DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

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DMEA ~~DMA~~ Docket No. 2682

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EXPLORATION PROJECT

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

Routing Slip- Copies to USBM and USGS. One copy retained by Region II.

To: Code 400, Rm. 3538 Date 9-2-52

To: Open Com Date 12-3-52.

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CONTROLLED DOCUMENT

FILE COPY
SURNAME:

Chapman
Selfridge
Hibers
Kimball

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

DEC 4 1952

Consolidated Minerals Corporation
1616 Exchange Building
Seattle 4, Washington

Re: Docket No. DMEA 2682 - Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Grays Harbor County, Washington

Gentlemen:

Your application for exploration assistance and other information available to us in Washington have been carefully reviewed.

The information, while indicating a number of showings on your property which would probably develop a moderate tonnage of manganese silicate ores of a medium grade, does not indicate that the probability of developing the large tonnages that would be necessary for this type of operation are sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing this property to our attention.

Sincerely yours,

(signed) FRANK E. JOHNSON

ACTING Administrator

TLChapman:lm
11/25/52

12-4-52

cc: Admn. Reading File
Docket
N. B. Melcher, USBM
M. D. Crittenden, USGS
Field Team Reg. II
Operating Committee
G. C. Selfridge
T. L. Chapman

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

December 2, 1952

Memorandum

To: Mr. G. C. Selfridge

From: Mr. N. B. Melcher

Subject: Document No. DMEA 2682 - Manganese
Stevens Creek, Skunk Creek and Cook Creek Mining Claims, Quinault Mining District, Grays Harbor County, Washington

I am returning the subject document without surnaming with the following comments:

The Bureau of Mines has been engaged in research on the utilization of silicate ores and encouraging progress has been made. It has been shown that rhodonite containing 23.1 percent Mn and 41.2 percent SiO_2 can be converted to silicomanganese with very good recoveries. In fact, one run at Albany, Oregon, in which 2,654 pounds of silicomanganese were made the recovery of manganese was 88.8 percent.

The unknown, as far as possible commercial production in the northwest is concerned, is the extent of rhodonite and other silicate reserves. The reports on the application of the Consolidated Minerals Corp. leaves a considerable doubt in my mind as to the potentiality of the area. The examining team made an unqualified recommendation that the project be approved and the Field Team concurred with this recommendation. Yet, the examination report implied that the potential of the deposit is only a few thousand tons.

I would recommend that the Field Team be contacted again before final action is taken, to obtain an opinion as to the possible potential of the entire Olympic Peninsula area as a source of manganese silicates; perhaps as a source of ore to supplement production of rhodonite from southwestern Oregon and California. I have a feeling that exploration for silicate ores in the northwest is needed and we may be defeating our own purposes by denying this proposal.

I would be pleased to discuss this proposal in further detail at your convenience.

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Administrator, DMEA

DATE: November 25, 1952

FROM : Iron and Ferro-Alloy Division, DMEA

SUBJECT: Denial of exploration project in the amount of $64,733.60
Docket No. DMEA 2682 - Manganese
Consolidated Mineral Corporation
Stevens Creek, Skunk Creek and Cook Creek Mining Claims
Quinault Mining District
Grey Harbor County, Washington

The denial of the subject application by this Division is based on the following information:

1. The manganese deposits of the above-noted area of the Olympic Peninsula occur as lenses of bementite and associated minerals in basaltic lavas. Generally associated with the ore lenses are cherty argillites and narrow bands of limestone.

2. About 150 tons of this ore averaging 19.5 percent manganese were shipped to the Geneva steel plant in Utah. Due to the high freight rates, the shipping of this grade of ore is not feasible.

3. An open pit was opened up on Skunk Creek Claim No. 19 on one of the better showings and a 50-foot adit was driven on the upper margin of this pit. Several trenches opened up showings on the extension of this area.

   A small amount of bulldozing has been done on Stevens Creek Claim No. 5 exposing siliceous manganese ores.

   Outcrops in Stevens Creek Claim No. 1 indicate possible ore bodies.

   The numerous showings in this district and the small amount of work done indicate these lenses would contain from 100 to 10,000 tons of manganese silicate ore averaging 20 percent manganese.

4. At the present time, there is practically no market for this type and grade of ore. These ores are not amenable to beneficiation.

   Electrolytic smelting has been developed by the U. S. Bureau of Mines and a silico-manganese product can be produced.

There is no market for any large tonnage of this product at the present time. In an emergency, the iron and steel operators could use about 10 percent of their manganese in this form. Known deposits of rhodonite are better located for the production of the silico-manganese.

5. The Field Team of Region II recommended the approval of an exploration project for trenching and diamond drilling.

6. The Commodity Division of the U. S. Geological Survey recommends denial.

G. C. Selfridge

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

FILE COPY 400
SURNAME:

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

Administrator, DMEA

November 25, 1952

Chapman
Selfridge

Iron and Ferro-Alloy Division, DMEA

Denial of exploration project in the amount of $64,733.60
Docket No. DMEA 2682 - Manganese
Consolidated Mineral Corporation
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G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

TLChapman'lm
11/25/52

cc: Admn. Reading File
Docket
G. C. Selfridge
T. L. Chapman

IN REPLY REFER TO:

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

G-MD-CF

November 10, 1952

11/13/52

To: George C. Selfridge, DMEA

From: Max D. Crittenden

Subject: DMEA ~~2782~~ 2682 (Manganese) Consolidated Minerals Corp.
Gray Harbor, Washington

The memorandum from the Field Team, Region II, has been reviewed. The geologic data presented substantiates the geologic picture of these deposits obtained during the extensive studies by the Survey and the exploration by the Bureau of Mines during World War II. The Field Team was unwilling to estimate inferred reserves, but from the map and section they prepared, I infer that the lens might contain 10,000 to 12,000 tons of material averaging 15 to 20 percent manganese.

This rock is a mixture of bementite and other manganese silicates and for this reason is not amenable to ore dressing. The manganese can be utilized either by chemical (leaching) or pyrometallurgical methods (smelting as at Geneva Street or electra furnace as at Albany), but the value of the material for these purposes is low.

The only basis on which one can justify the exploration of these deposits is the possibility that the ultimate reserve of the area as a whole is large enough to be of national significance as a source of manganese by one of the methods indicated above. This requires millions of tons of ore, situated in bodies big enough for large-scale integrated operations. The manganese deposits of the Olympic Peninsula are by their nature, small discontinuous lenses, entirely unsuitable for large scale operation. Moreover, there is already exposed, much more material than anyone has found a use for.

From the evidence presented, I do not believe the proposed exploration has any prospect for a discovery of significance on the basis of an immediate market, or as "insurance" against a wartime shortage of manganese. I recommend, therefore, that the application be denied.

Max D. Crittenden Jr

CONSOLIDATED MINERALS CORPORATION

1616 EXCHANGE BUILDING · SEATTLE 4, WASHINGTON
SENECA 4694 · TELETYPE SE. 426

1 - C - Titles, Names and addresses of officers:

Ronald S. Barnes, President 1304 N 122nd St Seattle 33, Wash.
Edwin K. Natori, Vice President 1509 29th Ave. Seattle 22, Wash.
Roland Barnes, Secretary 4311 Linden Ave. Seattle , Wash.
A.M. Barnes, Treasurer 530 Olympic Pl. Seattle 99, Wash.

3 - ~~A, B, C, D, E and F~~ ANNEX 1

The claims are unpatended claims and are located in the Quinault Mining District Township 22N. R.9 & 10W.W.M. Sections 19,25,30, and 31. The claims are on file at the County Seat Montesano, Washington, and are filed as follows:

Claim Name	Vol. of mining claims	Page No.	Auditors File No.
Stevens Creek #1	4	221	522176
2	4	222	522177
3	4	224	525812
4	4	224	525813
5	4	225	525814
6	4	225	525815
7	4	226	525816
8	4	226	525817
Skunk Creek #16	4	227	525818
17	4	227	525819
18	4	228	525820
19	4	228	525821
20	4	235	547507
21	4	229	525822
22	4	229	525823
Cook Creek #31	4	230	525824
32	4	230	525825
34	4	231	525826
35	4	231	525827

* * * * * * * * * * * * *

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Spokane, Washington
October 31, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

GCL 11/12/52

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D.C.

From: DMEA Field Team, Region II

Subject: Docket No. DMEA 2682 (manganese)
Consolidated Minerals Corporation
Grays Harbor County, Washington

Enclosed is a joint report (original and 3 copies) dated October 21, 1952 by E. A. Magill, Bureau of Mines, and Willard P. Puffett, Geological Survey, resulting from an examination of the subject property.

The Field Team concurs with the recommendations of the examining team and with the estimates of costs proposed for an exploration project.

It will be of interest to the Operating Committee that electric smelting research at the Bureau of Mines Northwest Electro-development Laboratory at Albany, Oregon, during the past year has developed a method of producing premium grade silicomanganese from rhodonite containing about 26.5 percent Mn. Further smelting research is in progress with the purpose of establishing the full scope of application and optimum conditions of this process in the production of manganese alloys from low-grade silicate materials. The process appears to have broad applicability in the production of standard grades of ferromanganese as well as silicomanganese from materials having a much lower ratio of Mn to Si than the 10 to 1 ratio of present specifications for metallurgical grade ore.

The Mining Division of the Bureau of Mines, Region II, at this time is contracting with Consolidated Minerals Corporation to supply 50 tons of crude manganese silicate averaging approximately 21 percent Mn for use in further electric smelting tests at Albany.

By Field Team, Region II

M E Volin
M. E. Volin, Member
U. S. Bureau of Mines
1201 N. Division Street

A E Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey
South 157 Howard Street

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

So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

11/26/52

October 21, 1952

MEMORANDUM

To: DMEA Field Team, Region II

From: E. A. Magill, Mining Engineer, U. S. Bureau of Mines, and Willard Puffett, Geologist, U. S. Geological Survey

Subject: Examination, Consolidated Minerals Corporation Mine, Grays Harbor County, Washington. DMEA Docket 2682 (Manganese)

APPLICANT

The applicant is the Consolidated Minerals Corporation, 1616 Exchange Building, Seattle 4, Washington.

RECOMMENDATIONS

It is recommended that the exploration project outlined herein be approved. This project will explore for manganese silicate ore which contains about 20 percent manganese.

EXAMINATION

The property was examined on September 30 and October 1, 1952; about eight hours were spent on the property. Accompanying the examining team were Don Hume, Ronald Barnes, and John Stone, representatives of the Consolidated Minerals Corporation. All major outcrops were visited.

LOCATION OF PROPERTY

The property consists of 19 unpatented mining claims located in secs. 19, 30, 31, T. 22 N., R. 9 W., and sec. 25, T. 22 N., R. 10 W., W.M., Quinault Mining District, Grays Harbor County, Washington.

The nearest town is Neilton, 4 miles distant. Hoqiuam, Washington, is the nearest supply point, 34 miles by highway (32 miles of which are paved). A loading ramp constructed by the Applicant on the Northern Pacific Rai lroad is at Copalis Crossing, 25 miles by road.

ACCESSIBILITY

Accessibility to the property is excellent. A good graveled logging road two miles in length extends from U. S. Highway 101 to the main open pit on Skunk Creek.

Year around operations can be conducted, although it is in an area where the annual rainfall is about 100 inches. Snowfall is slight and only lasts for relatively short periods of time.

COMPETENCY OF APPLICANT

The applicant has men capable of directing and carrying out the proposed exploration program.

PROPERTY RIGHTS

The mining claims are owned by the Consolidated Minerals Corporation, and copies of the assignments are attached.

The applicant has listed the book, page number, and auditors file number of the 19 claims in his application.

DESCRIPTION OF PROPERTY

The claim on which the most work has been done is Skunk Creek No. 19. Here the south slope of a fairly steep hill at the head of a short tributary to Skunk Creek has been extensively bulldozed and production has been obtained from a small quarry. Near the upper margin of this quarry is a 50-foot adit. Higher on the slope and to the northeast are some old trenches, now mostly filled with surface debris, near which a small amount of manganese ore is piled. The quarry is approximately 100 feet long and at the widest point is approximately 70 feet wide. All of the exposures occur between 1,300 and 1,400 feet elevation above sea level.

On Stevens Creek claims Nos. 5 and 1, three outcrops of manganese ore are exposed. Only a small amount of bulldozing has been done on claim No. 5 and no work has been done on that showing on claim No. 1.

On Skunk Creek No. 19 claim the applicants have erected two small buildings for storage of tools and a 30-ton ore bin. A belt conveyor carries rocks from the quarry floor to a 10" x 20" jaw crusher powered by a gasoline engine, the crushed rock passes down a steel chute to the ore bin.

GEOLOGY

The manganese deposits of the Olympic Peninsula occur as lenses of massive bementite and associated minerals in basaltic lavas of the Metchosin Volcanics of Eocene age. Generally associated with the ore lenses are cherty argillites and narrow bands of limestones.

The manganese deposit on Skunk Creek claim No. 19, has been exposed in an open-pit quarrying operation. The ore is composed of massive intermixed bementite and neotocite. It is believed that only a portion of the lens is exposed, the upper tip of the lens pinching at an altitude of 1,366 feet at the upper margin of the quarry, whereas at an elevation of 1,320 feet in the floor of the pit, ore is exposed along the face of the pit for nearly 75 feet. It is believed that the long horizontal axis of this lens strikes approximately northwest and the other long axis dips 30 to 40 degrees to the southwest. If this is true, the 70 feet of ore exposed in the quarry face represents a thickness of a maximum of 30 feet. Nothing is known of the size or disposition of the ore body beneath the quarry floor. A short adit has been driven into the hillside near the upper tip of the lens, in the walls of which some manganese ore is exposed but insufficient evidence is exposed to obtain much information regarding continuation of the ore in this direction.

This ore lens is enclosed nearly entirely in altered basalts, but a thin band of limestone and some cherty argillites occur sporadically along the footwall, and near the southwest corner of the exposed hanging wall the ore consists of admixed argillites and manganese minerals. Near the central portion of the exposed lens, a horse of very low grade ore occurs which may be evidence that here the footwall has been nearly intersected.

A short distance to the northeast upslope from the open pit are at least two debris-filled open cuts near which some manganese ore has been piled. No bedrock exposures remain in the vicinity of the cuts.

As a result of bulldozing, two exposures of manganese ore have been made on a heavily timbered slope on Stevens Creek No. 5 claim. Here the overlying mantle is thick and indications are that perhaps only the upper tips of two separate lenses have been uncovered.

One exposure is 17 feet long, 5 to 10 feet wide, and appears to be widening downward. Another exposure northwest of it 165 feet, is in the walls of a 6-foot deep trench for nearly 15 feet long.

On Stevens Creek No. 1 claim, massive manganese ore minerals are exposed on either side of the mouth of a small tributary emptying into Stevens Creek. Other scattered exposures of ore minerals are found 100 feet upcreek from the mouth of the tributary and it may be that these exposures represent a continuous body. Red cherty argillites are associated with these ore exposures. A chip sample representing a 15-foot width of this area obtained assay results of 17.0% Mn.

On claim No. 32 on the north bank of Cook Creek, a 10-foot tunnel has intersected a narrow band of bementite ore. A chip sample of this ore assayed 14.7 percent manganese.

The Operators report a number of other outcrops of manganese ore in the area but these were not visited.

Sketch maps of the open-pit area and the two exposures on Stevens Creek claim No. 5, with plotted assay values of samples taken accompany this report.

ORE RESERVES

The only measurable ore reserves occur in the open pit. Inasmuch as no definite information has been obtained concerning the true or average thickness of this ore body, only an estimate of ore can be made. The Operators have shipped 150 tons of ore averaging 19.5 percent manganese from this pit. It is estimated that not more than 800 to 1,000 tons of ore of similar grade remain in the lens, unless further work shows that the ore continues in comparable thickness beneath the quarry floor.

PAST OPERATION

The Quinault area has been prospected for manganese since 1920. Outcrops have been trenched and a number of short adits driven to determine the extent of some of the manganese lenses. In 1934-1935, considerable trenching was carried on by the Works Progress Administration. In 1943, a mine-to-market road was completed to a nearby deposit (Esther-Irene) on Cook Creek.

In the spring of 1952 the Consolidated Minerals Corporation shipped three carloads (150 tons) of 19.5% manganese ore to the Geneva Steel Company at Provo, Utah. (Copies of analysis sheets are attached). Shipments were discontinued because the operators received only $16.00 per tone f.o.b. Provo. Rail freight amounted to $12.00 per ton from Copalis Crossing, the rail shipping point.

MANPOWER AND SUPPLIES

Manpower and supplies are available for the proposed exploration. However, the wages will have to meet those of the logging industry which is the principal industry in the district. It is anticipated that a base pay of $2.25 per hour will have to be paid for labor. Pay in the logging operations is $2.37-$\frac{1}{2}$ per hour, with much of the work being on a contract basis under which it is possible to better these rates.

PROPOSAL

The applicant's proposed exploration consists of bulldozer trenching and diamond drilling on three different manganese deposits on Stevens and Skunk Creek. The cost of this program is estimated to be $64,733.60.

A modified program was worked out with the applicants at the time of the examining team's visit. This program explores the same targets at less cost.

The modified program consists of bulldozer trenching at three separate areas on Stevens and Skunk Creeks where manganese lenses are exposed. The purpose is to determine the extent of the lenses. In some cases it may be necessary to blast the country rock to obtain greater depth on the lenses.

