DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

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DMEA~~DMA~~ Docket No. 2332

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EXPLORATION PROJECT

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Routing Slip
(ONE COPY TO USGS & ONE TO USBM)

To: CODE 700 RM. 4640 Date 1-22-52

To: ~~Opr. Comm.~~ Date 3/3/52

To: ~~Mr. Mitterdorf~~ ~~Date~~

To: ~~Mails & Files~~ ~~Date~~

To: ~~Ellis Docket~~ ~~Date~~

To: Opr. Com. Date 7-2-52

To: Act. Adm Date

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FILE COPY
70 SURNAME:

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

F.L. Knouse
Ellis
Thayer
Hedges
Stefanoge

Mr. M. G. White, Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

JUL 22 1952

Re: Docket No. DMEA-2332 (Mercury)
Humboldt County, Nevada

Dear Mr. White:

Reference is made to your application for Government aid on the captioned project in the amount of $91,448.00 and a revised application in the amount of $18,000.00.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade and in quantities that will significantly improve the mineral supply position for the National Defense Program.

A careful study of your application and data available to this Agency, and an examination of the property concerned reveal that the probability of disclosing mineable reserves by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

If additional work on your property reveals information which makes the project feasible, an application may be submitted for consideration.

Sincerely yours,

7/22/52

(signed) FRANK E. JOHNSON
(NB)

Acting Administrator

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

FLKnouse/jem 7/18/52
cc to: Adm. Reading File
Docket
Opr. Committee
Messrs. H.M.Meyer-2623
E.T.McKnight-4204 GSA
Ellis
Knouse
Field Team, Region III (2)

7/15/52 gla

IN REPLY REFER TO:

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

July 15, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: E. T. McKnight

Subject: Denial of application

Re: DMEA-2332
Dutch Flat Mines, Inc.
Mine in Humboldt County, Nevada
$18,000
Mercury

Cinnabar occurs as narrow veinlets and disseminated crystals along a shear zone in highly altered andesitic flows and tuffs. Previous production of about 70 flasks came predominantly from the north workings consisting of a 160 foot inclined shaft with 300 feet of short drifts and stopes. Original proposal for exploration was ambitious and costly, and according to the field team was irrational. Field team has, with concurrence of applicant, revised the proposed program from $91,449 to $18,000. New proposal consists essentially of deepening the previously productive shaft 100 feet, drifting 100 feet on the shear zone at the new level, and sinking a 50 foot test pit. Judging from the character and grade (7 lb. per ton) of the ore previously mined from the shear zone, the revised program would result in a production of probably not more than 30 to 40 flasks which production is all out of proportion with the expected cost. The chances of finding a significant tonnage of new ore by the proposed exploration are too poor to justify Government participation and I recommend denial of this docket.

Edwin T. McKnight

Edwin T. McKnight
Geologist

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

July 15, 1952

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Edwin T. McKnight
Geologist

7/17/52 gla SD

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

July 15, 1952

Memorandum:

To: E. W. Ellis, DMEA

From: Helena M. Meyer, Base Metals Branch

Subject: Field Team report on DMEA-2332 (Mercury) Dutch Flat Mines, Inc., Humboldt County, Nevada, exploration loan $18,000 (revised)

I have read the subject report and recommend denial of the proposed loan. The examining geologists report that it is inferred that the proposed exploration might discover low-grade ore from which 30 to 40 flasks of mercury could be produced. The current mercury supply-requirement situation does not warrant loans for exploration where the finding of such small quantities of metal is anticipated and where the major part of the Government's share of the loan will almost certainly be lost.

Helena M. Meyer

HELENA M. MEYER

Copy to: Minerals Division
Base Metals Branch
E. T. McKnight-GS
DMEA for Field Team
H. M. Meyer
F I L E S

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 17 1952

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF FIELD EXAMINATION
REGION III

DMEA 2332, Dutch Flat Mine

Humboldt County, Nevada

(Mercury)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

H. L. Sobela, Geologist
E. H. Bailey, Geologist
U. S. Geological
Survey

June 20, 1952

Reviewed by
DMEA OPERATING COMMITTEE
7-7-52
(date)

Summary

The Dutch Flat Mines, Inc. property, Humboldt County, Nevada was examined on May 6, 1952 by E. H. Bailey and H. L. Sobel of the Geological Survey in connection with a DMEA application submitted in January, 1952. The examining geologists were accompanied by T. A. Gowan and Merwin G. White, stockholder in the corporation, and N. B. Crawford, consulting engineer-geologist.

The applicant originally proposed sinking a 300-foot inclined shaft, drifting 1200 feet, and putting up three raises to the surface, for a total project cost of $91,448. The field examination proved the exploration proposals to be completely irrational and of a cost out of proportion to expected future production.

On the advice of the examining geologists the applicant submitted a revised exploration project to cost a total of $18,000 of which the government's share would be $13,500. The proposed work includes extending the north inclined shaft 100 feet, drifting 100 feet, and sinking a 50-foot test pit.

A production of 30 to 40 flasks of mercury might be expected to result from the exploration. Considering the high cost of the exploration, and the small production anticipated the government should approve the application only if the current need for mercury is very great.

If it is in the government's interest to approve this application, the cost estimates for several of the exploration proposals should be reduced, particularly the cost of straightening the north inclined shaft.

Introduction

The Butch Flat mine, consisting of 2 claims, is in Sec. 8, T. 38N., R. 40 E., on the southwest slope of the Paradise Range, Humboldt County, Nevada. It is easily reached in dry weather by driving 11 miles north of Winnemucca on U. S. Highway 95, then turning east for 14 miles on a dirt road across Dutch Flat. In wet weather it can be reached by a 20-mile dirt road north of Golconda or a poor dirt road southwest from Paradise Valley.

Cinnabar in place was discovered on the property in 1940 by prospectors looking for placer gold. During 1941 and 1942 a total of 70 flasks of mercury was recovered with an 8-tube retort. The property has been idle since.

Workings

Two areas about 400 feet apart have been developed on the same structure. The northern workings consist of a 160-foot shaft inclined 35° to the southeast from which extend about 300 feet of short drifts and stopes.

The southern workings include a 100-foot inclined shaft and a small drift and stope. A total of about 600 feet of bulldozer cuts have been made on the surface at the north and south workings but at the time of examination the cuts were mostly covered and of little value.

Geology

The rocks in the vicinity of the workings consist of andesitic flows and tuffs which have been greatly altered along a strong shear zone striking N.45°E., and dipping 35° southeast. The zone ranges from 2 to 5 feet in thickness where exposed in the workings and has a strike length of at least 800 feet. Cinnabar, the only ore mineral observed, occurs as narrow veinlets and disseminated crystals within the shear and locally in the wall rocks. Minor amounts of quartz and pyrite accompany the cinnabar.

The mined ore came mostly from the north workings and reportedly consisted of a narrow vein along the shear zone and some mineralized wall rock. Judging from the size of the calcine dump and the recorded production of 70 flasks, the ore averaged about 7 pounds of mercury per ton.

The applicant claimed 5200 tons of measured and probable ore containing 2.84 pounds of mercury per ton. During the field examination, however, the applicant agreed with the examining geologists in that the sampling was highly unrepresentative and that no ore reserves existed.

Exploration

The original application proposed sinking a 300-foot inclined shaft from the surface, 1200 feet of drifting, and three raises to the surface for a total project cost of $91,448. The field examination proved the exploration proposals to be completely irrational and of a cost far out of proportion to expected future production. The inclined shaft as proposed would have been driven at least 200 feet before intercepting the footwall of the shear zone.

On the advice of the examining geologists the applicant submitted a revised exploration project with a total cost of $18,000. The proposed work consists of the following items.

1. Rehabilitating and straightening the north inclined shaft and equiping the shaft by purchasing cable, rails, sheave, ventilating pipe, and a ventilating fan	$ 6,000.00
2. Extending the shaft 100 feet in the shear at a cost of $42.00 per foot	4,200.00
* 3. Drifting from the bottom of the shaft 100 feet northeast along the shear at a cost of $28.00 per foot	2,800.00
4. Sinking a 50-foot test pit at $20 per foot	1,000.00
5. Repairing the existing 8 tube retort for assaying	1,200.00
6. Engineering, supervision, and accounting	2,800.00
Total	$ 18,000.00

*Applicant inadvertantly omitted this item in the revised exploration project leaving $2800 of the total cost unaccounted for. There is no doubt

the $2800 was meant for 100 feet of drifting as this had been pre-arranged during the field examination.

Equipment the applicant will supply includes a pick-up truck, compressor, hoist and engine, 2 mine cars, one drill with steel, air hose, and timber.

Items 2,3, and 4, the actual exploration work, are all feasible geologically and appear to be of reasonable cost. The 50-foot test pit (item 4) is to be sunk on the intersection of the shear and a quartz vein.

Item 1 should be reduced substantially. The existing north inclined shaft requires only minor work to make it more than adequate for the exploration planned. The proposed straightening of the incline to avoid a "dog leg" is unnecessary, and should be considered as a development rather than an exploration proposal.

Item 5 probably is not allowable as an exploration expenditure.

Item 6 appears to be out of proportion to the estimated cost of the entire project. This discrepancy will be more pronounced if Item 1 is reduced.

Conclusions

All exploration work proposed - extending the north shaft 100 feet, drifting 100 feet, and sinking a 50-foot test pit - will be conducted within the shear zone. There is no geologic evidence to indicate that any large bodies of mercury ore can be expected at depth or north of the workings. It is believed, however, that the exploration might discover low-grade ore from which 30 to 40 flasks of mercury could be recovered with retorts.

Under the five percent repayment schedule currently in effect, the government would not recover its full share of the exploration costs unless about 1500 flasks of mercury were produced as a result of the exploration; it is extremely unlikely this large a production would result.

The application should be approved only if the need for mercury is great enough to justify government participation under these conditions.

In the event the government decides to approve the application the cost estimates should be reduced substantially as described under "exploration".

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. DMEA-2332

Date received 1-18-52

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 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. 104 (a) (1) (A) of the Defense Production Act of 1950~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) 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.

5 GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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JAN 18 1952

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)
T. A. Cowan Winnemucca, Nevada	President D.	None	$25,000	204,000		None	
G. R. Harmon Salt Lake City 15, Utah	D. Vice-Pres.	None	$200,000	207,333		None	
Merwin G. White Salt Lake City 15, Utah	Sec.-Treas. D.	None	$15,000	102,000		None	
Marvin J. Bertoch Salt Lake City, Utah	Attorney D.	None		25,000		None	
George W. Snyder Sr. Salt Lake City, Utah	Stockholder			100,000		None	
T. A. Cowan G. R. Harmon Merwin G. White Marvin J. Bertoch	Other largest stock-holders						
	Total	None	x x x x x	638,333		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	$ 200,000	$68,066.60	$ .10	680,666	None
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: NONE

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 a available report on the geology and ore reserves.

(*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)	1200 short tons	2.84 lbs.	$7.668	$7.284	$3.25
Indicated (probable)	4000 short tons	2.84 lbs.	$7.668	$7.284	$3.25

(*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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary - Treasurer
(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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

GENERAL TECHNICAL DATA

1. (a) The chief mineral product contained in the ore is mercury sulphide (cinnabar) which may be reduced to metallic "mercury".
   (b) No byproducts are expected from this project.

2. The mining property is known as the Dutch Flat Mine. To the knowledge of the applicant no other name has ever been applied to the property.

   (a) There are 60 feet of vertical shafts and 275 feet of inclined shafts.

   (b) There are 210 linear feet of drifting and crosscutting open for inspection within the project.

   (c) Numerous adits, open cuts and prospect tunnels exist within the project, but have not been surveyed as they have no apparent immediate bearing on the project.

   (d) Mineralized zone has been stripped from three to four feet of overburden for over 600 feet, exposing the surface intermittently for approximately 1200 lineal feet.

   All workings are dry. Future capacity to produce will be determined by the extent of ore bodies exposed by the proposed exploration work.

3. (a) The nearest railroad shipping point is Golconda, Nevada, approximately 17 miles south of the property, but Winnemucca, Nevada, 25 miles south, is used because of better access roads.

   (b) Paradise Mining District (unorganized).

   (c) Parts of Sections 17-18-8-9- Township 38 N. Range 40 E. M.DBM.

   (d) Humboldt County, Nevada

4. (a) Property is now being operated by applicant with 3 men using mechanical equipment to strip and expose the outcroppings of the mineralized zone, rehabilitating the housing, and general preparation for exploratory work.

   (b) The property is operated by the owner.

5. Not in production.
   Beginning of production possible within 6 months after approval of this project.

6. (a) Applicant, Dutch Flat Mines, Inc., a Nevada Corporation, was recently incorporated.

   (b) The company affairs are directed by:

      1. Mr. T. A. Cowan, President, of Winnemucca, Nevada, who is acting in the capacity of Mine Superintendent. Mr. Cowan has been part owner of the property for 13 years and has had ample opportunity to familiarize himself with all local problems concerning the property.

General Technical Data
6. (b) Continued

2. Mr. G. R. Harmon of Salt Lake City 15, Utah, Vice-President, has conducted a highly successful merchandising business for the past 18 years and has conducted various prospecting and mining ventures for the past 15 years.

3. Mr. Merwin G. White of Salt Lake City 15, Utah, Secretary-Treasurer, is a metallurgical engineer and has had 13 years experience in the field of refining and experimenting on ores and metals.

4. Mr. Marvin J. Bertoch of Salt Lake City, Utah, member of the Board of Directors, is a successful attorney and has practiced his profession for 13 years.

5. Mr. George W. Snyder, Sr. of Salt Lake City, Utah, has been connected with many successful mining ventures for the past 40 years in an executive capacity.

6. Mr. Nicholas B. Crawford of Tooele, Utah, has operated mining properties and has practiced as Consulting Engineer for the past 25 years.

7. History:

(a) Cinnabar was discovered in place on the property in 1940 by lessees prospecting for placer gold, although individual crystals had been found in the gravel for years in the placer operations below and at the level of the discovery. In 1942 the two claims involved in this project were leased to promoters who prospected the ledges and constructed an 8 tube retort unit. A total of 70 flasks of mercury were produced by the end of 1942. At the collapse of the market in 1944 with a sudden cessation of demand, the records of production and actual history are shrouded in some mystery by the disappearance of the principal promoters and with them all company funds and records. All available high grade ores in two incline shafts had been removed and as there was no incentive for further developments, the property has stood idle until recent months. The total production is now unknown and the total tonnage of ore treated is also a matter of conjecture.

(b) Unknown

(c) Attached Exhibit V and VI - Reports by Nicholas B. Crawford with supplement.

8. 9. 10. See Form MF-100

11. Present production nil. It is contemplated that sufficient ore may be indicated by proposed underground exploration to justify a 50 ton per day minimum capacity reduction plant.

General Technical Data
Continued

12. (a) Ores occur in what is known as a "metamorphic" type deposit, in a sheared zone which has been exposed for a total length of 1200 feet following the knuckle of the axis of a sharp anticlinal fold in the andesite caused by intrusion of a boss of granitic porphyry. Cinnabar and associated minerals (pyrite) with a little opalite occurs in a stockwork of veinlets and lenses in the kaolinized portions of the sheared (crushed) zone - apparently introduced by hydrothermal action, with lesser amounts disseminated as individual crystals of cinnabar throughout an apparent average width of 8 feet.

(b) 1. Exhibits-II III IV Plat, and sections of upper and lower inclines.

2. Available ores in lower incline lie in block 30 feet deep by (average) 6 feet wide. 1200 short tons with geometric average of 0.142% Hg. Probable ores are calculated by assuming same average grade for block of ground 30 feet deep for the full length of sampled areas. Total 4000 tons. (Samples for assay were carefully sorted to exclude any visible cinnabar, to prevent erroneously high results.)

(c) Placer deposits not involved in this project.

13. The property is reached by two roads. Winnemucca is reached by 14 miles of dirt roads across Dutch Flat, which connects with 11 miles of paved highway. This dirt road requires simple grading, but is sometimes impassable in extremely wet weather or during spring of year.

Another road consisting of 7 miles of dirt road and 10 miles of surfaced road connects with Golconda - a station on the Western Pacific and Southern Pacific Railroads and U. S. Highway 50. The dirt portion of this road requires grading to make it passable for all types of vehicles and will be used in wet weather and in spring of the year.

14. Sweet water for domestic and mining purposes, at present, may be obtained from Springs near the head of Idaho Gulch - 1-1/2 miles above the camp site, or from a large spring in Mill Canyon - 3 miles east of the property. Ample water for all purposes including condensers is available from a dug well and 3 miles of pipe line belonging to applicant.

15. It is contemplated to use gasoline engines as source of power for drilling and hoisting. -One 120 H.P. engine for compressor and one 120 H.P. engine for hoisting.

16. Employees now engaged in preparatory work only. It is contemplated that the labor force required under this project will consist of : 1 Supervisor, 2 miners, 2 muckers, 2 hoistmen, 1 utility man, 1 camp cook, and 1 assayer (bookkeeper).

General Technical Data
Continued

17. Buildings now on property:

1 stone, 2 room boarding house - good condition
1 frame barracks - 5 double bedrooms, common room and wash room - requires insulating, heating equipment and minor repairs.
1 frame shop building.

Equipment:

8 tube, coal fired, retorts. Requires conversion to use of propane gas and repair to condenser tubes. May be used to reduce bulk samples removed in course of exploration to rest for recoverable mercury and to determine metallurgical problems.
1 Ingersoll Rand 220 ft. portable compressor with gasoline engine.
1 C. P. Drifter with accessories.
1 Double drum hoist, skid mounted with gasoline engine.

18. None.

Tooele, Utah
October 13, 1951

Dutch Flat Mines, Inc.
Winnemucca, Nevada

Gentlemen:

Eight days of field study and surveying on your property in the Paradise Mining District, Humboldt County, Nevada afforded me opportunity to secure additional data concerning your mercury deposit and to extend the topographical map of your holdings.

The mercury bearing formation has been stripped of over-burden in two places for a total exposure of six hundred feet along the strike. An area around the lower shaft was stripped from a point fifty feet north of the shaft to a point 150 feet south of the shaft, making a total surface exposure of 240 feet in length with an average width of eight feet in this area. An area some 150 feet long and 50 feet wide has been stripped about 200 feet north of the upper shaft, exposing an intersection of the contact with a cross fissure. This work had not been completed due to a breakdown of equipment, but staining of the surface with typical "paint" smeared on the surface by the bulldozer blade indicates the presence of mercury.

The mercury is deposited in a crushed zone of the "Metamorphic" type about 100 feet wide with an inferred length of 900 feet. Apparently there is a "stockwork" of veinlets roughly following the outcrop of the crushed zone, in lenzes of soft gouge or kaolinized material lying between and around blocks of unaltered country rock. This crushed zone is intersected by a series of cross-fissures, and at one point by the contact with the andesite, and an intrusive rock. The andesite at this intersection has been altered by movement and pressure until it resembles a schist. The ore bearing kaolinized material is exposed for thickness varying from seven to 19 feet and are somewhat concentrated on the hanging wall side, and are more or less continuous for the length of the zone.

A series of samples, tabulated below, taken in and near the lower shaft indicate that the values in that portion of the deposit will yield an average of 2.36 lbs. mercury per ton. The sampling represents a total probable 7000 tons of ore above the thirty foot level. All seams of concentrated cinnabar were carefully excluded from the samples. The cinnabar seams occur irregularly through the ore body and if permitted to remain in a sample could result in an erroneously high return. Three samples taken in and near the upper shaft yielded considerably higher results, and indicate that higher grade ores may be expected in that vicinity.

Several of the underground workings were surveyed and plotted. Plates showing the surveyed portions are submitted herewith. One sample (No. 1) was taken from a 12 inch quartz vein in a short tunnel 200 feet west of the mercury outcrop and yielded the following assay: Gold 0.165 oz. per ton, Silver 0.95 oz. per ton, Mercury 0.05% (1 lb.) per ton. Another sample (No. 5) was cut across three feet of a quartz fissure in a tunnel on Belmont Hill, 300 feet east of the mercury deposit yielded the following assay: Gold 0.14 oz. per ton, Silver 3.90 oz. per ton, Mercury 0.05% (1 lb. per ton).

Samples taken from the mercury deposit yielded the following analyses:

No. 2	Across 7 feet on surface 40 ft. W. of lower Shaft				0.20% Hg. (4.00 lb)
No. 3	" 19 " " " 60 ft. W. " " "				0.12% Hg. (2.40 lb)
No. 4	" 7 " " " 125 ft. W. " " "				0.11% Hg. (2.20 lb)
No. 6	" 3 " 10 ft. below collar lower shaft				0.12% Hg. (2.40 lb)
No. 7	" 3 " Face of raise from 30 ft. level				0.21% Hg. (4.20 lb)
No. 8	" 6 " 30 ft. below collar lower shaft				0.10% Hg. (2.00 lb)
No. 9	" 6 " 20 ft. " " " "				0.11% Hg. (2.20 lb)
No. 10	" 6 " on surface 50 ft. north of lower shaft				0.11% Hg. (2.20 lb)
No. 11	" 3 " 30 ft. below collar upper shaft				0.53% Hg. (10.60 lb)
No. 12	" 3 " 10 ft. " surface 30 ft. North of upper shaft				0.28% Hg. (5.60 lb)

All of the above samples were taken by channelling 1 foot wide by 6 inches deep, and quartering the bulk to sample size in the usual method. Streaks and seams of obvious high grade were excluded and avoided in sampling.

