UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Terminated (or cancelled) without certification. DMEA No. 840

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side

Certificate of Audit (Final).

Interim Audit(s).

✓ Report of Review.

Termination Notice or Agreement.

Recision Notice.

Assignment of Contract.

Contract Amendments (latest on top).

✓ Contract with all exhibits and annexes.

Owner's Consent to Lien.

✓ Subordination Agreement.

✓ Leases and assignments of leases.

✓ Application and attachments.

Schedule of Collections.

✓ Operator's monthly reports and all attachments (latest on top).

Right Side

Project summary.

✓ Work completed analysis.

All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report. (Tab)

Operator's Final Report.

Interim Reports.

On-site Exam Report(s). (Tab)

Settlement Sheets.

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

CW
Reviewer's Initials

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Petroleum Investment Trust

231 South LaSalle Street

Chicago 4, Illinois

pertaining to Exploration Project Contract No. Idm-E72, Docket No. DMA-840, for the months of July and August, 1951.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer of the Field Team, and a determination of the reasonableness and propriety of the costs.

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

(a) a major portion ($6,300.00) of the accepted costs covered churn drilling at footage rates under a sub-contract which was a part of the project contract;

(b) the project was brought to completion at a total cost considerably less than agreed estimated cost under the contract; and

(c) the administrative cost to the Government of an audit would be excessive in relation to value of the contract or the estimated amount of possible disallowances thereunder.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$ 10,882.87
Exceptions:		
By DMEA Finance Officer	$ -	
Herewith	-	-
Total Accepted Cost		$ 10,882.87

The contract calls for a 75 per cent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Eight thousand one hundred sixty-two and 15/100 Dollars,

- $ 8,162.15 -

is considered valid and proper.

August 2, 1952

E H Talbert
Auditor

MF-200
(April 1951)

Indexed
No. Card
Card
Reviewed

Docket No. DMA 840
Commodity Tungsten
Idm-E72

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

RECEIVED AUG 1 1951 G.A.O.

EXPLORATION PROJECT CONTRACT[1]

AUG 2 1951

17

SERV. SEC.

It is agreed this 9th day of July, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] Petroleum Investment Trust, Ltd., a Nevada Corporation
Room 1215, 231 South LaSalle Street
Chicago 4, Illinois

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of California, County of Kern described as follows:[3] in Rand Mining District, Township 30, Section 1, Range South 40 EMD, Claims, Baltic, Sonora No. 1 and No. 2, Rand Gulch, Marie Rose, Peggy, Lucky Roy, and Silver Knees.

with respect to which the Operator represents and undertakes:[4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: Sole owner of Baltic, Sonora No. 1, Sonora No. 2, and Rand Gulch, Claims and leases Marie Rose, Peggy, Lucky Roy, and Silver Knees claims.

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within ninety days from the date of this contract shall commence work on a project of exploration for[5] tungsten; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] two months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

16—64066

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator 75 percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $10,527.00, which is 75 percent of the agreed estimated total cost of this project, $14,036.00.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in ~~triplicate~~ sextuplet the day and year first above written.

Petroleum Investment Trust, Inc.
(Operator)

By Matthew E. Murray
Chairman, Executive Committee

THE UNITED STATES OF AMERICA

By C. D. Mitchenor

~~Administrator, Defense Minerals Administration~~

Director, Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXHIBIT A

Description of Exploration, Period Two Months:

Bulldozing roadways for drill rig	$ 1200
42 Drill holes, 30 feet deep to be drilled by independent contractor, @ $5.00 per foot (Copy of drilling contract attached hereto)	6300
Sampling, Assaying, and Testing Drill Cuttings	3860
Rental of Truck @ $200 per month, 2 months	400
Company Engineer @ $500 per month, 2 months	1000
Total	$12760
Plus 10% allowed for contingencies	1276
Maximum Allowed	$14036
DMA Participation, Maximum	$10527 (75%)
Petroleum Investment Trust, Ltd.	$ 3509 (25%)

EXHIBIT B

None

EXHIBIT C

Small items, sampling equipment, totaling not over $500

EXHIBIT D

Supervising Engineer @ $500 per month
2 Laborers @ $14.00 per day

EXHIBIT E

None

COPY OF CONTRACT

C O N T R A C T

THIS AGREEMENT, made and entered into this 28th day of June, 1951, by and between J. N. PITCHER CO. of Daly City, County of San Mateo, State of California, hereinafter called the Contractors, and PETROLEUM INVESTMENT TRUST LTD. of 231 So. La Salle St., Chicago, Illinois, hereinafter called the Company.

WITNESSETH: That the said company hereby employs and engages the said contractors to drill Forty-two churn drill holes, 6 inches in diameter, at points designated by the Company, on the property known as the Baltic Mine near Randsburg, California. Said test holes to be drilled to a depth of 30 feet.

Company agrees to pay Contractors $5.00 per foot for each foot of 6 inch test hole drilled or $6300.00 for the entire program except that it is agreed that a minimum of 630 feet is to be paid for by the Company in the event the contract is terminated before half the drilling is completed.

The company agrees to pay the contractor at the end of each calender month for work done during that month.

Contractor agrees to handle cuttings or sludge for purpose of sampling in accordance with the procedure prescribed by the Company's engineer. Company agrees to supply necessary containers, drying equipment, storage, and transportation of samples also, cost of analyses.

Contractor agrees to furnish at site all necessary water for drilling purposes as required.

All work is to be done in workmanlike manner.

This agreement is made subject to delays occasioned by strikes, fires or other causes beyond the control of the parties hereto.

Contractor shall indemnify Company against any and all loss, damage and liability for injury or harm to person or property resulting from, arising out of or in any way connected with the performance hereof, excepting only such injury or harm as may be caused solely by the fault or negligence of Company.

Contractor represents that it has secured the payment of workmen's compensation in compliance with the Labor Code of California.

It is agreed that the work will start forthwith.

WITNESSES:

Wilma E. Proper

Thomas M. Henderson

J. N. PITCHER CO.

By J. N. Pitcher Owner

PETROLEUM INVESTMENT TRUST LTD.

By Lawrence B. Wright

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner ~~in fee simple~~ by Mining Location of that certain parcel of ground in the county of Kern, State of California, described in a certain Exploration Project Contract dated ~~April 30~~, July 9, 1951, between Petroleum Investment Trust, Ltd., the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated Feb 19, 1951, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 8th day of June, 1951.

Max Hess

Max Hess

U. S. GOVERNMENT PRINTING OFFICE 940768

MINING LEASE AND OPTION TO PURCHASE

THIS LEASE made as of the 19th day of February, 1951, by and between MAX HESS, hereinafter designated LESSOR, and J. RUSSELL PERRY, hereinafter designated LESSEE,

W I T N E S S E T H:

1. That for and in consideration of the covenants and agreements herein contained lessor does hereby let, demise and lease to Lessee those certain unpatented claims in the Rand Mining District, County of Kern, State of California, more particularly described as follows:

(1) Marie Rose, the mining location of which was recorded June 13, 1931 in Book 411, Page 434, OR.

(2) Peggy, the mining location of which was recorded June 13, 1931 in Book 411, Page 435, OR.

(3) Silver Knees, the mining location of which was recorded August 1st, 1941, in Book 1026, Page 386, OR.

(4) Lucky Roy, the mining location of which was recorded 19 , in Book , Page

2. The term of this lease shall be for a period of four years from and after the date hereof.

3. As a rental or royalty, Lessee shall pay to Lessor ten per cent of all returns from smelter or buyers on account of any ores or concentrates shipped or sold from said claims or any of them. Said royalty shall be paid to Lessor within ten days from and after the date of receipt thereof by Lessee. Lessee further agrees that in any event the minimum royalties to be paid to Lessor shall be the sum of $50.00 per month payable in advance on the 19th day of each and every month commencing as of the 19th day of February, 1951, and should the royalties to be paid hereunder in any month amount to less than said sum of $50.00 the difference shall be paid in cash by Lessee to Lessor.

4. Lessee shall at his own expense during the life of this lease do all assessment work required to be done on said claims, or any of them, by the laws of the United States of America and agrees on or before the 30th day of June of each year to record in the office of the Recorder of Kern County, California, proof in proper form of such assessment work.

5. Lessee agrees to comply with all Federal and State laws relative to mining and agrees to carry on mining operations in accordance with the best mining practices prevailing in the district.

6. Lessee agrees to keep a shipping record of all ore or concentrates shipped from said claims, and all of them, and said record shall be open to the inspection of the Lessor or his agents at all reasonable times.

7. Lessee at any time during the life of this lease is given the option to purchase any of said mining claims for the total purchase price of $1000.00 each and one-fourth of all royalties or rentals paid theretofore shall apply on the purchase price of each of said claims. Said option to purchase may be exercised by the giving of written notice of intention to exercise the option from the Lessee to the Lessor either by delivering the same to Lessee personally or by depositing the same in the United States mails addressed to the Lessor in a sealed envelope, postage thereon prepaid, and by depositing the balance of the purchase price with the Title Insurance and Trust Company, 715 Chester Avenue, Bakersfield, California, with instructions to pay the same to Lessor upon the delivery to Lessee of a grant deed properly executed and conveying the mining claim, or claims, purchased to the Lessee free and clear of all encumbrances, except rights of way of record or which may be reserved by the United States of American upon the issuance of a patent.

8. In order to expedite the consummation of the purchase of said claims, Lessor agrees to execute individual grant deeds to all of said claims to Lessee upon the execution of this agreement and to deposit the same with Walter H. Hewicker, 315 Brower Building, Bakersfield, California, who shall be authorized, and is hereby authorized, to delivery the same to Lessee upon the payment of the full purchase price of the claim to which it may be applicable, but not otherwise, and a copy of this agreement delivered to said Walter H. Hewicker as escrow depositary shall constitute his escrow instructions for the holding and delivery of said deeds, or any of them.

9. In the event Lessee shall default in anynof the terms and conditions of this lease Lessor may serve written notice upon Lessee specifying the respects in which Lessee shall be in default, and should Lessee fail to cure said defaults within sixty days from the receipt of said notice then this lease shall ipso facto terminate and shall become null and void and all rights and priviliges of Lessee hereunder shall cease.

10. Lessee shall have the right at any time during the term of this lease to terminate the same upon giving Lessor sixty days notice of his intention so to do and shall thereupon execute and delivery to Lessor a quitclaim deed to all of said claims, excepting therefrom such claims as may theretofore have been purchased by Lessee as hereinabove provided.

11. Time is of the essence of this lease and all of the terms and conditions hereof shall be binding upon and shall inure to the benefit of the heinrs, administrators and assigns of each of the parties hereto.

12. Any notice to be served upon the Lessee under this lease may be served upon him by delivering the same to him personally or by depositing the same in the United States mails in a sealed envelope with postage prepaid thereon addressed to Lessee at Red Mountain, California, and any notice to be served upon Lessor under this lease may be served upon him by delivering the same to him personally or by depositing the same in the United States mails in a sealed envelope with postage prepaid thereon addressed to Lessor at Randsburg, California.

IN WITNESS WHEREOF, the parties hereto have executed this lease in duplicate as of the day and year first above written.

LESSOR

LESSEE

WITNESS TO SIGNATURES OF
LESSOR AND LESSEE

Form MF 103

No. 8

CURRENT FINANCIAL STATEMENT
March 15, 1951

ASSETS

Cash on hand	$8,000	
Accounts receivable (due on call for stock from stockholders)	10,000	$18,000
Inventory: ore mined	4,500	
Baltic ore bodies	18,500	
Building	1,000	
Machinery	30,922	54,922
Undeveloped oil royalties Alberta, Canada		19,200
Total assets		$ 92,122

LIABILITIES

Notes payable (stockholders)		4,500	
Accounts payable		7,585	12,085
Common stock	$775,000		
Deficit	694,963		80,037
			$ 92,122

MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. .....

Date received .....

Participation .....

PETROLEUM INVESTMENT TRUST, LTD.
Rm. 1215
231 South La Salle Street
Chicago, 4, Illinois

April 30,1951

Name and address of applicant

Date .....

FILL IN THIS BLOCK

Date of application April 30,1951

Estimated cost $30,000.00

Mineral or metal TUNGSTEN

Percentage of Government participation 75%

Location of mine Randsburg, California

Date of filing MF-100 .....

DMA Docket Number, if available .....

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? corporation

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.

*5. Are you the owner or the lessee of the property?

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. no claims,liens or encumbrances

7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. see attached

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? see attached

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

PETROLEUM INVESTMENT TRUST LTD.
(Name of company)

By George F. Moore
(Signature of authorized official)

April 30 - 1951
(Date)

Vice-President
(Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF 103 EXPLORATION PROJECT April 30, 1951

PETROLEUM INVESTMENT TRUST, LTD.
Rm. 215, 231 So. La Salle Street
Chicago, 4, Illinois

7. Lease in good standing. Lease and assignment with contract of subordination to Government interest attached hereto.

8. Financial statement attached

9. $7,500.00 It is sufficient to pay our part of the cost of the project as detailed in Question 23 of the Application.

10. (a) Both areas are the same.
(b) Legal description of the area on which exploration is to be conducted is as follows:
1. Baltic Mining Claim, Mining Location of which was recorded Jan. 30, 1912, in Book 97, Page 241 of Mining records.
2. Sonora No 1, The Mining Location was recorded July 29, 1931, in Book 420, page 29, OR.
3. Sonora No 2, The Mining Location of which was recorded July 29, 1931, in Book 417, page 390, OR
4. Rand Gulch, The Mining Location of which was recorded March 2, 1951, as Document No. 13,201 in the Office of Recorder of Kern County.
5. Marie Rose, The Mining Location of which was recorded June 13, 1931, in Book 411, page 434, OR.
6. Peggy, The Mining Location of which was recorded June 13, 1931, in Book 411, page 435, OR.
7. Lucky Roy, The Mining Location of which was recorded March 1, 1916, in Book 111, page 389, of Mining Records.
8. Silver Knees, The Mining Location of which was recorded August 1, 1941, in Book 1026, page 386, OR.

11. 12, 13, 14, 16, 17 and 18 answered in MF 100

15. Ore can only be milled on property and concentrates shipped.

19. Low cost of open pit mining, water and electric power available under contracts at a total cost of less than 40¢ per ton on a daily production of 600 tons, for these three major items warrants a mill with tungsten at $3.25 per lb. with any recovery in excess of one-half lb. WO3 per ton.

20. Tungsten for open pit mining over an area 2000 feet long, 400 feet wide, and at least 400 feet deep.

21. The proposed work will consist of drilling 4000 feet of drill holes and sampling every ten feet, and exposing the ore body by bulldozer. It can be completed within four months.

22. The geological basis of the project with factor leading us to expect the findings of commercial ore bodies is fully set forth in Exhibits, Nos. 1 and 2 attached to MF 100, together with supporting maps. Sample lists are found on page 6, Ex. 1 and page 2, Ex. No 2, and Smith-Emery report attached to Ex. 2.

Form MF 103 EXPLORATION PROJECT April 30, 1951

PETROLEUM INVESTMENT TRUST, LTD.
Rm. 1215, 231 So. La Salle Street,
Chicago, 4, Illinois.

23	(a)	4 drillers who will also operate bulldozer, and contract for an overall cost of $2.00 per ft. of hole drilled; furnishing samples sacked from each 10 feet of completed hole 4000 ft. at $2.00		$8,000
	(b)	Supervised by engineer at $500 per mo. 4 months		2,000
	(c)	none		
	(d)	none		
	(e)	Bulldozer D4 or D6, or its equivalent		5,500
	(f)	Churn drilling equipment - rental, engine, pumping plant, water and sampling tanks, automatic sludge sampling machine, cat head and truck for moving equipment and all necessary accessories for drilling job @ $3.00 per ft. 4000 feet		12,000
		400 sample assay sacks		108
	(i)	Water, gas, oil, acetylene & oxygen		392
		400 assays @ $5.00 (Abbot Hanks, Inc.)		2,000
				$30,000
24	(h)	First month: Bulldozer	$5,500	
		Operating expenditure detailed in No. 23	6,125	$11,625
		Second month operating exp.		6,125
		Third month do do		6,125
		Fourth month do do		6,125
				$30,000

25% of the drilling to be completed each month, the total work completed within four months

C O P Y

Form MF 103

Randsburg, California.

No. 6.

I hereby assign all my rights, title and interest in the attached lease of Februry 19, 1951 between Max Hess as Lessor and myself as Lessee to the Petroleum Investment Trust, Ltd. a Nevada corporation.

Signed) J. Russell Peery.

IN CONNECTION FOR AID FOR AN EXPLORATION APPLICATION PROJECT PURSUANT TO MINERAL ORDER 5 UNDER DEFENSE PRODUCTION ACT FOR 1950

I, Max Hess, Lessor under a certain Lease under date of February 19, 1951 to J. Russell Peery as Lessee, which Lease has been assigned to Petroleum Investment Trust, Ltd., hereby consent to subordinate my interest in the unpatented claims more particularly described in said Lease to the interest of the Government under the Contract for Exploration under the Application of the Petroleum Investment Trust, Ltd. dated April 30, 1951. Terms of the Lease not to be altered.

Signed) Max Hess

Randsburg,Calif.
April 30, 1951

Exhibit "A"

PETROLEUM INVESTMENT TRUST, LTD.

The Exploration Project Application filed April 30.1951, proposed the drilling of 4000 feet to secure samples to at least every 10 feet for the purpose of determining the WO3 tungsten assays made by Abbot Hanks of San Francisco, Calif.

These test holes are for the purpose of substantiating the assays taken from the stock pile of upwards of 10,000 tons removed by open pit mining from the surface of an area approximately 1000 feet long by 300 feet wide, and confirmed by assays of samples from a shaft 160 feet deep and underground drifts of various drifts of various levels.

We attached hereto map prepared by Lawrence F. Wright marked No 1 for a drilling program of 4000 feet of which 3,400 feet are for holes in excess of 50 feet and up to 150 feet in depth, with 600 feet of test holes to be drilled to a depth of 50 feet.

We understand that the drilling program has now been limited to holes of a depth of 50 feet, on the 28 holes indicated on the Wright map.

If the test holes are to be limited to 50 feet in depth, it is vital that an additional 14 holes of this depth shall be drilled.

The necessity for this additional drilling is due to the fact that if only holes are drilled as indicated on Mr. Wright's map, about one-third of the surface of the open pit operation from which the samples assayed were taken would be excluded. With the major part of the drilling program for holes in 150 feet in depth, this omission was unimportant. But as the stock pile from which the assays of samples by Abbot A.Hanks included an area one-third of which is omitted from the present drilling program, unless this additional area is included, the results of the churn drilling will fail to give a true picture of the ore body.

We have therefore attached to this exhibit a map supplemental to Mr. Wright's prepared by Mr. Howard J. Potter, geologist, indicating those additional 14 holes and their location in conjunction with the holes on map No 1. This makes a total drilling program of 2,100 feet representing 42 holes of 50 feet in depth instead of the 4000 feet set forth in our application.

Exhibit "C"

PETROLEUM INVESTMENT TRUST, LTD.

DETAILED LIST OPERATING EQUIPMENT

RENTED:

4 wheel drive Dump Truck	per month	$200
Bulldozer-either catterpiller D4 or International T 40	" "	500

PURCHASED:

4 ore sampling splitters	12 x 24	
4 reserve tanks	30 x 36x18	
1 spreader	12 x 18	
30 drying pans	18 x 30 x 4	
1 mixer		500

For the purpose of recovery and storing 25% of the total material out of the churn drill holes, the following equipment must be purchased :

1 dryer together with power and burner	14 x 16	500
1 sacker with power		1,100
3 settling tanks	250 gallons each	300
1 sand pump with power		400
sacks for storage and assay, tags, cartons, parcel post from Randsburg to Abbot A Hanks, Sand Francisco.		400

EXHIBIT "D"

PETROLEUM INVESTMENT TRUST, LTD.

LABOR:

Supervising engineer	$500.00 per mo.
2 samplers	90.00 per week
1 dryer and sacker operator	90.00 " "
1 Bulldozer "	90.00 " "
1 Truck "	90.00 " "

Index - DMA-840-x-Tungsten

Sent to Prod. & Exp. Div.
for approval

Petroleum Investment Trust Ltd.
Rm 1215, 231 So. LaSalle St., Chicago.
Washington, D.C. Office
Wm Burkhalter, DI.-4377, Note:
take up any questions with him.

3 - Copies - Form MF-100
3 - " " " -103
2 - Maps
6 - " photostats, (duplicates)
1 - Copy - Form NSRB-146
1 - Letter to Miller from Bradley
1 - " " Applicant " Lyon

Form MF. 100

PETROLEUM INVESTMENT TRUST, LTD.
Rm 1215, 231 South La Salle Street
Chicago 4, Illinois.

April 30,1951

No 3. Names and addresses of officers, directors, or partners.

Lloyd L. Mills,	Barrington Ill.
John G. Kramer	4300 Lake Shore, Chicago, Ill
E. M. Perkins	316 No. Norton Ave.Los Angeles,Calif.
B. H. Critchlow	5460 Edgewood Place, Los Angeles, Calif.
George G. Moore,	316 No. Norton Ave. Los Angeles, Calif.
Matthew E. Murray,	231 So. La Salle Street, Chicago, Ill
Tim G. Lowry	135 So. La Salle Street, Chicago, Ill

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
loyd [illegible]	res.	[illegible]	[illegible]	[illegible]		none	
John [illegible]	res.	none	[illegible]	[illegible]		none	
[illegible]	[illegible]	none	[illegible]	[illegible]		none	
[illegible]		none	[illegible]	[illegible]		none	
[illegible]	vice-pres	none	[illegible]	[illegible]		none	
[illegible]		none	[illegible]	[illegible]		none	
[illegible]		none	[illegible]	13750		none	
[illegible]		none		[illegible]		none	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$1,000,000	$775,000	$1.00	775,000	none
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)	ore	10,000 [illegible]			
3. Quantity and grade of product sold or shipped (specify units of measure)	[illegible]	table [illegible]			

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Form MF-100
(March 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

P.T.C.U. INVESTMENT TRUST, LTD.
Room 1215
231 South La Salle Street,
Chicago, 4, Illinos

Name and address of applicant

April 30, 1951
Date _____

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~Necessity certificate pursuant to the provisions of section 124 of the Internal Revenue Code, 1950~~, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

X

5

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

Form MP-100

PETROLEUM INVESTMENT GROUP, LTD.
Room 1215
231 South La Salle Street
Chicago 4, Illinois

April 30, 1951

GENERAL TECHNICAL DATA

1.
(a) Tungsten 85% of value
(b) Gold and silver 15% of value

2. BALTIC GROUP; Mineralized shear zone; open pit mining operation in decomposed schist which can be mined with bulldozer, ripper and carry-all. The indicated area of the ore body is at least 200 feet in length, 400 feet wide, 400 feet in depth. 10,000 tons have already been mined by this method and stock piled for milling purposes containing tungsten and gold of commercial values in ratio state in No 1.
(a) Shaft 160 feet deep carries the values found in the stock pile from the surface to the bottom of the shaft.
Mine is dry - no pumping problem.
It has a productive capacity of 2,000 tons per day.

3. (a) 1 mile east and a little south from the town of Randsburg.
(b) Rand mining district.
(c) Township 30; Section 1, Range South 40 MDB
(d) Kern County, California.

4. (a) Property is not now in operation
(b) both as owner and lessee

5. Production can begin within 90 days after full scale work begins upon mill construction.

6. Howard J. Potter as engineer and manager has had 30 years experience in the mining and recovery of tungsten values in the Western States. George G. Moore, vice-president, has had many years experience in open pit mining operations.

