes summarized as follows (proposed locations are shown on the attached map):

Hole No.	Property	Bearing	Inclination	Estimated Depth
2	Baumer	N.45°W.	-45°	700 ft.
4	Barnett	N.45°W.	-55°	750 ft.
6	Barnett	N.45°W.	-60°	800 ft.
11	Barnett	N.45°W.	-45°	750 ft.
12	Barnett	N.45°W.	-60°	800 ft.
15	Barnett	N.45°W.	-45°	260 ft.
16	Barnett	N.45°W.	-60°	700 ft.
17	Barnett	N.45°W.	-60°	800 ft.
19	O'Roark	N.45°W.	-60°	800 ft.
20	O'Roark	N.45°W.	-60°	800 ft.

These 10 holes total 7160 feet. This is four holes less and 740 feet less than requested in the application. Changes made in the Applicant's proposal are summarized as follows:

Applicant's Proposed Hole No.	Remarks
1	Target too near exterior property line; hole eliminated.
3	Target too high stratigraphically for most favorable mineralization; hole eliminated.

5	Target too high stratigraphically for most favorable mineralization; hole eliminated.
7	Hole based on geochemical anomaly; insufficient data to properly locate hole; hole eliminated.
8	do
9	Target too near exterior property line; hole eliminated.
10	do
13	do
14	do
15	Hole location added to original proposal.
16	do
17	do
19	Hole location added to original proposal; O'Roark property not included in original application.
20	do

The Applicant is in agreement with these changes in the original proposal.

The holes would probably be drilled in numerical sequence, although information obtained from completed holes might necessitate deviation from the planned sequence for the remaining holes. As many of the faults in the area can be only approximately located with existing data, locations of several of the holes will probably have to be changed once drilling is underway. In addition, completion of some of the proposed holes may indicate that others will not be warranted. Any contract should provide for deviation from the numerical sequence, change of location and omission of holes. Significant changes in location and the omission of holes should have prior Government approval.

It is proposed that Stage II drilling provide for about 8 holes totaling 5000 feet; this is 1200 feet more than requested

by the Applicant for Stage II. It is believed that this additional footage will be needed because of the inclusion of the O'Roark property. Prior Government approval should be required before entry into Stage II can be effected and for all Stage II hole locations.

All significantly mineralized ground should be assayed for CaF_2 and where applicable for lead and zinc. Breaks in an individual run to be assayed should be made at significant changes in mineralization. No individual assayed sample should exceed five feet in length.

Work under a contract could begin within 60 days and be completed within 15 months after date of contract.

ESTIMATED COSTS

At the present, costs of certain items are not available; thus, a list of estimated costs is not included in this field examination report. As soon as the estimated costs are available they will be submitted in a supplement to this report.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ROOM 13 POST OFFICE BLDG
KNOXVILLE 2, TENN.

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DATE	INITIALS	CODE
4/11	C	220
		600

April 9, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region V

Subject: Docket No. DMEA-4907 (Fluorspar, Zinc, Lead)
The New Jersey Zinc Company, 180 Front St., New York, N.Y.
Project Two, Pope County, Illinois

Mr. Amos and Mr. Burmeister reported yesterday by telephone that New Jersey Zinc Company is still negotiating for four additional properties which are considered necessary for this project. There is some doubt as to how many of the tracts they can option.

Recommendations for proposed work will depend on how many of these tracts are acquired, so that at least three alternate proposals would have to be prepared in order to submit the report now. Therefore, the Field Examiners were advised to withhold completion of the report for a while, awaiting definite word from the Applicant as to which tracts are under option. If no word is received by April 25, the report will be submitted at that time.

Robert A. Laurence

Robert A. Laurence

EXTRA COPY
DMEA
RECEIVED APR 11 1958
DATE | INITIALS | CODE

April 9, 1958

Memorandum

To: Operating Committee, DMEA, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region V

Subject: Docket No. DMEA-4907 (Fluorspar, Zinc, Lead)
The New Jersey Zinc Company, 180 Front St., New York, N.Y.
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Robert A. Laurence

RAL/mg
cc - Operating Committee
Mr. V. J. Lynch
Mr. H. L. Burmeister
Mr. Dewey H. Amos
File

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

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February 19, 1958

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4907 (fluorspar, zinc, lead) The New Jersey Zinc Co. Project Two, Pope County, Illinois

The field examination of this application has been completed. However, the recommendation will depend to a large extent upon acquisition by the Applicant of certain contiguous tracts. Therefore, completion of the field examination report will be delayed until word is received from the Applicant on the progress of the negotiations. A copy of our letter to the Applicant is enclosed.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Region V

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

2/21 c

206
600

February 19, 1958

Mr. Rupert Bing
The New Jersey Zinc Co.
106 North Main St.
Harrisburg, Illinois

Re: DMEA-4907(fluorspar-zinc-lead)
Prospect Two
Pope County, Illinois

Dear Mr. Bing:

I have been advised by Mr. Burmeister that your Company is negotiating for options on mineral rights to four tracts of land in the area of your application. As this would make a considerable difference in the proposed project, I am asking Mr. Burmeister and Mr. Amos to withhold their field examination report, pending advice from you as to whether or not you succeed in obtaining these tracts.

Therefore, will you please notify Mr. Dewey Amos, at the Department of Geology, Southern Illinois University, Carbondale, Illinois, when these options are obtained or, if there appears to be a long delay or likelihood that any or all of them cannot be obtained, please notify him to that effect.

Sincerely yours,

Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V

RAL/zm
cc
Opr. Com.-2
Burmeister
Amos
Lynch
Files

THE NEW JERSEY ZINC COMPANY

(ESTABLISHED 1848)

HORSE HEAD PRODUCTS ®

100 FRONT STREET

NEW YORK 38, N.Y.

OFFICE OF THE
VICE PRESIDENT

February 4, 1958

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Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

RE: DOCKET NO. DMEA - 4907
FLUORSPAR, ZINC & LEAD
THE NEW JERSEY ZINC COMPANY
PROJECT TWO
POPE COUNTY, ILLINOIS

Dear Mr. Mittendorf:

Submitted herewith are the diamond drilling bids for the subject application. The bids are from E. J. Longyear Company, Joy Manufacturing Company, and Sprague & Henwood, Inc., and are forwarded in quadruplicate for attachment to our application which was submitted December 30, 1957.

We have not as yet determined which bid we shall accept, but understand such decision is not immediately required.

If any additional information is required, we shall be glad to furnish it. If this project is approved, we shall be ready to proceed as soon as the contract is received.

Very truly yours,

S. S. Goodwin
Vice President

SSG/JBC:alb

Enclosures: 3 diamond drill bids
(in quadruplicate)

Copy sent to Bureau of Mines College Park 2/5/57 [illegible]

Longyear

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DATE	INITIALS	CODE

January 20, 1958

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

Attention: Mr. A. E. Turner

Gentlemen:

Diamond Drilling - Pope County,
Southern Illinois - 1-X-524

1. With reference to your letter of December 18, 1957, and our telephone conversation of today, we are pleased to confirm below our proposal for your contemplated exploratory drilling program which is to be carried out in the above-described area.

2. We understand that the program as now planned will consist of a series of angle holes with a minimum inclination of 45 degrees measured from the horizontal, ranging to a maximum of 1000 feet in depth, with a minimum aggregate footage of 6,000 feet to a maximum of 11,000 feet; that the materials to be drilled will consist of any one or possibly all of the following: nearly horizontally-bedded, moderately-soft sandstones, limestones, and shales; that the water required for drilling operations is readily available from streams which traverse the area. We further understand that the terrain is gentle, rolling; and that most of the drill sites will be accessible by truck.

3. For this work we propose to furnish one complete Longyear truck-mounted diamond core drill, together with the necessary accessory and service equipment required to complete the work as now planned. We further propose to operate the drill on either a one or two shift basis, depending upon the availability of competent drill operators.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance, and also, all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, land-slides and other similar hazards.

We will also assume and pay any and all Old Age Benefit, Unemployment and Social Security taxes and contributions imposed by federal or state authorities.

Certificates showing the coverage referred to will be furnished upon request.