If Stage I is successful, Stage II will allow for additional bulldozing of other outcrops in the area with diamond drilling to determine the downward extent of the exposed lenses.

It is anticipated that the individual manganese lenses within the area may contain from a few tons to several thousand tons of manganese silicate ore with a minable grade of about 20 percent manganese, 40 percent silica, and 10 percent iron.

PROPERTY RIGHTS

The property to be included in the project includes the 19 unpatented mining claims listed in the application. Attached is a copy of a claim map furnished by the applicant showing the locations of the proposed work.

All claims are to be subject to royalty payments to the Government.

EXPLORATION PROJECT

It is anticipated that work could be commenced within 10 days after approval of a contract if weather permits. From the middle of November to the middle of March the area has practically continuous rainfall making it impractical to carry on trenching operations. Consequently, considerable delay should be allowed to begin the program to allow for possible unfavorable weather conditions which may be current at the time of final approval. An exploration project contract with a time limit of 10 months is proposed as follows:

Exhibit "A"

Description of Work

Stage I

1. Trench to determine the extent of the manganese lenses on Skunk Creek No. 19, Stevens Creek No. 5, and Stevens Creek No. 1 claims.

Stage II

1. Diamond drill the lenses exposed by Stage I to determine their downward extension.

2. Trench to determine the extent of exposures on other claims included in the exploration program. The location of this work is to be determined by the applicants, subject to the Government's approval.

Estimated Costs of Project

(Items followed by asterisk are allowable maximums)

Stage I

(1) Independent Contracts

Bulldozer trenching, D7 or equivalent - 200 hours, at $12.50 per hour; this will include operator and all operating expenses	$ 2,500.00*

(2) Labor, Supervision, and Consultants

Part-time geologist as needed to do sampling and mapping	$ 250.00

(2) Labor, Supervision and Consultants (continued)

Wages for 2 surface laborers, 320 hours each at $2.25 per hour	$ 1,440.00
Supervision $400.00 per month for 2 months	$ 800.00

(3) Operating Materials and Supplies

Gasoline, oil, explosives and any other supplies or materials necessary to complete this project	$ 1,000.00

(4) Operating Equipment

To be purchased:

None

To be rented:

1 - 105 cfm air compressor at $175.00 per month for 2 months	$ 350.00

To be furnished by operator:

	Estimated value	Per month	Total Allowance
1 Air drill sinker	$ 300.00	$ 5.00	$ 10.00*
1 Truck pickup	$1,800.00	$30.00	$ 60.00*

(5) Rehabilitation and Repairs

None

(6) New buildings, improvements, installations

None

(7) Miscellaneous

Assays - 100 at $4.00 each	$ 400.00
Workmen's compensation, employee's liability insurance, payroll and sales taxes	$ 300.00
Moving tractor to and from project	$ 100.00
Contingencies	$ 360.50
Total Estimated Cost - Stage I	$ 7,470.50

Stage II

(1) Independent Contracts

Bulldozer trenching D7 or equivalent 200 hours at $12.50 per hour; this will include operator and all operating expenses	$ 2,500.00
Diamond Drilling - 1,000 feet at $8.00 per foot. Per foot cost to include all labor (excepting supervision), supplies, and materials necessary to carry out the drilling, and to include moving the drills to and from the property and drill sites.	$ 8,000.00

(2) Labor, Supervision, Consultants

Wages for 2 surface laborers, 320 hours each at $2.25 per hour	$ 1,440.00
Supervision $400.00 per month for 4 months	$ 1,600.00
Part-time geologist as needed to do sampling and mapping	$ 500.00

(3) Operating Materials and Supplies

Gasoline, oil, explosives and other supplies, materials or repair parts to complete this project	$ 1,000.00

(4) Operating Equipment

To be purchased:

None

To be rented:

1 - 105 cfm air compressor - $175.00 per month for 2 months	$ 350.00

To be furnished by Operator:

	Estimated value	Per month	Total Allowance
1 Air drill sinker	$ 300.00	$ 5.00	$ 10.00*
1 Truck pickup	$1800.00	$30.00	$120.00*

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Assays - 100 each at $4.00	$ 400.00
Workmen's compensation, employee's liability insurance, payroll, and sales taxes	$ 350.00
Contingencies 5 percent	$ 581.50
Total Estimated Cost - Stage II	~~$12,211.50~~ 16,881.50

COST SUMMARY

Total estimated cost of Stage I	$ 7,470.50
Total estimated cost of Stage II	~~$12,211.50~~ 16,881.50
Total Estimated Cost:	~~$19,682.00~~ 24322.00
Government's participation at 75 percent	

DISCUSSION

The lenses of manganese silicate ore exposed on the applicant's property are typical of those which occur in the manganese belt on the Olympic Peninsula. Because of their relative low manganese content the deposits have not been extensively explored. The U. S. Bureau of Mines plans to carry out a series of beneficiation and utilization tests on typical bementite ore to be taken either from the applicant's or a similar type deposit.

If this type and grade of manganese ore can be used at a slightly higher price than is now being offered by private industry, a substantial tonnage is indicated in the Olympic Peninsula area. The Applicant's deposits are typical of a great many of the exposures in the area. Therefore the proposed exploration will give valuable information as to the potential tonnage in the individual lenses which are relatively abundant in the area.

E. A. Magill, Mining Engineer
U. S. Bureau of Mines

Willard P. Puffett, Geologist
U. S. Geological Survey

Enclosures

cc: USBM(2)
Puffett

CONSOLIDATED MINERALS CORPORATION

1616 EXCHANGE BUILDING · SEATTLE 4, WASHINGTON
SENECA 4694 · TELETYPE SE. 426

October 10, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

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

Dear Sir:

Re: Docket No. DMEA 2682 - Manganese
Stevens Sreek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Grays Harbor County, Washington

We refer again to your letter of September 12th relating to the above. We appreciate the fact that your field men have already contacted us and have visited part of the properties. We are sending to your Spokane office additional data as per the attached which we believe will make the information on our properties more complete.

Thanking you for the cooperation that you are extending to us, we are

RSB/a

Yours very truly

CONSOLIDATED MINERALS CORPORATION

Ronald S. Barnes

Ronald S. Barnes, President

Encl: letter to Regional Office, Spokane

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 10-14-52

REFERRED TO:

1. Code 400 - Rm. 3538
2.
3.
4.

FOR:

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

REMARKS: .....

Check (X) before the items needing attention.

Adams (AH)
Initials of sender

GPO 16—63815-1

CONSOLIDATED MINERALS CORPORATION

1616 EXCHANGE BUILDING · SEATTLE 4, WASHINGTON
SENECA 4694 · TELETYPE SE. 426

October 10, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

Mr. A.E.Weissenborn, Executive Officer, Region II
South 157 Howard Street
Spokane 8, Washington

Dear Sir:

Re: Docket No. DMEA 2682-Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Grays Harbor County, Washington

For further information on our properties, we are enclosing herewith the following items:

1- Claim map - this map is as accurate as can be determined by compass. The land, in the most part where the claims are located, is unserveyed land.

2- An exact copy of the assignments to Ronald Stanley Barnes of Claims No. 1 and 2 by David E. Pryde.

3- The original assignment of Ronald Stanley Barnes on Claims No. 1, 2, 3, 4, 5, 6, 7, 8 and 20. The original assignment of Gerald E. Hogan on Claims No. 16, 17, 18, 19, 21, 22, 31, 32, 34, and 35. We request the return of these two assignments after they have fulfilled their use in your office.

4- Copy of United States Steel Corporation's analyses of the three cars shipped to Geneva, Utah, - the original analyses sheets are in this office for inspection.

5- Cross-cut channeling analysis on No. 19 together with a copy of the graph prepared by Hope Engineering Company of Seattle.

If more information is required on our claims, we shall be pleased to send you immediately any information you may require.

RSB/a

Yours very truly

CONSOLIDATED MINERALS CORPORATION

Ronald S. Barnes, President

CONSOLIDATED MINERALS CORPORATION

1616 EXCHANGE BUILDING · SEATTLE 4, WASHINGTON

SENECA 4694 · TELETYPE SE. 426

September 18, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

SEP 22 1952

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

Re: Docket No. DMEA 2682 - Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Grays Harbor County, Washington

Dear Sir:

We thank you for your letter of September 12th in which we note that our assistance in exploring the above captioned property was reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration, and then referred to Mr. A. E. Weissenborn, Executive Officer, Region II, Spokane, Washington, for a field examination.

We are also pleased to note that the Regional Office will contact us at an early date, and we will give them all possible assistance to complete their examination.

Thanking you again, we are

RSB/a

Sincerely yours

CONSOLIDATED MINERALS CORPORATION

Ronald S. Barnes

Ronald S. Barnes, President (a)

FILE COPY
SURNAME:

Chapman
Martin
Gibson
Hedges
Hayes
Fleming

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

SEP 12 1952

Consolidated Minerals Corporation
1616 Exchange Building
Seattle 4, Washington

Re: Docket No. DMEA 2682 - Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Gray Harbor County, Washington

Gentlemen:

Your application for assistance in exploring the above noted property has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. A. M. Weissenborn, Executive Officer, Region II, South 157 Howard Street, Spokane 8, Washington, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any aid which you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Fwd JN 9-12-52

Administrator

TLChapman'lm
9/9/52

cc: Admn. Reading File
Docket
N. B. Melcher, USBM
M. D. Crittenden, USGS
Field Team Reg. II
W. S. Martin
T. L. Chapman

Docket

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

Chapman
Martin
Gehan

SEP 12 1952

Mr. A. E. Weissenborn
Executive Officer, Region II
South 157 Howard Street
Spokane 8, Washington

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant Consolidated Minerals Corporation

Docket No. DMEA 2682

Commodity Manganese

Amount $ 64,733.60

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

Sincerely yours,

Frank E. Johnson (B.H.)

F.H.
9-12-52

Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

13759

Defense Minerals Exploration Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2682

Commodity Manganese

Total Amount $64,733.60

Govt. Participation $48,550.20

1. Name and Address of Applicant Consolidated Minerals Corporation
1616 Exchange Building
Seattle 4, Washington

2. Location of Property Quinault Mining District

T. 22 N.; R. 9 & 10 W.;

Grays Harbor County, Washington

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

If not, application will be rejected.

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

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

a) Good Yes

b) Poor

c) None

d) Don't know—needs field examination

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

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

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

Does the lease have sufficient time to run to cover a future

productive period? ——

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? _____

b) MF-202 _____

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

a) Available manpower Yes

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

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

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

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

_____

Is a field check needed on this point? _____

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? No

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

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

_____

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

If not, what part of it is? _____

_____

_____

_____

Is this part a worth-while exploration project?_____

d) Are the cost estimates detailed?_____
Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data?_____ If so, attach a draft.
Yes

e) Are the cost estimates reasonable?_____
No

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A?_____
Yes

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

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

c) Is a field check needed?_____

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

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____

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

a) Are there sufficient data?_____

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

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

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

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

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? The size of project should be carefully checked. Supervision and consultant costs are high for size of project. Also labor cost are high. Accountant cost is high. Project appears to warrant some work but at a cost much lower than the $64,000.00 applied for.

TLChapman'la
9/9/52

Reviewed by: T. L. Chapman

Enclosure:

2 Copies of memo by
M. D. Crittenden, USGS

Date 9/8/52

IN REPLY REFER TO:

G-MD-CF

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

September 4, 1952

Memorandum

To: George C. Selfridge

From: M. D. Crittenden, Jr.

Subject: DMEA 2682 - Manganese Consolidated Minerals Corp.
1616 Exchange Bldg.
Seattle, Washington

The applicant proposes to explore by an indefinite amount of surface trenching and diamond drilling from 3 deposits of manganese silicate ore in the southwestern part of the Olympic Peninsula, Washington. The cost is estimated to be in excess of $64,000, of which about $17,000 is accounted for in direct contracts. The rest is for associated labor, equipment, assaying and overhead.

The deposits were examined by C. F. Park and others in 1939-1940, whose findings are in accord with the report by Milnor Roberts which accompanies the application. The deposits are syngenetic bedded accumulation of manganese commonly having a lenticular form. They are enclosed by layers of red argillite or limestone, commonly 20 to 50 feet thick. These in turn are sandwiched between thick masses of pillow basalt. The manganese minerals include bementite, netocite, and other silicates, and in general may be expected to average about 20% Mn. Oxidation affects the surface of the orebodies but does not produce any appreciable enrichment.

The ore has been mined by open pit methods and sold to Geneva Steel Co. who pay about 80¢ per unit ($16.00 per ton) f.o.b. rail. Allowing $3 - $4.00 for hauling this would permit small scale open pit operation at a good profit, but probably would not allow underground operation on that scale.

There is no specific information about the reserves of the properties for which exploration is proposed. The earlier examinations indicate that lenticular bodies such as those exposed may contain a few thousand tons each. On this basis, and because open pit operation is all that is practical anyway, it does not appear practical to undertake exploration of the magnitude and nature proposed.

M. D. Crittenden Jr.

M. D. Crittenden

Mr. Ronald S. Barnes, President
Consolidated Minerals Corporation
1616 Exchange Building
Seattle 4, Washington

Subject: DMEA-2682
Re: Exploration Assistance
Stevens Creek Claims, etc.
September 2, 1952

My dear Mr. Barnes:

The receipt of your application dated August 14, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2682 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2682 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation's Control
and Statistics Division

25451

OFFICE OF THE ADMINISTRATOR

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

So. 157 Howard Street
Spokane 4, Washington

SEP 2 1952

August 24, 1952

Mr. Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Johnson:

Enclosed are the original and two copies of an application for exploration assistance submitted by Consolidated Minerals Corporation of Seattle, Washington. The fourth copy is retained here for a field examination which, because of the approach of fall we will attempt to make as soon as we have men in the vicinity of the property.

Sincerely yours,

A. E. Weissenborn, DHK.

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: USBM(2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-2682
Metal or Mineral
Date Received 9-2-52
Estimated Cost
Participation (Government %)

RECEIVED
AUG 18 1952
U.S.G.S.
SPOKANE, WASH.

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address.

CONSOLIDATED MINERALS CORPORATION
1616 Exchange Building
Seattle 4, Washington

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. incorporated in State of Washington, January, 1952

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See attached

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract see attached

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4 - See attached report by Dean Milnor Roberts

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will to explore **Manganese and Manganese Dioxide**

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. **Refer to plan of claim No.1, 5, and 19**

(*c*) The work will start within **30** days and be completed within **12** months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. **See attached**

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [x] Use of equipment owned by you [X] Other

Explain in detail on acompanying paper. **Money and equipment is available to take care of the Company's share of the cost**

CERTIFICATION

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

Dated **August 14**, 1952

CONSOLIDATED MINERALS CORPORATION
(Applicant)

By Ronald S. Barnes
Ronald S. Barnes, President

Roland Barnes
Roland Barnes, Secretary

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—66551-1

SECTION 4 - B, C, D, and E

MILNOR ROBERTS
Mining Engineer

American Institute of Mining
and Metallurgical Engineers
Mining and Metallurgical Society of America

4501 15th Ave. N.E.
Seattle, Washington
July 2, 1952

Report to the CONSOLIDATED MINERALS CORPORATION
1616 Exchange Bldg., Seattle, Washington

The following notes are the result of my visit to your manganese property on June 24 and 25 in company with your superintendent, Mr. John Stone, and Mr. Norman Barnes.

THE PROPERTY:

The mining property of the Consolidated Minerals Corporation as described to me consists of 19 unpatented lode-mining claims held by right of discovery and location in Grays Harbor County, about six miles south of Lake Quinault. More particularly the claims lie in Sections 19,30 and 31, T 22 N, R9W, W.M., and in Section 25, T 22 N, R 10 W, according to the claim map furnished me. The claims were staked in 1951 in three groups as follows; Stevens Creek Nos. 1-8, Skunk Creek Nos. 16-23 and Cook Creek Nos. 31,32,34 and 35.

The Stevens Creek claims Nos. 6 to 8, all the Skunk Creek Claims, and all the Cook Creek claims form a solid block of 15 claims. Stevens Creek Nos. 1-5 form a small block that has one corner post in common with the larger block and also is overlapped by the latter, assuming that Stevens Creek No.5 is senior to Stevens Creek No.6 and Skunk Creek No. 16.

TOPOGRAPHY:

The claims are located in a range of hills that forms the eastern border of the comparatively low gentle terrain lying northward from Grays Harbor and extending westward to the ocean. Railway lines and highways traverse the lower land but the hills are served only by logging roads, which are graded and surfaced. The distance by road from Hoquiam to the mine on Skunk Creek No. 19 is 34 miles.

The range of hills rises eastward with a moderate slope but in the area covered by the claims the range is deeply dissected by stream-cut valleys. These valleys are V-shaped in cross-section and have steep walls; usually the stream-bed occupies nearly the whole width of the valley-floor. Erosion of the valleys has resulted in leaving only narrow ridges between them. At this season (late in June), every valley has a flowing stream. Stevens Creek drains southward into the Humptulips River while the waters of Cook Creek and its branch Skunk Creek flow south-westward into the Quinault River. The lowest showing visited is on Stevens Creek No.1 at about 820 feet elevation. Some ridges on the claims rise above 1500 feet.