7. (a) The Baltic Mine, about 1895, was worked as a gold mine by a shaft sunk to a depth of 400 feet and by drifts and stopes for at least 25 years. The existence of tungsten carrying commercial values finally distributed in the schist throughout a large mineralized zone in the Baltic and adjoining claims was first discovered in 1945. Previous to that time it was the accepted belief among geologist that in this so-called Stringer District, scheelite and gold were only found in narrow veins from knife-blade to 2 inches in size, and outside this vein matter, the ground was entirely barren of mineral.

General technical data continued - 2

7. (a) cont.
Open pit mining operations were commenced on an area 600 ft. long and 180 feet in width within the indicated mineralized schist zone with bull-dozer, ripper and carry-all and a stock pile of about 10,000 tons accumulated for milling purposes. With a small pilot mill including a Diester table a scheelite concentrate of 67% WO3 grade was produced. The irregular and low price of tungsten gave no incentive to proceed with the development. Coincident with the increase in the price of tungsten, through further research in its metallurgy it was learned that the Humphrey Spiral could concentrate this ore to a ratio of ~~xxxx~~ 144 to 1 rasing a 3 lbs head to about 240 lbs. and securing a recovery in excess of 85%.

(b) The Atolia tungsten mine 1½ miles distance was for years the largest producer of high quality tungsten in the U.S. and the immediate district has to date produced in excess of 1,000,000 units WO3.

(c) Hereto attached and marked Exhibits Nos 1 and 2 of mine examinations, metallurgical investigations and recommended exploration and development by Lawrence B. Wright, geologist of San Francisco, and Howard J. Potter, engineer and metallurgist of Huntington Park, Calif.

11. With the proposed 600 ton mill, we can produce 72 units daily, which can be expanded to more than three tims this amount, on account of open pit mining and the ample supply of water and power.

12. (a) The mineralization in the sheared schist zone containing tungsten and gold has been so softened by oxidation that the ground yields ready to a pick, and the entire ore body is so highly oxidized and disintegrated that it can be dug with a power shovel or ripper and powder is not needed the most striking feature found in this ore is its freedom from contaminants such as copper, sulphur, lead, zinc, etc. which are difficult to eliminate and plague operators. Neither is there any garnet or epidote. The only interferring mineral is iron which is readily pulled out by magnetic separator.
See reports by Lawrence B. Wright and Howard J. Potter Ex. 1-2.

(b)
1. This ore body is a shear zone. The assays shown in Exhibits Nos. 1 and 2 are composite samples taken over the known sheared area. The extent of the shearing has not yet been determined. This loan is being requested for the purpose of finding out the extent of the mineralization so far indicated.
2.

13 Paved roads 1 mile to Randsburg, Red Mountain and Johannesburg.

14 There is practically an unlimited supply of water in Fidler's Gulch about 4 miles away. This has been developed and is owned by the Sue Corp. which now furnished water for this territory with its present needs. It has a surplus daily capacity in excess of 400 gallons per day.

Petroleum Investment Trust,Ltd.
Rm. 1215, 231 So. La Salle Str.
Chicago, 4, Illinois

14 cont.
It is sufficient for all seasons of the year. See page 9, Lawrence Wright report Ex 1. We have a contract with the Sue Corp.to supply our needs. Under this contract, our water cost will be 16¢ per ton for a mill with a capacity of 600 tons per day.

15 The California Electric Power Co. has a trunk line to our proposed mill site. 200 H.P. will be required. We have a contract to furnish this power. They estimate our monthly account at $1,044.00 a rate of 0.78¢ per kwh which will cost us about 6½¢ per ton of ore milled.

16 The C.T. Construction Co.(one of the largest dirt movers in Southern California) mined with bulldozer, ripper and carry-all the 10,000 tons stockpiled. We have a contract with this company to mine and place in the ore bin for a 600 ton operation at 10¢ per ton, if we furnish the equipment, and at 20¢ per ton if they furnish the equipment, a copy of this contract is hereto attached and marked Exhibit No 3.
To operate the proposed millmen will be required:
1 crusher man; 1 screen man; 1 master mechanic; 3 spiral operators; 1 table man; 1 man to dry and package concentrates; 1 assayer; 1 general purpose man; 1 trucker; 1 mill superintendent. Total 12 men.

17 Large Quonsett Hut; 11 room house

18. No.

(*b*) If deposit is other than pla

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)	1,000,000	0.03	1.05	7.55	1.50
	6,000,000				

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

PETROLEUM INVESTMENT TRUST LTD.
(Name of company)

By George G Moore
(Signature of authorized official)

April 30 - 1951
(Date)

Vice - President
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Exhibit No. 3

LAWRENCE B. WRIGHT
GEOLOGIST AND MINING CONSULTANT

EXAMINATION
DEVELOPMENT
GEOLOGIC STUDY
PLANT LAYOUT
APPRAISAL

SAN FRANCISCO 21, CALIF.
401 FORTY-FIRST AVENUE
TEL. EVERGREEN 6-0392

February 28, 1951.

Mr. Matthew E. Murray,
Attorney-At-Law,
231 South La Salle St.,
Chicago 4, Illinois.

Dear Mr. Murray:

Herewith is my report on the Baltic property which will accompany your application for a government loan. As per your letter dated February 1st, I have covered the points in question such as water, ore estimates, flow sheet, etc.

The flow sheet, which is being prepared by Corwin Cooper, is not completed but will be along in a few days. The main principles have been settled leaving only the details to be put in order.

We are at this time endeavoring to obtain quotations on the cost of various pieces of equipment needed in order that we may submit an acceptable estimate of the cost of the plant. You are aware that today no one can submit accurate estimates when prices and wages are changing so fast.

The Baltic project is a substantial one and with careful consideration of the various steps in its development may well become a mine that will contribute substantially to our National stockpile.

Very truly yours,

Lawrence B. Wright

Lawrence B. Wright

LBW/w

REPORT ON THE BALTIC TUNGSTEN-GOLD PROPERTY

Randsburg, Kern County, California

By

Lawrence B. Wright

INTRODUCTORY REMARKS:

The Baltic Lode Claim and the surrounding claims now comprising the property under consideration is located one mile east and a little south of the town of Randsburg, Kern County, California, in a district notable for production of both tungsten, gold and silver. About one and one-half miles southeast of the Baltic is Atolia, the center of very substantial past production of scheelite and with an increasing current production. In the several millions of tons of gold ore treated at the Yellow Aster mills at Randsburg there was present a minor amount of scheelite, not recovered. In the substantial amount of scheelite ore treated from the Atolia area there was a small amount of gold. The Baltic occurrences are seen to be approximately in the midposition of overlap of the two types of mineralization, but with scheelite generally predominant. The mineralization is more nearly related in character to Atolia than to Randsburg.

Former investigators of the area have referred to the Baltic vicinity as the Stringer District, giving inference of impossibility of profitable tungstic oxide production. This earlier conception will probably have to be abandoned in view of the possibility of mining large tonnages by low cost open pit methods applied to such large areas as exist on the Baltic property, and which contain a surprisingly uniform distribution of scheelite (and gold) throughout a large volume of schist. Present circumstances and new information suggest a reappraisal of this part of the tungsten-gold district.

Dr. Carlton D. Hulin wrote of the "Stringer District" in 1924 (Calif. State Mining Bureau, Bul. 95, Page 72, Published in 1925), "The presence of scheelite has been recognized in gold ores from veins on the Gold Bay, Winne, Balitic, Sidney Peak, St. Elmo and other properties". Also, on page 88 he writes, "A close relationship with the scheelite deposits is shown by the common direction of strike of many of the gold and scheelite veins, by the presence of scheelite in many of the gold veins and by the presence of at least one gold pocket in a scheelite vein. In addition we find at least one gold vein in the midst of the scheelite belt, possessing a strike parallel to other veins of that belt".

These early observations of Hulin tend to confirm the broader conception presented herein. Bearing in mind that the footwall fault, part of the structural control of the famous Yellow Aster gold deposit, trends toward Baltic, and Atolia, the foundation is well laid in support of the "overlap" theory which so well explains the current findings on the Baltic property.

RESULTS OF OCTOBER 1948 EXAMINATION:

Work on the possibility of large scale low cost operation was started three years prior to 1948, when in October of that year the writer was commissioned to check up on methods being employed, tonnage and grade possibilities and to recommend any change in procedure. At that time about 8000. tons of material had been mined by ripper and carryall and placed in a stockpile near an experimental mill. The findings were, briefly, that the area of mineralization exposed on the Baltic claim averaged 180 feet wide and 600 feet long with four or five hundred more feet in length indicated; that the stockpile (from 40 sample pits) averaged 2.24 lbs. tungstic oxide and 0.029 ounces gold per ton, and,

that the scheme for recovery should be given further study. It was recom- that additional sampling be done, preferably by churn drilling. As a result of this further steps have been taken along the lines recommended and will be discussed in the following paragraphs.

THE BALTIC CLAIM GROUP:

Accompanying this report is an outline map of the claims now held by ownership, or purchase option, drawn from a survey just completed by Edward L. Haff, U. S. Mineral Surveyor, Los Angles, California. On the map is now shown the two known areas of mineralization together with the distribution of detrital material throughout the drainage area. This detrital material, or wash, was the subject of an investigation by the U. S. Bureau of Mines during W. W. 11. It may be considered as potential ore in the event a plant is in operation on the Baltic, although no estimate of its tonnage is included at this time.

It was not within the scope of this examination to investigate titles to claims, nor the status of agreements as to acquisition of those claims adjoining or near the Baltic Lode.

The ground shown as held is well located as to the availibility of the ore, millsite, and residue disposal.

GEOLOGY:

Geology of the area has been well described in the publication above referred to. For the purpose of this report it is sufficient to say that the rocks involved are gray to green schists, sometimes in beds so massive and unsheared as to hardly be classified as schists, even though these massive rocks are intricately jointed and fractured, and easily broken into angular and lenticular lumps.

The main point of geologic interest is that certain zones in the schist series contain a large proportion of ferromagnesian minerals and it is in these particular zones that the tungsten-gold mineralization is found on the Baltic property. They stand out among the more gray micaceous schists for the reason that the higher iron content has resulted in tan to brown coloring by ferrous oxides. This coloring by oxidation is a broad clue to the limits of mineralization, the trend of which is northeastward in shear zones cutting across schistosity. This trend conforms to trend of the Atolia mineralization as reported by Hulin (north 80 degrees East).

The zone of shearing in which the Baltic mineralization occurs dips from 30 to 40 degrees northwest. Examination of underground workings such as the Baltic inclined shaft shows that there is some folding of a mild character and some minor faulting. It is also evident that in the wall rocks of the old Baltic gold veins, the scheelite is widely and thinly disseminated along planes of schistosity, sometimes in crosscutting quartz veins (not shown separately on the accompanying map) that reach a thickness of 16 inches, such as occur on the Peggy claim.

A major fault is believed to limit mineralization on the northeast end of the Baltic claim. No limiting structural feature has been observed to the southwest.

HISTORY AND DEVELOPMENT:

The Baltic mine was first worked as a gold mine, commencing about 1895. A shaft was sunk to a depth of 162 feet on the intersection of two rather narrow veins, one striking northward and one eastward and said to have bottomed at about the 162 feet of inclined depth (about 40 degrees). It is reported that leasers worked to a depth of

400 feet. If so, the shaft is deeper than the present accessible depth of 160 feet. Ore was treated in a 10 stamp mill. The building still stands and is on the site now recommended for the new plant.

There are some shallow adits on the Peggy claim driven in the area of mineralization about the time of W. W. 1 in search of tungsten ore.

Development in the last two years consisted of stripping off the ore from the above mentioned area on the Baltic claim and placing the 8000 tons in a stockpile on the northwest corner of the claim, which is the highest point and above the site of the 1948 test plant. Results from this plant were inconclusive as to ore values because of mechanical difficulties, but the scheelite saved, plus residue value, is believed to approximate present averages.

The inclined Baltic shaft is sunk approximately on the footwall of the main zone of mineralization and is accessible for inspection and sampling to the 160 ft. level. It serves to assure the continuity to that depth, at least, of the tungsten-gold bearing schist.

SAMPLING AND ASSAYING:

Results of the 1948 sampling have been given. They serve to aid in determination of the values to be expected at least in the upper horizon of the major ore area. At the time of this present examination the object was to check values in the newly acquired area lying mostly on the Peggy claim, and, to take some check samples in the Baltic shaft. These checks were against results obtained by Mr. Howard J. Potter, engineer for the Baltic organization, and samples taken by regular Baltic employees during the course of the present expansion and development program.

As to the Baltic shaft, Potter reports as follows,-

Composite samples taken at 50 to 100 ft. and at 160 feet.

	WO_3	Au.	
No. 1	0.14%	0.02 oz.	Assays by Smith-Emery, Los Angeles.
" 2	0.14%	0.11 "	
			Average: 2.8 lbs. WO_3, 0.065 oz. Au.

My results are as follows,-

No. 1	0.13	0.18 (50 ft. down)	Assays by Abbot A. Hanks Inc.
" 2	0.08	0.025 (100 " ")	San Francisco.
" 3	0.04	0.08 (160 " ")	
" 4	0.10	0.085 (General sample of shaft above 130 ft.)	
		Average	1.74 lbs. WO_3, 0.075 oz. Au.

Mr. Potter reports that from a composite of 26 samples gathered under his supervision at the property early this month from the Peggy area, and assayed by Smith-Emery, the following results were obtained (certificate is on hand),-

WO_3	Au
0.11%	0.02 oz. p/t

My results from the same area from ten cut samples from various near-surface and underground workings are as follows,-

Average,	0.085%	0.026 oz.	(Assays by Abbot A. Hanks Inc)

The combined result of my sampling to date, from 54 different samplings is as follows,- WO_3, 0.095%; Au, 0.043 oz. p/t. By eliminating the 160 ft.. level sample, which is below contemplated mining depth, and the erratic high gold assay in the 50 ft. level sample, the results which probably more nearly represent the expected average are then as follows,-

WO_3 0.10%; Au. 0.039 oz. p/t

or 2.0 lbs. tungstic oxide and $1.36 Au. p/t

The Baltic sampling and Smith-Emery assays would tend to increase the expected tungstic oxide content. However all this indicates that there may be expected from two to two and one-quarter pounds tungstic oxide and one dollar or more per ton in gold in the mass of mineralized material under consideration.

TONNAGE OUTLOOK:

Baltic Claim; The tonnage here that may be won by open pit mining is from an area 600 ft. (plus) in length and 180 ft. average width on the outcrop, with the formation dipping close to 40 degrees (westward). Thus the footwall determines one limit with a 40 degree slope, and if the entire width is taken a steep hanging wall, or west wall, of the pit must be assumed. The alternative is to strip waste from the hangingwall area. In any case, there are 10,000 tons per foot of depth in this area, and an additional 3000 tons p/f possible on the extension. A pit carried to a depth (on dip) of 100 feet would yield 1,300,000. tons. In order to realize this extraction of ore, some hangingwall material would have to be removed. The ratio of waste to ore would be .37 to 1.0.

Peggy Claim Area: In this area topography is such that 300,000. tons may be removed from an open pit with little or no waste removal. The mineralized zone here as now delimited is less extensive than that on the Baltic, but both of them are "open" on one end. The proposed pit here would be about 70 feet in depth in inclined beds, but with the hanging wall coincident with a sloping erosion surface leading to a gulch 70 feet lower. Thus no overburden would need be removed.

Therefore, in the whole operation there appears to be the possibility of extracting a total of 1,600,000. tons with an overburden

to ore net ratio of .31 to 1.0. Or, 1,300,000. tons may be won without any waste removal by carrying a 60 degree west wall to pit bottom (on the Baltic) in ore.

These figures are predicated upon an arbitrary depth below which additional ore is indicated (in the Baltic shaft). Therefore, the ultimate tonnage may be greater, but would come out at some increased cost.

The 1,300,000. tons of waste-free ore would support a 600 ton per day plant, operating 6 days per week, for 6.7 years.

The tonnage figures as given above are estimates made on the assumption that values as found in the portions exposed are consistent throughout the blocks involved to the depth of contemplated mining. It is largely "Inferred Ore". There is, from geological evidence, plus some underground exposures, a very good possibility that the figures can be met in actual operation. In the 1948 report one of the recommendations was that churn drilling be resorted to in order to bring the estimated tonnage into the Proved Ore classification. That is still a valid recommendation. This could be accomplished during the period in which detailed plans for the treatment plant are being prepared.

PROPOSED MINING METHOD AND COST:

The method of mining has been discussed. It should be added that the rock is generally oxidized and considerably fractured. Success has already been obtained in stripping off some 8000 or more tons without the use of drilling or blasting. The contractor who did this work has submitted an offer to deliver ore to the mill at the rate of 600 tons per day at a cost of $0.20 per ton, he furnishing his own equipment. Even if

some drilling and blasting should be necessary in the deeper portions of the pit, it is obvious from this bid that the mining cost will be in the range of less than $0.35 per ton. Inspection of the material exposed in the Baltic shaft indicates that some massive ribs may be encountered at depth, but these are only three to four feet in thickness and only three were counted.

Incidentally, it is proposed that use be made of the Baltic shaft as a gathering point so as to obviate elevation of the material out of the pit by deisel powered equipment. An underground bin and hoist into the primary crusher is suggested.

Water Supply:

Under date of January 24, 1951, Mr. James Alspach of the Sue Corporation, Los Angeles, California, writes as follows,-

> "We have three wells located in Fiddlers Gulch fully equipped with electric driven power having a capacity in excess of 400,000 gallons per 24 hours, but our pipe facilities will only permit us to deliver 250,000 gallons per 24 hours at the present time at the Yellow Aster Mine which is about one mile distant from the Baltic claim. This reservoir (at Yellow Aster) has a capacity of 100,000 gallons and is at an elevation of 4,000 feet. This gives us a capacity of 7,500,000 gallons per month".

The quoted capacity is approximately double the estimated requirements. In order to have water delivered to the Yellow Aster reservoir, 2000 feet of 4 inch line will have to be provided. There is at present a 3 inch line leading from the reservoir to within 2500 feet of the Baltic. The receiving tank at Baltic would be at approximately the same elevation as the reservoir at Yellow Aster, therefore a mild boost will be required at the reservoir to put water into the Baltic tank.

This situation was discussed with Mr. Alspach on the ground. We inspected the Yellow Aster reservoir, which is a concrete rectangular tank set into the ground. We also looked over a part of the present line installation, and discussed rates. We checked the elevation of the Yellow Aster reservoir and the high point on the Baltic claim and found them to be approximately the same, i.e., 4000 feet.

A scale of rates is quoted ranging from $1.35 per/m gallon for 1,000,000 gal. per month to $1.05 per/m gal. for 3,000,000 gals. per month. As it is now expected that closer to 4,000,000 gal. per month will be consumed, a rate of $0.85 per/m gal. will be negotiated for, which amounts to a cost of $0.20 per ton of ore milled. By careful reclamation at the plant, it is believed that this cost can be cut to $0.16 per ton milled.

PROPOSED MILLING METHOD:

Second only to the assurrance of an adequate ore supply, is the adequate preparation for treatment of the ore. In dealing with this problem, the writer has engaged the services of Corwin Cooper, Metallurgist, who superintended the milling of several million tons of Yellow Aster ore. He is thoroughly familiar with the ores of the district and particularly the economical handling of the water problem. He is now preparing a flow sheet for the Baltic ore which is based in part on tests made by the American Cyanimid Company and the Humphry Spiral organization. His proposed flow sheet provides for three stages of reduction, jaw crusher, cone crusher, and rod mill to minus 10 mesh, closed with screens to take out fines as soon as possible. Humphry spirals followed by tabling, with elimination of slimes ahead of the spirals by settling cones (or centroclone) is included. An amalgamator will be put into the circuit in an appropriate

place, as well as a magnetic separator for final cleaning of scheelite concentrate. A recovery of at least 82% of the contained scheelite is indicated on the information available.

Cyanidation was decided against, although tailing will be stacked for possible later retreatment. The amount of gold that will be recovered by amalgamation has not been accurately determined, but as the ore is oxidized and known to contain erratic richer spots within the customary wide distribution of 0.02 oz. or so, a substantial amount of additional daily revenue is anticipated. This may range between $150. to $300. or more per day.

POWER:

Electric power is available in the district at customary commercial rates. These have been recently quoted at rates which calculate out to $0.10 to $0.13 per ton milled, depending on load factor etcetra. A trunk line crosses the Baltic claim.

COST OF OPERATION:

Estimated as follows,-

	Per Ton	
Mining	$0.20	(Contract offer delivered to mill)
Company cost	.10	-what is this
		$0.30
Milling:		
Crushing	0.25	155
Water	.16	96
Power	.13	
Labor	.177	
Supplies	.15	
		0.867

Cost of Operation: (continued)

	Per Ton	
Supervision	$0.033	
Compensation, S. S.	.033	
Assaying	.01	
Engineering	.01	
Legal	.002	
General Overhead	.10	0.188
		$1.355
At 85% Operating-time Efficiency		0.203
		$1.558
Contingencies		.16
Estimated Operating Cost		$1.718 Per Ton of Ore Milled.

TABLE SHOWING ESTIMATED OPERATING PROFIT PER TON AT VARIOUS UNIT PRICES:

WO_3 At	$40.00	$50.00	$60.00	$70.00 Per Unit
WO_3 (82% of)	$3.28	$4.10	$4.92	$5.74
Gold (25% of)	.35	.35	.35	.35
Both	$3.63	$4.45	$5.27	$6.09
Cost	1.72	1.72	1.72	1.72
Profit Per Ton	$1.91	$2.73	$3.55	$4.37
Per Day	$1,146.00	$1,638.00	$2,130.00	$2,622.00

At $60.00 per unit, a 312 day operating year (6 days per week) on this basis would yield an operating profit of $664,560.00.

Metal produced per annum would be,-

307,008 lbs. WO_3 (advs)
1,872 oz. Gold (troy)

Thus, there is the possibility of producing over two million pounds of tungstic oxide during the estimated life (6.7 years) of the operation. This would be an important contribution to the stockpile.

Respectfully submitted,

February 28, 1951

Lawrence B. Wright

Lawrence B. Wright

7110 Middleton Street,
Huntington Park, California

Feb 23, 1951

Mr. Lloyd Mills, President,
Petroleum Investment Trust, Ltd.
Chicago, Ill.

Dear Sir:

At your request, I submit the following report on the Tungsten deposits in the claims controlled by your company in the Rand Mining District, Kern County, California, known as the Baltic Group, particularly the Baltic No. 1, which is on the Baltic claim itself, and Baltic No. 2, which is on Sonora No. 1 and Sonora No. 2; Peggy; Marie Rose; Lucky Roy; and Silver Knees.

LOCATION,

The Baltic Group is located within 300 hundred yards of the paved public highway, about one and one half miles from the town of Randsburg, about the center of what is known Stringer District of the Randsburg Quadrangle. The Yellow Aster Mine, famous for its gold production lies about one mile to the northeast; the Kelly Mine, at one time the worlds largest producer of silver, about one mile south; and the Atolia Mine, which furnished the major supply of nations Tungsten in World War I, about one and one half miles southeast.

GEOLOGY AND ORE BODIES:

The area is divided into three zones; the Monzonites in the Atolia District; the andesites; trachites and volcanic rocks in the vicinity of the Kelly Mine and Red Mountain and the schists which take in most of the quadrangle. The shists are presumably older than the intrusives and have been greatly distorted and sheared in definite areas. In your Tungsten deposits the shists have been greatly sheared along their strikes.

