UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

## OFFICIAL DOCKET FILE

Terminated (or cancelled) without certification. DMEA No. 944

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. Ltr.

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 _____

a.w.b.

Reviewer's Initials

7973

Contracts & Audit

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 24 1952

January 22, 1952

Mr. J. T. Paulsel
4012 Byers Avenue
Fort Worth, Texas

Re: Docket No. DMA-944X
Contract No. Idm-E-111
J. T. Paulsel & Henry Cook

Dear Mr. Paulsel:

On Saturday, December 15, 1951, I met you at the Rainbow Mine, Terlingua, Texas, and talked with you in the presence of Clinton C. Knox and Siegfried J. Muessig of this office. At that time you informed me that you had not used and had decided not to use Exploration Project Contract Idm-E-111 dated August 14, 1951.

You further stated that Mr. Henry Cook, associated with you as co-owner in the signing of this contract on behalf of the Paulsel Mining Company, was no longer associated with you in the venture, and you imparted the additional information that Mr. Cook has gone to South America.

Accordingly, I asked you to write me a letter formally informing me of your decision not to use Exploration Project Contract Idm-E-111. Over a month has elapsed and I have not yet heard from you; the requested letter from you has not yet been received.

Under the circumstances outlined above, you are hereby notified that Exploration Project Contract Idm-E-111 is hereby terminated, and that the Government will not participate in any costs or obligations whatsoever incurred under or arising out of said contract.

Sincerely yours,

David Gallagher

David Gallagher
Executive,
DMEA Field Team, Region V I

Original - J. T. Paulsel
cc: Operating Committee - 3
Ray C. Jonas - 1

DG/lh

MF-200
(June 1951)

Indexed
No. Card
Card
Reviewed
9/28/51

RECEIVED
AUG 29 1951
G.A.O.

Docket No. DMA 944X
Commodity Mercury
Idm-E111

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

# EXPLORATION PROJECT CONTRACT [1]

It is agreed this 14th day of August, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2]

J. T. Paulsel and Henry Cook
dba. Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

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 Texas, County of Brewster described as follows: [3]

Rainbow Mine in Terlingua District and comprising Mineral Surveys No's. 550, 551, 552, 553 and 554 situated in Survey No. 70; Block G-12; G.C.& S.F. Ry. Co.

SEP 5 SEP
171

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: None

~~(b) That he is the sole owner, in possession and entitled to possession, and the subordination agreement of the holder is attached.~~

3. *Exploration project.* The Operator, within ninety 90 days from the date of this contract shall commence work on a project of exploration for [5] Mercury ore; 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] Twelve 12 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. Any 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 currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. 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.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. 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.

7. *Title to and disposition of prope*[illegible] All facilities, buildings, fixtures, equipment, [illegible] 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.* 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 is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The 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, analytical work, accounting, 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 this 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, taxes, or any other indirect costs not expressly allowed by these provisions, 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. *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.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 75 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $56,925.00, which is 75 percent of the agreed estimated total cost of this project, $75,900.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator 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.

15. *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 for each additional 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 mineral deposit 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.

16. *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.

17. *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 sextuplicate the day and year first above written.

Paulsel Mining Company
(Operator)

By J. J. Paulsel Co-Owner

Co-Owner

THE UNITED STATES OF AMERICA

By C. O. Mittendorf

C. O. Mittendorf, Director
Production Expansion Division

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

EXHIBIT A - Exploration Project

The exploration project to consist of rehabilitating a 600 foot shaft, repairing of existent pipe lines and track, leading to proposed exploration headings and driving of 2,500 feet of 6' x 7' exploration tunnel. All work to be done on the Rainbow property and shown on attached map. It is understood that the location and direction of the proposed drifting within the Rainbow property is to be decided during the program to the mutual satisfaction of the operator and Field Team of DMA.

The estimated costs of the approved project are as follows:

| | |
|---|---|
| Rehabilitation of shaft, track and pipe line including supplies, power, small tools, rentals, labor, supervision and office expense connected therewith - - - - - - - - - - | $ 3,600.00 |
| Driving 2,500 feet of 6 x 7 drift @ $28.92 per foot including supplies, power, small tools, rentals, labor, supervision and office expense connected therewith - - - | $72,300.00 |
| Total | $75,900.00 |

The operator is to furnish for use on the project the following equipment:

1½ ton truck
½ ton pickup truck
315 cfm. air compresson
3 Drifter drilling outfits
1 25 HP Hoist with 800' cable
3 Mine cans and 10 buckets & dollies
1 Power generating unit

The allowable rental on the above equipment shall be determined on the basis of 60 months depreciation of replacement price and rates approved by the Region Office of DMA at Joplin, Missouri. Rental to be charged only for the actual time the unit is operated on the project.

Labor for the project is approved as follows:

Supervising engineer and geologist 12 months @ $500 per month.
1 Bookkeeper and office manager for service on the project 12 months @ $250 per month.
10 Miners @ $1.50 per hour.
1 Truck driver @ $1.00 per hour.
1 Laborer @ $0.90 per hour.

The above labor cost shall be allowable for a maximum of 48 hours per week and 12 month period estimated for completion of the project.

No facilities, buildings, fixtures or installations of any kind are to be purchased, rehabilitated, repaired or installed, except as provided for the rehabilitation of the shaft at the maximum possible cost of $3,600.

Form MF-100
(April 1951)

U[redacted] DEPARTMENT OF THE INTER[redacted]
[redacted]EFENSE MINERALS ADMINISTRATIO[redacted]

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. Dma - 944 X

Date received 5/4/51

Participation

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

Name and address of applicant

Date April ~~4~~ 30, 1951

FILL IN THIS BLOCK

Date of application April 4, 1951

Estimated cost $110,000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Terlingua District
Brewster County, Texas

Date of filing MF-100

DMA Docket Number, if available Dma - 944 X

## 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?
*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.
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.
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)?

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

16—64667-1

## THE PROPERTY

10. (*a*) Give a description of the r[illegible] property that will be in any way involved in t[illegible]xploration 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.

Paulsel Mining Co
(Name of company)

By Henry Cook
(Signature of authorized official)

April 30, 1951
(Date)

Co-Owner
(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
(April 1951)

U[redacted] DEPARTMENT OF THE INTER[redacted]
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. Dma - 944 X

Date received 5/4/51

Participation

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

Name and address of applicant

Date April ~~4~~ 30, 1951 H.C.

FILL IN THIS BLOCK

Date of application April 4, 1951

Estimated cost $110,000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Terlingua District
Brewster County, Texas

Date of filing MF-100

DMA Docket Number, if available Dma - 944 X

## INSTRUCTIONS

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## THE APPLICANT

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

*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.

Paulsel Mining Co
(Name of company)

By Henry Cook
(Signature of authorized official)

April 30, 1951
(Date)

Co-Owner
(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

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

6. No liens, claims or encumbrances will be against property.

7. Owner.

8. New company.

9. 25% of estimated cost.

10. (a) Previously submitted - see DMA-944. + P2-REPORT BY BURCHAM
(b) Previously submitted - see DMA-944. " " " "

15. Ore will be refined at mine. Mercury will be delivered by truck to Alpine, Texas, and shipped by rail.

19. None.

20. Mercury.

21. Exploring as set out in our letter dated April 4, 1951. 18 months estimated time to complete exploration program.

22. See geological report of W. D. Burcham - with maps previously submitted, DMA-944.

23.

| | | |
|---|---|---|
| (a) | 12 laborers @ $1.00 per hr. | $41,184.00 |
| (b) | 2 @ $500 per mo. | 18,000.00 |
| (c) | Cost of necessary repairs | 5,500.00 |
| (d) | Rent buildings Chisos Mine | 1,800.00 |
| (e) | Truck and pickup | 4,500.00 |
| | 3 mine cars | 300.00 |
| | 10 buckets and dollies | 500.00 |
| | 3 machine drills | 750.00 |
| | Drill steel | 250.00 |
| | Miscellaneous tools, hose, etc. | 1,500.00 |
| | Tugger | 350.00 |
| | Butane equipment | 1,500.00 |
| | Galvanized vent pipe | 1,000.00 |
| | Lumber stock pile | 2,000.00 |
| | 5 motors for furnace and condensor | 750.00 |
| | Commissary supplies and equipment | 2,000.00 |
| | Installation | 1,000.00 |
| | Total (e) | $16,400.00 |

(f) None.
(g) 150 H.P. GE Generating equipment, air compressor and hoist equipment @ $900 per mo $16,200.00
(h) None.

Form MF-103

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

| | | |
|---|---|---|
| (i) | $350 per mo. butane, gas, oil, grease, etc. | $ 6,300.00 |
| | Total No. 23. | $105,384.00 |
| | Reserve | $ 4,616.00 |

24. Beginning July 1, 1951; complete January 1, 1953. 18-month program.

Expenditures -

| | |
|---|---|
| July, 1951 | $ 21,600.00 |
| Average next 17 mos. | 5,200.00 |
| Total | $110,000.00 |

EXHIBIT "C"

Operators Share:

| | |
|---|---|
| General Manager | $ 6,000.00 |
| 2 Trucks | 2,400.00 |
| Generating Unit | 900.00 |
| Compressor w/hammers | 4,800.00 |
| Cash | ~~5,400.00~~ H.C. |
| | 4,875.00 |
| | $ 18,975.00 |

EXHIBIT "D"

Engineer & Geologist (W. D. Burcham)
@ $500 per mo.

12 laborers (Mexican miners) @ $1.00 per hr.

1 truck driver @ $1.00 per hr.

EXHIBIT "B"

| | | |
|---|---|---|
| 1. | Recondition, align and lay mine track (See Exhibit "A") | $ 600.00 |
| 2. | Repair shaft and install hoist w/motor and wire rope (See Exhibit "A") | $ 2,000.00 |

Form MF-100

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

1. (a) Mercury
   (b) None

2. Rainbow Mercury Mine - Terlingua District, Brewster County, Texas.
   (a) 750 Lin. ft.
   (b) 4000 Lin. ft. (S.E. section of mine property)
   (c) None
   (d) None

3. (a) 85 miles south of Alpine, Texas
   (b) Terlingua Mining District
   (c) Terlingua - Sec. 70, Block 341
   (d) Brewster County, Texas

4. (a) Not now in operation
   (b) Will operate as owner

5. Previous operation outlined in previously submitted data, File DMA-944. Owner proposes to begin setting new equipment and shaft operations on July 1, 1951. Repairs on furnace and condensors to be done simultaneously with exploration activities.

6. (a) Applicant has not previously been engaged directly in mercury mining.
   (b) W. D. Burcham, 25 years experience in mercury mining. Operated adjacent Chisos mine and will act as consultant on Rainbow exploration program. Bureau of Mines is familiar with Mr. Burcham's background. Paulsel has had 14 years experience in management capacities in material and construction business. Henry Cook is a registered professional Civil Engineer with 20 years experience in all phases of engineering work.

7. (a) DMA-944 contains complete data previously submitted by Applicant on history, previous exploration, production, etc.
   (b) DMA-944 file contains adjacent Chisos mine history and production. Chisos has produced several million dollars worth of mercury.
   (c) Private reports submitted are on file in DMA-944.

Form MF-100

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

13. 85 miles to Alpine, Texas - 40 miles asphalt pavement, 45 miles gravel road to mine area.

14. Water will be hauled by tank truck from Terlingua Creek, everlasting stream.

15. Butane operated General Electric generating units. 150 H.P. being purchased for all power requirements.

16. Ample experienced Mexican miners available in area for operations.

17. Eight adobe houses on Rainbow property - 20-ton capacity Herreshoff furnace and condensors. Rock crusher (Jan.) in good condition. Two fuel storage tanks. Furnace and condensor sheds in good condition. (Buildings in extra good condition on adjoining Chisos property will be leased for commissary and company use.

18. One 600-foot shaft, well timbered, ready for operation. One 150-foot shaft to be timbered, walls are in good condition, no sign of sloughing. 3000 feet of mine tract on site. Cost of repairs to buildings and equipment estimated at $5,500.

Form MF-100
(March 1951)

U. S. 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. Dma-944X

Date received 5/4/51

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

Name and address of applicant

Date April 30, 1951

## 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 Sec. 124-A (Amortization Deduction) of 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.

## 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.

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) |
|---|---|---|---|---|---|---|---|
| J. T. Paulsel | Co-owner | None | Over $100,000 | | | | |
| Henry Cook | Co-owner | None | Over $100,000 | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 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: Joint venture

**For Corporate Applicants**

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
| Common stock | $ | $ | $ | | |
| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: No production this period

| 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) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

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. Exploration Program - see DMA-944

12. Ore or Mineral Reserves:

(a) Describe the ore or mine[illegible] deposit briefly. Accompany the application b[illegible] available report on the geology and ore reserves. See D[illegible]44

(*b*) If deposit is other than placer: **Exploration program.**

(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) | | | | | |

(*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: See attached sheet

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

14. Water Supply: See attached sheet

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

15. Power: See attached sheet

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

16. Labor: See attached sheet

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

17. Equipment and Facilities: See attached sheet

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.
See attached sheet

**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.

Paulsel Mining Co
(Name of company)

By Henry Rook
(Signature of authorized official)

April 30, 1951
(Date)

Co-owner
(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

Form MF-100
(March 1951)

U. S. 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. DMA-144 X

Date received 5/4/51

Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

Name and address of applicant

Date April 30, 1951

## 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 Sec. 124–A (Amortization Deduction) of 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.

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   (*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:
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   (*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.

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) |
|---|---|---|---|---|---|---|---|
| J. T. Paulsel | Co-owner | None | Over $100,000 | | | | |
| Henry Cook | Co-owner | None | Over $100,000 | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 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: Joint venture

**For Corporate Applicants**

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
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| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: No production this period

| 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) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

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. Exploration Program - see DMA-944

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. See DMA-944

(*b*) If deposit is other than placer: **Exploration program.**

(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) | | | | | |

(*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.

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

14. Water Supply: See attached sheet

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

15. Power: See attached sheet

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

16. Labor: See attached sheet

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

17. Equipment and Facilities: See attached sheet

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.
See attached sheet

**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.

Paulsel Mining Co. (Name of company) By Henry Rooke (Signature of authorized official)

April 30, 1951 (Date) Co-owner (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

dma 944

DEPARTMENT OF THE INTERIOR
Defence Minerals Administration
RECEIVED
APR 6 - 1951
LANDON F. STROBEL
Executive Secretary

# R A I N B O W  M I N E.

Report by W. D. Burcham, January 31, 1951.

* * * * * * *

## INDEX

| | |
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| History | 4. |
| Present Conditions | 5. |
| Tenor of Ore and Past Production | 6. |
| Equipment and Structures | 7. |
| Conclusions | 7. |

January 31, 1951.

REPORT ON THE RAINBOW MINR.
Terlingua, Brewster County, Texas.

---

FOREWORD.

This report is based partly on things learned during 15 years of quicksilver mining on nearby properties, including 3½ years as superintendent of the adjoining Chisos mine; but more particularly on later analyses of such maps as are available and a recent inspection of the Rainbow workings.

This inspection proved a surprising fact that had been gradually taking form in my mind; namely, that although the Rainbow had operated profitably for a number of years, and produced over 8,000 flasks which sold for $637,982.93, it had never reached the objective for which the shaft was originally started. This objective was the orebearing zone of faults known as the "Lagging Block", which crosses both the Chisos and Rainbow properties, and from which the Chisos produced an unknown number of millions over a period of 40 years.

The primary purpose of making this report is to get this fact on record in such a manner that it can be checked by any competent geologist. Otherwise an important orebody may be lost to the world due to the prevalent idea that the Rainbow is a worked-out mine.

LOCATION.

The mine is located in the Terlingua Mining District in Brewster County, Texas, 85 miles south of the Station of Alpine on the Southern Pacific railroad. The road from Alpine is 60 miles of blacktopped highway and 25 miles of graded gravel and dirt roads.

The property consists of 5 patented claims comprising 105 acres. They are G4 Nol, G4 No. 2, G4 No. 3, G4 No. 4, and Link. They are owned in fee and no royalty is due the state.

GEOLOGY.

The geology of the district has been so amply covered in government and state bulletins that it needs to be only lightly touched upon here. The formations that occur in the Rainbow are all cretacious sediments. From the bottom upward they are:

Edwards or Georgetown limestone. This has been renamed Devil's River limestone in late bulletins of the U.S.G.S. This is the underlying rock of the district. It is a heavy-bedded, gray formation containing many cavernous openings and channels which are usually filled with "jabonoillo", a caliche-like or clay-like alteration product. Where this jabonoillo is impregnated with cinnabar it makes rich orebodies. This type of orebody yielded all the production of the Mariposa mine, second largest in the district.