GEOLOGY:

The area described is covered almost completely to an average depth of several feet with earth, fine bits of rock in weathered condition, and coarser detritus up to a foot or two in size. The country rock of the area is basaltic lava. It crops out along the creeks in places where stream action has removed the overlying detritus, and it also occurs as knobs and ledges on the valley walls and the ridges. It has also become exposed on hillsides by numerous road-cuts. The largest exposure is found at the quarry working on Skunk Creek No.19 where a face about 240 feet long has been exposed. Here the gradation in appearance of the basalt is apparent, varying from the dark grayish-green of the freshest rock at a depth several yards below the surface, through stages that show the common dull brown appearance, to the pale yellowish-brown of the smallest fragments of other rocks imbedded in its mass, thus forming a volcanic agglomerate. The lava is cracked to a great degree both at the surface and at the greatest depth exposed. Movement has taken place quite generally, resulting in slickensides that range in size from a few inches to several feet.

At a few points are seen outcrops of dark brownish-red argillite, a sedimentary rock that breaks down at the surface in thin, shaly layers. The thickest bed noted occurs in the deep cut directly in front of the base of the orebin at the mine on Skunk Creek No.19. It stands nearly vertical, strikes north 40 degrees east, and is 8 to 10 feet in thickness. Along the mine road below this point are two other outcrops of narrower red beds standing at 55 degrees and 70 degrees respectively. Another red Bed a foot or more in thickness directly underlies the orebody of the mine on the northeastern edge of it near its highest point of exposure. This bed includes a lens of gray limestone which is visible for a few feet in length.

All the manganese showings visited lie within the lava. Red argillite accompanies some of them, for example at the mine as just stated. Limestone was noted only at the mine. Jasper is present at some of the showings. These several rocks are typical of manganese occurrences elsewhere in the Olympic Mountains. Well-marked pillow structure in the lava, which is common in the northern and eastern portions of the range, was not seen but a faint approach to it occurs on the northeastern side of the ore-body.

THE ORE:

The principal ore mineral of the mine as well as of the other deposits visited is bementite, hydrous silicate of manganese. The manganese content, however, may be displaced in part by iron, magnesium and zinc. Report of Investigations No.7 of the State Division of Mines and Mining by Stephen H. Green, dated 1945, states on Page 15, "The average manganese content of 96 analyses of representative bementite occurrences is 22.39 percent." The bementite weathers at the surface and along joint planes and minor cracks to oxide minerals such as manganite, a hydrous oxide, and pyrolusite, a soft black mineral with very little water of water of composition. These minerals give a black or dark brown color to outcrops and convey the impression of a higher content of manganese than the average of the deposit. Oxidation has proceeded to greater depths in this area than in most part of the manganese belt that borders the Olympic Mountains on the north, the east and the south sides

Netocite, a hydrous silicate of manganese with variable composition slightly different from that of bementite, is recognized by its reddish-brown to black color and its resionous luster. Other manganese minerals were not noted although the oxide hausmannite may occur in the locality.

STEVENS CREEK NO. 1 CLAIM.

An outcrop of bementite and associated minerals occurs on the right or west bank of Stevens Creek in the northwest quarter of Section 31, T22 N, R 9 W, according to Henry Egg's map. A road has been built up Stevens Creek from a logging road to this outcrop. The outcrop is located on Stevens Creek No.1 claim, 265 feet north of the south center end-post of that claim, which is shown on the claim map as having a north-south location. Here an outcrop occurs at the mouth of a very small stream that flows down a gully in the hillside and into Stevens Creek. Mineralized ground appears at the jaws on each side of the small creek and seems to be continuous between them, but the loose rock and logs brought down by the creek conceal much of this area. Mr. Egge states that the ground on the flat space over which the small creek flows just before it empties into Stevens Creek is mineralized. Upstream the mineralization extends for at least several ~~years~~ YARDS and perhaps farther. In character it is much like that at the mine working on Skunk Creek No. 19.

This occurrence could be explored by following along the north wall and also the south wall of the deposit, and also by clearing a face directly across the small creek from wall to wall. Then the extent upstream could be explored by removing the logs, brush and boulders from the stream channel. The showing is a strong one but as it lies in the bed of a small stream and only a few feet higher than the bed of Stevens Creek it is not situated as conveniently for mining as the one now being mined on Skunk Creek No.19.

STEVENS CREEK NO.5:

Stevens Creek No.5 claim also is located in a north-south direction. Its southeast corner post is also the northwest corner post for No. 1 claim. No. 5 is reached by a well-graded and surfaced logging road.

graded and surfaced logging road.

From the logging road at elevation 1420 feet a cat-road descends by several switch-backs to elevation 1300 feet. At three places on this road are seen black outcrops of well-mineralized ground standing nearly vertical and having thicknesses of about 4 to 5 feet; the highest one may be thicker but it is not fully exposed. These occurrences are in line or nearly so, but the bed-rock between them is not exposed enough to show whether or not they are parts of a continuous outcrop. This question could be answered without much difficulty.

Above the logging road are several other outcrops on claim No.5 that show manganese minerals. They occur on a steep hillside more or less in a line extending up to the ridge. Many years ago these outcrops were exposed to some extent by opencuts which are 10 to 40 feet in length; one of them ends in incline shaft 10 feet deep. Elsewhere in the area other outcrops of manganese minerals were seen, some of which had been explored to some extent by opencuts.

SKUNK CREEK NO. 19:

The present mining operation is being conducted on an orebody that is stated to be located on the center-line of Skunk Creek No.19 at a point 155 feet from the northeast end-line. This point is on a steep hillside that slopes down to Skunk Creek. The southwest end-line of the claim lies beyond the creek on the opposite wall of the valley. The Skunk Creek claims and the Stevens Creek Nos.6,7 and 8 are located with their long axes in a direction north 37 degrees east. A graded logging road ends in a turn-around located a few hundred feet of road up to the deposit; the lower part is suitable for cars, the midportion leading to the orebin is designed for trucks, and the short final stretch up to the quarry floor can be used by caterpillar tractors. This floor, on which the crusher stands, has an elevation of 1350 feet as measured by a surveying aneroid barometer with a 4-inch dial.

The soil and detritus have been removed from over the orebody from its apparent apex down to a level 55 vertically lower, as measured by barometer. The lava country rock for some distance on each side of the orebody has also been scraped clean. The portion of the deposit now visible appears to be a thick, tabular body lying against the hillside. It may be likened to a huge turtle with outstretched head and neck crawling straight up the slope. Its head corresponds to the narrow apex of the deposit and the wide tail-end of the shell rests on the quarry floor. The orebody, however, may have greater thickness than this comparison would indicate, but the present exposures do not yield information on this point.

The orebody extends below the quarry floor but how far down it continues cannot be estimated. From the apex to a point above the quarry floor the surface of the ore has a dip of 32 degrees but below that point the ore surface was steeper than 32 degrees before mining began, according to Mr. Stone. If the orebody be projected downward on a steeper dip it would not appear in the excavation made for the orebin, which accords with the fact. Its extent in depth could be checked by drill holes driven in nearly horizontally from points near the orebin.

The thickness of the orebody measured from its present surface at the level of the quarry floor directly into the hill could be determined by drilling or driving in from the floor level; also, the thickness could be gauged to some degree by horizontal exploration along the edges of the orebody either at or above the floor level.

Mining is being conducted as a quarry operation. With air from a portalbe compressor with a capacity of 130 cubic feet, vertical holes are drilled in line and blasted in groups. The broken rock falls or is rolled down the face of the quarry floor where it is loaded by hand into large wheelbarrows and wheeled to a conveyor belt. The belt delivers it to a 10 x 20" jaw crusher which is set with a 4" opening. The crushed ore slides down a steel-lined chute to an overpocket which discharges into a truck. The truck hauls the ore 25 miles to Copalis Crossing where the Corporation has built a loading ramp by the Northern Pacific

track. On May 2 the first car was loaded and shipped to Geneva Steel Company at Provo, Utah, and on May 27 two more cars were loaded and shipped there.

Very truly yours

S/ Milnor Roberts

4 - B - Past Production - 150 tons. Mn 21%
Ore Resources - Estimated tonnage exposed 4,000 tons
Current production - Operation down until further exploration accomplished.

4 - C - The reason we wish to continue exploration is: -

1) Determine extent of deposits
2) " quality of ore
3) " economical method of mining

4 - D - All claims are easily accessable by well graded and surfaced logging road.
Distances to NP RR - 25 miles (Capalis Crossing where our loading ramp and dock are available for unloading direct from truck to RR car, constructed at a cost to us of $3,000.00 and built to RR specification.)
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CONSOLIDATED MINERALS CORPORATION

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SENECA 4694 · TELETYPE SE. 426

5 - D - The firm of Consolidated Minerals Corporation's officers have had years of administrative experience and are fully competent. Mr. J.E.Louttit, Vice President of Hope Engineering Company of Seattle, Washington, a mining engineer, is the geological and mineralogical consultant. Mr. John Stone, the superintendent of operations in the field, is highly qualified and has available experienced staff of operators.

6 - ESTIMATE OF COSTS.

A) Independent Contracts	
80 days Caterpillar @ $100.00 per day	$ 8,000.00
1500 feet diamond drilling @ $6.00 per foot	9,000.00
B) Labor, Supervision, Consultants:-	
6500 hours labor @ $2.25 per hour	14,925.00
12 months Supervision @ $500.00 per month	6,000.00
Consultants - Geoligist, mining engineer	5,000.00
C) Operating Materials & Supplies	
50 Cases 40% dynamite @ $11.00 per case	550.00
Fuel & Oil - $10.00 per day @ 250 days	2,500.00
d) Operating Equipment	
Air Compressor	2,500.00
200' Air Hose	140.00
Cleveland Jack Hammer	150.00
Jack Hammer Steel & Bits	350.00
e) None	
f) Portable Tool Shed 8' x 10' on sled	500.00
g) Maintenance of equipment	1,100.00
500 Analysis @ $7.00 each	3,500.00
12 months Accounting @ $400.00 per month	4,800.00
Industrial & Medical Insurance @ 13¢ per hour	845.00
Liability Insurance $100,000.00 per year	900.00
Unemployment Compensation Tax 2.7%	669.60
Payroll Taxes (1.5%)	304.00
h) Contingencies - estimated approx. 5%	3,000.00
	$64733.60

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-2682
Metal or Mineral
Date Received 9-2-52
Estimated Cost
Participation (Government %)

RECEIVED
SEP 2 1952
U. S. G. S.
SPOKANE, WASH.

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address:

CONSOLIDATED MINERALS CORPORATION
1616 Exchange Building
Seattle 4, Washington

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. incorporated in State of Washington, January, 1952

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See attached

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract see attached

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4 - See attached report by Dean Milnor Roberts

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Manganese and Manganese Dioxide

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine working and the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. Refer to plan of claim No. 1, 5, and 18

(*c*) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. See attached

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[X] Money [X] Use of equipment owned by you [X] Other

Explain in detail on acompanying paper. Money and equipment is available to take care of the Company's share of the cost

CERTIFICATION

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

Dated August 14, 1952

CONSOLIDATED MINERALS CORPORATION
(Applicant)

By Ronald S. Barnes
Ronald S. Barnes, President

Roland Barnes
Roland Barnes, Secretary

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—66551-1

CONSOLIDATED MINERALS CORPORATION

1616 EXCHANGE BUILDING · SEATTLE 4, WASHINGTON
SENECA 4694 · TELETYPE SE. 426

1 - C - **Titles, Names and addresses of officers:**

Ronald S. Barnes, President	1304 N 122nd St	Seattle 33, Wash.
Edwin K. Natori, Vice President	1509 29th Ave.	Seattle 22, Wash.
Roland Barnes, Secretary	4311 Linden Ave.	Seattle , Wash.
A.M.Barnes, Treasurer	530 Olympic Pl.	Seattle 99, Wash.

3 - A, B, C, D, E and F

The claims are unpatended claims and are located in the Quinault Mining District Township 22N. R.9 & 10W.W.M. Sections 19,25,30, and 31. The claims are on file at the County Seat Montesano, Washington, and are filed as follows:

Claim Name	Vol. of mining claims	Page No.	Auditors File No.
Stevens Creek #1	4	221	522176
2	4	222	522177
3	4	224	525812
4	4	224	525813
5	4	225	525814
6	4	225	525815
7	4	226	525816
8	4	226	525817
Skunk Creek #16	4	227	525818
17	4	227	525819
18	4	228	525820
19	4	228	525821
20	4	235	547507
21	4	229	525822
22	4	229	525823
Cook Creek #31	4	230	525824
32	4	230	525825
34	4	231	525826
35	4	231	525827

* * * * * * * * * * * * *

SECTION - A, B, C, D, and E

MILNOR ROBERTS
Mining Engineer

American Institute of Mining
and Metallurgical Engineers
Mining and Metallurgical Society of America

4501 15th Ave. N.E.
Seattle, Washington
July 2, 1952

Report to the CONSOLIDATED MINERALS CORPORATION
1616 Exchange Bldg., Seattle, Washington

The following notes are the result of my visit to your manganese property on June 24 and 25 in company with your superintendent, Mr. John Stone, and Mr. Norman Barnes.

THE PROPERTY:

The mining property of the Consolidated Minerals Corporation as described to me consists of 19 unpatented lod-mining claims held by right of discovery and location in Grays Harbor County, about six miles south of Lake Quinault. More particularly the claims lie in Sections 19,30 and 31, T 22 N, R9W, W.M., and in Section 25, T 22 N, R 10 W, according to the claim map furnished me. The claims were staked in 1951 in three groups as follows; Stevens Creek Nos. 1-8, Skunk Creek Nos. 16-23 and Cook Creek Nos. 31,32,34 and 35.

The Stevens Creek claims Nos. 6 to 8, all the Skunk Creek Claims, and all the Cook Creek claims form a solid block of 15 claims. Stevens Creek Nos. 1-5 form a small block that has one corner post in common with the larger block and also is overlapped by the latter, assuming that Stevens Creek No.5 is senior to Stevens Creek No.6 and Skunk Creek No. 16.

TOPOGRAPHY:

The claims are located in a range of hills that forms the eastern border of the comparatively low gentle terrain lying northward from Grays Harbor and extending westward to the ocean. Railway lines and highways traverse the lower land but the hills are served only by logging roads, which are graded and surfaced. The distance by road from Hoquiam to the mine on Skunk Creek No. 19 is 34 miles.

The range of hills rises eastward with a moderate slope but in the area covered by the claims the range is deeply dissected by stream-cut valleys. These valleys are V-shaped in cross-section and have steep walls; usually the stream-bed occupies nearly the whole width of the valley-floor. Erosion of the valleys has resulted in leaving only narrow ridges between them. At this season (late in June), every valley has a flowing stream. Stevens Creek drains southward into the Humptulips River while the waters of Cook Creek and its branch Skunk Creek flow south-westward into the Quinault River. The lowest showing visited is on Stevens Creek No.1 at about 820 feet elevation. Some ridges on the claims rise above 1500 feet.

GEOLOGY:

The area described is covered almost completely to an average depth of several feet with earth, fine bits of rock in weathered condition, and coarser detritus up to a foot or two in size. The country rock of the area is basaltic lava. It crops out along the creeks in places where stream action has removed the overlying detritus, and it also occurs as knobs and ledges on the valley walls and the ridges. It has also become exposed on hillsides by numerous road-cuts. The largest exposure is found at the quarry working on Skunk Creek No.19 where a face about 240 feet long has been exposed. Here the gradation in appearance of the basalt is apparent, varying from the dark grayish-green of the freshest rock at a depth several yards below the surface, through stages that show the common dull brown appearance, to the pale yellowish-brown of the smallest fragments of other rocks imbedded in its mass, thus forming a volcanic agglomerate. The lava is cracked to a great degree both at the surface and at the greatest depth exposed. Movement has taken place quite generally, resulting in slickensides that range in size from a few inches to several feet.

At a few points are seen outcrops of dark brownish-red argillite, a sedimentary rock that breaks down at the surface in thin, shaly layers. The thickest bed noted occurs in the deep cut directly in front of the base of the orebin at the mine on Skunk Creek No.19. It stands nearly vertical, strikes north 40 degrees east, and is 8 to 10 feet in thickness. Along the mine road below this point are two other outcrops of narrower red beds standing at 55 degrees and 70 degrees respectively. Another red Bed a foot or more in thickness directly underlies the orebody of the mine on the northeastern edge of it near its highest point of exposure. This bed includes a lens of gray limestone which is visible for a few feet in length.

All the manganese showings visited lie within the lava. Red argillite accompanies some of them, for example at the mine as just stated. Limestone was noted only at the mine. Jasper is present at some of the showings. These several rocks are typical of manganese occurrences elsewhere in the Olympic Mountains. Well-marked pillow structure in the lava, which is common in the northern and eastern portions of the range, was not seen but a faint approach to it occurs on the northeastern side of the ore-body.

THE ORE:

The principal ore mineral of the mine as well as of the other deposits visited is bementite, hydrous silicate of manganese. The manganese content, however, may be displaced in part by iron, magnesium and zinc. Report of Investigations No.7 of the State Division of Mines and Mining by Stephen H. Green, dated 1945, states on Page 15, "The average manganese content of 96 analyses of representative bementite occurrences is 22.39 percent." The bementite weathers at the surface and along joint planes and minor cracks to oxide minerals such as manganite, a hydrous oxide, and pyrolusite, a soft black mineral with very little water of water of composition. These minerals give a glack or dark brown color to outcrops and convey the impression of a higher content of manganese than the average of the deposit. Oxidation has proceeded to greater depths in this area than in most part of the manganese belt that borders the Olympic Mountains on the north, the east and the south sides.

