DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1406X

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Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

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_____

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To: Mr. Mitterdorf Date 4/21/52

To: Mack + Iles Date 5/14/52

To: Code 700, Rm. 464 Date

To: Date

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INT.-DUP. SEC., WASH., D.C. 98868

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

6-2-52

Memorandum

To: Robert E. Adams, Administrative Officer

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Turtle Mountains Mining Company
The Horn Group Mining Claims
San Bernardino County, California
Docket No. DMA-1406X

Upon reviewing the attached docket in January, at which time this Division was determining the number of exploration applications properly before this Division which required further action, it was determined that the subject application was definitely not an exploration project. The entire file was transmitted to the Defense Materials Procurement Agency, Copper Branch, for further study. A subsequent conference between DMPA officials and myself resulted in the transmittal of my letter to the applicant and the DMEA Executive Officer of Region III on April 22, 1952, wherein I advised the applicant that it was advisable for him to withdraw the subject application and file an application on the correct form with DMPA. A reply to my letter was received and transmitted to Washington through Mr. Miller, the Executive Officer of Region III, at which time he supplied the Operator with the proper application forms to be used in making application for loan assistance through DMPA.

Although, upon checking with DMPA as of this date, we understand no application has been received by them from this applicant, no further action by DMEA is required. We are, therefore, closing this docket on our pending list of applications and return the docket file herewith.

Attachment - Docket

Ernest Wm. Ellis

DL

700 FILE COPY
SURNAME:

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

Memorandum

To: Robert E. Adams, Administrative Officer

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Turtle Mountains Mining Company
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Docket No. DMA-1406X

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Memorandum

To: Robert E. Adams, Administrative Officer

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Subject: Turtle Mountains Mining Company
The Horn Group Mining Claims
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Attachment - Docket

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

Office of
Executive Officer
DMEA Field Team
Region III

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 2 1952

May 28, 1952

Memorandum

To: Ernest Williams Ellis, Chief, Rare and Miscellaneous Metals Division, Defense Minerals Exploration Administration, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMA-1406X (Copper), The Horn Group Mining Claims, San Bernardino County, California

Reference is made to your subject memorandum to me dated April 21, 1952.

A letter has been received from the applicant in which he outlines his proposal for requesting a production loan of $250,000 to $300,000 to mine 168 tons of 4-1/2 percent copper ore a day for a period of 900 days.

Applicant also desires a Government contract for the purchase of 12,000,000 lbs. of copper at 27-1/2 cents per pound at the smelter at Hayden, Arizona.

Applicant is being informed to submit four copies of MF-101 forms and supporting data directly to the DMPA in Washington, D.C. He is being told also to take the matter of over-market price for copper up with the same agency.

The above information indicates that the applicant does not want an exploration loan but rather a sizeable one for ore-producing purposes.

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

Copy to E. H. Bailey, USGS

UNITED STATES 13771

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REFERENCE SLIP

DATE 5-13-52

REFERRED TO:
DMEA-1406

1. Code 700
2. Mr. Ellis
3.
4.

5-12-52

FOR: Suggest we wait until Applicant has filed with DMPA. Perhaps DMPA will not require any of this Document. To send over now might be confusing to them.

.....Action	.....Recommendation
.....Approval	.....Record
.....Comment	.....of
.....Conference	.....Referring
.....Consideration	.....to
.....Filing	.....Ready for signa-
.....Instructions	ture of
.....Investigation	.....Rewriting
.....Initials	.....Signature
.....Mailing	.....Suggestions
.....Previous correspondence	.....Your information

REMARKS: It looks like this file should be transferred back to Mr. Waugh — or Bozzay — I think we should wait for them to call for it when application is made to DMPA?

Mrs. Ewert

Check (X) before the items needing attention.

ROBERT E. ADAMS

Initial of sender

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

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

Office of
Executive Officer
DMEA Field Team
Region III

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1952

May 7, 1952

Mr. Robert R. Landrum
Turtle Mountains Mining Company
427 West Fifth Street, Room 531
Los Angeles, California

Re: Docket DMA-1406X (Copper)
The Horn Group Mining Claims
San Bernardino County, Calif.

Dear Mr. Landrum:

Reference is made to your letter of April 25, regarding above-captioned docket. In the meantime we have had a copy of letter of April 21 sent to you by Ernest Wm. Ellis of the Defense Minerals Exploration Administration relative to the same subject.

Mr. Ellis states that it is evident that you desire an operating loan and not an exploration loan and suggested that you apply to the Defense Materials Procurement Agency. In case you have not done so we are enclosing the following sets of operating loan forms, as well as a set of access road application forms:

Form MF-101 - Loan in excess of $50,000
Form MF-102 - Loan not in excess of $50,000
Form 16 - Application for Access Road

The forms applicable for your project should be filled out and sent to the Defense Materials Procurement Agency, General Services Administration Building, Washington 25, D. C. You should also contact the same agency regarding information on Government purchasing contracts for your products.

If your data submitted to the agency is sufficiently attractive, the agency will then probably request a field examination by either the Bureau of Mines or the Geological Survey.

Should you care to visit our office in San Francisco, we will be pleased to discuss with you any questions you may have relative to your proposed project and help you with your application forms.

Sincerely yours,

H. C. MILLER

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

Enclosures 3
Copy to Ernest Wm. Ellis
(with copy of April 25 letter attached)

C
O
P
Y

BIRCH RANCH & OIL CO.
427 W. 5th Street
Los Angeles 13, Calif.

Telephone Michigan 0330

April 25, 1952

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

Dear Sir:

We are just in receipt of a letter dated April 22, 1952, from the Defense Minerals Exploration Administration, by Mr. Ernest Wm. Ellis, with reference to correspondence pertaining to a copper mining operation which we are carrying on in San Bernardino County, California, in the Turtle Mountains.

While we are certain that we have an immense copper deposit on the Horn Group of Mining claims, and have the deposit sufficiently opened up to ship good ore, yet we are limited with capital, and, as stated to your department in our previous correspondence, we have to go along slowly.

Mr. Ellis requested that we write you regarding our operation regarding the present status of our project.

Briefly, we have completed a mountain road to the mine. We requested government financial aid for this road, but got none. The road is not wide enough, but we can, and do travel over it with trucks loaded with ore. If we had a wider road, and one that was leveled out more, we could operate with more efficiency. Also, we need another road on the opposite side of the mountain where the best ore is located. We are now constructing a loading ramp on the Santa Fe railroad at Gromet Station, a distance of about 12 miles, so that we can save considerable mileage over the distance to the nearest ramp at Parker,Arizona, a distance of some 36 miles from the mine.

We need, also, a better camp for the workmen, better mining equipment, sufficient funds for development work as we mine the ore now opened up and made available for shipping. If we had the funds, a very large operation could be undertaken here at once.

As a small operation, our present program calls for mining and shipping at least one railroad car of ore per day, averaging from 4% to 5% copper, or from 4000 lbs. to 5000 lbs. copper per day, or about 1,000,000 lbs. copper per year. To carry out this program, it requires only 12,500 tons of mined ore. From what we can see now, we estimate no less than 1,000,000 tons of ore under our claims, and we have not yet found the main ore body, which certainly is close by. In one place, we already are getting into the sulphide ores, showing native copper in good supply.

Our present program, when put into full operation, will cost us about $1,500,00 per week at the mine, and before any taxes to State and Federal governments. On 4% ore, one car per day, we should receive about $500.00 per day, 5 days per week. Development costs, as we go along, equipment replacements, etc., will require another $500.00 per week; therefore, for the time being, we can see only $500.00 per week profit before taxes. Naturally, we will be driving ahead for more production and a better grade of ore, the latter being almost certain from what we can see now.

As yet, we are not certain that the American Smelting and Refining Company, at its Hayden, Arizona, plant, will take all the ore that we whip them. We have made two shipments to them, and they like the ore, as it is high in silica, which they want. One shipment assayed 6.71% copper, and 57.5% silica. The other shipment, in which we included considerable waste rather than dump it, assayed 4.84% copper and 69.5% silica.

I understand the government has made several deals with mine operators whereby a contract was given by the government to the operator for the purchase of so many pounds of copper at a price above the present ceiling price, depending upon the circumstances under which the operator is placed in the area where his mine is located. If we could make such a deal with the government, say for 10,000,000 lbs. of copper within three (3) years, with cash advances on our contract in order to place the mine on a production basis of at least 200 tons per day, we would immediately go about getting a contract with a smelter for our ore for a like period of time, and fully equip our mine for such an operation.

In this connection, the first thing for the government to do is to send engineers from the Bureau of Mines to our property, and see it for themselves. We have at our mine a young mining engineer who is so sold on the prospects of this mine that he has agreed to work forus as one of the crew. He would be a great assistance to engineers from the Bureau of Mines, if they will visit the property. He doesn't have time to make an engineer's report in writing on the property

neither do we have the funds to expend for that purpose. For some time, he was working exclusively on survey work, getting our claims in proper shape, etc. Now that he has completed that, he is now assisting in operating the property, and doing whatever is necessary. He has worked for large mining companies, and knows his engineering, especially in copper mining.

Recently a form of some sort was sent, either from your office, or from Washington, to Turtle Mountaihs Mining Co. Earp, California, which our Mr. R. G. Van Horn received and returned, I believe. In any event, if this form is received by you, or you hear from it through Washington, you will know that it comes from us. The Turtle Mountains Mining Co. is a partnership, consisting of four partners, namely, Birch Ranch & Oil Co., A. Otis Birch, R. G. Van Horn, and the writer, Robert R. Landrum.

Trusting to hear further from you, I am,

Yours very truly,

/s/ Robert R. Landrum

Robert R. Landrum

P. S. Our partnership formerly included one John H. Flood, Jr., whose interest is now owned by the present partners, he having sold out to them.

FILE COPY
SURNAME:

700

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

Mr. Robert R. Hendrix
Hartle Mountain Mining Company
427 West Fifth Street, Room 531
Los Angeles, California

Re: Docket No. [illegible]-14[illegible] (Copper)
The Horn Group Mining Claims
San Bernardino County, Calif.

Dear Mr. Hendrix:

Your application for Government financial assistance with which to bring into production your copper property in the Hartle Mountain District, was first filed with the former Supply Division of the Defense Minerals Administration. At that time that agency processed applications for direct loans and likewise applications for exploration contracts. The Defense Minerals Administration was dissolved last year and all of the work taken over by the Defense Materials Procurement Agency whose address is now General Services Administration Building, Washington 25, D. C. Subsequently, the exploration program was delegated to the Department of the Interior and is now handled by the Defense Minerals Exploration Administration.

Inadvertently, your application was filed on form [illegible]-[illegible]3, which is the application form for an exploration project. As you have stated in your correspondence, you do not require an exploration contract since you already know your copper ore is sufficiently developed to begin mining it as soon as you get the mountain road completed, and the operation equipped with the necessary machinery and equipment, which we are doing now, but slowly." Just statement in a paper supplied by your application requesting funds for a mill, crusher, etc., purchase for which exploration funds are not made available.

Your application has been studied by other interested Government agencies and just now has been returned to this division of the Defense Minerals Exploration Administration. In view of the time that has been consumed, largely because of agency changes and the fact that more specific information was requested in the Supply Division (DMA) letter of September 5, 1951, which you answered in part in your letter of September 1[illegible], 1951, and furthermore, since

the present status of your project is unknown to this Division, we believe it advisable for you to contact the Executive Officer of Region III, namely, Mr. H. C. Miller, 1012 Flood Building, 870 Market Street, San Francisco 2, California. Perhaps, with his advice, the proper forms may be completed if you so desire and complete information, previously requested, included therein.

In order to assist you in knowing the exploration aid handled solely by this agency (DMEA) we are enclosing a copy of the Order-1, together with a bulletin entitled "Questions and Answers on the Mineral Exploration Program" as of January, 1952.

The long delay in processing this application has been due in part to the reasons enumerated above. Obviously, the way the application is filed, it is not an exploration project. This you have made clear. In the event you still need a direct Government loan, you should address your inquiry to the Defense Materials Procurement Agency at the address given above. If you pursue the latter course, then you may refer to the forms [illegible]-100 and [illegible]-103 which you have filled out; however, it would be advisable to withdraw the application as filed and file again on the correct forms.

In any event, we would like to know the course you take in this matter and believe it will be to your interest, if you are still interested in Government financial aid, to contact Mr. Miller in San Francisco so the mix-up may be ironed out and the requested information supplied.

Sincerely yours,

[signature]

Ernest M. Ellis, Chief
Lure and Fire. Metals Division
Defense Minerals Exploration
Administration

Enclosures 2
Order-1
Questions and Answers Bulletin

EMEllis/jem
4/21/52
cc to: Adm. Reading File
Docket
Messrs. C.H.Johnson Rm. 3621
Ned Nelson, Rm. 4216 GS
Ellis
Field Team, Region III (2)

FILE COPY
SURNAME:

700

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

April 21, 1952

Memorandum

To: Mr. [illegible] C. Miller, Executive Officer
Field Team, Region III
San Francisco 2, California

From: Ernest W. Ellis, Chief
Rare and Miscellaneous Metals Division

Subject: Docket No. [illegible]-14600 (Copper)
Marble Mountains Mining Company
The Horn Group Mining Claims
San Bernardino County, California

Enclosed please find two copies of a letter to captioned applicant, which is self-explanatory, together with a copy of Applicant's letter of September 10, 1951.

In accordance with Memorandum No. 2, dated February 4, 1952, to the Field Teams, we are enclosing a copy of application form [illegible]-[illegible] and form [illegible]-103. This is not a field [illegible] referral, but these forms are forwarded for your information in the event that the applicant discusses the matter with you.

Should the applicant contact you regarding the present application or a contemplated new application, we would appreciate hearing from you so that we may keep our files current regarding this application.

Ernest W. Ellis

4/21

Ellis/jem

cc to: Adm. Reading File
Docket
Messrs. Ch Johnson 3621
Ned Nelson, Rm. 4216GS
Ellis
Field Team, III

Enclosures:
[illegible]-14600
[illegible]-103
1 copy letter from Mr. Robert [illegible] Sanborn 9/10/51
2 copies of letter to Mr. Robert [illegible] Sanborn

f.a.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 15 1952

January 10, 1952

MEMORANDUM

To: Mails & Files Branch

From: Ernest Wm. Ellis, Acting Chief
Rare & Misc. Metals Division

Subject: Docket No. DMA-1406X, (Copper)
Turtle Mountains Mining Company

Review of the above docket was made this date with reference to unsigned letter to applicant. Application is definitely not an exploration project. Entire file and unsigned correspondence dated November 2, 1951 was transmitted to Mr. Waugh, Copper Division of DMPA for further study.

Ernest Wm. Ellis

FILE COPY
SURNAME:

Ellis
Mail

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

not stripped in R. P.

January 10, 1952

MEMORANDUM

To: Mails & Files Branch

From: Ernest Wm. Ellis, Acting Chief
Rare & Misc. Metals Division

Subject: Docket No. DMA-1406X, (Copper)
Turtle Mountains Mining Company

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EWEllis/jem

cc to: Adm. Reading File
Docket
Mr. Ellis

EWE

Defense Minerals Administration 10-31-51

Review of Application for Exploration Assistance

Docket No. DMA-1406X

Commodity Copper

Total Amount 60,000

Govt. Participation 30,000

1. Name and Address of Applicant Turtle Mountains Mining Co.
427 W. 5th St. Room 531 — Los Angeles, California

2. Location of Property Turtle Mountains Mining District,
San Bernardino County, California

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

If not, application will be rejected.

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

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

a) Good _____

b) Poor _____

c) None _____

d) Don't know --- needs field examination _____

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

5. Is the applicant's right to the property clearly stated? Yes (see attached sheet)
(question 5, 6, 7)

6. If applicant is a lessee, is a copy of the lease attached? Not lessee

Does the lease have sufficient time to run to cover a future productive period? Not lessee

*Question numbers are those of MF-103

7. Are subordination agreements necessary? Yes - for $25,000 debt.

a) MF-201? For loan against production

b) MF-202

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

a) Available manpower Yes

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

c) Accessibility (question 12) Yes

d) Water (question 13) Yes

e) Power (question 13) Yes

Is a field check needed on any of these points? Yes - water

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4) Indeterminate

Is a field check needed on this point? Yes

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? No

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No - No map of workings and no map of claims.

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? No

If not, what part of ~~it is?~~ None. Applicant has combined production, exploration and access roads on ~~Form~~ MF 103.

Is this part a worthwhile exploration project? No

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? Do not apply to exploration

f) Should more information be requested from applicant? No Not by mail - we tried that

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

11. Exhibit B (question 23-d)

a) Is it applicable? No

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

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)

a) Is it applicable? No

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? None given

d) Is a field check needed? No

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

a) Are there sufficient data? None

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

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? No

14. Exhibit E (question 23-c)

a) Is it applicable? No

b) Sufficient data?

c) Reasonable?

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? None of work proposed is exploratory

(All exploration must be completed within two years.)

16. If field examination is not needed, attach your recommendation.
See attached Schedule.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing questions? Additional information has been requested from applicant but it is doubtful if he is capable of supplying the info desired. Field Team should check property for geological possibilities, any available ore reserve to justify small loan, or exploration project, also for justification of access road.

Reviewed by: J. B. Gowen
D. E. Nelson
C. J. Olson

Date 10/31

5/5/51

10-31-51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1406X

Commodity Copper

Total Amount 60,000

Govt. Participation 30,000

1. Name and Address of Applicant Turtle Mountains Mining Co.
427 W. 5th St. Room 531 — Los Angeles, California

2. Location of Property Turtle Mountains Mining District,
San Bernardino County, California

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

If not, application will be rejected.

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

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

a) Good

b) Poor

c) None

d) Don't know --- needs field examination ✓

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

5. Is the applicant's right to the property clearly stated? Yes (see attached sheet) (question 5, 6, 7)

6. If applicant is a lessee, is a copy of the lease attached? Not lessee

Does the lease have sufficient time to run to cover a future productive period? Not lessee

*Question numbers are those of MF-103

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a) MF-201? For loan against production

b) MF-202

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

a) Available manpower Yes

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

c) Accessibility (question 12) Yes

d) Water (question 13) Yes

e) Power (question 13) Yes

Is a field check needed on any of these points? Yes - water

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4) Indeterminate

Is a field check needed on this point? Yes

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? NO

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No - No map of workings and no map of claims.

c) Is the proposed work "exploration" under the definition of Section 8, MD-5? No

If not, what part of it is? None Applicant has combined production, exploration and access roads on form MF 103

Is this part a worthwhile exploration project? No

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? Do not apply to exploration

f) Should more information be requested from applicant? No

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

11. Exhibit B (question 23-d)

a) Is it applicable? No

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

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)

a) Is it applicable? No

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? None given

d) Is a field check needed? No

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

a) Are there sufficient data? None

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

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? No

14. Exhibit E (question 23-c)

a) Is it applicable? No

b) Sufficient data?

c) Reasonable?