Del Rio Clay. This is a structureless, dark colored, plastic formation overlying the Georgetown conformably, 145 to 185 feet thick. Due to its plastic, impervious nature it makes a perfect seal. Fortunately, in the case of the Rainbow and Chisos mines, it was not a perfect seal on account of the faulted zone which allowed the solutions to rise through it into the overlying rocks. Had this not been the case the orebodies would have lacked an outcrop and might never have been found.

Buda Limestone. This is a light colored, brittle, almost marbleized rock, 80-90 feet thick, conformably overlying the Del Rio. It fractures and brecciates readily, forming excellent passages for ore solutions. This formation yielded a large portion of the Chisos production.

Boquillas Flags and Eagle Ford Shale, also called Terlingua Beds. This is a continuous formation overlying the Buda. Toward the bottom it consists largely of thin-bedded limestones, locally called Boquillas flags, and grading to sandy and clayey shales toward the top, locally called Eagle Ford. The sum total of quicksilver found in this formation has been considerable, but the veins are thin and pockets small, so it is doubtful that any great amount of operating profit has ever been made in it.

The Rainbow lies on a NW-SE anticline. Along the south leg of the anticline a long curving rift block sheared off with a vertical displacement of 1,000 feet or more. Between this sunken block and the solid block to the north is a lagging block with vertical displacement of 10 to 60 feet, separated from the solid block by the so-called Chisos fault. The term Chisos Fault is not

an accurate appelation, as the entire lagging block is a complex of faults and fractures. The Chisos fault is merely the contact of lagging and solid blocks, and is formed by a number of intersecting fractures.

Ore solutions rising out of the Edwards limestone were concentrated under the impervious Del Rio clay where they moved up the slope of the anticline. At the faulted zone of the lagging block an outlet was found where part of the solutions ascended toward the surface. Two cinnabar showings on the surface were the reason for the original location of the Rainbow claims.

Another part of the solutions continued along the Del Rio-Georgetown contact, forming the orebodies in which all of the mining of the Rainbow has been done.

The only virtue of geology with respect to a mine is to learn and locate the characteristics which contribute to the formation and concentration of ore. There are two fundamental factors, both of which must be satisfied in order to result in a quicksilver orebody. The first of these is that there must have been a passage of mineral bearing solutions through the area in question, and second, these solutions in their passage must encounter a suitable receptacle rock for the deposition of the mineral. Both of these conditions are fulfilled in the Rainbow. Throughout the lagging block so far as developed, there is ample evidence of the passage of ore solutions, and all of the formations in the Rainbow have been proven as favorable hosts for ore; but the horizons at which ore has been most abundant are the Del Rio- Georgetown contact and the Buda formation.

HISTORY.

HISTORY.

The mine was first started by a group of men of whom J. S. Darnall, of Denton Texas, is the sole survivor. The ownership still lies with Mr. Darnall and the heirs of his associates.

The exact date of commencement is unknown to the writer, but the bulletin of the U.S. Geological Survey for 1917 says in part: "Prospecting for quicksilver was not generally active in the Terlingua district in 1917, but the Rainbow Mining Co., on ground just west of the Chisos mine, was attempting to find an ore shoot in the westward continuation of the Chisos fault zone."

Please note the underscored portion of the above quotation. As stated on the first page of this report, the sol e purpose is to show that Rainbow workings never touched this fault zone although the zone continues entirely across the Rainbow property. Their minds were diverted, as will be explained later, and never got back to the original idea.

The work done by the Rainbow Mining Co., at that time consisted of sinking a shaft in the solid block north of the Chisos fault, in the Georgetown limestone, which was reached at a depth of 600 feet. The shaft was barren and work stopped at this point. Ten years later, on the strength of persistent rumors that the Chisos was invading Rainbow ground and finding rich ore, an organization called Rainbow Mines Incorporated, was formed for the primary purpose of obtaining a lease on the property of Rainbow Mining Co. in order to search for these invasions. They were not mining men and were motivated more by a desire to collect damages than to produce quicksilver.

After many discouragements, and two years of effort, they finally located an invasion in the extreme southeast corner of the

property on the 650 foot level, - a triangular piece 45 feet across at the widest point. Regardless of the small size, the Chisos admitted removing $211,000 worth of quicksilver from it and finally settled the case by a cash payment of $75,000.

The invasion was on a northeast bearing fracture leading away from the Chisos fault. Possibly because their search for invasion had been so successful, or possibly because none of the personnell of the leasing company had any grasp of mining geology, and hence failed to recognize the importance of the fault as the source of ore, their subsequent prospecting and mining trended to the north and east, rather than toward the southwest toward the lagging block. Another reason for their failure to go further south was that on their lowest level their workings ran into Del Rio clay on its dip before reaching the fault. No other invasions were found, but they found enough ore to yield $637,982.93 as shown by their royalty payments. No other records of production are available.

Controlling stock of Rainbow Mines Inc. was purchased by Howard E. Perry in 1938, largely for the purpose of getting rid of what he considered undesirable neighbors. He continued desultory operations until 1942, when old age and financial troubles caused him to retire from mining, permitting the property to revert to the original owners.

PRESENT CONDITIONS.

As mentioned earlier, all of the fault and lagging block in Rainbow ground is still virgin territory. The Del Rio-Lime contact, which is the only horizon where mining was done, is worked only half way across the property, and the western workings end in stopes, which is good reason for thinking that the westward limit

of ore has not been reached. From this point on there is more than 1,000 feet of untouched ground that is considerably more broken by faults than any that has been mined, which leads to the logical conclusion that the unmined portion will probably be better than the mined area.

All the formations in the mine stand indefinitely without support, so all portions of the mine are accessible except for heat and gas in the unventilated stopes. At the time of my last visit there was no evidence of sluughing and caving around the bottom of the shaft; but timbers and wedges will dry and loosen, so it will be unwise to attempt to descend the shaft until it has been carefully gone over. There is an easy means of access, however, through the shafts and drifts of the Chisos. Easy, that is, except for the 650 foot climb in coming out.

There being no ore to be seen in either mine, the only object of an underground examination is to inspect the maze of workings in the Chisos, and to verify the statements made in this report as to the amount of untouched orebearing formations left in the Rainbow.

TENOR OF ORE AND PAST PRODUCTION.

A characteristic of both Chisos and Rainbow is that there is little or no lowgrade ore. All rock that has been impregnated is of mineable grade. As a result of this, there is no ore left in the stopes of either mine.

At the Chisos mine, all ore was carefully hand-sorted on the surface and about half the bulk discarded. At the end of 40 years of operation they claimed that their all-time production was 38 pounds of quicksilver per ton treated in their furnace. Check-

ing such records of their production as are available against the known capacity of the furnace shows that this claim is substantially correct.

Rainbow Mines Inc. on the contrary, did not weigh their ore, keep tonnage record, nor do any sorting. All ore treated was mine run, but there is no way of arriving at an accurate figure of pounds per ton. Figures given me by J. S. Darnall of the original Rainbow group, show that royalty was paid on 6,898 flasks up to the end of 1936. Figuring this against the capacity of their treatment plant indicates that the ore must have averaged close to 20 pounds per ton. This is double the average of all quicksilver ores mined in the United States over a ten year period according to figures compiled by the bureau of mines.

EQUIPMENT AND STRUCTURES.

Now on the property are 3 frame dwellings in bad shape but repairable; headframe, hoist and crusher, as good as they ever were but still not suitable for boni fide mining operation; 4 by4 by 600 foot shaft in good shape so far as it can be seen; 2 rock buildings, ore bin, furnace building, and Nichols-Herreschoff furnace, all in fair to good repairable shape. The furnace is one of the best types so far developed for the extraction of quicksilver. It will need new condensers and may need relining, but with these repairs it will be as good as new.

CONCLUSIONS.

Rainbow Mines Inc. did not cease operations on account of exhaustion of their ore possibilities, but rather because they were lessees, whose inexperience in mining had caused them to sign up at a ruinous royalty, (15% until payments under it amounted to $60,000 plus 15% overriding royalty which went on forever), with

with no hope of ever obtaining ownership or partial ownership. In the low production fluctuations the royalty took all of the operating profit, while in times of good production it still took too great a portion, and gave the lessees the feeling that they were working for the royalty owners, rather than for themselves.

In this unhealthy atmosphere there was no thought expended on long range development of the mine. Before doing this, the visible and easily obtainable ore in the mine was exploited. The last superintendent tells me that they left some good ore in the stopes that were too hot to work.

With regard to the ventilation:- there is a constant strong blast of air down through the Chisos and up the Rainbow shaft. With the aid of a few strategically placed doors, this blast can be made to sweep through any part of the Rainbow workings, cleaning it out in short order.

With no ore blocked out, it is useless to try to estimate the tonnage or quality of ore to be found in the Rainbow. The only bases for forming an opinion is the past production of the mined portion and the apparently similar but untouched portion remaining. The mining done on the Del Rio-Georgetown contact which yielded over half a million dollars compares not unfavorably with any similar area in the Chisos, hence it is permissible to assume that the unexplored ground throughout the Rainbow may do the same. With this assumption, the production of the Chisos can be used as a yard stick for evaluating the possibilities of the Rainbow.

The United States Bureau of Mines credits the Chisos with a production of 90,000 to 100,000 flasks of quicksilver. All of this came from about 2,400 feet along the orebearing zone. The

same formations cross the Rainbow for an equal distance which has not been 10% explored. Whether or not it will be equally productive is anybody's guess, but nothing can be found to indicate that it will not. On any basis of figuring there should at least be more ore left in the Rainbow than has been taken out.

The Chisos mined consistently from top to bottom, but their big production came from 4 orebodies, each reputed to have yielded a million dollars or more. The Rainbow has not yet encountered any of these fabulous orebodies, but they may be there.

The total cost of acquiring, equipping and developing the Rainbow to where it will equal its 10-year average output of 60 flasks per month cannot be estimated closely, but will be well under $100,000. With fair luck it could be half that but should not be undertaken without that much as a backlog.

In conclusion, I will say that the Rainbow, being a mining venture with no ore blocked out, is not an investment for life-time savings or the funds of widows and orphans; but for venture capital where the fears of a relatively small loss are outweighed by the chances of opening up a large natural resource, it offers an exceptional opportunity.

W. D. Burcham.

W. D. Burcham.

Alpine, Texas. Jan. 31, 1951.

dma 9

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 - 1951
LANDON F. STROBEL
Executive Secretary

RAINBOW MINE

INSPECTION REPORT

By

HENRY COOK
REGISTERED PROFESSIONAL
CIVIL ENGINEER

April 3rd, 1951.

Accompanied by Mr. W. D. Burcham of Alpine, Texas, I made a careful inspection of the Rainbow Mine on March 30th, 1951.

The furnace appears to be in good condition. Cleaning of the interior will be necessary and some of the brick will have to be replaced. All exterior is in excellent condition.

The condensors need minor repairs due to vandalism, resulting in breaks in sections near the top. Materials for this purpose will be relatively inexpensive.

It is my recommendation that a new crusher be provided to produce finer crushing of ore.

New motors should be provided for furnace, shaft and condensor operations.

Shaft No. 1 appears to be in good condition. Timbers are sound and no signs of caving are visible. Conf[illegible]

Mine, this property has extremely good possibilities.

The Chisos Mine was worked successfully from several levels. Rainbow was worked from the lower level only in Shaft No. 1, and I would recommend that other levels in this shaft be explored.

The northwestern section of the mine has not been explored and according to Mr. Burcham who operated the Chisos mine, this entire area should be explored and should produce large quantities of mercury bearing ore.

Based on my experience as a Civil Engineer, and information gathered from experienced mining people in the Terlingua District, the Rainbow Mine has, in my opinion, the greatest possibilities, at minimum expenditure of funds, to produce satisfactorily, of any tract in the District.

Henry Cook

Henry Cook - Registered Civil Engineer.
1001 Altamere Drive,
Fort Worth, Texas.

4012 Byers Avenue
Fort Worth, Texas

DMA 944X

July 10, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 16 1951
LARSON F. STROBEL
Executive Secretary

Mr. Weston Bourret, Acting Chief
Minor and Rare Metals
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Re: Rainbow Mercury Mine
DMA docket - 944

Dear Mr. Bourret:

Submitted herewith for your consideration are maps, Exhibits A, C, D and E covering proposed exploration work in the Rainbow Mercury Mine. Exhibit B is omitted as no Government funds will be used for purposes covered by this exhibit. This will amend question #23 of Form M.F. 103.

Contract Form MF 200 was submitted to your office on June 22, 1951.

The proposed drifting as shown on the attached maps is approximate in location and may vary due to ore bodies encountered and/or decisions to change the same that may be made by Field Representatives of the U. S. Geological Survey Office. It is our intention to cooperate fully with the Government's Field Representatives.

We are anxious to proceed with this work immediately and will appreciate your prompt consideration of our proposal.

Yours very truly,

PAULSEL MINING COMPANY

By J. T. Paulsel
J. T. Paulsel

## EXHIBIT "A"

1. This proposed exploration project is in the Rainbow Mercury Mine Terlingua District, Brewster County, Texas - Survey No. 70; Block G-12; G.C. & S.F. Ry. Co.; G-4-No. 1, G-4-No. 2, G-4-No. 3, G-4-No. 4 and Link-Mineral Surveys Nos. 550, 551, 552, 553 and 554, respectfully.

2. The work to be performed consists of the reconditioning of the present 600-foot shaft (No. 1); the reconditioning of 3000 lin. ft. (single) mine track and complete 2500 lin. ft. of 6 x 7 drifting in the Del Rio clay formation which lays along and above the 600-foot level. Map attached shows present 600-foot workings in the Rainbow and adjoining Chisas mines and the approximate location of the proposed 2500 feet of drifting at the 600-foot level.

Note: Exhibit "B" omitted - Present buildings and equipment furnished by operator.