In 1925, 20 years before the discovery of these mineralized areas, Doctor Carlton Houlin, in Bulletin No. 95, otherwise ably covered the Randsburg quandrangle. He has divided the district into three areas, gold, silver and tungsten. The Baltic Group lies on the border of the gold and tungsten areas and is influenced by both the gold and tungsten mineralization. Inclusions of quartz, monozlite within the amphébole schist

are frequently encountered which undergone various degrees of alteration. The Stringer District, wherein the Baltic Ore Bodies lie is characterized by stock work veins in width from a knife blade seam to sometimes 2 inches. The stock work is a result of fracturing caused by the premineral shearing of the schists which lie in varied attitudes.

In 1945, the discovery was made that mineralization carrying tungsten and gold in at least two distinct areas over considerable extent, clearly outlined and determined by assay walls under the Baltin Group. Prior to this discovery, it was the accepted believe among geologist that gold and tungsten only existed in narrow seams and that all other ground was barren of mineral values.

1. The shear zone on the Baltic No. 1 is approximately 225 ft. in width, 1106ft. in length and proven to a depth of 400 feet by a shaft sunk early in the century for the purpose of mining gold, together with drifts of various levels. Oxidisation has softened the sheared shist to such an extent that the ground yields readily to a pick and the entire ore body is so highly oxidized and disentregated that it can be dug with a power shovel or ripper and powder is not needed.

In May, 1945, after the discovery of the general mineralization in these two zones, the writer was able to go to a depth of 160 feet in the shaft. At that point, the shaft had caved in making further discent impossible. 23 cuts in the walls and drifts were taken intentionally away from any vein matter or any ground which had been considered ore by former operators. These cubs were taken from the drifts and shafts from 160 feet to the surface. The ore weighing approximately 160 lbs., was consolidated into two samples and a split sample from each assay. The results were as follows:

No. 1	0.14%	WO3	.02 au
2	0.10%	WO3	.11 au

Other assays of vein matter in this ground were as follows: 0.93% WO3
0.58% WO3
0.28% WO3

2. Baltic No. 2 begins about 1,000 feet from the mineralized shear zone of Baltic No. 1. It is on the same general strike as the Baltic Ore Body No. 1 and is a clearly defined zone where the shearing varies from 400 to 180 ft. in width and about 1500 ft. in length.

Pits have been sunk throughout this area, usually on mineralized veins, one to a depth of 20 ft. Under my direction 9 samples were taken from 9 dumps of these pits and 26 samples throughout the general mineralized area. These samples were assayed by Smith-Emery Company. The average of the samples of the dumps of the 9 mine pits was 2.54% WO3 and a consolidated sample of the 26 samples assayed 0.11% WO3 and 0.02% oz. gold. A copy of the assay by Smith-Emery Company is hereto attached and marked Exhibit "A".

METALLURGY:

The most striking feature of the scheelite found in the Baltic ores, is its freedom from contaminants such as copper, sulphur, lead, zinc, etc., which are difficult to eliminate and plague operators. Neither is there is any garnet or epidote present which on account of their nearness in gravity to sheelite largly reduce the commercial recovery of scheelite when present.

The only interferring mineral in the Baltic ores is iron which is readily pulled out by magnetic separators. The gangue material of these ores is a highly decomposed amphibole schist. The minerals, scheelite, iron and gold occur generally between the laminations of the schists.

From my experience of upwards of 30 years in the operation and examination of tungsten deposts in California, Arizona and Nevada, it is my considered opinion that nowhere in these states are there any cleaner scheelite ores than these two deposits in the Baltic Group.

PILOT MILL AND RESEARCH:

In January, 1948, about $50,000.00 in the building of a pilot mill and opening up of the ore body over a surface 650 feet long; 225 feet wide with bull dozer and ripper under contract with the Cee-Tee Construction Co., was spent. A stock pile of upwards of 10,000 tons taken throughout the surface was built up at the pilot mill. Concentrates were obtained by the use of a small barrel contrivance which assayed 10.27% WO3. These concentrates were finished on a Diester table, cleaned of iron with a magnetic separator in two batches; one assaying 67.14% WO3 and the other 62.73% WO3 and sold to the Holy Corporation of America, Bishop, California for $25.50 per unit.

In November, 1948, 100 lb. sample taken over the surface of the open pit and stock pile was shipped for testing purposes to the Laboratory of the American Cyanamid Company, Stamford, Conn. They reported that the ore assayed Tungsten 0.15% WO3, Gold 0.030oz. Au/ton; Silver 0.050 oz ag/ton. An exaustive examination was made showing that the values were released at 10 mesh; that their screen analysis showed the slimes to be 8.3% and that 84.7% was plus 200. Their microscopal examination showed as follows:

> A portion of ground ore was vanned into a light and heavy mineral concentrate. The heavy mineral portion was examined with a binocular mircrosope. Gold, pyrite, scheelite, magnetite, hematite, and unidentified black opaque minerals were observed. The free gold was fine and not abundant. Pyrite was scant, just an occuasional grain. Scheelite was abundant, but appeared to be rather finely disseminated. The coarser particles were invariably present as middling grains with quartz and calcite.Z

The report recommended that for the purpose of securing a commercial concentrate of
of the scheelite, that the Humphrey Spiral be tried.

HUMPHREY SPIRAL TEST:

A 650 lb. sample taken throughout the surface of the open pit and the stock pile was shipped for testing by the Humphrey Spiral, Denver, Col. The following report was made on the test. A head sample, ground to ~~10/mesh~~ minus 10 mesh ran 0.148% WO3, gold 0.2 oz.; silver 0.1 oz. per ton. An overall concentrate in two stages was obtained of a ratio of 144:1 and a final concentrate of 11.91% WO3.

The first stage concentration at a ratio 15.8 to 1 raised the grade of scheelite to 1.98% WO3 with an 85.8% recovery. The tailing loss was 0.0½ WO3.

The second stage ratio of concentration was 9.1 to 1 and produced a 94.6 recovery and a concentrate of 11.91% WO3. The tailing in the second stage was 0.075% WO3 which in practice is recirculated in the feed to the first stage spiral. Mr. Thompson, the Metallurgist who conducted the test stated that this scheelite in the Baltic ore gave the Laboratory less trouble and better recovery than any scheelite from anywhere that they they hither to tested.

Copies of these reports are hereto attached and marked Exhibit "B".

TONNAGE AND OPERATING COST:

The ore body on Balti No. 1, is 1100 ft. long, 225 feet wide and 400 feet deep. While I was only able to go to a depth of 160 ft. and examine the drifts at various levels from that depth to the surface, I have interviewed reliable leasers who worod the property underground when the shaft was open to a depth of 400 feet. They report that the ore at that depth to be of the same general character as that now appearing on the upper levels. Also that there is no evidence that 400 ft. was the bottom of the ore body. I therefore estimate that this zone will contain at least six million tons which can be mined by open pit methods. The potential Tungsten content of this ore body can reasonably estimated 900,000 units WO3.

The ore body outlined in Baltic No. z, is of larger surface area than the deposit on Baltic No. 1; being roughly 1500 ft. long and varying in width from 400 to 180 ft. wide. It is only proven by shallow pits the deepest of which is about 20 ft. However, as it lies about 1,000 feet from the Baltic deposit No. 1 and on the same general strike and is identical in character, it is reasonable to conclude that the deposit should be at least equal in depth to that on the Baltic No. 1. In this event the WO3 content in 900,000 units WO3 estimated in Baltic No. 1 as the assays as shown in Exhibit ZAZ indicate a much higher WO3 content.

The magnitude and importance of these deposits to the tungsten reserve of the nation will be seen from the fact that the entire production of the Atolia District which was the source of the major tungsten supply during World War I, is about one million units to date.

Four major items in the cost of operation are mining, water, power, and labor.

MINING:

The Coo-Tee Construction Co., one of the largest movers of dirt in Southern California based upon their experience in building up the stock pile of 10,000 tons has contracted to deliver into the ore bin on the basis of a 600 ton per day at a cost of 10¢ per ton and to dispose of the tailings from the conveyor at 2½¢ per ton. This cost to include operator, oil, fuel, lubricants, repairs, insurance on operator and supervision.

See Exhibit No. 5

ATER:

The water supply for this territory comes from wells in Fiddler's Gulch, owned by the Sue Corporation. After supplying local demands it has a surplus of available of 600,000 gallons per day. We require to operate a 600 ton mill 100,000 gallons per day. The Sue Corporation agrees to deliver this amount at a point 2,000 feet from our proposed mill site with three inch pipe at a cost of $1.05 per 1,000 gallons. This is a cost of 16¢ per ton of ore treated. They also agree to supply water at the same price for any increased demands to the extent of their surplus.

POWER:

The California Electric Power Company now services this property with transformer capacity up to 100 H.P. The power demands will require 200 H.P. On condition that your company will pay for the additional 100 H.P. transformer, refunded out of monthly bills, the Power Company agrees to sell power at .070¢ per kw. This makes a power charge of 6½¢ per ton of ore treated.

Total cost of mining, water and power: 35¢ per ton.

LABOR:

On the basis of 600 tons P.D. operation, it is planned that the crushing and grinding shall be done in one shift; the other units operating throughout the 24 hours. This will require one crusher man; one screen man; one master mechanic; three spiral operators and one table man; one man to dry and package concentrates; one assayer; one general purpose man; one trucker and one mill superintendent; a total of 12. At an average of $15.00 per day per man the total cost of labor is $180.00 per day or 30¢ per ton. Allowing 30¢ per ton for amortization, 15¢ for replacements, repairs and miscellaneous, and 15¢ for overhead the summary of cost will be as follows:

Mining and disposal of tailings	.125
Water	.16
Power	.065
Labor	.30
Amortization	.30
Repairs, etc.	.15
Overhead	.15
	$1.25 Per Ton

NET RECOVERY:

The price of domestic scheelite, according to the published quotation at Henderson, N.C., where the Harme Mine is located is $65.00 per unit. While the Humphrey Spiral recovery was 85.8% WO_3 to produce a grade of 11.91 WO_3 it was found that concentrates of this grade could be finished with slight loss on a Diester table and cleaned of iron with magnetic separator, I estimate an 80% net WO_3 recovery.

On this basis and assuming ahead of 0.148 WO_3, the grade found in the Humphrey Spiral Test, the net recovery would be 2 and 2/5 lbs. WO_3 per ton.

Gross earnings per day 600 tons @ $7.80	$4,680.00
Operating cost 600 tons @ $1.25 per ton	750.00
	$3,930.00 Per Day
300 Days Per Year	$1,179,000.00 Per Year

COMPARISON OF OTHER SCHEELITE PROPERTIES:

The only major scheelite property operating in the United States a year ago, when the price was $17.00 per unit was the Harme Tungsten property near Henderson, N.C. whose quotation now fixes the domestic price of scheelite.

The annual report of this company under date of June 30, 1950:

"50,526 units WO_3 were produced from 89,546 tons.
The average grade of mill feed was 0.753 WO_3 or 15 lbs."
300 tons per day recovered 13 pounds from 15 lbs. WO_3 mill feed.
The mining and milling costs was $9.00 per ton,
of which the mining cost was $5.50 per ton.
With mining and milling costs of $9.00 to produce 13 pounds WO_3
therefore, the cost at Henderson, N.C., was 69¢ per lb.
The cost of recovery of 2 and 2/5 lbs per ton at the Baltic operation
at a cost of $1.25 per ton is 52¢ per lb.
Or an operating advantage in favor of the Baltic production of 17¢ per lb.

SUMMARY

(1.) In the ore zones of the Baltic No. 1 and Baltic No. 2, you have an extensive scheelite and gold deposit - perhaps one of the largest bodies of scheelite ores in place known. - with all indications of yielding upwards of 10,000,000 tons.

(2.) The cause of the soft, friable nature of the ore, your able to mine and grind to a mesh that will free the mineral contents at an extremely low cost.

(3.) Because the Baltic ores are unusually free from mineral contaminants and interfering minerals, you can make a concentrate of a high grade and at the same time achieve a high recovery of the scheelite content.

(4.) Sufficient water is available at a reasonable cost to increase your operation to 3,000 tons per day.

(5.) Recovery of the scheelite is brought about by standard and proven methods. No experiments are needed or contemplated.

(6.) In the mild climate of Southern California, operations may be carried on practically every day of the year.

Howard J. Potter
Mining Engineer and Metallurgist

Cee-Tee Construction Co.

GENERAL CONTRACTORS—EARTH MOVERS
435 E. MAIN STREET
PUENTE, CALIFORNIA
TELEPHONE FLeetwood 6-1224

EXHIBIT No. 6

February 14, 1951

Petroleum Investment Trust, Ltd.
316 No. Norton Avenue
Los Angeles 4, California

Re: Baltic Pit Mine

Gentlemen:

With reference to your recent inquiry regarding a movement of ore on the Baltic claims near Randsburg, California. We are familiar with the operation, as you will recall we were the people who moved the material now on the stockpile at the Baltic property, with our caterpillar and carryall equipment.

We are in a position to deliver into your proposed bin at the mill with our equipment on the basis of 600 tons per day for 20¢ per ton in which case we furnish all equipment, labor and material necessary.

We are also in a position and willing to enter into an agreement whereby you furnish the necessary equipment for handling of the ore, however, equipment must be new, and we will operate same for 10¢ per ton based on 600 tons per day. Our operation of your new equipment will include operator, oil, fuel, lubricants, repairs, insurance on operator and supervision, all of which we will furnish at our own cost. For your information we suggest that if you purchase equipment for mining the particular ore in question, a heavy duty ripper should be considered as it was necessary for us to use a ripper before material could be successfully loaded into the carryall equipment.

Cee-Tee Construction Co.

GENERAL CONTRACTORS—EARTH MOVERS
435 E. MAIN STREET
PUENTE, CALIFORNIA
TELEPHONE FLeetwood 6-1224

Petroleum Investment Trust, Ltd.

In connection with removal of tailing pile from the proposed tailings conveyor, we will remove the waste therefrom for 5¢ per ton, based on the 600 tons per day with our equipment or if you purchase equipment we will supervise and operate your equipment on the removal of tailings as above mentioned for 2½¢ per ton based on 600 tons per day.

If you desire any further information you may feel free to call upon us.

We thank you for your inquiry and hope to be of service to you in the near future.

Yours very truly,

CEE TEE CONSTRUCTION CO.

D. M. Patritti

DMP/lo

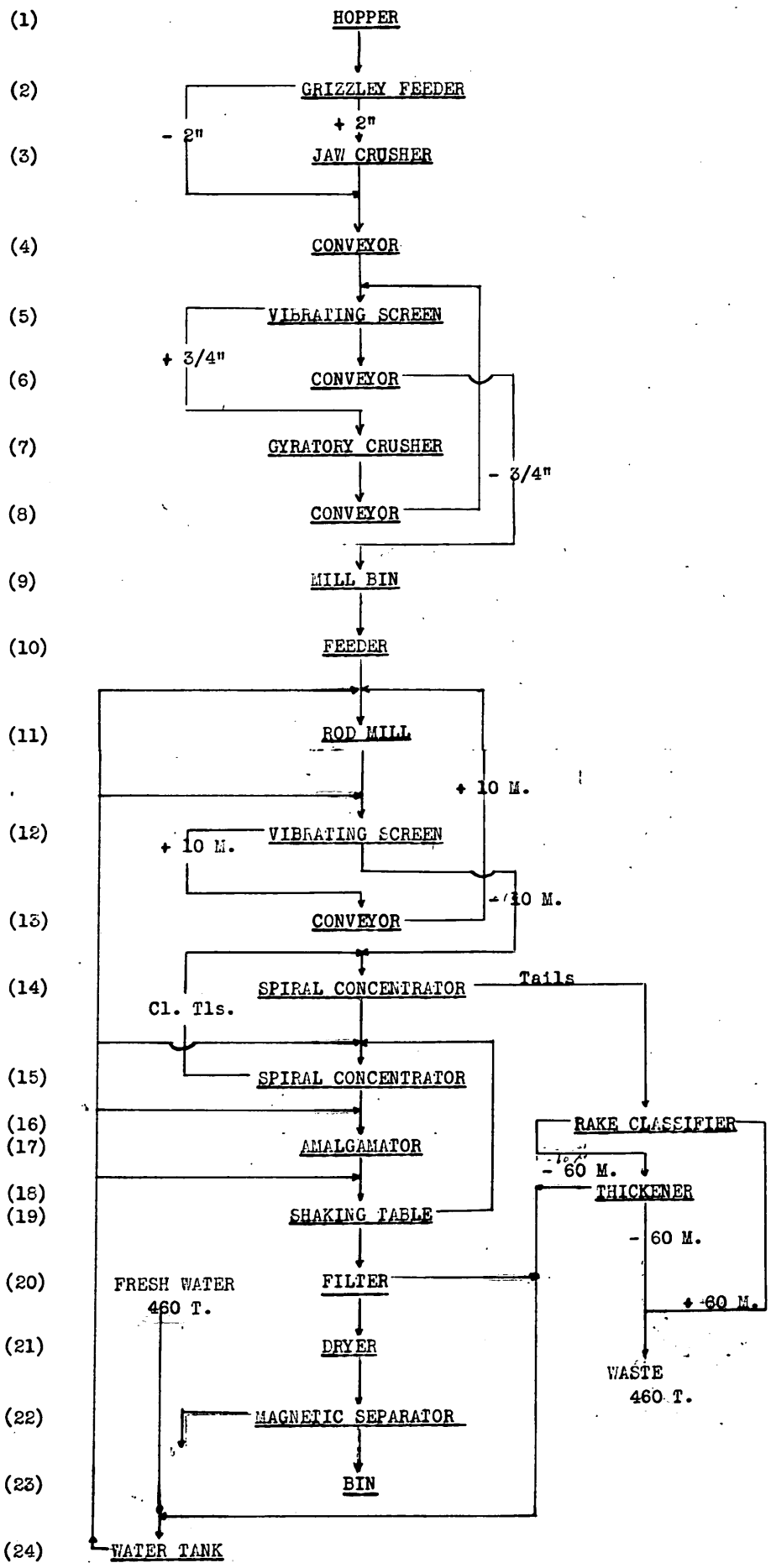
BALTIC PROPERTY
RANGSBURG, CALIFORNIA

EXHIBIT 4

SUGGESTED FLOWSHEET FOR 600 TON MILL
FOR RECOVERY OF SCHEELITE

Red figures indicate tons water per day.

CHR 3/6/



(1) 50 tons, live load

(2) 30" vibrating.

(3) 24" x 30", 2½" opening.

(4) 24" belt

(5) 5' x 10', double deck.

(6) 24" belt

(7) 3' standard

(8) 30" belt

(9) 750 tons, live load.

(10) 24" Hardinge

(11) 5' x 10'

(12) 4' x 8', double deck

(13) 16" belt

(14) Humphries - 34 units

(15) Humphries - 1 unit

(16) 8' x 22'

(17) Small Titian, Todd ,etc.

(18) 50' minimum indicated

(19) 12' x 6'.

(20) 6' x 2 disc or equivalent

(21) To be determined.

(22) To be determined. must handle 2-4 tons daily.

(23) 10 tons, live load

(24) 50,000 gallon capacity

"Or Equivalent" is implied with respect to any above specified unit.

EXHIBIT 7

The Sue Corporation

Los Angeles, California

January 24, 1951

Mr. George G. Moore
316 North Norton
Los Angeles, California

Dear Mr. Moore:

Confirming our recent conversation on the subject of furnishing water to you or to your assigns, we make the following proposals concerning the mill at the Baltic Mine:

At present The Sue Corporation furnishes the Randsburg Water Company with about 10,000 gallons per a 24 hour day which leaves us with a very large surplus. We have three wells located in Fidlers' Gulch fully equiped with electric driven power having a capacity in excess of 400,000 gallons per 24 hours, but our pipe facilities will only permit us to deliver 250,000 gallons per 24 hours at the present time at the Yellow Aster Mine which is about one mile distant from the Baltic claim. This reservoir has a capacity of 100,000 gallons and is at an elevation of 4,000 feet. This gives us a capacity of 7,500,000 gallons per month.

In order to put the pipe line in first class operating condition there is about 2,000 feet which must be replaced. This pipe line connects our wells with the Yellow Aster reservoir. My proposal is that upon the execution of a formal contract setting forth in detail this proposal that you will pay the sum of $3,000.00 for the restoration of this pipe line which we will rebate to you at 15% of your monthly power bill.

With these conditions we agree that at any time before Sept. 1, 1951, upon 30 days notice and the advance of $3,000.00, we will deliver to you or your assigns at the Yellow Aster reservoir, water on the following terms:

1. If the consumption is 1,000,000 gallons per month, the price will be $1.35 per 1,000, delivered and metered at the Yellow Aster reservoir.
2. If the consumption is 2,000,000 gallons per month, the price will be $1.25 per thousand gallons.
3. If the consumption is 3,000,000 gallons per month, the price will be $1.05 per thousand gallons.

In any month where the consumption is less than 300,000 gallons the rate shall be $1.80 per thousand gallons.

If the consumption is between 300,000 and 1,000,000, the rate will be $1.60 per thousand gallons.

Yours truly,

James Alspach

The Sue Corporation

JCA/swk

EXHIBIT "A"

TRINITY 4791 FORM 1

LABORATORY REPORT

COPY

SMITH-EMERY COMPANY

CHEMICAL ENGINEERS AND CHEMISTS

COPY METALLURGICAL AND TESTING ENGINEERS COPY

920 SANTEE STREET

LOS ANGELES 15

LABORATORY

No. 332721-30 *Date* February 12, 1951.

Sample Ore

Received 2/8/51 *Marked* "From Sonora Nos. 1 and 2"

Submitted by Howard J. Potter
7110 Middleton Street
Huntington Park, California.

REPORT OF DETERMINATIONS

Mark	Tungsten Trioxide (WO_3)
"Sample #1"	0.13%
"Sample #2"	0.62%
"Sample #3"	1.85%
"Sample #4"	11.35%
"Sample #5"	1.56%
"Sample #6"	1.50%
"Sample #7"	1.72%
"Sample #8"	0.80%
"Sample #9"	3.35%

****

"Samples of Dumps in S.W. Area"

"26 samples only"

Tungsten Trioxide (WO_3) ---------- 0.11%
Gold, ounces per ton --------- 0.02 ounce
Value at $35.00 per ounce -- $0.70 per ton

Silver, ounces per ton ------- Nil

Respectfully submitted,

CHEMISTS AND ENGINEERS.

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS, AUTHORIZATION FOR PUBLICATION OF OUR REPORTS, CONCLUSIONS, OR, EXTRACTS FROM OR REGARDING THEM IS RESERVED PENDING OUR WRITTEN APPROVAL AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES.

Lab. Form 2—4M—9-49—F. & C.

EXHIBIT "B"

Table No. I

HUMPHREYS SPIRAL CONCENTRATOR TEST

Lot No.: 766 Test No.: Stage: Date: Feb. 9, 1951

Test made for: Petroleum Investment Trust - Baltic Mine

Sink Float Test on -10 mesh head

Rate of dry feed:

Percent solids in feed pulp: G.P.M. of feed pulp:

Middling load circulated:

SAMPLE NO.	PRODUCTS	WEIGHT		Assay	Distribution		Assay	Distribution		Assay	Distribution	
			Distribution %	%WO_3		%	Au			Ag		
A-1.1	+200 sink		0.4	23.87		71.1						
A-1.2	+200 float		86.6	0.019		11.8						
A-1.3	-200 slime		13.0	0.176		17.1						
			100.0	0.14		100.0						
A-1	Head			0.148			0,02			0.1		

Remarks: This sink float test indicates a satisfactory tailing may be rejected by 1st stage spirals at a 20 mesh grind.

jvt/g

Test Engineer: James V. Thompson

Lab. Form 2—4M—9-49—F. & C.