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? None of work proposed is exploratory

(All exploration must be completed within two years.)

16. If field examination is not needed, attach your recommendation.
See attached Schedule.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing questions? Additional information has been requested from applicant but it is doubtful if he is capable of supplying the info desired. Field Team should check property for geological possibilities, any available ore reserve to justify small loan, or exploration project, also for justification of access road.

Reviewed by: J. B. Gowen
W. E. Nelson
C. Johnson

Date 6/31

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.
SEP 12 8 50 AM '51

310

TURTLE MOUNTAINS MINING CO.

427 W. 5th Street,
(ROOM 531)
Los Angeles, California.

September 10, 1951.

United Ststes Department
of the Interior,
Defense Minerals Administration,
Washington, D. C.

Re: DMA Docket
No. 1406X

Attention: Mr. J. B. Gowen, Chief,
Copper Branch.

Gentlemen:

Replying to your letter of no date, but postmarked Washington, D. C. Sept. 5th, 1951, regarding our application for government financial assistance for our copper undertaking in the Turtle Mountains, Parker, Arizona, and Earp, California, area, and with further reference to your letter of June 29, 1951, please be advised, as follows:

(a) In your letter of June 29th, 1951, you say "it is not clearly stated whether you are applying for a production loan or exploration aid".

In this connection, it was our understanding that we were required to make application for government financial assistance on both Forms, MF-103 and 100, which we did. As a matter of fact, however, we already have our copper ore sufficiently developed to begin mining it as soon as we get the mountain road completed, and the operation equipped with the necessary machinery and equipment, which we are doing now, but slowly.

(b) The other information, requested in your letter of June 29, 1951, from a. to f., inclusive, you will find in our application on Forms 100 and 103, except, perhaps, not in the details that you, apparently, require.

As for the detailed description of the mining property, we can only give you a photostatic copy of the data contained in the NOTICE OF LOCATION which we used when filings were made, and which are now of record in the County Records where the property is located.

Form 6-95

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REFERENCE SLIP

DATE 1-10-52

REFERRED TO:

DMA-1406X

1. Mr. Waugh
2. Rm. 7009
3. Copper Division
4. DMPA

FOR:

- ---- Action
- ---- Approval
- ---- Comment
- ---- Conference
- ✓ Consideration
- ---- Filing
- ---- Instructions
- ---- Investigation
- ---- Initials
- ---- Mailing
- ---- Previous correspondence
- ---- Recommendation
- ---- Record of ----
- ---- Referring to ----
- ---- Reply for signature of ----
- ---- Rewriting
- ---- Signature
- ---- Suggestions
- ---- Your information

REMARKS: This in accordance with telephone conversation this date. This application is definitely not for exploration.

Check (X) before the items needing attention.

Returned to this Div. April 8 - 1952 EDP

Initials of sender.

Rm. 4076 Int.

GPO 16—51162-1

As for maps to show where work is to be done, and to show just where work is to be done and to show the location of any known ore reserve, we sent you maps to show the general location of the property, but we do not have an engineer's report on the property, nor do we have any other data showing ore reserves. Such reports will cost too much. We can see enough ore available from old workings to justify our faith in the undertaking, and if you will have engineers from the Bureau of Mines make an investigation of the property, we feel sure they will report favorably upon it.

As for lists of costs, referred to in your letter of June 29, 1951, under c., we stated in our application that it would cost an estimated $60,000.00 to put the mine on production. To date, we have spent about $40,000.00, and still will have to spend another $20,000.00, before we can produce ore in quantity, or, as stated in our application, on the basis of 250 tons per week to start. To produce in larger quantities, it would require more capital.

Answering your further questions, d., e. and f., referred to in your letter of June 29, 1951, the labor and length of time for project to get on production depends upon available finances. As stated before, we have a limited amount of finances to spend, and these finances must come from limited income from other sources. We do not have a lump sum set aside for the project. If we did have a lump sum, the project would go along faster. After getting on production, we stated in our application that we would work steadily on a 1-shift basis, and would produce an estimated 250 tons of 6% copper ore per week to start.

For your further information, this copper ore is located in old workings, and in new unworked deposits, on top of a high mountain, and on two sides of the mountain, in various exposed locations. Our mountain road is being constructed on one side of the montain, only, to a point a short distance below one of the old workings, from which we propose to produce first. Chutes and bins are yet to be constructed.

If we had more capital, an access road would be built on the opposite side of the mountain, and the present mountain road would be widened, thus speeding up production.

We believe this project will develop into a major operation eventually, and all that is needed now to convince you that it is a worth while copper mine is a report made by competent engineers. It is suggested, therefore, that you request the Bureau of Mines send engineers to Earp, California, and there contact Mr. R. G. Van Horn, who is in charge of operations in the field. A letter addressed to Mr. R. G. Van Horn, Box 547, Earp, California, in advance of any proposed trip of engineers to examine the property, is all that is necessary, as Mr. Van Horn will be very glad to take care of them at his camp, located not far from the mining properties.

We will appreciate it if you will take immedate steps in this matter to assist us, and that you will inform this office, also, in the event that you instruct the Bureau of Mines, as suggested above.

Very truly yours,

TURTLE MOUNTAINS MINING CO.

By Robert L. Landrum

310

FILE COPY
SURNAME:

Waugh
Gowen

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

a.E.l.

Turtle Mountain Mining Company
427 W. 5th Street, Room 531
Los Angeles, California

Re: DMA Docket No. 1406X

Gentlemen:

Your application for Government assistance is being held pending the receipt of more information as requested in my letter to you of June 29, 1951. We are wondering whether you have been able to assemble the information so that we may further process your application.

Very truly yours,

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

not stripped in R.S.R.

RVWaugh:rw
9-4-51

Copy to: Administrator's Reading File
Reports and Records Branch
Executive Officer, DMA Field Team III
Copper Branch
Files - DMA Docket

FILE COPY
SURNAME:

Gowen
Waugh

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

June 29, 1951

Turtle Mountain Mining Co.
427 W. 5th Street
Los Angeles 13, Calif.

Re: Docket No. DMA-1406X

Dear Sirs:

This is to acknowledge your letter of June 21, 1951 which was received by the Copper Branch June 26, 1951.

It is apparent that my letter of June 26, 1951 to you requesting more information crossed yours in the mails requesting the status of your application. It is important that all questions asked be answered completely in order to speed the processing of your request for aid.

Very truly yours,

J. B. Gowen

J. B. Gowen, Acting Chief
Copper Branch, DMA

RWaugh:jp

Copy to: Executive Secretary, w.c.i.
Region III, Mr. H. C. Willer, w.c.i.
Copper Branch, w.c.i.
Files

FILE COPY
SURNAME:

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

6/26/51

Brown
Wards
Moelar

Turtle Mountain Mining Co.
427 W. 5th St., Room 531
Los Angeles, California

Re: Docket No. MMA-1406X

Dear Sirs:

After carefully studying your application for Government assistance we find that more information is needed before we can fully process your request.

From the material submitted it is not clearly stated whether you are applying for a production loan or exploration aid. If it is the latter, the construction of an aerial tram could not be included. In either case request for access road building should be made on a separate form (MF-105) of which enclosed you will find 5 copies to be filled out and submitted.

Other information that is needed is:

a. an accurate description of the project proposed.
b. maps to show just where work is to be done and to show the location of any known ore reserve.
c. itemized list of costs.
d. breakdown of labor and supervisory costs.
e. length of time for project, number of work days per week and number of shifts per day.
f. any assay results with their location.

It is noted that you wish to apply work previously done in the amount of $25,000 as your half of the matching loan. According to the MO-5 (Regulations) this is not allowed. For your information we are enclosing a copy with that portion underlined stating the regulations on this matter.

In order to qualify for a production loan proven ore reserves must be of a sufficient grade and tonnage to amortize the loan in the given period of time. To qualify for exploration aid a project must be definitely outlined and the costs itemized in proposed work.

For your information we are enclosing one copy each of forms MF-101 and MF-102 (Application for government Loan).

To facilitate the processing of your application all questions must be answered completely.

Very truly yours,

J. B. Gowen

J. B. Gowen, Acting Chief
Copper Branch, DMA

Enclosures

RVWaugh:jp

Copy to: Executive Secretary, w.c.i.
H. C. Miller, w.c.i.
1415 U. S. Appraisers Bldg., San Francisco, Calif.
Copper Branch, w.c.i.
Files

Mr. Gowen

Defense Minerals Administration
RECEIVED
JUN 22 1951
LANDON F. STROBEL
Executive Secretary

TURTLE MOUNTAINS MINING CO.

427 W. 5th Street

Los Angeles 13, California.

June 21, 1951.

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

Subject: DMA-1406X
Re: Exploration Loan
Horn Group.

Attention: Mr. J. B. Gowen, Chief,
Copper Branch.

Gentlemen:

We have just received letter of acknowledgment of our application for loan under the above number, which acknowledgment came from the Executive Secretary, Landon F. Strobel, stating that the application now is in your hands.

Thirty days now have gone by since we made this application, and we would like to know without delay whether or not favorable action is going to be given us on this application. Doubtless, you understand that delays cause losses of every kind, and if the Defense Production Act hope to get results from those who have started operations, it must act fast to give financial aid to those who are sincerely making an effort to get production of the critical minerals. We are ready now to go into production of good copper ore, so why not give us the aid NOW that we so sorely need. We do not need to explore any more--we need money to equip the mine for immediate production. PLEASE DO NOT DELAY THIS MATTER ANY LONGER.

Awaiting to hear further from you, we are,

Yours very truly,

TURTLE MOUNTAINS MINING CO.

By A. Otis Boyd

By Robert L. Sandrum

(Members of Joint Venture)

FILE COPY
SURNAME:

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

June 18, 1951

Mr. A. Otis Birch
Turtle Mountains Mining Co.
427 W. 5th Street
Room 531
Los Angeles, California

Subject: DMA-1406X
Re: Exploration Loan
Horn Group

My dear Mr. Birch:

Receipt is acknowledged of your application and attachments of May 17, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1406X and was referred to Mr. J. B. Gowen, Chief, Copper Branch on June 4, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1406X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:js
cc: Strobel-2
>Files
Gowen
Lyon

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
COLLEGE PARK, MARYLAND

June 13, 1951

Memorandum

To: J. B. Gowen, Chief
Copper Branch, Supply Division

From: Executive Officer
Field Team, Region VIII

At the suggestion of Mr. C. W. Merrill, Docket 1406X is attached. This is being returned to you because an analysis of the data submitted by the applicant indicates that no request is being made for exploration, but assistance is wanted for construction of access roads, purchase of equipment and for provision of working capital.

Mr. Harry Burmeister of this office comments further:

If the docket is to be processed, Form MF-102 is necessary for application of loan, Form MF-105 for access roads, and Form NSRB-146 for general information. The description of the property is not adequate. There is no schedule of labor supervision or wages and salaries. Applicant claims past expenditure of $25,000.00 is his share of proposed work which of course is not applicable. No supporting data are offered for statement that 50,000 tons of ore averaging six percent copper is exposed and ready to mine.

McHenry Mosier

McHenry Mosier

BUREAU OF MINES
MINERAL [illegible]

1951 JUN 14 AM 8 19

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

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

Dear Sir:

We attach "Review of Application for Exploration Assistance"

on:

Docket No. DMA-1406X

Commodity Copper

Applicant Turtle Mountain Mining Company
427 W. 5th St., Room 531
Los Angeles, California

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Chairman
Coordinating Committee

For Bureau of Mines

For Geological Survey

REGIONAL DIRECTOR

~~LANDON F. STROBEL~~
Mr. Garner
DMA-1406 X

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF MINES
1415 U. S. APPRAISERS BLDG.,
630 SANSOME STREET,
SAN FRANCISCO 11, CALIF.

May 22, 1951

Memorandum

To: Defense Minerals Administration, Washington 25, D. C.

From: Executive Officer, DMA Field Team, Region III

Subject: Application for exploration loan - copper - Turtle Mountains Mining Company, 427 West 5th Street, Room 531, Los Angeles, California

Attached are two sets of four copies each of Forms MF-100 and MF-103, which were sent to this office by subject applicant.

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

Attachment

Copy to: Turtle Mountains Mining Company (w/o attachment)

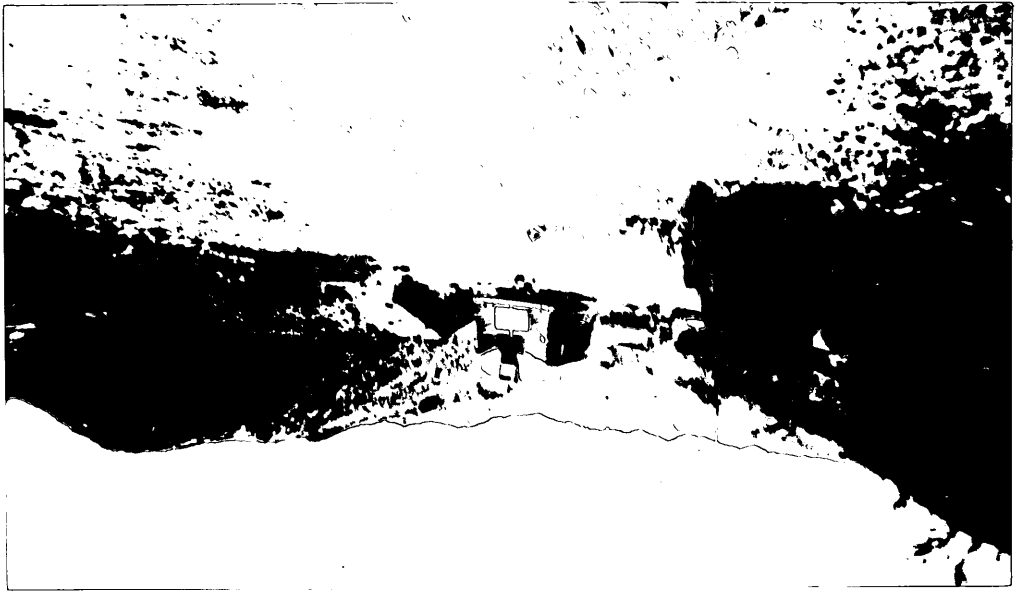
B478

B478

B478

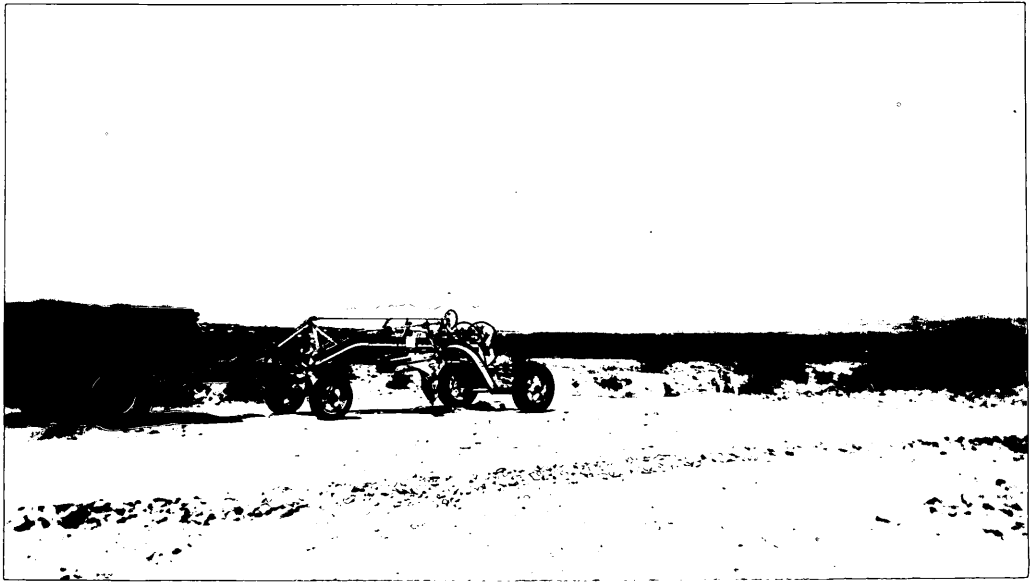
Making a curve.

This is the skip loader. We are pulling it back on the road. One of the boys had it in 2nd instead of reverse. This is the road just above camp



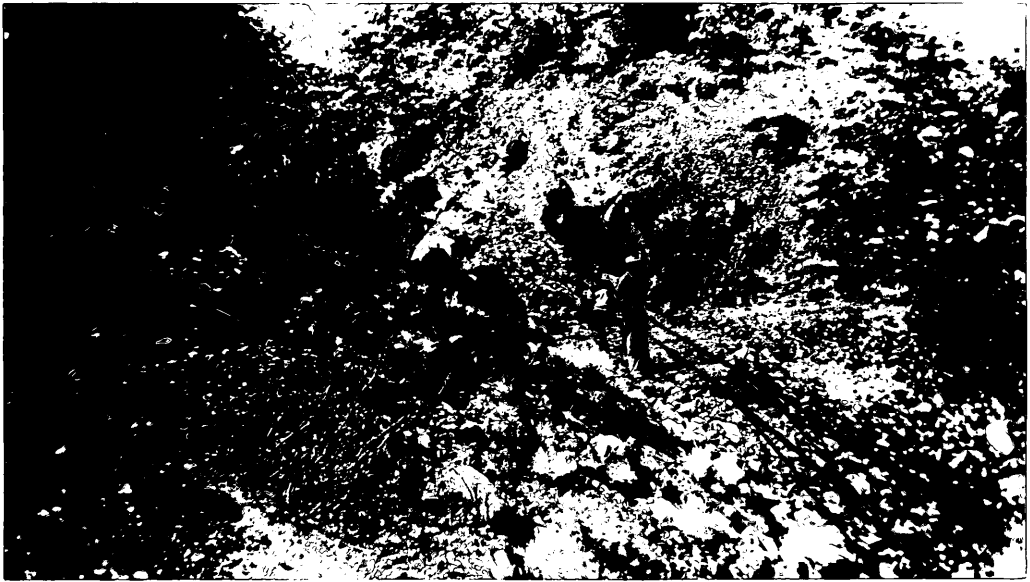
Three views of the camp taken at various distances

The mines are on the distant ridge which is the top of the Turtles, behind the mountain indicated by the arrow.



The grader and a small portion of completed road. out on the flats

796



This is the lower tunnel and the one I am heading for. This is on the other side of the mountain from the other pictures I sent or gave you.

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

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

Turtle Mountains
Mining Company.

Pictures

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-1406X

Date received 5/31/51

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California

Name and address of applicant

Date May 17, 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)
See attached sheets for answers.							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
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.

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.