DmA 944X

EXHIBIT "A"

Install and furnish minimum equipment and material to complete 2500 lineal feet of exploration drifting - Estimated cost and breakdown of items as follows:

| Item | Description | Estimated Cost |
|---|---|---|
| 1. | Install hoist w/motor and wire rope and repair present shaft | $ 2,000.00 |
| 2. | Purchase 3 mine cars | 300.00 |
| 3. | Purchase 10 buckets and dollies | 500.00 |
| 4. | Purchase drill steel, tools, hose, etc. | 1,000.00 |
| 5. | Rent compressor w/3 jack hammers, $400 per mo. | 4,800.00 |
| 6. | Purchase stock pile of timbers and lumber | 1,000.00 |
| 7. | Recondition, align and lay mine track | 600.00 |
| 8. | Rent small generating unit, 12 mos. @ $75 | 900.00 |
| 9. | Rent 2 trucks (1-1½ ton for water tank and heavy hauling and 1-½ ton pickup, $200 per mo. | 2,400.00 |
| 10. | 2500 Lin. ft. drifting @ $22 per ft. (Estimated cost) | 55,000.00 |
| 11. | General manager of operations, 12 mos.@ $500 | 6,000.00 |
| 12. | Fuel, grease, oil, etc. | 1,200.00 |
| 13. | Office supplies and records(to be maintained by General Manager) | 200.00 |
| | Total Estimated Cost | $ 75,900.00 |

Division of Costs:

| | |
|---|---|
| Exploration funds (Gov't) | $ 56,925.00 |
| Operator & Owner | 18,975.00 |
| | $ 75,900.00 |

## EXHIBIT "C"

## Operating Equipment

1. Operator Furnish W/Rental

| | |
|---|---|
| 1 - 1½ ton (Ford or Chev.) truck (hauling water, etc., 12 mo. @ $120.00 | $ 1,440.00 |
| 1 - ½ ton (Ford or Chev.)Pick-up (hauling supplies, etc., 12 mo. @ $80.00 | 960.00 |
| 1 - 315 CFM Air Compressor w/3 drifter drills and jack hammers, 12 mo. @ $400.00 | 4,800.00 |
| 3 - 7 cft. mine cars, 10 buckets and dollies, 12 mo. @ $66.67 | 800.00 |
| 1 - Hoist 25 H.P. 800'-5/8" cable cap. drum, 12 mo. @ $150.00 | 1,800.00 |
| 1 - Power generating unit and mine communication system, 12 mo. @ $75.00 | 900.00 |
| | $ 10,700.00 |

2. Items to be purchased jointly

| | | |
|---|---|---|
| Dynamite, 2500' drifting @ $2.00 | $ 5,000.00 | |
| * Drill steel, small tools & hose (est.) | 1,000.00 | |
| Office supplies | 200.00 | |
| Fuel (Gas, oil and grease)$100/mo. est. | 1,200.00 | 7,400.00 |
| TOTAL | | $ 18,100.00 |

DMA 9/4/

| | | |
|---|---|---|
| * 400 Lin. ft. 1" drill steel @ $1.00 | $ 400.00 | (estimated) |
| 320 Lin. ft. compressor hose @ $1.00 | 320.00 | |
| 24 Mine picks @ $2.50 | 60.00 | |
| 24 Mine shovels @ $2.50 | 60.00 | |
| 6 - 8 # sledge Hammers @ $4.00 | 24.00 | |
| 48 Pick handles @ $1.80 | 48.00 | |
| Small tools (estimated) | 48.00 | |
| Hose couplings | 40.00 | |
| Total | $1,000.00 | |

TOTAL EXHIBIT "C" . . . . . $ 18,100.00

EXHIBIT "D"

Itemized Schedule of Labor

| | | |
|---|---|---|
| 1. | General Manager, 12 mo. @ $500.00 (Audit operator for furnishing - credit only) | $ 6,000.00 |
| 2. | Engineer & Geologist (W. D. Burcham) 12 mo. @ $500.00 | 6,000.00 |
| 3. | Truck driver, 12 mo. @ $208.00 ($1.00 Hr.) | 2,496.00 |
| 4. | 10 Mexican miners ($1.50 per hr., 48 hrs/wk. - $312.00 per mo.), 10 @ $3,744.00 | 37,440.00 |
| 5. | 1 Laborer - general duty - 12 mo. @ $188.67 | 2,264.00 |
| | TOTAL ESTIMATED LABOR | $ 54,200.00 |

DMA 944X

## EXHIBIT "E"

### Existing Facilities & Repairs to Each

| Facility | Repairs &/or Cost |
|---|---|
| 1 - 20 ton Herreshoff Furnace | None |
| 1 - Rock Crusher | None |
| 1 - Warehouse | None |
| 8 - Adobe Houses | None |
| 3000' mine track @ .20 | $ 600.00 |
| Stock pile of lumber for miscellaneous repairs to shaft and other work required | |
| 2M - 6 x 6 #1 R/L rough fir @ $200.00 | 400.00 |
| 2M - 2 x 6 #1 " " " @ 125.00 | 250.00 |
| 2½M - 1 x 8 #1 " " " @ 140.00 | 350.00 |

1 - 600-ft. shaft - In good condition, above items of lumber to be used for re-timbering and shaft elevator construction.

Pipe in mine and on site (Est.)

1500 Lin. ft. 3" Gal.
1500 Lin. Ft. 2" Gal.
1500 Lin.ft. 1" Gal.
1500 Lin. ft. 3/4" Gal.

Note: This pipe will require some repairs and replacements and the following is for that purpose:

| | |
|---|---|
| 400 Lin. ft. 3" Gal. @ .75 | $ 300.00 |
| 400 Lin. ft. 2" Gal. @ .35 | 140.00 |
| 200 Lin. ft. 1" Gal. @ .30 15 cts | 60.00 |
| 500 Lin. ft. 3/4" Gal. @ .20 high 2 cts | 100.00 |
| Miscellaneous fittings | 100.00 |
| Skilled labor for repairing pipe, shaft and Elevator construction (estimated) | 1,300.00 |
| TOTAL EXHIBIT "E" . . . . . | $ 3,600.00 |

DMA
944X

## SUMMARY OF FUNDS - DIVISION OF COST

**Operator:**

| | | |
|---|---|---|
| Equipment (See Exhibit "C") | | $ 10,700.00 |
| General Manager (See Exhibit "D") | | 6,000.00 |
| Cash | | 1,775.00 |
| | TOTAL | $ 18,475.00 |

**Exploration Funds**

| | | |
|---|---|---|
| Exhibit "C" | | 18,100.00 |
| Exhibit "D" | | 54,200.00 |
| Exhibit "E" | | 3,600.00 |
| | TOTAL | $75,900.00 |
| Less Operator's share 25% | | 18,475.00 |
| | TOTAL | $57,425.00 |

**Work Schedule:** (Work to begin immediately)

| | | |
|---|---|---|
| First Month - all items Exhibit "E" | | 3,600.00 |
| 1 - Month equipment rental | | 892.00 |
| 25% item No. 2 Exhibit "C" | | 4,525.00 |
| Labor | | 4,517.00 |
| | TOTAL | $13,534.00 |
| Balance for 11 mo. | | $62,366.00 |
| Cost per mo. after first month | | $ 5,669.63 |

LMA 944X

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Box 431
Joplin, Missouri
December 12, 1957

RECEIVED 1957

| | | CODE |
|---|---|---|
| 12/16 | C | 220 |
| 12/17 | 658 | 800 |
| | | 225 |

Mr. Ralph B. Claggett, President
Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

Re: DMA-944X (mercury)
Paulsel Mining Company
Rainbow Mercury Mine
Brewster County, Texas
Project Contract Idm-E111

Dear Mr. Claggett:

In reply to your December 9 letter, I am personally of the opinion that it would not be possible or advisable for the Government to reinstate the above-cited Contract. This should not be construed as an authoritative opinion, however, because any actual decision regarding reinstatement, or granting of a new Government Exploration Project Contract, would be made by the Defense Minerals Exploration Administration in Washington. As a mining engineer of the U. S. Bureau of Mines, I receive authorization from D.M.E.A. only to carry out Field Team assignments in this region on a part-time consulting basis.

I suggest that any formal request for a reinstatement, or any other sort of reactivation of this Contract, at least certainly should be signed by both the parties thereto, Mr. J. T. Paulsel and Mr. Henry Cook, doing business as the Paulsel Mining Company, and addressed to the Defense Minerals Exploration Administration, Department of the Interior, Room 4459, Washington 25, D. C., directly or through this Field Team Office. Of course, all present conditions and changes that have taken place since filing of the above-captioned application should be explained adequately in a professional manner, including the legal means by which it is proposed that the cited contract would be assigned to your present corporation. I further suggest that all this explaining would be equivalent to preparing a new application which, I believe, would be easier and more satisfactory to all concerned.

Sincerely yours,

cck/id

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2) w/copy
Mr. Claggett 12/9 ltr.
944X file

RAINBOW QUICKSILVER MINES, INC.
408 Insurance Building
Fort Worth, Texas

December 9, 1957

C
O
PY
DMEA
RECEIVED DEC 16 1957
DATE CODE

Mr. Clinton C. Knox
Executive Officer
D.M.E.A. Field Team, Region 4
Joplin, Missouri

Dear Mr. Knox:

Re: Docket No. DMA-944X (Mercury)
Paulsel Mining Company
Rainbow Mercury Mine
Brewster County, Texas
Contract No. Idm-K111

We would like to know whether or not it would be possible to reinstate this exploration contract.

We would appreciate it if you would consider this matter and let us hear from you.

Very truly yours,

/s/ Ralph B. Claggett/lm
/t/ Ralph B. Claggett

RBC:lm

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 12/10 | Chapman | 400 |
| 12/10 | Martin | 400 |
| 12/11 | Johnson | 110 |
| " | [illegible] | 100 |
| 12/12 | [illegible] | 220 |
| 12/11 | Selfridge | 120 |
| | | 225 |
| | | |
| | | |

DEC 1 1957

Mr. James Titus Paulsel, Vice-President
Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

Re: Docket No. DMA 944X - Mercury
Paulsel Mining Company
Rainbow Mercury Mine
Brewster County, Texas
Contract No. Idm-K111

Dear Mr. Paulsel:

As requested by your letter of December 2, 1957, attached is one (1) copy of the application that was submitted to us on the above referenced project, comprising the following items:

1. Photostats (negatives) of Forms MF-100 and MF-103.

2. Thermofax copies of data accompanying above-noted application and general technical data.

3. Three photostats (negatives) of maps.

We are glad that we were able to be of assistance to you in this respect.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

TLChapman:foc
12-10-57
cc to: Code 400
Admr. R. File
FT. REG. IV
Messrs. J. W. Pennington, USBM
Enclosures

T. H. Kiilsgaard, USGS

8623

RALPH B. CLAGGETT
PRESIDENT

JAMES TITUS PAULSEL
VICE-PRESIDENT

LLOYD JAMES WEAVER
SECRETARY-TREASURER

# RAINBOW QUICKSILVER MINES, INC.

408 INSURANCE BUILDING
FORT WORTH, TEXAS

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 4 1957

| DATE | INITIALS | CODE |
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| 12/4 | C | 220 |
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| 12/5 | WSM | 400 |
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| | | |
| | | |

December 2, 1957

Mr. C. O. Mittendorf
Administrator
United Stated Dept. of The Interior
Defense Minerals Exploration Admin.
Washington 25, D. C.

Re: Docket No. DMA-944X (Mercury)
Paulsel Mining Company
Rainbow Mercury Mine
Brewster County, Texas
Contract No. Idm-Elll

Dear Mr. Mittendorf:

Your letter of November 29th to Mr. Ralph B. Claggett, President of Rainbow Quicksilver Mines, Inc, Fort Worth, Texas has been received and read by me.

I would be very appreciative if you would send me one (1) copy of the application that was submitted on the above referenced subject.

Please send copy to me at

Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

I thank you very much for your prompt attention to this matter.

Sincerely yours,

RAINBOW QUICKSILVER MINES, INC.

J. T. Paulsel

J. T. Paulsel

JTP:lm

5348

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

| Date | Surname | Code |
|---|---|---|
| 11/27 | Martin | 400 |
| 11/27 | Dakam | 200 |
| 11/27 | Selfridge | 130 |
| " | Johnson | 110 |
| " | Mittendorf | 100 |
| | | 220 |
| 11/29 | gb | 225 |
| | | |
| | | |

Mr. Ralph B. Claggett, President
Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

NOV 29 1957

Re: Docket No. DMA-944X (Mercury)
Paulsel Mining Company
Rainbow Mercury Mine
Brewster County, Texas
Contract No. Idm-E111

Dear Mr. Claggett:

This will acknowledge receipt of your letter of November 21, 1957, referring to reply of November 20, 1957, from Mr. Clinton C. Knox, to your request of November 18, 1957, for photostatic copies of the application that was submitted to Defense Minerals Administration in connection with the subject terminated contract.

We note that you desire such material for the use of your engineer, Mr. Roy M. Hammond, of Butte, Montana, who is to prepare your proposed application for exploration assistance at the same property.

If Mr. J. T. Paulsel, who we note is now a majority stockholder and the vice-president of your company, will write an appropriate request directly to us as you suggest, we can then release to you one copy of the desired information, for which there will be no charge.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

WSMARTIN/foc 11-27-57
cc to: Code 400
Admr. R. File
FT. REG. IV
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

On Field Team copies the following note was added: "The heading of your letter to Mr. Claggett mentions Presidio County, but we believe it should be Brewster County."

8623

(Revised)
ril 1955)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

# REFERENCE SLIP

| Route to: | Name | Room |
|---|---|---|
| 1. | C. O. Mittendorf, Administrator, DMEA | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |

For:

| | |
|---|---|
| ---------- Action | ---------- Record of ---------- |
| ---------- Approval | ---------- Referring to ---------- |
| ---------- Comment | ---------- Reply for signature of ---------- |
| ---------- Conference | ---------- Rewriting |
| ---------- Consideration | ---------- See or call me |
| ---------- Filing | ---------- Signature |
| ---------- Initials | ---------- Suggestions |
| ---------- Instructions | ---------- Surname |
| ---------- Investigation | ---------- Your information |
| ---------- Mailing | |
| ---------- Note and return | |
| ---------- Previous correspondence | |
| ---------- Recommendation | |

Remarks:

Enclosed is a letter to you received through this office as explained thereon. I doubt, however, that any of the information in the Rainbow docket(DMA-944X) would be of value in an application for DMEA project contract there now.

Best regards.

Knox

From *(Name)* Knox Date 11-22-57

Division—Office—Address DMEA, Joplin, Mo. Ext: Room:

U. S. GOVERNMENT PRINTING OFFICE 16—71726-1

DMEA
NOV 25
C
O
P
Y

C 220
Com 100
WSM 460

received this
replying so

closed herewith
him immediately.

RALPH B. CLAGGETT
PRESIDENT

JAMES TITUS PAULSEL
VICE-PRESIDENT

LLOYD JAMES WEAVER
SECRETARY-TREASURER

# RAINBOW QUICKSILVER MINES, INC.

408 INSURANCE BUILDING
FORT WORTH, TEXAS

RECEIVED
MINERALS TECHNOLOGY
DIVISION
NOV 22 1957
BUREAU OF MINES
JOPLIN, MO.
OFFICIAL FILE COPY
DMEA
RECEIVED NOV 25 1957

| DATE | INITIALS | COPY |
|---|---|---|
| 11/25 | WSM | 400 |
| | | |
| | | |
| | | |
| | | |

November 21, 1957

Mr. C. O. Mittendorf,
Administrator
D. M. E. A.
Washington, D. C.

Dear Mr. Mittendorf:

Please refer to the letter of Mr. Clinton C. Knox to the Rainbow Quicksilver Mines, Inc. dated November 20, 1957. In this letter Mr. Knox says that he thinks that it would be improper for him to furnish any third party or the Rainbow Quicksilver Mines, Inc. any information derived from Messrs. Paulsel and Cook, who were doing business at that time as the Paulsel Mining Company.

Mr. Paulsel is the Vice-President of Rainbow Quicksilver Mines, Inc. and owns a majority of the stock. Therefore, we feel that the information as requested should be furnished us, however, if necessary, we will have Mr. Paulsel write you a letter direct requesting the information we asked for. yes

Will you please advise us at an early date regarding this matter.

Very truly yours,

RAINBOW QUICKSILVER MINES, INC.

Ralph B. Claggett

Ralph B. Claggett, lm
President

Encl.

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Joplin, Missouri
November 29, 1957

Mr. Ralph B. Claggett, President
Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

Re: Docket No. DMA-944X(mercury)
Paulsel Mining Co.
Rainbow Mercury Mine
Presidio County, Texas
Project Contract Idm-E111(Rescinded)

11/25 WSM 400

Dear Mr. Claggett:

This will acknowledge receipt of your letter dated November 18, 1957, requesting photostatic copies of material submitted April 4, 1951 to the Defense Minerals Administration pertaining to the above-cited project contract, dated August 14, 1951 and cancelled in January 1952 without any work performed thereunder.

A search of the Field Team files here reveals no record of ever having received material such as you mentioned, which presumably was contained in the application submitted by Messrs. Paulsel and Cook directly to the Washington office of the Defense Minerals Administration. DMA went out of existence afterwards, but its functions on exploration assistance are performed by the Defense Minerals Exploration Administration. I believe it would be improper, however, for me to furnish any third party or the Rainbow Quicksilver Mines, Inc. any information derived from Messrs. Paulsel and Cook, who were doing business at that time as the Paulsel Mining Company. Your letter, with a copy of this, is being referred to Mr. C. O. Mittendorf, who is now the Administrator of the Defense Minerals Exploration Administration, to bring to his attention your expressed desire to file an application for DMEA assistance on the Rainbow Mine. At the time of the application in 1951, copies were not furnished Field Team Offices, but please rest assured that the Washington Office will furnish you any information that can be given with propriety.

With reference to my letter of reply to you on October 2, 1957, this is to advise that effective on applications received after October 23, 1957, Government participation on approved DMEA mercury projects will be on a 50 percent basis as set forth in the enclosed

DMEA Order-1, Revised. Also enclosed for your information in connection with the application which Mr. Roy M. Hammond, consulting engineer, Butte, Montana, has been engaged to prepare, are the booklet further explaining the Defense Minerals Exploration Administration program and a set of the recently revised Application Form MF-103.

Under the criteria which DMEA must apply, applications should present firm evidence of a geologic probability for making worthwhile ore discoveries, suitable operating experience and background with respect to the Applicant's ability to properly conduct the mining exploration program it proposes, and all details of the Applicant's plans and cost estimates for that program, essential to writing the specifications for the desired DMEA project contract.

