DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 5005

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [x] Project summary (final)
- [ ] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

May 2, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED 5 1958

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application (Mercury)
Dr. Hugh Simmons, et al
Ivanhoe Mine
Napa County, California

Enclosed are three sets of MF-103, Application for Aid forms relative to above subject. The fourth set has been retained in our files.

Please note that Dr. Simmons states under the caption "5. The Exploration Project" that details will be forwarded in the instant future.

B. F. Shahan

/for/ S. Ricker

Attachments

Form MF-103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED MAY 5 DMEA

APPLICATION FOR AID IN AN EXPLORATION PROJECT

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

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

THE SILVER SLIPPER MINING CO, INC.
California Office--801 Alhambra Blvd.
Sacramento, California

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-5005

Date Received: Rec'd 4/30/58 5-5-58

Government Participation %:

Region: II

Division Code: 400

BUSINESS ORGANIZATION (Check one)

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

State in which firm is organized: Nevada

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
Doctor Harold Kelly	Freeport Blvd Sacramento, Cal.	President
Doctor Walter Campbell	801 Alhambra Blvd	Secretary
Doctor Hugh Simmons	801 Alhambra Blvd	Treasurer Gen. Manager

Mineral(s) for which you wish to explore: Mercury

Estimated Cost of Project: $ ~~XXXXXXX~~ $45,350.00

LOCATION OF PROPERTY

Name	County	State
Ivanhoe Mine	Napa	Calif.

GENERAL INSTRUCTIONS

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

CERTIFICATION

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

29 April 1958
Dated

Hugh M. Simmons, M.D.
Signature

Treasurer & General Manager.
Title

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

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

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

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

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

2. *Physical Description:*

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

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

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

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

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

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

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

3. *Accessibility of Project:*

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

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

4. *The Exploration Project:*

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

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

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

5. *Experience:*

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

6. *Estimate of Costs:*

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

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

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

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

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

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

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

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

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

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

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

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

GENERAL INFORMATION * Exploration Project

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1. Applicant's Property Rights:

Owns the mineral rights: "The southeast quarter of the southeast quarter of Section 27, the northeast quarter of the northeast quarter of Section 34, the north half of the northwest quarter and the northwest quarter of the northeast quarter of Section 35, all in Township 10 N, Range 6 W, Mount Diablo Base and Meridian, containing 200 acres of land, more or less." All Patented Land.

Has a five year lease with a five year option on: "Lots # (11), Twelve(12), and Thirteen (13), the Southeast quarter of the Northeast quarter (Se¼) of(NE¼), and the North half of the Southeast quarter (N½ of SE¼) of Section thrity three(33); the south onehalf of the North half (S½ of N½), the North one-half of the South half(N½ ofS½) and Lots Numbers one (1) & Two(2) in the Northwest quarter of Section 34 (thirty four) and the South half of the Northwest Quarter (S½ of NW¼) and the North half of the Southwest Quarter (N½ of SW¼) of Section Thirty Five (35), all in Township Ten (10) N, Range 6 W, Mount Diabilo Base and Meridian, Containing 661.72 Acres of land more or less." All Patented Land.

a. Names of the property:
   1. Patton Property.
   2. Piner-Cooper Property.
   3. James Creek Property.
   4. Atnea Extension Property.
   5. Ivanhoe Mine--Granada Mine Property.

b. Interest In Land: The Silver Slipper Mining Co., Inc. Owns the mineral rights on the 200 acres described above and has a ten year lease on the 661.72 acres described above.

c. Liens, Mortgages, Etc.: NONE

2. PHYSICAL DESCRIPTION: The Ivanhoe Mining Property is part of the 800 acres (more or less), as described above. It is situated between the Atnea Mine which borders it on the South and East, and the Oat Hill Mines which borders it on the North and West. (See attached Maps). The orginal work was done in the early nineteen hundres, although the lower tunnel may be much older then this. The workings consist of an upper tunnel, which maps are available and herein attached; and a lower tunnel, now caved past 75 feet, no maps can be located to date. No extensive work was done. Production listed as 300 flasks of mercury, (California State Mining Journal). Mercury was selling as low as $35.00 per flask at the time the mine was being operated.

The Aetna Mine, which borders the Ivanhoe on the South, had a production of 60,000 flasks, and it is admitted that no records were kept for several years. The Oat Hill Mines on the North, produces 180,000 flasks of mercury, and is the 3rd largest producer in the States.

The Toyon Mine, which is also North, produced 600 flasks of mercury, as stated by former owner.

Apparantly the Ivanhoes Production was obtained by using two large retorts which are still on the property.

3. GEOLOGY: "That section of the producing sandstone belt, between the Oat Hill and Aetna Mines, is practically undeveloped. Three properties, Ivanhoe(Lang property), Patton, Toyon,(Granada Mine) are included in this area. Panning the decomposed rock in the ravines, and the material from shallow prospect holes on the foot wall of the dike-like mass of basalt, shows good prospects of cinnabar. The producing mines in the district are located in a body of crushed sandstone or at the contact of Dike-like masses, of serpentine or basalt and sandstone." (Oliver C. Dupuis)March 29,'40. Fairbanks States: (State Mineralogist, 1892.) "For some unknown reason this strip of country, of which the Oat Hill Mines are about the center, has escaped the prevailing metamorphism. No signs of any intrustive rock are to be found in any of the workings of the mines, and the occurence of extensive cinnabar deposits wholly in sandstone is an anomaly. The veins run generally about 22 degrees West, and dip to the northeast. The ore occurs in veins and impregnations in the sandstones. Wherever the ore occurs in the form of defined veins, it is usually with or has a gangue of hard flinty rock, not opaline, as is usually the case. This hard stratum lies on the foot wall, but separeted from it at times by a heavy layer of clay. However, this tough layer of clay is more often found on the hanging wall. Owing to this clay on on the hanging wall, the large veins and chief impregnations often extend out into the foot wall."

"The intrusive phase of the basalt is represented by both large and small dikes on the Aetna, Aetna Extension and Patton properties, where they are mostly intensely altered and closely associated with the quicksilver mineralization. The largest and most productive dike is the Silver Bow Dike of the Aetna Mine. The accompany district map shows a body of basalt north of the Granada Mine, whose similartiy in size, shape and orientation to the Silver Bow Dike strongly suggests that it is also a dike and not a flow remnant. However, I have not examined this outcrop and the State-USGS publication on this area does not mention it, so perhaps its character cannot be determined from the surface. This certainly merits serious study with the idea of drilling it if a surface inspection shows that it could be a dike.