5. Based upon the conditions as outlined above and as set forth in your letter of December 18, 1957, we are pleased to quote as follows:

a) Overburden Drilling

	Angle Holes - Min. -45° to -65°	Angle Holes - -66° to Vertical
0 to 100 feet in depth, measured from the collar of the hole....	$ 2.85 per ft.	$ 2.65 per ft.

b) Diamond Core Drilling -

Top of bedrock to 1000 feet (measured from the collar of the hole)-

AX standard and/or BX wire line, recovering core approximately 1-1/8" in diameter.....	$ 3.10 per ft.	$ 2.90 per ft.
BX standard, recovering core approximately 1-5/8" in diameter.	$ 3.30 per ft.	$ 3.10 per ft.
NX standard, recovering core approximately 2-1/8" in diameter.	$ 3.70 per ft.	$ 3.50 per ft.

c) Reaming and Casing

0 to 500 feet in depth -

AX hole to receive AX casing.....$0.75 per ft.
BX hole to receive BX casing.....$1.00 per ft.

500 to 1000 feet in depth -

AX hole to receive AX casing.....$1.00 per ft.

d) Drill hole inclination tests.....$7.00 per hour

e) Cementing, waiting for cement to set, and drilling out cement.....$7.00 per hour

f) Lumnite cement.....$3.50 per bag

g) Delays for your convenience or for which you are responsible.....$7.00 per hour

6. All casing left in the drill holes at the request of the New Jersey Zinc Company, will be charged at current retail list prices.

7. The above-quoted drilling rates are based on wages currently being paid in Southeastern United States. If during the life of this project, it becomes necessary for us to adjust the wages being paid our workmen because of demands of labor union or otherwise, it is understood and agreed that the Longyear Company reserves the right to increase drilling rates to cover resultant additional operating expense.

8. Cores will be turned over to your representative at the drill site in receptacles furnished by you.

9. Statements covering the work performed will be rendered as promptly as possible after the first of each month.

10. We appreciate the opportunity to consider this program, and trust that our proposal will be found acceptable.

Sincerely,

E. J. LONGYEAR COMPANY

Manager
Contract Drilling Division

M.J.Gleason:bal

ACCEPTED:

THE NEW JERSEY ZINC COMPANY

By: _____

Date: _____

JOY MANUFACTURING COMPANY
800 WOODLAND AVENUE
MICHIGAN CITY, INDIANA

EXECUTIVE OFFICES
HENRY W. OLIVER BUILDING
PITTSBURGH 22, PA.

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DATE	INITIALS	CODE

January 7, 1958

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

Attention- Mr. A. E. Turner,
Assistant Manager of Purchasing

Diamond Drilling
Pope County, Illinois - 1-8-58

Dear Mr. Turner:

In accordance with your letter dated December 18, we have had our Drill Superintendent from Resiclare, Illinois contact your local representative, Mr. Rudolph Bing of Harrisburg, Illinois, with regard to the proposed core drilling in Pope County, Illinois.

Our representative has examined the location of the proposed drilling and discussed the details of the work with Mr. Bing, and based on his report we have arrived at bid prices and quote below as follows:

Minimum Footage 6,000 ft.

		"BX"	"AX"
From surface to a depth of 850 ft.	@	$2.95 ft.	$2.65 ft.
Reaming for casing	@	$1.75 ft.	$1.50 ft.
Cementing, etc.	@	$8.00 hr.	$8.00 hr.

Hauling core, capping holes, etc. @ $4.50 hr.

Joy to furnish water for drilling purposes.

New Jersey Zinc to furnish core boxes.

We will furnish for this proposed drilling one or two of our Joy gasoline-driven core drills complete with operating equipment and will conduct the drilling operations on the basis of two eight-hour shifts per day and six days per week.

We have the necessary equipment and crews available at Rosiclare, Illinois and can start the work on short notice.

Thanking you for giving us an opportunity of quoting on your requirements and hoping that we may have the pleasure of serving you, we are,

Yours very truly,

JOY MANUFACTURING COMPANY

W. J. Pilarski, Manager
Contract Drill Division

WJP-ej

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DATE	INITIALS	CODE

SPRAGUE & HENWOOD, Inc.

DIAMOND DRILLING

MINERAL EXPLORATION • SOIL SAMPLING • PRESSURE GROUTING

EXECUTIVE OFFICES & PLANT • SCRANTON, PENNSYLVANIA

January 7, 1958

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

RE:- Diamond Drilling
Pope County, Southern Illinois
1-X-524

Attention:- Mr. A. E. Turner,
Assistant Manager of Purchasing

Gentlemen:-

As requested in your letter of December 18, 1957, we are pleased to quote you on a minimum of 6,000 feet of drilling and a maximum of 11,000 feet additional drilling in Pope County, approximately 19 holes ranging in depths from 300 ft. to 850 feet each, inclined between 45° to 70° from horizontal.

For this work we are pleased to quote you as follows:-

ITEM NO.

1 - For driving pipe through overburden and drilling AX holes, recovering a core approximately 1-1/8" in diameter

(a) -	0'	to	300'	-	$ 2.50 per lin.ft.
(b) -	300'	to	600'	-	$ 2.80 per lin.ft.
(c) -	600'	to	900'	-	$ 3.20 per lin.ft.

2 - For reaming holes through caved areas for the purpose of inserting casing

(a) -	Reaming AX to BX	-	$ 1.00 per lin.ft.
(b) -	" BX to NX	-	$ 1.25 per lin.ft.

3 - For casing left in holes

(a) -	AX casing	-	$ 1.70 per lin.ft.
(b) -	BX casing	-	$ 2.16 per lin.ft.

4 - For cementing holes, waiting for cement to set, drilling out cement, including use of diamond bits for drilling out cement - $ 12.50 per hr.

5 - For use of drilling equipment and crew to survey holes - $ 10.00 per hr.

6 - If larger holes and cores are requested by you, larger than AX, the following increase in prices will prevail:-

(a) - BX cores, 50¢ per lin.ft. in addition to prices quoted in Item 1, under a, b, and c.

(b) - NX cores, $1.00 per lin.ft. in addition to prices quoted in Item 1, under a, b, and c.

TO:- The New Jersey Zinc Company
Attn:- Mr. A. S. Turner,
Assistant Manager of Purchasing

For the above prices we will furnish complete drilling equipment required for the work, including experienced operating personnel.

You are to furnish core boxes for any cores which you wish to preserve.

Payments to be made monthly. Our invoice will be issued on the first of each month covering drilling for the previous month and payment to be made within thirty (30) days after date of invoice.

We are prepared to start this work promptly upon receipt of your order.

We wish to thank you for the opportunity of quoting on this work.

Very truly yours,

SPRAGUE & SHERWOOD, Inc.

Wm. J. Sherwood,
Vice President

WJS:LT
In Triplicate
cc- Atlanta Office

DMEA Form 7
(12-56)

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Date	Surname	Code
1/21	Anderson	600
1/22	Houk	600
1/22	Selbrede	130
1/22	McMahon	130
1/22	Kiilsgaard	130
"	Johnson	110
"	Mittendorf	100
1/22	gb	220
		600

600

JAN 22 1958

Mr. S. S. Goodwin
Vice President
The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois

Dear Mr. Goodwin:

Your application for assistance in exploring the subject property has been reviewed by the Division of Nonmetallic Minerals of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance you may give the members of the Field Team during the examination will be appreciated.

We note in your application that diamond drill bids will be forwarded in a few days.

Sincerely yours,

C. O. Mittendorf

Administrator

Send copy to Bureau of Mines 2/5/58

WCAnderson:rsi 1/21/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk

8623

DMEA Form 7
(12-56)

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Date	Surname	Code
1/21	Anderson	600
1/21	Houk	600
1/22	[illegible]	130
"	Johnson	110
"	Blackburn	100
		220

600

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

JAN 22 1958

Re: Docket No. DMEA-4907
Fluorspar, Zinc and Lead
New Jersey Zinc Company
Project Two
Pope County, Illinois -

Dear Mr. Laurence:

Please review the subject application and arrange for a field examination if you deem it necessary.

Copies of memoranda dated January 3 and 15, 1958, by Mr. N. E. Nelson, USGS, and Mr. R. B. McDougal, USBM, respectively, relating to the project are enclosed. There is also enclosed a copy of the application for the use of the Field Team.