It is apparent that the mercury deposit must be considered as a separate project from the balance of the property when considering a long time development program. The fault zone should be explored to a depth of 200 feet or more by shaft and appropriate drifts and raises. By so doing sufficient tonnage of furnace grade ore should be indicated to warrant the erection of suitable reduction units.

An exploratory shaft sunk at 45 degree angle for a slant distance of 300 ft. would provide a vertical depth of 200 ft. The crushed zone could then be explored by driving toward the south for 500 ft. and toward the north for 700 ft. with occasional crosscuts to outline the limits of alteration would properly explore the mineralization and should indicate the extent and direction of development to follow. Ventilation and escape raises should be extended upward to connect with both of the present inclines. It is possible that this exploratory work would incidentally indicate sufficient tonnage of commercial grade ores to warrant erection of a furnace without further development. The exact direction of the underground exploration will be determined by geological conditions encountered at the 200 foot level.

As all of this exploratory work would be within the metamorphic zone it is entirely possible that numerous rich lenses and kidneys of high grade cinnabar would be encountered. Any such ores taken out in the course of exploration could be treated in the present retort equipment as a source of immediate revenue.

A schedule of estimated costs accompanies this supplement.

Respectfully submitted,

Nicholas B. Crawford

NICHOLAS B. CRAWFORD
Consulting Engineer

Form MF-101
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1065.
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. DMEA-2332

Date received 1-18-52

Participation

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $91,448.90

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Dutch Flat, Florence Range (Hot Springs Range)
Humboldt County, Nevada

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

Defense Minerals Administration
RECEIVED
JAN 1 1952

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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary-Treasurer
(Title)

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

*Same as footnote on page 1.

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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

THE APPLICANT

1. Please refer to MF-100
2. " " " " "
3. " " " " "
4. " " " " "
5. " " " " "

6. None

7. Does not apply.
8. See attached balance sheet.
9. Does not apply.

THE PROPERTY

10. (a) Golden Cycle No. 1 Lode and Golden Cycle No. 2 Lode Mining Claims Located in the Paradise Mining District, Humboldt County, Nevada, records reference to Humboldt County Recorder in Winnemucca, Nevada, and more fully described under 10 (b).

(b) Beginning at a point 445 feet East and 300 feet South of the Section Corner common to Sections 8, 9 - 16 and 17, Township 38 N. Range 40 E. MDBM of G. L. O. Survey, thence South 10 degrees West 1200 feet, thence North 40 degrees West 1500 feet, thence North 10 degrees East 1200 feet, thence South 40 degrees East 1500 feet to place of beginning, embracing 40 acres, more or less, and representing the area claimed by Golden Cycle No. 1 and Golden Cycle No. 2 Lode Mining Claims as described in (a), both areas being the same.

The described area conflicts in part with the Dutch Flat Placer Claim No. 1, owned by the applicant. The metallic contents, if any, of the alluvial gravel are specifically reserved from this project (See 19).

11. Please Refer to MF-100
12. " " " " "
13. " " " " "
14. " " " " "

15. There are no existing facilities for marketing crude mercury ores or concentrates. It is contemplated that, if this project is successful, a reduction plant of adequate capacity and efficient design will be erected on the property to reduce the ores to their metallic mercury content, and the mercury will be offered on the commercial market (San Francisco, California). The erection of the plant will be considered as a separate or additional project when the results of the proposed exploration work are available for analysis from technical and economic standpoints.

The Property
Continued

16. Please Refer to MF-100
17. " " " " "
18. " " " " "

19. (a) As the applicant is the sole owner of both lode and placer claims, the noted conflict has no legal significance. It is the intention of the applicant to develop and operate the placer gravel as a separate project. The two projects will not interfere as there is ample area for waste dumps and surface facilities. It is the intention of the applicant to remove the gravels for treatment in a now partially completed washing plant; therefore, it is requested that the placer gravels be reserved and excluded from this project.

(b) The existing reduction plant (8 tube retort) may, with slight expenditure, be utilized for treatment of bulk samples (1000 lbs. or more) which will permit accurate sampling during exploration work, and will yield practical results in terms of "recoverable" mercury, undistorted by vagaries of hand sampling.

THE EXPLORATION

20. Mercury Ores (Cinnabar and its alteration products) occurring as stock works of silicious veins and as individual crystals disseminated through a kaolinized and altered shear zone.

21. It is proposed that the altered shear zone be explored to a mean depth of 200 feet by means of a 45 degree inclined shaft 300 feet long. To provide ventilation, an escapeway, and incidentally to outline the known ore body at intermediate depth, it is proposed that a drift of 50 feet in length and a raise of 40 feet be run from a point 150 feet below the portal of the incline to connect with the bottom of the "lower incline". It is proposed that a station and skip pocket be constructed at the bottom of the incline and drifting to a maximum of 700 feet southeasterly and 500 feet northwesterly along the shear zone be conducted with appropriate corsscutting to explore the width of the zone. A raise of 110 feet will connect the lower (200 ft.) level with the bottom of the upper incline, serving to ventilate the lower level and to explore the known ore body existing in the upper incline. A cross cut of up to 100 feet and a raise to the surface at the northermost surface exposure (at junction with a cross fissure) is designed to prove the mineralization at that point. The southerly drift is designed to intercept a quartz fissure appearing on the surface approximately 500 feet south of the "lower" incline. As work on more than one heading may be carried on simultantaneously, it is estimated that the entire area may be explored within a period of 10 months from the start of the project. The extent and final direction of underground explorations will be determined by geological and physical conditions found on the 200 foot level but which are now conjectural.

NE?/SW?

50

1200

100

The Exploration
Continued

22. See reports and supplements, maps, etc.

THE REQUIREMENTS AND COSTS

23. (a) Labor - per shift. Sinking.

1 Machine Miner	@ $13.20	
1 Mucker	@ 12.00	
1 Hoist & Utility Man	@ 12.00	
1 Truck Driver & Surface Man	@ 12.00	
Total per shift	$49.20	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	7.38	
	$56.58	
Estimated 120 shifts Total Labor		$ 6,789.60

300' ov. Total per foot $22.63

Labor - per shift. Drifting and Crosscutting (2 Headings)

2 Machine Miner	@ $13.20	$26.40	
2 Mucking Machine Operator	@ 13.20	26.40	
2 Trammers	@ 12.00	24.00	
2 Hoist & Utility Man	@ 12.00	24.00	
2 Truck Driver & Surface Man	@ 12.00	24.00	
Total		$144.80	
Comp. Ins., O.A.B., S.S. Taxes @ 11%		21.72	
Total per shift		$166.52	
Estimated progress 10 feet Cost per foot $16.652			
1350? Total 1600 feet @ 16.652			$26,643.20

Labor - per shift. Raising

1 Machine Miner	@ $13.20	
1 Helper	@ 12.00	
1 Mucker	@ 12.00	
1 Mucking Machine Operator	@ 13.20	
1/2 Hoist & Utility Man	@ 6.00	
1/2 Truck Driver	@ 6.00	
Total per shift	$62.40	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	9.36	
Total	$71.76	
Estimated progress 5 feet per shift 78 shifts	Cost per foot $14.35	$11,193.00
- - - - - - -	Total Labor	$44,625.80

? 390' = where

The Requirements and Costs
Continued

23. (b) Supervisory

ok ? 1 Mine Superintendent	$ 400.00 per month	
? 1 Assistant Supt. - Assayer	350.00 " "	
? 1 Engineer - Part Time	300.00 " "	
Total	$ 1,050.00 per month	
? Comp. Ins., O.A.B., S.S. Taxes	152.50	
Total per month	$ 1,202.50	
Total for 10 Months		$12,025.00
Detail (c) Repair to Bunk House	$ 1,200.00	
No Repair to Retorts	500.00	
Overhaul Engine, Hoist, etc.	200.00	
Total	$ 1,900.00	1,900.00
(d) Construct Head Frame	$ 2,000.00	
Construct Hoist & Compressor House	1,200.00	
Total	$ 3,200.00	3,200.00
(e) Hoisting Cable & Connections	$ 490.00	
2 Incline Skips	500.00	
Mine Timber	1,568.00	
Rail & Accessories 9-1/2 Tons	1,738.40	
Pipe 1-1/2" & 1/2" @ 46¢ with fittings	1,060.00	
Bits	704.00	
Dull Steel	350.00	
4 Mine Cars @ $140.00	560.00	
Total	$ 6,970.40	6,970.40
? (f) Rental of Mucking Machine $250.00 per month for 8 months		2,000.00
(g) 210 Cu.Ft. Compressor	$ 150.00 per month	
Drilling Machine & Accessories	75.00 " "	
Hoist & Engine	150.00 " "	
Tracks	200.00 " "	
Total 10 Months	$ 575.00 per month	
Total for 10 Months		5,750.00
(h) Small Tools:		
1 Dozen Dirt Shovels	$ 36.00	
1 Dozen Dirt Picks	45.00	
Sundry Small Tools	150.00	
First Aid Supplies	50.00	
Total	$ 281.00	
Explosives	$ 3,845.00	
Carbide	80.00	
Total	$ 4,206.00	4,206.00
(i) Fuel - Gasoline, Oil, Etc.		2,549.90
? (j) Unseen Expenses - 10%		8,222.60

The Requirements and Costs
Continued

23. SUMMARY

(a)	Labor:			
	Sinking	$ 6,789.60		
	Drifting	26,643.20		
	Raising	11,193.00		
	Total		$44,625.00	
(b)	Supervision & Engineering - 10 Months		12,025.00	
(c)	Repairs		1,900.00	
(d)	Construction		3,200.00	
(e)	Equipment & Supplies - Major Items		6,970.40	
(f)	Rent of Equipment Not Owned		2,000.00	
(g)	Rent Value of Equipment Owned		5,750.00	
(h)	Equipment & Supplies - Minor Items		4,206.00	
(i)	Fuel, Etc.		2,549.90	
(j)	Unseen Expenses - 10%		8,222.60	
	TOTAL			$91,448.90

24. It is estimated that the incline shaft will require a total of 12 weeks for completion OR 3 Months

Drifting and Crosscutting will be completed in 160 shifts or total elapsed time 16 weeks OR 4 Months

Raising - to be carried on simultaneously with drifting - excepting long raise. Should require 6 additional weeks OR 1-1/2 Months

Total Time 8-1/2 Months

Allowing 1-1/2 Months for unseen delays 1-1/2 Months

TOTAL 10 MONTHS

Form MF-103
April 1951

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

BALANCE SHEET
November 30, 1951

ASSETS:				
Bank Balance			$ 1,511.41	
Mine Contingent Fund			600.00	
Accounts Receivable:-T. A. Cowan			2.70	
Stock Subscriptions Receivable:			175.00	
Current Assets: - - - - - - - - - - - - - - - -			1,939.11	
Inventory:-Mine Supplies (Other Assets): - - - -			1,850.00	
Property & Claims Inv. a/c	$ 102,000.00			
Machinery & Equipment a/c	16,375.00			
Trucks, Bulldozers, Cats. a/c	22,500.00			
Ore Bins	400.00			
Pipe Line & Well	25,300.00			
Miscellaneous Tools	500.00			
Buildings	6,300.00			
Furniture & Fixtures a/c	500.00			
Fixed Assets: - - - - - - - - - - - - - - - -			173,875.00	
Development Costs	20,326.45			
Organization Costs	1,305.95		21,632.40	
TOTAL ASSETS: -				$ 199,296.51
LIABILITIES:				
Accounts Payable:-Control			$ 7,014.00	
Notes Payable:-(George Etchert)			1,252.00	
Social Security Taxes Payable	$	5.40		
Unemployment Taxes Payable		4.86	10.26	
Current Liabilities:- - - - - - - - - - - - - -			8,276.26	
Mortgage Payable:-(Other Liabilities)- - - - - -			40,000.00	
Capital Stock Authorized		200,000.00		
Less Unissued Capital Stock		128,930.90		
Capital Stock Subscribed - - -		71,069.10		
Premium on Capital Stock at Par		79,951.15		
Net Worth:- - - - - - - - - - - - - - - - - -			151,020.25	
TOTAL LIABILITIES and NET WORTH - - - - - - - - - - -				$ 199,296.51

7/8/52 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

Office of
Executive Officer
DMEA Field Team
Region III

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

June 26, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 2332 (Mercury), Dutch Flat Mines, Inc. Humboldt County, Nevada

Reference is to your subject letter, dated March 4, requesting an examination of the applicant's property in the unorganized Paradise Mining District of Nevada.

The property was examined on May 6, 1952 and attached are four copies of a report - DMEA 2332, Dutch Flat Mine, Humboldt County, Nevada (Mercury), by H. L. Sobel and E. H. Bailey, Geologists, U. S. Geological Survey, dated June 20, 1952.

The geologists report that it is inferred that the proposed exploration might discover low-grade ore from which 30 to 40 flasks of mercury could be produced. Geologic evidence indicates that there is almost no possibility for discovery of large or rich ore bodies, or that the property could become an important producer. If the project were initiated, production of about 1500 flasks of mercury would be required for the Government to recover its full share of the exploration costs.

The Government should approve the application only if the need for mercury is so great that production of 30 to 40 flasks of mercury would justify the probable loss of most of the Government's share of the exploration costs.

The docket is being returned herewith.

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

Attachments

Copy to E. H. Bailey, USGS

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF FIELD EXAMINATION
REGION III

DMEA 2332, Dutch Flat Mine

Humboldt County, Nevada

(Mercury)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

H. L. Sobel, Geologist
E. H. Bailey, Geologist
U. S. Geological
Survey

June 20, 1952

Summary

The Dutch Flat Mines, Inc. property, Humboldt County, Nevada was examined on May 6, 1952 by E. H. Bailey and H. L. Sobel of the Geological Survey in connection with a DMEA application submitted in January, 1952. The examining geologists were accompanied by T. A. Gowan and Merwin G. White, stockholder in the corporation, and N. B. Crawford, consulting engineer-geologist.

The applicant originally proposed sinking a 300-foot inclined shaft, drifting 1200 feet, and putting up three raises to the surface, for a total project cost of $91,448. The field examination proved the exploration proposals to be completely irrational and of a cost out of proportion to expected future production.

On the advice of the examining geologists the applicant submitted a revised exploration project to cost a total of $18,000 of which the government's share would be $13,500. The proposed work includes extending the north inclined shaft 100 feet, drifting 100 feet, and sinking a 50-foot test pit.

A production of 30 to 40 flasks of mercury might be expected to result from the exploration. Considering the high cost of the exploration, and the small production anticipated, the government should approve the application only if the current need for mercury is very great.

If it is in the government's interest to approve this application, the cost estimates for several of the exploration proposals should be reduced, particularly the cost of straightening the north inclined shaft.

Introduction

The Dutch Flat mine, consisting of 2 claims, is in Sec. 8, T. 38N., R. 40 E., on the southwest slope of the Paradise Range, Humboldt County, Nevada. It is easily reached in dry weather by driving 11 miles north of Winnemucca on U. S. Highway 95, then turning east for 14 miles on a dirt road across Dutch Flat. In wet weather it can be reached by a 20-mile dirt road north of Golconda or a poor dirt road southeast from Paradise Valley.

Cinnabar in place was discovered on the property in 1940 by prospectors looking for placer gold. During 1941 and 1942 a total of 70 flasks of mercury was recovered with an 8-tube retort. The property has been idle since.

Workings

Two areas about 400 feet apart have been developed on the same structure. The northern workings consist of a 160-foot shaft inclined 35° to the southeast from which extend about 300 feet of short drifts and stopes.

The southern workings include a 100-foot inclined shaft and a small drift and stope. A total of about 600 feet of bulldozer cuts have been made on the surface at the north and south workings but at the time of examination the cuts were mostly covered and of little value.

Geology

The rocks in the vicinity of the workings consist of andesitic flows and tuffs which have been greatly altered along a strong shear zone striking N.45°E., and dipping 35° southeast. The zone ranges from 2 to 5 feet in thickness where exposed in the workings and has a strike length of at least 800 feet. Cinnabar, the only ore mineral observed, occurs as narrow veinlets and disseminated crystals within the shear and locally in the wall rocks. Minor amounts of quartz and pyrite accompany the cinnabar.

The mined ore came mostly from the north workings and reportedly consisted of a narrow vein along the shear zone and some mineralized wall rock. Judging from the size of the calcine dump and the recorded production of 70 flasks, the ore averaged about 7 pounds of mercury per ton.

The applicant claimed 5200 tons of measured and probable ore containing 2.84 pounds of mercury per ton. During the field examination, however, the applicant agreed with the examining geologists in that the sampling was highly unrepresentative and that no ore reserves existed.

Exploration

The original application proposed sinking a 300-foot inclined shaft from the surface, 1200 feet of drifting, and three raises to the surface for a total project cost of $91,448. The field examination proved the exploration proposals to be completely irrational and of a cost far out of proportion to expected future production. The inclined shaft as proposed would have been driven at least 200 feet before intercepting the footwall of the shear zone.

On the advice of the examining geologists the applicant submitted a revised exploration project with a total cost of $18,000. The proposed work consists of the following items.

1. Rehabilitating and straightening the north inclined shaft and equiping the shaft by purchasing cable, rails, sheave, ventilating pipe, and a ventilating fan	$ 6,000.00
2. Extending the shaft 100 feet in the shear at a cost of $42.00 per foot	4,200.00
* 3. Drifting from the bottom of the shaft 100 feet northeast along the shear at a cost of $28.00 per foot	2,800.00
4. Sinking a 50-foot test pit at $20 per foot	1,000.00
5. Repairing the existing 8-tube retort for assaying	1,200.00
6. Engineering, supervision, and accounting	2,800.00
Total	$ 18,000.00

*Applicant inadvertantly omitted this item in the revised exploration project leaving $2800 of the total cost unaccounted for. There is no doubt

the $2800 was meant for 100 feet of drifting as this had been pre-arranged during the field examination.

Equipment the applicant will supply includes a pick-up truck, compressor, hoist and engine, 2 mine cars, one drill with steel, air hose, and timber.

Items 2,3, and 4, the actual exploration work, are all feasible geologically and appear to be of reasonable cost. The 50-foot test pit (item 4) is to be sunk on the intersection of the shear and quartz vein.

Item 1 should be reduced substantially. The existing north inclined shaft requires only minor work to make it more than adequate for the exploration planned. The proposed straightening of the incline to avoid a "dog leg" is unnecessary, and should be considered as a development rather than an exploration proposal.

Item 5 probably is not allowable as an exploration expenditure.

Item 6 appears to be out of proportion to the estimated cost of the entire project. This discrepancy will be more pronounced if Item 1 is reduced.

Conclusions

All exploration work proposed - extending the north shaft 100 feet, drifting 100 feet, and sinking a 50-foot test pit - will be conducted within the shear zone. There is no geologic evidence to indicate that any large bodies of mercury ore can be expected at depth or north of the workings. It is believed, however, that the exploration might discover low-grade ore from which 30 to 40 flasks of mercury could be recovered with retorts.

Under the five percent repayment schedule currently in effect, the government would not recover its full share of the exploration costs unless about 1500 flasks of mercury were produced as a result of the exploration; it is extremely unlikely this large a production would result.

The application should be approved only if the need for mercury is great enough to justify government participation under these conditions.

In the event the government decides to approve the application the cost estimates should be reduced substantially as described under "exploration".

FILE COPY
SURNAME:

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

MAR 4 1952

MAR 4 1952

Mr. M. C. White, Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

Re: Docket No. DMA-2332 (Mercury)
Humboldt County, Nevada

Dear Mr. White:

Your application for assistance in exploring your property in Humboldt County, Nevada, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, Region III, DMEA Field Team, 1012 Flood Building, 870 Market Street, San Francisco 2, California.

The Regional office may contact you in the near future in regard to your project.

Sincerely yours,

C. O. Mittenderf

Acting Administrator
Defense Minerals Exploration
Administration

HFKeller/jem
3/3/52
cc to: Adm. Reading File
Docket
Messrs. Meyer, HM Rm. 3623
McKnight, LT Rm. 4204 GS
Ellis
Keller
Field Team, Region III (2)

700
FILE COPY
SURNAME:

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

AIR MAIL

MAR 4 1952

H. Miller
Ellis
Thayer

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

Re: Docket No. DMEA-2332 (Mercury)
Dutch Flat Mines, Inc.
Humboldt County, Nevada

Dear Mr. Miller:

This is your authority to make a Field Team examination of the captioned applicant's property in the unorganized Paradise Mining District of Nevada if you deem it necessary. We are enclosing one copy of the application and supporting evidence.

There is a very good possibility that your agency has sufficient data on this property to permit it to judge the merits of the proposal, property and applicant, and make recommendations on that information rather than to make a field examination. Mr. Edgar Bailey a member of your staff wrote the report in the University of Nevada Bulletin, Volumn 38, No. 5 of 1944, concerning the Dutch Flat Mine. Since that date, the Applicant Corporation has done apparently a large amount of stripping which might add materially to your knowledge of the property.

The applicant did not answer Clause 9 of Form MF-103 other than to state "Does not apply". He has since written stating their ability to finance their proportion of the estimated costs of the project.

There are several discrepancies in the report of Consulting Engineer, Nicholas B. Crawford such as inaccuracy in the Orientation of vein and workings and incorrectness in the tabulation of assay data on the maps, but these errors do not deter from the general usefulness of the information furnished with the application.