Small dikes of basalt also occur in the Aetna Mine in the Star workings and it is probably that the small dikes in the Short Tunnel(Ivanhoe) and at James Creek occurrence constitute a northwestward extension of the Star dike zone. The relationship of the basalt and the quicksilver mineralization is a genetic one but not directly so, etc, etc." (F. D. Hanson, E.M. March 16,'57)

4. ACCESSIBILITY : A good paved road goes to the old Aetna Mine. From the Aetna Mine to the Ivanhoe Property is a fair dirt road, which is maintained in part by the County of Napa; a distance of two miles. (Core drilling has been carried out this winter in spite of heavy rains, with the lost of only a few days).

5. THE EXPLORATION PROJECT:

During the past few months the Corporation has done some coredrilling under the old workings at the Ivanhoe Property. To date four holes have been drilled, all showing a belt of sandstone containing cinnabar and under a bed of black shale, which is in evidence at the portal of the upper Ivanhoe tunnel. The fourth hole had the best showing; a distance from 36 feet to 100 feet had cinnabar throughout the sandstone. From 75 to 86 feet was the richest, and looked like good furance ore. The cores have been split on the first three holes, and samples sent for analysis. The fourth hole core has not been split as yet. As suggested by our consulting engineer, Mr. F. D. Hanson, E. M. about 1500 additional feet of core drilling was recommended. Also, about 1000 feet of tunnel should be driven; underneath the area where the core drilling has revealed ore, and drifting along this ore body towards the Silver Bow Dike area. (Details as to maps, exact distances, and directions, will be forwarded in the instant future).

6. EXPERIENCE: F. D. Hanson, E. M. is our consulting geologist and engineer. Also we have Mr. Roy Creighton who has been superintendent of several large mines in California and Nevada, and has been a miner his entire life and is well able to drive any amount of tunnel, or any other required mining operations. Our Driller, Mr. Eugene Craft, is a man of wide experience, has done work for the DMEA Before; is qualified to contract the work, legally. We have two miners available, of known ability, and character.

FIXED UNIT COST ON PROPOSED PROJECT

STAGE 1 (1)		
1500 feet of Core Drilling:		
$6.00 ft	$ 9000.00	
20 samples for analyses @ $4.00	80.00	
Estimated Total Cost of Stage 1		$9,080.00
STAGE: (2)		
1000 ft of drifting and crosscutting @ $30.00/ft.	$30,000.00	
300 ft. of timbering @ $7.00/ft	2,100.00	
30 sample analyses @ $4.00/each	120.00	
Estimated Total Cost of Stage 2		$32,220.00
STAGE: (3)		
Clean out (rehabilitate) lower tunnel: 500ft. Contracted:		$ 4,000.00
Estimated Total Cost Stage 1		$ 9,080.00
Estimated Total Cost Stage 2		32,220.00
Estimated Total Cost Stage 3		4,000.00
ESTIMATED TOTAL COST OF PROJECT		$45,300.00

OPERATING EQUIPMENT: On hand and in good working condition.

One 360 Cubic Ft. Compressor-Schramm

One 110 Cubic Ft. Compressor--Sullivan

Two Gardner-Denver Liners # 73

Two Ingersol Rand Liners # 76

One Gardner Denver Hammer #55

Column and Arm

Jack-Leg

Three ore Cars.

Miscellaneous:
- Shovels, all kinds
- Picks, all kinds
- Bars, all kinds
- one Jim Crow (rail bender)
- Hammers, all varieties
- one chain saw
- Block and tackle

One 1½ ton Ford Truck

One four wheel drive carryall

Hydrolic Jacks from 10 to 50 tons.

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DATE CODE

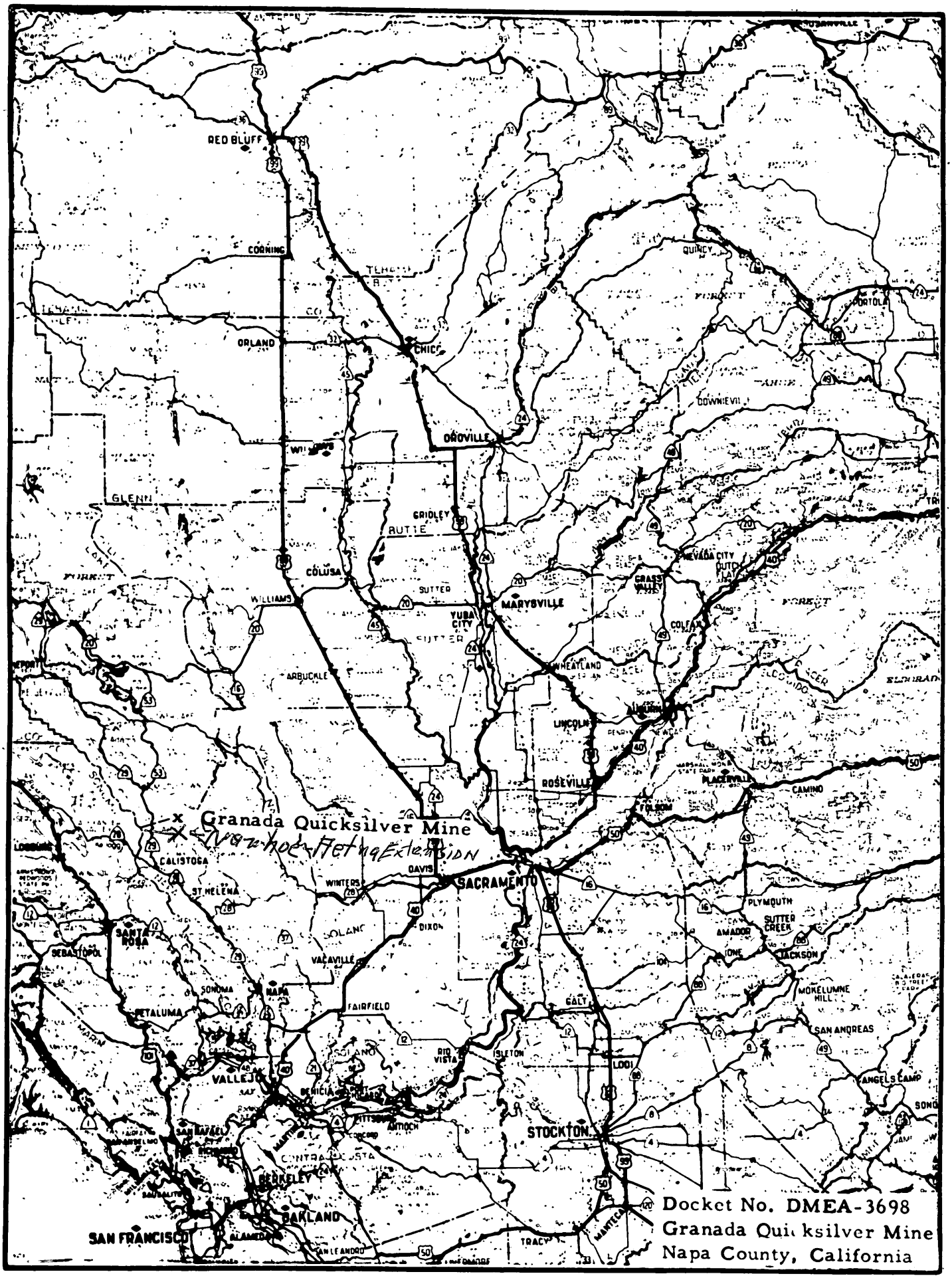

FIG. 1 LOCATION MAP

U.S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1957)
Promulgated by Bureau of the Budget Circular A-33 (Rev.)

NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM		NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM	
Defense Minerals Exploration Rm 4458	STOP		STOP
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Use other side

Use STOP only when messenger service between Government buildings in Washington, D. C., is required or wherever a STOP system is u
Your mail room has STOP information.

DMEA Form 7
(12-56)

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Date	Surname	Code
8-5	Chapman	400
8-5	Martin	400
		110
		100

August 5, 1958

MEMORANDUM:

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $45,350.00
Docket No. DMEA 5005 - Mercury
The Silver Slipper Mining Company, Inc.
Ivanhoe Mine
Napa County, California

The processing of this application was not completed prior to June 30, 1958. However, had the processing been completed, we would have been unable to recommend a project based on the information available to us in Washington concerning the property.

The above-noted property was the subject of a request dated April 29, 1958, for exploration assistance, at an estimated cost of $45,350.00 for diamond drilling, rehabilitation of old adit, and drifting and crosscutting.

A field examination of the property was made on May 21-23, 1958, by J. D. Warne, Bureau of Mines, and J. E. Carlson, Geological Survey, accompanied by Mr. Eugene Craft, driller for the applicant.

Applicant: The Silver Slipper Mining Company, Inc.
801 Alhambra Boulevard
Sacramento, California

Property Ownership: The Applicant owns the mineral rights of the SE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of section 27, the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of section 34, the N$\frac{1}{2}$ of the NW$\frac{1}{4}$ and the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of section 35, all in T. 10 N., R. 6 W., M.D.B. and M., containing 200 acres more or less. The Applicant also has a five year lease on an additional 661.72 acres in the adjoining area. All the land is patented.

Geology: The area is underlain by sandstones and shales of the Franciscan formation of probable Cretaceous age. These rocks are cut by several basalt dikes.

The Franciscan formation in the mine area includes a light gray, medium grained graywacke consisting of angular fragments of quartz, dark gray shale and feldspar. Locally it is hydrothermally altered. Except for a few streaks of iron oxides and a few widely disseminated specks of cinnabar, the sandstone and shale are unmineralized.

The igneous rocks consist quartz-bearing basalt dikes and basalt contact breccia. The most altered part of the breccia contains a few small crystals of cinnabar in addition to iron oxides. Several small faults maybe directly related to ore bodies on the property.

Any ore in the area is probably indirectly controlled by the breccia zones along the basalt and sandstone contacts, and it is directly controlled by later faults along these contacts.

Past History
and Production:

The property was originally known as the Mt. St. Helena claims and also as the Patten or Patton claims. These claims were located and explored about 1900 and little work has been done since that time.

Production totals about 300 flasks of mercury and is reported to have been produced from the Ivanhoe tunnel. Ore from these workings is reported to have averaged about 10 pounds of mercury per ton.

There is no surface equipment on the property. The Ivanhoe tunnel and three small adits consisting of several hundred feet of drifts and crosscuts were driven about 1900. The first 50 feet of the Ivanhoe workings are accessible. These workings yielded ore from two small stopes.

Work by the applicant consists of 500 feet of trench, and seven diamond drill holes. An old trench 8 feet deep and 250 feet long is cut in barren sandstone 100 feet south of the applicant's trench.

Ore Values
and Tonnage:

There are no measured or indicated reserves and no ore can be inferred from present exposures. Four samples taken gave the following results:

Sample No.	Pounds Hg.	Description
1	0.1	Sample from 0.8 ft., of diamond drill core, DDH No. 4, interval 75 to 86 ft.
2	0.1	Chip sample from footwall zone in Ivanhoe stope, 75 ft. from portal.
3	0.1	Chip sample from hanging wall zone in stope in Ivanhoe tunnel, 75 ft. from portal.
4	0.4	Specimen sample from surface above operator's DDH No. 7.

Conclusions and Recommendations:

There is no geologic evidence to indicate larger or higher grade ore bodies below the exposures or elsewhere on the property, and the examining team recommends denial of the application for exploration assistance. The Field Team concurs in this denial.

The Commodity Divisions of the Bureau of Mines and Geological Survey concur in the above recommendation of the examining team and the Field Team.

W S Martin

W. S. Martin, Director
Division of Iron and Ferro-Alloys

TLCHAPMAN/dlm 8-5-58
cc to: Code 400
Code 110
Oper. Comm.
Admr. R. File

DMEA Form 7
(12-56)

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Date	Surname	Code
8-4	Chapman	400
8-4	Martin	400
8/8	Selfridge	130
8/8	Lamb	130
8/8	Nelson	130
"	Johnson	110
"	Mittendorf	100
		~~330~~ 220

AUG 8 1958

The Silver Slipper Mining Company, Inc.
801 Alhambra Boulevard
Sacramento, California

Re: Docket No. DMEA 5005 - Mercury
Ivanhoe Mine
Napa County, California

Gentlemen:

We regret that we were unable to completely process your application for exploration assistance prior to June 30, 1958, the termination date for approving new contracts, as announced by the enclosed copy of a news release of June 6, 1958.

However, had the processing been completed, we would have been unable to approve a project based on the information available to us in Washington concerning your property.

We wish to thank you for your interest in the DMEA program and for bringing the exploration plan to our attention.

Sincerely yours,

G. O. Mittendorf (fcv)

Enclosure

Administrator

TLCHAPMAN/dlm 8-4-58
cc to: Code 400
Admr. R. File
Oper. Comm.
REG. II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

IN REPLY REFER TO:

DMEA
RECEIVED AUG 4 1958
DATE | INITIALS | CODE
8/4 | N.g | 225
4/00

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

August 4, 1958
Re: DMEA 5005
The Silver Slipper Mining Co., Inc.
Ivanhoe Mine
Napa County, California
$45,350 - Mercury

Memorandum

To: H. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant requested assistance in exploring the scattered low-grade showings of mercury-bearing material on an old time property which is between two old mines credited, according to the application, with the production of 60,000 (Aetna) and 180,000 (Oat Hill) flasks of mercury. The Ivanhoe production is put at 300 flasks. C. P. Ross, 1940, Quicksilver, Mayacmas-Sulphur Bank Deposits, says the production of the two mines was: Aetna 76,300 flasks, Oat Hill 160,000 flasks. Both mines were in production in 1938.