Netocite, a hydrous silicate of manganese with variable composition slightly different from that of bementite, is recognized by its reddish-brown to black color and its resionous luster. Other manganese minerals were not noted although the oxide hausmannite may occur in the locality.

STEVENS CREEK NO. 1 CLAIM.

An outcrop of bementite and associated minerals occurs on the right or west bank of Stevens Creek in the northwest quarter of Section 31, T22 N, R 9 W, according to Henry Egg's map. A road has been built up Stevens Creek from a logging road to this outcrop. The outcrop is located on Stevens Creek No.1 claim, 265 feet north of the south center end-post of that claim, which is shown on the claim map as having a north-south location. Here an outcrop occurs at the mouth of a very small stream that flows down a gully in the hillside and into Stevens Creek. Mineralized ground appears at the jaws on each side of the small creek and seems to be continuous between them, but the loose rock and logs brought down by the creek conceal much of this area. Mr. Egge states that the ground on the flat space over which the small creek flows just before it empties into Stevens Creek is mineralized. Upstream the mineralization extends for at least several ~~years~~ YARDS and perhaps farther. In character it is much like that at the mine working on Skunk Creek No. 19.

This occurrence could be explored by following along the north wall and also the south wall of the deposit, and also by clearing a face directly across the small creek from wall to wall. Then the extent upstream could be explored by removing the logs, brush and boulders from the stream channel. The showing is a strong one but as it lies in the bed of a small stream and only a few feet higher than the bed of Stevens Creek it is not situated as conveniently for mining as the one now being mined on Skunk Creek No.19.

STEVENS CREEK NO.5:

Stevens Creek No.5 claim also is located in a north-south direction. Its southeast corner post is also the northwest corner post for No. 1 claim. No. 5 is reached by a well-graded and surfaced logging road.

graded and surfaced logging road.

From the logging road at elevation 1420 feet a cat-road descends by several switch-backs to elevation 1300 feet. At three places on this road are seen black outcrops of well-mineralized ground standing nearly vertical and having thicknesses of about 4 to 5 feet; the highest one may be thicker but it is not fully exposed. These occurrences are in line or nearly so, but the bed-rock between them is not exposed enough to show whether or not they are parts of a continuous outcrop. This question could be answered without much difficulty.

Above the logging road are several other outcrops on claim No.5 that show manganese minerals. They occur on a steep hillside more or less in a line extending up to the ridge. Many years ago these outcrops were exposed to some extent by opencuts which are 10 to 40 feet in length; one of them ends in incline shaft 10 feet deep. Elsewhere in the area other outcrops of manganese minerals were seen, some of which had been explored to some extent by opencuts.

SKUNK CREEK NO. 19:

The present mining operation is being conducted on an orebody that is stated to be located on the center-line of Skunk Creek No.19 at a point 155 feet from the northeast end-line. This point is on a steep hillside that slopes down to Skunk Creek. The southwest end-line of the claim lies beyond the creek on the opposite wall of the valley. The Skunk Creek claims and the Stevens Creek Nos.6,7 and 8 are located with their long axes in a direction north 37 degrees east. A graded logging road ends in a turn-around located a few hundred feet of road up to the deposit; the lower part is suitable for cars, the midportion leading to the orebin is designed for trucks, and the short final stretch up to the quarry floor can be used by caterpillar tractors. This floor, on which the crusher stands, has an elevation of 1350 feet as measured by a surveying aneroid barometer with a 4-inch dial.

The soil and detritus have been removed from over the orebody from its apparent apex down to a level 55 vertically lower, as measured by barometer. The lava country rock for some distance on each side of the orebody has also been scraped clean. The portion of the deposit now visible appears to be a thick, tabular body lying against the hillside. It may be likened to a huge turtle with outstretched head and neck crawling straight up the slope. Its head corresponds to the narrow apex of the deposit and the wide tail-end of the shell rests on the quarry floor. The orebody, however, may have greater thickness than this comparison would indicate, but the present exposures do not yield information on this point.

The orebody extends below the quarry floor but how far down it continues cannot be estimated. From the apex to a point above the quarry floor the surface of the ore has a dip of 32 degrees but below that point the ore surface was steeper than 32 degrees before mining began, according to Mr. Stone. If the orebody be projected downward on a steeper dip it would not appear in the excavation made for the orebin, which accords with the fact. Its extent in depth could be checked by drill holes driven in nearly horizontally from points near the orebin.

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12 months Accounting @ $400.00 per month	4,800.00
Industrial & Medical Insurance @ 13¢ per hour	845.00
Liability Insurance $100,000.00 per year	900.00
Unemployment Compensation Tax 2.7%	669.60
Payroll Taxes (1.5%)	304.00
h) Contingencies - estimated approx. 5%	3,000.00
	$64,733.60

GS-MCL-398 Rev.2

GENEVA STEEL COMPANY

L 1201

Chemical Laboratory
Chemical Analysis of Raw Material

(By Geneva Steel Company is meant COLUMBIA-GENEVA STEEL DIVISION, United States Steel Company)

DATE May 10 1952

P.O. 516

Material MANGANESE ORE Car Numbers SP 151505 Consolidated

Silica	41.93	As	.005
Alumina	.91	Zn	.02
Lime	4.42	H_2O	6.0
Magnesia	.69		
Sulphur	.036	Screen Test	
Iron	11.5	Size	%
Phosphorus	.036	≠ 3	40.0
Manganese	18.5	≠ 1/4	50.0
		- 1/4	10.0

Remarks:

METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

by (signed) G. W. MADSEN

****

GS-MCL-398 Rev.2

GENEVA STEEL COMPANY
Chemical Laboratory

L 2002

Chemical Analysis of Raw Material

DATE July 29, 1952

P.O. 516

Material MANGANESE ORE Car Numbers SP 152518 Consolidated

Silica	40.46	As	.01
Alumina	.89	Zn	.01
Lime	3.22	H_2O	1.1
Magnesia	1.60		
Sulphur	.033	Screen Test	
Iron	10.9	Size	%
Phosphorus	.042	≠ 3	60.0
Manganese	18.3	≠ 1/4	30.0
		- 1/4	10.0

Remarks:

METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

BY (signed) G. W. MADSEN

****

GS-MCL-398 Rev. 2

GENEVA STEEL COMPANY
Chemical Laboratory

L 2001

Chemical Analysis of Raw Material

DATE July 29, 1952

P. O. 516

Material MANGANESE ORE Car Numbers SP 150147 Consolidated

Silica	37.20	As	.01
Alumina	1.05	Zn	.01
Lime	3.80	H_2O	1.0
Magnesia	1.42		
Sulphur		Screen Test	
Iron	12.4	Size	%
Phosphorus	.052	≠ 3	55.0
Manganese	21.6	≠ 1/4	35.0
		- 1/4	10.0

Remarks:

METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

by (signed) G. W. MADSEN

CONSOLIDATED MINERALS
CORPORATION
Exchange Building Seattle, Wash.

****

CONSOLIDATED MINERALS
CORPORATION
Seattle, Wash.

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, DAVID E. PRYDE, of Hoquiam, Washington, for and in consideration of the sum of One & no/100 ($1.00) Dollar and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto RONALD STANLEY BARNES all my right, title and interest in and to that certain "Notice of Location of Mine Claim" discovered August 23, 1950 and located August 25, 1950, in which notice David E. Pryde is the person who gave said notice and complied with the requirements of the Revised Statutes of the United States and all local laws, customs and regulations pertaining to said location, said location being on the following described lands located in Grays Harbor County, State of Washington, which claim is more particularly described as follows:

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WITNESS MY HAND AND SEAL this 30th day of September, 1950.

(Signed) DAVID E. PRYDE

STATE OF WASHINGTON - SS.
GRAYS HARBOR COUNTY:

Before me, CHAS W. SMITH, a United States Commissioner, residing in Hoquiam, Washington, personally appeared David E. Pryde, to me known as the individual who executed the foregoing Assignment and that he signed the same as his free and voluntary Act for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have set my hand and fixed my seal this 30th. day of September, 1950.

Auditors File # 554482

(Signed) CHAS. W. SMITH
United States Commissioner,
residing at Hoquiam, Washington

ASSIGNMENT

CONSOLIDATED MINERALS
CORPORATION
Seattle, Wash.

KNOW ALL MEN BY THESE PRESENTS: That I, DAVID E. PRYDE, of Hoquiam, Washington, for and in consideration of the sum of One & no/100 ($1.00) Dollar and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto RONALD STANLEY BARNES all my right, title and interest in and to that certain "Notice of Location of Mine Claim" discovered August 23, 1950 and located August 25, 1950, in which notice David E. Pryde is the person who gave said notice and complied with the requirements of the Revised Statutes of the United States and all local laws, customs and regulations pertaining to said location, said location being on the following described lands located in Grays Harbor County, State of Washington, which claim is more particularly described as follows:

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Auditors File # 554482

(Signed) CHAS. W. SMITH
United States Commissioner,
residing at Hoquiam, Washington

CONSOLIDATED MINERALS
CORPORATION
Exchange Bldg. Seattle, Wash.

ASSIGNMENT

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Auditors File # 554482

(Signed) CHAS. W. SMITH
United States Commissioner,
residing at Hoquiam, Washington

CONSOLIDATED MINERALS
CORPORATION
Henry Bldg. Seattle, Wash.

ASSIGNMENT

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STATE OF WASHINGTON - SS.
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Auditors File # 554482

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CONSOLIDATED MINERALS
CORPORATION

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WITNESS MY HAND AND SEAL THIS 30th, day of September, 1950.

(Signed) DAVID E. PRYDE

STATE OF WASHINGTON
- SS.
GRAYS HARBOR COUNTY:

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IN TESTIMONY WHEREOF, I have set my hand and fixed my seal this 30th. day of September, 1950.

(Signed) Chas. W. Smith
United States Commissioner,
residing at Hoquiam, Washington

Auditors File # 554 483

ASSOCIATED MINERALS
CORPORATION

ASSIGNMENT

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(Signed) DAVID E. PRYDE

STATE OF WASHINGTON
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GRAYS HARBOR COUNTY:

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(Signed) Chas. W. Smith
United States Commissioner,
residing at Hoquiam, Washington

Auditors File # 554 483

CONSOLIDATED MINERALS
CORPORATION
Seattle, Wash.

ASSIGNMENT

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(Signed) Chas. W. Smith
United States Commissioner,
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Auditors File # 554 483

CONSOLIDATED MINERALS
CORPORATION
[illegible] Wash.

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Auditors File # 554 483

CONSOLIDATED MINERALS
CORPORATION

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CONSOLIDATED MINERALS
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Seattle, Wash.

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- SS.
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IN TESTIMONY WHEREOF, I have set my hand and fixed my seal this 30th. day of September, 1950.

(Signed) Chas. W. Smith
United States Commissioner,
residing at Hoquiam, Washington

Auditors File # 554 483

Mining Claims Record

VOL 4 PAGE 234

544106

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, Gerald E. Hogan, of Hoquiam, Washington, for and in consideration of the sum of Ten & No/100 ($10.00) Dollars and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION all my right, title and interest in the following described lands located in the Quinault Mining district, Grays Harbor County, State of Washington.

Mining claim known as Skunk Creek # 16 on file at Montesano, Washington in book 4 of record of mining claims on page 227, 525818 6360

Mining claim known as Skunk Creek # 17 on file at Montesano, Washington in book 4 of record of mining claims on page 227, 525819 6361

Mining claim known as Skunk Creek # 18 on file at Montesano, Washington in book 4 of record of mining claims on page 228, 525820 6362

Mining claim known as Skunk Creek # 19 on file at Montesano, Washington in book 4 of record of mining claims on page 228, 525821 6363

Mining claim known as Skunk Creek # 21 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525822 6364

Mining claim known as Skunk Creek # 22 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525823 6365

Mining claim known as Cook Creek # 31 on file at Montesano, Washington in book 4 of record of mining claims on page 230, 525824 6366

Mining claim known as Cook Creek # 32 on file at Montesano, Washington in book 4 of record of mining claims on page 230, 525825 6367

Mining claim known as Cook Creek # 34 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525826 6368

Mining claim known as Cook Creek # 35 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525827 6369

Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to -

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

I, STANLEY J. KRAUSE, Notary Public in and for the State of Washington, residing at Aberdeen, do hereby certify that on this 6 day of November, 1951, personally appeared before me GERALD E. HOGAN to me known to be the individual described in and who executed the within instrument and acknowledged that he signed and sealed the same as his free and voluntary act and deed for the uses and purposes herein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

Stanley J. Krause

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co., Wash. FEB 4 1952
9:00 a.m. at request of Eggerman, Gosling & Williams
Mary Bardwell Auditor by Catherine Clapp Deputy

Mining Claims Record

VOL 4 PAGE 234

544106

ASSIGNMENT

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Mining claim known as Skunk Creek # 21 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525822 6364

Mining claim known as Skunk Creek # 22 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525823 6365

Mining claim known as Cook Creek # 31 on file at Montesano, Washington in book 4 of record of mining claims on page 230, 525824 6366

Mining claim known as Cook Creek # 32 on file at Montesano, Washington in book 4 of record of mining claims on page 230, 525825 6367

Mining claim known as Cook Creek # 34 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525826 6368

Mining claim known as Cook Creek # 35 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525827 6369

Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

I, STANLEY J. KRAUSE, Notary Public in and for the State of Washington, residing at Aberdeen, do hereby certify that on this 6 day of November, 1951, personally appeared before me GERALD E. HOGAN to me known to be the individual described in and who executed the within instrument and acknowledged that he signed and sealed the same as his free and voluntary act and deed for the uses and purposes herein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

Stanley J. Krause

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co., Wash. FEB 4 1952
9:00 A.M. at request of Eggerman, Goslings & Williams
Mary Birdwell, Auditor by Catherine Alfelson, Deputy

Recorded Nov 8 1951

544106

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, Gerald E. Hogan, of Hoquiam, Washington, for and in consideration of the sum of Ten & No/100 ($10.00) Dollars and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION all my right, title and interest in the following described lands located in the Quinault Mining district, Grays Harbor County, State of Washington.

Mining claim known as Skunk Creek # 16 on file at Montesano, Washington in book 4 of record of mining claims on page 227, 525818 6360

Mining claim known as Skunk Creek # 17 on file at Montesano, Washington in book 4 of record of mining claims on page 227, 525819 6361

Mining claim known as Skunk Creek # 18 on file at Montesano, Washington in book 4 of record of mining claims on page 228, 525820 6362

Mining claim known as Skunk Creek # 19 on file at Montesano, Washington in book 4 of record of mining claims on page 228, 525821 6363

Mining claim known as Skunk Creek # 21 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525822 6364

Mining claim known as Skunk Creek # 22 on file at Montesano, Washington in book 4 of record of mining claims on page 229, 525823 6365

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Mining claim known as Cook Creek # 32 on file at Montesano, Washington in book 4 of record of mining claims on page 230, 525825 6367

Mining claim known as Cook Creek # 34 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525826 6368

Mining claim known as Cook Creek # 35 on file at Montesano, Washington in book 4 of record of mining claims on page 231, 525827 6369

Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to -

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL. 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

Stanley J. Krause

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co., Wash. FEB 4 1952
9:00 o'clock A.M. at request of Eggerman, Rosling & Williams
Mary Bidwell Auditor by Catherine Alfelson Deputy

Recorded in Book 383 of Mining Claims on page 234

Mining Claims Record

VOL 4 PAGE 234

544106

ASSIGNMENT

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Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

Stanley J. Krause

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co. Wash. FEB 4 1952
9:00 A.M. at request of Eggerman, Rowling & Williams
Mary Brownell Auditor by Catherine Alfelson Deputy

Recorded Feb 18 1952

Mining Claims Record

VOL 4 PAGE 234

544106

ASSIGNMENT

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Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to -

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co., Wash. FEB 4 1952
9:00 A.M. at request of Eggerman, Gosling & Williams
Mary Bardwell Auditor by Catherine Clifton Deputy

283 CONTESTED

Mining Claims Record

VOL 4 PAGE 234

544106

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, Gerald E. Hogan, of Hoquiam, Washington, for and in consideration of the sum of Ten & No/100 ($10.00) Dollars and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION all my right, title and interest in the following described lands located in the Quinault Mining district, Grays Harbor County, State of Washington.

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Dated this 6 day of November, 1951.

Gerald E. Hogan

Gerald E. Hogan

Please return to -

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON)
(ss.
Grays Harbor County)

I, STANLEY J. KRAUSE, Notary Public in and for the State of Washington, residing at Aberdeen, do hereby certify that on this 6 day of November, 1951, personally appeared before me GERALD E. HOGAN to me known to be the individual described in and who executed the within instrument and acknowledged that he signed and sealed the same as his free and voluntary act and deed for the uses and purposes herein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 6 day of November, 1951.

Stanley J. Krause

NOTARY PUBLIC in and for the State of Washington, residing at Aberdeen.

Filed Grays Harbor Co., Wash. FEB 4 1952
9:00
at A.M. at request of Eggerman, Rosling & Williams
Mary Elizabeth Adams By Catherine Jeffers

544105

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

Mining Claim known as "STEVENS CREEK NO. 1" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 221, Auditor's File No. 522176-4792, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 2" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 222, Auditor's File No. 522177-4793, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 3" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 224, Auditor's File No. 525812-6354, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 4" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 224, Auditor's File No. 525813-6355, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 5" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 225, Auditor's File No. 525814-6356, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 6" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 225, Auditor's File No. 525815-6357, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 7" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 226, Auditor's File No. 525816-6358, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 8" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 226, Auditor's File No. 525817-6359, Records of the Grays Harbor County Auditor

Please return to-
CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, W.