We believe that the exploration project is not well planned and would suggest that it be revised and the extent and scope of the project be reduced if in your opinion the subject application has sufficient merit to be considered for a contract.

We can see no practical reason for sinking the shaft along the strike of the vein at an inclination of 45 degrees, thus adding 100 feet to the length of the proposed shaft in order to reach the 200 foot level. If there is some operational reason for such a flat incline, we would appreciate an explanation from the applicant.

Sincerely yours,

(signed) FRANK E. JOHNSON (HB) 3/4

Chairman, Operating Committee
Defense Minerals Exploration
Administration
HFKeller/jem
2/29/52
cc to: Adm. Reading File
Docket
Messrs. Meyer, HM Rm. 3623
McKnight, ET Rm. 4204 GS
Ellis
~~Rutledge~~ Keller
Field Team, Region III

Enclosures

APPROVED:

J. H. Hedges (HB)
Member, Bureau of Mines

T. P. Thayer (HB)
Member, Geological Survey

700

FILE COPY
SURNAME:

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

AIR MAIL

FEB 29 1952

Mr. M. G. White, Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

Re: Docket No. DM A-2332 (Mercury)
Dutch Flat Mines, Inc.
Humboldt County, Nevada

Dear Mr. White:

We wish to acknowledge receipt of your letter of February 25, 1952, in answer to our letter of the 20th concerning the answer to Clause 9 of Form MF-103.

We are pleased to learn that your company is in a position to finance its proportionate part of the estimated costs of the proposed exploration project.

We shall continue processing your application as rapidly as conditions permit.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division
Defense Mineral Exploration
Administration

cc 2/29

HFKeller/jem
2-28-52
cc to: Adm. Reading File
Docket
Messrs. Meyer, H. M. Rm. 3623
McKnight, L.T. Rm. 4200 GS
Ellis
Keller
Field Team, Region III (2)

2/29/52 gla

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

February 28, 1952

Memorandum

To: E. W. Ellis, DMEA

From: Helena M. Meyer

Subject: DMEA Docket No. 2332, Dutch Flat Mines, Inc., exploration loan $91,448.90. (Mercury)

On the basis of data available in Washington (Quicksilver Deposits in Nevada, University of Nevada Bull. Vol. 38, No. 5, December 1944 by Edgar Bailey and David Phoenix) and material supporting the project, this application appears to involve expenditures out of proportion to reserves that may be developed.

Measured reserves are given as 1,200 tons of 2.84-lb. ore and indicated as 4,000 tons of 2.84-lb. ore. It would be in the Government interest, of course, if a large reserve of this grade of ore were developed, but this grade has not permitted economic production in the past. The evidence is that the property produced a small quantity of metal, and closed during the World War II period of high prices.

Supervisory costs appear excessive for the work planned. During 3 months of sinking operations, for example, the working force includes 1 miner, 1 mucker, 1 combined hoist and utility man, and 1 combined truck driver and surface man and there are to be employed a mine superintendent, an assistant, and a part-time engineer.

Certain indicated costs are presumably not allowable; the repair to the retort is one example.

For the work planned the expenditure of $22,500 for trucks, bulldozers, etc., seems unreasonable.

I suggest that a field team examination be made to determine the desirability of the project, also that consideration be given to reducing the size of proposed loan, and that nonallowable items be withdrawn from the proposal. Mr. Bailey, Geological Survey member of the field team, who is senior author of the bulletin mentioned, may be able to appraise the docket without field team examination.

Helena M. Meyer

HELENA M. MEYER

2/26/5-vgla

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 26 1952

February 25, 1952

Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division
Defense Minerals Exploration Administration
United States Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2332 (Mercury)
Dutch Flat Mines, Inc.
Humbolt County, Nevada

Dear Mr. Ellis:

It looks as if I made a regrettable error, sorry to have caused a needless loss of time and inconvenience.

Question: Form M.F. - 103
Clause 9 - How much money is applicant prepared to invest in proposed project?

Answer: Applicant is prepared to pay its full share in the project as detailed in question 23, of this application.

We have allocated $22,000 of our stock subscription for our share of the project. With rental equipment and labor we are prepared to supply, this then, should be adequate for our participation in the project.

Sincerely yours,

M. G. White

M. G. White, Secy. - Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

MGW/lmb

EXPLORATION

Subject: DMEA-2332
Re: EXPLORATION LOAN
Dutch Flat Mine
January 22, 1952

Mr. M. G. White, Secretary-Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

My dear Mr. White:

This will acknowledge receipt of your application dated November 1, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2332 and referred to the Rare & Miscellaneous Metals Division.

Kindly refer to DMEA-2332 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

FILE COPY
SURNAME:

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

AIR MAIL

FEB 21 1952

Mr. M. G. White, Secy.-Treasurer
Dutch Flat Mines, Inc.
216 Utah Oil Building
Salt Lake City, Utah

Re: Docket No. DMEA-2332 (Mercury)
Dutch Flat Mines, Inc.
Humbolt County, Nevada

Dear Mr. White:

In filling out the subject application Form MF-103, Clause 9 you answered - "Does not apply". For your information we transcribe that clause: "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)?"

To permit us to continue processing your application, kindly write us your answer to the questions in Clause 9.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division
Defense Minerals Exploration
Administration

2/21

HFKeller/jem
2/20/52
cc to: Adm. Reading File
Docket
Messrs: Meyer, H.M. Rm. 3623
McKnight, E.T. Rm. 4204 GS
Ellis
Keller
Field Team, Region III (2)

IN REPLY REFER TO:

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

February 15, 1952

Memorandum

Re: DMEA-2332
Dutch Flat Mines, Inc.
Mine in Humboldt County
Nevada
Exploration loan, $91,448.90
Quicksilver

To: Mr. E. Wm. Ellis

From: Edwin T. McKnight

Subject: Geological recommendation

This property is described in University of Nevada Bull. vol. 38, No. 5, 1944, Quicksilver deposits in Nevada. The cinnabar occurs along a shear zone that strikes N 45 E and dips about 35° to the SE. The wall rocks are highly kaolinized, but appear to be chiefly andesites and tuffs. According to the applicant's map, the altered zone is 100 ft. wide and 1000 ft. long, but his application states that disseminated crystals of cinnabar are confined to an average width of 8 ft. Within this width the richer ore is in a "stockwork of veinlets." The grade is very low, the highest grade of 12 samples quoted by the applicant being 10.6 lbs. of Hg per ton over a width of 3 feet. Most of the other samples were between 2.2 and 4 lbs. The applicant quotes reserves at the southwest working of 5200 tons of measured and probable ore, containing 2.84 lbs. per ton.

In quoting assays, applicant makes a point of having sorted the material to exclude any visible cinnabar, "to prevent erroneously high results." The reason for this is not evident.

There are two areas of workings on the shear zone, lying about 400 ft. apart. The northeast workings, from which most of the 70 flasks of record produced by the camp has come, has an inclined shaft about 150 ft. on the dip of the ore zone, with 120 ft. of drifting on the ore zone at 2 levels. There has been considerable stoping adjacent to these development workings. The southwest working is an inclined shaft 100 ft. on the dip of the mineralized shear zone, with a 40 ft. drift on this zone about half way down the incline. Only 2 small stopes are shown, adjacent to the incline. Operations at the mine ceased prior to 1944, but there is some uncertainty as to just when. The state report previously cited states that the recorded production of 70 flasks was made in 1940-41, since which time the property has apparently been idle. The applicant's docket implies that the 70 flask production was in 1942, but that additional production was made, of which there is no record, up to the collapse of the market in 1944.

Applicant proposes to explore the altered shear zone to a mean depth of 200 ft. by driving a new 45° inclined shaft 300 ft.

on the dip, drifting 1200 ft. presumably along the strike of the mineralized zone in depth and crosscutting and connecting through to the surface at 3 places, 2 of them by raises connecting with the bottoms of the existing inclines and the third by a crosscut and new inclined raise at the north end of the zone of alteration.

The application is poorly coordinated with the maps, and there are many careless mistakes, such as lack of correspondence between the geologic report (by Crawford) and maps on such items as location of samples, sample widths, and grades. The application (item 21) states that the underground drifting will be 700 ft. southeast and 500 ft. northwest from the bottom of the proposed shaft, whereas the directions are almost certainly northeast and southwest respectively, to judge from the areal map.

The application states that the overburden has been stripped from the outcrop of the mineralized zone over a length of 600 ft. In judging the merits of the property, these exposures on the "zero level" should be as enlightening as anything that could be exposed on the 200 level. The application should be referred to the field team with the request that they examine the proposal and make recommendations either on the basis of what they already know about the property (Edgar Bailey, the Survey's member of the field team, wrote the Nevada state report previously cited), or on the basis of a new examination if the surface stripping has been done since the earlier examination.

Applicant's answer to question 9, referring to his ability to finance his share of the project, is "does not apply." This is probably a careless mistake of the kind previously cited, but if he cannot furnish a statement that he is able to supply 1/4 of the funds that might be approved, the proposal would have to be denied regardless of its merits.

Edwin T. McKnight

Edwin T. McKnight
Geologist

DMEA-2332

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

November 1, 1951

Mr. C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

Attached please find our application for a mining loan.

Forms MF-103 and MF-100 are completed herein to the best of our understanding of the requirements. If there is anything lacking or other information required, please advise us and we will be glad to supply the same.

Very truly yours,

DUTCH FLAT MINES, INC.

M. G. White
Secretary-Treasurer

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

APPLICATION FOR

MINING DEVELOPMENT LOAN

Pursuant To
Sections 302 and 303 and
Mineral Order No. 5

of the
DEFENSE PRODUCTION ACT OF 1950

Submitted to
Mr. C. O. MITTENDORF, ACTING ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
WASHINGTON, 25, D. C.

by

DUTCH FLAT MINES, INC.
216 Utah Oild Bldg.
Salt Lake City, Utah

Form MF-101
(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. DMEA-2332

Date received 1-18-52

Participation

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $91,448.90

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Dutch Flat, Florence Range (Hot Springs Range)
Humboldt County, Nevada

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

Defense Minerals Administration
RECEIVED
JAN 18 1952

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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary-Treasurer
(Title)

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

*Same as footnote on page 1.

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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

THE APPLICANT

1. Please refer to MF-100
2. " " " " "
3. " " " " "
4. " " " " "
5. " " " " "

6. None

7. Does not apply.
8. See attached balance sheet.
9. Does not apply.

THE PROPERTY

10. (a) Golden Cycle No. 1 Lode and Golden Cycle No. 2 Lode Mining Claims Located in the Paradise Mining District, Humboldt County, Nevada, records reference to Humboldt County Recorder in Winnemucca, Nevada, and more fully described under 10 (b).

(b) Beginning at a point 445 feet East and 300 feet South of the Section Corner common to Sections 8, 9 - 16 and 17, Township 38 N. Range 40 E. MDBM of G. L. O. Survey, thence South 10 degrees West 1200 feet, thence North 40 degrees West 1500 feet, thence North 10 degrees East 1200 feet, thence South 40 degrees East 1500 feet to place of beginning, embracing 40 acres, more or less, and representing the area claimed by Golden Cycle No. 1 and Golden Cycle No. 2 Lode Mining Claims as described in (a), both areas being the same.

The described area conflicts in part with the Dutch Flat Placer Claim No. 1, owned by the applicant. The metallic contents, if any, of the alluvial gravel are specifically reserved from this project (See 19).

11. Please Refer to MF-100
12. " " " " "
13. " " " " "
14. " " " " "

15. There are no existing facilities for marketing crude mercury ores or concentrates. It is contemplated that, if this project is successful, a reduction plant of adequate capacity and efficient design will be erected on the property to reduce the ores to their metallic mercury content, and the mercury will be offered on the commercial market (San Francisco, California). The erection of the plant will be considered as a separate or additional project when the results of the proposed exploration work are available for analysis from technical and economic standpoints.

The Property
Continued

16. Please Refer to MF-100
17. " " " " "
18. " " " " "

19. (a) As the applicant is the sole owner of both lode and placer claims, the noted conflict has no legal significance. It is the intention of the applicant to develop and operate the placer gravel as a separate project. The two projects will not interfere as there is ample area for waste dumps and surface facilities. It is the intention of the applicant to remove the gravels for treatment in a now partially completed washing plant; therefore, it is requested that the placer gravels be reserved and excluded from this project.

(b) The existing reduction plant (8 tube retort) may, with slight expenditure, be utilized for treatment of bulk samples (1000 lbs. or more) which will permit accurate sampling during exploration work, and will yield practical results in terms of "recoverable" mercury, undistorted by vagaries of hand sampling.

THE EXPLORATION

20. Mercury Ores (Cinnabar and its alteration products) occurring as stock works of silicious veins and as individual crystals disseminated through a kaolinized and altered shear zone.

21. It is proposed that the altered shear zone be explored to a mean depth of 200 feet by means of a 45 degree inclined shaft 300 feet long. To provide ventilation, an escapeway, and incidentally to outline the known ore body at intermediate depth, it is proposed that a drift of 50 feet in length and a raise of 40 feet be run from a point 150 feet below the portal of the incline to connect with the bottom of the "lower incline". It is proposed that a station and skip pocket be constructed at the bottom of the incline and drifting to a maximum of 700 feet southeasterly and 500 feet northwesterly along the shear zone be conducted with appropriate corsscutting to explore the width of the zone. A raise of 110 feet will connect the lower (200 ft.) level with the bottom of the upper incline, serving to ventilate the lower level and to explore the known ore body existing in the upper incline. A cross cut of up to 100 feet and a raise to the surface at the northermost surface exposure (at junction with a cross fissure) is designed to prove the mineralization at that point. The southerly drift is designed to intercept a quartz fissure appearing on the surface approximately 500 feet south of the "lower" incline. As work on more than one heading may be carried on simultantaneously, it is estimated that the entire area may be explored within a period of 10 months from the start of the project. The extent and final direction of underground explorations will be determined by geological and physical conditions found on the 200 foot level but which are now conjectural.

The Exploration
Continued

22. See reports and supplements, maps, etc.

THE REQUIREMENTS AND COSTS

23. (a) Labor - per shift. Sinking.

1 Machine Miner	@ $13.20	
1 Mucker	@ 12.00	
1 Hoist & Utility Man	@ 12.00	
1 Truck Driver & Surface Man	@ 12.00	
Total per shift	$49.20	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	7.38	
	$56.58	
Estimated 120 shifts Total Labor		$ 6,789.60

Total per foot $22.63

Labor - per shift. Drifting and Crosscutting (2 Headings)

2 Machine Miner	@ $13.20	$26.40	
2 Mucking Machine Operator	@ 13.20	26.40	
2 Trammers	@ 12.00	24.00	
2 Hoist & Utility Man	@ 12.00	24.00	
2 Truck Driver & Surface Man	@ 12.00	24.00	
Total		$144.80	
Comp. Ins., O.A.B., S.S. Taxes @ 11%		21.72	
Total per shift		$166.52	
Estimated progress 10 feet Cost per foot $16.652			
Total 1600 feet @ 16.652			$26,643.20

Labor - per shift. Raising

1 Machine Miner	@ $13.20	
1 Helper	@ 12.00	
1 Mucker	@ 12.00	
1 Mucking Machine Operator	@ 13.20	
1/2 Hoist & Utility Man	@ 6.00	
1/2 Truck Driver	@ 6.00	
Total per shift	$62.40	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	9.36	
Total	$71.76	
Estimated progress 5 feet per shift 78 shifts	Cost per foot $14.35	$11,193.00
- - - - - -	Total Labor	$44,625.80

The Requirements and Costs
Continued

23. (b) Supervisory

1 Mine Superintendent	$ 400.00 per month	
1 Assistant Supt. - Assayer	350.00 " "	
1 Engineer - Part Time	300.00 " "	
Total	$ 1,050.00 per month	
Comp. Ins., O.A.B., S.S. Taxes	152.50	
Total per month	$ 1,202.50	
Total for 10 Months		$12,025.00
(c) Repair to Bunk House	$ 1,200.00	
Repair to Retorts	500.00	
Overhaul Engine, Hoist, etc.	200.00	
Total	$ 1,900.00	1,900.00
(d) Construct Head Frame	$ 2,000.00	
Construct Hoist & Compressor House	1,200.00	
Total	$ 3,200.00	3,200.00
(e) Hoisting Cable & Connections	$ 490.00	
2 Incline Skips	500.00	
Mine Timber	1,568.00	
Rail & Accessories 9-1/2 Tons	1,738.40	
Pipe 1-1/2" & 1/2" @ 46¢ with fittings	1,060.00	
Bits	704.00	
Dull Steel	350.00	
4 Mine Cars @ $140.00	560.00	
Total	$ 6,970.40	6,970.40
(f) Rental of Mucking Machine $250.00 per month for 8 months		2,000.00
(g) 210 Cu.Ft. Compressor	$ 150.00 per month	
Drilling Machine & Accessories	75.00 " "	
Hoist & Engine	150.00 " "	
Tracks	200.00 " "	
Total 10 Months	$ 575.00 per month	
Total for 10 Months		5,750.00
(h) Small Tools:		
1 Dozen Dirt Shovels	$ 36.00	
1 Dozen Dirt Picks	45.00	
Sundry Small Tools	150.00	
First Aid Supplies	50.00	
Total	$ 281.00	
Explosives	$ 3,845.00	
Carbide	80.00	
Total	$ 4,206.00	4,206.00
(i) Fuel - Gasoline, Oil, Etc.		2,549.90
(j) Unseen Expenses - 10%		8,222.60

The Requirements and Costs
Continued

23. SUMMARY

(a)	Labor:			
	Sinking	$ 6,789.60		
	Drifting	26,643.20		
	Raising	11,193.00		
	Total		$44,625.00	
(b)	Supervision & Engineering - 10 Months		12,025.00	
(c)	Repairs		1,900.00	
(d)	Construction		3,200.00	
(e)	Equipment & Supplies - Major Items		6,970.40	
(f)	Rent of Equipment Not Owned		2,000.00	
(g)	Rent Value of Equipment Owned		5,750.00	
(h)	Equipment & Supplies - Minor Items		4,206.00	
(i)	Fuel, Etc.		2,549.90	
(j)	Unseen Expenses - 10%		8,222.60	
	TOTAL			$91,448.90

24. It is estimated that the incline shaft will require a total of 12 weeks for completion OR 3 Months

Drifting and Crosscutting will be completed in 160 shifts or total elapsed time 16 weeks OR 4 Months

Raising - to be carried on simultaneously with drifting - excepting long raise. Should require 6 additional weeks OR 1-1/2 Months

Total Time 8-1/2 Months

Allowing 1-1/2 Months for unseen delays 1-1/2 Months

TOTAL 10 MONTHS

Form MF-103
April 1951

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

8.

BALANCE SHEET
November 30, 1951

ASSETS:				
Bank Balance			$ 1,511.41	
Mine Contingent Fund			600.00	
Accounts Receivable:-T.A.Cowan			2.70	
Stock Subscriptions Receivable:			175.00	
Current Assets: - - - - - - - - - - - - - -			1,939.11	
Inventory:-Mine Supplies (Other Assets): - - -			1,850.00	
Property & Claims Inv. a/c	$ 102,000.00			
Machinery & Equipment a/c	16,375.00			
Trucks, Bulldozers, Cats. a/c	22,500.00			
Ore Bins	400.00			
Pipe Line & Well	25,300.00			
Miscellaneous Tools	500.00			
Buildings	6,300.00			
Furniture & Fixtures a/c	500.00			
Fixed Assets: - - - - - - - - - - - - - - - -			173,875.00	
Development Costs	20,326.45			
Organization Costs	1,305.95		21,632.40	
TOTAL ASSETS:- -				$ 199,296.51
LIABILITIES:				
Accounts Payable:-Control			$ 7,014.00	
Notes Payable:-(George Etchert)			1,252.00	
Social Security Taxes Payable		$ 5.40		
Unemployment Taxes Payable		4.86	10.26	
Current Liabilities:- - - - - - - - - - - - - -			-8,276.26	
Mortgage Payable:-(Other Liabilities)- - - - - -			40,000.00	
Capital Stock Authorized		200,000.00		
Less Unissued Capital Stock		128,930.90		
Capital Stock Subscribed - - - -		71,069.10		
Premium on Capital Stock at Par		79,951.15		
Net Worth:- - - - - - - - - - - - - - - - - -			151,020.25	
TOTAL LIABILITIES and NET WORTH - - - - - - - - - - - -				$ 199,296.51

(Copy)

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. DMEA-2332

Date received 1-18-52

DUTCH FLAT MINES, INC.
1127 Bridge Street
Winnemucca, Nevada or
216 Utah Oil Building
Salt Lake City, Utah

Name and address of applicant

Date November 1, 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 Section 101 (a) (1) of the Defense Production Act of 1950~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) 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.

5 GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

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)
T. A. Cowan Winnemucca, Nevada	President D	None	$25,000	204,000		None	
G. R. Harmon Salt Lake City 15, Utah	Vice-Pres. D	None	$200,000	207,333		None	
Merwin G. White Salt Lake City 15, Utah	Sec.-Treas. D	None	$15,000	102,000		None	
Marvin J. Bertoch Salt Lake City, Utah	Attorney D	None		25,000		None	
George W. Snyder Sr. Salt Lake City, Utah	Stockholder	None		100,000		None	
T. A. Cowan G. R. Harmon Merwin G. White Marvin J. Bertoch	other largest stockholders						
	Total	None	x x x x x	638,333		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	$200,000	$68,066.60	$ 10¢	680,666	None
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: NONE

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 available report on the geology and ore reserves.