As shown on the geologic map which is part of the application, serpentine and its derivative, silica-carbonate rock are missing near the Ivanhoe mine. Serpentine is mapped in the northeast corner of the property, but appears to be without interest.

The Franciscan formation, essentially sandstones and shales, in part hydrothermally altered as at the Oat Hill underlies the larger part of the Ivanhoe property, but the rocks seem not to share the mercury-bearing characteristics which mark the sandstones at the Oat Hill mine. The latter mine is about 500 feet above the Ivanhoe, and although it has been worked to a depth of 875 feet, the difference in elevation may account in part for the difference in mineralization. For reasons not discernible, the 10 or more productive Oat Hill veins which strike in its direction seem not to extend into the Ivanhoe property.

Extensive work, consisting of trenching, tunnelling, diamond drilling, and sampling indicate the mercury at the Ivanhoe is widely scattered through sandstone and brecciated gabbro but concentrations other than those which produced the 300 flasks of mercury have not been found.

Sampling by F. D. Hansen for the applicant and that of the examiners yielded only one sample showing as much as 1.4 pounds of mercury per ton. Presumedly the mineralization in the drill cores, noted in the application, is low grade as the examiners make no mention of assays of the cores of 3 holes split and sent for analysis.

I concur with the recommendation of the examiners that the application be denied.

N. E. Nelson

N. E. Nelson

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8/1/58	N.G.	225
	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

July 31, 1958

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Assistant Chief, Branch of Base Metals

Subject: Review of Field Team Examination Report, Docket No. DMEA 5005 (mercury), The Silver Slipper Mining Company, Inc., Ivanhoe mine, Napa County, California. $45,350

The applicant proposed to explore for mercury mineralization on the property by 1,500 feet of diamond drilling, 1,000 feet of drifting and crosscutting, and 500 feet of rehabilitating an old adit at an estimated total cost of $45,350.

Although an examination of the property revealed that traces of cinnabar were present, the occurrences were not considered significant. In addition, four samples of mineralized areas contained from less than 0.1 to 0.4 pounds of mercury per ton. It was concluded that there are no measured or indicated ore reserves and none can be inferred from known exposures.

As there is no geologic evidence to indicate large or higher grade ore bodies below the exposures or elsewhere on the property, the Field Team recommends that the application for DMEA assistance be denied.

I concur with this recommendation.

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

July 25, 1958

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220
WSG 400

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-5005 (Mercury)
The Silver Slipper Mining Company, Inc.
Ivanhoe Mine
Napa County, California
(Your letter, May 15, 1958)

Enclosed are three copies of a report on subject property by J. D. Warne, Bureau of Mines, and J. E. Carlson, Geological Survey.

Roscoe Smith and I concur in the recommendation that the application for exploration aid be denied.

S. Ricker

Attachments

Reviewed by
DMEA OPERATING COMMITTEE
8/1/58
(date)

COPY
JUL 29 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA-5005 (Mercury)
Silver Slipper Mining Co., Inc.
Ivanhoe mine
Napa County, California

ON SITE EXAM

by

J. D. Warne
U. S. Bureau of Mines

J. E. Carlson
U. S. Geological Survey

July 24, 1958

Reviewed by
DMEA OFFICE OF COMMODITIES
8/1/58
(date)

INTRODUCTION

The Silver Slipper Mining Co., Inc., 801 Alhambra Boulevard, Sacramento, California, applied to the Defense Minerals Exploration Administration, docket DMEA-5005, for Government assistance to explore for mercury at the Ivanhoe mine, Napa County, California.

A field examination was requested by the Operating Committee and was made on May 21-23, 1958 by J. D. Warne, U.S. Bureau of Mines, and J. E. Carlson, U.S. Geological Survey, accompanied by the applicant's driller, Mr. Eugene Craft.

Surface exposures and excavations were mapped and diamond drill holes were plotted. Four samples were taken.

A map of the area around the Ivanhoe tunnel, compiled by Fred D. Hanson, was submitted with the application and was used in the examination.

SUMMARY

The Ivanhoe mine property contains small concentrations of cinnabar in hydrothermally altered graywacke and in basalt breccia. The deposit consists of little more than trace amounts of cinnabar and no reserves are inferred.

The exploration plan was not detailed in the application and Dr. Simmons, general manager of the company, did not keep his appointment with the examiners. The applicant requested a $45,350

program consisting of 1,500 feet of diamond drilling and 1,000 feet of drifting and crosscutting in unspecified locations, and 500 feet of rehabilitation in an old adit.

We conclude that the ore bodies are too small and too low in grade to constitute a significant discovery and that an exploration project is not warranted.

RECOMMENDATION

There is no geologic evidence to indicate larger or higher grade ore bodies below the exposures or elsewhere on the property and we therefore recommend that the application be denied.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The Ivanhoe property is in secs. 27, 33, 34, and 35, T. 10 N., R. 6 W., M.D.B.&M., in the Mayacmas quicksilver district, Napa County, California, at an altitude of about 1,200 feet. It is reached by traveling 2.0 miles northwest from Aetna Springs on a fairly steep and poorly-maintained mountain road.

Experienced mine labor is not available in the area.

Water can be obtained from springs near the mine or from James Creek, a few thousand feet north of the property.

Timber and mine supplies are available in San Francisco and other nearby cities.

Electric power could be supplied to the mine by installing about one mile of transmission facilities.

THE PROPERTY

History and Production:

The property was originally known as the Mt. St. Helena claims and also as the Patten claims. These claims were located and explored about 1900 and little work has been done since that time.

Production totals about 300 flasks of mercury and is reported to have been produced from the Ivanhoe tunnel (fig. 2). Ore from these workings is reported to have averaged about 10 pounds of mercury per ton. The other workings shown on figure 2 apparently produced little or no ore.

Ownership:

The property consists of about 860 acres of patented land. The applicant has the mineral rights on about 200 acres and has a 10-year lease and option on the remainder. The application does not state or show on a map the boundaries of the Ivanhoe mine property, however it implies that the entire 860 acres would be included in a DMEA contract.

Officers of the company are Drs. Harold Kelly (president), Walter Campbell (secretary), and Hugh Simmons (treasurer and general manager).