Please do not hesitate to contact the Washington Office of DMEA for any properly available information from the previous application on your property, or write to me if there is any further information or suggestions that I can give for preparing your application.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 3

cc: Mr. C. O. Mittendorf, w/cy of letter
DMEA Op. Com.(2) " " "
944X file
X-ref "C" file
" "R" "
" Hg "
" Tex. "

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Box 431
Joplin, Missouri
November 20, 1957

RECEIVED NOV 22 1957

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| 11/25 | [illegible] | 800 |
| 11/25 | WSM | 400 |

Mr. Ralph B. Claggett, President
Rainbow Quicksilver Mines, Inc.
408 Insurance Building
Fort Worth, Texas

Re: Docket No. DMA-944X(mercury)
Paulsel Mining Co.
Rainbow Mercury Mine
Presidio County, Texas
Project Contract Idm-E111(Rescinded)

Why not Brewster?

Dear Mr. Claggett:

This will acknowledge receipt of your letter dated November 18, 1957, requesting photostatic copies of material submitted April 4, 1951 to the Defense Minerals Administration pertaining to the above-cited project contract, dated August 14, 1951 and cancelled in January 1952 without any work performed thereunder.

A search of the Field Team files here reveals no record of ever having received material such as you mentioned, which presumably was contained in the application submitted by Messrs. Paulsel and Cook directly to the Washington office of the Defense Minerals Administration. DMA went out of existence afterwards, but its functions on exploration assistance are performed by the Defense Minerals Exploration Administration. I believe it would be improper, however, for me to furnish any third party or the Rainbow Quicksilver Mines, Inc. any information derived from Messrs. Paulsel and Cook, who were doing business at that time as the Paulsel Mining Company. Your letter, with a copy of this, is being referred to Mr. C. O. Mittendorf, who is now the Administrator of the Defense Minerals Exploration Administration, to bring to his attention your expressed desire to file an application for DMEA assistance on the Rainbow Mine. At the time of the application in 1951, copies were not furnished Field Team Offices, but please rest assured that the Washington Office will furnish you any information that can be given with propriety.

With reference to my letter of reply to you on October 2, 1957, this is to advise that effective on applications received after October 23, 1957, Government participation on approved DMEA mercury projects will be on a 50 percent basis as set forth in the enclosed

DMEA Order-1, Revised. Also enclosed for your information in connection with the application which Mr. Roy M. Hammond, consulting engineer, Butte, Montana, has been engaged to prepare, are the booklet further explaining the Defense Minerals Exploration Administration program and a set of the recently revised Application Form MF-103.

Under the criteria which DMEA must apply, applications should present firm evidence of a geologic probability for making worthwhile ore discoveries, suitable operating experience and background with respect to the Applicant's ability to properly conduct the mining exploration program it proposes, and all details of the Applicant's plans and cost estimates for that program, essential to writing the specifications for the desired DMEA project contract.

Please do not hesitate to contact the Washington Office of DMEA for any proper available information from the previous application on your property, or write to me if there is any further information or suggestions that I can give for preparing your application.

Sincerely yours,

CCK/jd

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 3

cc: Mr. C. O. Mittendorf, w/cy of letter
DMEA Op. Com.(2) " " "
944X file
X-ref "C" file
" "R" "
" Hg "
" Tex. "

Ralph B. Claggett
President

James Titus Paulsel
Vice-President

Lloyd James Weaver
Secretary-Treasurer

C
O
P
Y

RAINBOW QUICKSILVER MINES, INC.
408 Insurance Building
Fort Worth, Texas

November 18, 1957

Officials

AIR MAIL

11/25 WSM 400

Mr. Clinton C. Knox
Executive Officer
D.M.E.A. Field Team, Region 4,
Joplin, Missouri

Dear Mr. Knox:

On the 14th of August, 1957 there was an exploration project contract entered into between the D. M. E. A. and Mr. J. T. Paulsel and Mr. Henry Cook, co-operators of Rainbow Mine for the sum of $75,900.00. and it is Docket # DMEA - 944X, commodity - mercury, IDM - E111. This contract was signed by Mr. C. O. Mittendorf, Director Production Expansion Division.

Unfortunately, all of the papers attached to this contract have been lost and if possible we would like to have three (3) photostatic copies made of the material that was submitted to you that pertained and became a part of this contract. We would, of course, pay the expense of the photostat work.

We wish to send one of the photostatic copies fo our engineer, Mr. Roy M. Hammond of Butte, Montana, who will prepare our loan application for Rainbow Quicksilver Mines. He may, or may not, agree with the work that was outlined in the project submitted to you in August 1951.

Will you please advise us whether or not you will have this work done for us and when we may expect to receive the photostatic copies.

Very truly yours,

RAINBOW QUICKSILVER MINES, INC.

/s/ Ralph B. Claggett/lm
/t/ Ralph B. Claggett
President

RBC:lm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
MAR 30 1956

March 27, 1956

Mr. Ralph B. Claggett, President
Rainbow Mining Company
408 Insurance Building
Fort Worth, Texas

Re: Application for mercury exploration
Rainbow mine, Brewster County, Tex.
(See Docket DMA-944X)

Dear Mr. Claggett:

In response to the inquiry in your letter of March 21, no cost of work performed before the date of any DMEA exploration project contract with the Government is allowable. This is stated as the answer to question 32 in the booklet sent you with my letter of October 28, 1954, you mentioned receiving. For your ready reference another copy of DMEA Order-1, Amended, the booklet further explaining the Defense Minerals Exploration Program, and a set of MF-103 Application Forms are enclosed herewith.

Likewise, with reference to the answer to question 17 in the booklet, a depreciation allowance for essential equipment furnished by the Operator under a DMEA exploration project contract may be made ordinarily not to exceed 20 percent of the appraised value per year prorated to the time actually in use and chargeable to the exploration such as the diamond drill you tentatively propose using at the Rainbow. As stated in Sec. 2(a) of DMEA Order-1, the exploration work on which the Government participates in the costs "shall not go beyond a reasonable delineation and sampling of the ore, and shall not include work prosecuted primarily for mining or preparation for mining". Therefore, furnacing and mining equipment and costs are not allowable. I believe the enclosed information otherwise gives all the explicit advice you requested on just what can be done under a DMEA exploration project contract. You are to understand that this Government participation is on a cost reimbursement basis.

After reading this information, should your company decide to file an application for an exploration project contract, I suggest directing close attention to all the general instructions for its preparation, particularly those in paragraph 2 of the application form. Also the maps and/or sketches referred to in paragraphs 4(c) and 5(b) of that MF-103 Form, should be submitted in quadruplicate attached with each of the required four copies of your application and all other necessary supplemental sheets and documents.

I believe it is especially essential for an application to present firm evidence of a geologic probability for making a worthwhile ore discovery. Likewise important in the preliminary engineering and geologic appraisals for D.M.E.A. in Washington is the Applicant's operating experience and background with respect to its ability to properly conduct its proposed exploration program, and all details of its plans and cost estimates for that program to use in drafting the specifications to be incorporated in the desired DMEA project contract.

As for my familiarity with the Rainbow mine you mentioned, it has become pretty hazy in my mind during the past 4 years since my only visit there at the time Mr. Paulsel, Vice-President of your company withdrew from the previous Government exploration contract. As I recall, a map of the underground workings in 1943 by the U. S. Geological Survey was placed on open file in the office of your State Geologist, Dr. John T. Lonsdale, University of Texas, Austin, Texas. About 1951, a former operator living in Alpine who I do not recall, showed me a map and data on several horozontal holes which had been diamond drilled from stopes and drifts on the major working level. I do recall seeing a lot of ores on the mine dump. Therefore, I will have to rely on you entirely to trace down all that information and present the pertinent facts thereon in your proposed application to DMEA in Washington.

I will be pleased to give you any further information, suggestions, and assistance that I can for preparing the application.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl (3)
cc: DMEA Op.Com.(2) ✓
944X file
R file
Mercury file

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

June 11, 1954

Memorandum

To: Docket File

From: F. L. Knouse, Rare & Miscellaneous Metals Division

Subject: Docket No. DMEA-944 (Mercury)
Contract No. Idm-E111 (Terminated)
Rainbow Mercury Mine
Brewster County, Texas

Mr. Addlestein, Securities Exchange Commission, telephoned for information regarding ~~on~~ the quantity of the loan to the captioned company. I informed him that we had had a contract in the amount of $75,900.00, but that it was terminated some time ago.

His inquiry was regarding the Rainbow Mine, controlled by the Paulsel Mining Company, which adjoins the Chisos Mine. He inquired about the production record on both the Rainbow and Chisos mines, and I referred him to Miss Helena M. Meyer, Mercury Commodity Member, U. S. Bureau of Mines, for this information.

F. L. Knouse

F. L. Knouse

[redacted] Surname
[redacted] Docket copy

700

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

Ellis

JUN - 1 1954

Mr. Ralph B. Claggett
3701 Tulsa Way
Fort Worth, Texas

Re: Docket No. DMA-944X (Mercury)
Contract No. Idm-8111 (Terminated)
Rainbow Mercury Mine
Brewster County, Texas

Dear Mr. Claggett:

This will acknowledge receipt of your letter dated April 26, 1954, addressed to Mr. David Gallagher, Joplin, Missouri. Mr. Gallagher is no longer with the Defense Minerals Exploration Administration. However, the postal authorities at Joplin forwarded the letter to him and, subsequently, after passing through other hands, it was forwarded to me here in Washington; hence the delay in answering.

You ask if this Agency entered into an exploration contract on the captioned property with Mr. J. T. Paulsel of Fort Worth, Texas. The answer is yes. This Agency drew up a contract on the subject property in the total amount of $75,900.00 with J. T. Paulsel and Henry Cook d/b/a Paulsel Mining Company in August , 1951. The Operator, however, elected not to proceed with the contract; consequently the contract was cancelled in January, 1952.

I trust this is the information you desire.

Sincerely yours,

E. O. Wittenbrink (fw)

Administrator

EWEllis/gla
5-28-54
cc to: Adm. Reading File
Docket
Code 700 contract file
DMEA Field Team, Region VI (2)

R.C.S.

5/27/5 vgla

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
[redacted]

Defense Minerals Administration
Received
MAY 2 5 1954

P. O. Box #431
Joplin, Missouri

May 24, 1954

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Adm.
Interior Building
Washington 25, D. C.

Re: Docket DMA-944X (mercury)
J.T. Paulsel and Henry Cook
Rainbow Mine
Brewster County, Tex.
Contract Idm-E111

Dear Mr. Mittendorf:

I believe you will find the attached correspondence with Mr. Ralph B. Claggett, 3701 Tulsa Way, Fort Worth, Texas, self-explanatory.

Because drafting of any satisfying reply that I can conceive would violate the policy that we are not permitted to reveal any information to a third party relative to exploration contracts let under the Defense Minerals Program, I thought your office might prefer to make the reply.

It is regretted that the local Postoffice saw fit to forward this letter to David Gallagher, who evidently in turn sent it to W. P. Williams, but a good deal of this Field Team's correspondence has suffered from like confusion as a result of the changes in this office.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region VI

CCK/vks

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colo.

May 21, 1954

RECEIVED
MINERALS TECHNOLOGY
DIVISION

MAY 24 1954

BUREAU OF MINES
JOPLIN, MO.

Mr. Ralph B. Claggett
3701 Tulsa Way
Fort Worth, Texas

Dear Mr. Claggett:

As former Executive Officer of DMEA, Region VI, your letter of inquiry concerning the Rainbow Mercury Mine in Brewster County, Texas, has come to my attention.

I am forwarding your letter to Mr. Clinton C. Knox, present Executive Officer, DMEA Region VI, at Joplin, Missouri. I am sorry that it has taken so long for you to get an answer to your inquiry. Reductions and changes in personnel in the Joplin office of DMEA has caused some delay in getting your letter to the appropriate person. In the future, all inquiries or correspondence concerning the Defense Minerals Exploration Administration in Texas should be directed to the Executive Officer, DMEA Region VI, Joplin, Missouri.

Sincerely yours,

W. P. Williams
Geologist

WPW/mlr
bc: C. Knox, w/ ~~copy~~ ltr from Claggett

WPW

Fort Worth, Texas
April 26, 1954

Defense Minerals Administration
RECEIVED
MAY 27 1954

Mr. Dave Gallagher
Defense Minerals Administration
Department of the Interior
Joplin, Missouri

Dear Sir:

I understand that some time ago the U. S. Government agreed to loan Mr. J. T. Paulsel of Fort Worth, Texas, approximately $75,000.00 for the purpose of putting into production the Rainbow Mercury Mine located in Brewster County, Texas.

I am told that Mr. Paulsel signed the note for the proposed loan, and that the money was available in an Amarillo, Texas, bank. Mr. Paulsel did not draw on these funds, so after a certain length of time the funds were no longer available.

I would be very appreciative if you would verify the above information to me by letter.

Thank you very much.

Yours very truly,

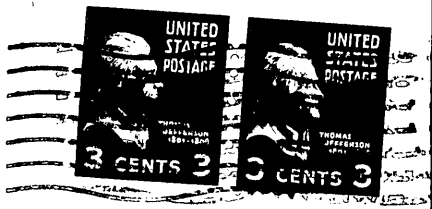
Ralph B. Claggett

Ralph B. Claggett
3701 Tulsa Way
Fort Worth, Texas

RBC:rm
cc: Bureau of Mines
Regional Offices
514 Barfield Building
Amarillo, Texas

Mr. Ralph B. Claggett
3701 Tulsa Way
Fort Worth, Texas

FORT WORTH 3 TEXAS
APR 27 1954
7 PM




AIR MAIL

Mr. Dave Gallagher
Defense Minerals Administration
Department of the Interior
~~Joplin, Missouri~~
~~Grand Junction~~,
~~Colo.~~
385 Waverley Street
Menlo Park, California

27

Hi-1

GRAND JUNCTION
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DEPARTMENT OF
APR 28

700 FILE COPY
SURNAME:

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

MAY 1 8 1952

AIR MAIL

Mr. T. M. Edwards, Jr.
1612 West Hickory
Denton, Texas

Re: Docket No. DMA-944X (Mercury)
Contract No. Idm-E111 (Terminated)
Rainbow Mercury Mine
Brewster County, Texas

Dear Mr. Edwards:

This will acknowledge receipt of your letter of May 14, 1952, pertaining to the above terminated contract on the above-docketed project.

It is noted that you are presently examining said property with a view of obtaining a lease from Mr. J. T. Paulsel, owner. It is furthermore noted that you desire copies of Government reports and maps of this property. While we would like to cooperate with you, we regret to advise that we cannot comply with your wishes inasmuch as such reports are made solely for Government use. No doubt Mr. Paulsel has some engineering reports on the property which should be of assistance to you in reaching a decision to lease the property.

We also note that you are inquiring as to our considering a new application for an exploration project contract on this property and also the type of lease that would be considered adequate for the purpose. As to the latter, a bona fide mineral lease, in which a normal royalty is specified, is considered acceptable. However, should a contract be formalized, it would be necessary for you to obtain an "Owner's Consent to Lien." In order to assist you, if you desire to file an application, we are enclosing a full set of forms and explanatory information.

Should you decide to file an application, please be assured that it will be given our fullest consideration. In filing, however, be sure to supply all the necessary information, including maps, etc. which will aid us in deciding as to the merits of your case.

Sincerely yours,

C. O. Mittendorf

(for) cc 5/19

Acting Administrator

Enclosures 7

EWEllis/gla 5-16-52
cc to: Adm. Reading File
Docket
Messrs. Johnson, C. H. Rm. 3621
McKnight, E. T. Rm. 4204 GS
DMEA Field Team, Region VI (2)
Ellis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

MAY 15 1952

J. M. Edwards, Jr.
1612 West Hickory
Denton, Texas
May 14, 1952

Director, Defense Minerals Administration, Prod. Expansion Div.
Department of Interior
Washington, D. C.

Dear Sir:

Reference is made to Exploration Project Contract, dtd 14Aug51, your Docket No. DMA 944x, Commodity Mercury, Idm-E111, between Defense Minerals Administration and the Paulsel Mining Co., with C. O. Mittendorf signing for the Production Expansion Division and Paulsel and Cook signing as co-owners of the Paulsel Mining Co. The property to be explored was the Rainbow Mine in the Terlingua District, Brewester County, Texas, Block G 12, Min. Surveys 550,551,552,553, and 554 situated in Survey 70.

The above identified contract was entered into but expired by its own terms because the work was never commenced.