(*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)	1200 short tons	2.84 lbs.	$7.668	$7.284	$3.25
Indicated (probable)	4000 short tons	2.84 "	$7.668	$7.284	$3.25

(*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.

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg. Salt Lake City, Ut.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary - Treasurer
(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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

GENERAL TECHNICAL DATA

1. (a) The chief mineral product contained in the ore is mercury sulphide (cinnabar) which may be reduced to metallic "mercury".
   (b) No byproducts are expected from this project.

2. The mining property is known as the Dutch Flat Mine. To the knowledge of the applicant no other name has ever been applied to the property.

   (a) There are 60 feet of vertical shafts and 275 feet of inclined shafts.

   (b) There are 210 linear feet of drifting and crosscutting open for inspection within the project.

   (c) Numerous adits, open cuts and prospect tunnels exist within the project, but have not been surveyed as they have no apparent immediate bearing on the project.

   (d) Mineralized zone has been stripped from three to four feet of overburden for over 600 feet, exposing the surface intermittently for approximately 1200 lineal feet.

   All workings are dry. Future capacity to produce will be determined by the extent of ore bodies exposed by the proposed exploration work.

3. (a) The nearest railroad shipping point is Golconda, Nevada, approximately 17 miles south of the property, but Winnemucca, Nevada, 25 miles south, is used because of better access roads.

   (b) Paradise Mining District (unorganized).

   (c) Parts of Sections 17-18-8-9- Township 38 N. Range 40 E. M.DBM.

   (d) Humboldt County, Nevada

4. (a) Property is now being operated by applicant with 3 men using mechanical equipment to strip and expose the outcroppings of the mineralized zone, rehabilitating the housing, and general preparation for exploratory work.

   (b) The property is operated by the owner.

5. Not in production.
   Beginning of production possible within 6 months after approval of this project.

6. (a) Applicant, Dutch Flat Mines, Inc., a Nevada Corporation, was recently incorporated.

   (b) The company affairs are directed by:

      1. Mr. T. A. Cowan, President, of Winnemucca, Nevada, who is acting in the capacity of Mine Superintendent. Mr. Cowan has been part owner of the property for 13 years and has had ample opportunity to familiarize himself with all local problems concerning the property.

General Technical Data
6. (b) Continued

2. Mr. G. R. Harmon of Salt Lake City 15, Utah, Vice-President, has conducted a highly successful merchandising business for the past 18 years and has conducted various prospecting and mining ventures for the past 15 years.

3. Mr. Merwin G. White of Salt Lake City 15, Utah, Secretary-Treasurer, is a metallurgical engineer and has had 13 years experience in the field of refining and experimenting on ores and metals.

4. Mr. Marvin J. Bertoch of Salt Lake City, Utah, member of the Board of Directors, is a successful attorney and has practiced his profession for 13 years.

5. Mr. George W. Snyder, Sr. of Salt Lake City, Utah, has been connected with many successful mining ventures for the past 40 years in an executive capacity.

6. Mr. Nicholas B. Crawford of Tooele, Utah, has operated mining properties and has practiced as Consulting Engineer for the past 25 years.

7. History:

(a) Cinnabar was discovered in place on the property in 1940 by lessees prospecting for placer gold, although individual crystals had been found in the gravel for years in the placer operations below and at the level of the discovery. In 1942 the two claims involved in this project were leased to promoters who prospected the ledges and constructed an 8 tube retort unit. A total of 70 flasks of mercury were produced by the end of 1942. At the collapse of the market in 1944 with a sudden cessation of demand, the records of production and actual history are shrouded in some mystery by the disappearance of the principal promoters and with them all company funds and records. All available high grade ores in two incline shafts had been removed and as there was no incentive for further developments, the property has stood idle until recent months. The total production is now unknown and the total tonnage of ore treated is also a matter of conjecture.

(b) Unknown

(c) Attached Exhibit V and VI - Reports by Nicholas B. Crawford with supplement.

8. 9. 10. See Form MF-100

11. Present production nil. It is contemplated that sufficient ore may be indicated by proposed underground exploration to justify a 50 ton per day minimum capacity reduction plant.

General Technical Data
Continued

12. (a) Ores occur in what is known as a "metamorphic" type deposit, in a sheared zone which has been exposed for a total length of 1200 feet following the knuckle of the axis of a sharp anticlinal fold in the andesite caused by intrusion of a boss of granitic porphyry. Cinnabar and associated minerals (pyrite) with a little opalite occurs in a stockwork of veinlets and lenses in the kaolinized portions of the sheared (crushed) zone - apparently introduced by hydrothermal action, with lesser amounts disseminated as individual crystals of cinnabar throughout an apparent average width of 8 feet.

(b) 1. Exhibits-II III IV Plat, and sections of upper and lower inclines.

2. Available ores in lower incline lie in block 30 feet deep by (average) 6 feet wide. 1200 short tons with geometric average of 0.142% Hg. Probable ores are calculated by assuming same average grade for block of ground 30 feet deep for the full length of sampled areas. Total 4000 tons. (Samples for assay were carefully sorted to exclude any visible cinnabar, to prevent erroneously high results.)

(c) Placer deposits not involved in this project.

13. The property is reached by two roads. Winnemucca is reached by 14 miles of dirt roads across Dutch Flat, which connects with 11 miles of paved highway. This dirt road requires simple grading, but is sometimes impassable in extremely wet weather or during spring of year.

Another road consisting of 7 miles of dirt road and 10 miles of surfaced road connects with Golconda - a station on the Western Pacific and Southern Pacific Railroads and U. S. Highway 50. The dirt portion of this road requires grading to make it passable for all types of vehicles and will be used in wet weather and in spring of the year.

14. Sweet water for domestic and mining purposes, at present, may be obtained from Springs near the head of Idaho Gulch - 1-1/2 miles above the camp site, or from a large spring in Mill Canyon - 3 miles east of the property. Ample water for all purposes including condensers is available from a dug well and 3 miles of pipe line belonging to applicant.

15. It is contemplated to use gasoline engines as source of power for drilling and hoisting. -One 120 H.P. engine for compressor and one 120 H.P. engine for hoisting.

16. Employees now engaged in preparatory work only. It is contemplated that the labor force required under this project will consist of : 1 Supervisor, 2 miners, 2 muckers, 2 hoistmen, 1 utility man, 1 camp cook, and 1 assayer (bookkeeper).

General Technical Data
Continued

17. Buildings now on property:

1 stone, 2 room boarding house - good condition
1 frame barracks - 5 double bedrooms, common room and wash room - requires insulating, heating equipment and minor repairs.
1 frame shop building.

Equipment:

8 tube, coal fired, retorts. Requires conversion to use of propane gas and repair to condenser tubes. May be used to reduce bulk samples removed in course of exploration to test for recoverable mercury and to determine metallurgical problems.
1 Ingersoll Rand 220 ft. portable compressor with gasoline engine.
1 C. P. Drifter with accessories.
1 Double drum hoist, skid mounted with gasoline engine.

18. None.

Tooele, Utah
October 13, 1951

Dutch Flat Mines, Inc.
Winnemucca, Nevada

Gentlemen:

Eight days of field study and surveying on your property in the Paradise Mining District, Humboldt County, Nevada afforded me opportunity to secure additional data concerning your mercury deposit and to extend the topographical map of your holdings.

The mercury bearing formation has been stripped of over-burden in two places for a total exposure of six hundred feet along the strike. An area around the lower shaft was stripped from a point fifty feet north of the shaft to a point 150 feet south of the shaft, making a total surface exposure of 240 feet in length with an average width of eight feet in this area. An area some 150 feet long and 50 feet wide has been stripped about 200 feet north of the upper shaft, exposing an intersection of the contact with a cross fissure. This work had not been completed due to a breakdown of equipment, but staining of the surface with typical "paint" smeared on the surface by the bulldozer blade indicates the presence of mercury.

The mercury is deposited in a crushed zone of the "Metamorphic" type about 100 feet wide with an inferred length of 900 feet. Apparently there is a "stockwork" of veinlets roughly following the outcrop of the crushed zone, in lenzes of soft gouge or kaolinized material lying between and around blocks of unaltered country rock. This crushed zone is intersected by a series of cross-fissures, and at one point by the contact with the andesite, and an intrusive rock. The andesite at this intersection has been altered by movement and pressure until it resembles a schist. The ore bearing kaolinized material is exposed for thickness varying from seven to 19 feet and are somewhat concentrated on the hanging wall side, and are more or less continuous for the length of the zone.

A series of samples, tabulated below, taken in and near the lower shaft indicate that the values in that portion of the deposit will yield an average of 2.36 lbs. mercury per ton. The sampling represents a total probable 7000 tons of ore above the thirty foot level. All seams of concentrated cinnabar were carefully excluded from the samples. The cinnabar seams occur irregularly through the ore body and if permitted to remain in a sample could result in an erroneously high return. Three samples taken in and near the upper shaft yielded considerably higher results, and indicate that higher grade ores may be expected in that vicinity.

Several of the underground workings were surveyed and plotted. Plates showing the surveyed portions are submitted herewith. One sample (No. 1) was taken from a 12 inch quartz vein in a short tunnel 200 feet west of the mercury outcrop and yielded the following assay: Gold 0.165 oz. per ton, Silver 0.95 oz. per ton, Mercury 0.05% (1 lb.) per ton. Another sample (No. 5) was cut across three feet of a quartz fissure in a tunnel on Belmont Hill, 300 feet east of the mercury deposit yielded the following assay: Gold 0.14 oz. per ton, Silver 3.90 oz. per ton, Mercury 0.05% (1 lb. per ton).

Samples taken from the mercury deposit yielded the following analyses:

No. 2	Across 7 feet	on surface 40 ft.W. of lower Shaft	0.20% Hg.	(4.00 lb)
No. 3	" 19 "	" " 60 ft.W. " " "	0.12% Hg.	(2.40 lb)
No. 4	" 7 "	" " 125 ft.W. " " "	0.11% Hg.	(2.20 lb)
No. 6	" 3 "	10 ft. below collar lower shaft	0.12% Hg.	(2.40 lb)
No. 7	" 3 "	Face of raise from 30 ft. level	0.21% Hg.	(4.20 lb)
No. 8	" 6 "	30 ft. below collar lower shaft	0.10% Hg.	(2.00 lb)
No. 9	" 6 "	20 ft. " " " "	0.11% Hg.	(2.20 lb)
No. 10	" 6 "	on surface 50 ft. north of lower shaft	0.11% Hg.	(2.20 lb)
No. 11	" 3 "	30 ft. below collar upper shaft	0.53% Hg.	(10.60 lb)
No. 12	" 3 "	10 ft. " surface 30 ft. North of upper shaft	0.28% Hg.	(5.60 lb)

All of the above samples were taken by channelling 1 foot wide by 6 inches deep, and quartering the bulk to sample size in the usual method. Streaks and seams of obvious high grade were excluded and avoided in sampling.

It is apparent that the mercury deposit must be considered as a separate project from the balance of the property when considering a long time development program. The fault zone should be explored to a depth of 200 feet or more by shaft and appropriate drifts and raises. By so doing sufficient tonnage of furnace grade ore should be indicated to warrant the erection of suitable reduction units.

An exploratory shaft sunk at 45 degree angle for a slant distance of 300 ft. would provide a vertical depth of 200 ft. The crushed zone could then be explored by driving toward the south for 500 ft. and toward the north for 700 ft. with occasional crosscuts to outline the limits of alteration would properly explore the mineralization and should indicate the extent and direction of development to follow. Ventilation and escape raises should be extended upward to connect with both of the present inclines. It is possible that this exploratory work would incidentally indicate sufficient tonnage of commercial grade ores to warrant erection of a furnace without further development. The exact direction of the underground exploration will be determined by geological conditions encountered at the 200 foot level.

As all of this exploratory work would be within the metamorphic zone it is entirely possible that numerous rich lenses and kidneys of high grade cinnabar would be encountered. Any such ores taken out in the course of exploration could be treated in the present retort equipment as a source of immediate revenue.

A schedule of estimated costs accompanies this supplement.

Respectfully submitted,

Nicholas B. Crawford

NICHOLAS B. CRAWFORD
Consulting Engineer

DMEA-2332

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

November 1, 1951

Mr. C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

Attached please find our application for a mining loan.

Forms MF-103 and MF-100 are completed herein to the best of our understanding of the requirements. If there is anything lacking or other information required, please advise us and we will be glad to supply the same.

Very truly yours,

DUTCH FLAT MINES, INC.

M. G. White
Secretary-Treasurer

APPLICATION FOR

MINING DEVELOPMENT LOAN

Pursuant To
Sections 302 and 303 and
Mineral Order No. 5

of the
DEFENSE PRODUCTION ACT OF 1950

Submitted to
Mr. C. O. MITTENDORF, ACTING ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
WASHINGTON, 25, D. C.

by

DUTCH FLAT MINES, INC.
216 Utah Oild Bldg.
Salt Lake City, Utah

DMEA-2332

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

November 1, 1951

Mr. C. O. Mittendorf, Acting Administrator
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Dear Sir:

Attached please find our application for a mining loan.

Forms MF-103 and MF-100 are completed herein to the best of our understanding of the requirements. If there is anything lacking or other information required, please advise us and we will be glad to supply the same.

Very truly yours,

DUTCH FLAT MINES, INC.

M. G. White
Secretary-Treasurer

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

APPLICATION FOR

MINING DEVELOPMENT LOAN

Pursuant To
Sections 302 and 303 and
Mineral Order No. 5

of the
DEFENSE PRODUCTION ACT OF 1950

Submitted to
Mr. C. O. MITTENDORF, ACTING ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
WASHINGTON, 25, D. C.

by

DUTCH FLAT MINES, INC.
216 Utah Oild Bldg.
Salt Lake City, Utah

Form MF-101
(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. DMEA-2332

Date received 1-18-52

Participation

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $91,448.90

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Dutch Flat, Florence Range (Hot Springs Range)
Humboldt County, Nevada

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary-Treasurer
(Title)

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

*Same as footnote on page 1.

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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

THE APPLICANT

1. Please refer to MF-100
2. " " " " "
3. " " " " "
4. " " " " "
5. " " " " "

6. None

7. Does not apply.
8. See attached balance sheet.
9. Does not apply.

THE PROPERTY

10. (a) Golden Cycle No. 1 Lode and Golden Cycle No. 2 Lode Mining Claims Located in the Paradise Mining District, Humboldt County, Nevada, records reference to Humboldt County Recorder in Winnemucca, Nevada, and more fully described under 10 (b).

(b) Beginning at a point 445 feet East and 300 feet South of the Section Corner common to Sections 8, 9 - 16 and 17, Township 38 N. Range 40 E. MDBM of G. L. O. Survey, thence South 10 degrees West 1200 feet, thence North 40 degrees West 1500 feet, thence North 10 degrees East 1200 feet, thence South 40 degrees East 1500 feet to place of beginning, embracing 40 acres, more or less, and representing the area claimed by Golden Cycle No. 1 and Golden Cycle No. 2 Lode Mining Claims as described in (a), both areas being the same.

The described area conflicts in part with the Dutch Flat Placer Claim No. 1, owned by the applicant. The metallic contents, if any, of the alluvial gravel are specifically reserved from this project (See 19).

11. Please Refer to MF-100
12. " " " " "
13. " " " " "
14. " " " " "

15. There are no existing facilities for marketing crude mercury ores or concentrates. It is contemplated that, if this project is successful, a reduction plant of adequate capacity and efficient design will be erected on the property to reduce the ores to their metallic mercury content, and the mercury will be offered on the commercial market (San Francisco, California). The erection of the plant will be considered as a separate or additional project when the results of the proposed exploration work are available for analysis from technical and economic standpoints.

The Property
Continued

16. Please Refer to MF-100
17. " " " " "
18. " " " " "

19. (a) As the applicant is the sole owner of both lode and placer claims, the noted conflict has no legal significance. It is the intention of the applicant to develop and operate the placer gravel as a separate project. The two projects will not interfere as there is ample area for waste dumps and surface facilities. It is the intention of the applicant to remove the gravels for treatment in a now partially completed washing plant; therefore, it is requested that the placer gravels be reserved and excluded from this project.

(b) The existing reduction plant (8 tube retort) may, with slight expenditure, be utilized for treatment of bulk samples (1000 lbs. or more) which will permit accurate sampling during exploration work, and will yield practical results in terms of "recoverable" mercury, undistorted by vagaries of hand sampling.

THE EXPLORATION

20. Mercury Ores (Cinnabar and its alteration products) occurring as stock works of silicious veins and as individual crystals disseminated through a kaolinized and altered shear zone.

21. It is proposed that the altered shear zone be explored to a mean depth of 200 feet by means of a 45 degree inclined shaft 300 feet long. To provide ventilation, an escapeway, and incidentally to outline the known ore body at intermediate depth, it is proposed that a drift of 50 feet in length and a raise of 40 feet be run from a point 150 feet below the portal of the incline to connect with the bottom of the "lower incline". It is proposed that a station and skip pocket be constructed at the bottom of the incline and drifting to a maximum of 700 feet southeasterly and 500 feet northwesterly along the shear zone be conducted with appropriate corsscutting to explore the width of the zone. A raise of 110 feet will connect the lower (200 ft.) level with the bottom of the upper incline, serving to ventilate the lower level and to explore the known ore body existing in the upper incline. A cross cut of up to 100 feet and a raise to the surface at the northermost surface exposure (at junction with a cross fissure) is designed to prove the mineralization at that point. The southerly drift is designed to intercept a quartz fissure appearing on the surface approximately 500 feet south of the "lower" incline. As work on more than one heading may be carried on simultantaneously, it is estimated that the entire area may be explored within a period of 10 months from the start of the project. The extent and final direction of underground explorations will be determined by geological and physical conditions found on the 200 foot level but which are now conjectural.

The Exploration
Continued

22. See reports and supplements, maps, etc.

THE REQUIREMENTS AND COSTS

23. (a) Labor - per shift. Sinking.

1 Machine Miner	@ $13.20	
1 Mucker	@ 12.00	
1 Hoist & Utility Man	@ 12.00	
1 Truck Driver & Surface Man	@ 12.00	
Total per shift	$49.20	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	7.38	
	$56.58	
Estimated 120 shifts Total Labor		$ 6,789.60

Total per foot $22.63

Labor - per shift. Drifting and Crosscutting (2 Headings)

2 Machine Miner	@ $13.20	$26.40	
2 Mucking Machine Operator	@ 13.20	26.40	
2 Trammers	@ 12.00	24.00	
2 Hoist & Utility Man	@ 12.00	24.00	
2 Truck Driver & Surface Man	@ 12.00	24.00	
Total		$144.80	
Comp. Ins., O.A.B., S.S. Taxes @ 11%		21.72	
Total per shift		$166.52	
Estimated progress 10 feet Cost per foot $16.652			
Total 1600 feet @ 16.652			$26,643.20

Labor - per shift. Raising

1 Machine Miner	@ $13.20		
1 Helper	@ 12.00		
1 Mucker	@ 12.00		
1 Mucking Machine Operator	@ 13.20		
1/2 Hoist & Utility Man	@ 6.00		
1/2 Truck Driver	@ 6.00		
Total per shift	$62.40		
Comp. Ins., O.A.B., S.S. Taxes @ 11%	9.36		
Total	$71.76		
Estimated progress 5 feet per shift 78 shifts		Cost per foot $14.35	$11,193.00
- - - - - -		Total Labor	$44,625.80

The Requirements and Costs
Continued

23. (b) Supervisory

1 Mine Superintendent	$ 400.00 per month	
1 Assistant Supt. - Assayer	350.00 " "	
1 Engineer - Part Time	300.00 " "	
Total	$ 1,050.00 per month	
Comp. Ins., O.A.B., S.S. Taxes	152.50	
Total per month	$ 1,202.50	
Total for 10 Months		$12,025.00
(c) Repair to Bunk House	$ 1,200.00	
Repair to Retorts	500.00	
Overhaul Engine, Hoist, etc.	200.00	
Total	$ 1,900.00	1,900.00
(d) Construct Head Frame	$ 2,000.00	
Construct Hoist & Compressor House	1,200.00	
Total	$ 3,200.00	3,200.00
(e) Hoisting Cable & Connections	$ 490.00	
2 Incline Skips	500.00	
Mine Timber	1,568.00	
Rail & Accessories 9-1/2 Tons	1,738.40	
Pipe 1-1/2" & 1/2" @ 46¢ with fittings	1,060.00	
Bits	704.00	
Dull Steel	350.00	
4 Mine Cars @ $140.00	560.00	
Total	$ 6,970.40	6,970.40
(f) Rental of Mucking Machine $250.00 per month for 8 months		2,000.00
(g) 210 Cu.Ft. Compressor	$ 150.00 per month	
Drilling Machine & Accessories	75.00 " "	
Hoist & Engine	150.00 " "	
Tracks	200.00 " "	
Total 10 Months	$ 575.00 per month	
Total for 10 Months		5,750.00
(h) Small Tools:		
1 Dozen Dirt Shovels	$ 36.00	
1 Dozen Dirt Picks	45.00	
Sundry Small Tools	150.00	
First Aid Supplies	50.00	
Total	$ 281.00	
Explosives	$ 3,845.00	
Carbide	80.00	
Total	$ 4,206.00	4,206.00
(i) Fuel - Gasoline, Oil, Etc.		2,549.90
(j) Unseen Expenses - 10%		8,222.60

The Requirements and Costs
Continued

23. SUMMARY

(a)	Labor:			
	Sinking	$ 6,789.60		
	Drifting	26,643.20		
	Raising	11,193.00		
	Total		$44,625.00	
(b)	Supervision & Engineering - 10 Months		12,025.00	
(c)	Repairs		1,900.00	
(d)	Construction		3,200.00	
(e)	Equipment & Supplies - Major Items		6,970.40	
(f)	Rent of Equipment Not Owned		2,000.00	
(g)	Rent Value of Equipment Owned		5,750.00	
(h)	Equipment & Supplies - Minor Items		4,206.00	
(i)	Fuel, Etc.		2,549.90	
(j)	Unseen Expenses - 10%		8,222.60	
	TOTAL			$91,448.90

24. It is estimated that the incline shaft will require a total of 12 weeks for completion OR 3 Months

Drifting and Crosscutting will be completed in 160 shifts or total elapsed time 16 weeks OR 4 Months

Raising - to be carried on simultaneously with drifting - excepting long raise. Should require 6 additional weeks OR 1-1/2 Months

Total Time 8-1/2 Months

Allowing 1-1/2 Months for unseen delays 1-1/2 Months

TOTAL 10 MONTHS

Form MF-103
April 1951

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

8.