Development:

There is no surface plant or equipment on the property. The Ivanhoe tunnel and three small adits consisting of several hundred feet of drifts and crosscuts were driven about 1900. The first

80 feet of the Ivanhoe workings are accessible but the remainder is either caved or too dangerous to enter. These workings yielded ore from two small stopes. The three small adits are caved. Development work by the applicant consists of 500 feet of trench, seven diamond-drill holes, and access road improvements. An old trench 8 feet deep and 250 feet long is cut in barren sandstone 100 feet south of the applicant's trench (fig. 2).

GEOLOGY

Geologic Setting:

The property is underlain by sandstone and shale of the Franciscan formation of probable Cretaceous age. These rocks are cut by several basalt dikes.

The Franciscan formation in the mine area includes a light gray, medium-grained graywacke consisting of angular fragments of quartz, dark gray shale, and feldspar. Locally it is hydrothermally altered to a kaolinized, nearly white, uncohesive rock. Layers of dark gray, non-fissile shale are commonly intercalated with the sandstone. Except for a few streaks of iron oxides and a few widely disseminated specks of cinnabar, the sandstone and shale are unmineralized. These rocks in general strike northwest and dip 16°-40° SW, but locally the sandstone dips northeast.

Igneous rocks consist of quartz-bearing basalt dikes and basalt contact breccia. Quartz in the basalt is probably not indigenous and was acquired from the sedimentary rocks during intrusion. Much of the basalt is oxidized and hydrothermally altered, particularly on the west side of the mapped area where it is altered to a stiff ocherous clay (fig. 2). Contact breccia is exposed in outcrops and consists of a vesicular basalt matrix inclosing angular shale and quartz fragments. The most altered part of this breccia contains a few small cinnabar crystals in addition to iron oxides.

The exposures are not sufficient to determine the attitude of the dikes. It is likely that drill hole 7, if continued, would cut the west dike below its exposure in the bulldozed cut (fig. 2) and this dike can probably be projected to the Lindholm tunnel, the dump of which contains basalt.

Several small faults were observed which may be directly related to the ore bodies. The breccia exposed in the Ivanhoe tunnel and in the small adit 35 to 40 feet above the tunnel is probably a basalt contact breccia formed during intrusion although some faulting is probably involved along and near the basalt-sandstone contact.

Ore Deposits:

The deposit consists chiefly of a mineralized sandstone and basalt breccia in a groundmass of dark blue- to black clay or gouge, and locally slightly mineralized sandstones and shales. Cinnabar was the only ore mineral seen. The preferred orientation or structure of the cinnabar within the breccia zone was not seen, but it probably occurs in small shoots which consist of fine-grained blebs and masses, and as small veinlets. Specimens of slightly altered sandstone, recovered from a drill hole under the Ivanhoe tunnel, contain traces of cinnabar in quartz veinlets and disseminated in the sandstone. Traces of cinnabar are exposed in a shallow road cut in oxidized sandstone near drill hole 6 (fig. 2). Most of the altered and oxidized material exposed in the trenches and on old dumps contains traces of cinnabar. These minor occurrences are not considered significant inasmuch as cinnabar can be panned from many places in the district where ore bodies can not be inferred.

The ore is probably indirectly controlled by the breccia zones along the contacts between basalt and sandstone, and it is directly controlled by later faults along these contacts.

Sampling:

Four samples were taken of mineralized material exposed in the mine area (fig. 2). Assays and descriptions of these samples follow:

Sample No.	Lbs. Hg/ton	Description
1	0.1	Specimen sample of 0.8 ft. of diamond-drill core showing traces of cinnabar in sandstone--from operator's DDH No. 4, interval 75 to 86 ft.
2	<0.1	Chip sample from footwall zone in stope in Ivanhoe tunnel, 75 ft. from portal.
3	<0.1	Chip sample from hanging wall zone in stope in Ivanhoe tunnel, 75 ft. from portal.
4	0.4	Specimen sample from surface above operator's DDH No. 7.

Ore Reserves:

There are no measured or indicated reserves and no ore can be inferred from present exposures.