I am presently inspecting this property with the view of taking a commercial mineral lease on it from Mr. J. T. Paulsel, Owner, and putting the mine in operation. On the assumption that your department must have made a study of the property prior to execution of the above contract, I would like to inquire if the reports if this survey and study are still in existence, and, if so, to request that they, or copies of them, including maps, be made available to me at the above address.

Also please advise me whether your department would consider renegotiating an Exploration Project Contract on this property with a lessee and, if so, the type of lease which you would require if other than a Texas standard mineral lease.

It is respectfully asked that reply be made at the earliest possible date and that this letter be marked for such handling.

Please address all communications to me at the above address.

Sincerely,

J. M. Edwards, Jr.

FILE COPY
SURNAME:

Ellis
Hoffland

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

FEB 15 1952

Mr. Arle [illegible]
P.O. Box 11[illegible]
Boise, Idaho

Re: Docket [illegible]-944
Idm-4111 (Mercury)
J. T. Paulsel and Henry Cook
Brewster Co., Texas
Rainbow Mercury Mine

Dear Mr. [illegible]:

Your letter, postmarked January 26, 1952, and addressed to Mr. [illegible], Mented, Division of [illegible] Materials, Arlington, [illegible] has been referred to the Defense Minerals Exploration Administration for reply.

It is noted in your letter that you propose to lease "The Quicksilver Mine owned by J. T. Paulsen of 4012 Byers Avenue, Fort Worth, Texas - - - near Terlingua in Brewster County." You furthermore state that you understood a $75,000 exploration contract was approved to said property which contract was not accepted. You would like to know if we do lease the property whether the contract can be reinstated, increased in amount and full information pertaining to the property.

While we would like to cooperate with you we have no knowledge of a proposed lease on this property. Furthermore we are not permitted to release any information to a third party relative to an exploration contract which may have been made on projects under the Defense Act. We believe you will see the having that of such property. In general however, contracts may not be assigned without the written consent of the Government.

We trust the above information will at least in part, answer your questions.

Sincerely yours,

C. O. Mittendorf (for) 2/15/52

Acting Administrator
Defense Minerals Exploration
Administration

E.Ellis/jem
2/12/52
cc to: Adm. Reading File
Docket
Messrs. Johnson, C.H. Rm. 3621
McKnight, W.T. Rm. 4204 CS
Hoffland Ellis
Field Team, Region VI (2)

944 X

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

IN REPLY REFER TO:

RM:JOH

January 31, 1952

Mr. Earle A. Pack
P. O. Box 1186
Boise, Idaho

Dear Mr. Pack:

Your letter (postmarked January 26, 1952), concerning the Rainbow Quicksilver Mine owned by Mr. J. T. Paulsen, has been forwarded to the Defense Minerals Exploration Administration, Washington 25, D. C.

Very truly yours,

J. O. Hosted
Division of Raw Materials

cc: Ernest Wm. Ellis, Acting Chief
Rare & Misc Metals Division
DMEA w/ltr from EAPack

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D.C.
FEB 1 1 08 PM '52

EARLE A. PACK
POSTOFFICE BOX 1186
BOISE, IDAHO

Joseph O. Hosted.
Div of Rawmaterials
Washington. D.C.

Dear Sir: I am figuring on Leasing The Quicksilver mine owned by J.T. Paulsen, of 4012 Byers ave Ft Worth Texas - The mine is situated in Texas. 90 miles south of Alpine Tex. near Terlingua. in Brewster. Co.. I understand that there was a loan. Granted on same for $75.000- or approved. But by some it wasnt accepted. and I further have been informed that it can be reinstated. - If thats the case give me all details. and would like to know if it could be advanced to a higher sum. on acct. I believe that there should be a bigger loan to properly put this mine into proper pro-

duction.

If I take hold of the Property I will go at it in a larger way so as to secure a good lot of Quicksilver and work out the mine soon as possible. There is 103 acres in the Plat of land. - and is a good mine and Plenty of ore there that can be Profitably worked.

Kindly look this up and let me know the facts of the case.

Yours

Earle A. Pack.

EARLE A. PACK
POSTOFFICE BOX 1186
BOISE, IDAHO

P.S. The name of the mine is "Rainbow Quicksilver Mine"

Copy
2 - Mr. Chamberlain
3 - Dmea docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON, D.C.~~
Joplin, Missouri

January 22, 1952

Mr. J. T. Paulsel
4012 Byers Avenue
Fort Worth, Texas

Re: Docket No. DMA-944X
Contract No. Idm-E-111
J. T. Paulsel & Henry Cook

Dear Mr. Paulsel:

On Saturday, December 15, 1951, I met you at the Rainbow Mine, Terlingua, Texas, and talked with you in the presence of Clinton C. Knox and Siegfried J. Muessig of this office. At that time you informed me that you had not used and had decided not to use Exploration Project Contract Idm-E-111 dated August 14, 1951.

You further stated that Mr. Henry Cook, associated with you as co-owner in the signing of this contract on behalf of the Paulsel Mining Company, was no longer associated with you in the venture, and you imparted the additional information that Mr. Cook has gone to South America.

Accordingly, I asked you to write me a letter formally informing me of your decision not to use Exploration Project Contract Idm-E-111. Over a month has elapsed and I have not yet heard from you; the requested letter from you has not yet been received.

Under the circumstances outlined above, you are hereby notified that Exploration Project Contract Idm-E-111 is hereby terminated, and that the Government will not participate in any costs or obligations whatsoever incurred under or arising out of said contract.

Sincerely yours,

David Gallagher

David Gallagher
Executive,
DMEA Field Team, Region V I

Original - J. T. Paulsel
cc: Operating Committee - 3
Ray C. Jonas - 1

DG/lh

700

FILE COPY
SURNAME:

Ellis
Hofflund
Mittendorf

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

JAN 9 - 1952

Mr. Marshall Haney
Consulting Mining Engineer
8600 Flower Avenue
Takoma Park, Maryland

Re: Docket DMA-944X
(Mercury) Idm-2111

Dear Mr. Haney:

This will acknowledge receipt of your letter dated December 31, 1951, and addressed to Mr. Ernest M. Gordon, pertaining to the Rainbow Mercury Mine in Brewster County, Texas.

It is noted you state that this property is for sale and therefore you are requesting full information on this mine. This is to inform you we have no knowledge of a proposed sale on this property nor are we permitted to reveal any information to a third party relative to an application or exploration contract which may have been made on projects under the Defense Act. We believe you will see the advisability of such procedure.

For information on mercury deposits in Brewster County it is suggested you address your letter of inquiry to the U.S. Geological Survey, Washington 25, D.C.

Sincerely yours,

C. O. Mittendorf (for)

Acting Administrator
Defense Minerals Exploration
Administration

EWEllis/jem
1-7-51
cc to: Adm. Reading File
Mails & Files Br.
Docket
Messrs. Mittendorf
Hofflund
Johnson, C. H. Rm. 3621
McKnight, E. T. Rm. 4204 C.S.
Ellis
Field Team, Region VI (2)

1-9-52
J.D.

MARSHALL HANEY, PH. D.
CONSULTING MINING ENGINEER
8600 ~~2200~~ FLOWER AVENUE
TAKOMA PARK, MARYLAND

DEPARTMENT OF THE INTERIOR
RECEIVED
JAN 3 1952
Defense Minerals Administration,
Production Expansion Division.

Dec. 31 1951.

Mr. Ernest R. Gordon;
Bureau of Mines
Washington, D.C.

Mercury
Refers to:
Docket. DMA-944
Idm-2

Dear Mr. Gordon;

The Rainbow Mercury Mine in Brewster County, Tex is for sale and the owner Mr D.T. Sandsel, 4012 Byers Ave., Fort Worth Texas requested me to contact you for complete data as you handled a government grant for $75,900.00

In view of the grant I am assumed you have much more data than the owner has sent me.

If a reasonable and ethical in your position I would pleased you to send me

such data and any publications on such deposits in Brewster County.

I am personally concerned on the quality and quantity of the ore.

I will thank you for a reply at your earliest convenience

Yours truly
Thomas E. Dailey Jr.

FILE COPY
SURNAME:
400

Moulds
Mittendorf

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

SEP 14 1951

A. E. C.

Mr. L. T. McElvenny
Acting Executive Officer, Reg. VI
Defense Minerals Administration
221 West 3rd Street
Joplin, Missouri

Re: Docket DMA 944X
Contract Idm-E11
J. T. Paulsel & Henry Cook
Paulsel Mining Co.

Dear Mr. McElvenny:

In reply to your letter of ~~September 7, 1951~~ concerning the subject exploration project, we beg to advise that the project was discussed with Mr. Gallagher via phone prior to execution of the contract.

Your questions can perhaps be answered more fully by the enclosed copies of Mr. Yates report to Mr. McKnight and the Supply Division's recommendations on the project. A copy of the Supply Division's recommendation should have been forwarded to the Region Office immediately but, regretably, remained in the file.

A copy of the map which should have been attached to your copy of the Docket is also enclosed which is to be used for the project in event it differs with the one you have.

As the applicant's revised application did not include the matter of ventilation and any cost thereof is not in the contract; if ventilation becomes necessary, the cost can perhaps be handled under delegation Order No. 2653.

If Mr. W. D. Burchan, regarded as quite competent by the Supply Division, is available, we suggest that drifting may be started within the limits suggested by Mr. Yates under Mr. Burchan's supervision with later work to be cleared following visit of the Government Field Team.

We trust that we have clarified the matter sufficiently for you to approve an initial program for the project.

Sincerely yours,

C. O. Mittendorf (mem) JF 9/14

C. O. Mittendorf, Director
Production Expansion Division

Enclosures.

DEMoulds/meh Typed 9/13/51
cc to: Reports and Records Adm. Reading File Mr. Moulds
Messrs. Mittendorf, Olund Region VI Docket

Mr. Dwyer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Joplin, Missouri
September 7, 1951

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
SEP 10 11 00 AM '51

DEPARTMENT OF THE INTERIOR
RECEIVED
SEP 1 0 1951
Defense Minerals Administration,
Production Expansion Division.

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

Re: Docket DMA 944X
Contract No. Idm-Ell
J. T. Paulsel and Henry Cook

Dear Mr. Mittendorf:

"Exhibit A" of the subject contract with Paulsel and Cook of Fort Worth, Texas contains the following statement:

> "It is understood that the location and direction of the proposed drifting within the Rainbow property is to be decided during the program to the mutual satisfaction of the operator and Field Team of DMA."

The original Docket DMA 944X was not processed through this office and in the file of the material we have received here from Washington there is no geologic report or maps on the Rainbow Mine. It so happens that I made a brief visit to the Terlingua district in June on another assignment for the Bureau of Mines with which I was then employed. From the little information I obtained then about the Rainbow, I believe we do not have knowledge enough here to enable us to satisfy ourselves as to the most feasible exploration program to be followed when the exploration project starts.

While at Terlingua I got the definite impression that Mr. W. D. Burchan, 702 Second St., Alpine, Texas, a geological engineer and veteran mine operator of that district, was interested in this project. I understood that he had prepared a geologic report and map on the Rainbow Mine and had made an underground examination last spring. The old blueprint attached to contract Idm-Ell in our files is not that map; neither does the proposed drifting exploration shown on that map coincide with Burchan's reasonable-sounding plan of exploration. I see no mention here of the ventilation problem that will be encountered in the proposed underground drifting. In case they have not employed a geologist to direct the Rainbow exploration, the most-versed on practical Terlingua mining geology is Dr. W. N. McAnulty, Head of Department of Geology, Sul Ross State College, Alpine, Texas.

Could it be that there is additional geologic information in the original docket in the DMA office on which the exploration application approval was passed and copies of which could be sent to assist us in the field? I believe that Messrs. Thompson, Yates, McAllister, and Brown of the U.S.G.S. published preliminary reports and maps on the Chisos-Rainbow and other Terlingua region mining districts during World War II.

I was only assigned here two weeks ago by the Bureau of Mines to act for Dr. Gallagher while on an extended absence and Mr. Fryklund was likewise just assigned from Spokane by the U.S.G.S. so we will have to do some studying before helping to plan a Terlingua exploration program.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox for
L. T. McElvenny, Acting Executive
Officer, Region VI, DMA Field Team

CCK/jd

400
FILE COPY
SURNAME:

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

Moulds
Mittendorf

Q. E. C.

AUG 28 1951

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

Re: Docket No. DMA-944X, Mercury
Exploration Project Contract
Idm-E111
Paulsel Mining Company
Fort Worth, Texas

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,

C. O. Mittendorf

BA 8/28

C. O. Mittendorf, Director
Production Expansion Division

Enclosure-1
DEMoulds/jem
8-24-51

cc to: Adm. Reading File
Reports & Records
Messrs: Mittendorf-Olund
Moulds
Docket copy

Mr. Paulsel
1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Joplin, Missouri
August 21, 1951

Memorandum

To: Coordinating Committee

From: David Gallagher, Executive Chairman

Transmitted herewith is the original and three copies of exploration contract Idm-E111 ( Docket DMA 944X) signed as directed by the two partners J. T. Paulsel and Henry Cook on this date.

David Gallagher

David Gallagher

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 23 1951

400

FILE COPY
SURNAME:

Moulds

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

August 14, 1951

AIR MAIL

Mr. David Gallagher
Executive Officer, Region VI
Defense Minerals Administration
221 West 3rd Street
Joplin, Missouri

Re: Docket DMA- 944X, Mercury
J. T. Paulsel and Henry Cook
Fort Worth, Texas

Paulsel Mining Co.

Dear Mr. Gallagher:

Please find herewith six copies of contract for subject exploration project. The contract has been signed for the Government and bears register number and effective date as shown.

The contract is to be signed by both partners in the presence of yourself or member of the DMA staff without any changes to its contents. If any provisions are unsatisfactory to the operator, the contract must be returned to this office for re-execution.

After signing the contract, one copy is to be given to the operator and one copy retained for your office. The remaining copies including the original are to be sent to this office as soon as possible.

A copy of the contract required by the Regional Finance Office will be forwarded directly by the Washington Finance Section.

Sincerely yours,

C. O. Mittendorf (D. W.)

C. O. Mittendorf, Director
Production Expansion Division

Enclosures-6
DEMoulds/jem
APPROVED:

Tom Lyon
Chairman, Coordinating Committee

Lowell B. Moon
Member, Bureau of Mines

Olaf N. Rove
Member, Geological Survey

cc to: Adm. Reading File
Reports & Records
Messrs. Mittendorf-Olund
Moon
Bourret
Meyer
McKnight
Field VI (2)
Docket

J.F. 8/19

FILE COPY
SURNAME: 140
DMA-944
Cook

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

August 13, 1951

a.t.c.

Memorandum

Del'd by hand

To: Chief, Production Expansion Division

From: General Counsel

Subject: J. T. Paulsel and Henry Cook, exploration contract--DMA-944

The subject contract is approved as to legal form and sufficiency subject to the following matters:

1. Proper assembly of the contract, with a copy of the map attached to each copy of Exhibit "A". It would be much appreciated by this office if instead of submitting to us the entire file, with all copies of the contract attached, one fully assembled copy, fastened together in the manner in which it is intended to be signed, would be submitted.

2. In Exhibit "A", about the middle of the page, correct the word "hhanged" to read "charged" so that the sentence reads: "Rental to be charged only for the actual time the unit is operated on the project."

3. In Exhibit "A", page 2, the single paragraph at the top of the page is garbled. Change it to read as follows:

> "No facilities, buildings, fixtures, or installations of any kind are to be purchased, rehabilitated, repaired, or installed, except as provided for the rehabilitation of the shaft at the maximum possible cost of $3,600."

RRGuthrie/JLHofflund/em
Copy to: J. L. Hofflund
R. R. Guthrie
Records & Reports

Del'd by hand

J. L. Hofflund

J. L. Hofflund
General Counsel

Attachment

FILE COPY
SURNAME:

Gordon

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

July 23, 1951

Memorandum

To: Director, Production Expansion Division

Through: Director, Supply Division

From: Minor and Rare Metals Branch

Subject: Paulsel Mining Company, Rainbow Mercury Mines, Brewster County, Texas, DMA docket 944x

Under date of April 4, 1951, the Paulsel Mining Company first submitted the subject application for an exploration project in the sum of $110,000, subsequently reduced to $75,900.00 for a government participation of $56,925.00 (75%). Applicant is prepared to invest its share, $18,975.