14. Plenty of spring water available on property year round.
15. No power lines within 40 miles; therefore, power units, fed by gasoline, butane or diesel fuel would be necessary.
16. Only road workmen are employed at present, but, when going on production, it is estimated that about 10 miners will be required. Other workmen, such as truck drivers, dozer operators, helpers, cooks, etc., will be required, and a total of about 15 men will be on the payroll to begin with.
17. 1 - 1942 GMC truck, 2½-ton.
    1 - 1944 International M2-K5 4-wheel drive, 1-ton Pickup truck with winch attached.
    1 - Model K-105 portable Ingersoll-Rand air compressor.
    1 - International tractor with Coleman Dozer and rubber-tired Case Skip Loader and Scarfier.
    1 - Ore Stoper, Jack Hammers and parts
    1 - Road Grader
    1 - House Trailer
    2 - Camp houses, kitchen equipment, gas refrigerator, gas stove, etc.
    Miscellaneous equipment and supplies.
18. See Schedule "A", MP-103.

Form MF-100
ANSWERS TO QUESTIONS 1 to 18, INCL.

1. Copper, oxidised (a)
   Possibly, silica (b)
2. Horn Group of mining claims. (a) (b) (c) (d), answers not available at this time, although there are old shafts, drifts, crosscuts and tunnels on and in the property, put there in early days, (1917-18), by operators who took out only the high-grade ore, and hauled down the mountain side on backs of burros. Mine is sufficiently opend up to start mining immediately upon completion of present work, taking out ore left behind by early operators.

   Mines are not flooded. As to productive capacity, see Schedule "A", Item 6, Form MF-103.
3. (a) Nearest town and shipping point at present is Vidal, California; (b) Turtle Mountains Mining District; (c) Not surveyed to make this information available; (d) San Bernardino County, California.
4. Being prepared for operation, as set forth in Application Form MF-103, accompanied herewith. (b) Owner.
5. Within 90 days, if Government aid is furnished under the Defense Production Act of 1950, for which this application is being filed.
6. All, except one of five, (Joint Venture), are practical mining men.
7. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies and shipped to the smelters, the ore being transported from the mine to the road below on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering the general area in which these claims are located.
8. Names and addresses of partners, or members of Joint Venture:

   (a) A. Otis Birch, 427 W. 5th St., Los Angeles, Calif.
   (b) Robert G. Van Horn, Earp, California.
   (c) John H. Flood, Jr., Earp, California.
   (d) Robert R. Landrum, 427 W. 5th St., Los Angeles, Calif.
   (e) Miss Lula M. Minter, 322 W. Third St., Santa Ana, Calif.
9. No answer required.
10. Mine not yet on production.
11. Present plans call for production of at least 50 tons per day, 5 days per week, of copper ore (oxidised) averaging at least 6% copper.
12. No report available on Horn property, but it is sufficiently opened up to prove its value.

(b) Ore Reserve

	Estimated Tons	Metal Content Per Ton	Gross Value Per Ton	Recoverable Value per T.	Estimated Cost of Production per Ton
	(a)	(b)	(c)	(d)	(e)
Not measured	50,000	Average 6%, or better	$22.34 (6%)	$10.50	$6.00

13. About 31 miles to shipping point; 3 miles mountainous; 11 miles hard dirt road, and 17 miles paved highway.

(*b*) If deposit is other than placer:

(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:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

TURTLE MOUNTAINS MINING CO.
(A Joint Venture)
(Name of company)

May 17, 1951
(Date)

By Otis Birch
By Robert R. Landrum
By R. G. Davidson
By [redacted]
By Lula M. Minter
(Signature of authorized official)
(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-1406X

Date received 5/01/51

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California

Name and address of applicant

Date May 17, 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)
See attached sheets for answers.							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
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.

12. Ore or Mineral Reserves:

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

Form MF-100

ANSWERS TO QUESTIONS 1 to 18, INCL.

1. Copper, oxidized (a)
   Possibly, silica (b)
2. Horn Group of mining claims. (a) (b) (c) (d), answers not available at this time, although there are old shafts, drifts, crosscuts and tunnels on and in the property, put there in early days, (1917-18), by operators who took out only the high-grade ore, and hauled down the mountain side on backs of burros. Mine is sufficiently opend up to start mining immediately upon completion of present work, taking out ore left behind by early operators.

   Mines are not flooded. As to productive capacity, see Schedule "A", Item 6, Form MF-103.
3. (a) Nearest town and shipping point at present is Vidal, California; (b) Turtle Mountains Mining District; (c) Not surveyed to make this information available; (d) San Bernardino County, California.
4. Being prepared for operation, as set forth in Application Form MF-103, accompanied herewith. (b) Owner.
5. Within 90 days, if Government aid is furnished under the Defense Production Act of 1950, for which this application is being filed.
6. All, except one of five, (Joint Venture), are practical mining men.
7. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies and shipped to the smelters, the ore being transported from the mine to the road below on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering the general area in which these claims are located.
8. Names and addresses of partners, or members of Joint Venture:

   (a) A. Otis Birch, 427 W. 5th St., Los Angeles, Calif.
   (b) Robert G. Van Horn, Earp, California.
   (c) John H. Flood, Jr., Earp, California.
   (d) Robert R. Landrum, 427 W. 5th St., Los Angeles, Calif.
   (e) Miss Lula M. Minter, 322 W. Third St., Santa Ana, Calif.
9. No answer required.
10. Mine not yet on production.
11. Present plans call for production of at least 50 tons per day, 5 days per week, of copper ore (oxidized) averaging at least 6% copper.
12. No report available on Horn property, but it is sufficiently opened up to prove its value.

(b) Ore Reserve

	Estimated Tons	Metal Content Per Ton	Gross Value Per Ton	Recoverable Value per T.	Estimated Cost of Production per Ton
	(a)	(b)	(c)	(d)	(e)
Not measured	50,000	Average 6%, or better	$28.34 (6%)	$10.50	$6.00

13. About 31 miles to shipping point; 3 miles mountainous; 11 miles hard dirt road, and 17 miles paved highway.

14. Plenty of spring water available on property year round.
15. No power lines within 40 miles; therefore, power units, fed by gasoline, butane or diesel fuel would be necessary.
16. Only road workmen are employed at present, but, when going on production, it is estimated that about 10 miners will be required. Other workmen, such as truck drivers, dozer operators, helpers, cooks, etc., will be required, and a total of about 15 men will be on the payroll to begin with.
17. 1 - 1942 GMC truck, 2½-ton.
    1 - 1944 International M2-K5 4-wheel drive, 1-ton Pickup truck with winch attached.
    1 - Model K-105 portable Ingersoll-Rand air compressor.
    1 - International tractor with Coleman Dozer and rubber-tired Case Skip Loader and Scarfier.
    1 - Ore Stoper, Jack Hammers and parts
    1 - Road Grader
    1 - House Trailer
    2 - Camp houses, kitchen equipment, gas refrigerator, gas stove, etc.
    Miscellaneous equipment and supplies.
18. See Schedule "A", MF-103.

(*b*) If deposit is other than placer:

(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:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

TURTLE MOUNTAINS MINING CO.
(A Joint Venture)
(Name of company)

May 17, 1951
(Date)

By G. Otis Birch
By Robert R. Landrum
(Signature of authorized official)
By R. G. Hara Stone
By (John H. Flood, Jr.)
By Lula M. Minter
(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-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA. 1406 X

Date received 5/31/51

Participation

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California. Name and address of applicant

Date May 17, 1951

FILL IN THIS BLOCK

Date of application May 17, 1951

Estimated cost $60,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Turtle Mountains, San Bernardino County, California.

Date of filing MF-100 May 17, 1951

DMA Docket Number, if available DMA-1406X

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—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.

TURBE LUCKALEE MINING CO.,
(A Joint Venture)

By A. Otis Birch

By Robert L. Landrum

By R. G. Cardform

By [redacted] (John H. Flood, Jr.)

By Lula M. Minter

SCHEDULE "A"

Form MF-103
ANSWERS TO QUESTIONS 1 to 24, INCL.

1. At present, a Joint Venture, but now arranging to form a corporation.
2. See Form MF-100, Item 8.
3. Not now available, as proposed corporation not yet formed.
4. All partners, except one, are practical mining men.
5. Owners.
6. No claims, liens or encumbrances against property. Loans that are now being made by one of the partners to finance undertaking are to be repaid out of production, only.
7. None.
8. New undertaking. Assets consist of value of mining claims and and about $15,000.00 worth of tangible equipment, less depreciation, (at cost). Liabilities consist of money borrowed, about $25,000.00, to finance undertaking, to be repaid out of production.
9. About $30,000.00. About $25,000.00 has already been invested. This is sufficient to pay our part of the cost of the project as detailed in question 23 of this application, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5).
10. See item 8, Schedule "B", attached.
11. See item 1, Schedule "B", attached.
12. See item 1, Schedule "B", attached. Ore shipping point would be at Vidal, California, where there is an ore ramp. All, except the 14 miles of road, referred to in item 3, Schedule "B", attached, is paved highway, a distance of about 31 miles from the proposed ore bins of the Horn Group of mining claims, from which the ore would be produced.
13. Water is plentiful from springs located on our mining claims.
14. See item 8, Schedule "B", attached.
15. Ore would be trucked to Vidal, California, and shipped by rail via Santa Fe to either Hayden, Miami or Ajo, Arizona. Most likely it would be shipped to Hayden.
16. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies to the smelter, the ore being transported from the ore bodies to the level below the mountain on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for filing, or re-locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering this area.
17. Not in production, as yet.
18. This information not available at this time, but see item 6, Schedule "B" attached. See map attached.
19. See Schedule "B", attached.
20. Copper.
21. See items 3, 4 and 5, Schedule "B", attached.
22. Ore bodies already uncovered. See item 6, Schedule "B".
23. See item 4, Schedule "B", attached.
24. See item 7, Schedule "B", attached.

SCHEDULE "B"

We started this undertaking in November, 1950, since which date we have accomplished the following:

1. Acquired the following mining claims, either through purchase or by right of filing and/or locating:

   (a) Horn Group mining claims, (5), located in the Turtle Mts., San Bernardino County, California, about 40 miles East of Parker, Arizona, and Earp, California.

   (b) Virginia May mining claims, (6), located in the same area as (a), above.

   (c) Dickie mining claim, (1), located about 8 miles Northeast of Earp, California.

   (d) Ethel Leona Group mining claims, located about 7 miles Northeast of Earp, California.

   (e) Flood mining claim, 1, located about 6 miles North of Earp, California.

   (f) Blue Cloud mining claims, 6, located about 6 miles North of Earp, California, (under option).

   (g) Several other mining claims and properties now being located, or under consideration.

2. Acquired by purchase the following equipment:

   (a) 1 - 1942 GMC truck, 2½ ton
   (b) 1 - 1944 International M2-K5 4-wheel drive, 1-ton Pickup truck with winch attached
   (c) 1 - Model K-105 portable Ingersoll-Rand air compressor
   (d) 1 - International Tractor with Coleman Dozer and rubber-tired Case Skip Loader and scarfier.
   (e) 1 - Ore Stoper, Jack Hammers and parts
   (f) 1 - Road Grader
   (g) 1 House trailer
   (h) 2 - Camp houses,, kitchen equipment, gas refrigerator, gas stove, etc.
   (i) Miscellaneous equipment and supplies
   (j) Some rented equipment for road work

3. Following work accomplished:

   (a) Did location work on all mining claims to date.
   (b) Examined and assayed ore from all mining claims to determine the best property to put on production first, which resulted in our decision on the Horn Group, (a) above.
   (c) The Horn Group of mining claims, being the richest in ore values, the most extensively worked in earlier days, (1917-18), and showing the greatest quantity of good-grade ore opened up and made available for immediate mining, we decided to concentrate all our efforts on this property. It being the most inaccessible to transportation, but better otherwise, than the other claims, we decided it well worth the expense of construct

3. cont'd.

(d) Road work from highway to Horn Group mining claims now completed to within 2 miles of destination.

4. Following work to be accomplished before going on production:

	Estimated Cost
(a) Complete about 2 miles of rough, mountainous road to Horn mining claims.....	$6,000.00
(b) Construct an aerial tram from mine workings in side of mountain to landing below, connecting with mountain road, a distance of about 900 ft. for tram.....	10,000.00
(c) Mining equipment, ore binds, power unit, supplies, etc.....	10,000.00
(d) Payroll for 30 days, incidental expenses, etc., before returns are received from sale of ore.....	9,000.00
TOTAL.....	$35,000.00

5. Following expenditures have been made on this undertaking to date, as evidenced by our records, not including any salaries to any of the members of the venture,, one of whom is the "boss" in charge of field work:

(a) Equipment, location work, repairs, construction of 12 miles of road, powder, supplies, wages to workmen, and all other incidental expenses....	25,000.00
TOTAL ESTIMATED COST TO COMPLETE PROJECT AND PUT SAME ON PRODUCTION.....	$60,000.00

6. ESTIMATED AVAILABLE ORE FOR IMMEDIATE PRODUCTION AFTER ABOVE INSTALLATIONS ARE COMPLETED:

(a) To use the expression of our "field boss", in charge of operations, "there is high-grade ore all over and inside the mountain, opened up on both sides. Assays taken in various places run from 6% to 20% copper. Some assays show small values in gold and silver.

(b) It is estimated from present exposed ore showings from old workings that there are at least 50,000 tons of copper ore, averaging at least 6% copper, that can be mined and shipped to smelters, operating steadily on a 1-shift basis of 250 tons per week to start with. Ore is oxidized and would not have to be milled.

(c) In addition to our own operations, we plan on having three or four leasers pulling out high-grade ore in localities separate and distinct from the locality in which we are working.

6. Cont'd.

(d) In addition to the mining operations at the Horn Group of claims, we also will attempt to do something that will lead to producing ore from our other claims.

7. PURPOSE OF GOVERNMENT ASSISTANCE:

Under our present method of operation, our financing is done by borrowing money from one of the members of our venture. His finances, however, are limited to a certain amount; therefore, we are limited accordingly in our work on this project. If government assistance was available and made for immediate use to the extent of 50% of the estimated cost shown under items 4 and 5, above, we could get into production within 90 days after the government assistance was made available for us.

8. LEGAL DESCRIPTION OF HORN MINING CLAIMS:

HORN #1 LODE MINING CLAIM
COMMENDING at point of discovery monument, proceed 750 feet to West center of claim, thence proceed 300 feet Northerly to Northwest corner of claim, thence proceed 1500 feet Easterly to Northeast corner of claim, thence proceed 600 feet Southerly to Southeast corner of claim, thence proceed 1500 feet Westerly to Southwest corner of claim, thence proceed 300 feet Northerly back to West center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 2 miles West of Arrow Weed Spring, and very near the divide of the Turtle Mountains, San Bernardino County, Calif.

HORN #2 LODE MINING CLAIM
COMMENCING at discovery monument, proceed 200 feet Easterly and 100 feet Northerly to Northeast corner of claim, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, the nce proceed 1500 feet Easterly to Southeast corner, thence proceed 600 feet Northerly back to Northeast corner of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 1½ miles West of Arrow Weed Spring, and ½ mile East by South of Horn Claim #1.

HORN #3 LODE MINING CLAIM
COMMENCING at discovery monument, proceed 1000 feet Westerly to West center of claim, thence proceed 300 feet Northerly to Northwest corner, the nce proceed 1500 feet Easterly to Northeast corner; thence proceed 600 feet Southerly to Southeast corner, thence proceed 1500 feet Westerly to Southwest corner, thence proceed 600 feet Northerly back to Northwest corner.

This claim can be identified by its proximity to the

8. Cont'd.

following natural object or permanent monument, to-wit:

About 2 miles West of Arrow Weed Springs, adjoining Horn Claim #2 on Westerly end, San Bernardino County, California.

HORN #4 LODE MINING CLAIM

COMMENCING at discovery monument, proceed 750 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner; thence proceed 600 feet Southerly to Southwest corner, thence proceed 300 ft. Northerly back to East center.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1½ miles West of Arrow Weed Springs, and adjoining Horn Claim #1 on the Easterly end, San Bernardino County, California.

HORN #5 LODE MINING CLAIM

COMMENDING at discovery monument, proceed 400 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, thence proceed 1500 feet Easterly to Southeast corner; thence proceed 300 feet Northerly back to East center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1 mile West and South of Arrow Weed Springs, and adjoining Horn #3 Claim, near the Southeast corner, San Bernardino County, California.

(Above claims located in unsurveyed territory of San Bernardino County, California)

Form MF-102
(April 1952)

U.S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1406X

Date received 5/31/51

Participation

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California.

Name and address of applicant

Date May 17, 1951

FILL IN THIS BLOCK

Date of application May 17, 1951

Estimated cost $00,000.00

Mineral or metal Copper

Percentage of Government participation 60%

Location of mine Turtle Mountains, San Bernardino County, California.

Date of filing MF-100 May 17, 1951

DMA Docket Number, if available DMA-1406X

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—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.

TURTLE MOUNTAINS MINING CO.,
(A Joint Venture)

By A. Otis Birch
By Robert L. Sandrum
By R. G. Vanstorm
By [redacted] (John H. Flood, Jr.)
By Lula M. Minter

SCHEDULE "A"

Form MF-103
ANSWERS TO QUESTIONS 1 to 24, INCL.

1. At present, a Joint Venture, but now arranging to form a corporation.
2. See Form MF-100, Item 8.
3. Not now available, as proposed corporation not yet formed.
4. All partners, except one, are practical mining men.
5. Owners.
6. No claims, liens or encumbrances against property. Loans that are now being made by one of the partners to finance undertaking are to be repaid out of production, only.
7. None.
8. New undertaking. Assets consist of value of mining claims and and about $15,000.00 worth of tangible equipment, less depreciation, (at cost). Liabilities consist of money borrowed, about $25,000.00, to finance undertaking, to be repaid out of production.
9. About $30,000.00. About $25,000.00 has already been invested. This is sufficient to pay our part of the cost of the project as detailed in question 23 of this application, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5).
10. See item 8, Schedule "B", attached.
11. See item 1, Schedule "B", attached.
12. See item 1, Schedule "B", attached. Ore shipping point would be at Vidal, California, where there is an ore ramp. All, except the 14 miles of road, referred to in item 3, Schedule "B", attached, is paved highway, a distance of about 31 miles from the proposed ore bins of the Horn Group of mining claims, from which the ore would be produced.
13. Water is plentiful from springs located on our mining claims.
14. See item 2, Schedule "B", attached.
15. Ore would be trucked to Vidal, California, and shipped by rail via Santa Fe to either Hayden, Miami or Ajo, Arizona. Most likely it would be shipped to Hayden.
16. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies to the smelter, the ore being transported from the ore bodies to the level below the mountain on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for filing, or re-locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering this area.
17. Not in production, as yet.
18. This information not available at this time, but see item 6, Schedule "B" attached. See map attached.
19. See Schedule "B", attached.
20. Copper.
21. See items 3, 4 and 5, Schedule "B", attached.
22. Ore bodies already uncovered. See item 6, Schedule "B".
23. See item 4, Schedule "B", attached.
24. See item 7, Schedule "B", attached.