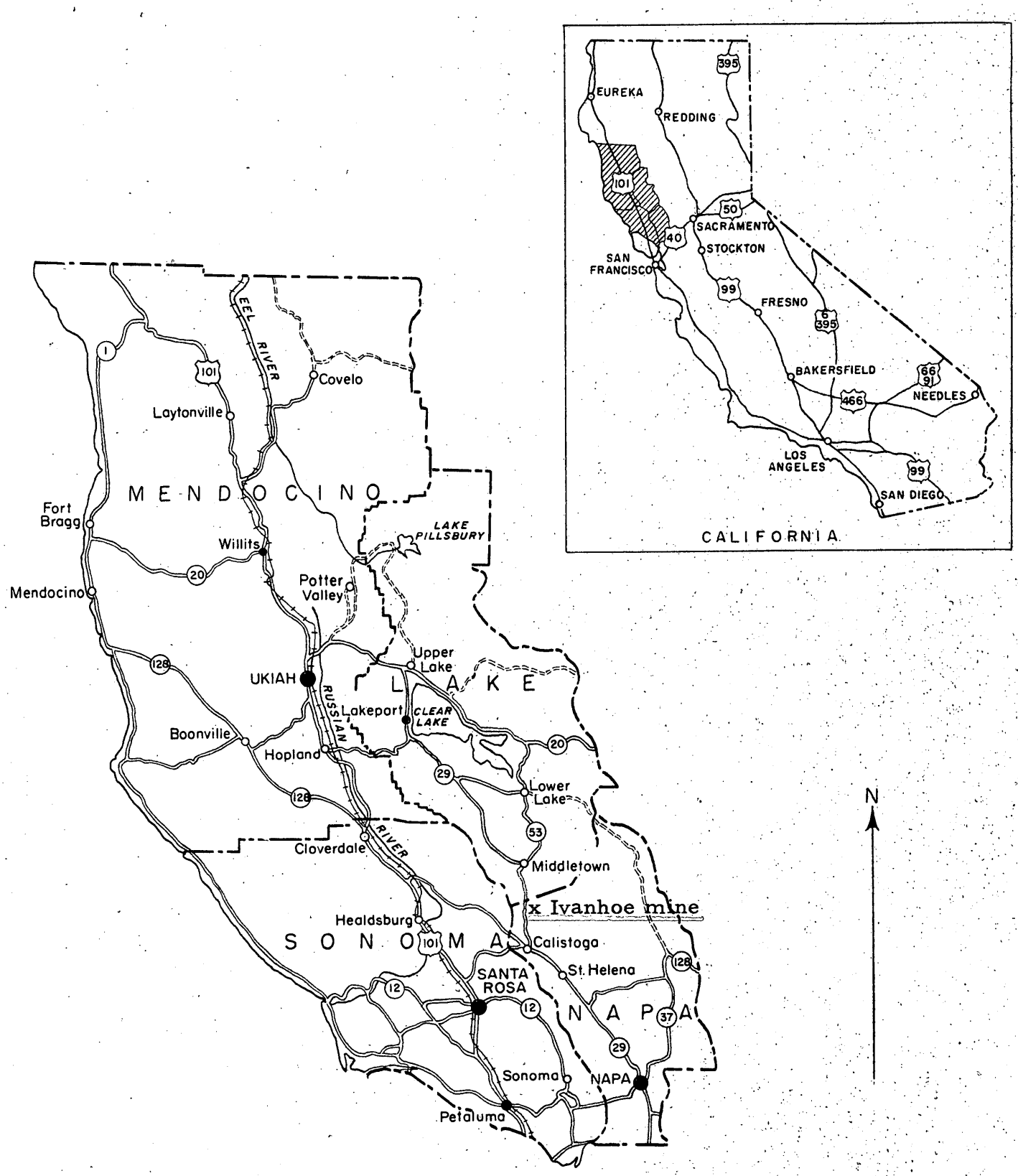

Figure 1. INDEX MAP OF LAKE, MENDOCINO, NAPA, AND SONOMA COUNTIES, CALIFORNIA

0 20 40 60 Miles

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DATE	INITIALS	CODE

Figure 2. IVANHOE MINE, NAPA COUNTY, CALIFORNIA

0 100 200 300 Feet

Contour interval 50 feet

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-13	Chapman	400
5-13	Martin	400
5/14	Selfridge	130
5/14	Lamb	130
5/14	Williams	130
"	Johnson	110
"	Mittendorf	100
5/15	C	220
5/15	Martin	400

MAY 15 1958

The Silver Slipper Mining Company, Inc.
801 Alhambra Boulevard
Sacramento, California

Re: Docket No. DMEA 5005 - Mercury
Ivanhoe Mine
Napa County, California

Gentlemen:

The above-referenced application for exploration assistance has been reviewed by the Washington office of the Defense Minerals Exploration Administration and has been referred to Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for a field examination of the property.

Any assistance you may give the members of the Field Team will be appreciated. The additional data promised in your application should be furnished at the earliest opportunity.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

TLCHAPMAN/dlm 5-13-58
cc to: Code 400
Admr. R. File
Oper. Comm.
REGION II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-13	Chapman	400
5-13	Martin	400
5/14	[illegible]	130
"	Johnson	110
"	[illegible]	108
		320

MAY 15 1958

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMFA 5005 - Mercury
The Silver Slipper Mining Company, Inc.
Ivanhoe Mine
Napa County, California

Dear Mr. Ricker:

The above-docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated May 9, 1958, by J. W. Pennington, Bureau of Mines, and W. P. Williams, Geological Survey, relating to the project are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

Sincerely yours,

Enclosures

George C. Selfridge

APPROVED:

Chairman, Operating Committee (GCS)

Frank D. Lamb (FDL)
Member, Bureau of Mines

W. P. Williams (WPW)
Member, Geological Survey

TLCHAPMAN/dlm 5-13-58
cc to: Code 400
Admr. R. File
Oper. Comm.
REGION II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

IN REPLY REFER TO

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

May 9, 1958

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 5005 (mercury) Dr. Hugh Simmons et al., Ivanhoe Mine, Napa County, California

The applicant proposes to explore for mercury ore deposits on 861 acrea of partly-owned and partly-leased land. The applicant wishes to do 1,500 feet of core drilling, 1,000 feet of drifting and crosscutting, and 500 feet of drift rehabilitation. Estimated total cost of the project is $45,300.

The Franciscan sandstone, cut by basaltic dikes, and with impervious clay interbeds all combine to make a favorable geologic environment for cinnabar deposits. The property is located in a mercury mining district.

The application is incomplete--probably due to haste in submitting it. Assays of split-core samples from four drill holes have not been furnished. Details of the proposed work are also lacking.

The property merits field examination. In the interest of expediency a field examination could be made, at which time the lacking items could be supplied.

W. P. Williams

W. P. Williams

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DMEA
RECEIVED MAY 9 1958

DATE	INITIALS	CODE
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	WSM	40C

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

May 9, 1958

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Assistant Chief, Branch of Base Metals

Subject: Review of application, Docket No. DMEA-5005 (Mercury), Kelly, Campbell, and Simmons, Ivanhoe Mine, Napa County, California. $45,300.00.

The applicant proposes to explore for mercury mineralization at the Ivanhoe mine by 9,000 feet of core drilling, 1,000 feet of drifting and crosscutting, and 500 feet of rehabilitation of the lower tunnel at an estimated total cost of $45,300.

It was stated that this property has had a small production of mercury; also, the assays furnished with the application indicate low-grade mercury mineralization.

Referral of the application to the Field Team is recommended.

The application is returned herewith.