Table No. 2

HUMPHREYS SPIRAL CONCENTRATOR TEST

Lot No.: 766 Test No.: A Stage: First Date: Feb. 9, 1951

Test made for: Petroleum Investment Trust, Ltd., - Baltic Mine

Feed to Spiral: -10 mesh ore

Rate of dry feed: 1.7 short tons per hour

Percent solids in feed pulp: ±35 G.P.M. of feed pulp: ±25

Middling load circulated: Ratio of concentration 15.8 to 1

SAMPLE NO.	PRODUCTS	WEIGHT		Tungsten								
			Distribution %	Assay	Distribution		Assay	Distribution		Assay	Distribution	
				%WO_3		%	Au		%	Ag		
A-2	1st stage concentrate		6.2	1.98		85.8	0.06		22.2	0.1	No concentration	
A-4	1st stage tailing		93.8	0.021		14.2	0.015		77.8	0.1		
	Calculated Feed		100.0	0.14		100.0	0.02		100.0	0.1		
A-1	Head sample			0.148			0.02			0.1		

Remarks:

jvt/g

Test Engineer: James V. Thompson

Lab. Form 2—4M—9-49—F. & C.

Table No. 3

HUMPHREYS SPIRAL CONCENTRATOR TEST

Lot No.: 766 Test No.: B Stage: Second Date: Feb. 9, 1951

Test made for: Petroleum Investment Trust, Ltd., - Baltic Mine

Feed to Spiral: A-2 First Stage Concentrate

Rate of dry feed:

Percent solids in feed pulp: G.P.M. of feed pulp:

~~Middlings circulated~~ Ratio of concentration second stage 9.1 to 1

SAMPLE NO.	PRODUCTS	WEIGHT		Assay	Distribution		Assay	Distribution		Assay	Distribution	
			Distribution %	UO_3		%						
B-2	2nd stage Concentrate		11.0	11.91		94.6						
B-4	2nd stage tailing		89.0	0.075		5.4						
	Calculated Feed		100.0			100.0						
A-2	1st stage concentrate 2nd stage feed				1.98							

Remarks: Overall ratio of concentration 14.4:1

Assays should be repeated on this test because of the considerable difference between the actual and the calculated feed. If assays check, another test should be run.

Test Engineer: James V. Thompson

jvt/g

SF-Dms-9

MF-10
(April 1951)

Budget Bureau No. 42-R1036.
Approval expires 6-30-51.

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

FEB 26 3 51 AM '52

E 72

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts will be made from time to time.

CERTIFICATION

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

Petroleum Investment Trust Ltd.
(Name of Company)

By Lawrence B. Wright
(Signature of Authorized Official)

October 3, 1951
(Date)

Eng. In Chg. of Drilling
(Title)

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

16—64068

MONTHLY SUMMARY COST STATEMENT

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation percent 75%

Distribution of Expenditures for Month of August, 1951

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals to Date
~~Wages~~ salaries Supt.	500.00	500.00	1,000.00			
Equipment purchase [1]	281.76	524.72	806.48			
Equipment rental [2]						
~~Buildings~~ Tel & Tel	38.51	50.59	89.10			
Explosives						
~~Repair parts~~ Assaying & Test	770.65	748.00	1,518.65			
Other supplies	8.40	82.50	90.90			
~~Power~~ Bulldozer	300.00	----	300.00			
Transportation	270.80	263.00	533.80			
Withholding taxes						
Compensation insurance						
Other insurance						
Contract work	2,100.00	4,200.00	6,300.00			
Other (specify) Field Exp.	156.44	87.50	243.94			
Total	4,426.56	6,456.31	10,882.87			
Totals previously reported	6,456.31		~~6,456.31~~ 10,882.87			
Totals to date	10,882.87	~~6,456.31~~	~~17,339.18~~			

FOR GOVERNMENT USE ONLY

Checked by PH
Entered by
Approved by A. C. Johnson
Amount approved for payment $3,319.92
Remarks

NOV 16 1951

Mining Engineer

16—64068-1

[1] Enter total purchase price in month purchase is made.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.

DISTRIBUTION OF WAGES AND SALARIES FOR MONTH OF August, 1951

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation percent 75%

TYPE	NUMBER	MAN-SHIFTS	RATE	TOTAL
Miners			$	$
Muckers				
Trammers				
Timbermen				
Pumpmen				
Hoistmen				
Surface				
Samplers				
Assayers Abbot Hanks Inc				770.65
Shift bosses				
Mechanics				
Electricians				
Blacksmiths				
Carpenters				
Drill runners	1			
Drill helpers	2		Contract	2,100.00
Teamsters				
Manager				
Superintendent	1		$500. per mo	500.00
Engineers				
Geologists				
Bookkeeper				
~~Foreman~~ Bulldozer				300.00
Clerks				
Stenographers				
Other				
TOTAL				3,670.65

NOTE.—Show only that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by Ph
Entered by
Approved by A. C. Johnson
Remarks

NOV 16 1951

16—64068-1

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF August, 1951

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation, percent 75%

Item	Costs					Progress				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes	2,100.00				2,100.00	Feet	420	840	1,260	1,260
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching										
Sampling and assaying	1,270.65	281.76	8.40		~~1,717.35~~ 1560.81					
Roads and trails Bulldozer	300.00				300.00					
Tests Transportation				270.80	270.80					
Other (specify) Tel & Tel				38.51	38.51					
Field Exp.				156.44	156.44					
Totals	3,670.65	281.76	8.40	465.75	4,426.56		420	840	1,260	1,260

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.

16—64068-1 U. S. GOVERNMENT PRINTING OFFICE

NOV 16 1951

FOR GOVERNMENT USE ONLY

Checked by fh
Entered by
Approved by A. C. Johnson
Remarks

Authorized Certifying Officer

REPORT OF PROGRESS

DMA Contract #840, Petroleum Investment Trust Ltd.,
Baltic Claim Group, Randsburg, Kern County, California.

This is to accompany the statement of cost for August, 1951 and is persuant to the July report.

On August 22nd the drilling of the 1260 feet of churn drill holes was completed. The assays have been slow in being completed, the last were received on September 24th. A table of holes drilled and the results obtained accompanies this report. When the early results indicated low and patchy mineralization, some of the holes layed out on the Baltic claim were allocated to the Peggy claim, one of the group under test. Here the results were about the same.

It will be noted that the total footage drilled exceeds that called for in the contract. This extra footage has been paid for separately by Petroleum Investment Trust and the extra cost is not reflected in the total reported herewith.

It will also be noted that the estimated cost of the 1260 ft. of drilling, $14,036.00, is higher than the actual cost as reported herewith. The cost of the program as set up under the terms of the contract amounts to $10,882.87, which reflects a saving of $3,153.13. However, Petroleum Investment Trust Ltd. has been put to extra expense through a directive concerning the saving and storing of one-fourth of all drill cuttings, which directive was not included in the contract, and therefore the expense disallowed by the Bureau.

The conclusion to be drawn from the drilling results is that there is not sufficient tungstic oxide in the ground tested to support a mining, and milling operation.

Because of this outcome, the Company has continued with a program of testing large areas of surface detrital material, and the placer material in the drainage system, in the hope of outlining a sufficiently large workable tonnage. If the Company is successful in demonstrating the likely-hood of such a source of supply, its officers may again seek the assistance of the Defense Minerals Administration in its exploration and treatment.

Respectfully submitted,

Lawrence B. Wright

Lawrence B. Wright,
Engineer-in-Charge of Drilling Program

MF-104
(April 1951)

SF-D.M.A-9
Budget Bureau No. 42-R1036.
Approval expires 6-30-51.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

For July 1951

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts will be made from time to time.

CERTIFICATION

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

Petroleum Investment Trust Ltd
(Name of Company)

By Lawrence B. Schlegelt
(Signature of Authorized Official)

August 15, 1951
(Date)

Engineer In Charge
(Title)

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

16—64068-1

MONTHLY SUMMARY COST STATEMENT

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation percent 75%

Distribution of Expenditures for Month of July, 1951

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals to Date
Wages and salaries						
Equipment purchase [1]	542.72	None	524.72			
Equipment rental [2]						
~~Buildings~~ Tel & Tel	50.59	"	50.59			
Explosives						
Repair parts						
Other supplies	82.50	"	82.50			
~~Power~~ Assaying & Testing	748.00	"	748.00			
Transportation	263.00	"	263.00			
Withholding taxes						
Compensation insurance						
Other insurance						
Contract work	4,200.00	"	4,200.00			
Other (specify) Supervision	500.00	"	500.00			
Field Expense	87.50	"	87.50			
Total	6,456.31		6,456.31			
Totals previously reported	None		None			
Totals to date	6,456.31		6,456.31			

FOR GOVERNMENT USE ONLY

Checked by [illegible]
Entered by
Approved by [illegible]
Amount approved for payment $4842.23
Remarks

SEP 11 1951

Lloyd L. Norvell
Authorized Certifying Officer

[1] Enter total purchase price in month purchase is made.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.

16—64068-1

DISTRIBUTION OF WAGES AND SALARIES FOR MONTH OF July, 1951

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation percent 75%

Type	Number	Man-Shifts	Rate	Total
Miners			$	$
Muckers				
Trammers				
Timbermen				
Pumpmen				
Hoistmen				
Surface				
Samplers				
Assayers Abbot Hanks Inc				748.00
Shift bosses				
Mechanics				
Electricians				
Blacksmiths				
Carpenters				
Drill runners	1			
Drill helpers	2		Contract	4,200.00
Teamsters				
Manager				
Superintendent	1		$500. per mo	500.00
Engineers				
Geologists				
Bookkeeper				
Foreman				
Clerks				
Stenographers				
Other				
Total	4			5,448.00

Note.—Show only that portion of supervisory, office, and engineering salaries that is chargeable to this project.

SEP 11 1951

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by
Remarks

Lloyd L. Norvell
Authorized Certifying Officer

16—64068-1

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF July, 1951

Name of operator Petroleum Investment Trust Ltd
Project No. DMA 840
Total contract amount $14,036.00
Government participation, percent 75%

Item	Costs					Progress				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes	4,200.00				4,200.00	Feet	840	None	840	1,260
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching										
Sampling and assaying	1,248.00	524.72	170.00		1,942.72					
Roads and trails										
Test pits										
Other (specify) Transportation				263.00	263.00					
Tel & Tel				50.59	50.59					
Totals	5,448.00	524.72	170.00	313.59	6,456.31		840	None	840	1,260

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.

16—64068-1 U. S. GOVERNMENT PRINTING OFFICE

SEP 11 1951

FOR GOVERNMENT USE ONLY

Checked by [illegible]
Entered by
Approved by [illegible]
Remarks

Lloyd L. Narvell
Authorized Certifying Officer

BALTIC TUNGSTEN EXPLORATION - Randsburg, California
August 10, 1951 DMA 840

DRILLING PROCEDURE: Holes are bring drilled with a Bycyrus-Erie cable rig mounted on a truck.

The grid pattern as approved and shown on a map previously submitted is being followed as closely as local conditions permit. A final map of the drilling will be submitted with the final report.

The crew consists of runner and helper, sampler-helper, and an assistant engineer who lays out holes, rustles supplies, and supervises the bagging and storage of the U. S. ' portion of the samples.

The average drilling rate has been 42 feet per day for the first half of the program.

SAMPLING PROCEDURE: The churn drill holes are 6.5 inches in diameter and 30 feet deep.

Five samples are taken; the first from 0 to 10 feet, the rest at five foot intervals.

The drill cuttings are sludged with about 50% water during drilling.

The action of the bit creates sufficient turbulance to prevent any settling of the heavier minerals. At the end of the five foot run, or sooner if necessary, the bailer is dropped immediately upon removal of the bit, the sludge is forced up into the bailer through a trap door, the whole is hoisted and dumped into a metal trough. The bailing is repeated until the hole is cleaned to the bottom.

From the metal trough, the sludge is passed through a pair of Jones Sample Splitters mounted on a stepped bench in such a manner that the sample is automatically quartered. One quarter is sacked wet in canvas bags. This is the U. S.' quarter. One quarter goes into another metal box, is transferred to 30" square drying pans, and when dry, is again passed through Jones Splitter until duplicates 5 to 6 pound samples are obtained. One of these samples goes to Abbot A. Hanks Inc. for analysis, the other is put into paper bags, labeled and stored for Company checks. The samples that go to Hanks are sent in rubber lined canvas sacks. At Hanks laboratory the sacks are emptied of all their contents and the material ground to pass a 200 mesh screen. From various parts of the sample 5 grams are taken for analysis.

The procedure being employed here at the drill is almost identical with that practiced at Utah Copper (Mining Engineers Handbook; Peele, 3rd Ed. Vol. 1, 10-45).

ASSAY RESULTS: Returns from assays lag considerably behind the drilling owing to the time involved in shipping and analyzing. However, the results on the Holes No. 1 to 18 indicate the north half of the Baltic outcrop area is far below commercial grade. There is a little scheelite in all of the samples. Panning of sludge at the drill invariably shows some scheelite. But at this stage of the program it appears that the values in theorder of 2. plus lbs. WO_3 that were obtained in the sampling of material stockpiled from surface stripping represent residual concentration and enrichment at surface and near-surface. There remains to be explained comparable values obtained from channel samples from the Baltic shaft.

The gold content of the material cut by drilling is in line with previous sampling. This fact would tend to indicate there is no loss of heavy mineral due to the procedures being followed.

Owing to the low results of the first 14 holes drilled, it was decided to reduce the number of holes outlined for the Baltic claim and to move the drill to the Peggy claim area, where preliminary sampling indicated scheelite in fair amounts in both surface and shallow underground exposures.

Lawrence B. Wright

Lawrence B. Wright,
(Engineer In Charge)

COPY COPY

REPORT OF PROGRESS

DMA Contract #840, Petroleum Investment Trust Ltd.,
Baltic Claim Group, Randsburg, Kern County, California.

This is to accompany the statement of cost for August, 1951 and is persuant to the July report.

On August 22nd the drilling of the 1260 feet of churn drill holes was completed. The assays have been slow in being completed, the last were received on September 24th. A table of holes drilled and the results obtained accompanies this report. When the early results indicated low and patchy mineralization, some of the holes layed out on the Baltic claim were allocated to the Peggy claim, one of the group under test. Here the results were about the same.

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The conclusion to be drawn from the drilling results is that there is not sufficient tungstic oxide in the ground tested to support a mining, and milling operation.

Because of this outcome, the Company has continued with a program of testing large areas of surface detrital material, and the placer material in the drainage system, in the hope of outlining a sufficiently large workable tonnage. If the Company is successful in demonstrating the likely-hood of such a source of supply, its officers may again seek the assistance of the Defense Minerals Administration in its exploration and treatment.

Respectfully submitted,

Lawrence B. Wright,
Engineer-in-Charge of Drilling Program

This sheet is not dated
work completed Aug 22nd

Yes Audited

No Certified

W[illegible] ANALYSIS SHEET - DMEA PROJECT[illegible]

Analysis as of 12/2/1954
Incl. Voucher for

Yes Actual Cost

Agreed Unit Costs

Name Petroleum Investment Trust, LTD. (Baltic Mine)

Docket No. DMA-840X

State California

Commodity Tungsten

Idm-E No. 72

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Churn	1,260'	6,300.00	1,260'	6,300.00	6,300.00
Surface Excavation					
Underground Excavation					
Roads and Trails		1,500.00		1,200.00	1,200.00
Operating Equipment Purchased		1,000.00		806.48	806.48
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)		5,236.00		2,575.52	2,575.52
Totals		14,036.00		10,882.00	10,882.00

Prepared by TLC

71626

FILE COPY
SURNAME:

Hofflund
Johnson

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

APR 1 5 1952

Petroleum Investment Trust, Ltd.
Room 1215
231 South LaSalle Street
Chicago 4, Illinois

Gentlemen:

Referring to your Exploration Project Contract No. Idm-E72, Docket DMA-840X, Baltic Mine, Kern County, California, the Government, under the provisions of the contract, hereby waives its interest in any personal property purchased for the work under the contract and remaining upon its completion or termination.

Sincerely yours,

4/17/52

(signed) FRANK E. JOHNSON (for)

Acting Administrator
Defense Minerals Exploration
Administration

Rewrite

JLHofflund/ema
4/14/52
cc: Admn. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
G. C. Selfridge
Operating Committee
J. L. Hofflund
Chron.
J. L. Chambers

Petroleum Investment Trust, Ltd.
Room 1215
231 South LaSalle Street
Chicago 4, Illinois

Re: Docket No. DMA 8463 - Tungsten
Contract No. Idm-572
Baltic Mine
Kern County, California

Gentlemen:

The Government hereby abandons and quitclaims to the Operator designated in the subject Exploration Project Contract, all its right, title, and interest in and to the following described items:

	Paper sample bags, canvas bags, twine and tags	$ 37.02
4	Tanks, 36x48x36 - 16 ga. iron) Otto Sheet Metal	
10	Pans, 33x43x2 - 20 " ")	
20	Pans, 22x31x2 - 22 " ")	496.80
	Sample splitters, 2, Brown Corp.)	72.10
	)	78.59
	Pans	6.82
200	Ore bags, W. A. Plummer Mfg. Co.	66.24
	Hose and couplings	9.87
	Tags	.65
	Wire	.52
	Paper bags & twine	4.46
	Padlock	.71
	Freight on equipment (Desert Express)	32.70
	Total	$806.48

RLBrewer'lm
4/2/52

Sincerely yours,

Acting Administrator
Defense Minerals Exploration
Administration

cc: Admn. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
C. C. Selfridge
R. L. Brewer
Operating Committee
J. L. Chambers

Docket

FILE COPY
SURNAME:

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

Acting Administrator, DMEA

April 1, 1952

Brewer
Selfridge
Sidwell
Cox

Iron and Ferro-Alloy Division, DMEA

Memorandum of Non-Discovery
Docket No. DMA 840X - Tungsten
Petroleum Investment Trust
Baltic Mine
Kern County, California
Exploration Project Contract No. Idm-E72

This Division hereby concludes that the work done upon the subject property, as described in the subject contract, has resulted in no discovery or development from which commercial production of ore may be made.

A description of the property, the work done, and the results obtained are as follows:

1. The property examined is known as the Baltic Lode Mine, and is located in the S½ of Section 1; T. 30 S.; R. 40 E.; in the Randsburg District.

2. The ore sought for was scheelite, which occurs occasionally in and along fractures and shear planes lying within a shear zone 18 feet in width and over a known length of 2500 feet. Thin quartz seams occur sporadically within the shear zone and occasionally show scheelite values. The country rock is a quartz-biotite-albite gneiss. The ultra-violet lamp indicates the most of the shear zone is barren, as to scheelite content, and that such areas as do show a small scheelite content had been previously prospected by means of small pits and shafts.

3. Forty-two churn drill test holes were drilled to an average depth of 30 feet. A strip of land 1000 feet long and 200 feet wide was thus investigated, the holes being arranged in a geometrical pattern. The drill cuttings were saved for each five feet of depth and were analysed for tungsten. A composite of each hole was run for gold. Two of the 42 holes showed 0.06 per cent WO_3; 4 showed 0.027 per cent WO_3; and the remaining 36 holes showed less than 0.01 per cent WO_3. The gold content averaged less than 0.025 oz. The extremely low values encountered can be classified only as indications, and obviously, there has been no tungsten ore found nor any reserves thereof developed by the subject project.

4. The total equipment purchased for use in the work is listed as follows:

	Paper sample bags, canvas bags, twine and tags	$ 37.02
4	Tanks, 34x48x36 - 16 ga. iron) Otto Sheet Metal	
10	Pans, 35x43x2 - 20 " ")	
20	Pans, 22x31x2 - 22 " ")	496.80
	Sample splitters, 2, Braun Corp.)	72.10
	)	78.59
	Pans	6.82
200	Ore bags, W. A. Plummer Mfg. Co.	66.24
	Hose and couplings	9.87
	Tags	.65
	Wire	.52
	Paper bags & twine	4.46
	Padlock	.71
	Freight on equipment (Desert Express)	32.79
	Total	$806.48

All of the above equipment may be considered expendable, and without salvage value. This Division recommends that the all rights of the Government in and to any of the above listed items be hereby waived to the subordinate interest of the Operator.

5. The subject project was begun early in July, 1951, and completed on August 22, 1951. The amount expended was $10,882.87, or $3,153.13 less than the contract figure of $14,036.00.

6. The Operator was put to the extra expense of saving, sorting and storing one-fourth of all drill cuttings, as required by the field team. This work was not included in the contract, hence was paid for wholly by the Operator. Care should be taken by both DMEA and the field team to prevent the omission of this and similar items from future contracts.

7. Attention is called to the fact that the work was completed on August 22, 1951, and that the field team report was not received until March 11, 1952, a lapse of 6-1/2 months. Since the Government has only 6 months to certify "discovery", it follows that such a lapse of time taken by the field team actually constitutes a determination by it of "non discovery", as the said 6 months had already elapsed by the time the final report was mailed from their office. This Division has been thereby estopped from making a determination of "discovery" in this instance. It is fortunate, indeed, that the work done revealed "no discovery", as the Government would have been unable to place its lien upon the subject property.

QLBrewer'lm
4/1/52

George C. Selfridge

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

cc: Admn. Reading File
Docket
J. L. Chambers
G. C. Selfridge
Q. L. Brewer

400

March 17, 1952

With final memo

Memorandum

To: Mr. Selfridge

From: Mr. Frank E. Johnson

Subject: Petroleum Investment Trust, Ltd., Kern County, California, DMEA-840, Idm-E72.

Do we have Operator's Final Report? There should be a memorandum to the Administrator from the Division Chief giving resume and a letter to the Field Team for Administrator's signature authorizing abandonment of equipment.

?

No.

[illegible] are [illegible] the final [illegible]

Report for July 1951 -

work completed in August 1951

[illegible] dated 7-21, 1952

Received [illegible] 11, 1952

Note that the Field Team used up the 6 months time of [illegible] August. Reasonable time to certify

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Office of
Executive Officer
DMEA Field Team
Region III

March 7, 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Final Report of Exploration Contract Idm-E72, Petroleum Investment Trust, Kern County, California.

Attached are four copies of a report, "Final Report on Exploration Contract Idm-E72, Petroleum Investment Trust, Kern County, California, by Frank J. Wiebelt, Mining Engineer, U. S. Bureau of Mines, and C. D. Rinehart, Geologist, U. S. Geological Survey, dated February 21, 1952".

According to the report, the results of the exploration show that the deposit contained an average WO_3 content of slightly more than a trace and average gold values of 0.024 ounces per ton. No tungsten ore reserves were developed as a result of the exploration project.

Under the equipment purchases, Mr. Wiebelt has stated that the salvage value of the main articles of equipment bought would probably not exceed the cost and expense of selling the items and it would be difficult to find a purchaser for them. He has recommended that the items of equipment purchased be declared expendable and as having no salvage value.