If a contract is recommended, we will need a Consent to Lien and Subordination Agreement from the following owners:

1. Laura Baumer, a spinster, who owns the mineral rights on 469 acres of Project Two area.

2. Robert S. Barnett and Marjorie W. Barnett, wife, who own the mineral rights on 264 acres of Project Two area.

3. W. T. O'Roark, who owns the surface rights on the Barnett property.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Approved:

A. D. McMahon (GHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GHB)
Member, Geological Survey

WCAnderson 1/21/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk

Enclosures 5

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

Date January 15, 1958

DMEA Docket No. 4907
DMEA Contract No.
Commodity Fluorspar, Lead, Zinc
Name of applicant New Jersey Zinc Co.
Name of property Project Two
Location of property Pope Co., Illinois
Estimated cost of project $40,635

To: ✓ Lawrence G. Houk, Chief, Nonmetallic Division, Defense Minerals Exploration Administration

From: Robert B. McDougal, Commodity Specialist, Branch of Construction and Chemical Materials

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: Dec. 30, 1957 2. Date received by reviewer: Jan. 2,1958

3. Prior reports on this property known to reviewer: Yes ☐ No ☒

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☒

5. Information available on past production: Yes ☐ No ☒

6. Other pertinent factors known to reviewer: Yes ☐ No ☒

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☒
   c. Denial ☐
   d. Agree with Field Team ☐
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)
Attachment

Copy to: Thor H. Killsgaard, Rm. 5222, Geological Survey, Interior Building
Frank D. Lamb, Rm. 3068 Div. of Min.
FILES

Robert B. McDougal

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DATE	INITIALS	CODE
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1/6	wza	600

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

January 3, 1958
Re: DMEA 4907
The New Jersey Zinc Company
Project Two
Pope County, Illinois
$40,635.00 - Fluorspar, lead-zinc

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in exploring the extension and for strands of the Wolrab Mill Fault, by angle diamond drill holes.

The project area is about 11 miles southwest of Project One, the subject of DMEA applications 4358, 59 and 60, which were denied as prospecting ventures.

In support of the present application, geologic mapping and geochemical prospecting have been done. The tract to be explored is near the property of Ozark-Mahoning on which the Van Cleave mine is being opened, and the fault structure in which ore is found in the Van Cleave mine is believed to extend into the Project Two tract. What are classed as anomalous soil zinc shows suggest the existance of other ore-bearing structures and testing of an anomalous area by drilling is proposed.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

December 31, 1957

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

Subject: DMEA 4907

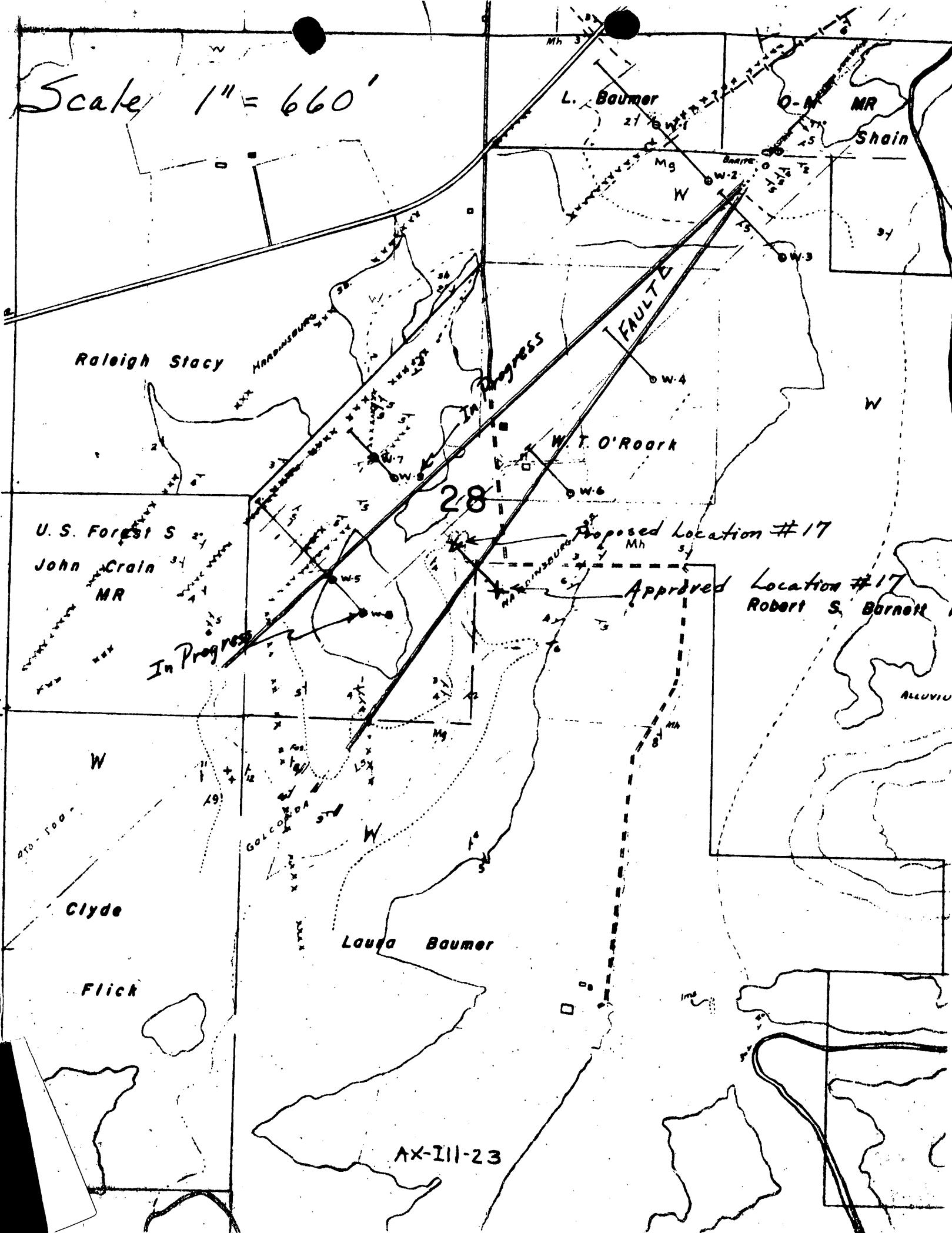
Gentlemen:

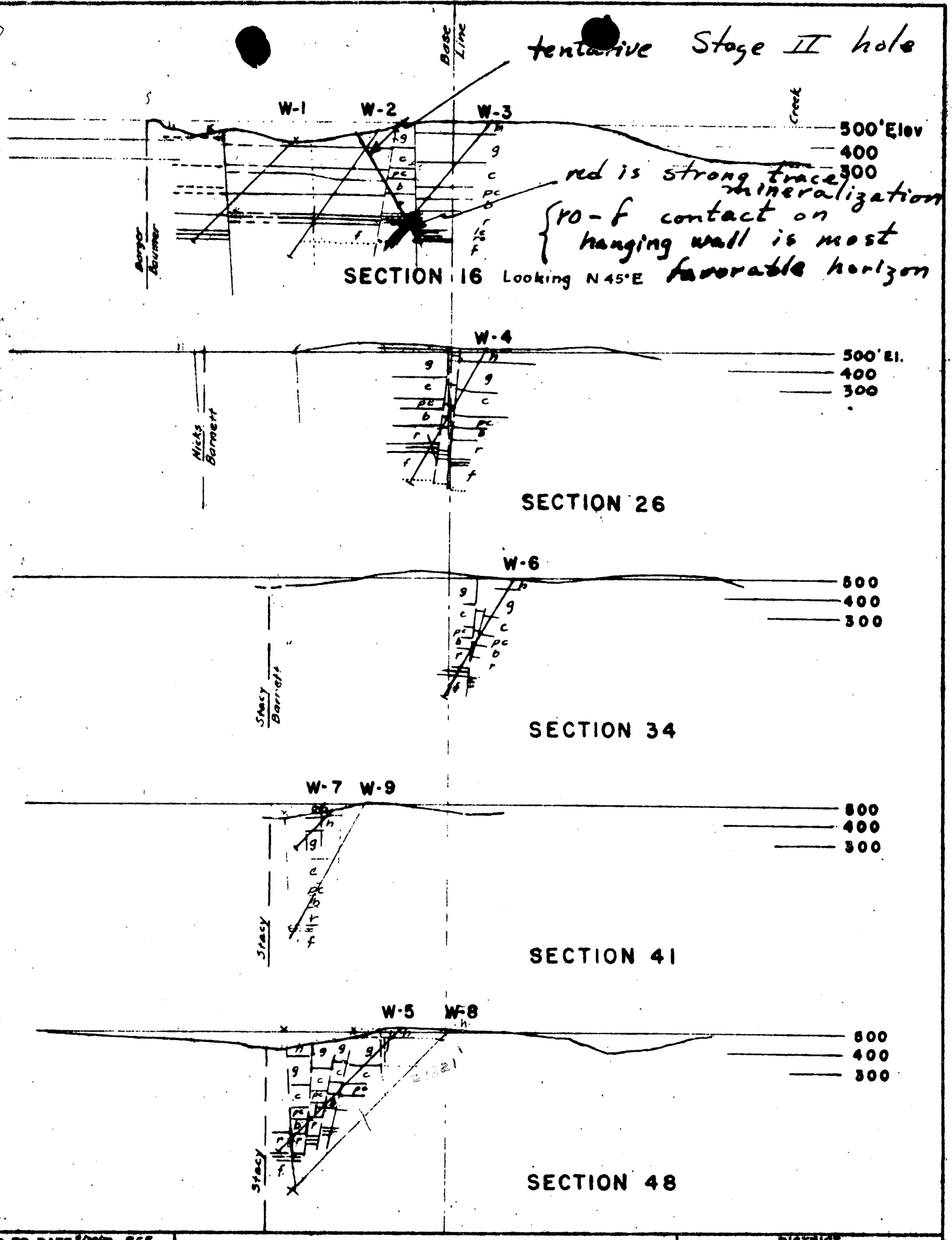
Your application for exploration assistance, dated December 30, 1957 submitted to our office at Washington, D. C. has been assigned Docket Number 4907 and referred to the Non Metallics Minerals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region V