SCHEDULE "B"

We started this undertaking in November, 1950, since which date we have accomplished the following:

1. Acquired the following mining claims, either through purchase or by right of filing and/or locating:

   (a) Horn Group mining claims, (5), located in the Turtle Mts., San Bernardino County, California, about 40 miles East of Parker, Arizona, and Earp, California.

   (b) Virginia May mining claims, (6), located in the same area as (a), above.

   (c) Dickie mining claim, (1), located about 8 miles Northeast of Earp, California.

   (d) Ethel Leona Group mining claims, located about 7 miles Northeast of Earp, California.

   (e) Flood mining claim, 1, located about 6 miles North of Earp, California.

   (f) Blue Cloud mining claims, 6, located about 6 miles North of Earp, California, (under option).

   (g) Several other mining claims and properties now being located, or under consideration.

2. Acquired by purchase the following equipment:

   (a) 1 - 1942 GMC truck, 2½ ton
   (b) 1 - 1944 International M2-K5 4-wheel drive, 1-ton Pickup truck with winch attached
   (c) 1 - Model K-105 portable Ingersoll-Rand air compressor
   (d) 1 - International Tractor with Coleman Dozer and rubber-tired Case Skip Loader and scarfier.
   (e) 1 - Ore Stoper, Jack Hammers and parts
   (f) 1 - Road Grader
   (g) 1 House trailer
   (h) 2 - Camp houses,, kitchen equipment, gas refrigerator, gas stove, etc.
   (i) Miscellaneous equipment and supplies
   (j) Some rented equipment for road work

3. Following work accomplished:

   (a) Did location work on all mining claims to date.
   (b) Examined and assayed ore from all mining claims to determine the best property to put on production first, which resulted in our decision on the Horn Group, (a) above.
   (c) The Horn Group of mining claims, being the richest in ore values, the most extensively worked in earlier days, (1917-18), and showing the greatest quantity of good-grade ore opened up and made available for immediate mining, we decided to concentrate all our efforts on this property. It being the most inaccessible to transportation, but better otherwise, than the other claims, we decided it well worth the expense of construct-

3. cont'd.

(d) Road work from highway to Horn Group mining claims now completed to within 2 miles of destination.

4. Following work to be accomplished before going on production:

	Estimated Cost
(a) Complete about 2 miles of rough, mountainous road to Horn mining claims.....	$6,000.00
(b) Construct an aerial tram from mine workings in side of mountain to landing below, connecting with mountain road, a distance of about 900 ft. for tram.....	10,000.00
(c) Mining equipment, ore binds, power unit, supplies, etc.....	10,000.00
(d) Payroll for 30 days, incidental expenses, etc., before returns are received from sale of ore.....	9,000.00
TOTAL.....	$35,000.00

5. Following expenditures have been made on this undertaking to date, as evidenced by our records, not including any salaries to any of the members of the venture,, one of whom is the "boss" in charge of field work:

(a) Equipment, location work, repairs, construction of 12 miles of road, powder, supplies, wages to workmen, and all other incidental expenses.....	25,000.00
TOTAL ESTIMATED COST TO COMPLETE PROJECT AND PUT SAME ON PRODUCTION.....	$60,000.00

6. ESTIMATED AVAILABLE ORE FOR IMMEDIATE PRODUCTION AFTER ABOVE INSTALLATIONS ARE COMPLETED:

(a) To use the expression of our "field boss", in charge of operations, "there is high-grade ore all over and inside the mountain, opened up on both sides. Assays taken in various places run from 6% to 20% copper. Some assays show small values in gold and silver.

(b) It is estimated from present exposed ore showings from old workings that there are at least 50,000 tons of copper ore, averaging at least 6% copper, that can be mined and shipped to smelters, operating steadily on a 1-shift basis of 250 tons per week to start with. Ore is oxidized and would not have to be milled.

(c) In addition to our own operations, we plan on having three or four leasers pulling out high-grade ore in localities separate and distinct from the locality in which we are working.

6. Cont'd.

(d) In addition to the mining operations at the Horn Group of claims, we also will attempt to do something that will lead to producing ore from our other claims.

7. PURPOSE OF GOVERNMENT ASSISTANCE:

Under our present method of operation, our financing is done by borrowing money from one of the members of our venture. His finances, however, are limited to a certain amount; therefore, we are limited accordingly in our work on this project. If government assistance was available and made for immediate use to the extent of 50% of the estimated cost shown under items 4 and 5, above, we could get into production within 90 days after the government assistance was made available for us.

8. LEGAL DESCRIPTION OF HORN MINING CLAIMS:

HORN #1 LODE MINING CLAIM
COMMENCING at point of discovery monument, proceed 750 feet to West center of claim, thence proceed 300 feet Northerly to Northwest corner of claim, thence proceed 1500 feet Easterly to Northeast corner of claim, thence proceed 600 feet Southerly to Southeast corner of claim, thence proceed 1500 feet Westerly to Southwest corner of claim, thence proceed 300 feet Northerly back to West center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 2 miles West of Arrow Weed Spring, and very near the divide of the Turtle Mountains, San Bernardino County, Calif.

HORN #2 LODE MINING CLAIM
COMMENCING at discovery Monument, proceed 200 feet Easterly and 100 feet Northerly to Northeast corner of claim, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, the nce proceed 1500 feet Easterly to Southeast corner, thence proceed 600 feet Northerly back to Northeast corner of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 1½ miles West of Arrow Weed Spring, and ½ mile East by South of Horn Claim #1.

HORN #3 LODE MINING CLAIM
COMMENCING at discovery monument, proceed 1000 feet Westerly to West center of claim, thence proceed 300 feet Northerly to Northwest corner, the nce proceed 1500 feet Easterly to Northeast corner; thence proceed 600 feet Southerly to Southeast corner, thence proceed 1500 feet Westerly to Southwest corner, thence proceed 600 feet Northerly back to Northwest corner.

This claim can be identified by its proximity to the

8. Cont'd.

following natural object or permanent monument, to-wit:

About 2 miles West of Arrow Weed Springs, adjoining Horn Claim #2 on Westerly end, San Bernardino County, California.

HORN #4 LODE MINING CLAIM

COMMENCING at discovery monument, proceed 750 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner; thence proceed 600 feet Southerly to Southwest corner, thence proceed 300 ft. Northerly back to East center.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1½ miles West of Arrow Weed Springs, and adjoining Horn Claim #1 on the Easterly end, San Bernardino County, California.

HORN #5 LODE MINING CLAIM

COMMENCING at discovery monument, proceed 400 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, thence proceed 1500 feet Easterly to Southeast corner; thence proceed 300 feet Northerly back to East center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1 mile West and South of Arrow Weed Springs, and adjoining Horn #3 Claim, near the Southeast corner, San Bernardino County, California.

(Above claims located in unsurveyed territory of San Bernardino County, California)

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. Gma-1406 X

Date received 5/21/51

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California

Name and address of applicant

Date May 17, 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)
See attached sheets for answers.							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
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.

12. Ore or Mineral Reserves:

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

Form MF-100

ANSWERS TO QUESTIONS 1 to 18, INCL.

1. Copper, oxidized (a)
   Possibly, silica (b)
2. Horn Group of mining claims. (a) (b) (c) (d), answers not available at this time, although there are old shafts, drifts, crosscuts and tunnels on and in the property, put there in early days, (1917-18), by operators who took out only the high-grade ore, and hauled down the mountain side on backs of burros. Mine is sufficiently opend up to start mining immediately upon completion of present work, taking out ore left behind by early operators.

   Mines are not flooded. As to productive capacity, see Schedula "A", Item 6, Form MF-103.
3. (a) Nearest town and shipping point at present is Vidal, California; (b) Turtle Mountains Mining District; (c) Not surveyed to make this information available; (d) San Bernardino County, California.
4. Being prepared for operation, as set forth in Application Form MF-103, accompanied herewith. (b) Owner.
5. Within 90 days, if Government aid is furnished under the Defense Production Act of 1950, for which this application is being filed.
6. All, except one of five, (Joint Venture), are practical mining men.
7. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies and shipped to the smelters, the ore being transported from the mine to the road below on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering the general area in which these claims are located.
8. Names and addresses of partners, or members of Joint Venture:

   (a) A. Otis Birch, 427 W. 5th St., Los Angeles, Calif.
   (b) Robert G. Van Horn, Earp, California.
   (c) John H. Flood, Jr., Earp, California.
   (d) Robert R. Landrum, 427 W. 5th St., Los Angeles, Calif.
   (e) Miss Lula M. Minter, 328 W. Third St., Santa Ana, Calif.
9. No answer required.
10. Mine not yet on production.
11. Present plans call for production of at least 50 tons per day, 5 days per week, of copper ore (oxidized) averaging at least 6% copper.
12. No report available on Horn property, but it is sufficiently opened up to prove its value.

(b) Ore Reserve

	Estimated Tons	Metal Content Per Ton	Gross Value Per Ton	Recoverable Value per T.	Estimated Cost of Production per Ton
	(a)	(b)	(c)	(d)	(e)
Not measured	50,000	Average 6%, or better	$22.34 (6%)	$10.50	$6.00

13. About 31 miles to shipping point; 3 miles mountainous; 11 miles hard dirt road, and 17 miles paved highway.

14. Plenty of spring water available on property year round.
15. No power lines within 40 miles; therefore, power units, fed by gasoline, butane or diesel fuel would be necessary.
16. Only road workmen are employed at present, but, when going on production, it is estimated that about 10 miners will be required. Other workmen, such as truck drivers, dozer operators, helpers, cooks, etc., will be required, and a total of about 15 men will be on the payroll to begin with.
17. 1 - 1942 GMC truck, 2½-ton.
    1 - 1944 International M2-K5 4-wheel drive, 1-ton Pickup truck with winch attached.
    1 - Model K-105 portable Ingersoll-Rand air compressor.
    1 - International tractor with Coleman Dozer and rubber-tired Case Skip Loader and Scarfier.
    1 - Ore Stoper, Jack Hammers and parts
    1 - Road Grader
    1 - House Trailer
    2 - Camp houses, kitchen equipment, gas refrigerator, gas stove, etc.
    Miscellaneous equipment and supplies.
18. See Schedule "A", MF-103.

(*b*) If deposit is other than placer:

(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:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

TURTLE MOUNTAINS MINING CO.
(A Joint Venture)
(Name of company)

May 17, 1951
(Date)

By A. Otis Birch
By Lyle K. Landrum
By R. G. Jarvi Torr
By [redacted] (John H. Flood, Jr.)
By Lula M. Minter
(Signature of authorized official)
(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-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1466X

Date received 5/21/51

Participation

The Defense Minerals Administration,
Department of the Interior,
1415 Appraisers Bldg.,
San Francisco, California.

Turtle Mountains Mining Co.,
427 W. 5th Street,
Room 531,
Los Angeles, California.

Name and address of applicant

Date May 17, 1951

FILL IN THIS BLOCK

Date of application May 17, 1951

Estimated cost $60,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Turtle Mountains, San Bernardino County, California.

Date of filing MF-100 May 17, 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

TURTLE MOUNTAINS MINING CO.,
(A Joint Venture)

By A. Otto Birch
By Robert T. Landrum
By × R. G. Vanderson
By × [redacted] (John H. Flood, Jr.)
By Lula M. Minter

SCHEDULE "A"

Form MF-103
ANSWERS TO QUESTIONS 1 to 24, INCL.

1. At present, a Joint Venture, but now arranging to form a corporation.
2. See Form MF-100, Item 8.
3. Not now available, as proposed corporation not yet formed.
4. All partners, except one, are practical mining men.
5. Owners.
6. No claims, liens or encumbrances against property. Loans that are now being made by one of the partners to finance undertaking are to be repaid out of production, only.
7. None.
8. New undertaking. Assets consist of value of mining claims and and about $15,000.00 worth of tangible equipment, less depreciation, (at cost). Liabilities consist of money borrowed, about $25,000.00, to finance undertaking, to be repaid out of production.
9. About $30,000.00. About $25,000.00 has already been invested. This is sufficient to pay our part of the cost of the project as detailed in question 23 of this application, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5).
10. See item 8, Schedule "B", attached.
11. See item 1, Schedule "B", attached.
12. See item 1, Schedule "B", attached. Ore shipping point would be at Vidal, California, where there is an ore ramp. All, except the 14 miles of road, referred to in item 3, Schedule "B", attached, is paved highway, a distance of about 31 miles from the proposed ore bins of the Horn Group of mining claims, from which the ore would be produced.
13. Water is plentiful from springs located on our mining claims.
14. See item 2, Schedule "B", attached.
15. Ore would be trucked to Vidal, California, and shipped by rail via Santa Fe to either Hayden, Miami or Ajo, Arizona. Most likely it would be shipped to Hayden.
16. (a) The Horn Group of mining claims were worked quite extensively, as we understand, during the first World War. Due to the inaccessibility of the ore bodies to transportation, only high-grade ore was taken from the ore bodies to the smelter, the ore being transported from the ore bodies to the level below the mountain on the backs of burros. The former claimants to these mining claims, apparently, have dropped out of existence, as we found the property open for filing, or re-locating. (b) There are no adjoining or neighboring properties now being worked. (c) We have no available reports, although the Division of Mines, State of California, Sacramento, California, do have a mineralogist's report #XXXIX, October, 1943, covering this area.
17. Not in production, as yet.
18. This information not available at this time, but see item 6, Schedule "B" attached. See map attached.
19. See S chedule "B", attached.
20. Copper.
21. See items 3, 4 and 5, Schedule "B", attached.
22. Ore bodies already uncovered. See item 6, Schedule "B".
23. See item 4, Schedule "B", attached.
24. See item 7, Schedule "B", attached.

SCHEDULE "B"

We started this undertaking in November, 1950, since which date we have accomplished the following:

1. Acquired the following mining claims, either through purchase or by right of filing and/or locating:

   (a) Horn Group mining claims, (5), located in the Turtle Mts., San Bernardino County, California, about 40 miles East of Parker, Arizona, and Earp, California.

   (b) Virginia May mining claims, (6), located in the same area as (a), above.

   (c) Dickie mining claim, (1), located about 8 miles Northeast of Earp, California.

   (d) Ethel Leona Group mining claims, located about 7 miles Northeast of Earp, California.

   (e) Flood mining claim, 1, located about 6 miles North of Earp, California.

   (f) Blue Cloud mining claims, 6, located about 6 miles North of Earp, California, (under option).

   (g) Several other mining claims and properties now being located, or under consideration.

2. Acquired by purchase the following equipment:

   (a) 1 - 1942 GMC truck, 2½ ton
   (b) 1 - 1944 International M8-K5 4-wheel drive, 1-ton Pickup truck with winch attached
   (c) 1 - Model K-105 portable Ingersoll-Rand air compressor
   (d) 1 - International Tractor with Coleman Dozer and rubber-tired Case Skip Loader and scarfier.
   (e) 1 - Ore Stoper, Jack Hammers and parts
   (f) 1 - Road Grader
   (g) 1 House trailer
   (h) 2 - Camp houses,, kitchen equipment, gas refrigerator, gas stove, etc.
   (i) Miscellaneous equipment and supplies
   (j) Some rented equipment for road work

3. Following work accomplished:

   (a) Did location work on all mining claims to date.
   (b) Examined and assayed ore from all mining claims to determine the best property to put on production first, which resulted in our decision on the Horn Group, (a) above.
   (c) The Horn Group of mining claims, being the richest in ore values, the most extensively worked in earlier days, (1917-18), and showing the greatest quantity of good-grade ore opened up and made available for immediate mining, we decided to concentrate all our efforts on this property. It being the most inaccessible to transportation, but better otherwise, than the other claims, we decided it well worth the expense of construc-

3. cont'd.

(d) Road work from highway to Horn Group mining claims now completed to within 2 miles of destination.

4. Following work to be accomplished before going on production:

	Estimated Cost
(a) Complete about 2 miles of rough, mountainous road to Horn mining claims.....	$6,000.00
(b) Construct an aerial tram from mine workings in side of mountain to landing below, connecting with mountain road, a distance of about 900 ft. for tram.....	10,000.00
(c) Mining equipment, ore binds, power unit, supplies, etc.....	10,000.00
(d) Payroll for 30 days, incidental expenses, etc., before returns are received from sale of ore.....	9,000.00
TOTAL.....	$35,000.00

5. Following expenditures have been made on this undertaking to date, as evidenced by our records, not including any salaries to any of the members of the venture,, one of whom is the "boss" in charge of field work:

(a) Equipment, location work, repairs, construction of 12 miles of road, powder, supplies, wages to workmen and all other incidental expenses....	25,000.00
TOTAL ESTIMATED COST TO COMPLETE PROJECT AND PUT SAME ON PRODUCTION.....	$60,000.00

6. ESTIMATED AVAILABLE ORE FOR IMMEDIATE PRODUCTION AFTER ABOVE INSTALLATIONS ARE COMPLETED:

(a) To use the expression of our "field boss", in charge of operations, "there is high-grade ore all over and inside the mountain, opened up on both sides. Assays taken in various places run from 6% to 20% copper. Some assays show small values in gold and silver.

(b) It is estimated from present exposed ore showings from old workings that there are at least 50,000 tons of copper ore, averaging at least 6% copper, that can be mined and shipped to smelters, operating steadily on a 1-shift basis of 250 tons per week to start with. Ore is oxidized and would not have to be milled.

(c) In addition to our own operations, we plan on having three or four leasers pulling out high-grade ore in localities separate and distinct from the locality in which we are working.

6. Cont'd.

(d) In addition to the mining operations at the Horn Group of claims, we also will attempt to do something that will lead to producing ore from our other claims.

7. PURPOSE OF GOVERNMENT ASSISTANCE:

Under our present method of operation, our financing is done by borrowing money from one of the members of our venture. His finances, however, are limited to a certain amount; therefore, we are limited accordingly in our work on this project. If government assistance was available and made for immediate use to the extent of 50% of the estimated cost shown under items 4 and 5, above, we could get into production within 90 days after the government assistance was made available for us.

8. LEGAL DESCRIPTION OF HORN MINING CLAIMS:

HORN #1 LODE MINING CLAIM
COMMENDING at point of discovery monument, proceed 750 feet to West center of claim, thence proceed 300 feet Northerly to Northwest corner of claim, thence proceed 1500 feet Easterly to Northeast corner of claim, thence proceed 600 feet Southerly to Southeast corner of claim, thence proceed 1500 feet Westerly to Southwest corner of claim, thence proceed 300 feet Northerly back to West center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 2 miles West of Arrow Weed Spring, and very near the divide of the Turtle Mountains, San Bernardino County, Calif.