BALANCE SHEET
November 30, 1951

ASSETS:			
Bank Balance		$ 1,511.41	
Mine Contingent Fund		600.00	
Accounts Receivable:-T.A.Cowan		2.70	
Stock Subscriptions Receivable:		175.00	
Current Assets: - - - - - - - - - - - - - -		1,939.11	
Inventory:-Mine Supplies (Other Assets):- - -		1,850.00	
Property & Claims Inv. a/c	$ 102,000.00		
Machinery & Equipment a/c	16,375.00		
Trucks, Bulldozers, Cats. a/c	22,500.00		
Ore Bins	400.00		
Pipe Line & Well	25,300.00		
Miscellaneous Tools	500.00		
Buildings	6,300.00		
Furniture & Fixtures a/c	500.00		
Fixed Assets: - - - - - - - - - - - - - - - -		173,875.00	
Development Costs	20,326.45		
Organization Costs	1,305.95	21,632.40	
TOTAL ASSETS: -			$ 199,296.51
LIABILITIES:			
Accounts Payable:-Control		$ 7,014.00	
Notes Payable:-(George Etchert)		1,252.00	
Social Security Taxes Payable	$ 5.40		
Unemployment Taxes Payable	4.86	10.26	
Current Liabilities:- - - - - - - - - - - - - -		8,276.26	
Mortgage Payable:-(Other Liabilities)- - - - - -		40,000.00	
Capital Stock Authorized	200,000.00		
Less Unissued Capital Stock	128,930.90		
Capital Stock Subscribed - - - -	71,069.10		
Premium on Capital Stock at Par	79,951.15		
Net Worth:- - - - - - - - - - - - - - - - - - -		151,020.25	
TOTAL LIABILITIES and NET WORTH - - - - - - - - - - - -			$ 199,296.51

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. DMEA-2332

Date received 1-18-52

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

November 1, 1951
Date

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~Necessity Certificate pursuant to the provisions of Section 124 (A) of the Defense Production Act of 1950~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) 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.

5 GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

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)
T. A. Cowan	President						
Winnemucca, Nevada	D.	None	$25,000	204,000		None	
G. H. Harmon	D.						
Salt Lake City 15, Utah	Vice-Pres.	None	$200,000	207,333		None	
Merwin G. White	Sec.-Treas.						
Salt Lake City 15, Utah	D.	None	$15,000	102,000		None	
Marvin J. Bertoch	Attorney						
Salt Lake City, Utah	D.	None		25,000		None	
George W. Snyder Sr.							
Salt Lake City, Utah	Stockholder			100,000		None	
T. A. Cowan	Other						
G. H. Harmon	largest						
Merwin G. White	stock-						
Marvin J. Bertoch	holders						
	Total	None	x x x x x	638,333		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	$ 200,000	$68,066.60	$ .10	680,666	None
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: NONE

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.

(*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)	1200 short tons	2.84 lbs.	$7.668	$7.284	$3.25
Indicated (probable)	4000 short tons	2.84 lbs.	$7.668	$7.284	$3.25

(*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.

DUTCH FLAT MINES, INC.
(Name of company)

By M G White
(Signature of authorized official)

November 1, 1961
(Date)

Secretary - Treasurer
(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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

GENERAL TECHNICAL DATA

1. (a) The chief mineral product contained in the ore is mercury sulphide (cinnabar) which may be reduced to metallic "mercury".
   (b) No byproducts are expected from this project.

2. The mining property is known as the Dutch Flat Mine. To the knowledge of the applicant no other name has ever been applied to the property.

   (a) There are 60 feet of vertical shafts and 275 feet of inclined shafts.

   (b) There are 210 linear feet of drifting and crosscutting open for inspection within the project.

   (c) Numerous adits, open cuts and prospect tunnels exist within the project, but have not been surveyed as they have no apparent immediate bearing on the project.

   (d) Mineralized zone has been stripped from three to four feet of overburden for over 600 feet, exposing the surface intermittently for approximately 1200 lineal feet.

   All workings are dry. Future capacity to produce will be determined by the extent of ore bodies exposed by the proposed exploration work.

3. (a) The nearest railroad shipping point is Golconda, Nevada, approximately 17 miles south of the property, but Winnemucca, Nevada, 25 miles south, is used because of better access roads.

   (b) Paradise Mining District (unorganized).

   (c) Parts of Sections 17-18-8-9- Township 38 N. Range 40 E. M.DBM.

   (d) Humboldt County, Nevada

4. (a) Property is now being operated by applicant with 3 men using mechanical equipment to strip and expose the outcroppings of the mineralized zone, rehabilitating the housing, and general preparation for exploratory work.

   (b) The property is operated by the owner.

5. Not in production.
   Beginning of production possible within 6 months after approval of this project.

6. (a) Applicant, Dutch Flat Mines, Inc., a Nevada Corporation, was recently incorporated.

   (b) The company affairs are directed by:

      1. Mr. T. A. Cowan, President, of Winnemucca, Nevada, who is acting in the capacity of Mine Superintendent. Mr. Cowan has been part owner of the property for 13 years and has had ample opportunity to familiarize himself with all local problems concerning the property.

General Technical Data
6. (b) Continued

2. Mr. G. R. Harmon of Salt Lake City 15, Utah, Vice-President, has conducted a highly successful merchandising business for the past 18 years and has conducted various prospecting and mining ventures for the past 15 years.

3. Mr. Merwin G. White of Salt Lake City 15, Utah, Secretary-Treasurer, is a metallurgical engineer and has had 13 years experience in the field of refining and experimenting on ores and metals.

4. Mr. Marvin J. Bertoch of Salt Lake City, Utah, member of the Board of Directors, is a successful attorney and has practiced his profession for 13 years.

5. Mr. George W. Snyder, Sr. of Salt Lake City, Utah, has been connected with many successful mining ventures for the past 40 years in an executive capacity.

6. Mr. Nicholas B. Crawford of Tooele, Utah, has operated mining properties and has practiced as Consulting Engineer for the past 25 years.

7. History:

(a) Cinnabar was discovered in place on the property in 1940 by lessees prospecting for placer gold, although individual crystals had been found in the gravel for years in the placer operations below and at the level of the discovery. In 1942 the two claims involved in this project were leased to promoters who prospected the ledges and constructed an 8 tube retort unit. A total of 70 flasks of mercury were produced by the end of 1942. At the collapse of the market in 1944 with a sudden cessation of demand, the records of production and actual history are shrouded in some mystery by the disappearance of the principal promoters and with them all company funds and records. All available high grade ores in two incline shafts had been removed and as there was no incentive for further developments, the property has stood idle until recent months. The total production is now unknown and the total tonnage of ore treated is also a matter of conjecture.

(b) Unknown

(c) Attached Exhibit V and VI - Reports by Nicholas B. Crawford with supplement.

8. 9. 10. See Form MF-100

11. Present production nil. It is contemplated that sufficient ore may be indicated by proposed underground exploration to justify a 50 ton per day minimum capacity reduction plant.

General Technical Data
Continued

12. (a) Ores occur in what is known as a "metamorphic" type deposit, in a sheared zone which has been exposed for a total length of 1200 feet following the knuckle of the axis of a sharp anticlinal fold in the andesite caused by intrusion of a boss of granitic porphyry. Cinnabar and associated minerals (pyrite) with a little opalite occurs in a stockwork of veinlets and lenses in the kaolinized portions of the sheared (crushed) zone - apparently introduced by hydrothermal action, with lesser amounts disseminated as individual crystals of cinnabar throughout an apparent average width of 8 feet.

(b) 1. Exhibits-II III IV Plat, and sections of upper and lower inclines.

2. Available ores in lower incline lie in block 30 feet deep by (average) 6 feet wide. 1200 short tons with geometric average of 0.142% Hg. Probable ores are calculated by assuming same average grade for block of ground 30 feet deep for the full length of sampled areas. Total 4000 tons. (Samples for assay were carefully sorted to exclude any visible cinnabar, to prevent erroneously high results.)

(c) Placer deposits not involved in this project.

13. The property is reached by two roads. Winnemucca is reached by 14 miles of dirt roads across Dutch Flat, which connects with 11 miles of paved highway. This dirt road requires simple grading, but is sometimes impassable in extremely wet weather or during spring of year.

Another road consisting of 7 miles of dirt road and 10 miles of surfaced road connects with Golconda - a station on the Western Pacific and Southern Pacific Railroads and U. S. Highway 50. The dirt portion of this road requires grading to make it passable for all types of vehicles and will be used in wet weather and in spring of the year.

14. Sweet water for domestic and mining purposes, at present, may be obtained from Springs near the head of Idaho Gulch - 1-1/2 miles above the camp site, or from a large spring in Mill Canyon - 3 miles east of the property. Ample water for all purposes including condensers is available from a dug well and 3 miles of pipe line belonging to applicant.

15. It is contemplated to use gasoline engines as source of power for drilling and hoisting. -One 120 H.P. engine for compressor and one 120 H.P. engine for hoisting.

16. Employees now engaged in preparatory work only. It is contemplated that the labor force required under this project will consist of : 1 Supervisor, 2 miners, 2 muckers, 2 hoistmen, 1 utility man, 1 camp cook, and 1 assayer (bookkeeper).

General Technical Data
Continued

17. Buildings now on property:

1 stone, 2 room boarding house - good condition
1 frame barracks - 5 double bedrooms, common room and wash room - requires insulating, heating equipment and minor repairs.
1 frame shop building.

Equipment:

8 tube, coal fired, retorts. Requires conversion to use of propane gas and repair to condenser tubes. May be used to reduce bulk samples removed in course of exploration to rest for recoverable mercury and to determine metallurgical problems.
1 Ingersoll Rand 220 ft. portable compressor with gasoline engine.
1 C. P. Drifter with accessories.
1 Double drum hoist, skid mounted with gasoline engine.

18. None.

Tooele, Utah
October 13, 1951

Dutch Flat Mines, Inc.
Winnemucca, Nevada

Gentlemen:

Eight days of field study and surveying on your property in the Paradise Mining District, Humboldt County, Nevada afforded me opportunity to secure additional data concerning your mercury deposit and to extend the topographical map of your holdings.

The mercury bearing formation has been stripped of over-burden in two places for a total exposure of six hundred feet along the strike. An area around the lower shaft was stripped from a point fifty feet north of the shaft to a point 150 feet south of the shaft, making a total surface exposure of 240 feet in length with an average width of eight feet in this area. An area some 150 feet long and 50 feet wide has been stripped about 200 feet north of the upper shaft, exposing an intersection of the contact with a cross fissure. This work had not been completed due to a breakdown of equipment, but staining of the surface with typical "paint" smeared on the surface by the bulldozer blade indicates the presence of mercury.

The mercury is deposited in a crushed zone of the "Metamorphic" type about 100 feet wide with an inferred length of 900 feet. Apparently there is a "stockwork" of veinlets roughly following the outcrop of the crushed zone, in lenzes of soft gouge or kaolinized material lying between and around blocks of unaltered country rock. This crushed zone is intersected by a series of cross-fissures, and at one point by the contact with the andesite, and an intrusive rock. The andesite at this intersection has been altered by movement and pressure until it resembles a schist. The ore bearing kaolinized material is exposed for thickness varying from seven to 19 feet and are somewhat concentrated on the hanging wall side, and are more or less continuous for the length of the zone.

A series of samples, tabulated below, taken in and near the lower shaft indicate that the values in that portion of the deposit will yield an average of 2.36 lbs. mercury per ton. The sampling represents a total probable 7000 tons of ore above the thirty foot level. All seams of concentrated cinnabar were carefully excluded from the samples. The cinnabar seams occur irregularly through the ore body and if permitted to remain in a sample could result in an erroneously high return. Three samples taken in and near the upper shaft yielded considerably higher results, and indicate that higher grade ores may be expected in that vicinity.

Several of the underground workings were surveyed and plotted. Plates showing the surveyed portions are submitted herewith. One sample (No. 1) was taken from a 12 inch quartz vein in a short tunnel 200 feet west of the mercury outcrop and yielded the following assay: Gold 0.165 oz. per ton, Silver 0.95 oz. per ton, Mercury 0.05% (1 lb.) per ton. Another sample (No. 5) was cut across three feet of a quartz fissure in a tunnel on Belmont Hill, 300 feet east of the mercury deposit yielded the following assay: Gold 0.14 oz. per ton, Silver 3.90 oz. per ton, Mercury 0.05% (1 lb. per ton).

Samples taken from the mercury deposit yielded the following analyses:

No. 2	Across 7 feet on surface 40 ft.W. of lower Shaft			0.20% Hg. (4.00 lb)
No. 3	" 19 " " " 60 ft.W. " " "			0.12% Hg. (2.40 lb)
No. 4	" 7 " " " 125 ft.W. " " "			0.11% Hg. (2.20 lb)
No. 6	" 3 " 10 ft. below collar lower shaft			0.12% Hg. (2.40 lb)
No. 7	" 3 " Face of raise from 30 ft. level			0.21% Hg. (4.20 lb)
No. 8	" 6 " 30 ft. below collar lower shaft			0.10% Hg. (2.00 lb)
No. 9	" 6 " 20 ft. " " " "			0.11% Hg. (2.20 lb)
No. 10	" 6 " on surface 50 ft. north of lower shaft			0.11% Hg. (2.20 lb)
No. 11	" 3 " 30 ft. below collar upper shaft			0.53% Hg. (10.60 lb)
No. 12	" 3 " 10 ft. " surface 30 ft. North of upper shaft			0.28% Hg. (5.60 lb)

All of the above samples were taken by channelling 1 foot wide by 6 inches deep, and quartering the bulk to sample size in the usual method. Streaks and seams of obvious high grade were excluded and avoided in sampling.

It is apparent that the mercury deposit must be considered as a separate project from the balance of the property when considering a long time development program. The fault zone should be explored to a depth of 200 feet or more by shaft and appropriate drifts and raises. By so doing sufficient tonnage of furnace grade ore should be indicated to warrant the erection of suitable reduction units.

An exploratory shaft sunk at 45 degree angle for a slant distance of 300 ft. would provide a vertical depth of 200 ft. The crushed zone could then be explored by driving toward the south for 500 ft. and toward the north for 700 ft. with occasional crosscuts to outline the limits of alteration would properly explore the mineralization and should indicate the extent and direction of development to follow. Ventilation and escape raises should be extended upward to connect with both of the present inclines. It is possible that this exploratory work would incidentally indicate sufficient tonnage of commercial grade ores to warrant erection of a furnace without further development. The exact direction of the underground exploration will be determined by geological conditions encountered at the 200 foot level.

As all of this exploratory work would be within the metamorphic zone it is entirely possible that numerous rich lenses and kidneys of high grade cinnabar would be encountered. Any such ores taken out in the course of exploration could be treated in the present retort equipment as a source of immediate revenue.

A schedule of estimated costs accompanies this supplement.

Respectfully submitted,

Nicholas B. Crawford

NICHOLAS B. CRAWFORD
Consulting Engineer

DMEA - 2322
DUTCH FLAT MINES

KAROLTON KLASP—8¾ X 11¼
"MADE IN U. S. A."
THE AMERICAN ENVELOPE CO.
WEST CARROLLTON, OHIO

DMEA-2332

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

November 1, 1951

Mr. C. O. Mittendorf, Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

Attached please find our application for a mining loan.

Forms MF-103 and MF-100 are completed herein to the best of our understanding of the requirements. If there is anything lacking or other information required, please advise us and we will be glad to supply the same.

Very Truly yours,

DUTCH FLAT MINES, INC.

M. G. White
Secretary-Treasurer

APPLICATION FOR

MINING DEVELOPMENT LOAN

Pursuant To
Sections 302 and 303 and
Mineral Order No. 5

of the
DEFENSE PRODUCTION ACT OF 1950

Submitted to
Mr. C. O. MITTENDORF, ACTING ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
WASHINGTON, 25, D. C.

by

DUTCH FLAT MINES, INC.
216 Utah Oild Bldg.
Salt Lake City, Utah

Form MF-101
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1065.
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. DMEA-2232

Date received 1-18-52

Participation

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $91,448.90

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Dutch Flat, Florence Range (Hot Springs Range)
Humboldt County, Nevada

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

Defense Minerals Administration
RECEIVED
JAN 18 1952

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.

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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary-Treasurer
(Title)

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

*Same as footnote on page 1.

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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

THE APPLICANT

1. Please refer to MF-100
2. " " " " "
3. " " " " "
4. " " " " "
5. " " " " "

6. None

7. Does not apply.
8. See attached balance sheet.
9. Does not apply.

THE PROPERTY

10. (a) Golden Cycle No. 1 Lode and Golden Cycle No. 2 Lode Mining Claims Located in the Paradise Mining District, Humboldt County, Nevada, records reference to Humboldt County Recorder in Winnemucca, Nevada, and more fully described under 10 (b).

(b) Beginning at a point 445 feet East and 300 feet South of the Section Corner common to Sections 8, 9 - 16 and 17, Township 38 N. Range 40 E. MDBM of G. L. O. Survey, thence South 10 degrees West 1200 feet, thence North 40 degrees West 1500 feet, thence North 10 degrees East 1200 feet, thence South 40 degrees East 1500 feet to place of beginning, embracing 40 acres, more or less, and representing the area claimed by Golden Cycle No. 1 and Golden Cycle No. 2 Lode Mining Claims as described in (a), both areas being the same.

The described area conflicts in part with the Dutch Flat Placer Claim No. 1, owned by the applicant. The metallic contents, if any, of the alluvial gravel are specifically reserved from this project (See 19).

11. Please Refer to MF-100
12. " " " " "
13. " " " " "
14. " " " " "

15. There are no existing facilities for marketing crude mercury ores or concentrates. It is contemplated that, if this project is successful, a reduction plant of adequate capacity and efficient design will be erected on the property to reduce the ores to their metallic mercury content, and the mercury will be offered on the commercial market (San Francisco, California). The erection of the plant will be considered as a separate or additional project when the results of the proposed exploration work are available for analysis from technical and economic standpoints.

The Property
Continued

16. Please Refer to MF-100
17. " " " " "
18. " " " " "

19. (a) As the applicant is the sole owner of both lode and placer claims, the noted conflict has no legal significance. It is the intention of the applicant to develop and operate the placer gravel as a separate project. The two projects will not interfere as there is ample area for waste dumps and surface facilities. It is the intention of the applicant to remove the gravels for treatment in a now partially completed washing plant; therefore, it is requested that the placer gravels be reserved and excluded from this project.

(b) The existing reduction plant (8 tube retort) may, with slight expenditure, be utilized for treatment of bulk samples (1000 lbs. or more) which will permit accurate sampling during exploration work, and will yield practical results in terms of "recoverable" mercury, undistorted by vagaries of hand sampling.

THE EXPLORATION

20. Mercury Ores (Cinnabar and its alteration products) occurring as stock works of silicious veins and as individual crystals disseminated through a kaolinized and altered shear zone.

21. It is proposed that the altered shear zone be explored to a mean depth of 200 feet by means of a 45 degree inclined shaft 300 feet long. To provide ventilation, an escapeway, and incidentally to outline the known ore body at intermediate depth, it is proposed that a drift of 50 feet in length and a raise of 40 feet be run from a point 150 feet below the portal of the incline to connect with the bottom of the "lower incline". It is proposed that a station and skip pocket be constructed at the bottom of the incline and drifting to a maximum of 700 feet southeasterly and 500 feet northwesterly along the shear zone be conducted with appropriate corsscutting to explore the width of the zone. A raise of 110 feet will connect the lower (200 ft.) level with the bottom of the upper incline, serving to ventilate the lower level and to explore the known ore body existing in the upper incline. A cross cut of up to 100 feet and a raise to the surface at the northermost surface exposure (at junction with a cross fissure) is designed to prove the mineralization at that point. The southerly drift is designed to intercept a quartz fissure appearing on the surface approximately 500 feet south of the "lower" incline. As work on more than one heading may be carried on simultantaneously, it is estimated that the entire area may be explored within a period of 10 months from the start of the project. The extent and final direction of underground explorations will be determined by geological and physical conditions found on the 200 foot level but which are now conjectural.