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to E. H. Bailey, USGS
Lloyd L. Norvell

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 11 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

Final Report on Exploration Contract Idm-E72

Petroleum Investment Trust

Kern County, California

Frank J. Wiebelt, Mining Engineer
U. S. Bureau of Mines

C. D. Rinehart, Geologist
U. S. Geological Survey

February 21, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 11 1952

Reviewed by
DMEA OPERATING COMMITTEE
3-17-52
(date)

FINAL REPORT ON EXPLORATION CONTRACT Idm-E72

PETROLEUM INVESTMENT TRUST
Kern County, California

INTRODUCTION

The tungsten deposits leased from Mr. Max Hess by the Petroleum Investment Trust, in Kern County, California, were explored in July and August 1951 with the aid of Government funds provided for under the Defense Production Act of 1950 (Idm-E72). The results of this exploration show that the deposits contain an average WO_3 content of slightly more than a trace and average gold values of 0.024 ounces per ton. No tungsten ore reserves were developed as a result of the exploration project.

LOCATION

The property, known as the Baltic Mine, consists of the Baltic, Sonora No. 1, Sonora No. 2, Rand Gulch, Marie Rose, Peggy, Lucky Roy and Silver Knees claims situated in the Rand Mining District, Kern County, California. They are in sec. 1, T. 30 S., R. 40 E.

The claims are approximately 2.5 miles southeast of Randsburg, Calif., and are accessible from that town by following the paved highway from Randsburg toward Red Mountain a distance of about 2.4 miles at which point go south about a tenth of a mile to the property.

The climate is semiarid, and mining operations can be carried on throughout the entire year without difficulty.

The nearest railroad point is Searles Station, about 12 miles north, and on the Mojave-Owenyo branch of the Southern Pacific System. The district is served by truck line from Los Angeles, 150 miles distant.

HISTORY

The exploration program for the Baltic tungsten mine was approved by D.M.A. and under Exploration Project Contract Idm-E72, the Government granted the Petroleum Investment Trust, Ltd., a Nevada corporation, a $10,527 loan which was 75 percent of the agreed estimated total cost of the project $14,036.

The program was begun in July 1951 and was completed in August 1951.

The property was visited by Frank J. Wiebelt on August 21, 1951.

Under Docket No. DMA-840, 1,260 feet of churn drill holes was completed. The actual total cost was $10,882.87 or $3,153.13 less than the estimated total cost of the project.

A final inspection of the Baltic Mine was made on January 22, 1952 by C. D. Rinehart of the U. S. Geological Survey and Frank J. Wiebelt and Edward J. Matson of the Bureau of Mines. There was no representative of the Baltic Mine present during the inspection.

EQUIPMENT PURCHASE

According to the final Monthly Summary Cost Statement, the total equipment purchase amounted to $806.48. The details are as follows:

	Paper sample bags, canvas bags, twine and tags	$ 37.02
4	Tanks, 34x48x36 - 16 gg. iron) Otts Sheet Metal	
10	Pans, 35x43x2 - 20 " ") Works, L.A. area	496.80
20	Pans, 22x31x2 - 22 " ")	
	Sample splitters, 2, Braun Corp.)	72.10
	)	78.59
	Pans	6.82
200	Ore bags, W. A. Plummer Mfg. Co.	66.24
	Hose and couplings	9.87
	Tags	.65
	Wire	.52
	Paper bags & twine	4.46
	Padlock	.71
	Freight on equipment (Desert Express)	32.70
	Total	$806.48

It is the opinion of Frank J. Wiebelt of the Bureau of Mines that the salvage value of the main articles of the above list would probably not exceed the cost and expense of selling the items and it would be difficult to find a purchaser for them. It is recommended that the items itemized above as equipment purchases be declared expendable and as having no salvage value.

This report has been prepared jointly by the Bureau of Mines and the Geological Survey. The above section of the report was prepared by Frank J. Wiebelt of the Bureau of Mines and the following section of the report was prepared by C. D. Rinehart of the Geological Survey.

A plan of the churn drill hole locations provided by The Petroleum Investment Trust, Ltd. is included in this report.

GEOLOGICAL EVALUATION OF EXPLORATORY DRILLING

GEOLOGY

Scheelite, the only tungsten-bearing mineral, occurs in a thick shear zone, which cuts across medium-grained, medium-gray, biotite-quartz-albite gneiss. The foliation in the gneiss strikes northwest and dips 50° southwest to 50° northeast. In most outcrops the gneiss is highly decomposed and cleaves readily along planes of foliation; where the rock is fresh the foliation is much less conspicuous. The mineralized shear zone is approximately 18- feet wide and is exposed along the strike for 2500 feet. It strikes N.70°E., across the foliation in the gneiss, and dips about 30° northwest. The sheared rock is friable and poorly exposed, but several bulldozer cuts make it possible to crudely outline the zone. The shear zone does not appear to extend farther either to the northeast or to the southwest because in both directions several outcrops of unsheared

gneiss were observed on the trend of the shear zone. At the northeast end of the shear zone unsheared gneiss having vertical foliation striking east-west crops out across the entire width of the zone. Cross-faulting or folding in the gneiss may account for apparent termination of the shear at the northeast end.

Scheelite occurs within the shear zone along small fractures, along planes of foliation, and in small crosscutting quartz stringers. Only small local areas in the northeast and southwest parts of the shear zone contain scheelite in large enough amounts to be visible under ultra-violet light; most of the shear zone appears completely barren. The best showings of scheelite have been prospected by means of pits and shallow underground workings.

EXPLORATION PROGRAM AND RESULTS

The plan of the Petroleum Investment Corporation was to mine by open pit methods the entire width of the shear zone for several hundred feet along the strike, on both the Baltic and the Peggy claims. Under contract Idm E 72, 42 test holes were churn drilled to a depth of 30 feet in the shear zone to determine the average WO_3 content. Of the 42 borings, 9 were drilled on the Peggy claim at the southwest end of the shear, and the remainder were drilled on the Baltic claim at the northeast end. The central part of the shear zone was recognized to be barren and was not drilled. From each boring five samples were taken, one from the top 10 feet, and one every 5 feet from the remaining 20 feet. The results, tabulated in Table II, indicate an average WO_3 content of slightly more than a trace and average gold values of 0.024 ounces per ton. Duplicates of

several samples were obtained at the property and were assayed for gold and WO_3 by the Hydrometallurgical and Ore-Testing Branch of the Bureau of Mines. The results which are in close agreement with the applicant's analyses, are tabulated in Table I.

Table I

Hole No.	Depth	%, WO_3	Au Oz/T
6	20' to 25'	0.01	0.03
15	20' to 25'	0.01	0.015
16	25' to 30'	*0.01	0.015
19	15' to 20'	*0.01	0.015
19	20' to 25'	*0.01	0.02
29	20' to 25'	*0.01	0.015
38	25' to 30'	*0.01	0.01

* less than.

GEOLOGICAL EVALUATION OF THE DRILLING PROGRAM

The drill holes are systematically distributed over areas near each end of the shear zone where surface showings of scheelite are best, and appear to have tested the ground adequately. The assays of the bore hole samples show that the average WO_3 content is too low grade for profitable exploitation or to merit consideration for further exploration.

L. B. Wright, who mapped and sampled the property for the Petroleum Investment Corporation, obtained average values of about 0.10% WO_3. In a report on the property he states:

> "My results **** from ten cut samples from various near-surface and underground workings are as follows:
>
> | | WO_3 | Au | |
> |---|---|---|---|
> | Average | 0.085% | 0.026 oz. | (assays by Abbot A. Hanks)" |

Inasmuch as the workings are all on the best showings of scheelite, the grade thus determined is higher than the average of the shear zone as a

whole. Wright also sampled an inclined shaft driven along the footwall of the shear zone. The shaft was inaccessible during the present examination, but Wright's general sample above the 130 foot level assayed 0.10% WO_3. This grade is higher than that obtained by the drilling and suggests that localization of scheelite may have occurred along the footwall. Values obtained near the base of hole numbers 15 and 17 (0.09% and 0.14% WO_3 respectively) where they approach or intersect the footwall, lend support to this conjecture. Even though the grade of the ore adjacent to the footwall may be higher than the average of the shear zone, the volume of ore adjacent to the footwall is too small to be mined by open pit methods, and the grade not high enough to support the cost of underground mining.

Churn Drill Sample Assays
By
Abbot A. Hanks, San Francisco, California

Hole No.	% WO_3 0'-5'	5'-10'	10'-15'	15'-20'	20'-25'	25'-30'	Av.Au Oz/T
1	0.01		0.01	0.01	0.01	Trace	0.038
2	0.01	Tr.	Tr.	Tr.	Tr.	0.02	0.022
3	Tr.----------		0.01	Tr.	Tr.		0.024
4	Tr.		Tr.	Tr.	Tr.	Tr.	0.003
5	Tr.		Tr.	Tr.	Tr.	Tr.	0.014
6	Tr.		Tr.	Tr.	Tr.	Tr.	0.011
7	Tr.		Tr.	Tr.	0.01	Tr.	0.009
8	Tr.		Tr.		Tr.		0.023
9	Tr.		Tr.	Tr.	Tr.	Cave	0.051
10	Tr.		Tr.	Tr.	Tr.	0.01	0.027
11	Tr.		Tr.	Tr.	Tr.	Tr.	0.030
12	Tr.		Tr.	Tr.	0.01	Tr.	0.020
13	Tr.		Tr.	Tr.	Tr.	Tr.	0.027
14	0.01		Tr.	Tr.	Tr.	0.01	0.129
15	Tr.		0.01	Tr.	0.01	0.09	0.022
16	0.01		Tr.	0.01	Tr.	Tr.	0.028
17	Tr.		Tr.	Tr.	Tr.	0.14	0.024
18	Tr.		Tr.	Tr.	Tr.	Tr.	0.030
19	0.08		Tr.	Tr.	0.09	0.12	0.025
20	0.02		0.01	0.02	Tr.	Tr.	0.028
21	Tr.		Tr.	Tr.	0.03	0.01	0.024
22	Tr.		0.05	0.02	Tr.	Tr.	0.030
23	0.01			Tr.	Tr.	Tr.	0.015
24	Tr.		0.01	Tr.	Tr.	0.01	0.015
25	Tr.		Tr.	Tr.	Tr.	Tr.	0.020
26	Tr.		0.01	Tr.	Tr.	Tr.	0.040
27	Tr.		0.02	0.01	Tr.	Tr.	0.010
28	Tr.		Tr.	Tr.	Tr.	0.01	Tr.
29	Tr.		Tr.	Tr.	Tr.	0.05	0.010
30	Tr.		0.02	0.02	Tr.	0.01	0.035
31	0.01		Tr.	Tr.	Tr.	0.01	0.015
32	Tr.		Tr.	Tr.	Tr.	Tr.	Tr.
33	Tr.		Tr.	0.01	Tr.	Tr.	0.010
34	0.01		0.02	Tr.	Tr.	0.01	0.005
35							
36	Not drilled						
37	Tr.		Tr.	0.02	0.01	Tr.	
38	0.13		Tr.	0.01	Tr.	0.02	0.005
39	Not drilled						
40	0.02	0.02	0.01	0.08	0.01	0.01	0.025
41	Not drilled						
42	0.01		0.02	0.01	0.01	0.01	
43	0.06	0.02	0.03	0.04	0.01	0.01	0.020
44	Tr.	Tr.	Tr.	0.01	0.01	Tr.	0.04-0

400

Mr. H. C. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket No. DMA 142 - Contract E3 - Tungsten
Docket No. DMA 840 - Contract E72 - Tungsten

Dear Mr. Miller:

Review of our files shows that the contracts on the above-captioned dockets should have been completed.

Will you please advise us as to the date each applicant started work under the contracts, the date of completion of said contract, and whether or not a final examination and report have been made by the field team.

It is necessary that we have this information as soon as possible after a contract has been completed, in order that we may comply with Government regulations as defined in Section 13 of Form MO-5.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

GGGentry:ls
2/12/52

Copy to: Admn. Reading File
Docket
Field Team, Region III
G. C. Selfridge
G. G. Gentry

Mr. Whittendorf
Rm. 4624

4-2-52

Mitt. - Herewith a recommendation of Non-Discovery on DMA 840 - E72 - together with :-

an "abandonment of equipment, etc"

Since this is the first of such abandonments, your attention is requested as to form of the letter, etc. Mr. Hoffland has checked the ~~[illegible]~~ phrasing of the gift with me.

Geo. S.
By G H Brown
4/2

(This abandonment was requested by the field team)

FILE COPY
SURNAME:

Johnson
Mittendorf

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

SEP 14 1951

Q.E.C.

Mr. Matthew B. Murray
Chairman
Petroleum Investment Trust, Ltd.
231 S. LaSalle Street
Suite 1215
Chicago 4, Illinois

Re: Docket No. DMA - 840
Tungsten Mines
Baltic 1 and 2 Kern County, California
Exploration Project Contract

Dear Mr. Murray:

Reference is made to your letter of August 23, 1951, advising of your intention to apply for an Exploration Project on placer land adjacent to the property covered by the captioned Exploration Project Contract.

You request that DMA request from RFC a copy of the report made by an engineer of RFC in 1942 on the above-mentioned placer property for your use.

RFC has advised us that it does not make the reports of its engineers available for the use of private industry. However, it is not necessary for you to furnish DMA with the information contained in the report referred to in making an application for an Exploration Project on the unexplored part of the land which your company now owns.

Sincerely yours,

C. O. Mittendorf (F.H.)

C. O. Mittendorf, Director
Production Expansion Division

JF 9/14

FEJohnson/meb
9/12/51
cc to: Admr's Reading Files
Reports and Records
Messrs.Mittendorf/Olund
Holderer
Blakemore
Johnson
Docket

Mr. Blakemore

PETROLEUM INVESTMENT TRUST, LTD.

August 23, 1951

Mr. C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Re: DMA Docket 840-X, Tungsten Mines
Baltic 1 and 2 Kern County,
California

Dear Sir:

Under date of July 9, 1951 an exploration loan was granted to Petroleum Investment Trust, Ltd. to explore for tungsten ore on the Baltic 1 and 2 claims.

Immediately adjacent to these claims is a body of placer which is mineralized and contains tungsten.

In the year 1942, the Atolia Tung-Sun Company applied to the Reconstruction Finance Corporation for a loan to construct a mill for the purpose of milling this placer which is now the property of Petroleum Investment Trust, Ltd. At that time certain portions of this placer, which was then owned or controlled by the Atolia Tung-Sum Company, were sampled systematically and assayed and a report made by Steve Gulio, who apparently was acting for the government in making this survey. The average of the assays of this placer was 3-3/4 pounds WO 3 per ton, and the estimated ore body from this sampling was put at 147,000 tons.

It is the intention of Petroleum Investment Trust, Ltd., which now owns or controls the placer sampled by Mr. Gulio as well as additional placer deposits immediately adjacent thereto, to apply for an additional exploration loan for the purpose of completing the systematic sampling of this body of placer. It is the Company's intention to sample only those portions of the placer not previously sampled by Mr. Gulio, but in order to have a proper record

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 24 1951

of the previous sampling it is necessary that the Company have a copy of Mr. Gulio's report which is now a part of the Reconstruction Finance Corporation's files in the Regional Office at Los Angeles. The Regional Director of the RFC has informed the Company that it cannot release this report to the Company except upon orders from the main office of the Reconstruction Finance Corporation in Washington.

In order to facilitate the Company's exploration program so that a complete report can be made to the Defense Minerals Administration of the amount and character of ore body available for milling purposes, it is requested that you contact the Reconstruction Finance Corporation in Washington and request that a copy of this report be made available for use by Petroleum Investment Trust, Ltd.

Sincerely yours,

PETROLEUM INVESTMENT TRUST, LTD.

By Matthew E. Murray
Chairman

MEM:EO

R V R B1

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

400

Memorandum

TO: Director, Supply Division

FROM: C. O. Mittendorf, Director
Production Expansion Division

SUBJECT: Petroleum Investment Trust Ltd. Tungsten

Referred to you for handling, the attached letter from subject company, captioned as docketed, but which does not concern that docket, because it refers to an entirely different property.

Attachment

FILE COPY
SURNAME:

Mittendorf
affair

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

AUG - 6 1951

My dear Senator Knowland:

I am pleased to report to you that the Defense Minerals Administration of this Department has recently entered into a contract with the Petroleum Investment Trust, Ltd., operating in your state for the exploration of possible sources of tungsten.

The contract provides that the Government will participate in the expense of this work up to 75% of the cost thereof.

This type of assistance is provided for under Section 303 of the Defense Production Act.

The Defense Minerals Administration will be glad to furnish you any further details you may desire regarding the matter.

Sincerely yours,

(sgd) R. D. Searles

Secretary of the Interior

PBBLAKEMORE/jem
7-30-51

Hon. William F. Knowland
United States Senate
Washington 25, D. C.

cc to: Secy's Reading File
Adm. Reading File
Mr. Mittendorf-Olund
Mr. Blakemore
Docket Copy
Reports & Records

Identical letter to: Hon. Richard M. Nixon
Mr. Thomas H. Werdel

8-1

RETURN TO THE BUREAU OF MINES

BUREAU OF MINES
WASHINGTON, D. C.
AUG 9 8 00 AM '51

FILE COPY
SURNAME:

Blakemore
Mittendorf

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

July 27, 1951

AIR MAIL

Petroleum Investment Trust, Ltd.
Room 1215, 231 South LaSalle Street
Chicago 4, Illinois

Re: Docket No. DMA 840-X
Idm-E72 - Tungsten

Gentlemen:

Enclosed is your copy of Exploration Contract Idm-E72, Docket No. DMA 840-X, which has been signed by yourselves and for the Government as of July 9, 1951. This is your authority to proceed.

Also enclosed are forms MF-104 on which the monthly progress must be reported in accord with the instructions on the first page. Additional forms should be obtained from the Field Office when needed. You will note that these reports are used as a voucher from which the Government's share of the expense of this project is paid.

If further information is required please contact Mr. H. C. Miller, Executive Officer of DMA Field Team for Region III, 1415 Appraisers Building, San Francisco, California.

Sincerely yours,

C. O. Mittendorf 7/31/51

C. O. Mittendorf, Director
Production Expansion Division

Enclosures-5

PBBlakemore/jem
cc to : Adm. Reading File
Mittendorf, Olund
Blakemore
Region III (2)
Thayer
Holderer
Docket Copy
Reports & Records

FILE COPY
SURNAME:

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

July 27, 1951

Blakemore
Mittendorf

Mr. H. C. Miller
Executive Officer
DMA Field Team, Region III
1415 Appraisers Building
San Francisco, California

Re: DMA Docket-840X-Tungsten
Mines: Baltic 1 and 2
Kern County, California

Dear Mr. Miller:

In reference to the copy of our letter to the Petroleum Investment Trust, Ltd. of July 17, 1951 which was mailed to you, you will note that the Operator is advised that any reasonable changes in the proposed drilling, sampling, assaying and metallurgical testing are to be handled by a representative of your office.

On the basis of the information furnished by the applicant, it is clear that close attention must be paid to the sampling of the drill cuttings in order to avoid "salting" of this very low grade tungsten material, and it is hoped that your representative will be able to maintain a close contact with the work, particularly on this account.

Sincerely yours,

7/31
cc.

C. O. Mittendorf, Director
Production Expansion Division

Blakemore/jem

cc to: Adm Reading File
Mr. Mittendorf-Mr. Olund
Mr. Thayer
Mr. Holder
Mr. Blakemore
Docket Copy
Field, Region III
Reports & records

FILE COPY
SURNAME:

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

Blakemore
Mittendorf

July 20, 1951

Mr. H. C. Miller
Executive Officer
Region III
1415 Appraisers Building
San Francisco, California

Re: DMA 840X - Tungsten
Petroleum Investment Trust, Ltd.
Exploration Contract
Idm-E72

Dear Mr. Miller:

Enclosed is a copy of the executed Exploration Contract covering the subject project for field use.

A copy of this contract has been delivered to the Chief of Finance Section for transmittal to your Field Finance Office.

Sincerely yours,

C. O. Mittendorf 7/31

C. O. Mittendorf, Director
Production Expansion Division

Enclosure-1

PBBlakemore/meh
cc to: Adm. Reading File
Mittendorf, Olund
Mrs. Terry
Thayer
Holderer
Blakemore
Region III
FILES

FILE COPY
SURNAME:

Blakemore
Mittendorf

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

July 20, 1951

Contract Service Section
General Accounting Office
Washington 25, D. C.

Re: Docket DMA 840-X
Exploration Project Contract
Idm-E72
Petroleum Investment Trust, Ltd.
Chicago 4, Illinois

Gentlemen:

Enclosed for recording in your office is the original, signed copy of an Exploration Project Contract executed between the operator named in the above reference and the Government of the United States.

Sincerely yours,

7/31

C. O. Mittendorf
C. O. Mittendorf, Director
Production Expansion Division

Enclosure-1

PBBlakemore/meh
cc to: Adm. Reading File
Region III
Thayer
Holderer
Mittendorf, Olund
Blakemore
FILES

FILE COPY
SURNAME:

Blakemore
Mittendorf

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

July 17, 1951

Petroleum Investment Trust, Ltd.
Room 1215, 231 South LaSalle Street
Chicago 4, Illinois

Re: DMA Docket 840-X, Tungsten
Mines: Baltic 1 and 2
Kern County, California

G.E.C.

Gentlemen:

In reply to your letter of July 9, 1951, receipt of which is acknowledged, you are advised that the exploratory program covered in the Exploration Contract is not necessarily confined to the Baltic No. 1 property which you selected for initial exploratory drilling. If in the mutual judgment of your engineer and the DMA Field Team representative, the sampling and assaying of the drill cuttings from the initial several holes drilled on the Baltic No. 1 show a non-commercial tungsten content, exploratory drilling on Baltic No. 2 property should follow at their discretion.

It has been verbally explained to you and your Messrs. Burkhalter and Wright that (a) if fruitful, the exploratory drilling to 30 feet depth of either Baltic No. 1 or Baltic No. 2 within the surficial dimensions as stated by you for each, would provide an adequate reserve to support a recommendation for a loan to cover mining and milling facilities, (b) your production costs for exploiting Baltic No. 1 would not apply at depths below 30 feet from the surface on account of the shape and attitude of the mineralized zone, as described by you.

While, from your description, Baltic No. 2 might be mined to a depth of 70 feet below the surface at costs within your estimates, nevertheless, as stated above, the dimensions of this mineralized zone, as given by you, if explored to a depth of 30 feet, would provide a reserve adequate for the further consideration of your application for a loan, assuming of course, that such reserve contained a sufficient amount of recoverable tungsten.

The objective of the Exploration Contract is to discover, if possible, a commercial deposit of tungsten on the subject properties. The courses to be followed toward that end must necessarily be plotted by the field representatives of the parties concerned.

Sincerely yours,

PBBlakemore/meh
cc to: Messrs. Mittendorf, Olund
Mr. Blakemore
Field III (2)
FILES

C. O. Mittendorf 7/20

C. O. Mittendorf, Director
Production Expansion Division

PETROLEUM INVESTMENT TRUST, LTD.
231 South La Salle Street
Chicago 4, Illinois

July 12, 1951

Mr. C.O. Mittendorf, Director
Production Expansion Division
United States Department of the Interior
Defense Minerals Administration
Washington 25, D.C.

Re: DMA 840-X, Tungsten
Baltic 1 & 2 Properties
Kern County, California

Dear Sir:

In accordance with your letter of July 9, I, on behalf of Petroleum Investment Trust, Ltd., have executed the original and five copies of the Exploration Project Contract which you forwarded.

I would suggest, if possible, that you make the effective date of this contract July 9, the date of your forwarding letter, since it is possible that drillings may already be under way on the property.