J. W. Pennington

Attachment

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard
F. D. Lamb
Files

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

May 6, 1958

The Silver Slipper Mining Co.,Inc.
801 Alhambra Boulevard
Sacramento, California

Subject: DMEA-5005

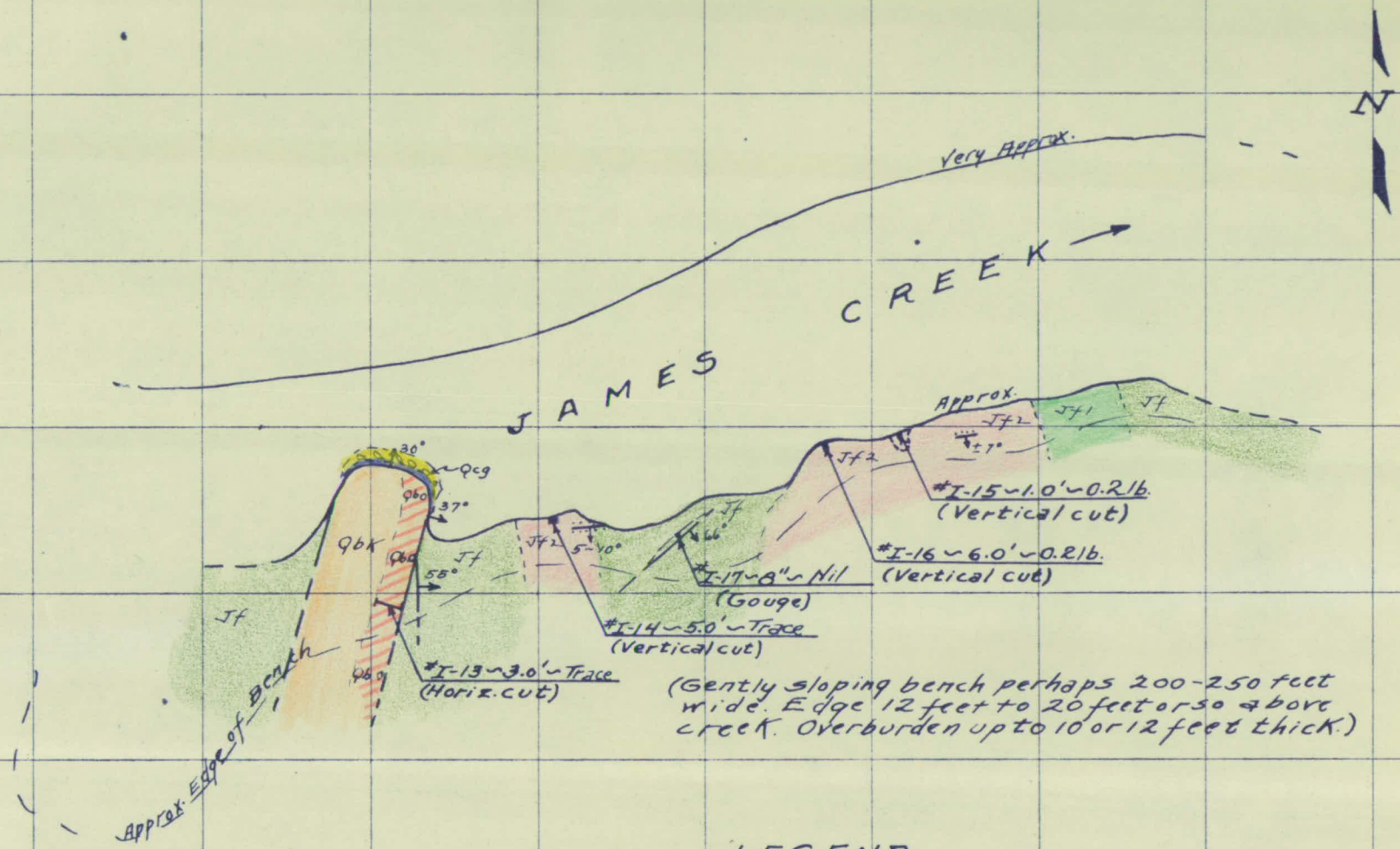
Gentlemen:

Your application for exploration assistance, dated April 29, 1958 submitted to our office at Reno, Nevada has been assigned Docket Number DMEA-5005 and referred to the Iron & Ferro Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region II



(Gently sloping bench perhaps 200-250 feet wide. Edge 12 feet to 20 feet or so above creek. Overburden up to 10 or 12 feet thick.)

LEGEND

Qcg	Cemented creek gravel.
Qbk	Highly altered (Kaolinized) basalt dike.
Qbo	Same, with considerable iron oxide (ochre)
Jf	Franciscan sandstone with some shale.
Jf1	Same, mildly mineralized, ironstain + ochre.
Jf2	Same, rather strongly mineralized, ochre, H_2S.
Jfb	Same, finely brecciated and iron-stained.

SKETCH MAP
SOUTH BANK OF JAMES CR.
SIMMONS QUICKSILVER PROP.
NAPA CO., CALIF.
MARCH, 1956 F.D. HANSON
1" = 20'

"ALBANENE" No. 196M K&E CO., N.Y. REG. U.S. PAT. OFF.