The Exploration
Continued

22. See reports and supplements, maps, etc.

THE REQUIREMENTS AND COSTS

23. (a) Labor - per shift. Sinking.

1 Machine Miner	@ $13.20	
1 Mucker	@ 12.00	
1 Hoist & Utility Man	@ 12.00	
1 Truck Driver & Surface Man	@ 12.00	
Total per shift	$49.20	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	7.38	
	$56.58	
Estimated 120 shifts Total Labor		$ 6,789.60

Total per foot $22.63

Labor - per shift. Drifting and Crosscutting (2 Headings)

2 Machine Miner	@ $13.20	$26.40	
2 Mucking Machine Operator	@ 13.20	26.40	
2 Trammers	@ 12.00	24.00	
2 Hoist & Utility Man	@ 12.00	24.00	
2 Truck Driver & Surface Man	@ 12.00	24.00	
Total		$144.80	
Comp. Ins., O.A.B., S.S. Taxes @ 11%		21.72	
Total per shift		$166.52	
Estimated progress 10 feet Cost per foot $16.652			
Total 1600 feet @ 16.652			$26,643.20

Labor - per shift. Raising

1 Machine Miner	@ $13.20	
1 Helper	@ 12.00	
1 Mucker	@ 12.00	
1 Mucking Machine Operator	@ 13.20	
1/2 Hoist & Utility Man	@ 6.00	
1/2 Truck Driver	@ 6.00	
Total per shift	$62.40	
Comp. Ins., O.A.B., S.S. Taxes @ 11%	9.36	
Total	$71.76	
Estimated progress 5 feet per shift 78 shifts	Cost per foot $14.35	$11,193.00
- - - - - -	Total Labor	$44,625.80

The Requirements and Costs
Continued

23. (b) Supervisory

1 Mine Superintendent	$ 400.00 per month	
1 Assistant Supt. - Assayer	350.00 " "	
1 Engineer - Part Time	300.00 " "	
Total	$ 1,050.00 per month	
Comp. Ins., O.A.B., S.S. Taxes	152.50	
Total per month	$ 1,202.50	
Total for 10 Months		$12,025.00

(c)	Repair to Bunk House	$ 1,200.00	
	Repair to Retorts	500.00	
	Overhaul Engine, Hoist, etc.	200.00	
	Total	$ 1,900.00	1,900.00
(d)	Construct Head Frame	$ 2,000.00	
	Construct Hoist & Compressor House	1,200.00	
	Total	$ 3,200.00	3,200.00
(e)	Hoisting Cable & Connections	$ 490.00	
	2 Incline Skips	500.00	
	Mine Timber	1,568.00	
	Rail & Accessories 9-1/2 Tons	1,738.40	
	Pipe 1-1/2" & 1/2" @ 46¢ with fittings	1,060.00	
	Bits	704.00	
	Dull Steel	350.00	
	4 Mine Cars @ $140.00	560.00	
	Total	$ 6,970.40	6,970.40
(f)	Rental of Mucking Machine $250.00 per month for 8 months		2,000.00
(g)	210 Cu.Ft. Compressor	$ 150.00 per month	
	Drilling Machine & Accessories	75.00 " "	
	Hoist & Engine	150.00 " "	
	Tracks	200.00 " "	
	Total 10 Months	$ 575.00 per month	
	Total for 10 Months		5,750.00
(h)	Small Tools:		
	1 Dozen Dirt Shovels	$ 36.00	
	1 Dozen Dirt Picks	45.00	
	Sundry Small Tools	150.00	
	First Aid Supplies	50.00	
	Total	$ 281.00	
	Explosives	$ 3,845.00	
	Carbide	80.00	
	Total	$ 4,206.00	4,206.00
(i)	Fuel - Gasoline, Oil, Etc.		2,549.90
(j)	Unseen Expenses - 10%		8,222.60

The Requirements and Costs
Continued

23. SUMMARY

(a)	Labor:			
	Sinking	$ 6,789.60		
	Drifting	26,643.20		
	Raising	11,193.00		
	Total		$44,625.00	
(b)	Supervision & Engineering - 10 Months		12,025.00	
(c)	Repairs		1,900.00	
(d)	Construction		3,200.00	
(e)	Equipment & Supplies - Major Items		6,970.40	
(f)	Rent of Equipment Not Owned		2,000.00	
(g)	Rent Value of Equipment Owned		5,750.00	
(h)	Equipment & Supplies - Minor Items		4,206.00	
(i)	Fuel, Etc.		2,549.90	
(j)	Unseen Expenses - 10%		8,222.60	
	TOTAL			$91,448.90

24. It is estimated that the incline shaft will require a total of 12 weeks for completion OR 3 Months

Drifting and Crosscutting will be completed in 160 shifts or total elapsed time 16 weeks OR 4 Months

Raising - to be carried on simultaneously with drifting - excepting long raise. Should require 6 additional weeks OR 1-1/2 Months

Total Time 8-1/2 Months

Allowing 1-1/2 Months for unseen delays 1-1/2 Months

TOTAL 10 MONTHS

Form MF-103
April 1951

DUTCH FLAT MINES, INC.
216 Utah Oil Bldg.
Salt Lake City, Utah

8.

BALANCE SHEET
November 30, 1951

ASSETS:			
Bank Balance		$ 1,511.41	
Mine Contingent Fund		600.00	
Accounts Receivable:-T.A.Cowan		2.70	
Stock Subscriptions Receivable:		175.00	
Current Assets: - - - - - - - - - - - - - -		1,939.11	
Inventory:-Mine Supplies (Other Assets): - - -		1,850.00	
Property & Claims Inv. a/c	$ 102,000.00		
Machinery & Equipment a/c	16,375.00		
Trucks, Bulldozers, Cats. a/c	22,500.00		
Ore Bins	400.00		
Pipe Line & Well	25,300.00		
Miscellaneous Tools	500.00		
Buildings	6,300.00		
Furniture & Fixtures a/c	500.00		
Fixed Assets: - - - - - - - - - - - - - - - -		173,875.00	
Development Costs	20,326.45		
Organization Costs	1,305.95	21,632.40	
TOTAL ASSETS: -			$ 199,296.51
LIABILITIES:			
Accounts Payable:-Control		$ 7,014.00	
Notes Payable:-(George Etchert)		1,252.00	
Social Security Taxes Payable	$ 5.40		
Unemployment Taxes Payable	4.86	10.26	
Current Liabilities:- - - - - - - - - - - - - -		8,276.26	
Mortgage Payable:-(Other Liabilities)- - - - - - -		40,000.00	
Capital Stock Authorized	200,000.00		
Less Unissued Capital Stock	128,930.90		
Capital Stock Subscribed - - - -	71,069.10		
Premium on Capital Stock at Par	79,951.15		
Net Worth:- - - - - - - - - - - - - - - - - - -		151,020.25	
TOTAL LIABILITIES and NET WORTH - - - - - - - - - - - - - -			$ 199,296.51

(Copy)

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. DMEA-2332

Date received 1-18-52

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah or

1127 Bridge Street
Winnemucca, Nevada

Name and address of applicant

Date November 1, 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)~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) 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.

5 GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1952

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.

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)
T. A. Cowan Winnemucca, Nevada	President D.	None	$25,000	204,000		None	
G. R. Harmon Salt Lake City 15, Utah	D. Vice-Pres.	None	$200,000	207,333		None	
Merwin G. White Salt Lake City 15, Utah	Sec.-Treas. D.	None	$15,000	102,000		None	
Marvin J. Bertoch Salt Lake City, Utah	Attorney D.	None		25,000		None	
George W. Snyder, Sr. Salt Lake City, Utah	Stockholder			100,000		None	
T. A. Cowan G. R. Harmon Merwin G. White Marvin J. Bertoch	Other largest stock-holders						
	Total	None	x x x x x	638,333		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	$ 200,000	$68,066.60	$ .10	680,666	None
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: NONE

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.

(*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)	1200 short tons	2.84 lbs.	$7.668	$7.284	$3.25
Indicated (probable)	4000 short tons	2.84 lbs.	$7.668	$7.284	$3.25

(*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.

DUTCH FLAT MINES, INC.
(Name of company)

By M. G. White
(Signature of authorized official)

November 1, 1951
(Date)

Secretary - Treasurer
(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

DUTCH FLAT MINES, INC.
216 Utah Oil Building
Salt Lake City, Utah

GENERAL TECHNICAL DATA

1. (a) The chief mineral product contained in the ore is mercury sulphide (cinnabar) which may be reduced to metallic "mercury".
   (b) No byproducts are expected from this project.

2. The mining property is known as the Dutch Flat Mine. To the knowledge of the applicant no other name has ever been applied to the property.

   (a) There are 60 feet of vertical shafts and 275 feet of inclined shafts.

   (b) There are 210 linear feet of drifting and crosscutting open for inspection within the project.

   (c) Numerous adits, open cuts and prospect tunnels exist within the project, but have not been surveyed as they have no apparent immediate bearing on the project.

   (d) Mineralized zone has been stripped from three to four feet of overburden for over 600 feet, exposing the surface intermittently for approximately 1200 lineal feet.

   All workings are dry. Future capacity to produce will be determined by the extent of ore bodies exposed by the proposed exploration work.

3. (a) The nearest railroad shipping point is Golconda, Nevada, approximately 17 miles south of the property, but Winnemucca, Nevada, 25 miles south, is used because of better access roads.

   (b) Paradise Mining District (unorganized).

   (c) Parts of Sections 17-18-8-9- Township 38 N. Range 40 E. M.DBM.

   (d) Humboldt County, Nevada

4. (a) Property is now being operated by applicant with 3 men using mechanical equipment to strip and expose the outcroppings of the mineralized zone, rehabilitating the housing, and general preparation for exploratory work.

   (b) The property is operated by the owner.

5. Not in production.
   Beginning of production possible within 6 months after approval of this project.

6. (a) Applicant, Dutch Flat Mines, Inc., a Nevada Corporation, was recently incorporated.

   (b) The company affairs are directed by:

      1. Mr. T. A. Cowan, President, of Winnemucca, Nevada, who is acting in the capacity of Mine Superintendent. Mr. Cowan has been part owner of the property for 13 years and has had ample opportunity to familiarize himself with all local problems concerning the property.

General Technical Data

6. (b) Continued

2. Mr. G. R. Harmon of Salt Lake City 15, Utah, Vice-President, has conducted a highly successful merchandising business for the past 18 years and has conducted various prospecting and mining ventures for the past 15 years.

3. Mr. Merwin G. White of Salt Lake City 15, Utah, Secretary-Treasurer, is a metallurgical engineer and has had 13 years experience in the field of refining and experimenting on ores and metals.

4. Mr. Marvin J. Bertoch of Salt Lake City, Utah, member of the Board of Directors, is a successful attorney and has practiced his profession for 13 years.

5. Mr. George W. Snyder, Sr. of Salt Lake City, Utah, has been connected with many successful mining ventures for the past 40 years in an executive capacity.

6. Mr. Nicholas B. Crawford of Tooele, Utah, has operated mining properties and has practiced as Consulting Engineer for the past 25 years.

7. History:

(a) Cinnabar was discovered in place on the property in 1940 by lessees prospecting for placer gold, although individual crystals had been found in the gravel for years in the placer operations below and at the level of the discovery. In 1942 the two claims involved in this project were leased to promoters who prospected the ledges and constructed an 8 tube retort unit. A total of 70 flasks of mercury were produced by the end of 1942. At the collapse of the market in 1944 with a sudden cessation of demand, the records of production and actual history are shrouded in some mystery by the disappearance of the principal promoters and with them all company funds and records. All available high grade ores in two incline shafts had been removed and as there was no incentive for further developments, the property has stood idle until recent months. The total production is now unknown and the total tonnage of ore treated is also a matter of conjecture.

(b) Unknown

(c) Attached Exhibit V and VI - Reports by Nicholas B. Crawford with supplement.

8. 9. 10. See Form MF-100

11. Present production nil. It is contemplated that sufficient ore may be indicated by proposed underground exploration to justify a 50 ton per day minimum capacity reduction plant.

General Technical Data
Continued

12. (a) Ores occur in what is known as a "metamorphic" type deposit, in a sheared zone which has been exposed for a total length of 1200 feet following the knuckle of the axis of a sharp anticlinal fold in the andesite caused by intrusion of a boss of granitic porphyry. Cinnabar and associated minerals (pyrite) with a little opalite occurs in a stockwork of veinlets and lenses in the kaolinized portions of the sheared (crushed) zone - apparently introduced by hydrothermal action, with lesser amounts disseminated as individual crystals of cinnabar throughout an apparent average width of 8 feet.

(b) 1. Exhibits-II III IV Plat, and sections of upper and lower inclines.

2. Available ores in lower incline lie in block 30 feet deep by (average) 6 feet wide. 1200 short tons with geometric average of 0.142% Hg. Probable ores are calculated by assuming same average grade for block of ground 30 feet deep for the full length of sampled areas. Total 4000 tons. (Samples for assay were carefully sorted to exclude any visible cinnabar, to prevent erroneously high results.)

(c) Placer deposits not involved in this project.

13. The property is reached by two roads. Winnemucca is reached by 14 miles of dirt roads across Dutch Flat, which connects with 11 miles of paved highway. This dirt road requires simple grading, but is sometimes impassable in extremely wet weather or during spring of year.

Another road consisting of 7 miles of dirt road and 10 miles of surfaced road connects with Golconda - a station on the Western Pacific and Southern Pacific Railroads and U. S. Highway 50. The dirt portion of this road requires grading to make it passable for all types of vehicles and will be used in wet weather and in spring of the year.

14. Sweet water for domestic and mining purposes, at present, may be obtained from Springs near the head of Idaho Gulch - 1-1/2 miles above the camp site, or from a large spring in Mill Canyon - 3 miles east of the property. Ample water for all purposes including condensers is available from a dug well and 3 miles of pipe line belonging to applicant.

15. It is contemplated to use gasoline engines as source of power for drilling and hoisting. -One 120 H.P. engine for compressor and one 120 H.P. engine for hoisting.

16. Employees now engaged in preparatory work only. It is contemplated that the labor force required under this project will consist of : 1 Supervisor, 2 miners, 2 muckers, 2 hoistmen, 1 utility man, 1 camp cook, and 1 assayer (bookkeeper).

General Technical Data
Continued

17. Buildings now on property:

1 stone, 2 room boarding house - good condition
1 frame barracks - 5 double bedrooms, common room and wash room - requires insulating, heating equipment and minor repairs.
1 frame shop building.

Equipment:

8 tube, coal fired, retorts. Requires conversion to use of propane gas and repair to condenser tubes. May be used to reduce bulk samples removed in course of exploration to rest for recoverable mercury and to determine metallurgical problems.
1 Ingersoll Rand 220 ft. portable compressor with gasoline engine.
1 C. P. Drifter with accessories.
1 Double drum hoist, skid mounted with gasoline engine.

18. None.

Tooele, Utah
October 13, 1951

Dutch Flat Mines, Inc.
Winnemucca, Nevada

Gentlemen:

Eight days of field study and surveying on your property in the Paradise Mining District, Humboldt County, Nevada afforded me opportunity to secure additional data concerning your mercury deposit and to extend the topographical map of your holdings.

The mercury bearing formation has been stripped of over-burden in two places for a total exposure of six hundred feet along the strike. An area around the lower shaft was stripped from a point fifty feet north of the shaft to a point 150 feet south of the shaft, making a total surface exposure of 240 feet in length with an average width of eight feet in this area. An area some 150 feet long and 50 feet wide has been stripped about 200 feet north of the upper shaft, exposing an intersection of the contact with a cross fissure. This work had not been completed due to a breakdown of equipment, but staining of the surface with typical "paint" smeared on the surface by the bulldozer blade indicates the presence of mercury.

The mercury is deposited in a crushed zone of the "Metamorphic" type about 100 feet wide with an inferred length of 900 feet. Apparently there is a "stockwork" of veinlets roughly following the outcrop of the crushed zone, in lenzes of soft gouge or kaolinized material lying between and around blocks of unaltered country rock. This crushed zone is intersected by a series of cross-fissures, and at one point by the contact with the andesite, and an intrusive rock. The andesite at this intersection has been altered by movement and pressure until it resembles a schist. The ore bearing kaolinized material is exposed for thickness varying from seven to 19 feet and are somewhat concentrated on the hanging wall side, and are more or less continuous for the length of the zone.

A series of samples, tabulated below, taken in and near the lower shaft indicate that the values in that portion of the deposit will yield an average of 2.36 lbs. mercury per ton. The sampling represents a total probable 7000 tons of ore above the thirty foot level. All seams of concentrated cinnabar were carefully excluded from the samples. The cinnabar seams occur irregularly through the ore body and if permitted to remain in a sample could result in an erroneously high return. Three samples taken in and near the upper shaft yielded considerably higher results, and indicate that higher grade ores may be expected in that vicinity.

Several of the underground workings were surveyed and plotted. Plates showing the surveyed portions are submitted herewith. One sample (No. 1) was taken from a 12 inch quartz vein in a short tunnel 200 feet west of the mercury outcrop and yielded the following assay: Gold 0.165 oz. per ton, Silver 0.95 oz. per ton, Mercury 0.05% (1 lb.) per ton. Another sample (No. 5) was cut across three feet of a quartz fissure in a tunnel on Belmont Hill, 300 feet east of the mercury deposit yielded the following assay: Gold 0.14 oz. per ton, Silver 3.90 oz. per ton, Mercury 0.05% (1 lb. per ton).

Samples taken from the mercury deposit yielded the following analyses:

No. 2	Across 7 feet on surface 40 ft.W. of lower Shaft	0.20% Hg.	(4.00 lb)
No. 3	" 19 " " " 60 ft.W. " " "	0.12% Hg.	(2.40 lb)
No. 4	" 7 " " " 125 ft.W. " " "	0.11% Hg.	(2.20 lb)
No. 6	" 3 " 10 ft. below collar lower shaft	0.12% Hg.	(2.40 lb)
No. 7	" 3 " Face of raise from 30 ft. level	0.21% Hg.	(4.20 lb)
No. 8	" 6 " 30 ft. below collar lower shaft	0.10% Hg.	(2.00 lb)
No. 9	" 6 " 20 ft. " " " "	0.11% Hg.	(2.20 lb)
No. 10	" 6 " on surface 50 ft. north of lower shaft	0.11% Hg.	(2.20 lb)
No. 11	" 3 " 30 ft. below collar upper shaft	0.53% Hg.	(10.60 lb)
No. 12	" 3 " 10 ft. " surface 30 ft. North of upper shaft	0.28% Hg.	(5.60 lb)

All of the above samples were taken by channelling 1 foot wide by 6 inches deep, and quartering the bulk to sample size in the usual method. Streaks and seams of obvious high grade were excluded and avoided in sampling.

It is apparent that the mercury deposit must be considered as a separate project from the balance of the property when considering a long time development program. The fault zone should be explored to a depth of 200 feet or more by shaft and appropriate drifts and raises. By so doing sufficient tonnage of furnace grade ore should be indicated to warrant the erection of suitable reduction units.

An exploratory shaft sunk at 45 degree angle for a slant distance of 300 ft. would provide a vertical depth of 200 ft. The crushed zone could then be explored by driving toward the south for 500 ft. and toward the north for 700 ft. with occasional crosscuts to outline the limits of alteration would properly explore the mineralization and should indicate the extent and direction of development to follow. Ventilation and escape raises should be extended upward to connect with both of the present inclines. It is possible that this exploratory work would incidentally indicate sufficient tonnage of commercial grade ores to warrant erection of a furnace without further development. The exact direction of the underground exploration will be determined by geological conditions encountered at the 200 foot level.

As all of this exploratory work would be within the metamorphic zone it is entirely possible that numerous rich lenses and kidneys of high grade cinnabar would be encountered. Any such ores taken out in the course of exploration could be treated in the present retort equipment as a source of immediate revenue.

A schedule of estimated costs accompanies this supplement.

Respectfully submitted,

Nicholas B. Crawford

NICHOLAS B. CRAWFORD
Consulting Engineer

DMEA-2332
DUTCH FLAT MINES, INC.

KAROLTON KLASP—8¾ X 11¼
"MADE IN U. S. A."
THE AMERICAN ENVELOPE CO.
WEST CARROLLTON, OHIO

JMEA-2332
DUTCH FLAT MINES,
INC.

KAROLTON KLASP—8¾ X 11¼
"MADE IN U. S. A."
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DMEA-2332
DUTCH FLAT MINES, INC.