DATED this 7 day of January, 1952.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON

COUNTY OF KING ----- SS

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 7th day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash., FEB 4 1952
9:00 A. M. at request of Eggerman Gosling & Williams
Mary Pickwell, Auditor By Catherine Nelson Deputy

544105

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

Mining Claim known as "STEVENS CREEK NO. 1" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 221, Auditor's File No. 522176-4792, Records of the Grays Harbor County Auditor

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Mining Claim known as "STEVENS CREEK NO. 3" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 224, Auditor's File No. 525812-6354, Records of the Grays Harbor County Auditor

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Mining Claim known as "STEVENS CREEK NO. 8" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 226, Auditor's File No. 525817-6359, Records of the Grays Harbor County Auditor

Please return to-
CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, W.

DATED this 29 day of January, 1952.

Mining Claims Record
VOL 4 PAGE 234

STATE OF WASHINGTON
COUNTY OF KING -----SS.

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 29 day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash., FEB 4 1952
at 9:00 A.M. at request of Eggerman Posling & Williams
Mary Birdwell Auditor by Catherine Aubrey Deputy

544105

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

Mining Claim known as "STEVENS CREEK NO. 1" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 221, Auditor's File No. 522176-4792, Records of the Grays Harbor County Auditor

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Please return to -
CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, W

DATED this 29 day of January, 1952.

Mining Claims Record

VOL 4 PAGE 234

STATE OF WASHINGTON

COUNTY OF KING ----SS

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 29 day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash., FEB 4 1952
at 9:00 A.M. at request of Eggerman Rosling & Williams
Mary Pickwell Auditor by Catherine Jackson Deputy

544105

A S S I G N M E N T

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

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Please return to -
CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, Wash.

DATED this 29 day of January, 1952.

Mining Claims Record

VOL. X PAGE 334

STATE OF WASHINGTON

COUNTY OF KING ss.

On this day personally appeared before me RONALD STANLEY BURNS, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 29 day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash. FEB 4 1952
at 9:00 A.M. at request of Eggerman Gosling + Williams
Mary Birdwell Auditor by Catherine Arthur Deputy

544105

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

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Please return to -
CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, W

DATED this 24 day of January, 1952.

Mining Claims Record
VOL 3 PAGE 234

Ronald S. Barnes

STATE OF WASHINGTON

COUNTY OF KING-----SS.

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 24 day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash., FEB 4 1952
at 9:00 A. M. at request of Eggerman, Posling & Williams
Mary Bidwell, Auditor by Catherine Nilsson Deputy

544105

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

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Mining Claim known as "STEVENS CREEK NO. 2" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 222, Auditor's File No. 522177-4793, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 3" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 224, Auditor's File No. 525812-6354, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 4" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 224, Auditor's File No. 525813-6355, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 5" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 225, Auditor's File No. 525814-6356, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 6" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 225, Auditor's File No. 525815-6357, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 7" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 226, Auditor's File No. 525816-6358, Records of the Grays Harbor County Auditor

Mining Claim known as "STEVENS CREEK NO. 8" on file at Montesano, Washington, in Book 4 of Record of Mining Claims on page 226, Auditor's File No. 525817-6359, Records of the Grays Harbor County Auditor

Please return to-

CONSOLIDATED MINERALS CORPORATION
Exchange Bldg. Seattle, W

DATED this 24 day of January, 1952.

Mining Claims Record

VOL. A PAGE 234

STATE OF WASHINGTON

COUNTY OF KING ----- SS

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 24 day of January, 1952.

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Filed Grays Harbor Co., Wash., FEB 4 1952
at 9:00 A. M. at request of Eggerman Rosling & Williams
Mary Bridwell, Auditor by Catherine Dwyer, Deputy

COPY

ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS: That I, RONALD STANLEY BARNES, of Seattle, Washington, for and in consideration of the sum of TEN and NO/100 DOLLARS ($10.00) and other consideration to me in hand paid by the Assignee, do hereby sell, assign, transfer, convey and set over unto CONSOLIDATED MINERALS CORPORATION, a Washington Corporation, all my right, title and interest in and to the following described lands located in the Quinault Mining District, Grays Harbor County, State of Washington, to-wit:

Mining Claim known as "SKUNK CREEK NO.20" on file at Montesano, Washington, Book 4 of Record of Mining Claims on page 235, Auditor's File No. 547507, Records of the Grays Harbor County Auditor.

DATED this 9th day of October, 1952

Ronald Stanley Barnes

STATE OF WASHINGTON

COUNTY OF KING----SS

On this day personally appeared before me RONALD STANLEY BARNES, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this 9th day of October, 1952.

J C Fraser

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Certified a true copy.

By Ronald Stanley Barnes

COPY

ASSIGNMENT

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J. C. Fraser

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By Ronald Stanley Barnes

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J. C. Fraser

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Certified a true copy,
by Ronald Stanley Barnes

COPY

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Ronald Stanley Barnes

STATE OF WASHINGTON

COUNTY OF KING----SS

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 9th day of October, 1952.

J. C. Bates

NOTARY PUBLIC in and for the State of Washington, residing at Seattle.

Certified a true copy
by Ronald Stanley Barnes

COPY

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DATED this 9th day of October, 1952

Ronald Stanley Barnes

STATE OF WASHINGTON

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 9th day of October, 1952.

J C Frazier

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Certified a true copy:
By Ronald Stanley Barnes

COPY

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GIVEN UNDER MY HAND AND OFFICIAL SEAL this 9th day of October, 1952.

R C Fraser

NOTARY PUBLIC in and for the State of Washington, residing at Seattle

Certified a true copy

By Ronald Stanley Barnes

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

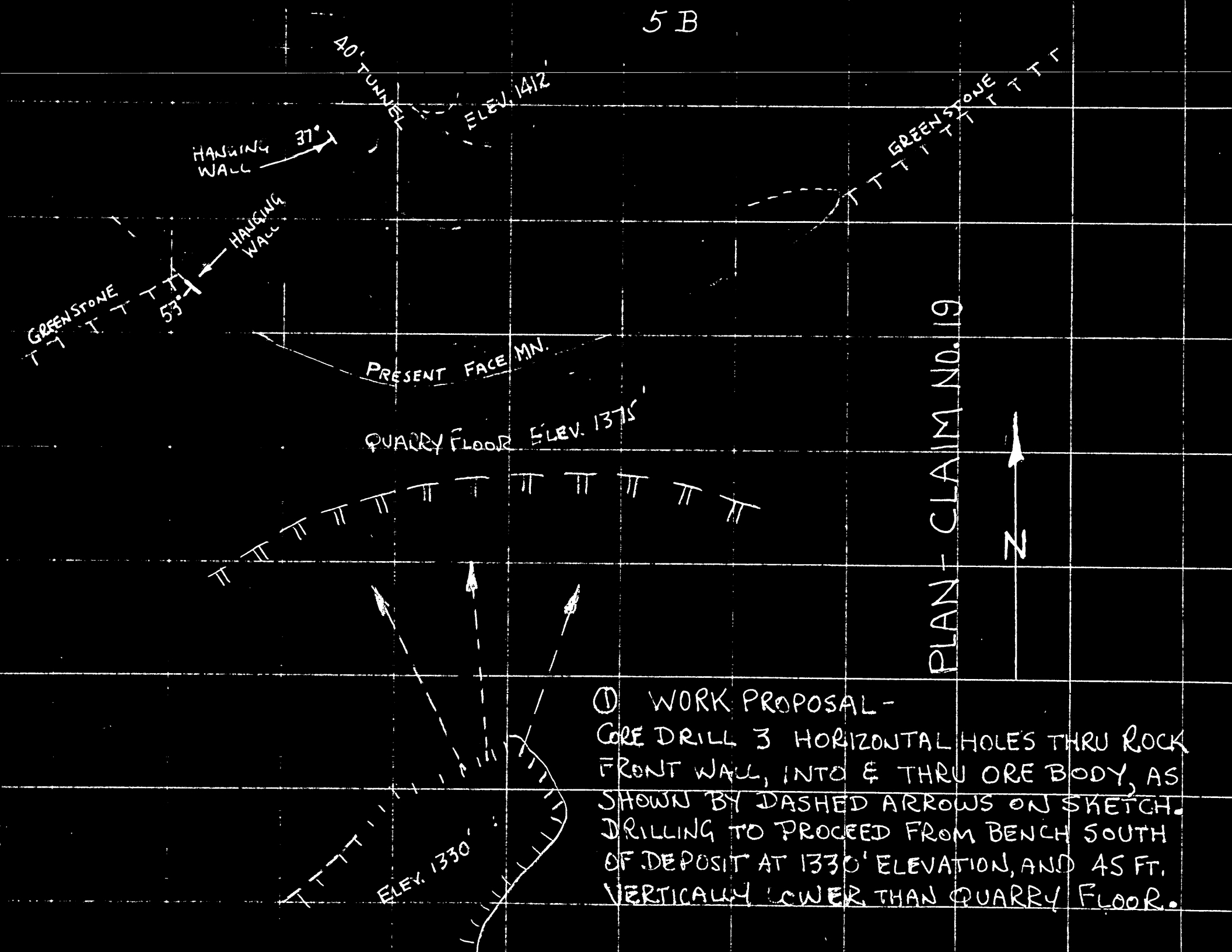
OFFICIAL BUSINESS

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

SPOKANE
AUG 27
5 PM
1952
WASH.

U. S. GEOLOGICAL SURVEY
E. 157 Howard St.
Spokane 8, Wash.

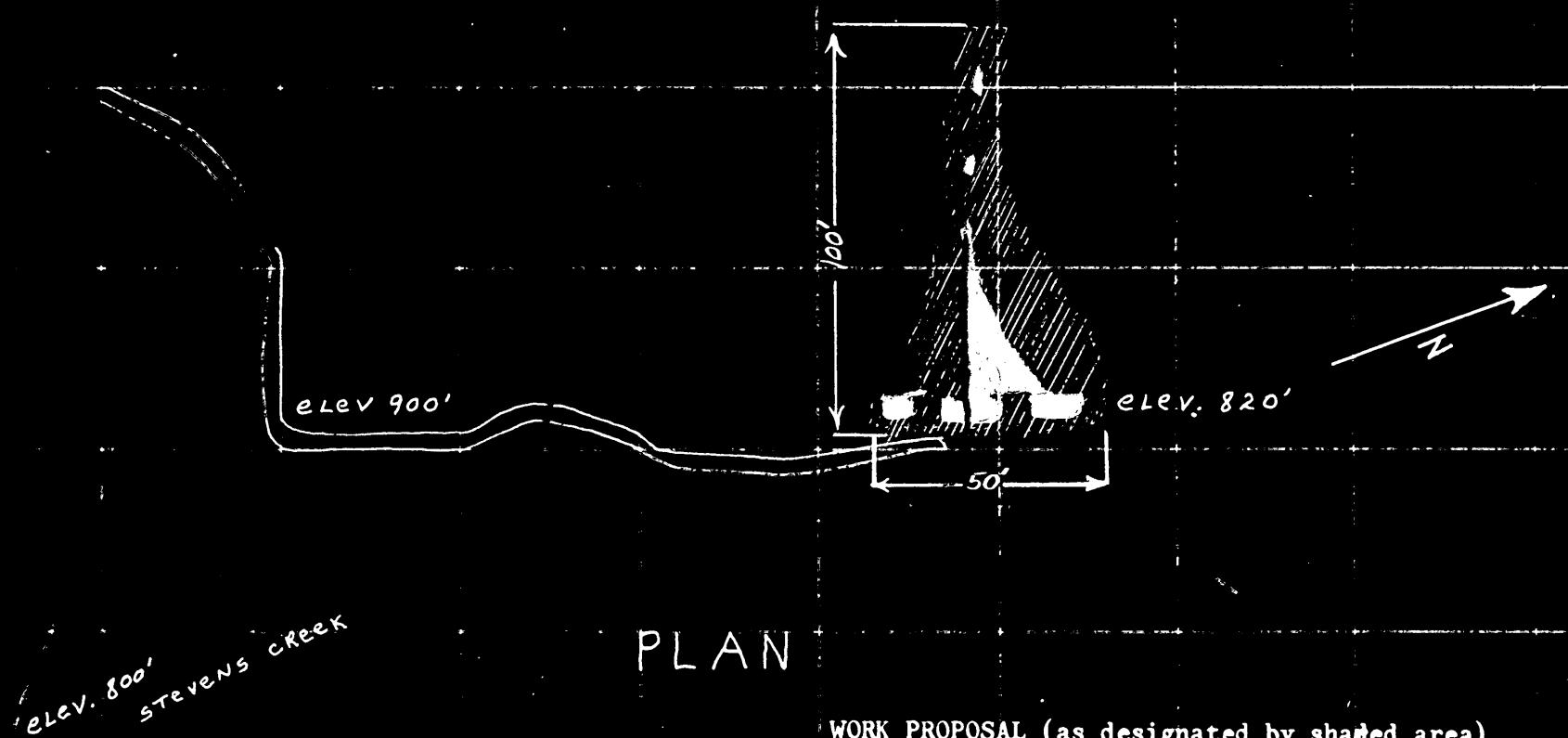
MR. FRANK E. JOHNSON
CHAIRMAN, OPERATING COMMITTEE
DEFENSE MINERALS EXPL. ADMIN.
DEPARTMENT OF THE INTERIOR
WASHINGTON 25, D. C.



① WORK PROPOSAL -
CORE DRILL 3 HORIZONTAL HOLES THRU ROCK FRONT WALL, INTO & THRU ORE BODY, AS SHOWN BY DASHED ARROWS ON SKETCH. DRILLING TO PROCEED FROM BENCH SOUTH OF DEPOSIT AT 1330' ELEVATION, AND 45 FT. VERTICALLY LOWER THAN QUARRY FLOOR.

5B

STEVENS CREEK #1



PLAN

WORK PROPOSAL (as designated by shaded area)

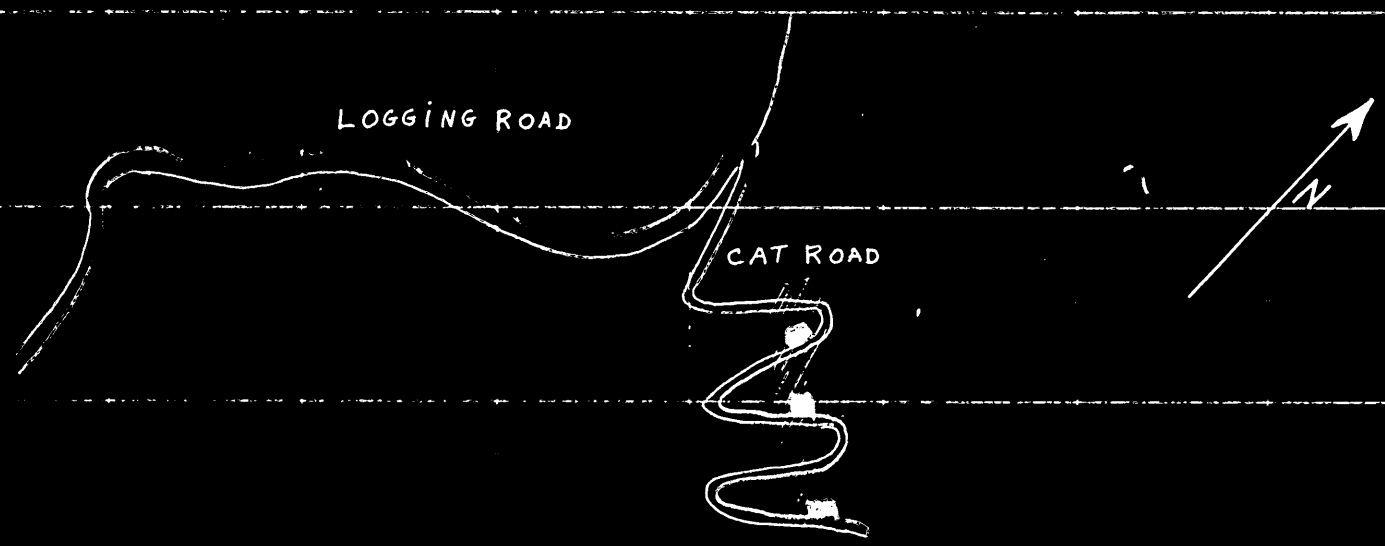
To consist of removal of overburden by caterpillar in order to ascertain feasibility of diamond drilling.