HORN #2 LODE MINING CLAIM
COMMENCING at discovery monument, proceed 200 feet Easterly and 100 feet Northerly to Northeast corner of claim, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, the nce proceed 1500 feet Easterly to Southeast corner, thence proceed 600 feet Northerly back to Northeast corner of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:
About 1½ miles West of Arrow Weed Spring, and ½ mile East by South of Horn Claim #1.

HORN #3 LODE MINING CLAIM
COMMENCING at discovery monument, proceed 1000 feet Westerly to West center of claim, thence proceed 300 feet Northerly to Northwest corner, the nce proceed 1500 feet Easterly to Northeast corner; thence proceed 600 feet Southerly to Southeast corner, thence proceed 1500 feet Westerly to Southwest corner, thence proceed 600 feet Northerly back to Northwest corner.

This claim can be identified by its proximity to the

8. Cont'd.

following natural object or permanent monument, to-wit:

About 2 miles West of Arrow Weed Springs, adjoining Horn Claim #2 on Westerly end, San Bernardino County, California.

HORN #4 LODE MINING CLAIM

COMMENCING at discovery monument, proceed 750 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner; thence proceed 600 feet Southerly to Southwest corner, thence proceed 300 ft. Northerly back to East center.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1½ miles West of Arrow Weed Springs, and adjoining Horn Claim #1 on the Easterly end, San Bernardino County, California.

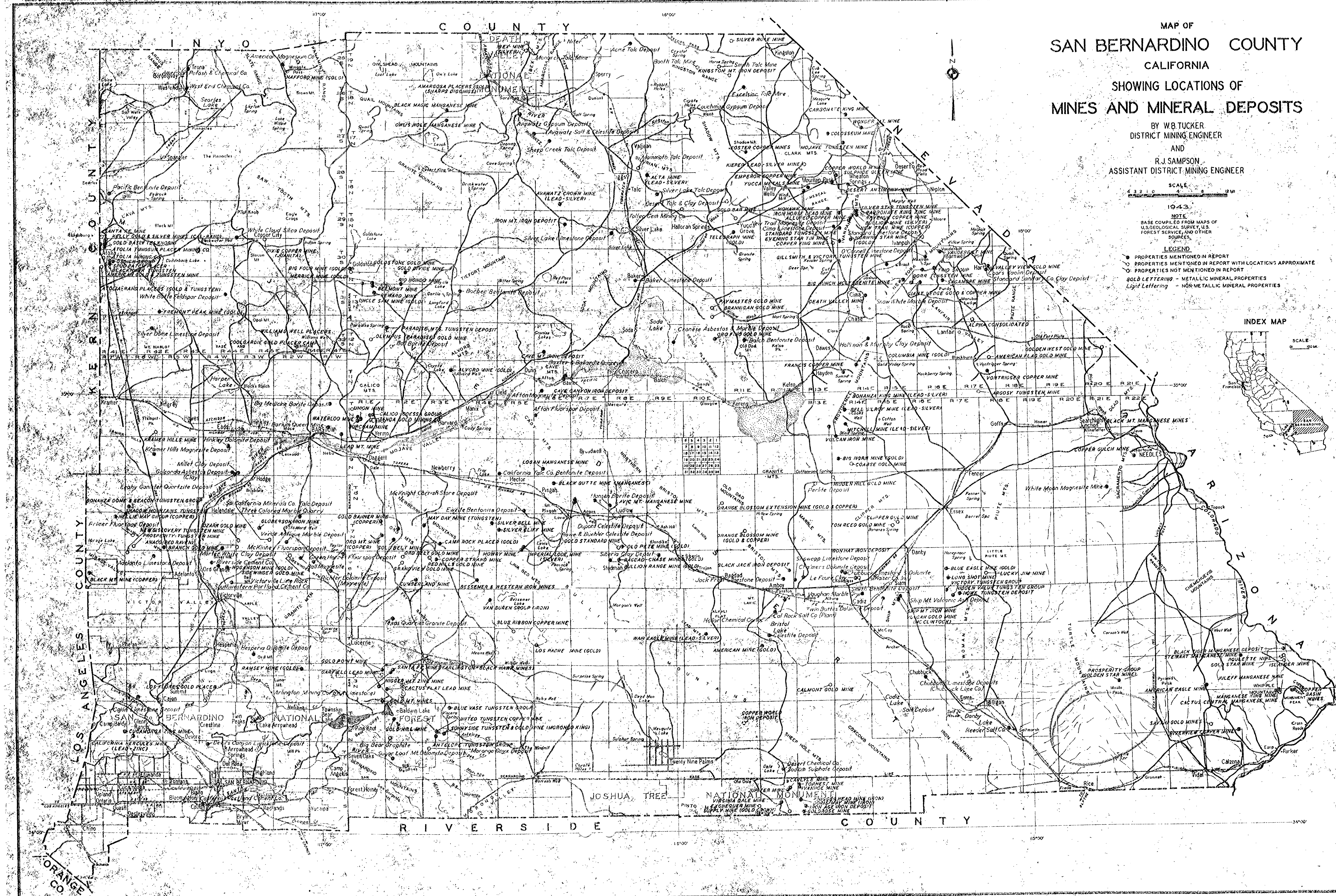
HORN #5 LODE MINING CLAIM

COMMENDING at discovery monument, proceed 400 feet Easterly to East center of claim, thence proceed 300 feet Northerly to Northeast corner, thence proceed 1500 feet Westerly to Northwest corner, thence proceed 600 feet Southerly to Southwest corner, thence proceed 1500 feet Easterly to Southeast corner; thence proceed 300 feet Northerly back to East center of claim.

This claim can be identified by its proximity to the following natural object or permanent monument, to-wit:

About 1 mile West and South of Arrow Weed Springs, and adjoining Horn #3 Claim, near the Southeast corner, San Bernardino County, California.

(Above claims located in unsurveyed territory of San Bernardino County, California)



SAN BERNARDINO COUNTY MINES AND PROSPECTS

METALS

ANTIMONY

NAME OF PROPERTY	SEC.	T.	R.	M.
Desert Antimony	29	16 N.	14 E.	S. B.

COPPER

NAME OF PROPERTY	SEC.	T.	R.	M.
Allured Copper	9	15 N.	14 E.	S. B.
American Eagle	32	3 N.	24 E.	S. B.
Black Mountain	19	6 N.	7 W.	S. B.
Blue Ribbon *	4	4 N.	5 E.	S. B.
Copper Basin Mines	3, 4	2 N.	26 E.	S. B.
Copper Gulch	28	9 N.	22 E.	S. B.
Copper King *	34	15 N.	15 E.	S. B.
Copper Strand	9	6 N.	3 E.	S. B.
Copper World	1	16 N.	13 E.	S. B.
Dixie Copper *	33	29 S.	45 E.	M. D.
Emperor *	3	16 N.	13 E.	S. B.
Foster Mines	15	17 N.	11 E.	S. B.
Francis Copper	7	11 N.	14 E.	S. B.
Giant Ledge Gold & Copper	31	14 N.	16 E.	S. B.
Gold Banner	12	7 N.	1 E.	S. B.
Nellie May Group	2	7 N.	7 W.	S. B.
New Trail	4	15 N.	14 E.	S. B.
Orange Blossom *	23	7 N.	11 E.	S. B.
Orange Blossom Extension *	30	8 N.	11 E.	S. B.
Ord Mountain	12, 13, 24	7 N.	1 E.	S. B.
Revenue	4	15 N.	14 E.	S. B.
Riverview	1	1 N.	24 E.	S. B.
Sagamore	35	14 N.	16 E.	S. B.
Trio group (see under Gold)				
Vontrigger copper mine (see under Gold)				

GOLD

NAME OF PROPERTY	SEC.	T.	R.	M.
Alpha Consolidated *	33	13 N.	17 E.	S. B.
Alvord	1, 2, 12	11 N.	3 E.	S. B.
Amargosa Gold Placers	11, 14, 23, 24, 26	19 N.	4 E.	S. B.
American	19	4 N.	12 E.	S. B.
American Flag *	35, 36	12 N.	17 E.	S. B.
Bagdad-Chase Mines	7, 8	6 N.	8 E.	S. B.
Belmont	35	14 N.	1 E.	S. B.
Big Four	19	14 N.	1 E.	S. B.
Big Horn	20	9 N.	14 E.	S. B.
Blue Eagle	19	8 N.	17 E.	S. B.
Branch Gold *	31?	7 N.	3 W.	S. B.
Brannigan *	26	13 N.	10 E.	S. B.
Bullion Range Co., Inc.	7	6 N.	8 E.	S. B.
Calmont * (Approx.)	24	3 N.	13 E.	S. B.
Camp Rock Placer	28	7 N.	3 E.	S. B.
Carlyle	11	1 S.	12 E.	S. B.
Clipper *	13	7 N.	15 E.	S. B.
Coarse Gold	27?	9 N.	14 E.	S. B.
Colosseum	10, 14	17 N.	13 E.	S. B.
Columbia	3	11 N.	14 E.	S. B.
Coolgardie Gold Placer Camp *	29	32 S.	46 E.	M. D.
Cumberland	25, 26	6 N.	2 E.	S. B.
Exchequer *	26	1 S.	11 E.	S. B.
Fremont Peak	33, 34	31 S.	42 E.	M. D.
Gold Bar *	9	15 N.	11 E.	S. B.
Gold Belt	29	7 N.	2 E.	S. B.
Gold Crown	21, 22, 27, 28	1 S.	12 E.	S. B.
Gold Divide	22	14 N.	2 E.	S. B.
Gold Hill	17	2 N.	2 E.	S. B.
Gold Mountain	36	3 N.	1 E.	S. B.
Gold Point	1	3 N.	1 E.	S. B.
Gold Rose	32	1 S.	13 E.	S. B.
Gold Standard *	32	7 N.	8 E.	S. B.
Gold Star *	8	3 N.	26 E.	S. B.
Golden West *	26	12 N.	20 E.	S. B.
Goldstone *	18?	14 N.	1 E.	S. B.
Grand View *	9	8 N.	2 E.	S. B.
Hafford	14, 15, 22, 23	25 S.	45 E.	M. D.
Hidden Hill *	6	8 N.	14 E.	S. B.
Hoganson	14	6 N.	4 W.	S. B.
Islander *	5	3 N.	26 E.	S. B.
Ivanhoe	7	1 S.	13 E.	S. B.
Jupiter	11	1 S.	12 E.	S. B.
Kramer Hills *	36	10 N.	6 W.	S. B.
Long Shot	30, 32	8 N.	17 E.	S. B.
Los Flores Gold Placers *	31, 32	3 N.	4 W.	S. B.
Los Padre	18	4 N.	6 E.	S. B.
Lucky Jim *	30	6 N.	18 E.	S. B.
Merrick	35	14 N.	1 E.	S. B.
Morning Star	27, 28, 33, 34	15 N.	14 E.	S. B.
Old Pete	33	7 N.	8 E.	S. B.
Olympus *	13	12 N.	1 E.	S. B.
Ord Belt *	4, 10	6 N.	2 E.	S. B.
Oro Fino	14	12 N.	10 E.	S. B.
Ozark *	30?	7 N.	3 W.	S. B.
Paymaster *	23	13 N.	10 E.	S. B.
Prosperity Group of Mines	23	3 N.	21 E.	S. B.
Ramsey	2, 3	3 N.	2 W.	S. B.
Red Hills *	8	6 N.	3 E.	S. B.
Reward	2, 3, 10, 11	13 N.	1 E.	S. B.
Rio Hondo	33	14 N.	2 E.	S. B.
Roulette	8?	3 N.	26 E.	S. B.
Santa Fe Mines	5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Sayahi *	32	2 N.	24 E.	S. B.
Sidewinder *	3, 4	6 N.	2 W.	S. B.
Sulphide Queen	12, 13	16 N.	13 E.	S. B.
Telegraph Mines	16, 17, 20	15 N.	11 E.	S. B.
Tom Reed *	14	7 N.	15 E.	S. B.
Top Nest	7	1 S.	13 E.	S. B.
Trio Group	21, 22	14 N.	16 E.	S. B.
Uncle Sam	33	14 N.	1 E.	S. B.
Valley View	24	14 N.	17 E.	S. B.
Vanderbilt	3	14 N.	16 E.	S. B.
Virginia Dale *	35	1 S.	12 E.	S. B.
Vontrigger	10, 11, 15	11 N.	17 E.	S. B.
Vulcan	11	5 N.	15 E.	S. B.
Williams Well Placers *	20	32 S.	47 E.	M. D.

IRON

NAME OF PROPERTY	SEC.	T.	R.	M.
Bessemer & Western Iron Mines	27, 28	6 N.	4 E.	S. B.
Black Jack	24	6 N.	12 E.	S. B.
Cave Canyon	12	11 N.	6 E.	S. B.
Cave Mountain	20	12 N.	8 E.	S. B.
Copper World	22?	2 N.	11 E.	S. B.
Dorris May	19	1 S.	13 E.	S. B.
Globerson	15	7 N.	3 W.	S. B.
Iron Age	29	1 S.	13 E.	S. B.
Iron Hat	21	6 N.	14 E.	S. B.
Iron Mountain	11, 12, 13, 14	15 N.	6 E.	S. B.
Kingston Mountain		19 N.	11 E.	S. B.
Nigger Head	21?	1 S.	13 E.	S. B.
Ship Mountain	11	5 N.	15 E.	S. B.
Van Buren Group	12	5 N.	4 E.	S. B.
	7	5 N.	5 E.	S. B.
Vulcan	25	10 N.	13 E.	S. B.

LEAD-SILVER AND ZINC

NAME OF PROPERTY	SEC.	T.	R.	M.
Aita	6	16 N.	9 E.	S. B.
Anaco	30, 31	7 N.	5 W.	S. B.
Avawatz Crown	26	16 N.	6 E.	S. B.
Bell Gilroy	9	10 N.	14 E.	S. B.
Bonanza King	31	10 N.	14 E.	S. B.
	6	9 N.	14 E.	S. B.
Bullion	3	15 N.	14 E.	S. B.
Burcham	18, 21	10 N.	1 E.	S. B.
Cactus Flat	19	3 N.	2 E.	S. B.
Calico-Odessa Group	10, 11, 14, 15, 23	10 N.	1 E.	S. B.
California-Hercules	29, 32?	2 N.	6 W.	S. B.
Carbonate King	31	18 N.	14 E.	S. B.
Carbonate King Zinc	4	15 N.	14 E.	S. B.
	32	16 N.	14 E.	S. B.
Cucamonga Zinc	25	2 N.	7 W.	S. B.
Death Valley	11	13 N.	14 E.	S. B.
Garfield	12?	3 N.	1 E.	S. B.
Gold Hill	no location			
Ibex		19 N.	5 E.	S. B.
Imperial Lode	35	7 N.	5 E.	S. B.
Iron Horse	35	16 N.	13 E.	S. B.
Kelly Gold and Silver Mines	3	30 S.	41 E.	M. D.
Kieper Lead-Silver		17 N.	13 E.	S. B.
Lead Mountain	36	10 N.	1 W.	S. B.
Mitchell	21	10 N.	14 E.	S. B.
Mohawk	18	16 N.	13 E.	S. B.
Mowry	35	7 N.	5 E.	S. B.
Nigger Mountain	22, 23, 27	3 N.	1 E.	S. B.
Santa Fe	6	30 S.	41 E.	M. D.
Silver Bell	12	7 N.	4 E.	S. B.
Silver Cliff	18	7 N.	5 E.	S. B.
Silver Rule		19 N.	11 E.	S. B.
Union	16	10 N.	1 E.	S. B.
War Eagle	2, 3	4 N.	10 E.	S. B.
Waterloo	16	10 N.	1 E.	S. B.
Wonder Mountain Mines, Inc.	15	17 N.	14 E.	S. B.
Yucca Metals	17	16 N.	13 E.	S. B.
Zenda Gold Mining Co.	15, 22	10 N.	1 E.	S. B.

MANGANESE

NAME OF PROPERTY	SEC.	T.	R.	M.
Black Butte	10	8 N.	8 E.	S. B.
Black Magic	10	18 N.	3 E.	S. B.
Black Mountain	30?	10 N.	22 E.	S. B.
Black Tiger	32	4 N.	26 E.	S. B.
Cactus Central	6	2 N.	26 E.	S. B.
Juleff		2 N.	26 E.	S. B.
Lavic Mountain	22, 23	8 N.	7 E.	S. B.
Logan	32	9 N.	6 E.	S. B.
Manganese King	1	2 N.	25 E.	S. B.
	6	2 N.	26 E.	S. B.
Owl's Hole	22	18 N.	3 E.	S. B.
Stewart	6	3 N.	25 E.	S. B.

MOLYBDENUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Big Hunch	35	14 N.	15 E.	S. B.

TIN

NAME OF PROPERTY	SEC.	T.	R.	M.
Evening Star	30	15 N.	14 E.	S. B.

TUNGSTEN

NAME OF PROPERTY	SEC.	T.	R.	M.
American *	18	30 S.	41 E.	M. D.
Antelope	33	2 N.	3 E.	S. B.
Argosy		11 N.	17 E.	S. B.
Atolia Mining Co. *	19, 20	30 S.	41 E.	M. D.
Atolia Rand Placer *	30	30 S.	41 E.	M. D.
Atolia Tung-Sun Placer Mining Co.	7	30 S.	41 E.	M. D.
Black Hawk *	19, 30	30 S.	41 E.	M. D.
Blue Vase	2	2 N.	3 E.	S. B.
Bonanza Dome & Beacon Group	6	7 N.	6 W.	S. B.
	32	8 N.	6 W.	S. B.
Brooke: see Big Hunch, under Molybdenum				
Dorr	36	14 N.	15 E.	S. B.
Gillsmith & Victory	17	14 N.	15 E.	S. B.
Gold Basin	7	30 S.	41 E.	M. D.
Hidden Value & Victory	8, 9	3 N.	17 E.	S. B.
Howe	9	5 N.	17 E.	S. B.
May Day	7	7 N.	3 E.	S. B.
Mojave	19	17 N.	14 E.	S. B.
New Discovery *	6	6 N.	6 W.	S. B.
Osdick Group	20, 21	30 S.	41 E.	M. D.
Paradise Mountains	6, 7	12 N.	2 E.	S. B.
Prosperity *	22	7 N.	6 W.	S. B.
Shadow Mountain	30, 31	8 N.	6 W.	S. B.
Silver Star	6, 7	15 N.	14 E.	S. B.
Spud Patch	parts of 20, 21	30 S.	41 E.	M. D.
Standard	18	15 N.	14 E.	S. B.
Sunnyside	27	2 N.	3 E.	S. B.
United	28	2 N.	3 E.	S. B.