Scale 1" = 660'
L. Baumer
O-M MR
Shain
Raleigh Stacy
FAULT
In Progress
W. T. O'Roark
28
Proposed Location #17
Approved Location #17
Robert S. Barnett
U. S. Forest S
John Crain
MR
In Progress
Clyde
Flick
Laura Baumer
AX-III-23



POSTED TO DATE 10/31/58 RCB; 11/30/58 JMH; 12/31/58 JMH	THE NEW JERSEY ZINC COMPANY Harrisburg, Illinois	DISTRICT Illinois
DRAWN RCB DATE 12/5/58 TRACED SCALE 1"=660'	Cross Sections Section 28-T12S-R7E	FILE NO. AX-ILL-33

X 0497 C 1% 8-59

hereinafter called the Owners, parties of the first part, and THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, authorized to do business in the State of Illinois, party of the second part, hereinafter called the Company:

W I T N E S S E T H :

That for and in consideration of the sum of ONE [illegible] DOLLAR and other good and valuable considerations in hand paid, the receipt of which is hereby acknowledged, Owners lease to the Company for a period of two years from the date hereof, with the privilege of extension [illegible] upon payment of sums of money agreed upon, the exclusive right to prospect for, explore and examine, [illegible] all the minerals, mineral substances, metals ores, ore-bearing materials and rock of every kind, in, under or on all of the following described premises: The East three-fourth (E 3/4) of the North One-half (N½) of the North East Quarter (NE¼), 60 acres, more or less; [illegible] Fourth (NW¼) of the North West Quarter (NW¼), 40 acres, more or less; [illegible] (SE¼) of the North West Quarter (NW¼), 40 acres, more or less;

South One-half (S½) of the North East Quarter (NE¼) except [illegible] (3) acres lying east of Grand Pierre Creek, 75 acres, more or less;

North One-half (N½) of the South East Quarter (SE¼), 80 acres, more or less;

All that part of the South West Fourth (SW¼) of the South East Quarter (SE¼) lying North West of Grand Pierre Creek and containing 19 acres, more or less;

All the above, aggregating 319 acres, being in Section 33, Township 12 South, Range 7 East of the Third Principal Meridian in Pope County, Illinois.

The North One-half (N½) of the North West Fourth (NW¼) of the North East Quarter (NE¼), 20 acres, more or less;

West One-half (W½) of the South East Quarter (SE¼) except 10 acres off the North end thereof, 70 acres, more or less;

South East Fourth (SE¼) of the South West Quarter (SW¼), 40 acres, more or less;

South One-half (S½) of the South West Fourth (SW¼) of the North East Quarter (NE¼), 20 acres, more or less;

[illegible]

[illegible] with the right to [illegible] thereon, to use available water and to remove samples, in accordance with the terms of [redacted] L.B. OPTION AGREEMENT of even date herewith entered into between the parties hereto. Also for and in the same consideration the Owners grant to the Company the option to purchase, at any time during the life of the aforesaid lease up to and including July 1, 1939, [redacted] L.B. the fee of, except oil and gas, [redacted] the above described premises [redacted] L.B. [redacted] all in accordance with the terms of the said [redacted] OPTION AGREEMENT of even date herewith. The terms of this agreement are fully set out in said [redacted] OPTION AGREEMENT, which is here referred to and made a part hereof as if fully set out at length.

The term "parties of the first part" as herein used shall be construed to mean, "the parties of the first part, their heirs, assigns and successors in title howsoever such succession may be accomplished" and the term "party of the second part" shall be construed to mean "party of the second part, its assignees, designees and successors in title howsoever such succession may be accomplished."

IN WITNESS WHEREOF the parties of the first part have hereunto set their hands and seals the day and year first above written.

Laura Passmore (Seal)

_____ (Seal)

Approved as to form

ATTEST:

Walter R. Ruyter
Its Secretary

THE NEW JERSEY ZINC COMPANY

By [illegible]
Its Vice President

[redacted]

COUNTY OF [redacted]) SS:

I, Alice F. Miller, a Notary Public in and for said County, in the State aforesaid, do hereby certify that [redacted]

personally known to me to be the same person whose name are subscribed to the foregoing Lease and Option Agreement appeared before me this day in person, and acknowledged that she signed, sealed and delivered the said instrument as her free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 21st day of June, 195[illegible].

My Comm ex. 12-4-56.

Alice F. Miller (nee Fumstein)
Notary Public
Ky State at Large

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

I, John T. Hourigan, a Notary Public; do hereby certify that S. S. Goodwin to me personally known to be the Vice President of THE NEW JERSEY ZINC COMPANY, a New Jersey Corporation, and Walter R. Anyan, personally known to me to be the — Secretary of said Corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing Lease and Option Agreement, appeared before me this day in person and severally acknowledged that they signed, sealed and delivered the said instrument as such Vice President and — Secretary respectively, and caused the Corporate Seal to be affixed thereto, pursuant to authority given by the Board of Directors of said Corporation, as their free and voluntary act and as the free and voluntary act and deed of said Corporation, for the use and purposes therein set forth.

Given under my hand and notarial seal this 23rd day of June, 1955.

Notary Public
NOTARY PUBLIC, State of New York
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1956