As Chairman of the Executive Committee of the Board of Directors which conducts business for the Board, I am authorized to sign on behalf of the Corporation.

Very truly yours,

Matthew E. Murray

MEM:hm
Encs.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 13 1951
MARION F. STROBEL
Executive Secretary

DEFENSE MINERALS ADMINISTRATION

97022

PRODUCTION EXPANSION DIVISION

EXPLORATION LOANS

Name of Company and Address: Petroleum Investment Quest Ltd Room 1215 231 South LaSalle St Chicago

Name of Mine and Location Baltic 172. Randsburg, Kern County California

Docket No. D.M.A. 840 Date received by P.E.D. 13 June 1951

Metals or Minerals involved Tungsten

Amount of Total Project: $14,036.00

Government participation, percent and amount 75% $10,527.00

Number of subprojects in total application

Type of Exploration	Feet	Cost per foot	Total cost
Preparatory & Rehabilitation	None		
Equipment			$500.00
Equipment Rentals ~~Shaft sinking & winzes~~			400.00
Drifts and crosscuts			
Raises			
Diamond or churn drilling	1260	$6.00	$7560.00
Bulldozing			1200.00
Other Engr., Assay, Transp., Contingency			4376.00

Comments on Contract

Date sent to Applicant for signature

Date returned to P.E.D.

Date sent to Legal 2 July 1951

Date signed by Administrator 9 July 1951

Additional remarks:

Interior—Duplicating Section, Washington, D. C.

Signed [illegible]

FILE COPY
SURNAME:

Mittendorf

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

July 9, 1951

G.E.C.

Petroleum Investment Trust, Ltd.
Room 1715, 231 South La Salle Street
Chicago 4, Illinois

Re: DMA 240-X, Tungsten
Baltic 1 & 2 Properties
Kern County, California

Gentlemen:

There are enclosed the original and five copies of the subject exploration contract for signature on each by an officer of your company.

Kindly return all of these documents to this office for signature by the Government. The effective date of this contract will be inserted on the contract, and on the subordination agreement when signed by the Government.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

Enclosures-6

PBBlakemore/meh
cc to: Strobel
Mittendorf, Olund
Blakemore
Region III (2)
FILES
Chron. Copy

PETROLEUM INVESTMENT TRUST, LTD.
Room 1215, 231 South LaSalle Street
Chicago 4, Illinois

July 9, 1951

Mr. C. O. Mittendorf, Director
Production Expansion Division
United States Department of the Interior
Defense Minerals Administration
Washington 25, D. C.

Re: DMA Docket 840X, Tungsten
Mines - Baltic 1 and 2
Kern County, California

Dear Sir:

We have your letter of July 6 in which you advise that the application of this corporation for a loan of $300,000 for the construction of mining and milling facilities has been suspended pending receipt of additional data concerning extent and content of mineral deposits on the property in question.

We understand, as you state in your letter, that the making of an exploration loan for the purpose of proving up these deposits is no assurance that the construction loan will be made, even though the exploration program results in the discovery of a substantial body of commercial ore. We do, however, desire to state for the record that our drilling program as submitted to the Tungsten Committee was curtailed to a considerable degree on advices from your office. Our original program as you know called for holes varying in depth from 100 to 150 feet and included both Baltic No. 1 and No. 2. This program has now been restricted to holes to a depth of only 30 feet on Baltic No. 1 only.

As a result of this curtailment it should be apparent that at the conclusion of the exploration program we will have a much smaller proven ore body than if we had proceeded with our original program. Realizing the pressing need for tungsten and in the interest of saving time, we are pleased to curtail our program to this extent but we would like to feel secure in the thought that in so restricting our exploratory program and therefore proving up a much smaller ore body, we will not be minimizing the value of this project in the eyes of any governmental agencies who may be called to pass upon the merits of the project.

The J. N. Pitcher Company, who is contracting for the drilling and sampling under this program, is moving on to the location today and will commence drilling tomorrow.

Sincerely yours,

PETROLEUM INVESTMENT TRUST, LTD.

By Matthew E. Murray
Chairman, Executive Committee

MEM/lsh

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 12 1951
LANDON F. STROBEL
Executive Secretary

FILE COPY
SURNAME:
Guthrie

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

July 6, 1951

Memorandum

To: C. O. Mittendorf

From: J. L. Hofflund

Subject: Petroleum Investment Trust, Ltd., a Nevada Corporation, exploration contract -- Docket No. DMA-840

The contract in the subject case appears to be satisfactory in form for execution by the Government subject to:

1. The proper execution of the contract by the applicant prior to execution by the Government.

2. Correction of the subordination agreement to show the correct date of the exploration contract.

The effective date should be inserted in the contract and the subordination agreement at the time of execution by the Government.

Your file is returned herewith.

J. L. Hofflund

J. L. Hofflund
General Counsel

Attachments

R.R.Guthrie/ema

Copy to: L. F. Strobel
R. R. Guthrie
J. L. Hofflund
Chron.
Files

FILE COPY
SURNAME:

Mittendorf

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

July 6, 1951

Petroleum Investment Trust, Ltd.
Room 1215 - 231 So. La Salle Street
Chicago 4, Illinois

Re: DMA Docket 840X, Tungsten
Mines - Baltic 1 and 2
Kern County, California

Gentlemen:

This is to advise you that the consideration of your application of March 3, 1951 for a loan of $300,000 for the construction of mining and milling facilities has been suspended pending our receipt of additional data concerning the extent and content of the mineral deposits on the property in question.

We are proceeding, however, with your application for an exploration loan, but you must understand that the making of such a loan, even though it results in the discovery of a substantial body of commercial ore, is no assurance that your application for the construction loan will receive favorable consideration.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

PBBlakemore/meh
cc to: Adm. Reading File
Mr. Strobel
Messrs. Mittendorf, Olund
Mr. Blakemore
Mr. Thayer
Mr. Holderer
Field III (2)
FILES
Chron. Copy

Dma 840

FILE COPY
SURNAME:

PBB
Mittendorf

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

July 6, 1951

Petroleum Investment Trust, Ltd.
Room 1215 - 231 So. La Salle Street
Chicago 4, Illinois

Re: DMA Docket 840 X, Tungsten
Baltic 1 and 2 Mines
Kern County, California

Gentlemen:

Returned herewith is your contract with the J. N. Pitcher Company, covering the cost of drilling the exploratory churn drill holes on the subject properties.

Copies have been made of it and will accompany the exploration contract when finalized.

Sincerely yours,

C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

Enclosure-1

PBBlakemore/meh
cc to: Strobel
Mittendorf, Olund
Blakemore
Field III (2)
FILES
Chron. Copy

FILE COPY
SURNAME:

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

July 3, 1951

Memorandum

TO: Mr. Hofflund, Chief Counsel
Defense Minerals Administration

FROM: C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration

SUBJECT: Request for Legal Opinion on attached draft of letter:
DMA Docket No. S40, Tungsten
Exploration Contract
Petroleum Investment Trust, Ltd.
Mines Baltic 1 and 2, Kern County, California

The attached is a draft of a proposed letter which is deemed necessary in order to clarify the intent of the subject contract.

The contract covers the drilling and sampling of 40 churn drill holes each 30 feet deep and specifies that 15 of these holes are to be drilled on the Baltic No. 1 property first, and if the data obtained therefrom are unfavorable that the Operator shall drill Baltic No. 2.

It is also requested that you decide who is the proper signatory for the proposed letter.

Attachments - 1

PBBlakemore/meh
cc: Messrs. Mittendorf, Olund
Mr. Strobel
Mr. Hofflund
Mr. Blakemore
FILES
Chron. Copy

FILE COPY
SURNAME:

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

DRAFT

Petroleum Investment Trust, Ltd.
Room 1215, 231 South LaSalle Street
Chicago, Illinois

Attention: Mr. Murray

Re: DMA Docket No. 840, Tungsten Exploration Contract
Baltic 1 and 2, Kern County, California

Gentlemen:

It is clearly impractical to set forth a rigid detail which would cover the way in which the desired data concerning these properties are to be obtained because decisions, based on data as acquired, for extending the exploration must necessarily be made in the field.

It is not intended that data obtained from the drilling of the first 15 holes on the Baltic No. 1 property are to be conclusive and used to limit further drilling on that tract, but rather to allow the Operator to do similar preliminary drilling on Baltic No. 2 property, and from the data obtained thereby decide which tract is to be more fully explored.

Sincerely yours,

PBBlakemore/meh
cc: Messrs. Mittendorf, Olund
Mr. Strobel
Mr. Hofflund
Mr. Blakemore
FILES
Chron. Copy

PETROLEUM INVESTMENT TRUST, LTD.

Room 1215

231 South La Salle Street

Chicago 4, Illinois

July 2, 1951

Mr. Landon Strobel
Secretary
Defense Minerals Authority
Interior Department
Washington, D. C.

Re: Petroleum Investment Trust, Ltd.
Exploration Loan

Dear Sir:

At the suggestion of Mr. Blakemore of the Production Expansion Division of D.M.A., we enclose herewith contract entered into between this corporation and J. N. Pitcher Company of Daly City, California for exploratory drilling and sampling on the Baltic claim of this corporation located in Kern County, California.

The specifications of this exploratory work are in accordance with Mr. Blakemore's directions, and we are advised by the Department that the contractor who will perform the work meets with their approval.

This contract was made pursuant to the approval of an exploration loan to this corporation for this work. The corporation also has pending an application for a loan for the construction of a mill for the purpose of milling and refining tungsten deposits in this ore body.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 5 1951
LANDON F. STROBEL
Executive Secretary

Very truly yours,

PETROLEUM INVESTMENT TRUST, LTD.

By Matthew E. Murray
Chairman, Executive Committee

MEM:JM
Enclosure
CC: Mr. Page Blakemore

FILE COPY
SURNAME:

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

July 2, 1951

Memorandum

TO: Mr. Hofflund, Chief Counsel
Defense Minerals Administration

FROM: C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration

SUBJECT: Legal Opinion of Exploration Contract, DMA Docket No. 640
Open Pit, Baltic No. 1 and 2 Mines, Randsburg, California
Operator, Petroleum Investment Trust, Ltd.
231 South LaSalle Street, Chicago, Illinois

This applicant sought a loan of $300,000 for mining and milling facilities, the further processing of which has been suspended pending the results obtained from churn (or other) drilling of a number of holes for exploring the deposit, in order to determine, from sampling of the drill cuttings, whether there is a commercial ore body on these properties. The above procedure was recommended by the Operating Committee.

The Applicant agreed to such a program and furnished an estimate of $30,000 as the cost of an exploration program, which with certain exceptions was approved by the Committee.

Our analysis of the proposal, however, indicates that cost of the exploration necessary for the purposes outlined above, totals $14,036.00.

The attached letter to the Operator has also been prepared, the need for which is due to the fact that the property and engineer are in California, the principals in Chicago and the main contract here in Washington through the legal firm of Brown Lund and Fitzgerald.

PBBlakemore/meh
cc: Mr. Strobel
Messrs. Mittendorf, Olund
Mr. Blakemore
Chron. Copy
FILES ✓
Mr. Hofflund (2)

FILE COPY
SURNAME:

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

June 29, 1951

Memorandum

TO: C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration

FROM: P. B. Blakemore

SUBJECT: DMA 640, Exploration Contract - Tungsten

Applicant:	Petroleum Investment Trust, Ltd.
Address:	Room 1215, 231 South LaSalle St., Chicago 4, Ill.
Mine:	Baltic 1 and 2
Location:	1 mile East and a little South of Randsburg, Kern County, California
Type of Mine:	Open Pit
Exploration Recommended:	1260 feet of drilling, Total $14,036.00 DMA $10,527.00 (75%)
Loan Applied for:	$300,000.00 for Concentrator and other facilities, held in abeyance pending results of Exploration Program.

Discussion:

The operator has done a considerable amount of surface prospecting, both by pits and bulldozing together with sampling, assaying and metallurgical testing by Humphrey's Investment Company, as well as in the pilot mill on the property, all supported by acceptable data.

The results of the above work indicate two rather steeply inclined formations, containing at least 0.11% WO_3 and perhaps 35 cents per ton recoverable gold, are exposed as follows:

Baltic No. 1 - 225 feet by 1100 feet - 247,500 square feet
Baltic No. 2 - 180 to 400 feet by 1500 feet - 270,000 (up) square feet

Assuming 15 cubic feet per ton and 30 feet as the maximum depth at which 0.11% WO_3 material can be extracted under the $63.00 unit price with the applicant's estimate of costs, there are in:

Baltic No. 1 - 16,500 tons per foot, or 495,000 tons in 30 feet of depth
Baltic No. 2 - 18,000 tons per foot, or 540,000 tons in 30 feet of depth

The applicant states that Baltic No. 2 might be worked, open pit, to a depth of 70 feet, however, the maximum objective of this exploration is to delineate sufficient commercial ore to adequately support the application for a loan of $300,000.00.

The applicant's estimate of cost of production of $1.72 per ton is entirely too low, for total mining and milling expense, however, it is possible that it might be done for 50% more, or $2.55 per ton, which figure is used in this estimate. The estimated recoverable values at $63.00 per unit WO_3 are $6.00 per ton, which would yield a gross profit of (6.00 - 2.55) $3.45 per ton. Annually, on basis of 600 tons, 315 days per year, the gross profit would be $652,050.00 from 189,000 tons of ore. The estimated gross profit, under the above premises, would be more than double the amount of loan sought, therefore, it is only necessary to explore either of the above described deposits within the 30 foot depth to enable the applicant to operate for 2½ years as a minimum.

Clearly then, there is no justification for drilling deeper than 30 feet, and the following program, on that basis, is recommended.

OUTLINE OF PROGRAM

Baltic No. 1

The applicant states that the surface has been thoroughly sampled and tested by bulldozing and that a representative composite sample assayed 0.11% WO_3, and that the first drilling and sampling is to be done on this location.

Subject to the judgement of the DMA Field Engineer, the drilling and sampling of this property should be discontinued or continued, depending on data obtained from the first 15 drill holes.

Baltic No. 2

This property is to be drilled, provided the data obtained from drilling 15 holes on Baltic No. 1 do not show the grade and reserve necessary for the economic exploitation proposed.

Recommendation:

A maximum of 42 drill holes, each being 30 feet deep, totaling 1260 feet is adequate for this project.

The DMA Field Team Representative should have close contact with the work because of the very low WO_3 content anticipated and the importance of exercising prompt judgement in determining the magnitude of the project.

It is suggested that drilling and sampling by a reliable independent drilling contractor, recognized as skilled in this type of work, would be more acceptable in support of an application for a $300,000.00 loan, than similar data obtained by Company employees.

The sampling of a material containing only 0.11% WO_3 requires experience and judgment, if representative, reliable, results are to be obtained. "Salting", unintentional or otherwise, is a very real hazard and great care must be exercised to avoid it.

SUMMARY OF MAXIMUM EXPENSE ALLOWED

Not over 42 holes 30 feet deep @ $6.00 per foot	$ 7,560.00
Bulldozing	1,200.00
Truck Rental, $200.00 per month, 2 months	400.00
Sampling and Assaying	1,400.00
Transportation of Equipment (in and out)	1,200.00
Company Engineer	1,000.00
Total	$12,760.00
Contingencies 10%	$ 1,276.00
Total Allowable	$14,036.00
DMA Participation 75%	$10,527.00
Petroleum Investment Trust, Ltd. 25%	$ 3,509.00

Estimated time to complete - maximum 2 months

PBBlakemore/meh
cc: Mittendorf, Olund ✓
Mr. Strobel
Mr. Blakemore
Mr. Holderer
Mr. Thayer
Field (2)
Adm. Reading File
FILES
Chron. File

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-840-X

Commodity Tungsten

Total Amount $30000

Govt. Participation 75%

1. Name and Address of Applicant (231) Petroleum Investment Trust Ltd
Rm 1215 So. La Salle St Chicago
Washington DC Office W. Burkhalter DI-4377

2. Location of Property Baltic Mine - Randsburg, Calif.
Sec. 1, T30S, R40E.

3. Mineral or metal yes Is it listed in Section 9 of MO-5?

If not, application will be rejected.

4. Geologic probability of discovery -- based on data in application (question #16, 17, 18, 20 and 22).*

Mines or Survey Reports, etc., do you rate chances:

a) Good ✓

b) Poor

c) None

d) Don't know -- needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Owner & lessee (question 5, 6, 7)

6. If applicant is a lessee, is a copy of the lease attached? yes ~~Copy set~~

Does the lease have sufficient time to run to cover a future productive period? yes

*Question numbers are those of MF-103

7. Are subordination agreements necessary? yes - will get

a) SM-201?

b) SF-202

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower yes

b) Equipment and supplies yes
(question 14 plus general knowledge of availability)

c) Accessibility (question 12) yes

d) Water (question 13) yes

e) Power (question 13) yes

Is a field check needed on any of these points? No

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4) H. C. Weller, Ex. Chf. Drill Team Eng. III state; Laurence B. Wright, Consult. Eng. in whom he has confidence will do work. C.W. with Weller.
Is a field check needed on this point? No.

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? yes

If not, are there sufficient data given so that you can describe the project? If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? yes

c) Is the proposed work "exploration" under the definition of Section 8, RO-5? yes

If not, what part of it is?

Is this [illegible] application proper?

d) Are the cost estimates reasonable? Fair

Can they be substantiated, as on page 2 of Procedural Instruction 5-A, from the specific case? If so, attach a draft.

e) Are the cost estimates reasonable? yes

f) Should more information be requested from applicant?

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)

a) Is it applicable? No

b) If so, are sufficient data included? If so, attach a draft.

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g) 23-e. No repairs

a) Is it applicable? yes. 23-f. No need to buy bulldozer, should rent one

b) Sufficient data? If so, attach a draft. 23-g. Rental for drill outfit is reasonable in fact

c) Are rents and charges reasonable? of cost per foot for drilling.

d) Is a field check needed? No

13. Exhibit D (questions 23-a,b)

a) Are there sufficient data? yes

b) Is the schedule adequate for the work proposed? yes

c) Is the estimate reasonable for the work proposed? No

d) Are the proposed wages and salaries reasonable? yes

e) Is a field check needed? No

13. [illegible] (specify [illegible])

a) Is it [illegible]? No - [illegible] repairs

b) Capitalized [illegible]? yes

c) Reasonable? yes

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? yes - 4 mos.

(All exploration must be completed within two years.)

16. If could not be done, do you have any recommendation?

Lo - Cond. Con.

17. If field [illegible] have any special information for the field from not indicated in your answers to the foregoing questions? Recommend application be approved, subject to withdrawing purchase of bulldozer and renting one if needed; 25% of total drill cuttings must be saved and safely stored for check assays and possible metallurgical tests. There will be a small extra expense to store the 25% of drill cuttings, but this would be more than offset by saving on not [illegible] hauling bulldozer.

Geo. P. Holdren DMA

DM Tennyson U.S.G.S.

Date 6/17/51

Page [illegible] of 3 pages

LANDON F. SARGENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

OFFICE OF
REGIONAL DIRECTOR

1415 APPRAISERS BLDG.,
630 SANSOME STREET,
SAN FRANCISCO 11, CALIF.

May 25, 1951

Memorandum

To: Defense Minerals Administration, Washington, D. C.

From: Regional Director, Region III

Subject: DMA-840 - Tungsten
Petroleum Investment Trust, Ltd.

Attached is a copy of a letter dated May 24 from subject applicant requesting an amendment to paragraph 23 of his application. Apparently no additional funds are sought but merely a redistribution of the sum requested to take care of the cost of a water tank truck and sampling machines.

H. C. Miller
Regional Director, Region III

Attachment

6-1-51

C
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P
Y

PETROLEUM INVESTMENT TRUST, LTD.
316 North Norton Avenue,
Los Angeles, 4, California.

May 24, 1951

Mr. Harold C. Miller, Regional Director,
Bureau of Mines
630 Sansome Street
San Francisco, California

Dear Mr. Miller:

In connection with the Application for an Exploration Loan filed by Petroleum Investment Trust, Ltd. on the Baltic Claims, Randsburg, Calif. under Form MF-103, par. 23 e. states "Bulldozer D4 or D6, or its equivalent" we find that we will also require a water tank truck and sampling machines as well as well as additional labor to do the sampling.

I would like therefore to have par 23 e amended so as provide that the $5,500 item may be distributed over the various items just mentioned. We can distribute this sum so as to cover the items above within the $5,500.

I mention this subject to you when I was last in San Francisco and I am writing this letter to keep the record straight.

Very truly yours,

PETROLEUM INVESTMENT TRUST, LTD.

By /s/ George G. Moore
Vice President

LANDON F. STROBEL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

OFFICE OF
REGIONAL DIRECTOR

1415 APPRAISERS BLDG.,
630 SANSOME STREET,
SAN FRANCISCO 11, CALIF.

May 23, 1951

Memorandum

To: P. R. Bradley, Jr., Chief, Tungsten Branch, DMA, Washington, D. C.

From: Executive Officer, DMA Field Team, Region III

Subject: DMA 840 - Tungsten
Petroleum Investment Trust, Ltd.

Reference is made to your subject memorandum dated May 17, requesting supplemental information on the applicants' plan to explore its tungsten deposit at the Baltic mine, Randsburg, California.

As you know, Lawrence B. Wright, Consulting Engineer and Geologist, San Francisco, has reported on the property and is familiar with its tungsten producing possibilities. He told me yesterday that henceforth he is to have a very active part in the exploration of the property and gave me the advance information that the Petroleum Investment Trust is thinking of replacing their present engineer, Mr. H. B. Potter, and putting him (Wright) in charge. I discussed the substance of your memorandum with Wright and suggested to him that he prepare a map showing the exact location and depth of the churn holes he thinks should be drilled to properly explore the property. Wright was not satisfied with the data that was prepared by Mr. Potter and shown by colored circles on his map.

Wright put his data on thin paper so that his map can be placed over Potter's map to show the location of the churn holes with respect to the outline of the deposit and claim boundaries. A copy of Potter's map and Wright's overlay are attached.

According to Wright, the holes are numbered consecutively and will be drilled in that order, starting with Hole #1, followed by Hole #2, etc. If after drilling a number of holes the results turn out to be negative, further drilling will be suspended.

Wright plans to pass all the cuttings from each five-foot interval of hole through a sampler and wind up with about a fifteen pound sample for each five-foot interval. This sample will be dried and sent to a reliable assay firm for analysis. I have faith in Wright's

ability and believe that we can rely upon any results he reports to us.

We see no need for making a field examination at this time as we believe the matter is in good hands and no additional information could be obtained at this time by visiting the property.

Subject docket is being returned herewith.

H. C. Miller
Executive Officer, DMA Field Team
Region III

Attachment

Copy to: Ward Smith

FILE COPY
SURNAME:

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

May 22, 1951

Mr. H. C. Miller, Executive Officer
DMA Field Team, Region III
1415 Appraisers Building
San Francisco, California

In reply please refer to
DMA-840

Dear Mr. Miller:

There appears to be some doubt that our letter dated March 31, 1951, reached you with enclosures.

We are enclosing herewith the following:

Copy of our letter dated March 31
Copy of our letter dated May 8
Form MF-100 with attachments
Form MF-103 with attachments
Bound folder with application Form 146 with covering letter, engineering reports, etc.

Very truly yours,

George B. Holderer

George B. Holderer
Acting Chief, Tungsten Branch

Enclosure

GBHolderer:mem
cc: Adm. Reading File
Mr. Strobel
Mr. Bradley
Files

Handed to Burkhalter & Reed as they wished to mail it personally. They complained that Miller was not getting our letters. Said he never did get our letter of Mar. 31/51

H.