KAROLTON KLASP—8¾ X 11¼
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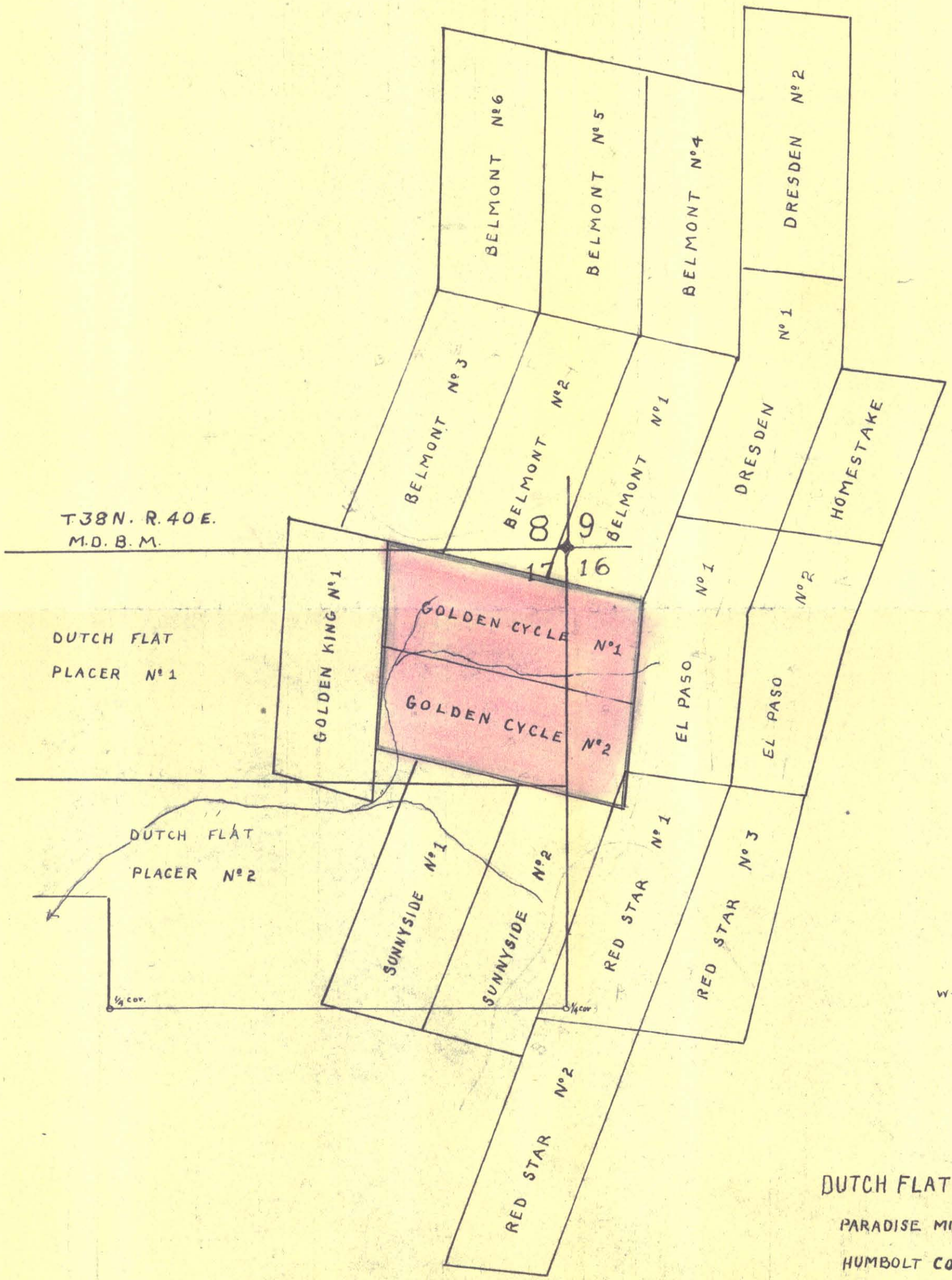


DUTCH FLAT MINES, INC.

PARADISE MINING DIST.

HUMBOLT CO. NEVADA

Scale 1" = 600'

Exibit I

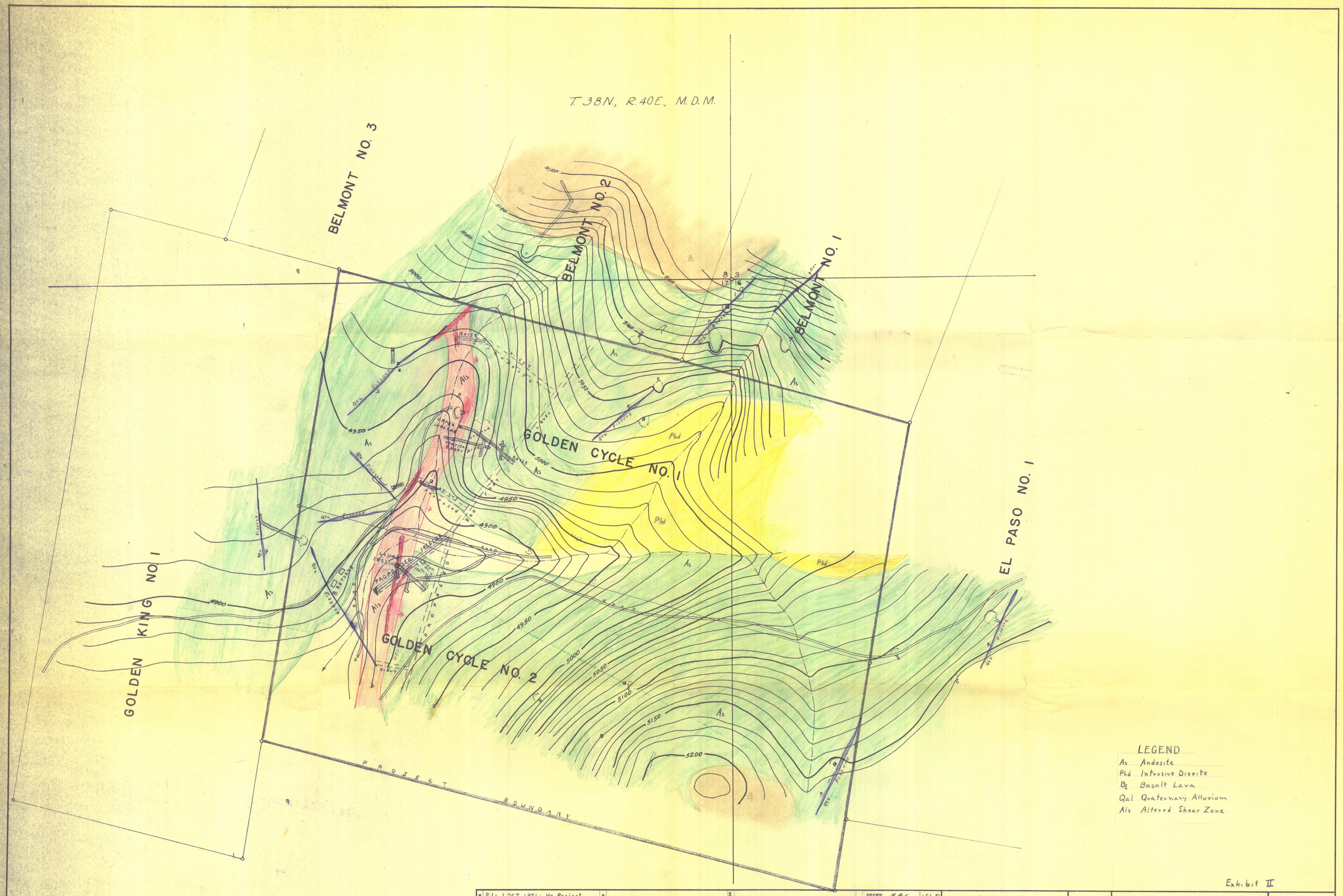


Exhibit II

REVISIONS	R.1- 1 OCT 1951 - Hg Project 2 - 29 OCT 1951 - Underground Exploration Outline	REVISIONS		REFERENCES		WORK	DRAWN N.B.C. 1 July 51 TRACED CHECKED APPROVED	DUTCH FLAT MINES INC. PARADISE MINING DIST. HUMBOLDT CO. NEVADA		SURFACE GEOLOGY	SCALE D- 1 inch = 100 ft

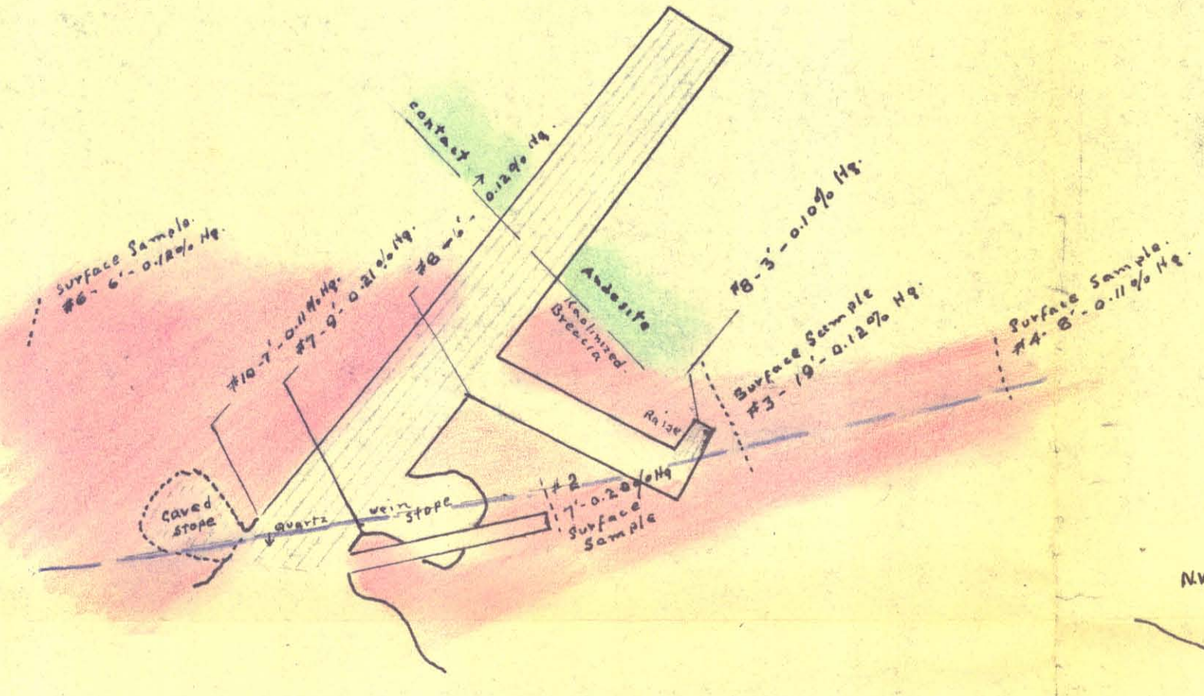
PEMBROKE CO. · 2166 PHOENIX

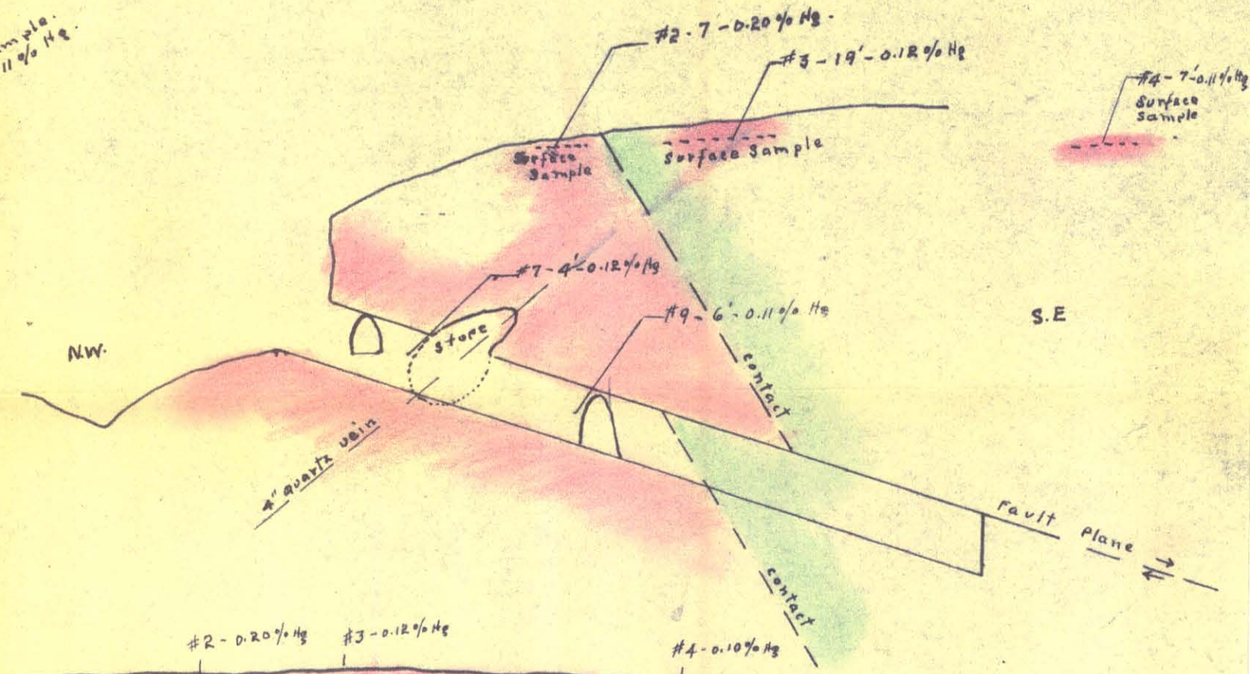
DUTCH FLAT MINES INC.

PLAT AND SECTIONS OF LOWER INCLINED SHAFT ② ON MERCURY DEPOSIT

Scale 1" = 20'

(Oct. 4, 1951)





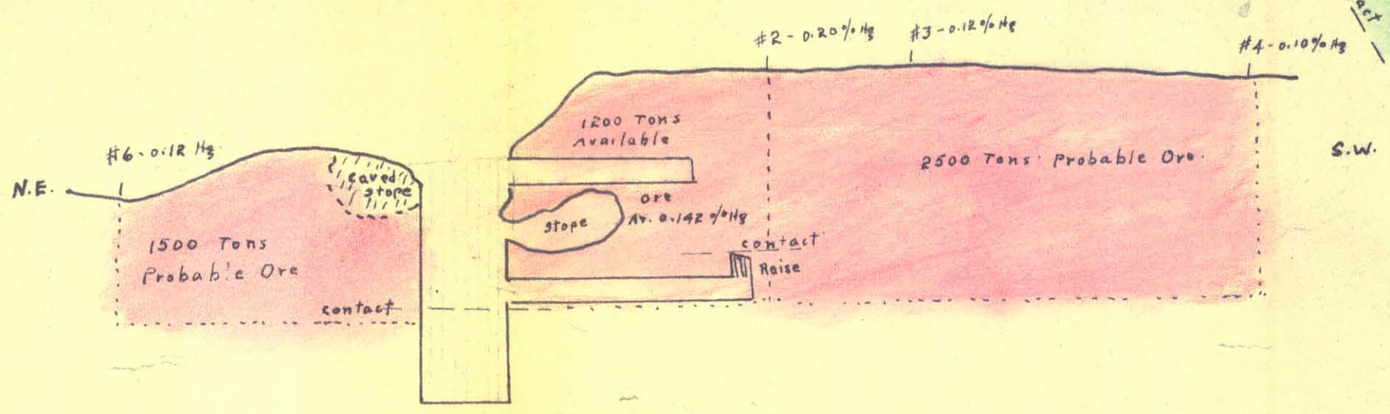
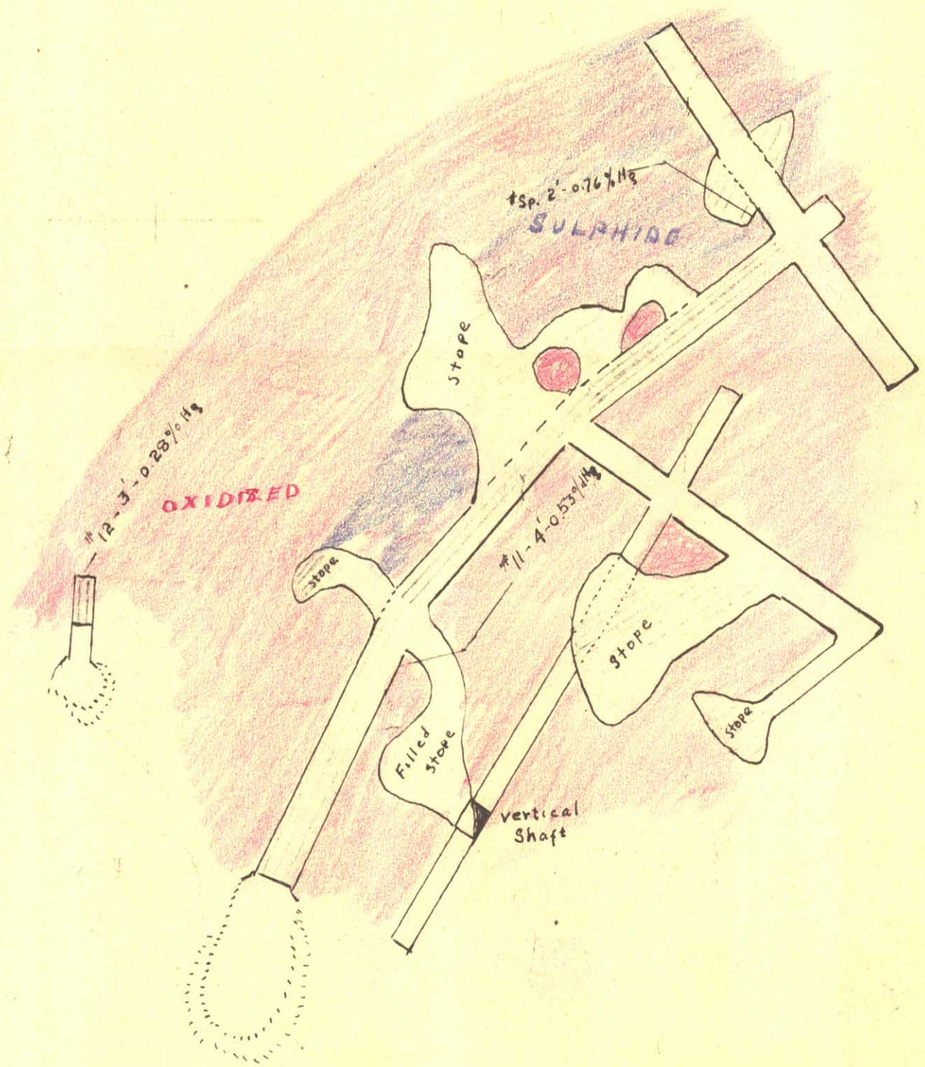
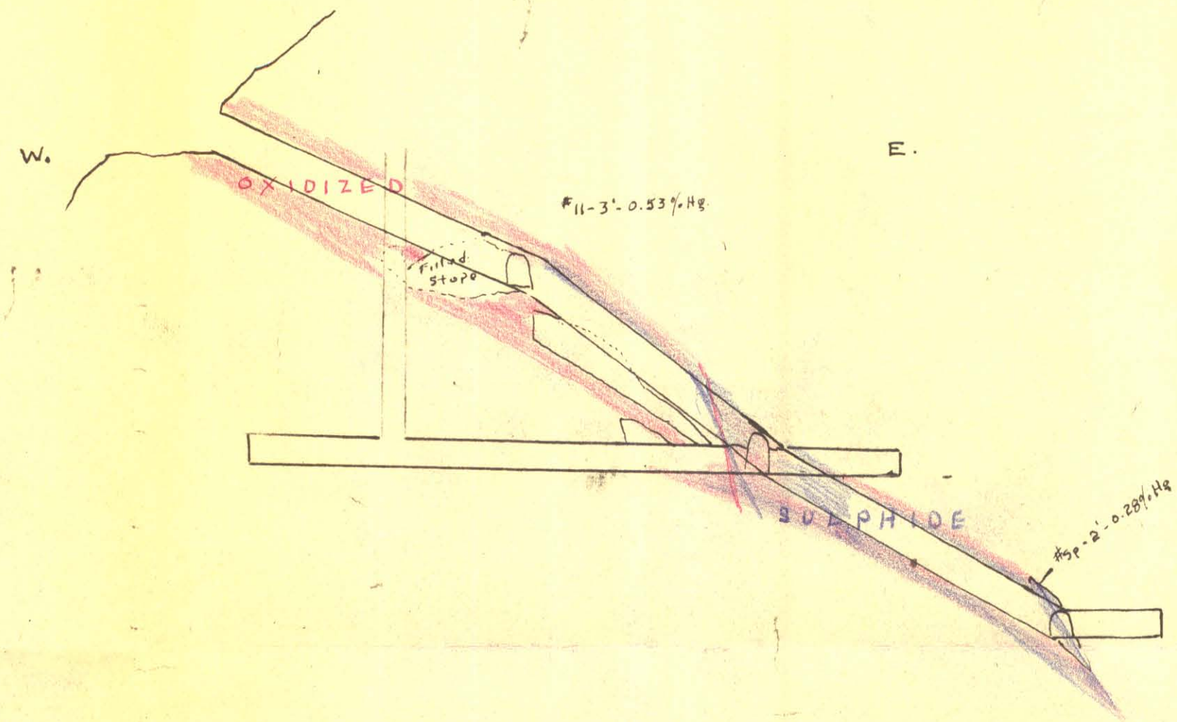


Exhibit III

DUTCH FLAT MINES INC
PLAT AND SECTIONS OF UPPER
INCLINED SHAFT (3)
ON MERCURY DEPOSIT
Scale - 1" = 20'
(Oct. 1, 1951)