WATER

MANGANESE

5B

STEVENS CREEK #5

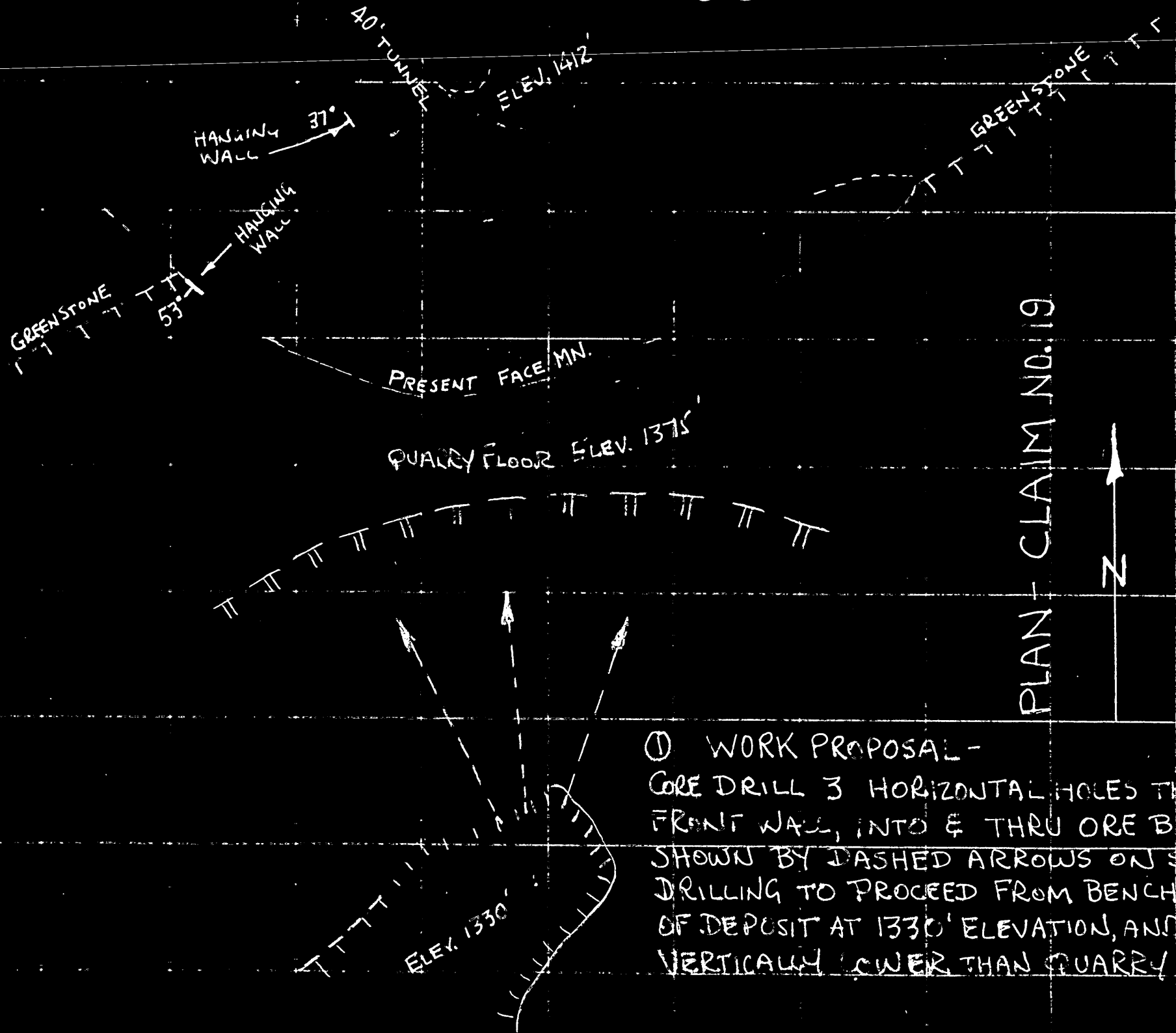


PLAN

WORK PROPOSAL (as designated by shaded area)

To consist of removal of overburden (greenstone - standing timber) by caterpillar in order to determine if the outcroppings are a vien also the feasibility of diamond drilling.

— MANGANESE

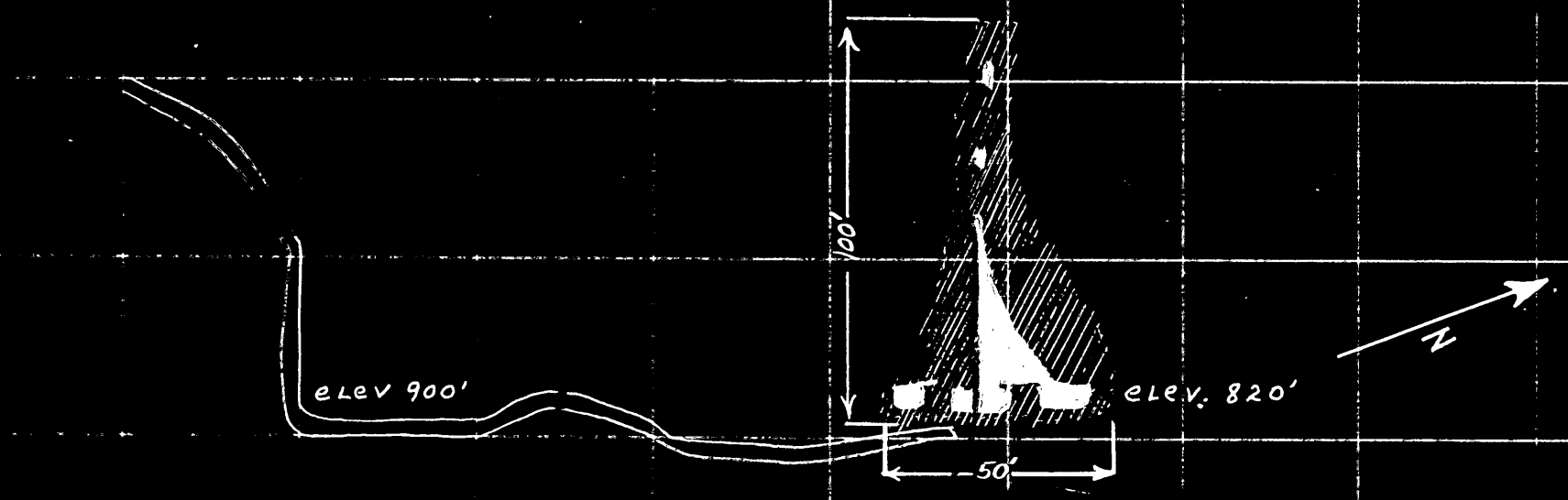


PLAN - CLAIM NO. 19

① WORK PROPOSAL -
CORE DRILL 3 HORIZONTAL HOLES THRU ROCK FRONT WALL, INTO & THRU ORE BODY, AS SHOWN BY DASHED ARROWS ON SKETCH. DRILLING TO PROCEED FROM BENCH SOUTH OF DEPOSIT AT 1330' ELEVATION, AND 45 FT. VERTICALLY LOWER THAN QUARRY FLOOR.

5B

STEVENS CREEK #1



PLAN

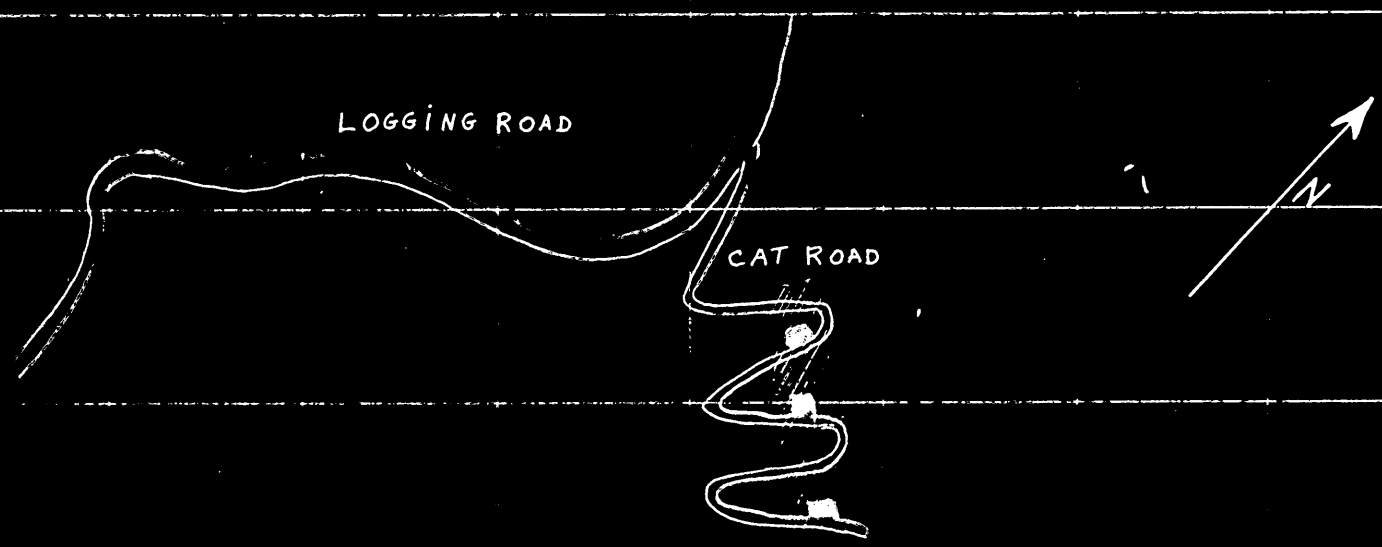
ELEV. 800'
STEVENS CREEK

WORK PROPOSAL (as designated by shaded area)

To consist of removal of overburden by caterpillar in order to ascertain feasibility of diamond drilling.

WATER
MANGANESE

STEVENS CREEK #5



PLAN

WORK PROPOSAL (as designated by shaded area)

To consist of removal of overburden (greenstone - standing timber) by caterpillar in order to determine if the outcroppings are a vien also the feasibility of diamond drilling.

— Manganese

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief Counsel, DMEA

DATE: November 13, 1952

FROM : Iron and Ferro-Alloy Division, DMEA

SUBJECT: Contract for review and final preparation
Docket No. DMEA 2682 - Manganese
Consolidated Minerals Corporation
Grays Harbor County, Washington

A rough draft of the contract is attached hereto together with Assignments, Claim Map, 3 Sections and Annex I showing recordings of mining claims.

The amount of the loan is $24,000.00 of which the Government share is $18,000.00.

G. C. Selfridge

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

Attachments.

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11/13/52

REFERRED TO:

1. Mr. Hofflund - 4627
2.
3.
4.

FOR:

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

REMARKS: ----------

Denied
in 1952
Dec 10

Check (X) before the items needing attention.

G. C. Selfridge/lm
Initials of sender.

GPO 16—63815-1

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. DMEA 2682

COMMODITY ~~Tungsten~~ Manganese

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Consolidated Minerals Corporation, incorporated in the State of Washington.

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Washington, County of Grays Harbor, described as follows: [3] Nineteen (19) unpatented lode mining claims. See Annex I and Figure I, attached hereto and made a part hereof.

the Operator represents and undertakes: [4]

(*a*) That the Operator is the owner, in possession and entitled to possession, ~~and that the property is subject only to the following claims, liens, or encumbrances, each of which is described in an agreement or instrument attached~~

(*b*) ~~That the Operator is a lessee, in possession and entitled to possession, and the lease or leases in question is attached~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] ~~tungsten~~ manganese

in or upon the described land; and shall bring the project to completion within a period of _____ from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. DMEA 2682

COMMODITY ~~Tungsten~~ Manganese

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

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ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Washington, County of Grays Harbor, described as follows: [3] Nineteen (19) unpatented lode mining claims. See Annex I and Figure I, attached hereto and made a part hereof.

the Operator represents and undertakes: [4]

(*a*) That the Operator is the owner, in possession and entitled to possession, ~~and that the property is subject only to the following claims, liens, or encumbrances, each of which is described in the contract agreement or the holder is attached~~

(*b*) ~~That the Operator is the owner, in possession and entitled to possession, and the owner's contract is attached~~
The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] ~~tungsten~~ manganese

in or upon the described land; and shall bring the project to completion within a period of _____ from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

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(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payments in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes) or any other indirect costs, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

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

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 75 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $18,000.00, which is 75 percent of $24,000.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* The Operator's obligation to bring the project to completion continues only as long as the accumulated allowable costs of the project in which the Government will participate do not exceed the agreed total estimated cost of the project set forth in Article 8.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____

_____
(Operator)

By _____

I, _____, certify that I am the _____ secretary of the corporation named as Operator herein; that _____, who signed this contract on behalf of the Operator, was then _____ of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

ANNEX I

The claims are unpatented claims and are located in the Quinault Mining District, Township 22 N., R. 9 & 10,W.W.M., Sections 19, 25, 30 and 31. The claims are on file at the County Seat , Montesano, Washington, and are filed as follows:

Claim Name	Vol. of Mining Claims	Page No.	Auditors File No.
Stevens Creek #1	4	221	522176
2	4	222	522177
3	4	224	525812
4	4	224	525813
5	4	225	525814
6	4	225	525815
7	4	226	525816
8	4	226	525817
Skunk Creek #16	4	227	525818
17	4	227	525819
18	4	228	525820
19	4	228	525821
20	4	235	547507
21	4	229	525822
22	4	229	525823
Cook Creek #31	4	230	525824
32	4	230	525825
34	4	231	525826
35	4	231	525827

EXPLORATION PROJECT CONTRACT
CONSOLIDATED MINERALS CORPORATION
DOCKET NO. DMEA 2682 - MANGANESE
STEVENS COUNTY, WASHINGTON

Exhibit "A"

Description of the Work

Stage I

The project consists of bulldozing trenches to determine the extent of manganese-bearing lenses on Skunk Creek No. 19, Stevens Creek No. 5 and Stevens Creek No. 1 claims. 1/ 2/

Stage II

This work shall be undertaken after the completion of Stage I, only if the Government indicates that results of work under Stage I, warrant additional work under Stage II.

The project consists of bulldozing trenches on other claims held by the applicants (Annex I attached hereto and made a part hereof) and building roads and preparation of sites for drill holes. 1/ 2/

Diamond drill for the extension at depth of the lenses exposed by the trenching of Stage I. The number, location, attitude and length of these holes shall be determined by the Operator, with the approval of the Government.

Figures 1, 2, 3 and 4 showing the claims and known exposures of manganese ores are attached hereto and made a part hereof.

1/ The location, length and depth of the trenches shall be determined by the Operator, with the approval of the Government.

2/ Where necessary to obtain sufficient depth to expose the lenses, the rock may be drilled and shot to obtain clean exposures.

Costs of the Project
*Indicates Allowable Maximum

(1) Independent Contracts

Stage I		
1 - Bulldozer, 200 hours @ $12.50 per hour, plus $100.00 for moving tractor to and from the project. 3/		2,600.00*
Stage II		
1 - Bulldozer, 200 hours @ $12.50 per hour. 3/	2,500.00*	
1,000 feet of diamond drill holes, (AX size) at $8.00 per foot. This cost is to include all labor, supplies and materials necessary to carry out the drilling and to include moving the drills to and from the project and drill sites.	8,000.00*	10,500.00*

(2) Labor, Supervision and Consultants

Stage I		
1 - Supervisor @ $400.00 per month, 2 months	800.00*	
2 - Workmen @ $2.25 per hour, 320 hours each	1,440.00	
1 - Consulting geologist @ $65.00 per day (including expenses), 6 days. 4/	390.00*	2,630.00
Stage II		
1 - Supervisor @ $400.00 per month, 4 months	1,600.00*	
2 - Workmen @ $2.25 per hour, 320 hours each	1,440.00	
1 - Consulting geologist @ $65.00 per day(including expenses), 10 days. 4/	650.00*	3,690.00

3/ Includes operator, operating supplies, accessories, and repairs.

4/ The consulting geologist shall meet with the approval of the Government. He shall map the trenched areas and diamond drill holes and direct the sampling.

(3) Operating Materials and Supplies

Stage I

Gasoline, oil, explosives, small tools, sample sacks and miscellaneous supplies	700.00

Stage II

Gasoline, oil, explosives, small tools, sample sacks, core boxes and miscellaneous supplies.	1,000.00

(4) Operating Equipment

Stage I

To be purchased

None

To be rented

1 - 105 cfm air compressor @ $175.00 per month, 2 months	350.00*

To be furnished by the Operator

1 - Air drill, value	300.00
1 - Pickup truck, value	1,800.00
	2,100.00

Depreciation, $35.00 per month, 2 months	70.00*

Stage II

To be purchased

None

To be rented

1 - 105 cfm air compressor @ $175.00 per month, 2 months	350.00*

To be furnished by the Operator

1 - Air drill, value $300.00		
Depreciation, $5.00 per month, 2 months	10.00	
1 - Pickup truck, value $1,800.00		
Depreciation, $30.00 per month, 4 months	120.00	130.00*

(5) Rehabilitation and Repairs

Stages I & II

None

(6) New Buildings, Improvements and Installations

Stages I & II

None

(7) Miscellaneous

Stage I

Assays, 100 @ $2.00 each	200.00	
Bookkeeping, $25.00 per month, 2 months	50.00	
Office and engineering supplies, and prints	25.00	
Compensation and Employers Liability Insurance and payroll taxes	200.00	
Repairs	75.00	550.00

Stage II

Assays, 150 @ $2.00 each	300.00	
Bookkeeping, $25.00 per month, 4 months	100.00	
Office and engineering supplies, and prints	50.00	
Compensation and Employers Liability Insurance and payroll taxes	300.00	
Repairs	125.00	875.00

(8) Contingencies

Stage I		175.00
Stage II		380.00
ESTIMATED COST OF STAGE I	7,075.00 ~~6,875.00~~	
ESTIMATED COST OF STAGE II	16,925.00	24,000.00
GOVERNMENT PARTICIPATION 75 PERCENT		18,000.00

FILE COPY 400
SURNAME:

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

Chief Counsel, DMEA

November 13, 1952

Chapman
Selfridge

Iron and Ferro-Alloy Division, DMEA

Contract for review and final preparation
Docket No. DMEA 2682 - Manganese
Consolidated Minerals Corporation
Grays Harbor County, Washington

A rough draft of the contract is attached hereto together with Assignments, Claim Map, 3 Sections and Annex I showing recordings of mining claims.