NONMETALLICS

ASBESTOS

NAME OF PROPERTY	SEC.	T.	R.	M.
Cronese	14	12 N.	9 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.

BARITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Ball	20?	12 N.	2 E.	S. B.
Barium Queen	22, 27	10 N.	1 W.	S. B.
Big Medicine	3	10 N.	1 W.	S. B.
Hansen	30	8 N.	8 E.	S. B.

BENTONITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Balch	10	12 N.	11 E.	S. B.
Barber	6	13 N.	4 E.	S. B.
California Talc Co.	31	9 N.	5 E.	S. B.
	22, 23, 24, 26, 27	8 N.	5 E.	S. B.
Ewrite	35	8 N.	5 E.	S. B.
Pacific	29, 30?	28 S.	41 E.	M. D.
Smith	26?	6 N.	14 E.	S. B.

CLAY

NAME OF PROPERTY	SEC.	T.	R.	M.
Coors	13, 24	14 N.	17 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.
Holliman & Murphy	14	12 N.	14 E.	S. B.
Le Feure	26	6 N.	14 E.	S. B.
Marter White	34, 35	7 N.	4 W.	S. B.
Millet	31	9 N.	3 W.	S. B.
Siberia	4	5 N.	9 E.	S. B.
Standard Sanitary Co.	24	14 N.	17 E.	S. B.

FELDSPAR

NAME OF PROPERTY	SEC.	T.	R.	M.
White Butte	16	31 S.	44 E.	M. D.

FLUORSPAR

NAME OF PROPERTY	SEC.	T.	R.	M.
Afton	7	10 N.	6 E.	S. B.
Green Hornet	7, 8	6 N.	1 W.	S. B.
McKinney	1	6 N.	1 W.	S. B.
Primer	20?	7 N.	6 W.	S. B.

GEMS

NAME OF PROPERTY	SEC.	T.	R.	M.
Morongo Onyx *	8	1 N.	3 E.	S. B.
Toltec Gem Mining Co. *	36	16 N.	9 E.	S. B.

GRANITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Texas Quarries	29	5 N.	2 E.	S. B.

GRAPHITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Big Bear *	31	2 N.	2 E.	S. B.

GYPSUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Avawatz	13, 16, 21, 22, 27, 36	18 N.	5 E.	S. B.
Couchman		13 N.	10 E.	S. B.

LIMESTONE

NAME OF PROPERTY	SEC.	T.	R.	M.
Adelanto	2	6 N*	6 W.	S. B.
Arlington Mining Corp.	5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Baker	26?	14 N.	8 E.	S. B.
Baxter & Ballarois Quarry	12	11 N.	6 E.	S. B.
Cajon	27, 32	3 N.	6 W.	S. B.
California Portland Cement Co.	19, 30	1 S.	4 W.	S. B.
Chalmers Dolomite	29	6 N.	13 E.	S. B.
Chubbuck Limestone & Dolomite Deposits	17, 20, 21	6 N.	14 E.	S. B.
Chubbuck Lime Co.	10, 11, 15, 16, 21, 22	3 N.	16 E.	S. B.
Cima	12, 13, 24	15 N.	13 E.	S. B.
	7	15 N.	14 E.	S. B.

LIMESTONE—Continued

NAME OF PROPERTY	SEC.	T.	R.	M.
Devil's Canyon	5	1 N.	4 W.	S. B.
Hesperia Dolomite	27, 28, 33	4 N.	3 W.	S. B.
Hinkley Dolomite	11, 12	9 N.	4 W.	S. B.
Jack Frost	26	5 N.	12 E.	S. B.
O'Connell	8, 9	14 N.	16 E.	S. B.
Richter Dolomite	15	6 N.	1 W.	S. B.
Riverside Cement Company's Quarry & Plant	9, 16, 17	6 N.	4 W.	S. B.
Silver Dome	9	32 S.	42 E.	M. D.
Silver Lake	18, 19	15 N.	8 E.	S. B.
Snowcap	30	6 N.	13 E.	S. B.
Snow White Marble	20	14 N.	16 E.	S. B.
Southwestern Portland Cement Company's Quarries & Plant	5, 6	6 N.	2 W.	S. B.
	11, 15, 16	6 N.	4 W.	S. B.
Standard	20?	15 N.	16 E.	S. B.
Sugar Loaf Mountain Dolomite	17	1 N.	2 E.	S. B.
Three Colored Marble	2	7 N.	2 W.	S. B.
Twin Buttes Dolomite	9	5 N.	15 E.	S. B.
Vaughan Marble Quarries	2, 11	5 N.	14 E.	S. B.
	22, 26, 27, 28	6 N.	14 E.	S. B.
Verde Antique Marble	28	7 N.	2 W.	S. B.
Victorville Lime Rock Company's Quarry	25, 36	6 N.	4 W.	S. B.

MAGNESITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Afton	20	11 N.	6 E.	S. B.
Ball	2	6 N.	2 W.	S. B.
Kramer Hills	14	9 N.	6 W.	S. B.
New Trail Mining Co.	4	15 N.	14 E.	S. B.
Richter	15	6 N.	1 W.	S. B.
White Moon	15, 22	8 N.	21 E.	S. B.

PUMICE AND VOLCANIC ASH

NAME OF PROPERTY	SEC.	T.	R.	M.
Perlite	10?	8 N.	13 E.	S. B.
Ship Mountain	11?	5 N.	15 E.	S. B.

SALINES

NAME OF PROPERTY	SEC.	T.	R.	M.
American Magnesium Co.	7	25 S.	46 E.	M. D.
American Potash & Chemical Corp.	17	25 S.	43 E.	M. D.
Avawatz Salt	13, 15, 21, 22, 27	18 N.	5 E.	S. B.
Cadiz Dry Lake Salt		2 N.	15 E.	S. B.
		3 N.	15 E.	S. B.
California Rock Salt Co. Plant location	11	5 N.	12 E.	S. B.
Desert Chemical Co. *	26, 27, 34	1 N.	12 E.	S. B.
Hollar Chemical Co., Inc.	21, 22	5 N.	12 E.	S. B.
Reeder Salt Co.	26	2 N.	16 E.	S. B.
West End Chemical Co.	5, 6	26 S.	43 E.	M. D.

SILICA

NAME OF PROPERTY	SEC.	T.	R.	M.
Emsco Quartzite	(NE. of Victorville)			
Leahy Ganister	35	9 N.	4 W.	S. B.
McKnight	16	7 N.	2 E.	S. B.
White Cloud	35	29 S.	44 E.	M. D.

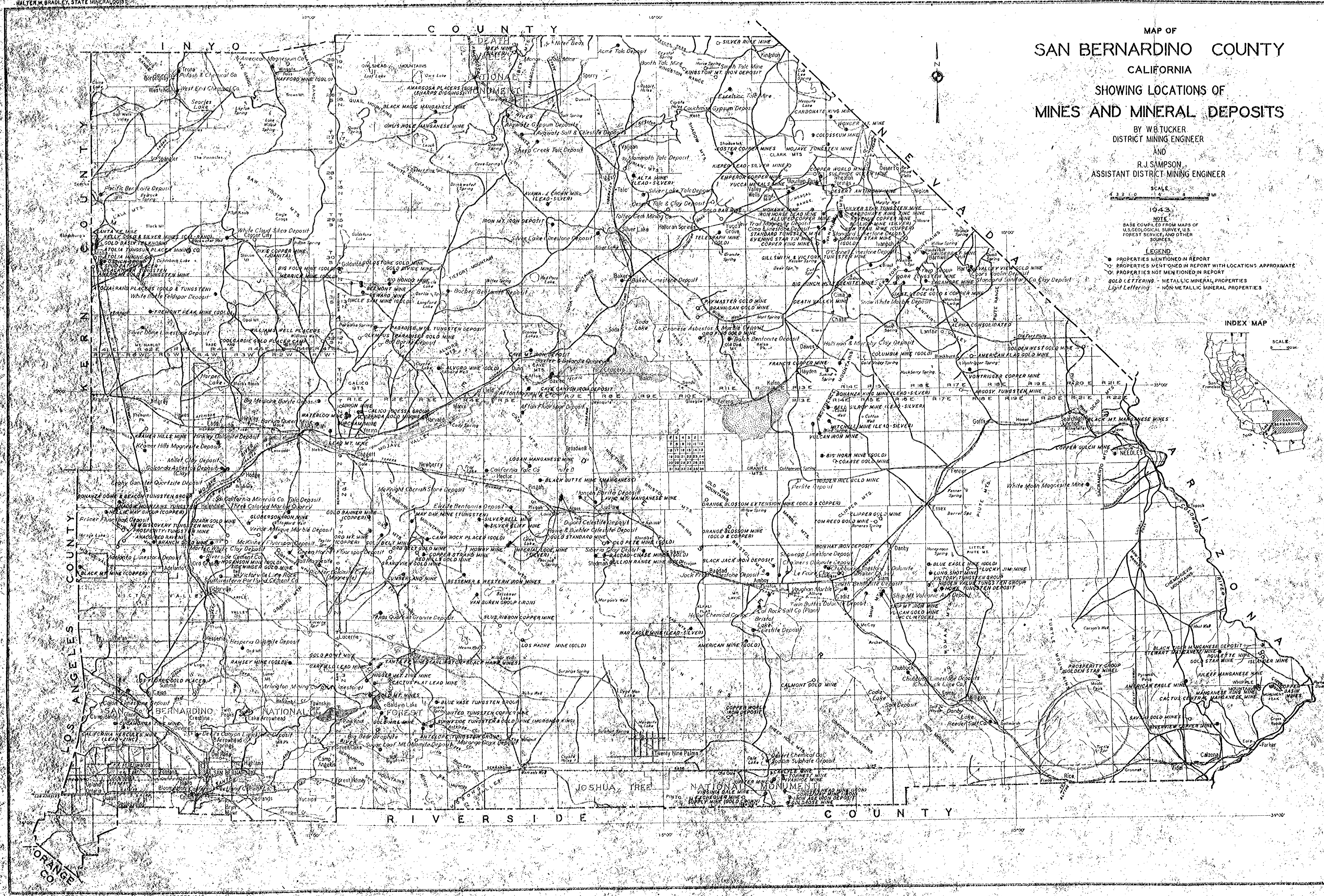
STRONTIUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Avawatz Celestite	13, 16, 21, 22, 27	18 N.	5 E.	S. B.
Bristol Lake Celestite	4, 7, 8	4 N.	12 E.	S. B.
DuPont Co.	19, 30	8 N.	7 E.	S. B.
Rowe & Buehler Celestite	19, 30	8 N.	7 E.	S. B.

TALC

NAME OF PROPERTY	SEC.	T.	R.	M.
Acme	4	19 N.	8 E.	S. B.
	32, 33	20 N.	8 E.	S. B.
Booth	9?	19 N.	10 E.	S. B.
Desert Talc & Clay	30?	16 N.	11 E.	S. B.
Excelsior	27	19 N.	11 E.	S. B.
Mammoth *	35	17 N.	8 E.	S. B.
Monarch		19 N.	5 E.	S. B.
Sheep Creek	5, 6	17 N.	8 E.	S. B.
Silver Lake	20, 21	15 N.	9 E.	S. B.
Smith	12?	19 N.	10 E.	S. B.

* Not mentioned in report.



SAN BERNARDINO COUNTY MINES AND PROSPECTS

METALS

ANTIMONY

NAME OF PROPERTY	SEC.	T.	R.	M.
Desert Antimony	29	16 N.	14 E.	S. B.

COPPER

NAME OF PROPERTY	SEC.	T.	R.	M.
Allured Copper	9	15 N.	14 E.	S. B.
American Eagle	32	3 N.	24 E.	S. B.
Black Mountain	19	6 N.	7 W.	S. B.
Blue Ribbon *	4	4 N.	5 E.	S. B.
Copper Basin Mines	3, 4	2 N.	26 E.	S. B.
Copper Gulch	28	9 N.	22 E.	S. B.
Copper King *	34	15 N.	13 E.	S. B.
Copper Strand	9	6 N.	3 E.	S. B.
Copper World	1?	15 N.	13 E.	S. B.
Dixie Copper *	33	29 S.	45 E.	M. D.
Emperor *	3	16 N.	13 E.	S. B.
Foster Mines	15	17 N.	11 E.	S. B.
Francis Copper	7	11 N.	14 E.	S. B.
Giant Ledge Gold & Copper	31	14 N.	13 E.	S. B.
Gold Banner	12	7 N.	1 E.	S. B.
Nellie May Group	2	7 N.	7 W.	S. B.
New Trail	4	15 N.	14 E.	S. B.
Orange Blossom *	23	7 N.	11 E.	S. B.
Orange Blossom Extension *	30	8 N.	11 E.	S. B.
Ord Mountain	12, 13, 24	7 N.	1 E.	S. B.
Revenue	4	15 N.	14 E.	S. B.
Riverview	1	1 N.	24 E.	S. B.
Sagamore	35	14 N.	16 E.	S. B.
Trio group (see under Gold)				
Vontrigger copper mine (see under Gold)				

GOLD

NAME OF PROPERTY	SEC.	T.	R.	M.
Alpha Consolidated *	33	13 N.	17 E.	S. B.
Alvord	1, 2, 12	11 N.	3 E.	S. B.
Amargosa Gold Placers	11, 14, 23, 24, 26	19 N.	4 E.	S. B.
American	19	4 N.	12 E.	S. B.
American Flag *	35, 36	12 N.	17 E.	S. B.
Bagdad-Chase Mines	7, 8	6 N.	8 E.	S. B.
Belmont	35	14 N.	1 E.	S. B.
Big Four	19	14 N.	1 E.	S. B.
Big Horn	20	9 N.	14 E.	S. B.
Blue Eagle	19	5 N.	17 E.	S. B.
Branch Gold *	31?	7 N.	3 W.	S. B.
Brannigan *	26	13 N.	10 E.	S. B.
Bullion Range Co., Inc.	2	5 N.	8 E.	S. B.
Calmont * (Approx.)	24	3 N.	13 E.	S. B.
Camp Rock Placer	28	7 N.	3 E.	S. B.
Carlyle	11	1 S.	12 E.	S. B.
Clipper *	13	7 N.	15 E.	S. B.
Coarse Gold	27?	9 N.	14 E.	S. B.
Colosseum	10, 14	17 N.	13 E.	S. B.
Columbia	3	11 N.	14 E.	S. B.
Coolgardie Gold Placer Camp *	29	32 S.	46 E.	M. D.
Cumberland	25, 26	6 N.	2 E.	S. B.
Exchequer *	29	1 S.	11 E.	S. B.
Fremont Peak	33, 34	33 S.	42 E.	M. D.
Gold Bar *	9	16 N.	11 E.	S. B.
Gold Belt	29	7 N.	2 E.	S. B.
Gold Crown	21, 22, 27, 28	1 S.	12 E.	S. B.
Gold Divide	22	14 N.	2 E.	S. B.
Gold Hill	17	2 N.	2 E.	S. B.
Gold Mountain	36	3 N.	1 E.	S. B.
Gold Point	1	3 N.	1 E.	S. B.
Gold Rose	32	1 S.	13 E.	S. B.
Gold Standard *	32	7 N.	8 E.	S. B.
Gold Star *	8	3 N.	26 E.	S. B.
Golden West *	28	13 N.	20 E.	S. B.
Goldstone *	18?	14 N.	1 E.	S. B.
Grand View *	9	6 N.	2 E.	S. B.
Hafford	14, 15, 22, 23	25 S.	45 E.	M. D.
Hidden Hill *	6	8 N.	14 E.	S. B.
Hoganson	14	6 N.	4 W.	S. B.
Islander *	5	3 N.	26 E.	S. B.
Ivanhoe	7	1 S.	13 E.	S. B.
Jupiter	11	1 S.	12 E.	S. B.
Kramer Hills *	36	10 N.	6 W.	S. B.
Long Shot	30, 32	6 N.	17 E.	S. B.
Los Flores Gold Placers *	31, 32	3 N.	4 W.	S. B.
Los Padre	18	4 N.	6 E.	S. B.
Lucky Jim *	30	6 N.	18 E.	S. B.
Merrick	35	14 N.	1 E.	S. B.
Morning Star	27, 28, 33, 34	15 N.	14 E.	S. B.
Old Pete *	33	7 N.	8 E.	S. B.
Olympus *	13	12 N.	1 E.	S. B.
Ord Belt *	4, 10	6 N.	2 E.	S. B.
Oro Fino	14	12 N.	10 E.	S. B.
Ozark *	30?	7 N.	3 W.	S. B.
Paymaster *	22	13 N.	10 E.	S. B.
Prosperity Group of Mines	23	3 N.	21 E.	S. B.
Ramsey	2, 3	3 N.	2 W.	S. B.
Red Hills *	8	6 N.	3 E.	S. B.
Reward	2, 3, 10, 11	13 N.	1 E.	S. B.
Rio Hondo	33	14 N.	2 E.	S. B.
Roulette	8?	3 N.	26 E.	S. B.
Santa Fe Mines	5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Sayahl * *	32	2 N.	24 E.	S. B.
Sidewinder *	3, 4	6 N.	2 W.	S. B.
Sulphide Queen	12, 13	16 N.	13 E.	S. B.
Telegraph Mines	16, 17, 20	15 N.	11 E.	S. B.
Tom Reed *	14	7 N.	15 E.	S. B.
Top Nest	7	1 S.	13 E.	S. B.
Trio Group	21, 22	14 N.	16 E.	S. B.
Uncle Sam	33	14 N.	1 E.	S. B.
Valley View	24	14 N.	17 E.	S. B.
Vanderbilt	3	14 N.	16 E.	S. B.
Virginia Dale *	35	1 S.	12 E.	S. B.
Vontrigger	10, 11, 15	11 N.	17 E.	S. B.
Vulcan	11	5 N.	15 E.	S. B.
Williams Well Placers *	20	32 S.	47 E.	M. D.

IRON

NAME OF PROPERTY	SEC.	T.	R.	M.
Bessemer & Western Iron Mines	27, 28	6 N.	4 E.	S. B.
Black Jack	24	6 N.	12 E.	S. B.
Cave Canyon	12	11 N.	5 E.	S. B.
Cave Mountain	20	12 N.	6 E.	S. B.
Copper World	22?	2 N.	11 E.	S. B.
Dorris May	19	1 S.	13 E.	S. B.
Globerson	15	7 N.	3 W.	S. B.
Iron Age	29	1 S.	13 E.	S. B.
Iron Hat	21	8 N.	14 E.	S. B.
Iron Mountain	11, 12, 13, 14	13 N.	6 E.	S. B.
Kingston Mountain	21	19 N.	11 E.	S. B.
Nigger Head	21?	1 S.	13 E.	S. B.
Ship Mountain	11	5 N.	15 E.	S. B.
Van Buren Group	{ 12	5 N.	4 E.	S. B.
	7	5 N.	5 E.	S. B.
Vulcan	25	10 N.	13 E.	S. B.