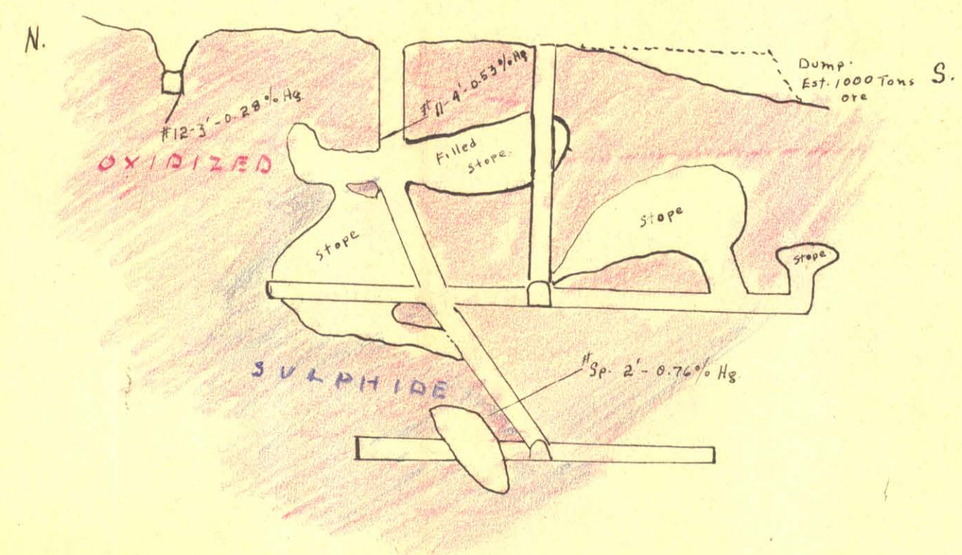
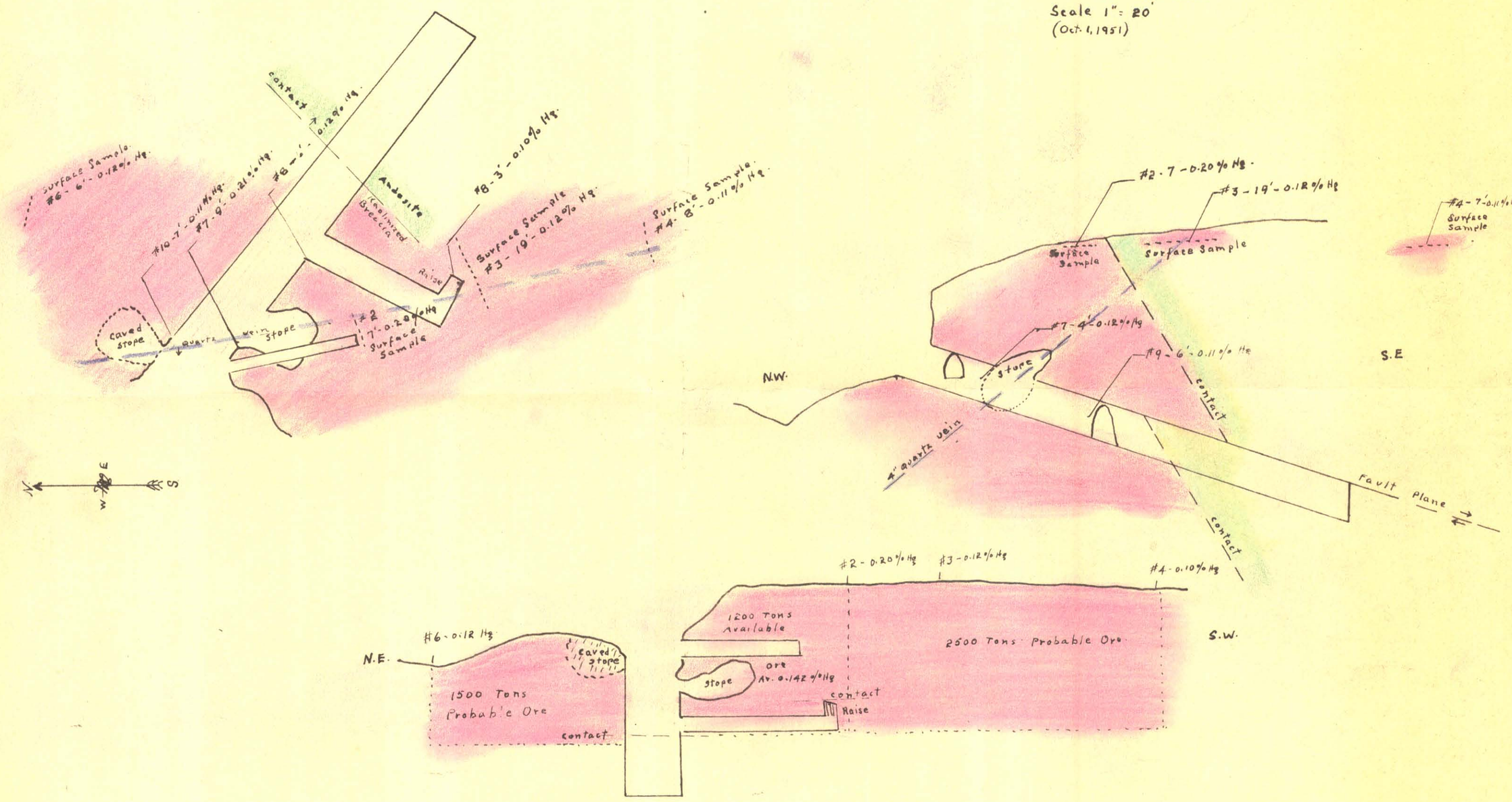


Exhibit IV

DUTCH FLAT MINES INC.
PLAT AND SECTIONS OF
LOWER INCLINED SHAFT (2)
ON MERCURY DEPOSIT
Scale 1" = 20'
(Oct. 1, 1951)



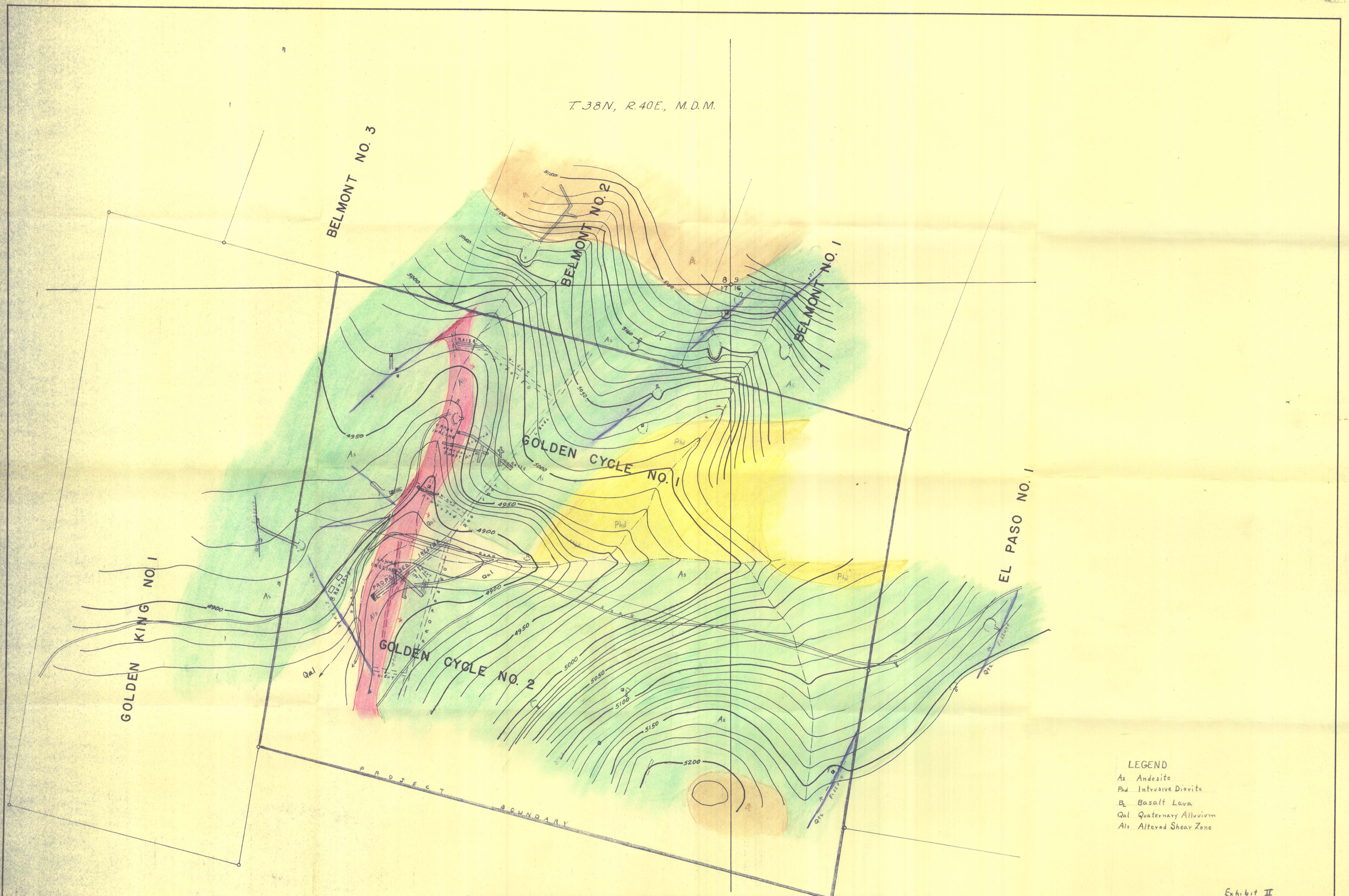
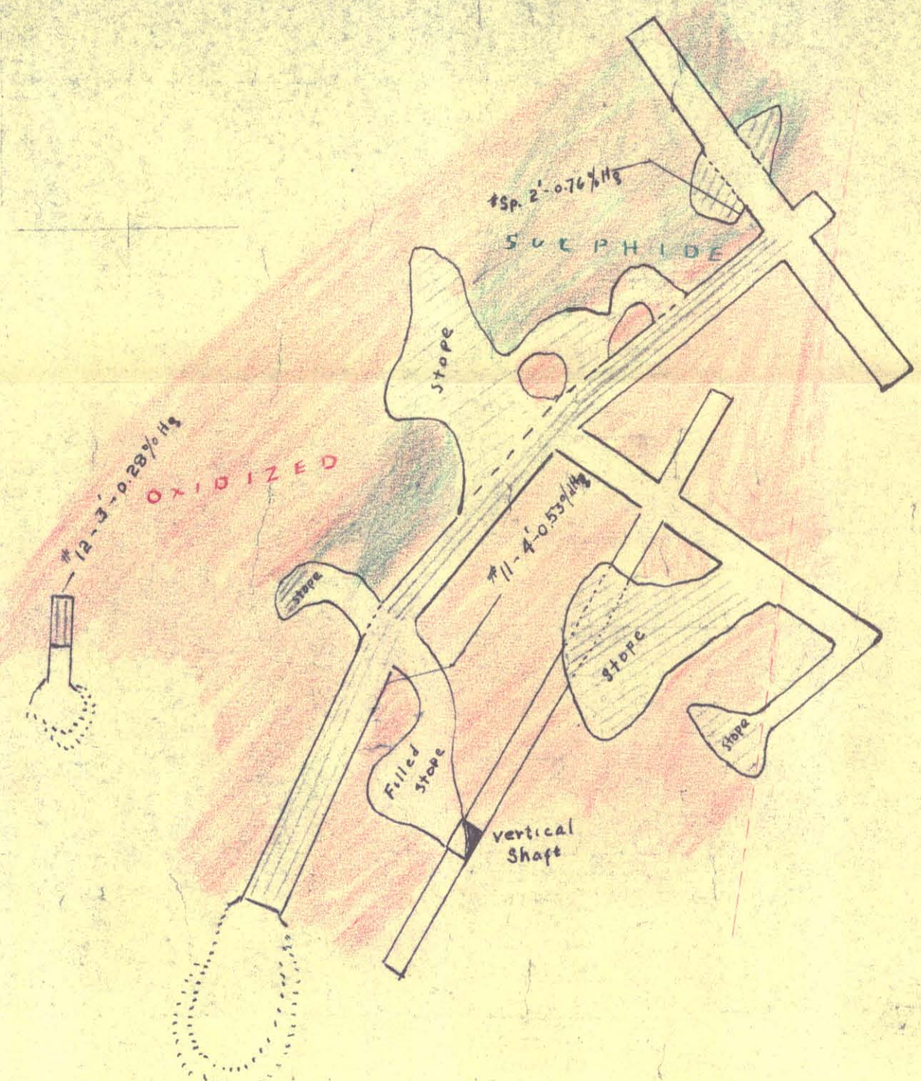


Exhibit II

REVISIONS	R.1 - 1 OCT 1951 - Hg Project 2 - 29 OCT 1951 - Underground Exploration Outline.	REVISIONS		REFERENCES		WORK	DRAWN N.B.C. 1 July 51 TRACED CHECKED APPROVED	DUTCH FLAT MINES INC. PARADISE MINING DIST. HUMBOLDT CO. NEVADA	SURFACE GEOLOGY	SCALE D- 1 inch = 100 ft

PEMBROKE CO. - #160 PHOENIX

DUTCH FLAT MINES INC
PLAT AND SECTIONS OF UPPER
INCLINED SHAFT ③
ON MERCURY DEPOSIT
Scale - 1" = 20'
(Oct. 11, 1951)



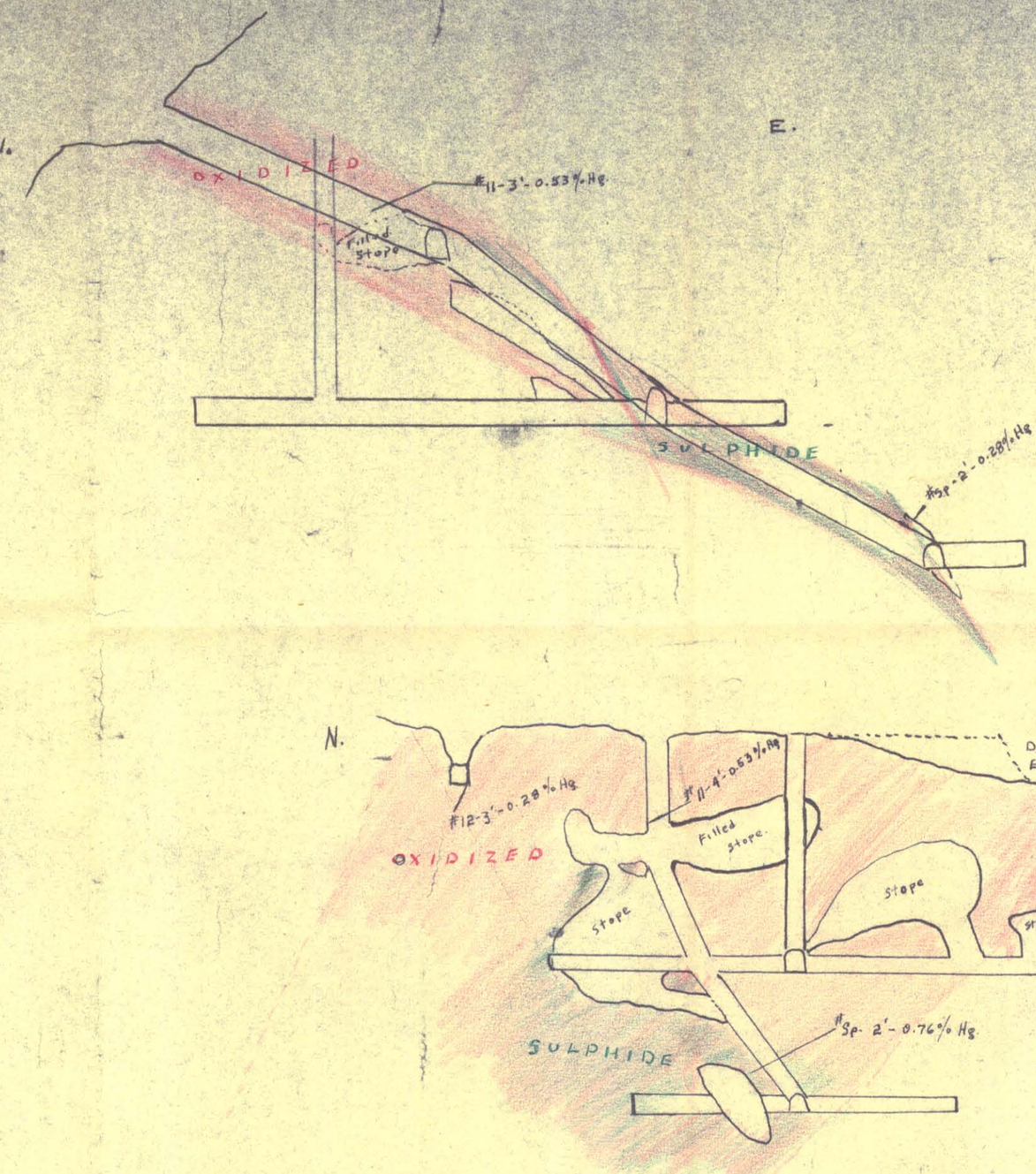


Exhibit IV

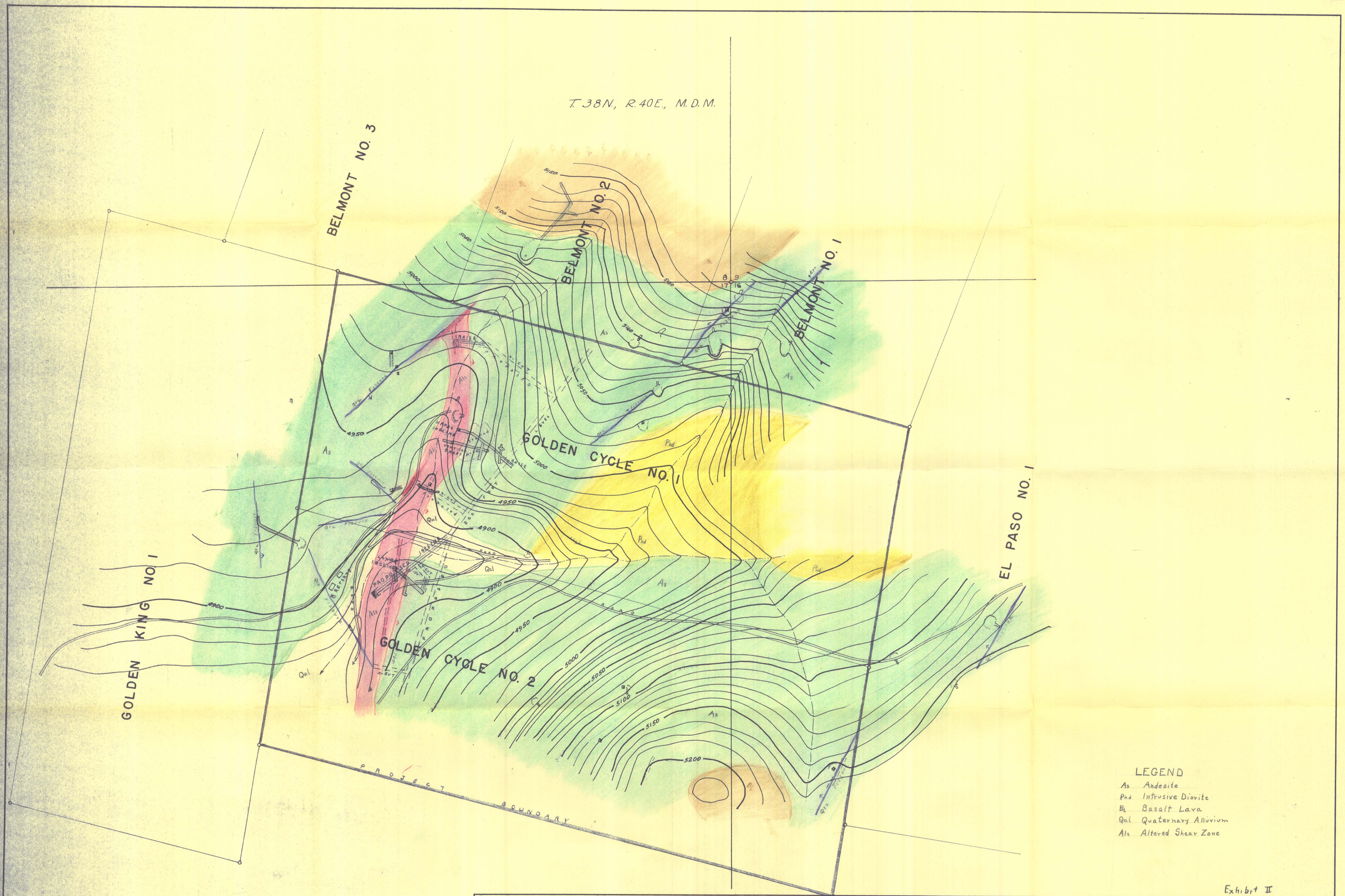


Exhibit II

REVISIONS	R1- 1 OCT 1981- Hg Project 2- 29 OCT 1981- Underground Exploration Outline	REVISIONS		REFERENCES		WORK	DRAWN N.B.C. 1 July 81 TRACED CHECKED APPROVED	DUTCH FLAT MINES INC. PARADISE MINING DIST. HUMBOLDT CO. NEVADA		SURFACE GEOLOGY	SCALE D- 1 inch = 100 ft

PEMBROKE CO. - 2166 PHOENIX