The following factors have been carefully considered and weighed in reviewing this application:

1. Refer MO-5, as amended, Sec. 6 (Criteria)

(a) Additional domestic sources of Mercury are desired.
(b) Geological conditions are favorable for exploration. R. G. Yates, USGS recommends not more than 2,500 feet of drifting confined to the NE trending mineralized structures at the Del Rio Clay Devils River limestone contact in the area lying W, NW, & SW, of #2 shaft.
(c,d,e,f,) Manpower, equipment and supplies are available, with adequate roads leading to the property. Water for exploration must be hauled in. Power will be supplied by a butane operated, electric generator.
(g) W. D. Burcham, reportedly well-experienced in mercury mining in the district, will be employed as engineer and geologist to direct operations under the general manager, not named but assumed to be Mr. Paulsel, who has no actual mining experience.

2. The ground to be included in the contract consists of the following mining claims: G-4 No. 1, G-4 No. 2, G-4 No. 3, G-4 No. 4, and Link; (respectively, Minerals Surveys No. 550, 551, 552, 553, and 554), all located in Brewster County, Texas, Survey No. 70, Block G-12, G. C. & S. F. Ry. Co. and owned by applicant. There are no liens nor encumbrances against the property.

3. The project can be completed within twelve months following approval of the contract. Work is proposed to be started immediately following approval.

During the first quarter of work, it is proposed to complete installation of equipment and rehabilitation of the 600 foot shaft, pipelines, and underground haulageway, together with approximately 400 feet of drifting. During each of the following three quarters 700 feet of drifting is to be completed.

4. The project consists of rehabilitating one 600 foot shaft, repairing existent pipelinesand track necessary for the proposed exploratory drifting and 2,500 feet of exploratory 6' x 7' drifting. As outlined by applicant on enclosed map, the drifting is composed of one 600 foot drift, one 800 foot drift, one 270 foot drift, one 100 foot drift, one 300 foot drift, and one 430 foot drift. Applicant states it will accept changes in location of the proposed headingsas may be necessary in the judgement of the DMA field team, and allowance for this should be made in the contract.

5. Estimated costs for the project are as follows:

| | |
|---|---|
| Rehabilitation of shaft, minetrack, pipeline, etc. | $ 3,600.00 |
| Driving 2,500 feet of 6' x 7' heading @overall of $28.92/ft. | 72,300.00 |
| Total cost of project | $ 75,900.00 |

Therefore it is recommended that the Production Expansion Division negotiate a formal contract (MF-200) with the Faulsel Mining Company, which will permit the applicant to undertake the following specific exploration, along the lines described above.

(a) Rehabilitate 600 foot shaft, pipelines and track.
(b) Drive 2,500 feet of 6' x 7' headings.

Note: We note that applicant proposes to rent a truck and a pickup for proposed work, and to employ both a general manager and an engineer-geologist and suggest that these items be scrutinized by field team as possibly not required on a full time basis after operations are off to a good start.

Weston Bourret

Tom Lyon

Weston Bourret, Chief
Minor and Rare Metals Branch

Attachment

EGordon;mh
cc: Adm. Read. File
Reports & Records
Field Team VI
Files
Lyon
Miss Meyer
Bourret

Dma-944 X

4012 Byers Avenue
Fort Worth, Texas
June 22, 1951

Mr. Weston Bourret, Acting Chief
Minor and Rare Metals
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Re: Rainbow Mercury Mine
DMA docket - 944

Dear Mr. Bourret:

Submitted herewith are six copies of Form MF-200, Exploration Project Contract and exhibits, providing for exploration work in the Rainbow Mercury Mine, Terlinguia District of Texas.

All existing buildings and facilities will be furnished without repair cost to the project, except for reconditioning existing shaft and mine track, thus eliminating Exhibit "B"

Experienced Mexican miners will be used under the direction of Mr. W. D. Burcham, experienced engineer, geologist and miner.

Proposed location of drifting as shown is approximate and subject to change, depending on ore bodies encountered.

Your further consideration of this project and approval will be appreciated.

Yours very truly,

PAULSEL MINING COMPANY

By J. L. Paulsel

Enclosures

FILE COPY
SURNAME:

Bourret

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

AIR MAIL

June 11, 1951

Mr. J. T. Paulsel
Paulsel Mining Company
4012 Byers Avenue
Forth Worth, Texas

Re: Rainbow Mercury Mine
DMA docket - 944

Dear Mr. Paulsel:

With reference to our telephone conversation of June 7, I am attaching hereto contract form MF-200 which I suggest you review carefully at this time.

In the event your project is given a preliminary clearance, the next step is to draw up a contract; unless the various exhibits referred to, (Exhibits A to E inclusive), are complete in all details, including maps, some unnecessary delay may result. I would suggest therefore that you prepare six copies of these data and forward to my office.

Yours very truly,

W. Bourret M.H.

Weston Bourret
Acting Chief
Minor and Rare Metals

Enclosure

WBourret/mh
cc: Adm. Reading File
Strobel
Lyon
McKnight
Meyer
Field Team, VI
Bourret
Files

Original copy given to Mr. Paulsel by hand.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 236
Shelby, North Carolina
June 9, 1951

Mr. Edwin T. McKnight
Mineral Deposits Branch
United States Geological Survey
Washington, 25, D.C.

Dear Mac:

I have carefully reviewed Paulsel Mining Company's request for an exploration loan for work in the Rainbow mine in the Terlingua district. My knowledge of the property comes from maps and descriptions of the Rainbow mine made by Clyde Ross, a surface map of the mine made by McAllister, Thompson, and myself, and from the experience gained from mapping the underground workings of the adjoining Chisos mine. The underground workings of the Rainbow I have seen, but have not mapped.

I believe the Rainbow mine deserves further exploration. I agree with the applicants that it can be best explored by drifting along favorable mineralized structures. Because of the flat-lying, discontinuous nature of the ore bodies that might be found, adequate exploration by diamond drilling from either the surface or underground would be as expensive as drifting.

On the other hand, I believe the program outlined by the applicant includes work that is not necessary to explore the more favorable areas. I would recommend not more than 2500 feet of drifting and no shaft sinking. This work should be confined to the northeasterly trending mineralized structures at the Del Rio clay-Devils River limestone contact in an area that lies west, southwest and northwest of the shaft labeled "2" on the map. This area is likely to contain extensions of known ore-bearing structures. It is not essential to sink this "2" shaft to the 600 level as this general area can be reached by workings from the No. 1 (Rainbow) shaft. Sinking of the proposed "5" shaft should not be considered at this time as it is an area much less favorable. This also applies to the drifts north, west and

southwest from the "5" shaft. The area I recommend lies in general between the No. "2" and No. "5" shafts.

In conclusion, I suggest that the applicant reapply for an exploration loan for 2500 ft. of exploratory drifting in the general area between "2" and "5" shafts. The application should include a map of the Rainbow mine workings and the ground they intend to explore in respect to these workings. The map included with the present application is too general to be of any use.

Sincerely yours,

Robert G. Yates
Geologist

EXHIBIT A - Exploration Project

The exploration project to consist of rehabilitating a 600 foot shaft, repairing of existent pipe lines and track, leading to proposed exploration headings and driving of 2,500 feet of 6' x 7' exploration tunnel. All work to be done on the Rainbow property and shown on attached map. It is understood that the location and direction of the proposed drifting within the Rainbow property is to be decided during the program to the mutual satisfaction of the operator and Field Team of DMA.

The estimated costs of the approved project are as follows:

| | |
|---|---|
| Rehabilitation of shaft, track and pipe line including supplies, power, small tools, rentals, labor, supervision and office expense connected therewith - - - - - - - - - - | $ 3,600.00 |
| Driving 2,500 feet of 6 x 7 drift @ $28.92 per foot including supplies, power, small tools, rentals, labor, supervision and office expense connected therewith - - - | $72,300.00 |
| Total | $75,900.00 |

The operator is to furnish for use on the project the following equipment:

1½ ton truck
½ ton pickup truck
315 cfm. air compressor
3 Drifter drilling outfits
1 25 HP Hoist with 800' cable
3 Mine cars and 10 buckets & dollies
1 Power generating unit

The allowable rental on the above equipment shall be determined on the basis of 60 months depreciation of replacement price and rates approved by the Region Office of DMA at Joplin, Missouri. Rental to be charged only for the actual time the unit is operated on the project.

Labor for the project is approved as follows:

Supervising engineer and geologist 12 months @ $500 per month.
1 Bookkeeper and office manager for service on the project 12 months @ $250 per month.
10 Miners @ $1.50 per hour.
1 Truck driver @ $1.00 per hour.
1 Laborer @ $0.90 per hour.

The above labor cost shall be allowable for a maximum of 48 hours per week and 12 month period estimated for completion of the project.

No facilities, buildings, fixtures or installations of any kind are to be purchased, rehabilitated, repaired or installed, except as provided for the rehabilitation of the shaft at the maximum possible cost of $3,600.

LAW OFFICES
FRED H. MINOR
DENTON, TEXAS

May 16, 1951

Mr. James T. Paulsel,
4012 Byers Avenue,
Fort Worth, Texas

In re: Title to Brewster County Mining Claims.

Dear Mr. Paulsel:

Since writing my original opinion dated March 8, 1951, relating to the above mining claims, an additional supplemental abstract of 59 pages has been furnished, compiled by Trans-Pecos Abstract Company, and certified to May 9, 1951, and when taken in connection with the abstracts heretofore examined, referred to in my original opinion, you are advised as follows:

1.

That in my opinion James T. Paulsel now holds a merchantable title to all interests in said claims, free and clear of encumbrances.

2.

There are still a few irregularities in the title. For example, the interest of J. Lea Walker was conveyed to you by the Commercial State Bank of Ranger, Texas, which claimed title by virtue of a foreclosure of a deed of trust which the Bank held, originally payable to Hall Walker. If the recitals in the Trustee's Deed are true, and under the law they are prima facie correct, then I am of the opinion that the Bank acquired the title to the J. Lea Walker interest by virtue of such foreclosure. There is, however, no recorded transfer of the Hall Walker note to the Bank, but the Trustee's Deed recites that the same was duly assigned by the said Hall Walker to said Bank.

The heirs of J. Lea Walker, who is now deceased, undertook to convey his interest to Buckman Laboratories, Inc., a Tennessee corporation.

The Trustee's Deed held by said Bank was recorded prior to the record of the deed to Buckman Laboratories, Inc., and while there may be a controversy between the Walker heirs and Buckman Laboratories, Inc., over this interest, I am of the opinion that the title held by you can be sustained under said foreclosure.

3.

There are two old unreleased deeds of trust referred to in

my original opinion. One was in favor of Murray A. Lea, shown at page 16, part 5 of the abstract. I am advised that this note was paid and released, but the release never found its way to record. The note and lien, however, would now be barred by limitations.

At page 24 of the same part of the abstract is another deed of trust in favor of Hall Walker securing a note for $3750.00, dated June 29, 1938, and due six months after date.

A later deed of trust securing a note for $4050.00 was the one which was foreclosed. It fails to recite that it was in renewal and extension of the deed of trust securing the $3750.00 note. In any event, said last mentioned deed of trust would now be barred by limitations.

4.

In the proof of heirship on the L. T. Millican heirs, it is shown that one of his children was named Jack Millican. In acquiring his interest through a partition suit, his name is given as J. M. Millican. While I know that Jack Millican and J. M. Millican is one and the same person, the abstract does not disclose the same.

5.

This letter supplements my original opinion above referred to; and as above stated, it is my opinion that your title to the entire interest in these claims can be sustained.

Very truly yours,

Fred H. Minor

Fred H. Minor

FHM-U

FILE COPY
SURNAME:

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

May 10, 1951

Mr. J. T. Paulsel
Paulsel Mining Company
4012 Byers Avenue
Fort Worth, Texas

Subject: DMA-944 X
Re: Exploration Loan
Rainbow Mine

My dear Mr. Paulsel:

Receipt is acknowledged of your application and attachments of April 30, 1951 for an exploration Loan under the Defense Production Act of 1950.

The application was assigned Docket Number 944 X and referred to Mr. Merrill, on May 7, 1951.

In any future correspondence relating to your application, kindly refer to DMA-944 X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:aec
cc: Strobel-2
Files
Mr. Merrill
Mr. Lyon

~~Ina. Herrill~~
Dma-944X

SIDNEY L. SAMUELS
JESSE M. BROWN
A. M. HERMAN
WILLIAM M. BROWN
JOHN M. SCOTT
ARDELL M. YOUNG

SAMUELS, BROWN, HERMAN & SCOTT
ATTORNEYS AND COUNSELORS AT LAW
12TH FLOOR ELECTRIC BUILDING
FORT WORTH, TEXAS

April 30, 1951

Director, Supply Division
Defense Minerals Administration
Department of Interior
Washington, D. C.

Re: Rainbow Mercury Mine - DMA-944
Application for Exploration Funds.

Dear Sir:

Submitted herewith are Forms MF-100 and MF-103 for your consideration of our request for aid for an exploration project in the Terlingua Mercury Mining District of Brewster County, Texas.

As outlined in our letter of April 4, 1951, the Rainbow Mine properties and equipment have been purchased by our company and we plan to explore the unexplored areas and place the mine in operation.

Item No. 2 in our letter of April 4, 1951, providing for a 20-inch vent shaft should be deleted. This will reduce the proposed program cost to $110,000 as was originally determined, but deletion of the vent shaft was overlooked.

The exploration program as proposed has been checked with experienced mercury mining consultants in the Brewster County area and is estimated to cost $110,000 and require 18 months for completion. We propose to furnish as the applicant's share of this amount the following:

| | | |
|---|---|---|
| (a) | Rental on generating units, compressors for drilling and ventilating and hoist equipment, $900 per mo. | - $16,200.00 |
| (b) | General Manager of operations, $500 per mo. | - 9,000.00 |
| (c) | Cash | - 2,300.00 |
| | Total | - $27,500.00 |

We understand that regulations governing the use of exploration funds will not permit credit or allowance (as sponsor's contribution) for equipment and/or buildings presently on site. We do request, however, that the furnishing of this

BUREAU OF MINES
WASHINGTON, D. C.
MAY 4 10 07 AM '51

equipment, valued at $30,000, be considered as further justification for your approval of this request.

Rental allowance requested in the amount of $16,200 is for the generating units for power, compressors for drilling and ventilation and equipment for three hoist operations. This equipment will be adequate for complete power and ventilation requirements.

Buildings for commissary supplies and company quarters are available on the adjoining Chisos property. They will be leased for this purpose.

Applicant has available, in the Terlingua and Alpine area, adequate mining personnel and experienced supervisors to produce maximum results from this proposed program. Mr. W. D. Burcham, geologist with mercury mining experience in this district, will act as consultant for our company.

We are anxious to furnish any additional information that may be desired.

Yours very truly,

RAULSEL MINING COMPANY

By Henry Cook

DRAFT

April 13, 1951

SUMMARY OF APPLICATION
MERCURY-RAINBOW MINE
Brewster Co., Texas
DMA-944

Submitted by — Paulsel Mining Co.
by Mr. J. T. Paulsel
4012 Byers Ave.
Fort Worth, Texas

Data submitted —
a) Paulsel's letter of April 4, 1951
b) Report by Henry Cook, C.E., dated April 3, 1951
c) Report by W. D. Burcham, of Jan. 31, 1951

Location — Section 70, Block G-12, Terlingua District of Texas, adjoining the Chisos Mine on the West. Located 85 miles south of Alpine.

Title — J. T. Paulsel, by purchase of fee land.

Area — 5 patented claims, comprising 103 acres. Designated G4, Nos. 1 to 4 inclusive, and Link

History — According to the applicant, the Rainbow Mining Company sunk a shaft in 1917 in ground just west of the Chisos fault in an attempt to locate the westward continuation of the Chisos ore zone. The shaft went to 600 feet and encountered the Georgetown linestone, finding no ore. Ten years later the Rainbow Company accused the Chisos management of crossing this property line and recovering $211,000 worth of mercury from ground owned by Rainbow; a claim against Chisos is supposed to have been settled for $75,000.

Controlling stock of Rainbow Mines was owned by Howard E. Perry from 1938 to 1942, then reverted back to Mr. J. S. Darnell of Denton, Texas, until the recent sale to Mr. Paulsel.

The Chisos mine has been the largest producer in the district. Following a comprehensive study of the district by the Survey and Bureau a program of core drilling was undertaken in 1943. Eleven holes were drilled, with one deep test to the Devils River linestone. Results were discouraging and no significant mineralization was found.