LEAD-SILVER AND ZINC

NAME OF PROPERTY	SEC.	T.	R.	M.
Alta	6	16 N.	9 E.	S. B.
Anaco	30, 31	7 N.	3 W.	S. B.
Avawatz Crown	26	16 N.	6 E.	S. B.
Bell Gilroy	9	13 N.	14 E.	S. B.
Bonanza King	{ 31	10 N.	14 E.	S. B.
	6	9 N.	14 E.	S. B.
Bullion	3	15 N.	14 E.	S. B.
Burcham	18, 21	10 N.	1 E.	S. B.
Cactus Flat	19	3 N.	2 E.	S. B.
Calico-Odessa Group	10, 11, 14, 15, 23	10 N.	1 E.	S. B.
California-Hercules	29, 32?	2 N.	6 W.	S. B.
Carbonate King	31	18 N.	14 E.	S. B.
Carbonate King Zinc	{ 4	15 N.	14 E.	S. B.
	32	18 N.	14 E.	S. B.
Cucamonga Zinc	25	2 N.	7 W.	S. B.
Death Valley	11	13 N.	14 E.	S. B.
Garfield	12?	3 N.	1 E.	S. B.
Gold Hill	no location			
Ibex		19 N.	5 E.	S. B.
Imperial Lode	35	7 N.	5 E.	S. B.
Iron Horse	35	15 N.	13 E.	S. B.
Kelly Gold and Silver Mines	3	30 S.	41 E.	M. D.
Kieper Lead-Silver		17 N.	13 E.	S. B.
Lead Mountain	36	10 N.	1 W.	S. B.
Mitchell	21	10 N.	14 E.	S. B.
Mohawk	18	16 N.	13 E.	S. B.
Mowry	35	7 N.	5 E.	S. B.
Nigger Mountain	22, 23, 27	3 N.	1 E.	S. B.
Santa Fe	6	30 S.	41 E.	M. D.
Silver Bell	12	7 N.	4 E.	S. B.
Silver Cliff	18	7 N.	5 E.	S. B.
Silver Rule		19 N.	11 E.	S. B.
Union	16	10 N.	1 E.	S. B.
War Eagle	2, 3	4 N.	10 E.	S. B.
Waterloo	16	10 N.	1 E.	S. B.
Wonder Mountain Mines, Inc.	15	17 N.	14 E.	S. B.
Yucca Metals	17	16 N.	13 E.	S. B.
Zenda Gold Mining Co.	15, 22	10 N.	1 E.	S. B.

MANGANESE

NAME OF PROPERTY	SEC.	T.	R.	M.
Black Butte	10	8 N.	9 E.	S. B.
Black Magic	10	18 N.	3 E.	S. B.
Black Mountain	30?	10 N.	26 E.	S. B.
Black Tiger	32	4 N.	26 E.	S. B.
Cactus Central	6	2 N.	26 E.	S. B.
Juleff		2 N.	26 E.	S. B.
Lavic Mountain	22, 23	8 N.	7 E.	S. B.
Logan	32	9 N.	6 E.	S. B.
Manganese King	{ 1	2 N.	26 E.	S. B.
	6	2 N.	26 E.	S. B.
Owl's Hole	22	18 N.	3 E.	S. B.
Stewart	5	3 N.	25 E.	S. B.

MOLYBDENUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Big Hunch	35	14 N.	15 E.	S. B.

TIN

NAME OF PROPERTY	SEC.	T.	R.	M.
Evening Star	30	15 N.	14 E.	S. B.

TUNGSTEN

NAME OF PROPERTY	SEC.	T.	R.	M.
American *	18	30 S.	41 E.	M. D.
Antelope	33	2 N.	3 E.	S. B.
Argosy		11 N.	17 E.	S. B.
Atolia Mining Co.	19, 20	30 S.	41 E.	M. D.
Atolia Rand Placer *	30	30 S.	41 E.	M. D.
Atolia Tung-Sun Placer Mining Co.	7	30 S.	41 E.	M. D.
Black Hawk *	13, 30	30 S.	41 E.	M. D.
Blue Vase	2	2 N.	3 E.	S. B.
Bonanza Dome & Beacon Group	{ 6	7 N.	6 W.	S. B.
	32	8 N.	6 W.	S. B.
Brooke: see Big Hunch, under Molybdenum				
Dorr	36	14 N.	15 E.	S. B.
Gillsmith & Victory	17	14 N.	15 E.	S. B.
Gold Basin	7	30 S.	41 E.	M. D.
Hidden Value & Victory	6, 3	5 N.	17 E.	S. B.
Howe	9	5 N.	17 E.	S. B.
May Day	7	7 N.	3 E.	S. B.
Mojave	19	17 N.	14 E.	S. B.
New Discovery *	5	6 N.	6 W.	S. B.
Osdick Group	20, 21	30 S.	41 E.	M. D.
Paradise Mountains	6, 7	12 N.	2 E.	S. B.
Prosperity *	22	7 N.	6 W.	S. B.
Shadow Mountain	30, 31	8 N.	6 W.	S. B.
Silver Star	6, 7	15 N.	14 E.	S. B.
Spud Patch	parts of 20, 21	30 S.	41 E.	M. D.
Standard	18	15 N.	14 E.	S. B.
Sunnyside	27	2 N.	3 E.	S. B.
United	26	2 N.	3 E.	S. B.

NONMETALLICS

ASBESTOS

NAME OF PROPERTY	SEC.	T.	R.	M.
Cronese	14	12 N.	9 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.

BARITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Ball	20?	12 N.	2 E.	S. B.
Barium Queen	22, 27	10 N.	1 W.	S. B.
Big Medicine	3	10 N.	1 W.	S. B.
Hansen	30	8 N.	8 E.	S. B.

BENTONITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Balch	10	12 N.	11 E.	S. B.
Barber	6	13 N.	4 E.	S. B.
California Talc Co.	{ 31	9 N.	5 E.	S. B.
	22, 23, 24, 26, 27	8 N.	5 E.	S. B.
Ewrite	35	8 N.	5 E.	S. B.
Pacific	29, 30?	28 S.	41 E.	M. D.
Smith	26?	6 N.	14 E.	S. B.

CLAY

NAME OF PROPERTY	SEC.	T.	R.	M.
Coors	13, 24	14 N.	17 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.
Holliman & Murphy	14	12 N.	14 E.	S. B.
Le Feure	26	6 N.	14 E.	S. B.
Marter White	34, 35	7 N.	4 W.	S. B.
Millet	31	9 N.	3 W.	S. B.
Siberia	4	5 N.	9 E.	S. B.
Standard Sanitary Co.	24	14 N.	17 E.	S. B.

FELDSPAR

NAME OF PROPERTY	SEC.	T.	R.	M.
White Butte	16	31 S.	44 E.	M. D.

FLUORSPAR

NAME OF PROPERTY	SEC.	T.	R.	M.
Afton	7	10 N.	6 E.	S. B.
Green Hornet	7, 8	6 N.	1 W.	S. B.
McKinney	1	6 N.	1 W.	S. B.
Primer	20?	7 N.	6 W.	S. B.

GEMS

NAME OF PROPERTY	SEC.	T.	R.	M.
Morongo Onyx *	8	1 N.	3 E.	S. B.
Toltec Gem Mining Co. *	36	16 N.	9 E.	S. B.

GRANITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Texas Quarries	29	5 N.	2 E.	S. B.

GRAPHITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Big Bear *	31	2 N.	2 E.	S. B.

GYPSUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Avawatz	13, 16, 21, 22, 27, 28	18 N.	5 E.	S. B.
Couchman	--	13 N.	10 E.	S. B.

LIMESTONE

NAME OF PROPERTY	SEC.	T.	R.	M.
Adelanto	2	6 N.	6 W.	S. B.
Arlington Mining Corp.	{ 5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Baker	26?	14 N.	8 E.	S. B.
Baxter & Ballardis Quarry	12	11 N.	6 E.	S. B.
Cajon	27, 32	3 N.	6 W.	S. B.
California Portland Cement Co.	19, 30	1 S.	4 W.	S. B.
Chalmers Dolomite	29	6 N.	13 E.	S. B.
Chubbuck Limestone & Dolomite Deposits	17, 20, 21	6 N.	14 E.	S. B.
Chubbuck Lime Co.	10, 11, 15, 16, 21, 22	3 N.	16 E.	S. B.
Cima	{ 12, 13, 24	15 N.	13 E.	S. B.
	7	15 N.	14 E.	S. B.

LIMESTONE—Continued

NAME OF PROPERTY	SEC.	T.	R.	M.
Devil's Canyon	5	1 N.	4 W.	S. B.
Hesperia Dolomite	27, 28, 33	4 N.	3 W.	S. B.
Hinkley Dolomite	11, 12	9 N.	4 W.	S. B.
Jack Frost	26	5 N.	12 E.	S. B.
O'Connell	8, 9	14 N.	16 E.	S. B.
Richter Dolomite	15	6 N.	1 W.	S. B.
Riverside Cement Company's Quarry & Plant	9, 16, 17	6 N.	4 W.	S. B.
Silver Dome	9	32 S.	42 E.	M. D.
Silver Lake	18, 19	15 N.	8 E.	S. B.
Snowcap	30	6 N.	13 E.	S. B.
Snow White Marble	20	14 N.	16 E.	S. B.
Southwestern Portland Cement Company's Quarries & Plant	{ 5, 6	6 N.	2 W.	S. B.
	11, 15, 10	6 N.	4 W.	S. B.
Standard	20	15 N.	16 E.	S. B.
Sugar Loaf Mountain Dolomite	17	1 N.	2 E.	S. B.
Three Colored Marble	2	7 N.	2 W.	S. B.
Twin Buttes Dolomite	9	5 N.	15 E.	S. B.
Vaughan Marble Quarries	{ 2, 11	5 N.	14 E.	S. B.
	22, 26, 27, 28	6 N.	14 E.	S. B.
Verde Antique Marble	1, 28	7 N.	2 W.	S. B.
Victorville Lime Rock Company's Quarry	25, 36	6 N.	4 W.	S. B.

MAGNESITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Afton	20	11 N.	6 E.	S. B.
Ball	2	6 N.	2 W.	S. B.
Kramer Hills	14	9 N.	6 W.	S. B.
New Trail Mining Co.	4	15 N.	14 E.	S. B.
Richter	15	6 N.	1 W.	S. B.
White Moon	15, 22	8 N.	21 E.	S. B.

PUMICE AND VOLCANIC ASH

NAME OF PROPERTY	SEC.	T.	R.	M.
Perlite	10?	8 N.	13 E.	S. B.
Ship Mountain	11?	5 N.	15 E.	S. B.

SALINES

NAME OF PROPERTY	SEC.	T.	R.	M.
American Magnesium Co.	7	25 S.	45 E.	M. D.
American Potash & Chemical Corp.	17	25 S.	43 E.	M. D.
Avawatz Salt	13, 19, 21, 22, 27	18 N.	5 E.	S. B.
Cadiz Dry Lake Salt		{ 2 N.	15 E.	S. B.
		3 N.	15 E.	S. B.
California Rock Salt Co. Plant location	11	5 N.	12 E.	S. B.
Desert Chemical Co. *	26, 27, 34	1 N.	12 E.	S. B.
Hollar Chemical Co., Inc.	21, 22	5 N.	12 E.	S. B.
Reeder Salt Co.	26	2 N.	18 E.	S. B.
West End Chemical Co.	5, 6	26 S.	43 E.	M. D.

SILICA

NAME OF PROPERTY	SEC.	T.	R.	M.
Emsco Quartzite	(NE. of Victorville)			
Leahy Ganister	35	9 N.	4 W.	S. B.
McKnight	16	7 N.	2 E.	S. B.
White Cloud	35	29 S.	44 E.	M. D.

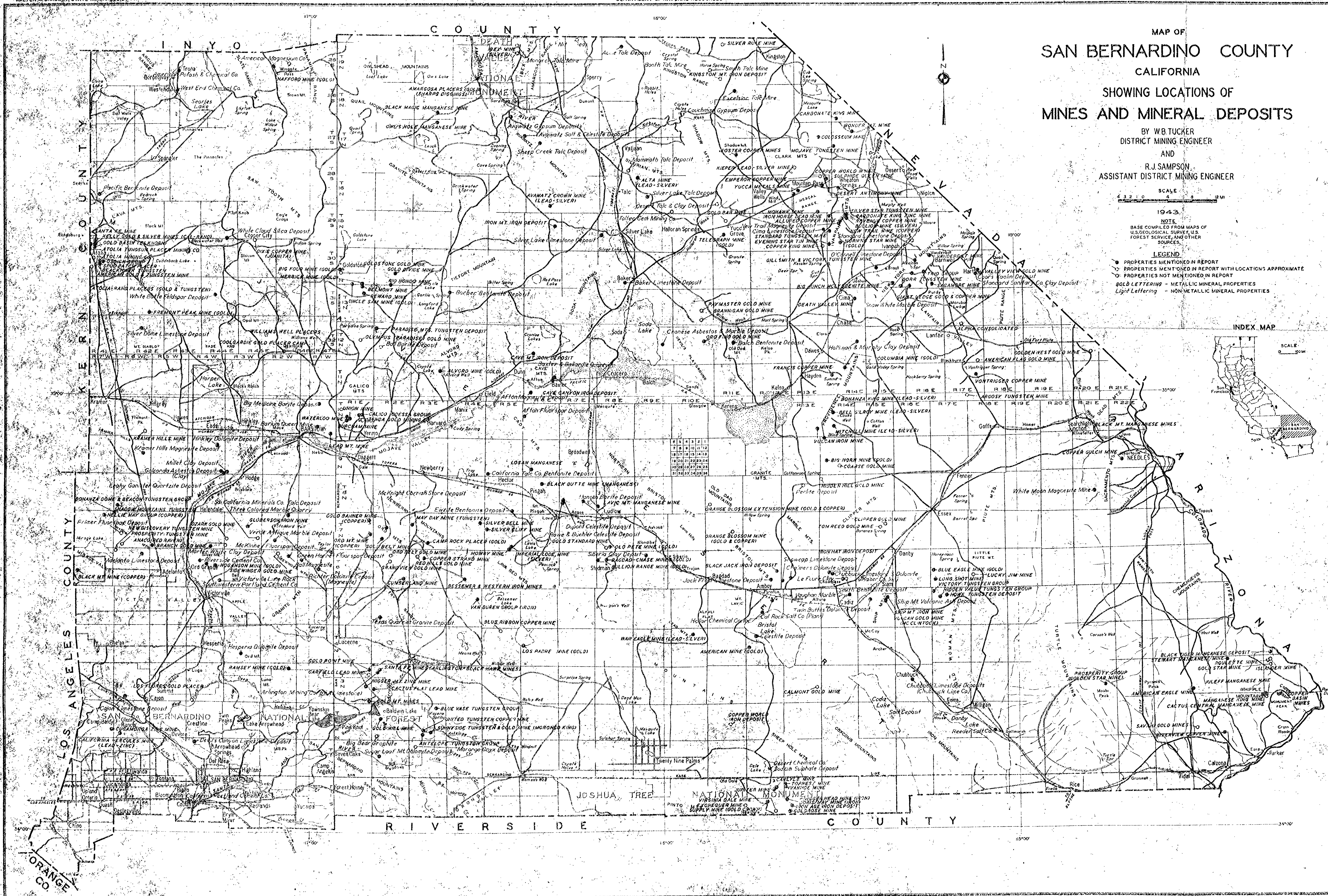
STRONTIUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Avawatz Celestite	13, 16, 21, 22, 27	18 N.	5 E.	S. B.
Bristol Lake Celestite	4, 7, 8	4 N.	12 E.	S. B.
DuPont Co.	19, 30	8 N.	7 E.	S. B.
Rowe & Buehler Celestite	19, 30	8 N.	7 E.	S. B.

TALC

NAME OF PROPERTY	SEC.	T.	R.	M.
Acme	{ 4	19 N.	8 E.	S. B.
	32, 33	20 N.	8 E.	S. B.
Booth	9?	19 N.	10 E.	S. B.
Desert Talc & Clay	30?	16 N.	11 E.	S. B.
Excelsior	27	19 N.	11 E.	S. B.
Mammoth *	35	17 N.	8 E.	S. B.
Monarch		19 N.	8 E.	S. B.
Sheep Creek	5, 6	17 N.	8 E.	S. B.
Silver Lake	20, 21	16 N.	9 E.	S. B.
Smith	12?	19 N.	10 E.	S. B.

* Not mentioned in report.



SAN BERNARDINO COUNTY MINES AND PROSPECTS

METALS

ANTIMONY

NAME OF PROPERTY	SEC	T.	R.	M.
Desert Antimony	29	16 N.	14 E.	S. B.