The amount of the loan is $24,000.00 of which the Government share is $18,000.00.

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

Attachments.

TLChapman'lm
11/13/52

cc: Admn. Reading File
~~Docket~~
G. C. Selfridge
T. L. Chapman

Chief Counsel, DMEA

November 13, 1952

Iron and Ferro-Alloy Division, DMEA

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Attachments.

TLChapman'lm
11/13/52

cc: Admn. Reading File
Docket
G. C. Selfridge
T. L. Chapman

IN REPLY REFER TO:

400

G-MD-CF

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

November 10, 1952

To: George C. Selfridge, DMEA

From: Max D. Crittenden

Subject: DMEA ~~2787~~ 2682 (Manganese) Consolidated Minerals Corp.
Gray Harbor, Washington

The memorandum from the Field Team, Region II, has been reviewed. The geologic data presented substantiates the geologic picture of these deposits obtained during the extensive studies by the Survey and the exploration by the Bureau of Mines during World War II. The Field Team was unwilling to estimate inferred reserves, but from the map and section they prepared, I infer that the lens might contain 10,000 to 12,000 tons of material averaging 15 to 20 percent manganese.

This rock is a mixture of bementite and other manganese silicates and for this reason is not amenable to ore dressing. The manganese can be utilized either by chemical (leaching) or pyrometallurgical methods (smelting as at Geneva Street or electra furnace as at Albany), but the value of the material for these purposes is low.

The only basis on which one can justify the exploration of these deposits is the possibility that the ultimate reserve of the area as a whole is large enough to be of national significance as a source of manganese by one of the methods indicated above. This requires millions of tons of ore, situated in bodies big enough for large-scale integrated operations. The manganese deposits of the Olympic Peninsula are by their nature, small discontinuous lenses, entirely unsuitable for large scale operation. Moreover, there is already exposed, much more material than anyone has found a use for.

From the evidence presented, I do not believe the proposed exploration has any prospect for a discovery of significance on the basis of an immediate market, or as "insurance" against a wartime shortage of manganese. I recommend, therefore, that the application be denied.

cc: Director's Reading File (4212)
Branch File
DMEA (3)
Ferrous Metals File
Max Crittenden (2)

Max D. Crittenden :bbk
G 11/10/52

402

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE ~~MINERALS ADMINISTRATION~~
~~SPASHINGTON~~ Washington
October 31, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D.C.

From: DMEA Field Team, Region II

Subject: Docket No. DMEA 2682 (manganese)
Consolidated Minerals Corporation
Grays Harbor County, Washington

Reviewed by
DMEA OPERATING COMMITTEE
11-10-52
(date)

Enclosed is a joint report (original and 3 copies) dated October 21, 1952 by E. A. Magill, Bureau of Mines, and Willard P. Puffett, Geological Survey, resulting from an examination of the subject property.

The Field Team concurs with the recommendations of the examining team and with the estimates of costs proposed for an exploration project.

It will be of interest to the Operating Committee that electric smelting research at the Bureau of Mines Northwest Electro-development Laboratory at Albany, Oregon, during the past year has developed a method of producing premium grade silicomanganese from rhodonite containing about 26.5 percent Mn. Further smelting research is in progress with the purpose of establishing the full scope of application and optimum conditions of this process in the production of manganese alloys from low-grade silicate materials. The process appears to have broad applicability in the production of standard grades of ferromanganese as well as silicomanganese from materials having a much lower ratio of Mn to Si than the 10 to 1 ratio of present specifications for metallurgical grade ore.

The Mining Division of the Bureau of Mines, Region II, at this time is contracting with Consolidated Minerals Corporation to supply 50 tons of crude manganese silicate averaging approximately 21 percent Mn for use in further electric smelting tests at Albany.

By Field Team, Region II

M. E. Volin, Member
U. S. Bureau of Mines
1201 N. Division Street

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey
South 157 Howard Street

cc: DMEA, Wash. (3)

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

No. 157 Howard Street
Spokane 4, Washington

11/13/52

October 21, 1952

MEMORANDUM

To: DMEA Field Team, Region II

From: E. A. Magill, Mining Engineer, U. S. Bureau of Mines, and Willard Puffett, Geologist, U. S. Geological Survey

Subject: Examination, Consolidated Minerals Corporation Mine, Grays Harbor County, Washington. DMEA Docket 2682 (Manganese)

APPLICANT

The applicant is the Consolidated Minerals Corporation, 1616 Exchange Building, Seattle 4, Washington.

RECOMMENDATIONS

It is recommended that the exploration project outlined herein be approved. This project will explore for manganese silicate ore which contains about 20 percent manganese.

EXAMINATION

The property was examined on September 30 and October 1, 1952; about eight hours were spent on the property. Accompanying the examining team were Don Hume, Ronald Barnes, and John Stone, representatives of the Consolidated Minerals Corporation. All major outcrops were visited.

LOCATION OF PROPERTY

The property consists of 19 unpatented mining claims located in secs. 19, 30, 31, T. 22 N., R. 9 W., and sec. 25, T. 22 N., R. 10 W., W.M., Quinault Mining District, Grays Harbor County, Washington.

Reviewed by
DMEA OPERATING COMMITTEE
11-10-52
(date)

The nearest town is Nellton, 4 miles distant. Hoquiam, Washington, is the nearest supply point, 34 miles by highway (32 miles of which are paved). A loading ramp constructed by the applicant on the Northern Pacific Railroad is at Copalis Crossing, 25 miles by road.

ACCESSIBILITY

Accessibility to the property is excellent. A good graveled logging road two miles in length extends from U. S. Highway 101 to the main open pit on Skunk Creek.

Year around operations can be conducted, although it is in an area where the annual rainfall is about 100 inches. Snowfall is slight and only lasts for relatively short periods of time.

COMPETENCY OF APPLICANT

The applicant has been capable of directing and carrying out the proposed exploration program.

PROPERTY RIGHTS

The mining claims are owned by the Consolidated Minerals Corporation, and copies of the assignments are attached.

The applicant has listed the book, page number, and auditors file number of the 19 claims in his application.

DESCRIPTION OF PROPERTY

The claim on which the most work has been done is Skunk Creek No. 19. Here the south slope of a fairly steep hill at the head of a short tributary to Skunk Creek has been extensively bulldozed and production has been obtained from a small quarry. Near the upper margin of this quarry is a 50-foot adit. Higher on the slope and to the northeast are some old trenches, now mostly filled with surface debris, near which a small amount of manganese ore is piled. The quarry is approximately 100 feet long and at the widest point is approximately 70 feet wide. All of the exposures occur between 1,300 and 1,450 feet elevation above sea level.

On Stevens Creek claims Nos. 5 and 1, three outcrops of manganese ore are exposed. Only a small amount of bulldozing has been done on claim No. 5 and no work has been done on that showing on claim No. 1.

On Skunk Creek No. 19 claim the applicants have erected two small buildings for storage of tools and a 30-ton ore bin. A belt conveyor carries rocks from the quarry floor to a 10" x 20" jaw crusher powered by a gasoline engine, the crushed rock passes down a steel chute to the ore bin.

GEOLOGY

The manganese deposits of the Olympic Peninsula occur as lenses of massive bementite and associated minerals in basaltic lavas of the Metchosin Volcanics of Eocene age. Generally associated with the ore lenses are cherty argillites and narrow bands of limestones.

The manganese deposit on Skunk Creek claim No. 19, has been exposed in an open-pit quarrying operation. The ore is composed of massive intermixed bementite and neotocite. It is believed that only a portion of the lens is exposed, the upper tip of the lens pinching at an altitude of 1,366 feet at the upper margin of the quarry, whereas at an elevation of 1,320 feet in the floor of the pit, ore is exposed along the face of the pit for nearly 75 feet. It is believed that the long horizontal axis of this lens strikes approximately northwest and the other long axis dips 30 to 40 degrees to the southwest. If this is true, the 75 feet of ore exposed in the quarry face represents a thickness of a maximum of 30 feet. Nothing is known of the size or disposition of the ore body beneath the quarry floor. A short adit has been driven into the hillside near the upper tip of the lens, in the walls of which some manganese ore is exposed but insufficient evidence is exposed to obtain much information regarding continuation of the ore in this direction.

This ore lens is enclosed nearly entirely in altered basalts, but a thin band of limestone and some cherty argillites occur sporadically along the footwall, and near the southwest corner of the exposed hanging wall the ore consists of admixed argillites and manganese minerals. Near the central portion of the exposed lens, a horse of very low grade ore occurs which may be evidence that here the footwall has been nearly intersected.

A short distance to the northeast upslope from the open pit are at least two debris-filled open cuts near which some manganese ore has been piled. No bedrock exposures remain in the vicinity of the cuts.

As a result of bulldozing, two exposures of manganese ore have been made on a heavily timbered slope on Stevens Creek No. 5 claim. Here the overlying mantle is thick and indications are that perhaps only the upper tips of two separate lenses have been uncovered.

One exposure is 17 feet long, 5 to 1[illegible] feet wide, and appears to be widening downward. Another exposure northwest of it 165 feet, is in the walls of a 6-foot deep trench for nearly 15 feet long.

On Stevens Creek No. 1 claim, massive manganese ore minerals are exposed on either side of the mouth of a small tributary emptying into Stevens Creek. Other scattered exposures of ore minerals are found 100 feet upcreek from the mouth of the tributary and it may be that these exposures represent a continuous body. Red cherty argillites are associated with these ore exposures. A chip sample representing a 15-foot width of this area obtained assay results of 17.0% Mn.

On claim No. 32 on the north bank of Cook Creek, a 1[illegible]-foot tunnel has intersected a narrow band of braunite ore. A chip sample of this ore assayed 14.7 percent manganese.

The Operators report a number of other outcrops of manganese ore in the area but these were not visited.

Sketch maps of the open-pit area and the two exposures on Stevens Creek claim No. 5, with plotted assay values of samples taken accompany this report.

ORE RESERVES

The only measurable ore reserves occur in the open pit. Inasmuch as no definite information has been obtained concerning the true or average thickness of this ore body, only an estimate of ore can be made. The Operators have shipped 150 tons of ore averaging 19.5 percent manganese from this pit. It is estimated that not more than 800 to 1,000 tons of ore of similar grade remain in the lens, unless further work shows that the ore continues in comparable thickness beneath the quarry floor.

PAST OPERATION

The Quinault area has been prospected for manganese since 1920. Outcrops have been trenched and a number of short adits driven to determine the extent of some of the manganese lenses. In 1934-1935, considerable trenching was carried on by the Works Progress Administration. In 1943, a mine-to-market road was completed to a nearby deposit (Esther-Irene) on Cook Creek.

In the spring of 1952 the Consolidated Minerals Corporation shipped three carloads (150 tons) of 19.5% manganese ore to the Geneva Steel Company at Provo, Utah. (Copies of analysis sheets are attached). Shipments were discontinued because the operators received only $16.00 per tone f.o.b. Provo. Rail freight amounted to $12.00 per ton from Copalis Crossing, the rail shipping point.

MANPOWER AND SUPPLIES

Manpower and supplies are available for the proposed exploration. However, the wages will have to meet those of the logging industry which is the principal industry in the district. It is anticipated that a base pay of $2.25 per hour will have to be paid for labor. Pay in the logging operations is $2.37½ per hour, with much of the work being on a contract basis under which it is possible to better those rates.

PROPOSAL

The applicant's proposed exploration consists of bulldozer trenching and diamond drilling on three different manganese deposits on Stevens and Skunk Creek. The cost of this program is estimated to be $64,733.60.

A modified program was worked out with the applicants at the time of the examining team's visit. This program explores the same targets at less cost.

The modified program consists of bulldozer trenching at three separate areas on Stevens and Skunk Creeks where manganese lenses are exposed. The purpose is to determine the extent of the lenses. In some cases it may be necessary to blast the country rock to obtain greater depth on the lenses.

If Stage I is successful, Stage II will allow for additional bulldozing of other outcrops in the area with diamond drilling to determine the downward extent of the exposed lenses.

It is anticipated that the individual manganese lenses within the area may contain from a few tons to several thousand tons of manganese silicate ore with a minable grade of about 20 percent manganese, 40 percent silica, and 10 percent iron.

PROPERTY RIGHTS

The property to be included in the project includes the 19 unpatented mining claims listed in the application. Attached is a copy of a claim map furnished by the applicant showing the locations of the proposed work.

All claims are to be subject to royalty payments to the Government.

It is anticipated that work could be commenced within 10 days after approval of a contract if weather permits. From the middle of November to the middle of March the area has practically continuous rainfall making it impractical to carry on trenching operations. Consequently, considerable delay should be allowed to begin the program to allow for possible unfavorable weather conditions which may be current at the time of final approval. An exploration project contract with a time limit of 10 months is proposed as follows:

Exhibit "A"

Description of Work

Stage I

1. Trench to determine the extent of the manganese lenses on Skunk Creek No. 19, Stevens Creek No. 5, and Stevens Creek No. 1 claims.

Stage II

1. Diamond drill the lenses exposed by Stage I to determine their downward extension.

2. Trench to determine the extent of exposures on other claims included in the exploration program. The location of this work is to be determined by the applicants, subject to the Government's approval.

Estimated Costs of Project

(Items followed by asterisk are allowable maximums)

Stage I

(1) Independent Contracts

Bulldozer trenching, D7 or equivalent - 200 hours, at $12.50 per hour; this will include operator and all operating expenses	$ 2,500.00*

(2) Labor, Supervision, and Consultants

Part-time geologist as needed to do sampling and mapping	$ 250.00

(2) Labor, Supervision and Consultants (continued)

Wages for 2 surface laborers, 320 hours each at $2.25 per hour	$ 1,440.00
Supervision $400.00 per month for 2 months	$ 800.00

(3) Operating Materials and Supplies

Gasoline, oil, explosives and any other supplies or materials necessary to complete this project	$ 1,000.00

(4) Operating Equipment

To be purchased:

None

To be rented:

1 - 105 cfm air compressor at $175.00 per month for 2 months	$ 350.00

To be furnished by operator:

	Estimated value	Per month	Total Allowance
1 air drill sinker	$ 300.00	$ 5.00	$ 10.00*
1 Truck pickup	$1,800.00	$30.00	$ 60.00*

(5) Rehabilitation and Repairs

None

(6) New buildings, improvements, installations

None

(7) Miscellaneous

Assays - 100 at $4.00 each	$ 400.00
Workman's compensation, employee's liability insurance, payroll and sales taxes	$ 300.00
Moving tractor to and from project	$ 100.00
Contingencies	$ 360.50
Total Estimated Cost - Stage 1	$ 7,470.50

Stage II

(1) Independent Contracts

Bulldozer trenching D7 or equivalent 200 hours at $12.50 per hour; this will include operator and all operating expenses	$ 2,500.00
Diamond Drilling - 1,000 feet at $8.00 per foot. Per foot cost to include all labor (excepting supervision), supplies, and materials necessary to carry out the drilling, and to include moving the drills to and from the property and drill sites.	$ 8,000.00

(2) Labor, Supervision, Consultants

Wages for 2 surface laborers, 320 hours each at $2.25 per hour	$ 1,440.00
Supervision $400.00 per month for 4 months	$ 1,600.00
Part-time geologist as needed to do sampling and mapping	$ 500.00

(3) Operating Materials and Supplies

Gasoline, oil, explosives and other supplies, materials or repair parts to complete this project	$ 1,000.00

(4) Operating Equipment

To be purchased:

None

To be rented:

1 - 105 cfm. air compressor - $175.00 per month for 2 months	$ 350.00

To be furnished by Operator:

	Estimated value	Per month	Total Allowance
1 Air drill sinker	$ 300.00	$ 5.00	$ 10.00*
1 Truck pickup	$1600.00	$30.00	$120.00*

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Assays - 100 each at $4.00	$ 400.00
Workmen's compensation, employee's liability insurance, payroll, and sales taxes	$ 350.00
Contingencies 5 percent	$ 581.50
Total Estimated Cost - Stage II	$12,211.50

COST SUMMARY

Total estimated cost of Stage I	$ 7,470.50
Total estimated cost of Stage II	$12,211.50
Total Estimated Cost:	$19,682.00

Government's participation at 75 percent

INGRNESE

DISCUSSION

The lenses of manganese silicate ore exposed on the applicant's property are typical of those which occur in the manganese belt on the Olympic Peninsula. Because of their relative low manganese content the deposits have not been extensively explored. The U. S. Bureau of Mines plans to carry out a series of beneficiation and utilization tests on typical bementite ore to be taken either from the applicant's or a similar type deposit.

see map Gretkender

If this type and grade of manganese ore can be used at a slightly higher price than is now being offered by private industry, a substantial tonnage is indicated in the Olympic Peninsula area. The Applicant's deposits are typical of a great many of the occurrences in the area. Therefore the proposed exploration will give valuable information as to the potential tonnage in the individual lenses which are relatively abundant in the area.