Mineral Deposits — The favorable cinnabar horizon is the Georgetown (or Devils River) limestone of crêtaceous age and along the contact of this limestone with the overlying Del Rio clay. According to Bureau engineers, the so-called "Chisos-Rainbow" flat limestone zone encountered at the 600 ft. level was depleted prior to the investigation of the district by the Survey and Bureau of Mines. However, the property was mapped by the Survey geologists.

Ore Reserves — None

Development — Shaft No. 1 - a 600 ft. single compartment shaft in fair state of repair. Level maps not submitted.

Shaft No. 2 - to a depth of 150 ft. but in poor state of repair.

Plant

a) Head frame and hoist.

b) Crusher and Ore bin.

c) Nichols - Herres chaff furnace.

d) Condensers - require repairs.

e) Several small buildings and dwellings.

Applicant's Proposal

Refer to development plan on attached map. Proposal includes:

| | | |
|---|---|---|
| a) | No. 5 shaft (new) to 600 ft. @ $40.00 | $24,000 |
| b) | Deepen No. 2 shaft to 600 ft. level | 18,000 |
| c) | 600 ft. 20" ventilation "barehole" | 6,000 |
| d) | 6,800 linear feet of tunnels @ $10.00 | 68,000 |
| | | $116,000 |

Applicant requests 75 percent of the above total in accordance with provisions of the Defense Production Act MO-5, and proposes that the government consider the value of present development openings in lieu of 25 percent or $29,000.

Conclusions

Sec. 10 of MO-5 specifically states that the operator shall devote all existing improvements, facilities and installations without any allowance for the use or holding possessions thereof. Consequently, the application must be denied or re-submitted.

FILE COPY
SURNAME:

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

April 13, 1951

Memorandum L. J. Strobel

To: Executive Secretary, D.M.A.

From: Minor and Rare Metals Branch, Supply Division

Subject: Application of J. T. Paulsel, for Paulsel Mining Co., 4012 Byers Ave., Ft. Worth, Texas - DMA-944

A review of the application submitted April 4, 1951, by J. T. Paulsel for a development loan to explore the Rainbow Mercury Mine, Brewster Co., Texas, has been made.

The applicant's proposal schedules $116,000 for mine development and requests that existing development openings valued at $30,000 be considered in lieu of the applicant's 25 percent contribution of funds.

Section 10, MO-5, entitled "Regulations Governing Government Aid in Defense Exploration Projects," specifically provides that the operator shall devote all existing facilities, improvements and installations to the purpose of the exploration project without any allowance for the use, owing or holding possession thereof.

It is recommended, therefore, that the application in its present form be denied without prejudice to the applicant's submitting a new proposal, by sending the attached letter to the Paulsel Mining Co.

Weston Bourret, Acting Chief
Minor and Rare Metals Branch

Approved:
Tom Lyon
ad
Tom Lyon, Director, Supply Division

WBourret/ad

cc: Chairman, Commodity Committee
Mr. McKnight, U.S.G.S.
C. W. Merrill
Exec.Off., Field Team, Region VI (2)
Files
Chronological Copy

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 - 1951
LANDON F. STROBEL
Executive Secretary

dma 944

Fort Worth, Texas,
April 4th, 1951.

Hon. Oscar L. Chapman, Secretary,
Department of Interior,
Interior Building,
Washington, D. C.

INTERIOR DEPT
APR - 5 1951
SECRETARY'S MAIL CENTER

Minerals

Attention: Mr. Merrell - Bureau of Mines.

Re: Allocation of Exploration Funds for exploration of Mercury Mining properties - Terlingua District - Brewster County, Texas.

Dear Secretary Chapman:

I have purchased, with associates in Fort Worth, Texas, the Rainbow Mining Company properties consisting of 103.3 acres in the Terlingua District of Brewster County, Texas.

We propose to begin extensive exploration work on this property in the near future. Work to be accomplished in this exploration program is shown on the attached map and will cost approximately $110,000.00 in addition to the cost of necessary equipment.

We have on the site of this property, equipment, consisting of furnace, condensors, motors and mine track, valued by Mr. W. D. Burcham at $30,000.00. In addition to that on site, we propose to purchase a large generating unit and five electric motors for shaft, furnace and condensor operations. We will have about $50,000.00 in first class equipment; ventilating equipment will also be furnished. Mr. W. D. Burcham will act as consulting Geologist and Engineer. His experience and qualifications in this work is a matter of record and well known by the Bureau of Mines.

In accordance with regulations governing the use of funds provided by the Defense Production Administration, for exploration purposes, we request such assistance as may be available from this fund for the following work:

1. 6,800 lin. ft. drift
   @ $10.00 per ft. . . . . $68,000.00

2. 1 - 600 foot - 20 inch vent shaft @ $10.00 per ft. . . . . $6,000.00

3. 1 - 600 foot shaft marked No. 5 on Exhibit "A" . . . . . 24,000.00 @ $40.00 per foot

4. Lowering shaft No. 2 450 additional feet @ $40.00 per foot . . . . . 18,000.00

Total . . . . . $110,000.00

Exhibit "A" attached, shows the approximate location of shafts and drifts. The shaft locations and drifts were designated by Mr. Burcham and Mr. Henry Cook, Registered Professional Engineer in Texas. The drift elevations and locations are approximate and will vary depending on ore veins encountered. Close liason with the Bureau of Mines in proper exploration will be maintained.

Please advise if additional information and/or data is needed.

We respectfully request 75% or $82,500.00 of the cost of this exploration program from Defense Administration Funds allocated for this purpose. We propose to furnish our portion of the exploration cost in equipment on-site and/or in process of procurement. The 150 feet excavated in Shaft No. 2 has a value of approximately $6,000.00 to this program. Shaft No. 1 is completed to the 600 foot level and has a value of about $24,000.00.

Yours very truly,

PAULSEL MINING CO.

By J. T. Paulsel

J. T. Paulsel,
4012 Byers Avenue,
Fort Worth, Texas.

JTP:OC

Enclosures
1. Maps of Mining area and proposed exploration.

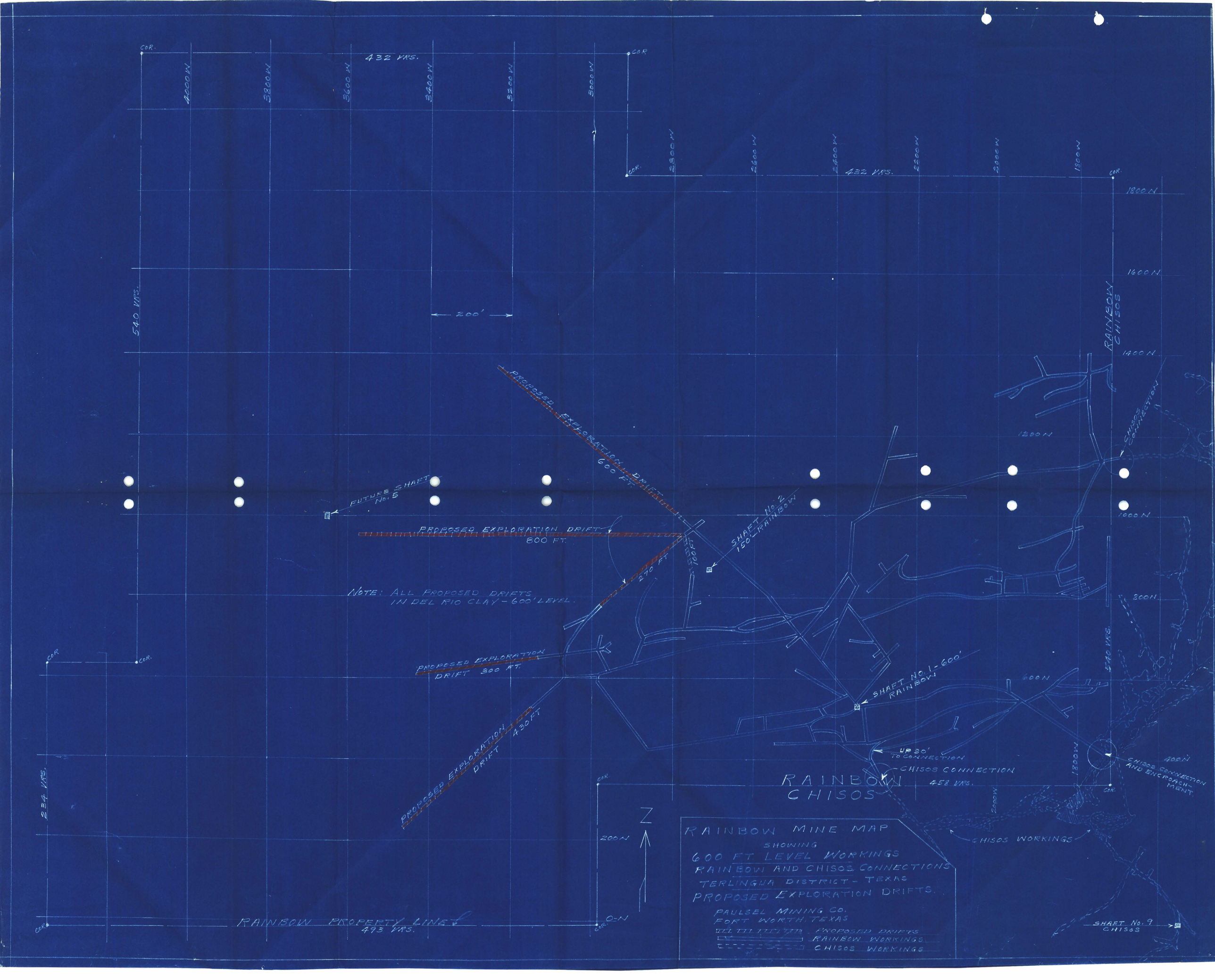
2. Report of W. D. Burcham on Rainbow Mine.

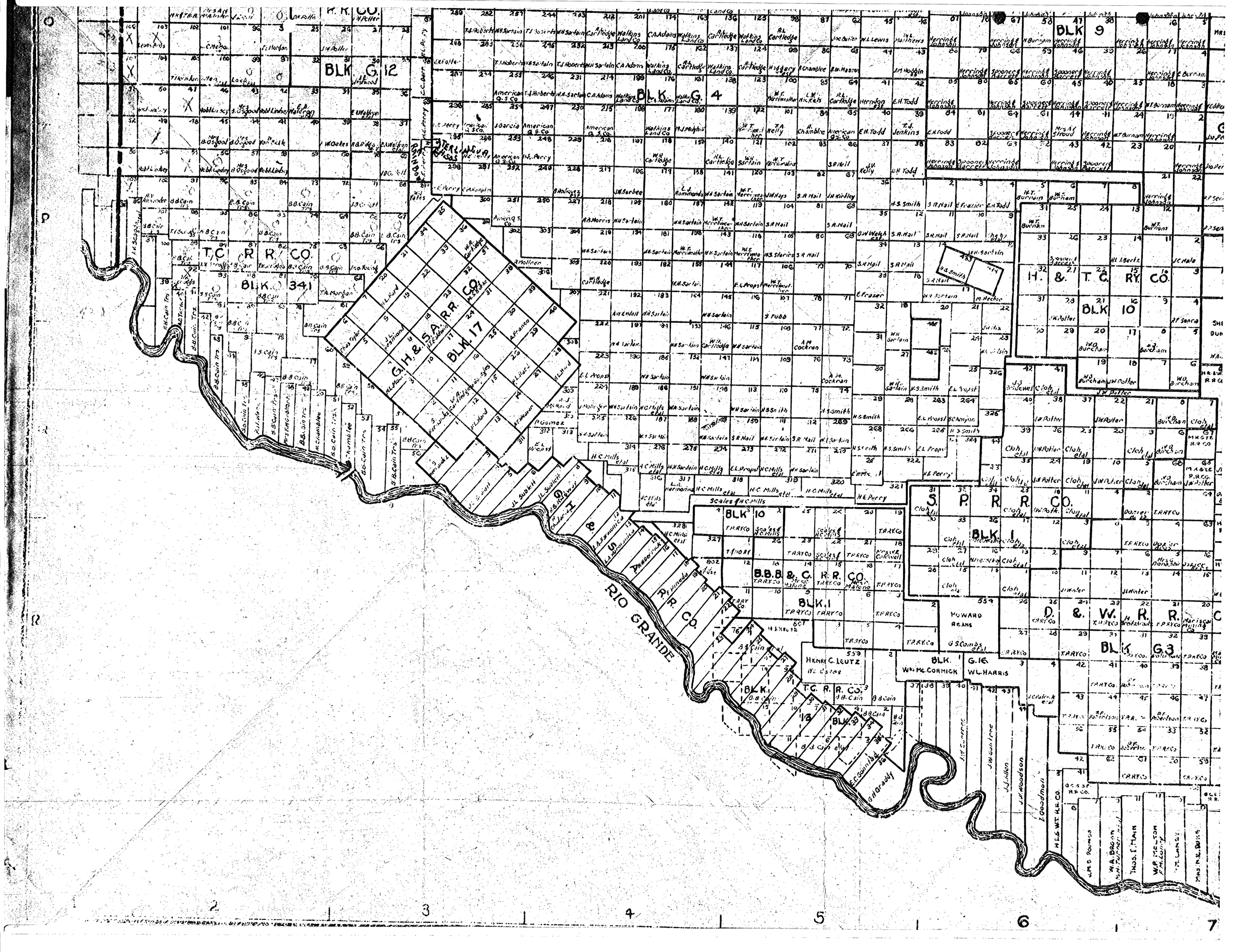
3. Report on Rainbow properties by Henry Cook, Civil Engineer.

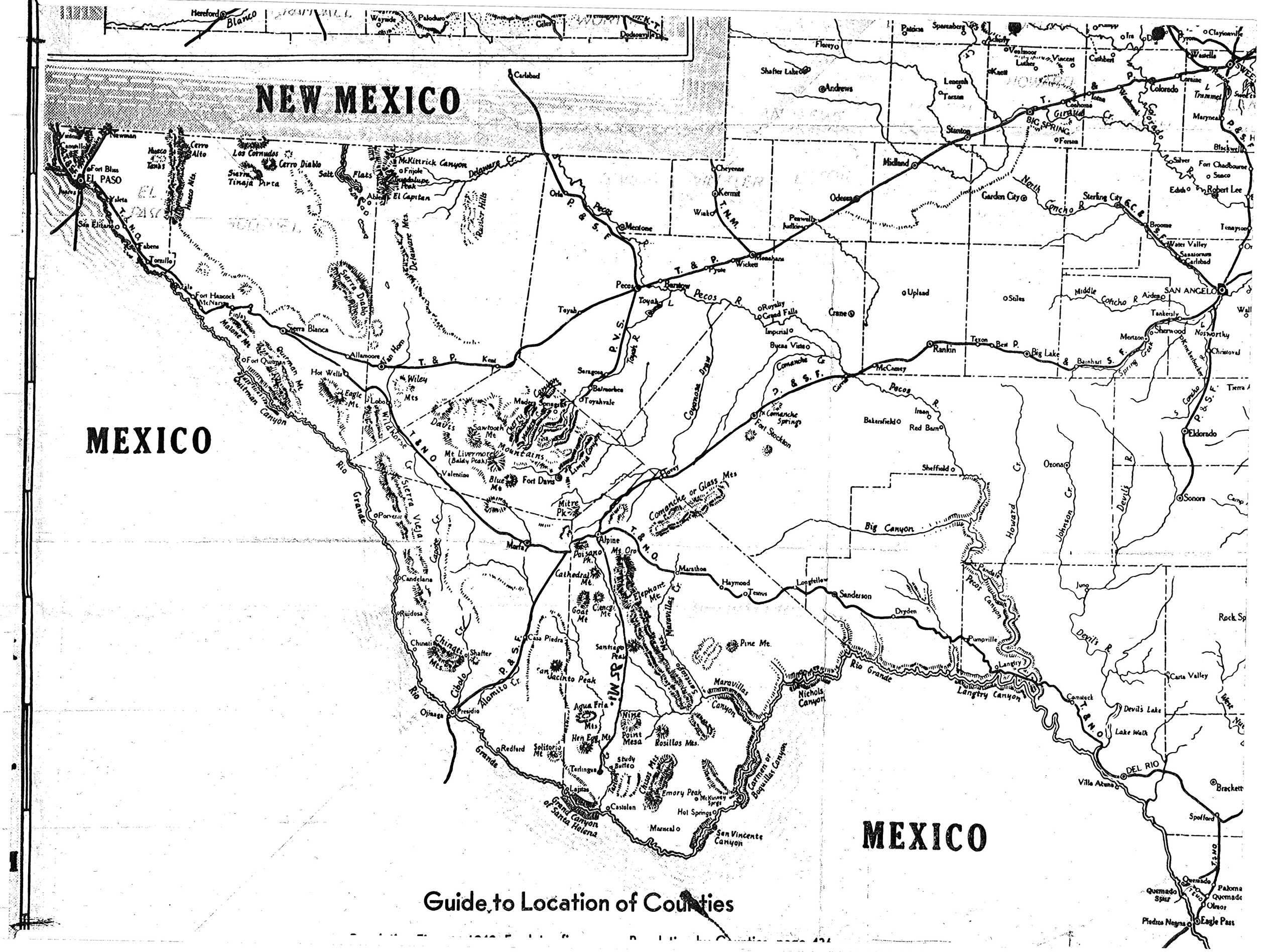
BUREAU OF MINES
WASHINGTON, D. C.