Mr. Bradley

PETROLEUM INVESTMENT TRUST, LTD.

May 19, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 22 1951
LANDON F. STROBEL
Executive Secretary

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

Attention: Mr. Tom Lyon
Director, Supply Division

Re: Your File DMA-840 - Petroleum Investment Trust, Ltd. Application for Exploration Loan

Gentlemen:

We have your letter of May 17 in which you advise that application of this Company for an exploration loan for the purpose of churn drilling the property in Kern County, California, has been referred to Mr. Miller, your Regional Executive Officer in San Francisco.

We shall immediately contact our geologist, Mr. Lawrence B. Wright of San Francisco, and our engineer, Mr. Howard B. Potter of Huntington Park, California, so that they may be available to confer with Mr. Miller at his convenience and offer such other service as Mr. Miller deems advisable to complete his field investigation.

It is our understanding that we will be advised when the field investigation is completed and action is taken on this application.

Very truly yours,

Matthew E. Murray
Chairman Executive Committee

MEM:EO

pbb

FILE COPY
SURNAME:

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

Ballard
Bradley
Moore
Ron

May 8, 1951

Petroleum Investment Trust, Ltd.
231 South LaSalle Street - Room 1215
Chicago 4, Illinois

In reply please refer to
DMA-840

Gentlemen:

Your application for an exploration loan has been referred to Mr. H. C. Miller, Executive Officer, DMA Field Team, Region 3, 1415 Appraisers Building, San Francisco, California, for review with your engineer of your proposed program and any field investigation that may be advisable.

Please advise your engineer to contact Mr. Miller and offer his cooperation.

Very truly yours,

Tom Lyon G.B.

Tom Lyon
Director, Supply Division

TJBallard:mem

cc - Adm. Reading File
Mr. Strobel
Mr. Lyon
Mr. Bradley
F I L E S

FILE COPY
SURNAME:

Lemmon
Brady
Gulson

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

May 8, 1951

File Sent to

Mr. H. C. Miller
Executive Officer, DMA Field Team, Region 3
1415 Appraisers Building
San Francisco, California

Through: D.M.A. Coordinating Committee

Subject: DMA 840 - Tungsten
Petroleum Investment Trust, Ltd.

Dear Mr. Miller:

The Petroleum Investment Trust, Ltd. on May 4 formally requested an exploration loan of $30,000 for churn drilling at the Baltic mine, Randsburg, California.

It is proposed to drill 4,000 feet of holes, with samples at 10-foot intervals. The location and depth of the proposed holes are not given. The details of the original application for a mill were forwarded to you with my letter of March 31.

Before considering this application further in Washington, we would like your analysis of the proposal. The applicant should provide a plan showing the location of drill holes.

I wonder if the sampling and assaying procedure is properly set up to give a true evaluation of the tungsten content of the deposit. The inaccuracies in determining less than 0.1 percent of WO_3 may be substantial. Would it be feasible to effect a partial concentration of a sample before analysis, thus giving a larger amount of tungsten trioxide in the assay portion?

DMA File

856

The completed applications for an exploration loan, forms MF-100 and MF-103, are enclosed.

Sincerely yours,

P. R. Bradley

P. R. Bradley, Jr.
Chief, Tungsten Branch

Enclosures

APPROVED BY:

Tom Lyon

Chairman, Coordinating Committee

Lowell B. Moon

Bureau of Mines

Olaf N. Rove

Geological Survey

DMLemmon:gt

Copies to: Administrator's reading file
Mr. Strobel
Mr. Lemmon
Mr. Geehan
Mr. Bradley
Field Team, Region III
Files

LAW OFFICES
BROWN, LUND & FITZGERALD

BROWN, FENLON & MURRAY
PENOBSCOT BUILDING
DETROIT, MICH.

PRENTISS M. BROWN
WENDELL LUND
BERNARD M. FITZGERALD
WM. M. BURKHALTER
BYRON J. HARRILL
TAX COUNSEL
A. MANNING SHAW
BUSINESS CONSULTANT

WASHINGTON LOAN & TRUST BLDG.
WASHINGTON 4, D. C.
TELEPHONE DISTRICT 4377

May 4, 1951

DMA-840

Mr. P. R. Bradley, Jr., Chief
Tungsten Branch
Defense Minerals Administration
Washington 25, D. C.

Re: Petroleum Investment Trust, Ltd.

Dear Mr. Bradley:

In behalf of Petroleum Investment Trust, Ltd., we are enclosing 4 executed copies of forms MF-100 and MF-103 comprising the application for an exploration loan pertaining to this company's holdings in the vacinity of Randsburg, California.

As we advised you, this company has already spent considerable moneys in connection with exploration work on its Randsburg tungsten deposit. We would appreciate therefore, your early consideration of this matter.

Sincerely yours,

BROWN, LUND & FITZGERALD

BY Wm Burkhalter

W. M. Burkhalter

Attorneys for Petroleum
Investment Trust, Ltd.

Enclosures

DRAFT

Memorandum

To: Production Expansion Division

Through: Director, Supply Division

From: Tungsten Branch

Subject: Exploration project of Petroleum Investment Trust, Ltd
Room 1215, 231 South LaSalle St.

DMA 840 x -- Tungsten

Property:

Baltic Mine, Randsburg, California
Sec. 1, T. 30 S., R. 40 E.

Recommendation:

It is recommended that this application be approved for an exploration project to cost $30,000, the Government's share of which will be 75 percent ($22,500).

The funds are to be spent as follows:

1)	4000 feet of churn drill holes, to be placed as shown on attached map, at $5 per foot	$20,000.
2)	Assays (400 at $5)	2,000
3)	Supervision, 4 months at $500	2,000
4)	Sample sacks	108
5)	Water, gas, oil, acetylene, and oxygen	392
6)	Bulldozer	5,500
		$30,000.

Summary:

The objective of this work will be to strip the surface and sample to depths of 100 feet two bodies of mineralized schist that might average 0.1 percent of WO_3 according to preliminary assays.

The work has been planned by Mr. Lawrence B. Wright, who will supervise the exploration. Mr. Wright discussed the basic plan with Mr. H. C. Miller, Executive Officer, DMA Field Team, Region III, San Francisco. Mr. Miller, in a letter attached, expresses confidence in Wright and in the proposed procedure.

Agreements subordinating the interests of property holders to the interests of the Government are attached.

Any queries about the data submitted by the applicant, or requests for further items, should be addressed to the Washington representative, Mr. Wm. Burkhalter, phone DI 4377.

P. R. Bradley, Jr.
C T B

DRAFT

Memorandum

To: Production Expansion Division

Through: Director, Supply Division

From: Tungsten Branch

Subject: Exploration project of Petroleum Investment Trust, Ltd
Room 1215, 231 South LaSalle St.

DMA 840 x — Tungsten

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Sec. 1, T. 30 S., R. 40 E.

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Agreements subordinating the interests of property holders to the interests of the Government are attached.

Any queries about the data submitted by the applicant, or requests for further items, should be addressed to the Washington representative.

Mr. Wm. Burkhalter, phone DI 4377. P. R. Bradley, Jr.

Bradley

PETROLEUM INVESTMENT TRUST, LTD.

231 South LaSalle St.
Chicago 4,

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.
APR 4 1 02 PM '51

April 3, 1951

AIR MAIL SPECIAL DELIVERY

Mr. P. R. Bradley, Jr., Chief
Tungsten Branch Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

Receipt is acknowledged of your letter of March 29 referring to the application of Petroleum Investment Trust, Ltd., for a loan of $300,000.00, to provide mining and milling equipment to produce scheelite from its Baltic Group of claims near Randsburg, California.

In accordance with the suggestions made by our consulting geologist, Mr. Lawrence B. Wright, and informal suggestions from representatives of your department, we are planning further exploration of the ore bodies by way of churn drilling. As a matter of fact, we have on the location, at the present time, a churn drill and sampler and are ready to commence operations provided your representative can be present to supervise this drilling and sampling.

We were informed by Mr. Wendell Lund, our representative in Washington, that you, Mr. Boyd, and Mr. Geehan of your committee, were all in agreement that an exploration loan for the purposes of this further testing should be made as soon as the funds were available. We were further informed by Mr. Lund that pending the additional testing by way of churn drilling that our loan application would be held in suspense.

Your letter of March 29 indicates that our loan request has been denied. At the same time it indicates that the department would favorably consider an application for an exploration loan. Would you be kind enough to advise us whether, if after the additional drilling is completed, it will be necessary for us to resubmit the loan application, or whether our present

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 5 - 1951
LANDON F. STROBEL
Executive Secretary

Read

memo

13

application will be considered as merely held in suspense for the time being.

We would also appreciate your advice as to whether or not your department would consider an application for an exploration loan although the exploration was actually completed prior to that time. In other words, in the interest of time and on the chance that equipment may be hard to locate at a later date, we would like to proceed with the suggested amount of churn drilling and sampling immediately, provided we have your assurance that our exploration loan application would receive the same consideration as though the work had not yet been undertaken.

I understand from your letter that application forms and detailed regulations for exploration loans will be forwarded to us when they are available.

Sincerely yours,

PETROLEUM INVESTMENT TRUST, LTD.

By Matthew E. Murray
Chairman, Executive Committee

MEM:ph

FILE COPY
SURNAME:

Brady
Lemkuhn
Gluhan

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

March 31, 1951

Mr. H. C. Miller, Executive Officer
DMA Field Team, Region III
1415 Appraisers Building
San Francisco, California

Through: Coordination Committee

Subject: DMA 840

Dear Mr. Miller:

The Petroleum Investment Trust, Ltd., Room 1215, 231 South La Salle St., Chicago 4, Illinois hold the Baltic mine group in the Stringer district, near Randsburg, California. A loan application for $300,000 to produce tungsten from this property has refused because of insufficient information about size and grade of ore bodies, which also means that the metallurgical testing is inadequate.

The applicant, through Mr. Wendell Lund and Mr. Burkhalter, Washington representatives, signify a desire to do the necessary exploration and testing on a participating basis under an exploration loan. An accredited representative will call upon you in San Francisco to discuss the matter. Please arrange to assist the applicant in drawing up a suitable exploration program, if necessary coupled with a field examination of the property.

The property is reported to contain 1,600,000 tons of mineralized schist averaging 0.10 percent of WO_3. We have pointed out the following:

(1) The 15 assays (after deducting 12 selected samples of vein material) are insufficient.

(2) The material sampled at the surface may represent placer enrichment.

(3) The inclined Baltic shaft probably follows a zone that is more highly mineralized than the rest of the block.

(4) The determination of small amounts of tungsten is difficult and subject to considerable error.

(5) The metallurgy of tungsten recovery is sufficiently complex to warrant more extensive testing of the process before building a concentrator. A pilot plant may be required.

(6) The details of DMA exploration loans have not been released, and may not be for 2 weeks or more. It is probable, but not assured, that rate of participation on tungsten will be 75 percent by the Government.

Mr. Lawrence B. Wright of San Francisco is Consulting Geologist to the applicant. Mr. Howard J. Potter is Consulting Engineer. Mr. George Moore is one of the principals from Chicago and may be in San Francisco soon. Mr. Wright is now in Baja California for two weeks or more, but may return in time to discuss the proposed exploration program.

I am enclosing DMA docket number 840, to which are attached a report by Mr. Wright and a report by Mr. Potter.

Sincerely yours,

P. R. Bradley

P. R. Bradley, Jr.
Chief, Tungsten Branch

Tom Lyon

Chairman

Lowell B. Moon

Bureau of Mines

U. S. Geological Survey

PRBradley:ec

CC: Adm. Reading File
Mr. Strobel
Mr. Lemmon
Mr. Geehan
Mr. Bradley
Regional Field Team Region III
Files

Tungsten Minerals Administration

Review of Applications for Exploration Assistance

Docket No. DMA-840-X

Commodity Tungsten

Total Amount $30,000.—

Govt. Participation $22,500.—

1. Name and Address of Applicant: Petroleum Investment Trust Ltd., Rm 1215, So. La Salle St., Chicago, Ill. Washington, D.C. Office - W. Burkholder DI-4377

2. Location of Property: Baltic Mine, Randsburg, Calif. Sec 1, T30S, R40E

3. Mineral or metal: Tungsten Is it listed in Section 9 of MP-9?

If not, application will be rejected.

4. Geologic probability of discovery, based on data in application (question #16, 17, 18, 21 and 22).

Mines or Survey reports etc., do you take chances:

a) Good ✓

b) Poor

c) None

d) Don't know -- needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Owner + Lessee (question 5, 6, 7)

6. If applicant is a lessee, is a copy of the lease attached? Yes

Does the lease have sufficient time to run to cover a future productive period? Yes

(This item numbers are those of MP-10)

7. Are subordination agreements necessary? Yes - will get.

a) MF-201?

b) MF-202

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(question 11 plus general knowledge of availability)

c) Accessibility (question 12) Yes

d) Water (question 13) Yes

e) Power (question 13) Yes

Is a field check needed on any of these points? No

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 1) H.C. Meller, Ex. Off. Dist. A Field Team Eng. III states Lawrence B. Wright, Consult. Eng. in whom he has confidence will do work. OK, with Meller.

Is a field check needed on this point? No.

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes

c) Is the proposed work "exploration" under the definition of Section 8, MD-5? Yes

If not, what part of it is?

Is this [illegible] applicable project? _____

c) Are the pit and [illegible] [illegible]? Fair

Can they be [illegible], as on page 2 of Procedural Instruction 5-4, from the available data? _____ If so, attach a draft.

d) Are the cost estimates reasonable? yes

e) Field [illegible] information be requested from applicant? _____

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23 d)

a) Is it applicable? No

b) If so, are sufficient data included? _____ If so, attach a draft.

c) Is a field check needed? No

12. Exhibit C (question 23-c, f and g) 23-c No repairs

a) Is it applicable? Yes, 23-f. No need to buy bulldozer should rent one.

b) Sufficient data? _____ If so, attach a draft. 23-g. Rental for drill outfit is reasonable vis fact

c) Wages and costs reasonable? of coal per foot for drilling.

d) Is a field check needed? No.

13. Exhibit D (question 23 a,b)

a) Are there sufficient data? yes

b) Is the schedule adequate for the work proposed? yes

c) Is the schedule adequate for the work proposed? No

d) Are the proposed wages and salaries reasonable? yes

e) Is a field check needed? No.

[illegible] [illegible]

a) Is it in repair? No - no repairs

b) Sufficient [illegible]? yes

c) Reasonable? yes

d) Field [illegible] needed? No

[illegible]. In your judgment, can the prospect [illegible] be done in the proposed time? yes - 4 mo.

(All exploration must be completed within two years.)

[illegible]. If field [illegible] is not [illegible], what your recommendation?

Zo:- Coord Com.

[illegible]. If [illegible] [illegible] have any special [illegible] [illegible] the field [illegible] not [illegible] in your opinion to the foregoing questions? Recommend application be approved, subject to withdrawing purchase of bulldozer and renting one if needed. 25% of total drill cuttings must be saved and safely stored for check assays and possible metallurgical tests. There will be a small extra expense to store the 25% of drill cuttings, but this would be more than offset by saving on not buying bulldozer.

N.B. PHBr

Geo B Holden DMA

DM Lemmon U.S.G.S.

P. R. Bradeck

OK

Tom Lyon

Date 6/7/51

Page [illegible] [illegible]

Exhibit A-2

BALTIC GROUP

RAND MINING DISTRICT, CALIFORNIA

Scale - 1 inch = 100 feet

MAP OF PROPOSED LOCATIONS FOR CHECK DRILL HOLES.

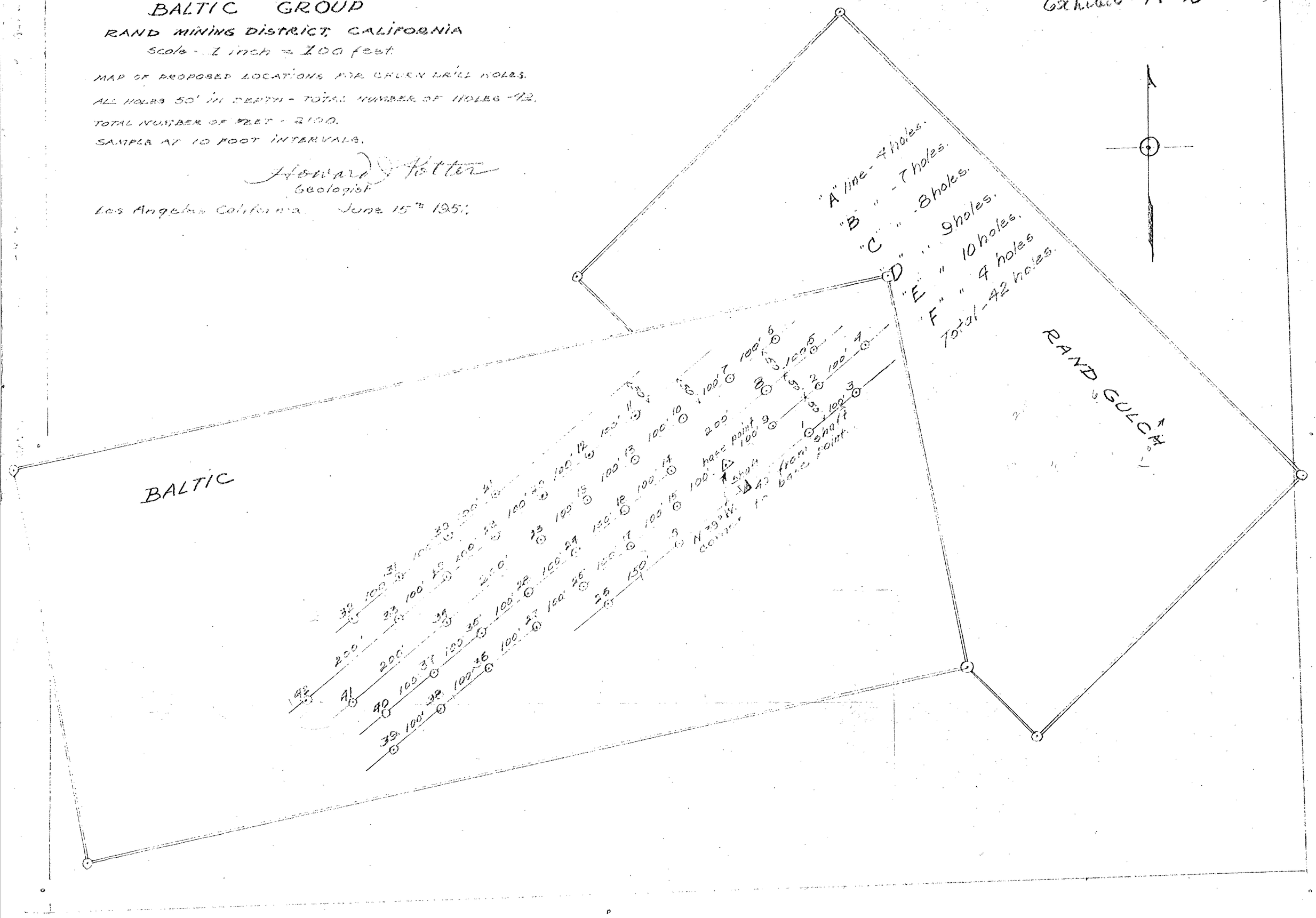
ALL HOLES 50' IN DEPTH - TOTAL NUMBER OF HOLES - 42.

TOTAL NUMBER OF FEET - 2100.

SAMPLE AT 10 FOOT INTERVALS.

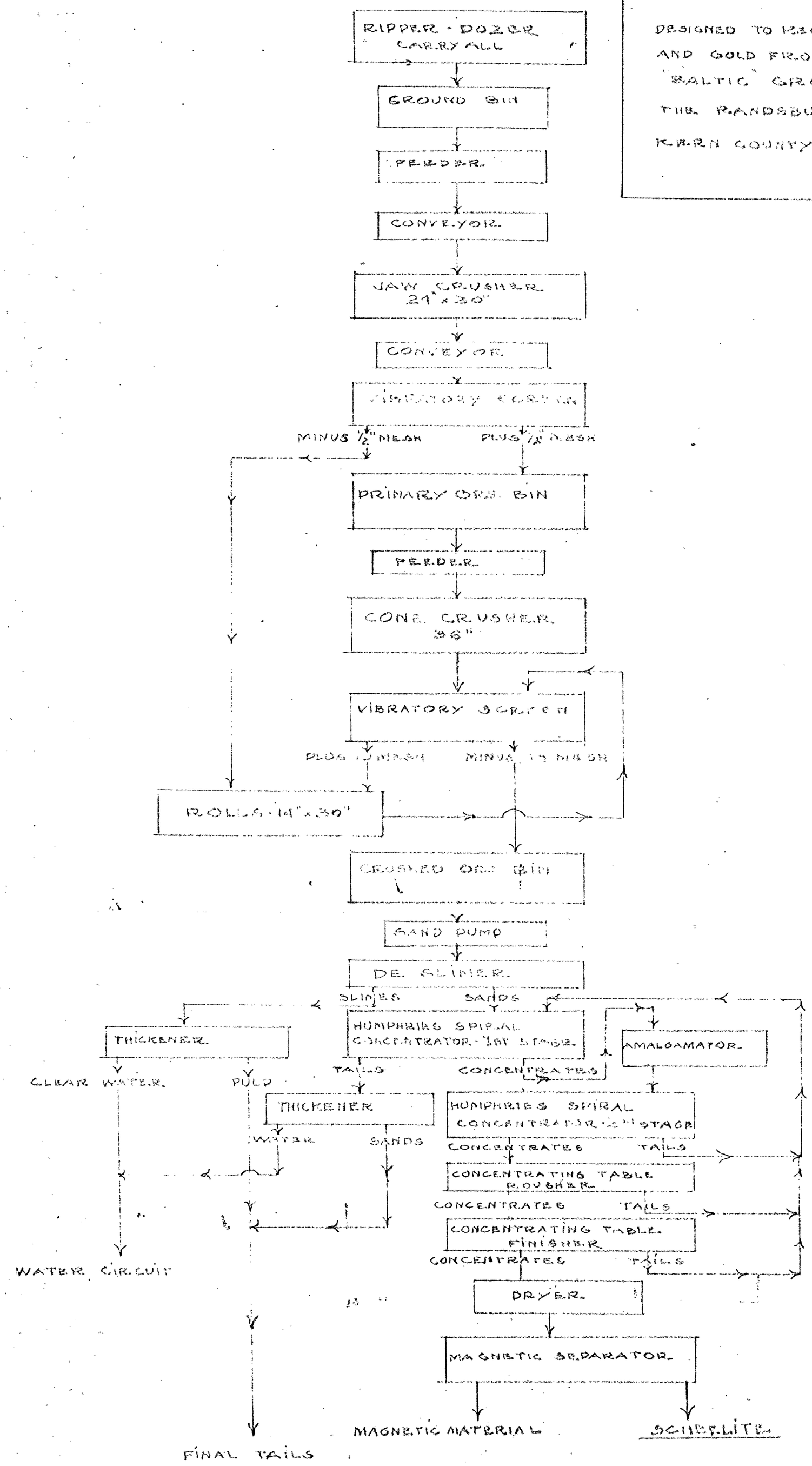
Howard J. Potter
Geologist

Los Angeles California June 15th 1951.