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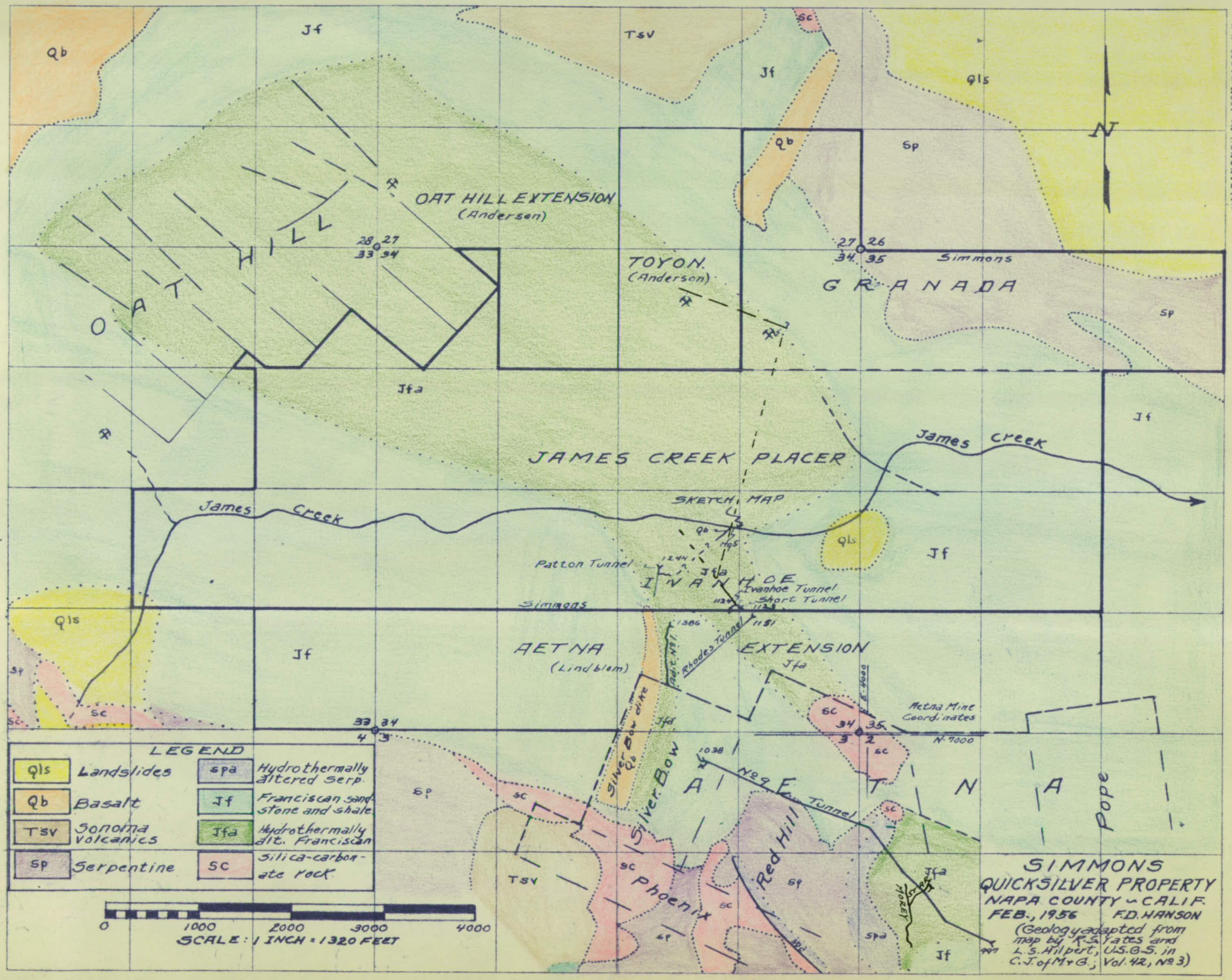
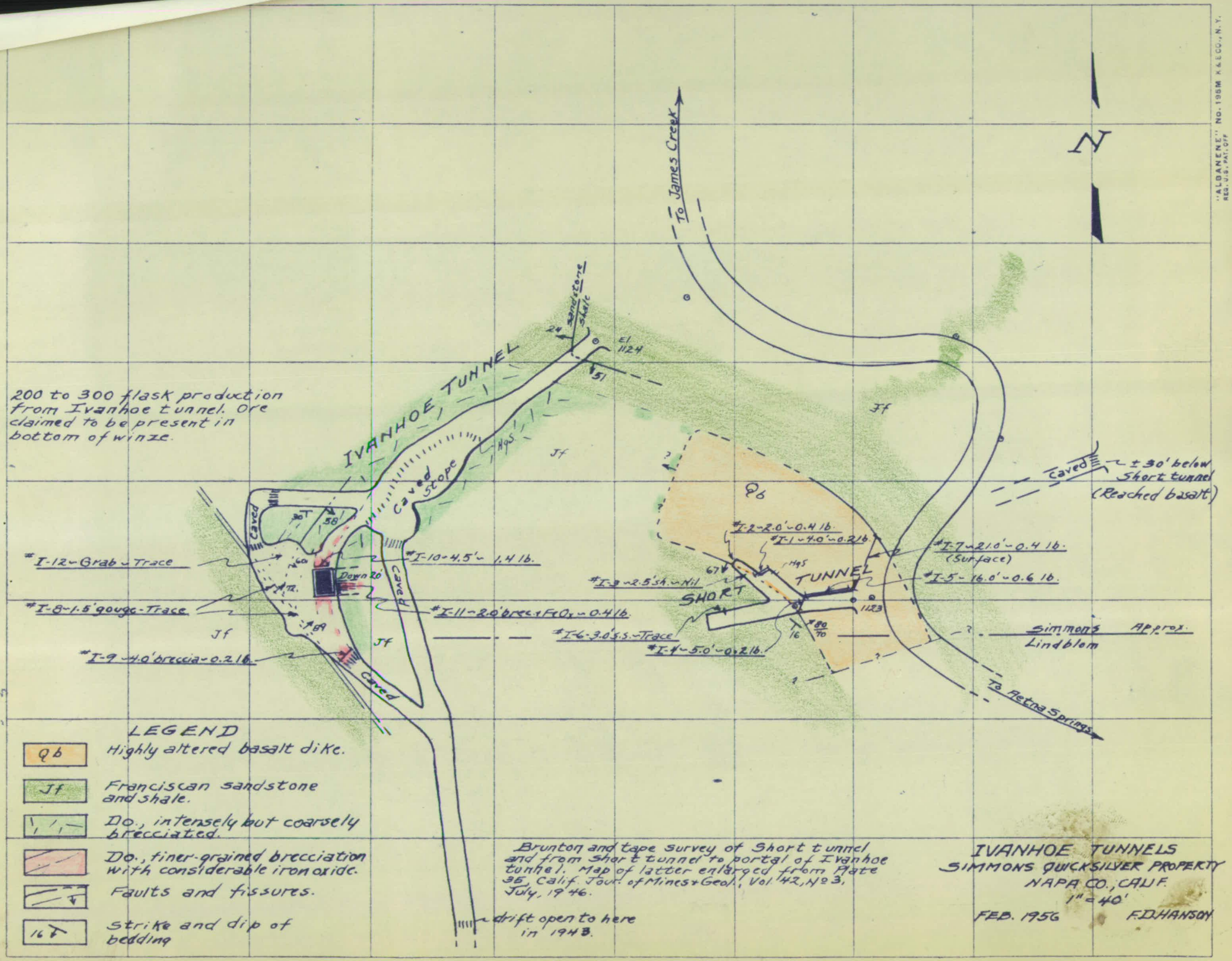

SIMMONS
QUICKSILVER PROPERTY
NAPA COUNTY ~ CALIF.
FEB., 1956 F.D. HANSON
(Geology adapted from map by R.S. Yates and L.S. Hilpert, U.S.G.S. in C.J. of M+G., Vol. 42, No. 3)
LEGEND
Qls Landslides
Qb Basalt
Tsv Sonoma Volcanics
Sp Serpentine
Spa Hydrothermally altered Serp.
Jf Franciscan sandstone and shale
Jfa Hydrothermally alt. Franciscan
Sc Silica-carbonate rock
SCALE: 1 INCH = 1320 FEET
0 1000 2000 3000 4000
OAT HILL
OAT HILL EXTENSION (Anderson)
TOYON (Anderson)
GRANADA
Simmons
JAMES CREEK Pplacer
James Creek
SKETCH MAP
Patton Tunnel
IVANHOE
Ivanhoe Tunnel
Short Tunnel
AETNA (Lindblom)
AETNA EXTENSION
Rhodes Tunnel
Adit No. 1
Silver Bow dike
Silver Bow
Red Hill
Phoenix
No. 2 Tunnel
Aetna Mine Coordinates
N. 9000
E. 9000
Pope
Hobey
Sp
Sc
Tsv
Jf
Jfa
Qls
Qb
"ALBANENE" No. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 5 1958

DATE	INITIALS	CODE



200 to 300 flask production from Ivanhoe tunnel. Ore claimed to be present in bottom of winze.

Brunton and tape survey of Short tunnel and from Short tunnel to portal of Ivanhoe tunnel. Map of latter enlarged from Plate 35, Calif. Jour. of Mines + Geol., Vol. 42, No. 3, July, 1946.

IVANHOE TUNNELS
SIMMONS QUICKSILVER PROPERTY
NAPA CO., CALIF.
1" = 40'
FEB. 1956 F.D. HANSON

"ALBANENE" No. 195M K&E CO., N.Y. REG. U.S. PAT. OFF.