#16037

STATE OF ILLINOIS
COOK COUNTY

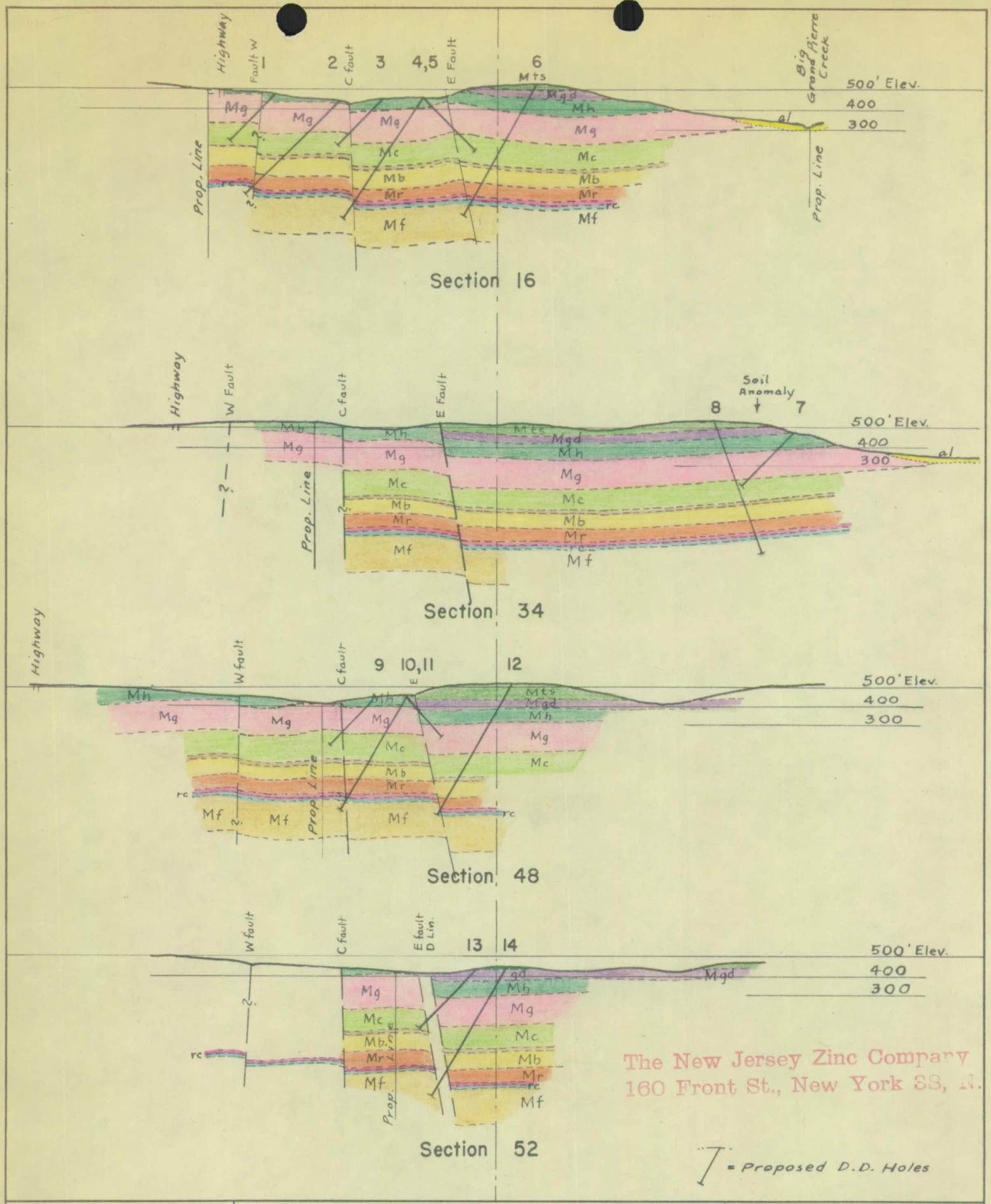
RECORDER'S OFFICE

I, Cassie Ragan, Clerk of the Circuit Court and ex-officio Recorder within and for the County and State aforesaid, do hereby certify that the within and foregoing instrument of writing was filed for record on the 9th day of July A.D. 1955 at 10:50 o'clock A. M. and duly recorded in volume 32 of Mtgs. on page 48

In testimony whereof, I have hereunto set my hand the day and date aforesaid.

Cassie Ragan Clerk

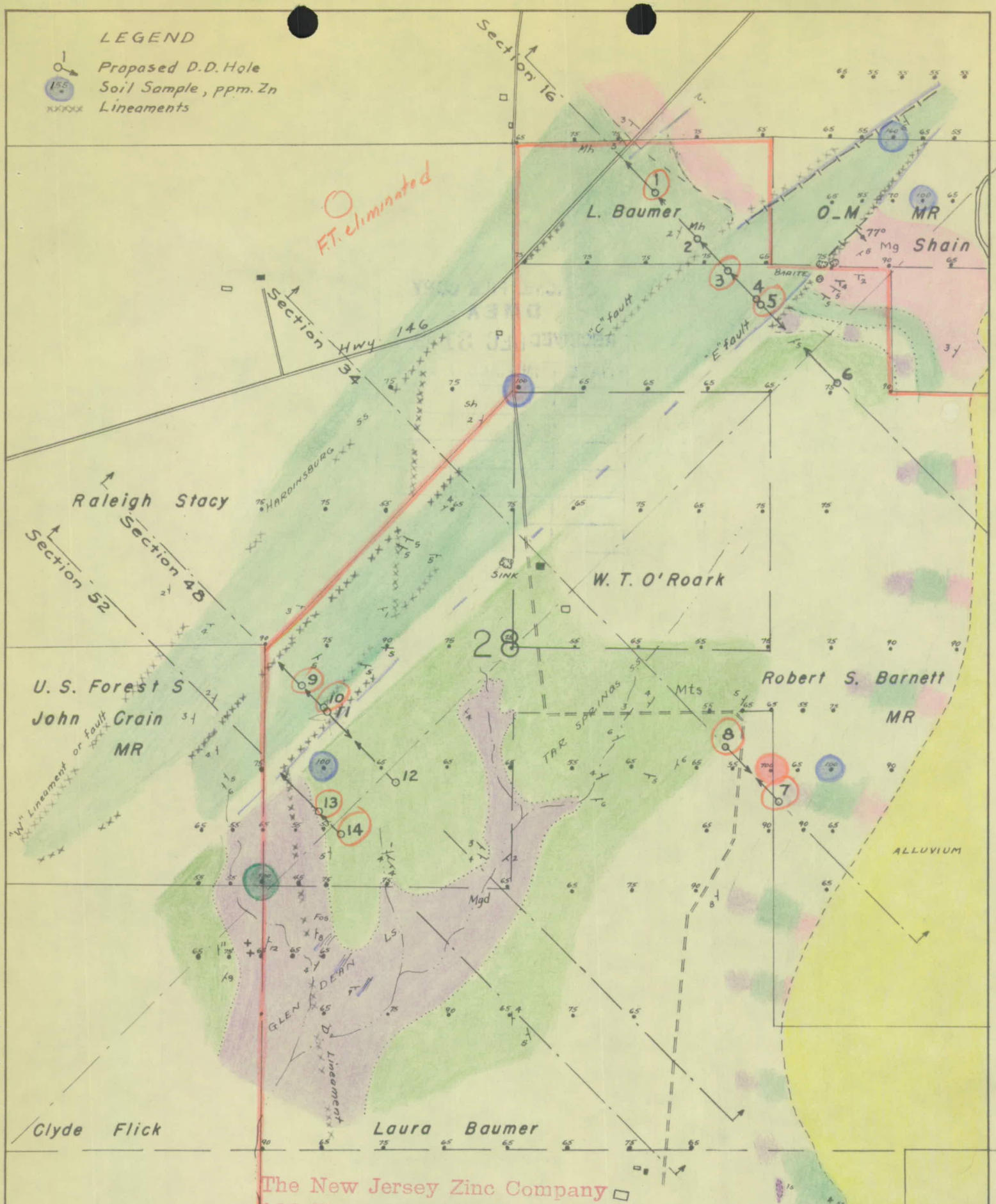
_____, Deputy



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

POSTED TO DATE	THE NEW JERSEY ZINC COMPANY Harrisburg, Illinois	DISTRICT SO. ILLINOIS
DRAWN J. H. DATE 12-13-57 TRACED SCALE 1" = 660'	Cross Sections Section 28-12-7	FILE NO. AX - ILL - 27