FLOW SHEET

DESIGNED TO RECOVER THE SCHEELITE AND GOLD FROM THE ORES OF THE "BALTIC" GROUP LOCATED IN THE RANDSBURG QUADRANGLE KERN COUNTY, CALIFORNIA



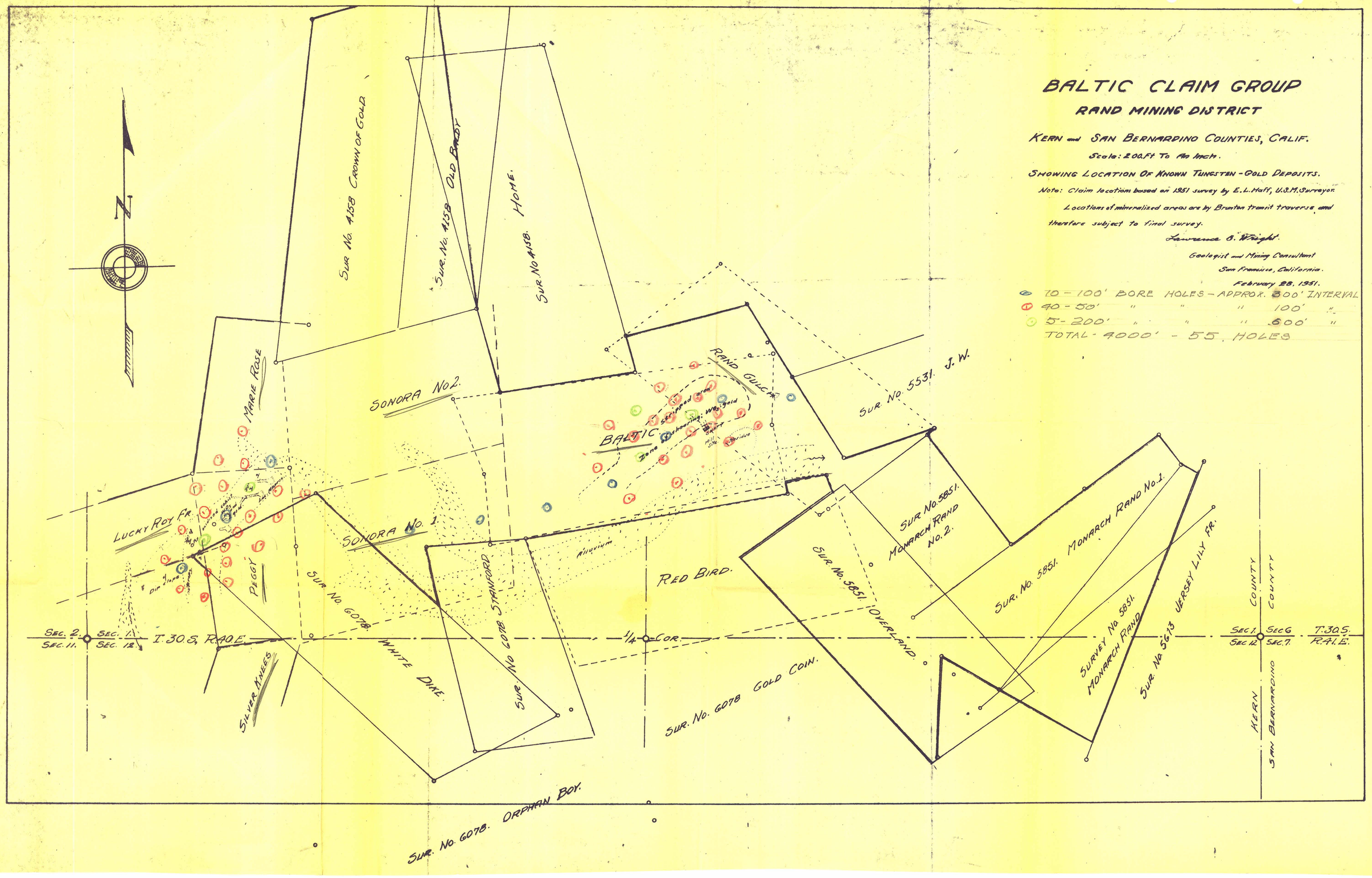

BALTIC CLAIM GROUP
RAND MINING DISTRICT
KERN and SAN BERNARDINO COUNTIES, CALIF.
Scale: 200 Ft To An Inch.
SHOWING LOCATION OF KNOWN TUNGSTEN-GOLD DEPOSITS.
Note: Claim location based on 1951 survey by E.L. Haff, U.S.M. Surveyor.
Locations of mineralized areas are by Brunton transit traverse and therefore subject to final survey.
Lawrence B. Wright.
Geologist and Mining Consultant
San Francisco, California.
February 28, 1951.
70 - 100' BORE HOLES - APPROX. 500' INTERVAL
40 - 50' " " " 100' "
5 - 200' " " " 600' "
TOTAL - 4000' - 55 HOLES
N
SUR. No. 4158 CROWN OF GOLD
SUR. No. 4158 OLD BADY
SUR. No. 4158. HOME.
MARIE ROSE
SONORA No. 2.
RAND GULCH
SUR. No. 5531. J. W.
BALTIC
LUCKY BOY FR.
SONORA No. 1
PEGGY
SUR. No. 6078.
STANFORD
RED BIRD.
SUR. No. 5851.
MONARCH RAND No. 2.
SUR. No. 5851. MONARCH RAND No. 1.
SUR. No. 5851.
OVERLAND.
SURVEY No. 5851.
MONARCH RAND
SUR. No. 5613 JERSEY LILY FR.
SEC. 2. SEC. 11.
SEC. 1. SEC. 12.
T. 30 S., R. 40 E.
SILVER ANGELS
WHITE DIKE.
SUR. No. 6078
1/4 COR.
SUR. No. 6078 GOLD COIN.
SEC. 1. SEC. 12.
SEC. 6. SEC. 7.
T. 30 S. R. 41 E.
KERN COUNTY
SAN BERNARDINO COUNTY
SUR. No. 6078. ORPHAN BOY.

EXHIBIT I

PETROLEUM INVESTMENT TRUST LTD.
PRELIMINARY MAP
OF THE
BALTIC GROUP AREA
RAND MINING DISTRICT
KERN COUNTY
CALIFORNIA
SCALE: 1 INCH = 200. FEET.

Edward L. Haff
Registered Land Surveyor #1688
Los Angeles, Calif.
February 26, 1951.

BALTIC CLAIM GROUP

RAND MINING DISTRICT

CALIF.

Scale: 200 Ft. To An Inch.

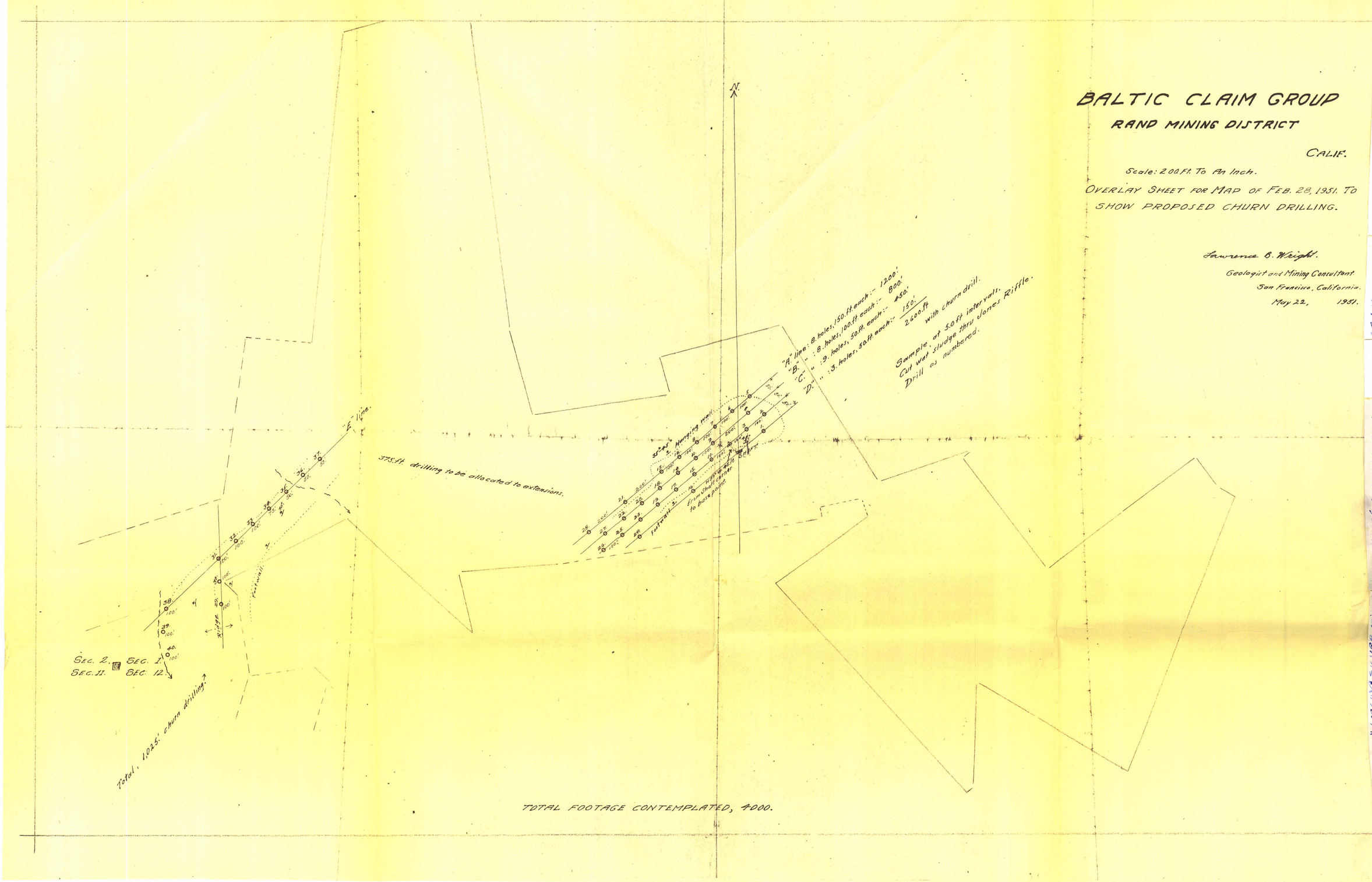
OVERLAY SHEET FOR MAP OF FEB. 28, 1951. TO SHOW PROPOSED CHURN DRILLING.

Lawrence B. Wright.

Geologist and Mining Consultant.

San Francisco, California.

May 22, 1951.



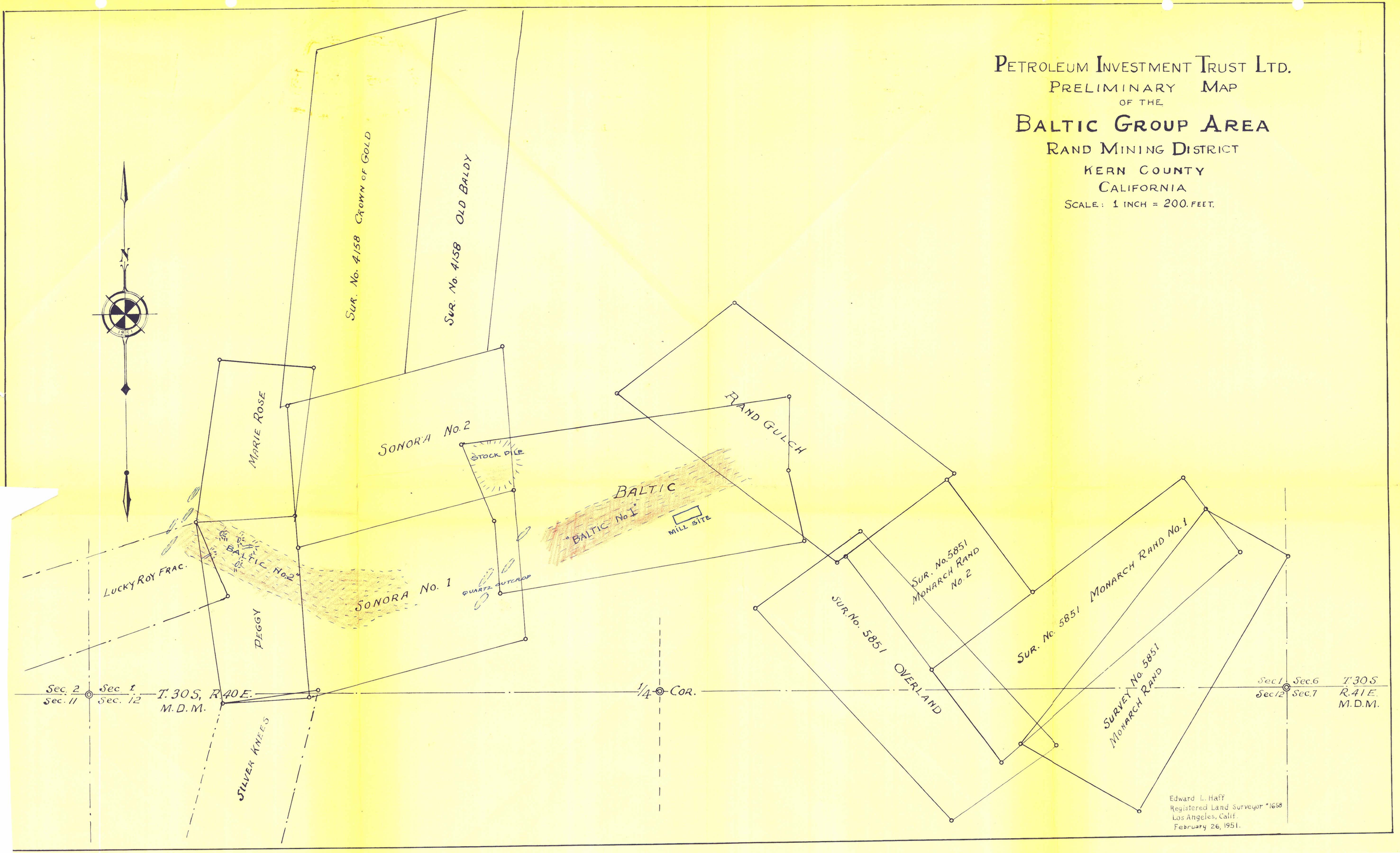
ATOLIA

BALTIC No 1 SHAFT ZONE

"ASSAY" SILVER MINE

EXHIBIT No 2

PETROLEUM INVESTMENT TRUST LTD.
PRELIMINARY MAP
OF THE
BALTIC GROUP AREA
RAND MINING DISTRICT
KERN COUNTY
CALIFORNIA
SCALE: 1 INCH = 200. FEET.



Edward L. Haff
Registered Land Surveyor #1658
Los Angeles, Calif.
February 26, 1951.

PROGRESS MAP

PROJECT DMA 840.

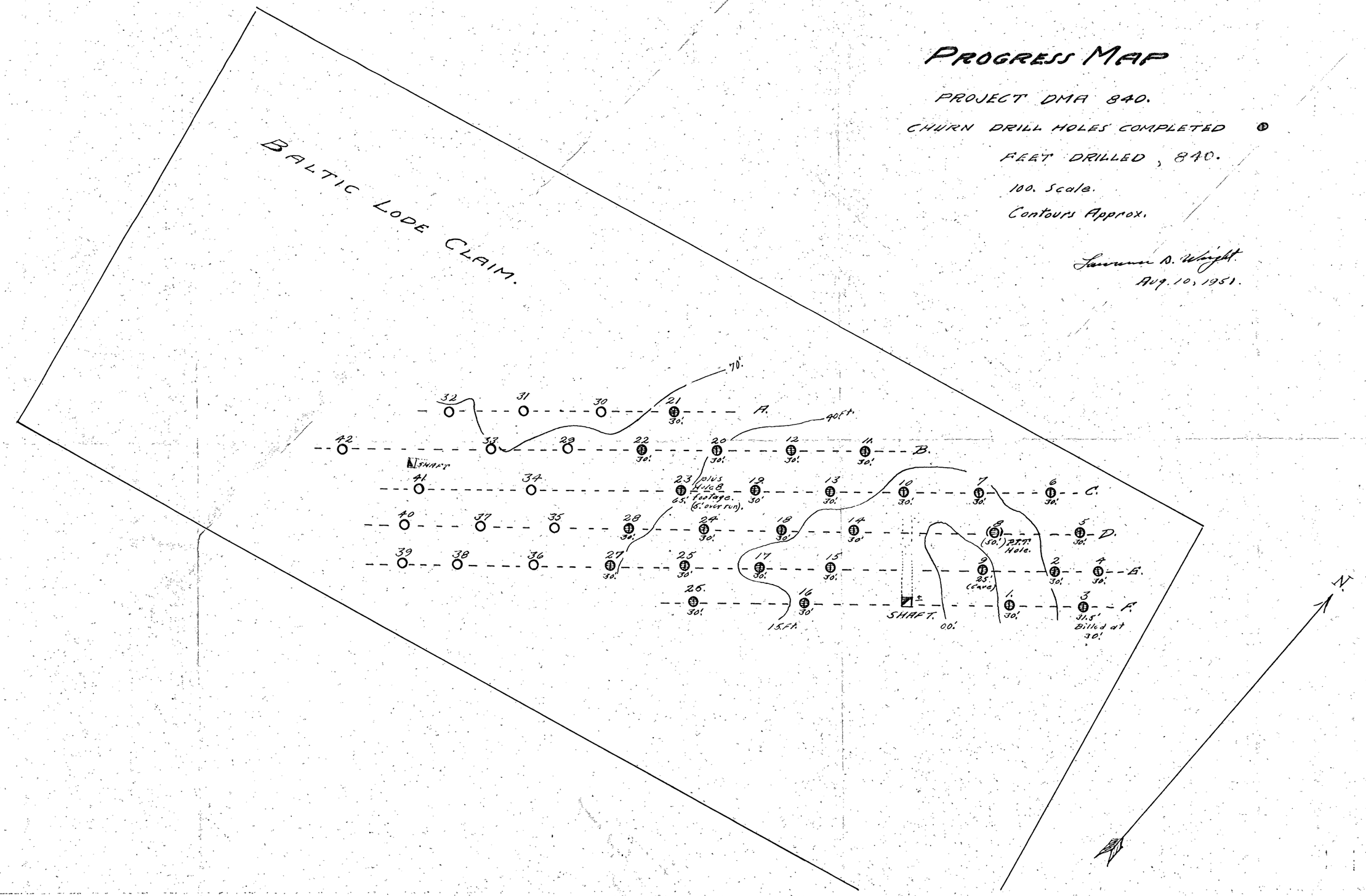
CHURN DRILL HOLES COMPLETED ⊕

FEET DRILLED, 840.

100. Scale.

Contours Approx.

Lawrence D. Wright
Aug. 10, 1951.



BALTIC MINE CHURN DRILL SAMPLE RECORD.

DMA Project No 840. Randsburg, Calif.

	Hole No.	Depth of Hole	% WO_3 0'-5'	5'-10'	10'-15'	15'-20'	20'-25'	25'-30'	Avg. Au. Oz/Ton	Rock Type.
July 10 '51	1.	30. Ft.	0.01	No Sample	0.01	0.01	0.01	Trace	0.038	Altered Dioritic rock, schistose. Brown to Gray.
	2.	30.	0.01	Tr.	Tr.	Tr	Tr	0.02	0.022	
	3.	30.+1.5	Tr →		0.01	Tr	Tr		0.024	
	4.	30.	Tr		Tr	Tr	Tr	Tr	0.003	
	5.	30.	Tr		Tr	Tr	Tr	Tr	0.014	
	6.	30.	Tr		Tr	Tr	Tr	Tr	0.011	
	7.	30.	Tr		Tr	Tr	0.01	Tr	0.009	
	8.	(50.)	Tr		Tr		Tr		0.023	
	9.	30.	Tr		Tr	Tr	Tr	Cave.	0.051	
	10.	30.	Tr		Tr	Tr	Tr	0.01	0.027	
	11.	30.	Tr		Tr	Tr	Tr	Tr	0.030	
	12.	30.	Tr		Tr	Tr	0.01	Tr	0.020	
	13.	30.	Tr		Tr	Tr	Tr	Tr	0.027	
	14.	30.	0.01		Tr	Tr	Tr	0.01	0.129	
	15.	30.	Tr		0.01	Tr	0.01	0.09	0.022	
	16.	30.	0.01		Tr	0.01	Tr	Tr	0.028	
	17.	30.+30.	Tr		Tr	Tr	Tr	0.14	0.024	30'-35'-0.08: 35'-40'-0.03: 40'-45'-0.02: 45'-60'-0.01 % WO_3
	18.	30.	Tr		Tr	Tr	Tr	Tr	0.030	
	19.	30.	0.08		Tr	Tr	0.09	0.12	0.025	
	20.	30.	0.02		0.01	0.02	Tr	Tr	0.028	
	21.	30.	Tr		Tr	Tr	0.03	0.01	0.024	
	22.	30.	Tr		0.05	0.02	Tr	Tr	0.030	
	23.	65.	0.01		--	Tr	Tr	Tr	0.015	30'-65'-Trace.
	24.	30.	Tr		0.01	Tr	Tr	0.01	0.015	
	25.	30.	Tr		Tr	Tr	Tr	Tr	0.020	
	26.	30.	Tr		0.01	Tr	Tr	Tr	0.040	
	27.	30.	Tr		0.02	0.01	Tr	Tr	0.010	
	28.	30.	Tr		Tr	Tr	Tr	0.01	Tr	
	29. Pgy	30.	Tr		Tr	Tr	Tr	0.05	0.010	
	30.	30.	Tr		0.02	0.02	Tr	0.01	0.035	
	31. Pgy	30.	0.01		Tr	Tr	Tr	0.01	0.015	
	32.	30.	Tr		Tr	Tr	Tr	Tr	Tr	
	33.	30.	Tr		Tr	0.01	Tr	Tr	0.010	
	34.	30.	0.01		0.02	Tr	Tr	0.01	0.005	
	35.									
	36.	Not drilled								
	37. Pgy	30.	Tr		Tr	0.02	0.01	Tr		
	38. Pgy	30.	0.13		Tr	0.01	Tr	0.02	0.005	
	39.	Not drilled								
	40.	40.	0.02	0.02	0.01	0.08	0.01	0.01	0.025	30'-35'-0.01: 35'-40'-0.06 %
	41.	Not drilled								
	42. Pgy	30.	0.01	----	0.02	0.01	0.01	0.01		
	43.	50.	0.06	0.02	0.03	0.04	0.01	0.01	0.020	30'-35'-0.04: 35'-50'-0.01 %
	A. Pgy	30.	0.14		Tr	Tr	Tr	Tr	0.010	
	B. Pgy	30.	0.01		Tr	0.02	Tr	0.01		
	44.	45.	Tr	Tr	Tr	0.01	0.01	Tr	0.040	30'-35'-Tr: 35'-40'-0.01: 40'-45'-Tr.
	A3.	Composite of Holes 13, 14, 15, 16:- 0.01 % WO_3							0.030	

1335. Ft.
1260. " - U.S. - DMA 840 Contract.

(Total of Drillers daily slips:- 1335. ft.)

Lawrence B. Wright.
Sept. 25, 1951.

D.M.A #840 CHURN DRILL HOLE LOCATIONS

TO ACCOMPANY REPORT

OF

SEPTEMBER 26, 1951

PETROLEUM INVESTMENT TRUST LTD.

Scale 200 ft. to 1 inch.

KERN COUNTY, CALIFORNIA

Lawrence B. Wright, Cons. Geol.

● Holes showing 5 ft. or more having 1.0 lb + of WO_3/ton.