COPPER

NAME OF PROPERTY	SEC	T.	R.	M.
Allured Copper	9	15 N.	14 E.	S. B.
American Eagle	32	3 N.	24 E.	S. B.
Black Mountain	19	6 N.	7 W.	S. B.
Blue Ribbon *	4	4 N.	3 E.	S. B.
Copper Basin Mines	3, 4	2 N.	26 E.	S. B.
Copper Gulch	28	9 N.	22 E.	S. B.
Copper King *	36	15 N.	15 E.	S. B.
Copper Strand	9	6 N.	3 E.	S. B.
Copper World	1	15 N.	13 E.	S. B.
Dixie Copper *	33	29 S.	45 E.	M. D.
Emperor *	3	16 N.	13 E.	S. B.
Foster Mines	15	17 N.	11 E.	S. B.
Francis Copper	7	11 N.	14 E.	S. B.
Giant Ledge Gold & Copper	31	14 N.	16 E.	S. B.
Gold Banner	12	7 N.	1 E.	S. B.
Nellie May Group	2	7 N.	7 W.	S. B.
New Trail	4	15 N.	14 E.	S. B.
Orange Blossom *	23	7 N.	11 E.	S. B.
Orange Blossom Extension *	30	8 N.	11 E.	S. B.
Ord Mountain	12, 13, 24	7 N.	1 E.	S. B.
Revenue	4	15 N.	14 E.	S. B.
Riverview	1	1 N.	24 E.	S. B.
Sagamore	35	14 N.	16 E.	S. B.
Trio group (see under Gold)				
Vontrigger copper mine (see under Gold)				

GOLD

NAME OF PROPERTY	SEC	T.	R.	M.
Alpha Consolidated *	33	13 N.	17 E.	S. B.
Alvord	1, 2, 12	11 N.	3 E.	S. B.
Amargosa Gold Placers	11, 14, 23, 24, 25	19 N.	4 E.	S. B.
American	19	4 N.	12 E.	S. B.
American Flag *	35, 36	12 N.	17 E.	S. B.
Bagdad-Chase Mines	7, 8	6 N.	8 E.	S. B.
Belmont	35	14 N.	1 E.	S. B.
Big Four	19	14 N.	1 E.	S. B.
Big Horn	20	9 N.	14 E.	S. B.
Blue Eagle	19	6 N.	17 E.	S. B.
Branch Gold *	31?	7 N.	3 W.	S. B.
Brannigan *	26	13 N.	10 E.	S. B.
Bullion Range Co., Inc.	7	6 N.	8 E.	S. B.
Calmont * (Approx.)	24	3 N.	13 E.	S. B.
Camp Rock Placer	28	7 N.	3 E.	S. B.
Carlyle	11	1 S.	12 E.	S. B.
Clipper *	13	7 N.	15 E.	S. B.
Coarse Gold	27?	9 N.	14 E.	S. B.
Colosseum	10, 14	17 N.	13 E.	S. B.
Columbia	3	11 N.	14 E.	S. B.
Coolgardie Gold Placer Camp *	29	32 S.	46 E.	M. D.
Cumberland	25, 26	6 N.	2 E.	S. B.
Exchequer *	25	1 S.	11 E.	S. B.
Fremont Peak	33, 34	31 S.	42 E.	M. D.
Gold Bar *	9	15 N.	11 E.	S. B.
Gold Belt	29	7 N.	2 E.	S. B.
Gold Crown	21, 22, 27, 28	1 S.	12 E.	S. B.
Gold Divide	22	14 N.	2 E.	S. B.
Gold Hill	17	2 N.	2 E.	S. B.
Gold Mountain	36	3 N.	1 E.	S. B.
Gold Point	1	3 N.	1 E.	S. B.
Gold Rose	32	1 S.	13 E.	S. B.
Gold Standard *	32	7 N.	8 E.	S. B.
Gold Star *	8	3 N.	26 E.	S. B.
Golden West *	26	12 N.	20 E.	S. B.
Goldstone *	18?	14 N.	1 E.	S. B.
Grand View *	9	6 N.	2 E.	S. B.
Hafford	14, 15, 22, 23	25 S.	45 E.	M. D.
Hidden Hill *	6	8 N.	14 E.	S. B.
Hoganson	14	6 N.	4 W.	S. B.
Islander *	5	3 N.	25 E.	S. B.
Ivanhoe	7	1 S.	13 E.	S. B.
Jupiter	1	1 S.	12 E.	S. B.
Kramer Hills *	36	10 N.	6 W.	S. B.
Long Shot	30, 32	6 N.	17 E.	S. B.
Los Flores Gold Placers *	31, 32	3 N.	4 W.	S. B.
Los Padre	18	4 N.	6 E.	S. B.
Lucky Jim *	30	6 N.	18 E.	S. B.
Merrick	35	14 N.	1 E.	S. B.
Morning Star	27, 28, 33, 34	15 N.	14 E.	S. B.
Old Pete	33	7 N.	8 E.	S. B.
Olympus *	13	12 N.	1 E.	S. B.
Ord Belt *	4, 10	6 N.	2 E.	S. B.
Oro Fino	14	12 N.	10 E.	S. B.
Ozark *	30?	7 N.	3 W.	S. B.
Paymaster *	23	13 N.	10 E.	S. B.
Prosperity Group of Mines	23	3 N.	21 E.	S. B.
Ramsey	2, 3	3 N.	2 W.	S. B.
Red Hills *	8	6 N.	3 E.	S. B.
Reward	2, 3, 10, 11	13 N.	1 E.	S. B.
Rio Hondo	33	14 N.	2 E.	S. B.
Roulette	8?	3 N.	26 E.	S. B.
Santa Fe Mines	5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Sayahi *	32	2 N.	24 E.	S. B.
Sidewinder *	3, 4	6 N.	2 W.	S. B.
Sulphide Queen	12, 13	16 N.	13 E.	S. B.
Telegraph Mines	16, 17, 20	15 N.	11 E.	S. B.
Tom Reed *	14	7 N.	15 E.	S. B.
Top Nest	7	1 S.	13 E.	S. B.
Trio Group	21, 22	14 N.	16 E.	S. B.
Uncle Sam	33	14 N.	1 E.	S. B.
Valley View	24	14 N.	17 E.	S. B.
Vanderbilt	3	14 N.	16 E.	S. B.
Virginia Dale *	35	1 S.	12 E.	S. B.
Vontrigger	10, 11, 15	11 N.	17 E.	S. B.
Vulcan	11	5 N.	15 E.	S. B.
Williams Well Placers *	20	32 S.	47 E.	M. D.

IRON

NAME OF PROPERTY	SEC.	T.	R.	M.
Bessemer & Western Iron Mines	27, 28	8 N.	4 E.	S. B.
Black Jack	24	6 N.	12 E.	S. B.
Cave Canyon	12	11 N.	6 E.	S. B.
Cave Mountain	20	12 N.	6 E.	S. B.
Copper World	22?	2 N.	11 E.	S. B.
Dorris May	19	1 S.	13 E.	S. B.
Globerson	15	7 N.	3 W.	S. B.
Iron Age	29	1 S.	13 E.	S. B.
Iron Hat	21	6 N.	14 E.	S. B.
Iron Mountain	11, 12, 13, 14	13 N.	6 E.	S. B.
Kingston Mountain		19 N.	11 E.	S. B.
Nigger Head	21?	1 S.	13 E.	S. B.
Ship Mountain	11	5 N.	15 E.	S. B.
Van Buren Group	12 7	5 N. 5 N.	4 E. 5 E.	S. B. S. B.
Vulcan	25	13 N.	13 E.	S. B.

LEAD-SILVER AND ZINC

NAME OF PROPERTY	SEC.	T.	R.	M.
Alta	6	16 N.	9 E.	S. B.
Anaco	30, 31	7 N.	5 W.	S. B.
Avawatz Crown	26	16 N.	6 E.	S. B.
Bell Gilroy	9	13 N.	14 E.	S. B.
Bonanza King	31 6	10 N. 9 N.	14 E. 14 E.	S. B. S. B.
Bullion	3	15 N.	14 E.	S. B.
Burcham	18, 21	10 N.	1 E.	S. B.
Cactus Flat	19	3 N.	2 E.	S. B.
Calico-Odessa Group	10, 11, 14, 15, 23	10 N.	1 E.	S. B.
California-Hercules	29, 32?	2 N.	6 W.	S. B.
Carbonate King	31	18 N.	14 E.	S. B.
Carbonate King Zinc	4 32	15 N. 16 N.	14 E. 14 E.	S. B. S. B.
Cucamonga Zinc	25	2 N.	7 W.	S. B.
Death Valley	11	13 N.	14 E.	S. B.
Garfield	12?	3 N.	1 E.	S. B.
Gold Hill	no location			
Ibex		19 N.	5 E.	S. B.
Imperial Lode	35	7 N.	5 E.	S. B.
Iron Horse	35	15 N.	13 E.	S. B.
Kelly Gold and Silver Mines	8	30 S.	41 E.	M. D.
Kieper Lead-Silver		17 N.	13 E.	S. B.
Lead Mountain	36	10 N.	1 W.	S. B.
Mitchell	21	10 N.	14 E.	S. B.
Mohawk	18	15 N.	13 E.	S. B.
Mowry	35	7 N.	5 E.	S. B.
Nigger Mountain	22, 23, 27	3 N.	1 E.	S. B.
Santa Fe	6	30 S.	41 E.	M. D.
Silver Bell	12	7 N.	4 E.	S. B.
Silver Cliff	18	7 N.	5 E.	S. B.
Silver Rule	--	19 N.	11 E.	S. B.
Union	18	10 N.	1 E.	S. B.
War Eagle	2, 3	4 N.	10 E.	S. B.
Waterloo	18	10 N.	1 E.	S. B.
Wonder Mountain Mines, Inc.	15	17 N.	14 E.	S. B.
Yucca Metals	17	16 N.	13 E.	S. B.
Zenda Gold Mining Co.	15, 22	10 N.	1 E.	S. B.

MANGANESE

NAME OF PROPERTY	SEC.	T.	R.	M.
Black Butte	10	8 N.	9 E.	S. B.
Black Magic	10	18 N.	3 E.	S. B.
Black Mountain	30?	10 N.	22 E.	S. B.
Black Tiger	32	4 N.	26 E.	S. B.
Cactus Central	6	2 N.	25 E.	S. B.
Juleff	--	2 N.	26 E.	S. B.
Lavic Mountain	22, 23	8 N.	7 E.	S. B.
Logan	32	9 N.	6 E.	S. B.
Manganese King	1 6	2 N. 2 N.	25 E. 26 E.	S. B. S. B.
Owl's Hole	22	18 N.	3 E.	S. B.
Stewart	5	3 N.	25 E.	S. B.

MOLYBDENUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Big Hunch	35	14 N.	15 E.	S. B.

TIN

NAME OF PROPERTY	SEC.	T.	R.	M.
Evening Star	30	15 N.	14 E.	S. B.

TUNGSTEN

NAME OF PROPERTY	SEC.	T.	R.	M.
American *	18	30 S.	41 E.	M. D.
Antelope	33	2 N.	3 E.	S. B.
Argosy		11 N.	17 E.	S. B.
Atolia Mining Co. *	19, 20	30 S.	41 E.	M. D.
Atolia Rand Placer *	30	30 S.	41 E.	M. D.
Atolia Tung-Sun Placer Mining Co.	7	30 S.	41 E.	M. D.
Black Hawk *	13, 30	30 S.	41 E.	M. D.
Blue Vase	2	2 N.	3 E.	S. B.
Bonanza Dome & Beacon Group	6 32	7 N. 8 N.	6 W. 6 W.	S. B. S. B.
Brooke: see Big Hunch, under Molybdenum				
Dorr	36	14 N.	15 E.	S. B.
Gilsmith & Victory	17	14 N.	15 E.	S. B.
Gold Basin	7	30 S.	41 E.	M. D.
Hidden Value & Victory	6, 3	5 N.	17 E.	S. B.
Howe	9	5 N.	17 E.	S. B.
May Day	7	7 N.	3 E.	S. B.
Mojave	19	17 N.	14 E.	S. B.
New Discovery *	6	6 N.	6 W.	S. B.
Osdick Group	20, 21	30 S.	41 E.	M. D.
Paradise Mountains	6, 7	12 N.	2 E.	S. B.
Prosperity *	22	7 N.	6 W.	S. B.
Shadow Mountain	30, 31	8 N.	6 W.	S. B.
Silver Star	6, 7	15 N.	14 E.	S. B.
Spud Patch	parts of 20, 21	30 S.	41 E.	M. D.
Standard	18	15 N.	14 E.	S. B.
Sunnyside	27	2 N.	3 E.	S. B.
United	28	2 N.	3 E.	S. B.

NONMETALLICS

ASBESTOS

NAME OF PROPERTY	SEC	T.	R.	M.
Cronese	14	12 N.	9 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.

BARITE

NAME OF PROPERTY	SEC	T.	R.	M.
Ball	20?	12 N.	2 E.	S. B.
Barium Queen	22, 27	10 N.	1 W.	S. B.
Big Medicine	3	10 N.	1 W.	S. B.
Hansen	30	8 N.	8 E.	S. B.

BENTONITE

NAME OF PROPERTY	SEC	T.	R.	M.
Balch	10	12 N.	11 E.	S. B.
Barber	6	13 N.	4 E.	S. B.
California Talc Co.	31 22, 23, 24, 26, 27	9 N. 8 N.	5 E. 5 E.	S. B. S. B.
Ewrite	35	8 N.	5 E.	S. B.
Pacific	29, 30?	28 S.	41 E.	M. D.
Smith	26?	6 N.	14 E.	S. B.

CLAY

NAME OF PROPERTY	SEC	T.	R.	M.
Coors	13, 24	14 N.	17 E.	S. B.
Golconda	36	9 N.	4 W.	S. B.
Holliman & Murphy	14	12 N.	14 E.	S. B.
Le Feure	26	6 N.	14 E.	S. B.
Marter White	34, 35	7 N.	4 W.	S. B.
Millet	31	9 N.	3 W.	S. B.
Siberia	4	6 N.	9 E.	S. B.
Standard Sanitary Co.	24	14 N.	17 E.	S. B.

FELDSPAR

NAME OF PROPERTY	SEC	T.	R.	M.
White Butte	16	31 S.	44 E.	M. D.

FLUORSPAR

NAME OF PROPERTY	SEC	T.	R.	M.
Afton	7	10 N.	6 E.	S. B.
Green Hornet	7, 8	8 N.	1 W.	S. B.
McKinney	1	6 N.	1 W.	S. B.
Primer	20?	7 N.	6 W.	S. B.

GEMS

NAME OF PROPERTY	SEC	T.	R.	M.
Morongo Onyx *	8	1 N.	3 E.	S. B.
Toltec Gem Mining Co. *	36	16 N.	9 E.	S. B.

GRANITE

NAME OF PROPERTY	SEC	T.	R.	M.
Texas Quarries	29	5 N.	2 E.	S. B.

GRAPHITE

NAME OF PROPERTY	SEC	T.	R.	M.
Big Bear *	31	2 N.	2 E.	S. B.

GYPSUM

NAME OF PROPERTY	SEC	T.	R.	M.
Avawatz	13, 16, 21, 22, 27, 28	18 N.	5 E.	S. B.
Couchman	--	13 N.	10 E.	S. B.

LIMESTONE

NAME OF PROPERTY	SEC	T.	R.	M.
Adelanto	2	6 N*	6 W.	S. B.
Arlington Mining Corp.	5, 8, 9, 16, 17	3 N.	2 E.	S. B.
Baker	26?	14 N.	8 E.	S. B.
Baxter & Ballarois Quarry	12	11 N.	6 E.	S. B.
Cajon	27, 32	3 N.	6 W.	S. B.
California Portland Cement Co.	19, 30	1 S.	4 W.	S. B.
Chalmers Dolomite	29	6 N.	13 E.	S. B.
Chubbuck Limestone & Dolomite Deposits	17, 20, 21	6 N.	14 E.	S. B.
Chubbuck Lime Co.	10, 11, 15, 16, 21, 22	3 N.	16 E.	S. B.
Cima	12, 13, 24 7	15 N. 15 N.	13 E. 14 E.	S. B. S. B.

LIMESTONE—Continued

NAME OF PROPERTY	SEC.	T.	R.	M.
Devil's Canyon	5	1 N.	4 W.	S. B.
Hesperia Dolomite	27, 28, 33	4 N.	3 W.	S. B.
Hinkley Dolomite	11, 12	9 N.	4 W.	S. B.
Jack Frost	26	5 N.	12 E.	S. B.
O'Connell	8, 9	14 N.	16 E.	S. B.
Richter Dolomite	15	6 N.	1 W.	S. B.
Riverside Cement Company's Quarry & Plant	9, 16, 17	6 N.	4 W.	S. B.
Silver Dome	9	32 S.	42 E.	M. D.
Silver Lake	18, 19	15 N.	8 E.	S. B.
Snowcap	30	6 N.	13 E.	S. B.
Snow White Marble	20	14 N.	16 E.	S. B.
Southwestern Portland Cement Company's Quarries & Plant	5, 8 11, 15, 16	6 N. 6 N.	2 W. 4 W.	S. B. S. B.
Standard	20?	13 N.	16 E.	S. B.
Sugar Loaf Mountain Dolomite	17	1 N.	2 E.	S. B.
Three Colored Marble	2	7 N.	2 W.	S. B.
Twin Buttes Dolomite	9	5 N.	15 E.	S. B.
Vaughan Marble Quarries	2, 11 22, 26, 27, 28	5 N. 6 N.	14 E. 14 E.	S. B. S. B.
Verde Antique Marble	23	7 N.	2 W.	S. B.
Victorville Lime Rock Company's Quarry	25, 36	6 N.	4 W.	S. B.

MAGNESITE

NAME OF PROPERTY	SEC.	T.	R.	M.
Afton	20	11 N.	6 E.	S. B.
Ball	2	6 N.	2 W.	S. B.
Kramer Hills	14	9 N.	6 W.	S. B.
New Trail Mining Co.	4	15 N.	14 E.	S. B.
Richter	15	6 N.	1 W.	S. B.
White Moon	15, 22	8 N.	21 E.	S. B.

PUMICE AND VOLCANIC ASH

NAME OF PROPERTY	SEC.	T.	R.	M.
Perlite	10?	8 N.	13 E.	S. B.
Ship Mountain	11?	5 N.	15 E.	S. B.

SALINES

NAME OF PROPERTY	SEC.	T.	R.	M.
American Magnesium Co.	7	25 S.	48 E.	M. D.
American Potash & Chemical Corp.	17	25 S.	43 E.	M. D.
Avawatz Salt	13, 19, 21, 22, 27	18 N.	5 E.	S. B.
Cadiz Dry Lake Salt		2 N. 3 N.	15 E. 15 E.	S. B. S. B.
California Rock Salt Co. Plant location	11	5 N.	12 E.	S. B.
Desert Chemical Co. *	26, 27, 34	1 N.	12 E.	S. B.
Hoifar Chemical Co., Inc.	21, 22	5 N.	12 E.	S. B.
Reeder Salt Co.	26	2 N.	18 E.	S. B.
West End Chemical Co.	5, 6	26 S.	43 E.	M. D.

SILICA

NAME OF PROPERTY	SEC.	T.	R.	M.
Emsco Quartzite	(NE. of Victorville)			
Leahy Ganister	35	9 N.	4 W.	S. B.
McKnight	16	7 N.	2 E.	S. B.
White Cloud	35	29 S.	44 E.	M. D.

STRONTIUM

NAME OF PROPERTY	SEC.	T.	R.	M.
Avawatz Celestite	3, 16, 21, 22, 27	18 N.	5 E.	S. B.
Bristol Lake Celestite	4, 7, 8	5 N.	12 E.	S. B.
DuPont Co.	19, 30	8 N.	7 E.	S. B.
Rowe & Buehler Celestite	19, 30	8 N.	7 E.	S. B.

TALC

NAME OF PROPERTY	SEC.	T.	R.	M.
Acme	4 32, 33	19 N. 20 N.	8 E. 8 E.	S. B. S. B.
Booth	9?	19 N.	10 E.	S. B.
Desert Talc & Clay	30?	16 N.	11 E.	S. B.
Excelsior	27	19 N.	11 E.	S. B.
Mammoth *	35	17 N.	8 E.	S. B.
Monarch	--	19 N.	5 E.	S. B.
Sheep Creek	5, 6	17 N.	6 E.	S. B.
Silver Lake	20, 21	13 N.	3 E.	S. B.
Smith	12?	19 N.	10 E.	S. B.

* Not mentioned in report.