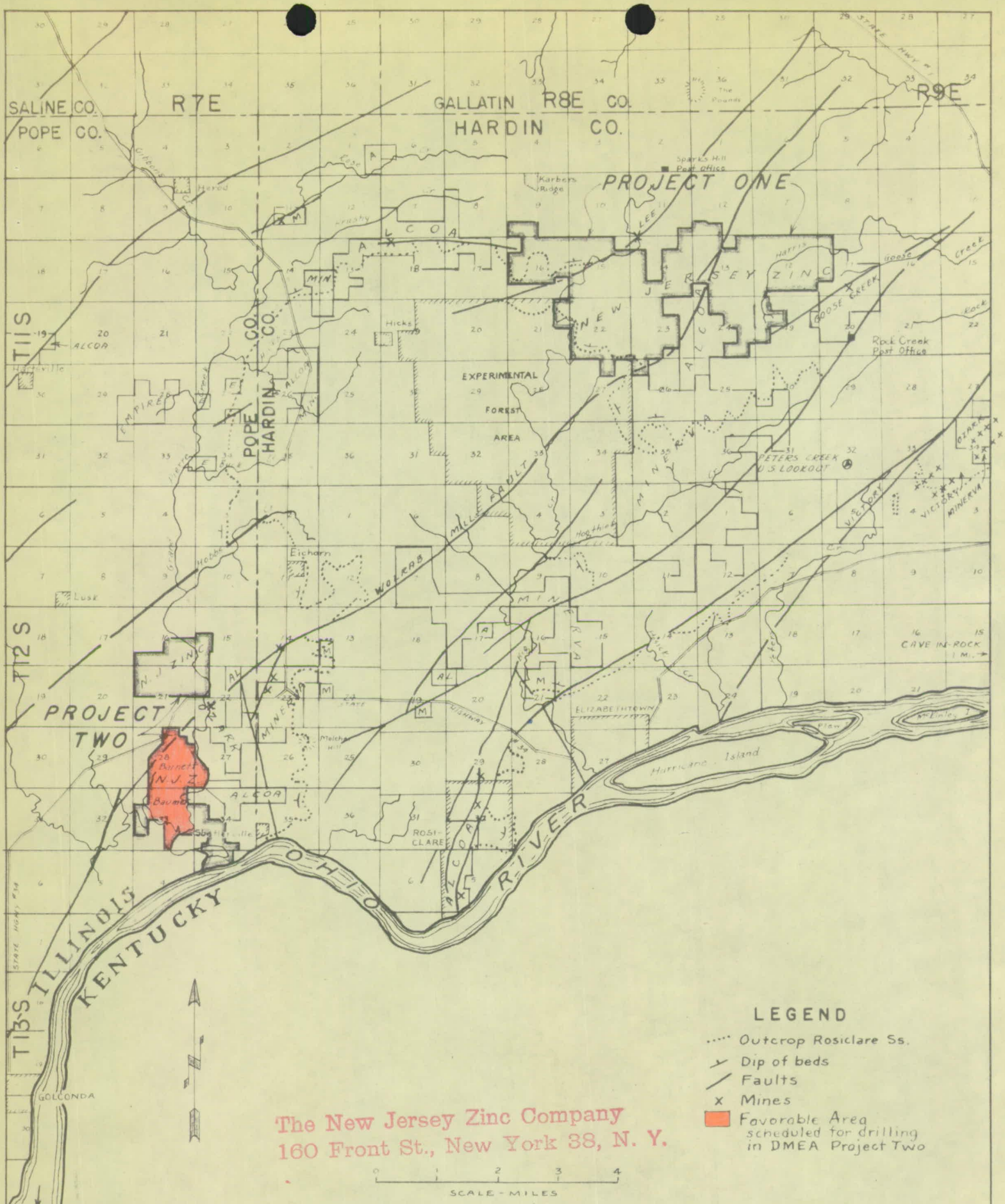
X 5407 C 1M 3-53



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

POSTED TO DATE	THE NEW JERSEY ZINC COMPANY Harrisburg, Illinois	DISTRICT So. Illinois
DRAWN J.H. DATE 12-12-57 TRACED SCALE 1"=660	Geology, Soil Samples and Proposed Holes Section 28-12-7	FILE NO. AX-ILL-26

X 5407 C 1M 3-53



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

POSTED TO DATE 12/10/57 JMH	THE NEW JERSEY ZINC COMPANY HARRISBURG, ILLINOIS	DISTRICT ILLINOIS
DRAWN DATE 11-26-56 TRACED JMH SCALE 1" = 2MI	INDEX MAP Southern Illinois Exploration	FILE NO. AX - ILL - 19

X 5407 C 1M 3-53

STRATIGRAPHIC SECTION

SOUTHERN ILLINOIS FLUORSPAR DISTRICT

Data from Illinois State Geological Survey Bulletin 76

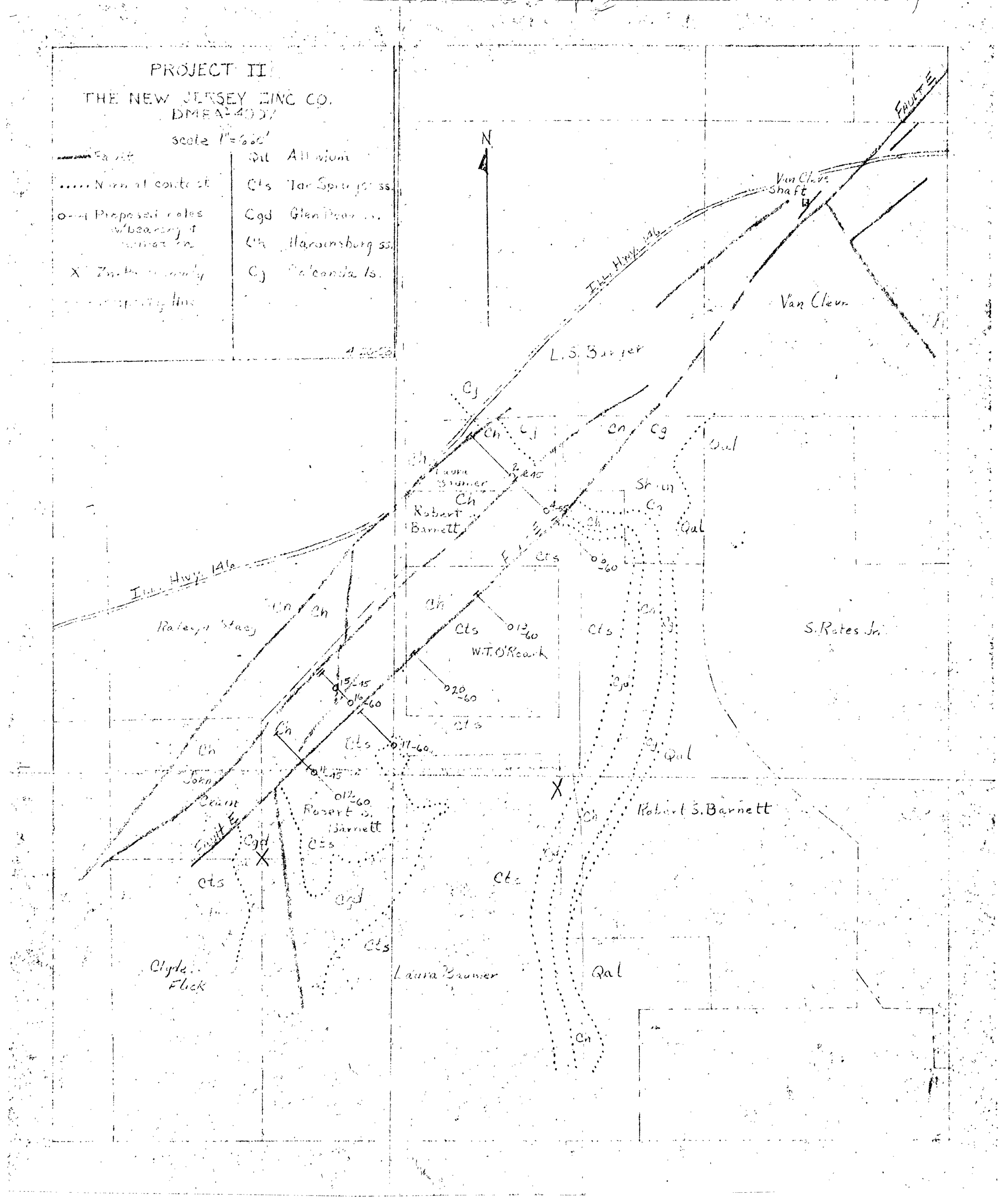
				Average thickness in feet.
PENNSYLVANIAN		Caseyville Sandstone	Pcv	460
MISSISSIPPIAN	CHESTER	Kinkaid Formation Degonia Sandstone Chlore Formation	McT	260
		Palestine Sandstone	Mp	60
		Menard Limestone and Shale	Mm	120
		Waltersburg Sandstone Mw	Mt	40
		Vienna Limestone and Shale Mv		20
		Tar Springs Sandstone	Mgd	90
		Glen Dean Limestone and Shale		60
		Hardinsburg Sandstone	Mh	90
		Golconda Limestone and Shale	Mg	145
		Cypress Sandstone	Mc	110
		Point Creek Formation Mpc		25
		Bethel Sandstone	Mb	25
		Downey's Bluff Limestone (Renault) Mdb	Mrs	30
		Shetlerville Limestone and Shale (Ren.) Ms		60
	IOWA	Levias Limestone Mlo	Mf	20
		Rosiclare Sandstone Mrc		20
		Fredonia Limestone		205
		St. Louis Limestone	Msl	500
		Warsaw Limestone	Mw	250
		Osage Formation	Mo	550
		Kinderhook Group (shale)		410
DEVONIAN		Lower New Albany Shale	Dc	
		Devonian Limestone and Chert	Dls	350