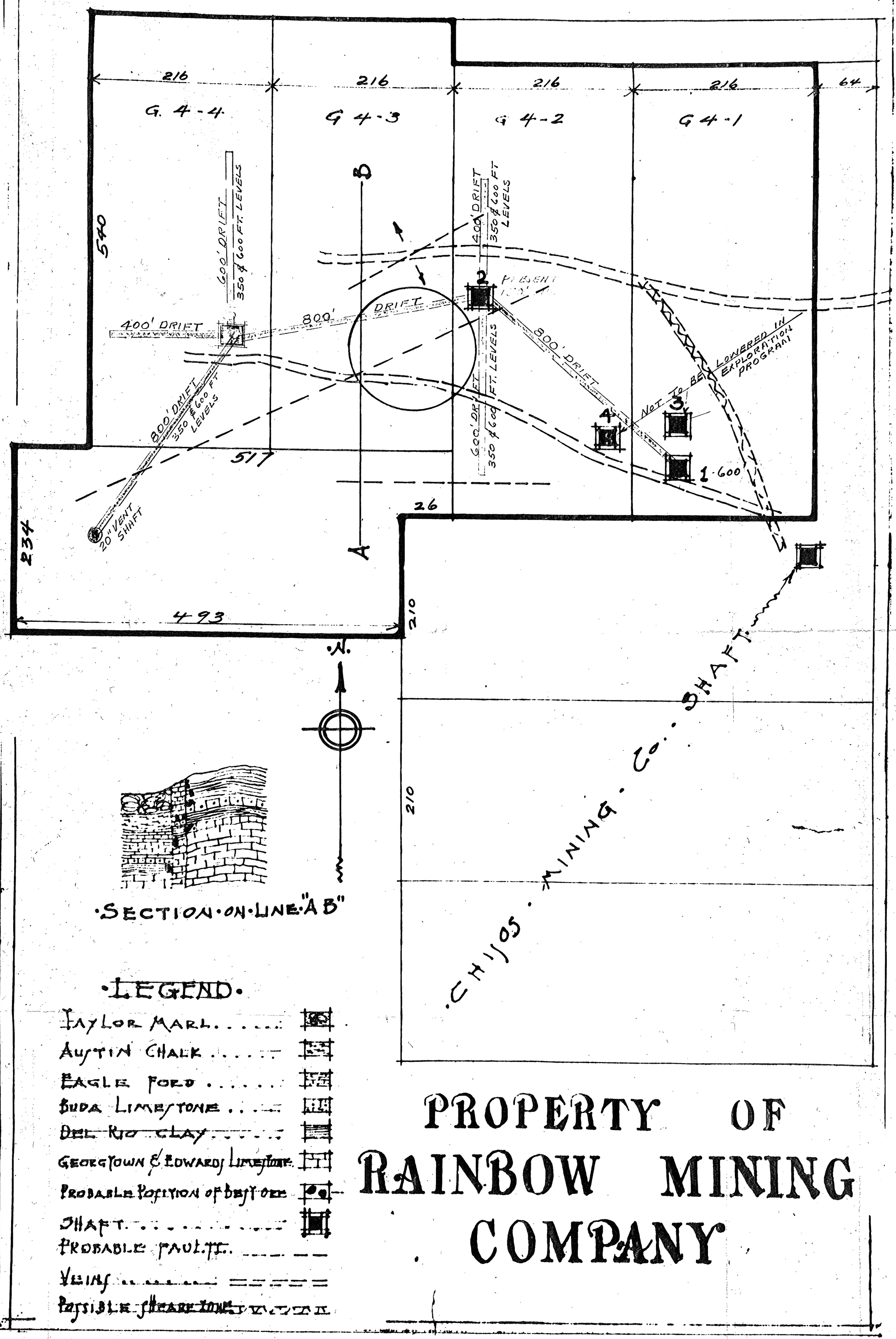
1951 APR 5 PM 4 19

Bureau of Mines,
DEPARTMENT OF THE INTERIOR
RECEIVED
APR 9 1951
Metal Economics Division

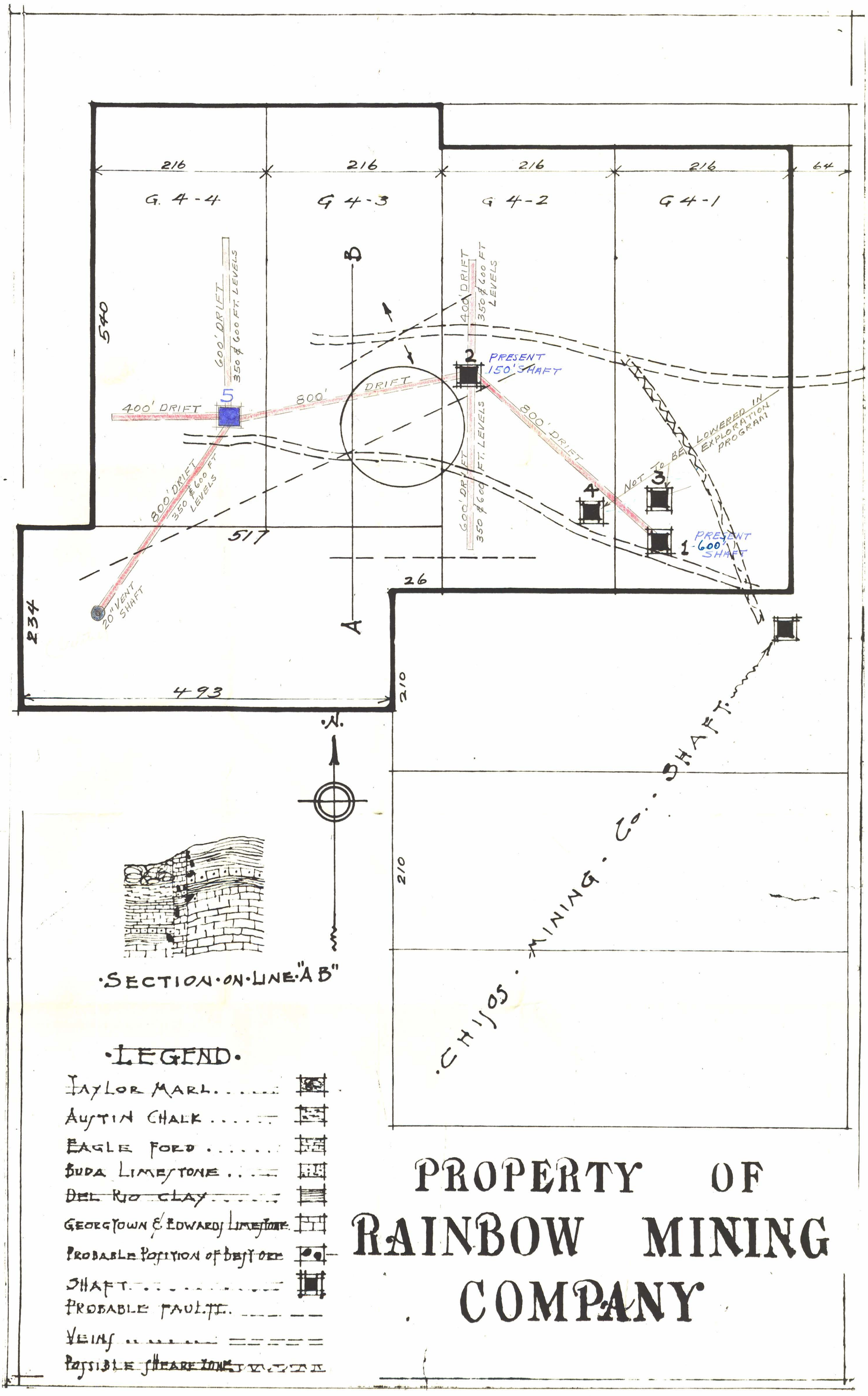

RAINBOW MINE MAP
SHOWING
600 FT LEVEL WORKINGS
RAINBOW AND CHISOS CONNECTIONS
TERLINGUA DISTRICT - TEXAS
PROPOSED EXPLORATION DRIFTS.
PAULSEL MINING CO.
FORT WORTH, TEXAS
PROPOSED DRIFTS
RAINBOW WORKINGS
CHISOS WORKINGS
RAINBOW
CHISOS
432 VRS.
540 VRS.
200'
234 VRS.
493 VRS.
458 VRS.
RAINBOW PROPERTY LINE
PROPOSED EXPLORATION DRIFT 600 FT.
PROPOSED EXPLORATION DRIFT 800 FT.
PROPOSED EXPLORATION DRIFT 300 FT.
PROPOSED EXPLORATION DRIFT 430 FT.
270 FT.
FUTURE SHAFT No. 5
SHAFT No. 2 150' RAINBOW
SHAFT No. 1 - 600' RAINBOW
SHAFT No. 9 CHISOS
UP 30' TO CONNECTION
CHISOS CONNECTION
CHISOS CONNECTION AND ENCROACHMENT.
NOTE: ALL PROPOSED DRIFTS IN DEL RIO CLAY - 600' LEVEL.
COR.
4200 W
3800 W
3600 W
3400 W
3200 W
3000 W
2800 W
2600 W
2400 W
2200 W
2000 W
1800 W
1800 N
1600 N
1400 N
1200 N
1000 N
800 N
600 N
400 N
200 N
0-N
N


BLK. G 12
BLK. 341
T.C. R.R. CO.
G.H.&S.A. R.R. CO.
BLK. 17
BLK. G. 4
BLK. 9
H. & T.C. RY. CO.
BLK. 10
S. P. R. R. CO.
BLK. 1
D. & W. R. R.
BLK. G 3
BLK. 1
B.B.B. & C. R.R. CO.
BLK. 1
T.P.RY.Co
HOWARD REANS
G.16
WL. HARRIS
BLK. 1
WM. McCORMICK
HENRY C. LEUTZ
RIO GRANDE
R.R. CO.
I. & G.N. R.R. CO.
H.E.&W.T. R.R. CO.
M.K.&T. R.R. CO.
G.C.&S.F. R.R. CO.
J.W. Sullivan
J.J. Allen
J.M. Woodson
I. Goodman
G. Gradaly
Scales & H.C. Mills
H.C. Mills etal
Cloh etal
J.W. Potter
W.D. Burcham
W.T. Burnam
Spooner & Barrett
Herringe & Johnson
Watkins Land Co.
American G.S. Co.
W.H. Sarlain
S.R. Nail
A.M. Cochran
E.L. Propst
H.S. Smith
T.P.RY.Co


NEW MEXICO
MEXICO
MEXICO
Guide to Location of Counties
EL PASO
Fort Bliss
Newman
Canutillo
Vinton
Anthony
Juarez
Valeta
San Elizario
Tornillo
Fabens
Cerro Alto
Los Cornudas
Cerro Diablo
Sierra Tinaja Pirta
Salt Flats
McKittrick Canyon
Frijole
Guadalupe Peak
El Capitan
Delaware Cr.
Delaware Mts.
Rustler Hills
Sierra Diablo
Fort Hancock
McNary
Finlay
Malone Mt
Quitman Mt
Fort Quitman
Guitman Canyon
Sierra Blanca
Allamoore
Van Horn
Hot Wells
Eagle Mt
Lobo
Wiley
Mts
Wilcox Cr
Sierra Vieja
Rio Grande
Porvenir
Candelaria
Ruidosa
Chinati Mts.
Shafter
Presidio
Ojinaga
Redford
Solitario Mt
Terlingua
Lajitas
Grand Canyon of Santa Helena
Castolon
Marfa
Alpine
Paisano Pk.
Mt. Oro
Cathedral Mt.
Goat Mt
Ciencia Mt
Elephant Mt
Casa Piedra
Santiago Peak
San Jacinto Peak
Agua Fria Mts
Hen Egg Mt
Nine Point Mesa
Study Butte
Chisos Mts
Emory Peak
Mt Kunney Springs
Hot Springs
Marsical o
San Vincente Canyon
Carmen or Boquillas Canyon
Rosillos Mts.
Maravillas Canyon
Nichols Canyon
Pine Mt.
Maravillas Cr.
Sierra Del Carmen
Marathon
Haymond
Tennyson
Longfellow
Sanderson
Dryden
Pumpville
Langtry
Langtry Canyon
Comstock
Rio Grande
Pecos Canyon
Pandale
Juno
Devil's R.
Devil's Lake
Lake Walk
Carta Valley
Rock Sp
DEL RIO
Villa Acuna
Brackett
Spofford
Quemado
Quemado Spur
Paloma
Quemado
Olmos
Piedras Negras
Eagle Pass
Carlsbad
Orla
Pecos
Mentone
Cheyenne
Kermit
Wink
Monahans
Wickett
Pyote
Barstow
Toyah
Toyah L
Toyah R
Saragosa
Balmorhea
Toyahvale
Kent
Cove
Comanche Springs
Fort Stockton
Comanche or Glass Mts
Comanche Cr
Cottonwood Draw
Royalty
Grand Falls
Imperial
Buena Vista
Crane
Upland
Stiles
McCamey
Iraan
Red Barn
Bakersfield
Sheffield
Big Canyon
Howard
Johnson Cr.
Ozona
Sonora
Camp
Rankin
Texon
Best
Big Lake
Barnhart
Middle Concho R
Aiden
SAN ANGELO
Tankersly
Sherwood
Mertzon
Nasworthy
Christoval
Eldorado
Tierra A
Spring Creek
Knickerbocker
Concho R
Sterling City
Garden City
North Concho R
Odessa
Midland
Stanton
Big Spring
Girard
Cauthorne
Tatum
Lenorah
Tarzan
Andrews
Shafter Lake
Florey
Patricia
Spurberry
Ira
Clayton
Vealmoor
Luther
Vincent
Cushbert
Westbrook
Colorado
Loraine
Trammel
Marmecal
Blackwell
Silver
Fort Chadbourne
Sisco
Robert Lee
Edith
Broome
Water Valley
Sanatorium
Carlsbad
Tenaysoo
Wall
Sweetwater
Wastella
Cisco
Rio Grande
Cibolo Cr.
Alamito Cr.
Capote Cr.
Chinati Mts.
Pecos R.
Concho R
Colorado R
Sweetwater Cr.
Girard Cr.
Big Spring Cr.
Mitre Pk.
Wilcox Cr.
Davis Mts
Sawtooth Mt
Mt Livermore (Baldy Peak)
Blue Mt
Fort Davis
Limpia Canyon
Madera Canyon
Mountains
Valentine
Sierra Vieja
Rio Grande
Grande




# PROPERTY OF RAINBOW MINING COMPANY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G. 4-4
G 4-3
G 4-2
G 4-1
540
517
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234
493
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210
B
A
N.
600' DRIFT
350 & 600 FT. LEVELS
400' DRIFT
350 & 600 FT LEVELS
400' DRIFT
800'
DRIFT
800' DRIFT
350 & 600 FT LEVELS
600' DRIFT
350 & 600 FT. LEVELS
800' DRIFT
2
PRESENT 150' SHAFT
5
3
4
1
PRESENT 600' SHAFT
NOT TO BE LOWERED IN EXPLORATION PROGRAM
20" VENT SHAFT
CHILOS MINING CO. SHAFT
SECTION ON LINE "AB"
LEGEND
TAYLOR MARL
AUSTIN CHALK
EAGLE FORD
BUDA LIMESTONE
DEL RIO CLAY
GEORGTOWN & EDWARDS LIMESTONE
PROBABLE POSITION OF DEJT ORE
SHAFT
PROBABLE FAULTS
VEINS
POSSIBLE SHEARE ZONE
PROPERTY OF
RAINBOW MINING
COMPANY