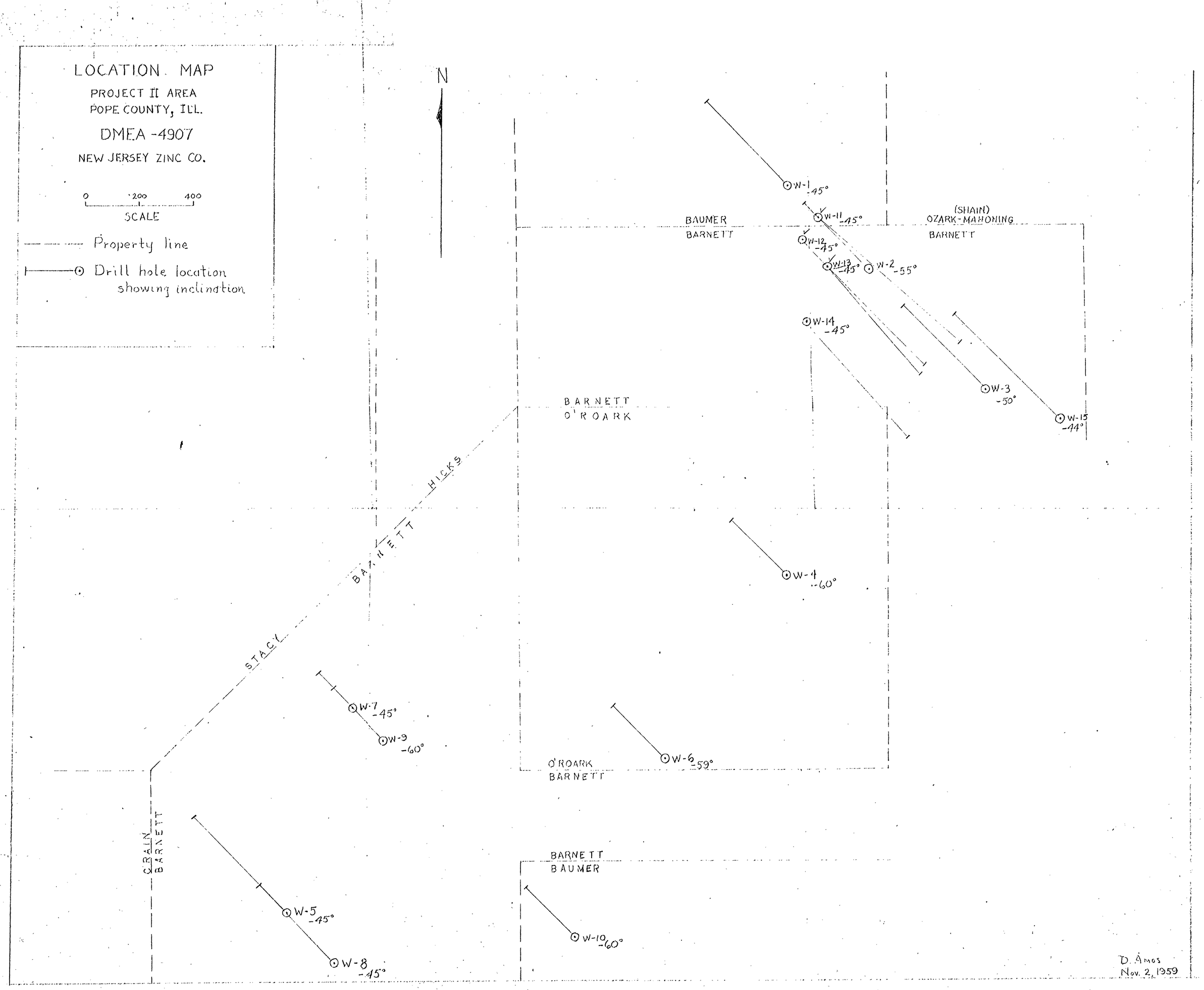
Ore Horizons

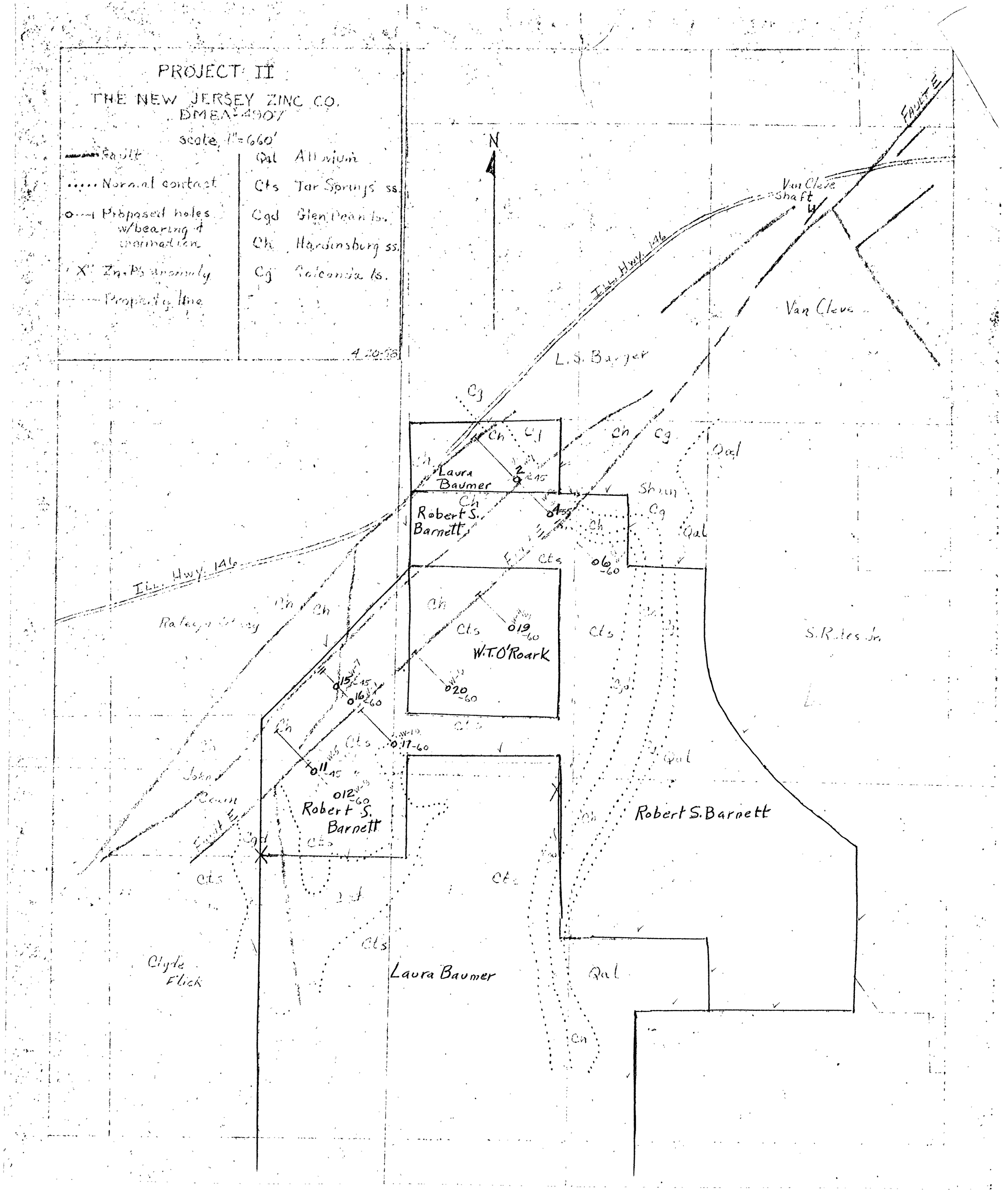
The New Jersey Zinc Company
160 Front St., New York 38, N. Y.

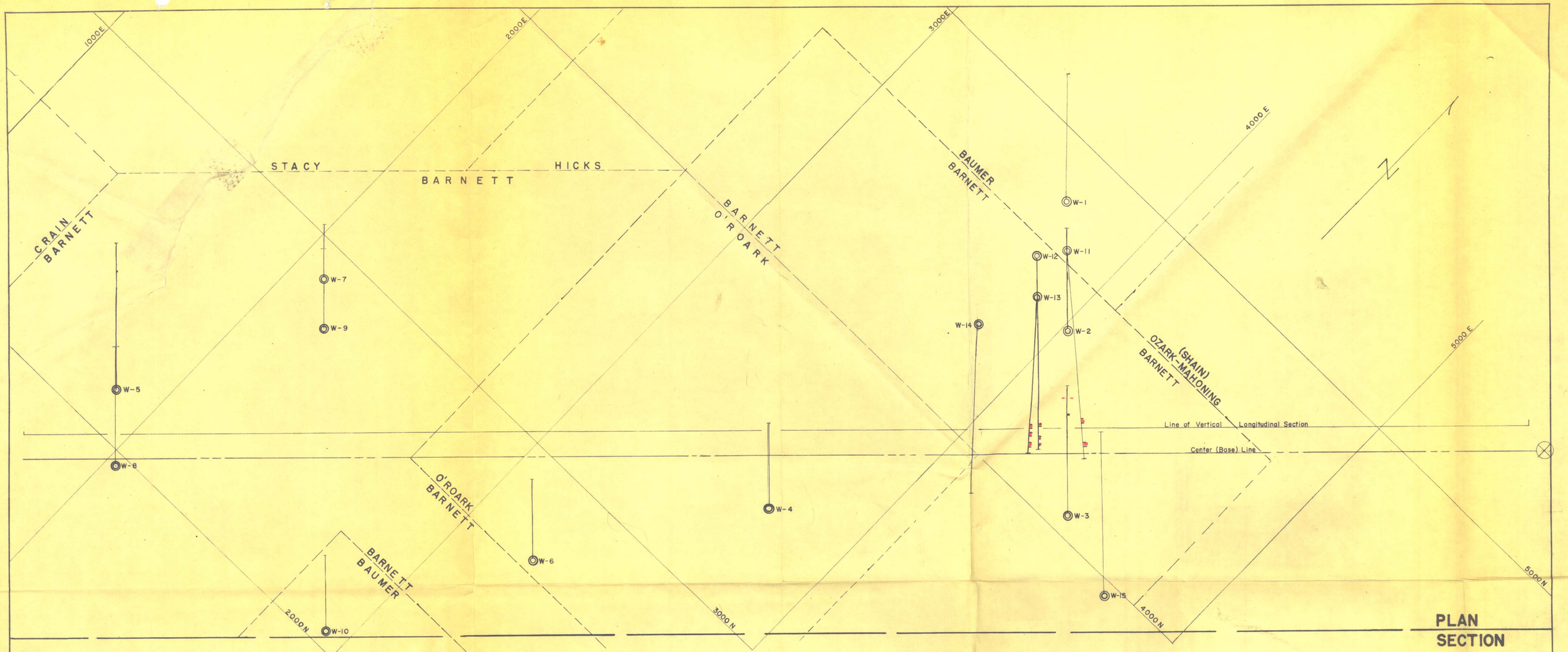
POSTED TO DATE	THE NEW JERSEY ZINC COMPANY HARRISBURG, ILL.	DISTRICT SO. ILLINOIS
DRAWN JMC DATE 12-23-54 TRACED JEL SCALE 1"=500'	STRATIGRAPHIC SECTION	FILE NO. AX-ILL.-12

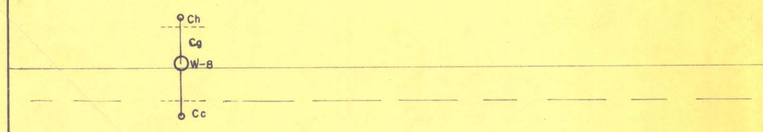
X 5407 C 1M 3-53

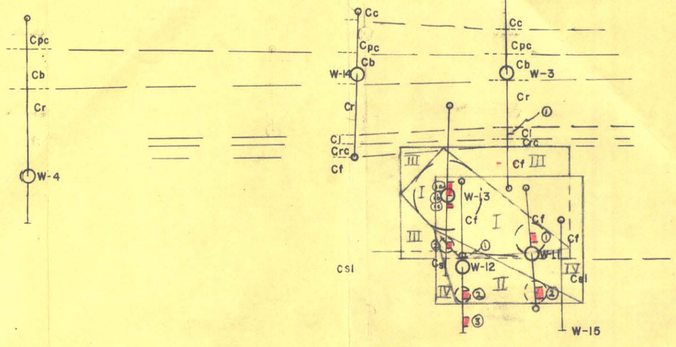

PROJECT II
THE NEW JERSEY ZINC CO.
DMEA-400
scale 1"=600'
Fault
Normal contact
Proposed holes w/bearing & inclination
Zinc bearing
Property line
Qal Alluvium
Cts Tar Spring ss.
Cgd Glen Dean ...
Ch Harrisburg ss.
Cj Palisade ls.
N
Fault E
Van Cleve Shaft
Van Cleve
L.S. Barger
Laura Brumer
Robert Barnett
W.T. O'Keark
S. Rates Jr.
Robert S. Barnett
Clyde Flick
Laura Brumer
Rolesy Stacy
John Crum
Hwy 146
Qal
Ch
Cn
Cg
Cts
Cgd
Cj


LOCATION MAP
PROJECT II AREA
POPE COUNTY, ILL.
DMEA -4907
NEW JERSEY ZINC CO.
0 200 400
SCALE
Property line
Drill hole location showing inclination
N
BAUMER
BARNETT
(SHAIN)
OZARK-MAHONING
BARNETT
W-1 -45°
W-11 -45°
W-12 -45°
W-13 -45°
W-2 -55°
W-14 -45°
W-3 -50°
W-15 -44°
BARNETT
O'ROARK
HICKS
BARNETT
W-4 -60°
STACY
W-7 -45°
W-9 -60°
O'ROARK
BARNETT
W-6 -59°
CRAIN
BARNETT
W-5 -45°
W-8 -45°
BARNETT
BAUMER
W-10 -60°
D. Amos
Nov. 2, 1959


PROJECT II
THE NEW JERSEY ZINC CO.
DMEA-4907
scale, 1"=660'
Fault
Normal contact
Proposed holes w/bearing & inclination
Zn-Pb anomaly
Property line
Qal Alluvium
Cts Tar Springs ss.
Cgd Glen Dean ls.
Ch Hardinsburg ss.
Cg Caseyville ls.
4-20-58
N
Van Cleve Shaft
Ill. Hwy. 146
Van Cleve
L. S. Barger
Laura Baumer
Robert S. Barnett
W.T. O'Roark
Robert S. Barnett
Laura Baumer
Robert S. Barnett
S. Rules Jr.
Clyde Flick
Shaun
John Cowan
Fault E
Fault F







Hole	Vein	Footage	True Width	Flt	Zn	Pb
W-11	1	883-903	11.8'	0.32	0.73	0.10
	2	1023-1042	11.2	0.07	1.54	0.13
W-12	1	932-942	4.7	1.05	0.12	2.72
	2	1019-1031	5.64	0.15	7.23	1.29
	3	1075-1086½ (10% core recovery)	5.22	TrP	21.?	Tr ?
W-13	1a	730-764	14.90	51.80	5.41	4.55
	1b	764-783	8.30	Tr	Tr	Tr
	1c	783-798	6.60	39.10	9.29	2.37
	(1)	(730-798)	(29.80)	(34.58)	(4.76)	(2.80)
	2°	871-888½	7.00	2.70	1.00	Tr

°= Estimate

LEGEND

- SE limit of projection-100' from section
- Drill hole penetration of section from SE to NW
- NW limit of projection-100' from section
- Drill hole penetration of section from NW to SE
- ① Mineralized vein No. 1
- Bottom of hole
- Circle of influence of mineralized penetration
- Rock unit boundary

ROCK UNITS

Ch	Hardinsburg ss
Cg	Golconda ls & sh
Cc	Cypress ss
Cpc	Paint Creek sh
Cb	Bethel ss
Cr	Renault ls & sh
Cl	Levias ls
Crc	Rosiclare ss
Cf	Fredonia ls
Csl	St Louis ls

0 100 200'
Graphic Scale

POSTED TO DATE 9/15/59

THE NEW JERSEY ZINC COMPANY
HARRISBURG, ILLINOIS

DRAWN E L W DATE 7/17/59
TRACED SCALE 1"=200'

PROJECT II, POPE COUNTY
PLAN & LONGITUDINAL SECTION

DISTRICT ILLINOIS
FILE NO. AX-III-46-C-A