R. A. Bagill, Mining Engineer
U. S. Bureau of Mines

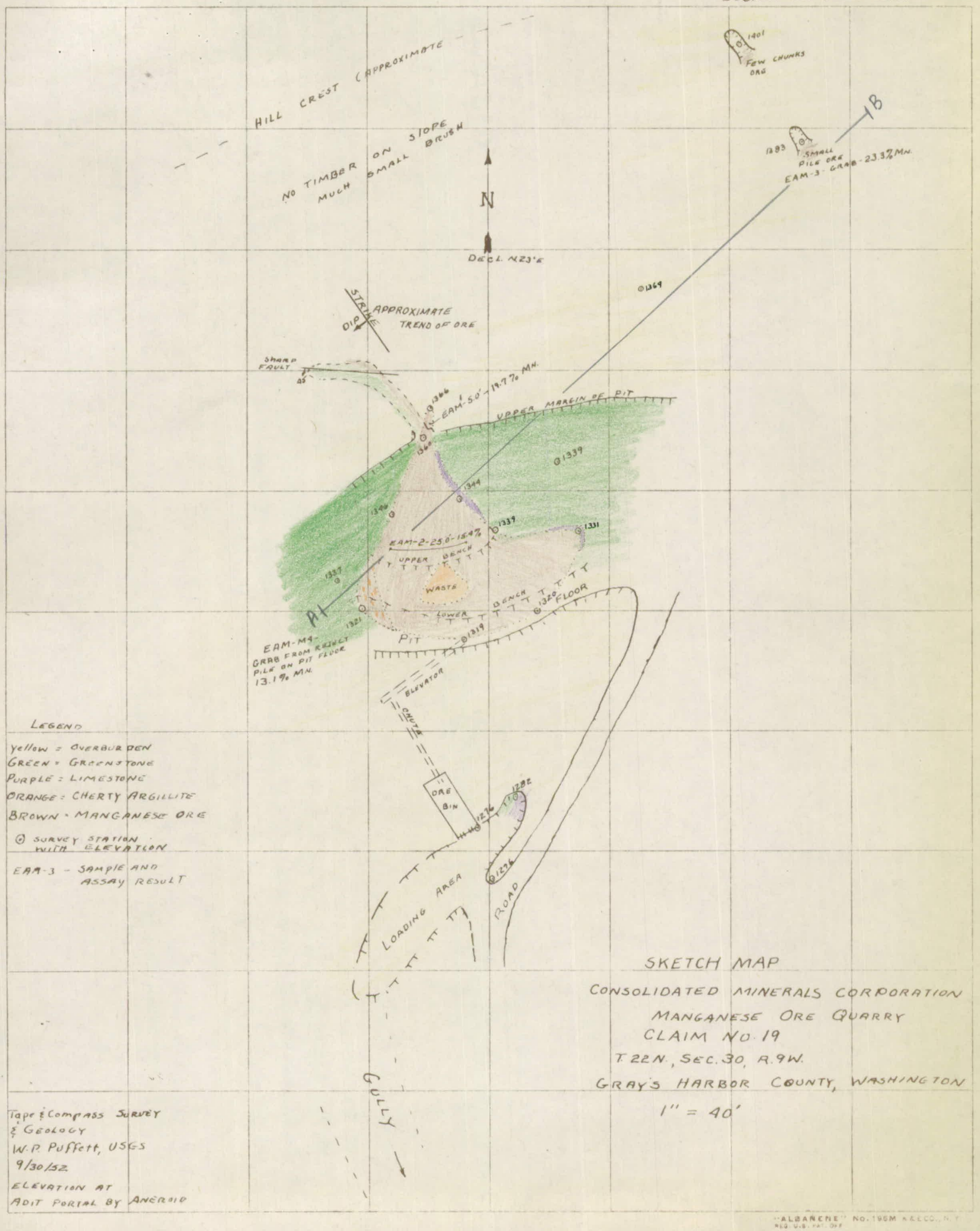
Willard P. Puffett, Geologist
U. S. Geological Survey

Enclosures

cc: WRM(2)
Puffett

SKETCH MAP
CONSOLIDATED MANGANESE CO.
MANGANESE CO.
CLAIM: [illegible]
[illegible] SECTION
[illegible] COUNTY, WASH.

DOCKET NO. DMEA-2682 - MANGANESE



LEGEND

Yellow = Overburden
Green = Greenstone
Purple = Limestone
Orange = Cherty Argillite
Brown = Manganese Ore

⊙ Survey station with elevation

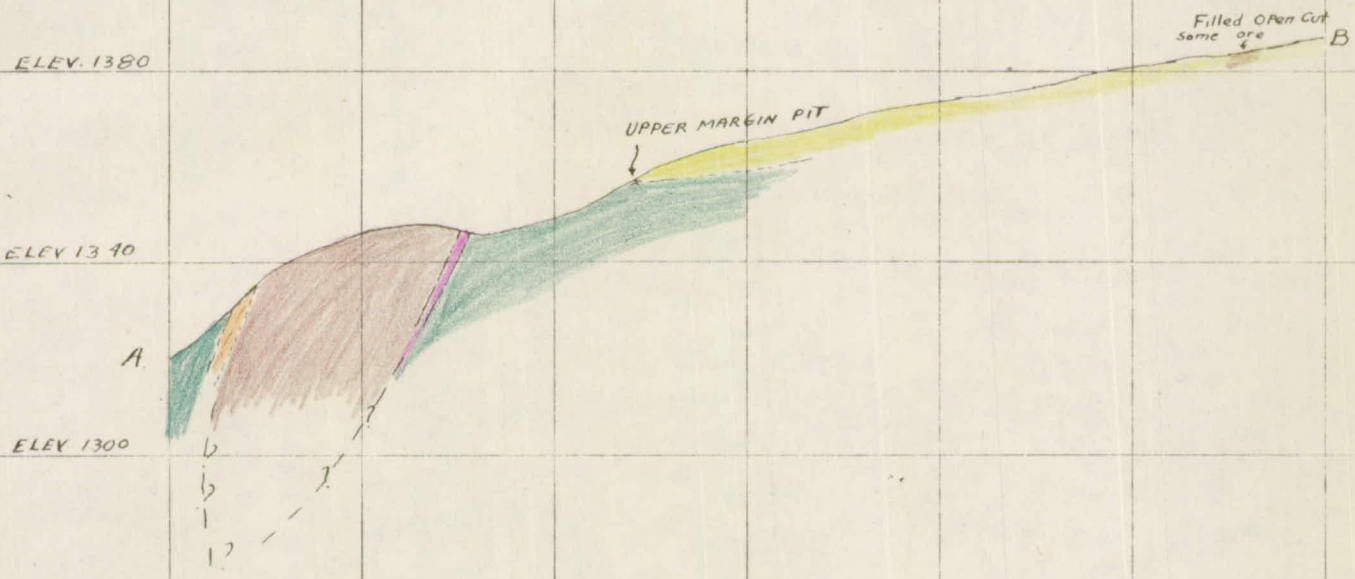
EAM-3 - Sample and assay result

Tape & Compass Survey & Geology
W.P. Puffett, USGS
9/30/52
Elevation at adit portal by aneroid

SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAY'S HARBOR COUNTY, WASHINGTON
1" = 40'

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

DOCKET DMEA No. 2682



YELLOW = OVERBURDEN
GREEN = GREENSTONE
PURPLE = LIMESTONE
ORANGE = CHERTY ARGILLITE
BROWN = MANGANESE ORE

SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

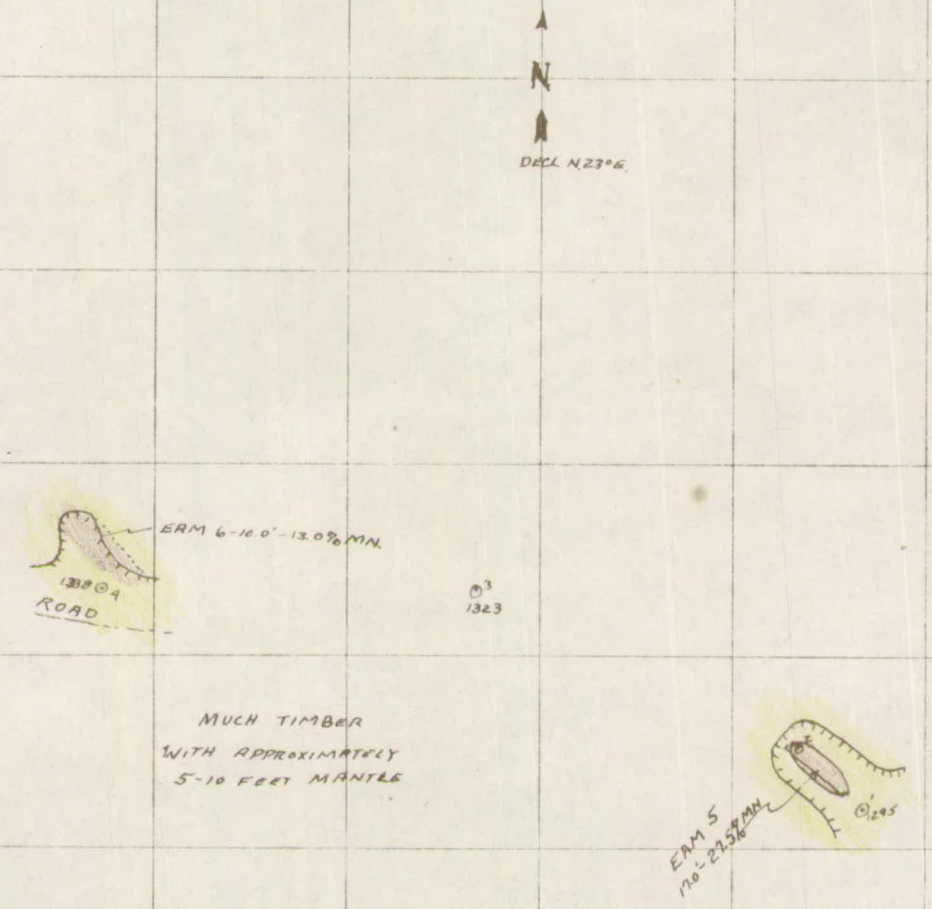
T22N SEC 30 R9W

GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

"ALBANENE" No. 1000B K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE



YELLOW = OVERBURDEN
BROWN = MANGANESE ORE

⊙ 1338 SURVEY STATION
WITH ELEVATION

SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
CLAIM STEVENS NO. 5
1" = 40'

Tape and COMPASS SURVEY
W. P. Puffett, USGS.
9/30/52
Elevation SE PIT
BY ANEROID

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

DEC 4 1952

Consolidated Minerals Corporation
1610 Exchange Building
Seattle 4, Washington

Re: Docket No. [illegible] - Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Olympic Mining District
Grays Harbor County, Washington

Gentlemen:

Your application for exploration assistance and other information available to us in Washington have been carefully reviewed.

The information, while indicating a number of showings on your property which would probably develop a moderate tonnage of manganese silicate ores of a medium grade, does not indicate that the probability of developing the large tonnages that would be necessary for this type of operation are sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing this property to our attention.

Sincerely yours,

(signed) FRANK E. JOHNSON

ACTING Administrator

TLChapman'lm
11/25/52

cc: Admn. Reading File
Docket
H. D. Melcher, GABM
R. D. Crittenden, WSGS
Field Team Reg. II
Operating Committee
G. C. Selfridge
T. L. Chapman

Administrator, DMEA

November 25, 1952

Iron and Ferro-Alloy Division, DMEA

Denial of exploration project in the amount of $64,733.60
Docket No. DMEA 2682 - Manganese
Consolidated Mineral Corporation
Stevens Creek, Skunk Creek and Cook Creek Mining Claims
Quinault Mining District
Grey Harbor County, Washington

The denial of the subject application by this Division is based on the following information:

1. The manganese deposits of the above-noted area of the Olympic Peninsula occur as lenses of hausmanite and associated minerals in basaltic lavas. Generally associated with the ore lenses are cherty argillites and narrow bands of limestone.

2. About 150 tons of this ore averaging 19.5 percent manganese were shipped to the Geneva steel plant in Utah. Due to the high freight rates, the shipping of this grade of ore is not feasible.

3. An open pit was opened up on Skunk Creek Claim No. 19 on one of the better showings and a 50-foot adit was driven on the upper margin of this pit. Several trenches opened up showings on the extension of this area.

   A small amount of bulldozing has been done on Stevens Creek Claim No. 5 exposing siliceous manganese ores.

   Outcrops in Stevens Creek Claim No. 1 indicate possible ore bodies.

   The numerous showings in this district and the small amount of work done indicate these lenses would contain from 100 to 10,000 tons of manganese silicate ore averaging 20 percent manganese.

4. At the present time, there is practically no market for this type and grade of ore. These ores are not amenable to beneficiation.

   Electrolytic smelting has been developed by the U. S. Bureau of Mines and a silico-manganese product can be produced.

There is no market for any large tonnage of this product at the present time. In an emergency, the iron and steel operators could use about 10 percent of their manganese in this form. Known deposits of rhodonite are better located for the production of the silico-manganese.

5. The Field Team of Region II recommended the approval of an exploration project for trenching and diamond drilling.

6. The Commodity Division of the U. S. Geological Survey recommends denial.

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

TLChapman'lm
11/25/52

cc: Admn. Reading File
Docket
G. C. Selfridge
T. L. Chapman

SEP 12 1952

Consolidated Minerals Corporation
1616 Exchange Building
Seattle 4, Washington

Re: Docket No. DMEA 2682 - Manganese
Stevens Creek, Skunk Creek and
Cook Creek Mining Claims
Quinault Mining District
Grays Harbor County, Washington

Gentlemen:

Your application for assistance in exploring the above noted property has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. A. E. Weissenborn, Executive Officer, Region II, South 157 Howard Street, Spokane 8, Washington, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any aid which you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman'lm
9/9/52

cc: Admn. Reading File
Docket
N. B. Melcher, USBM
M. B. Grittenden, USGS
Field Team Reg. II
W. S. Martin
T. L. Chapman

IN REPLY REFER TO:

G-MD-CP

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

September 4, 1952

Memorandum

To: George C. Selfridge

From: M. D. Crittenden, Jr.

Subject: DMRA 2682 - Manganese

Consolidated Minerals Corp.
1616 Exchange Bldg.
Seattle, Washington

The applicant proposes to explore by an indefinite amount of surface trenching and diamond drilling from 3 deposits of manganese silicate ore in the southwestern part of the Olympic Peninsula, Washington. The cost is estimated to be in excess of $64,000, of which about $17,000 is accounted for in direct contracts. The rest is for associated labor, equipment, assaying and overhead.

The deposits were examined by C. F. Park and others in 1939-1940, whose findings are in accord with the report by Milner Roberts which accompanies the application. The deposits are syngenetic bedded accumulation of manganese commonly having a lenticular form. They are enclosed by layers of red argillite or limestone, commonly 20 to 50 feet thick. These in turn are sandwiched between thick masses of pillow basalt. The manganese minerals include bementite, neotocite, and other silicates, and in general may be expected to average about 20% Mn. Oxidation affects the surface of the orebodies but does not produce any appreciable enrichment.

The ore has been mined by open pit methods and sold to Geneva Steel Co. who pay about 80¢ per unit ($16.00 per ton) f.o.b. rail. Allowing $3 - $4.00 for hauling this would permit small scale open pit operation at a good profit, but probably would not allow underground operation on that scale.

There is no specific information about the reserves of the properties for which exploration is proposed. The earlier examinations indicate that lenticular bodies such as those exposed may contain a few thousand tons each. On this basis, and because open pit operation is all that is practical anyway, it does not appear practical to undertake exploration of the magnitude and nature proposed.

M. D. Crittenden

MDCrittenden:gt

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

MR A.E. WEISSENBORN,
EXECUTIVE OFFICER, REGION II
SOUTH 157 HOWARD STREET
SPOKANE 8, WASHINGTON

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant CONSOLIDATED MINERALS CORPORATION

Docket No. DMEA 2682

Commodity MANGANESE

Amount $ 64,733.60

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

Sincerely yours,

Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

13759

400

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2682

Commodity MANGANESE

Total Amount $64,733.60

Govt. Participation $48,550.20

1. Name and Address of Applicant CONSOLIDATED MINERALS CORPORATION

2. Location of Property QUINSULT MINING DISTRICT, T. 22N. R. 9 & 10 W., GRAYS HARBOR COUNTY, WASHINGTON

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

If not, application will be rejected.

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

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

a) Good YES.

b) Poor

c) None

d) Don't know—needs field examination

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

5. Is the applicant's right to the property clearly stated? YES.
(question 5, 6, 7)*

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

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

*question numbers are those of MF-103

7. Are subordination agreements necessary? No.

a) MF-201? _____

b) MF-202? _____

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

a) Available manpower YES.

b) Equipment and supplies YES.
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* YES.

d) Water (question 13)* YES

e) Power (question 13)* YES.

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

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

_____

Is a field check needed on this point? _____

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? No.

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

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

_____

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

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed? YES

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? YES. If so, attach a draft.

e) Are the cost estimates reasonable? No.

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A? YES.

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

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

c) Is a field check needed?_____

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

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____

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

a) Are there sufficient data?_____

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

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

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? YES.

(All exploration must be completed within two years)

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

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? THE SIZE OF PROJECT SHOULD BE CAREFULLY CHECKED. SUPERVISION AND CONSULTANT COSTS ARE HIGH FOR SIZE OF PROJECT. ALSO LABOR COST ARE HIGH. ACCOUNTANT COST IS HIGH. PROJECT APPEARS TO WARRANT SOME WORK, BUT AT A COST MUCH LOWER THAN THE $64,000.00 APPLIED FOR

ENCLOSED
2 - COPIES OF MEMORANDUM BY M.D. GRITTENDEN, JR.

Reviewed by: TLC

Date 9-8-52

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

So. 157 Howard Street
Spokane 4, Washington

400

August 24, 1952

Amea 2682

Mr. Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

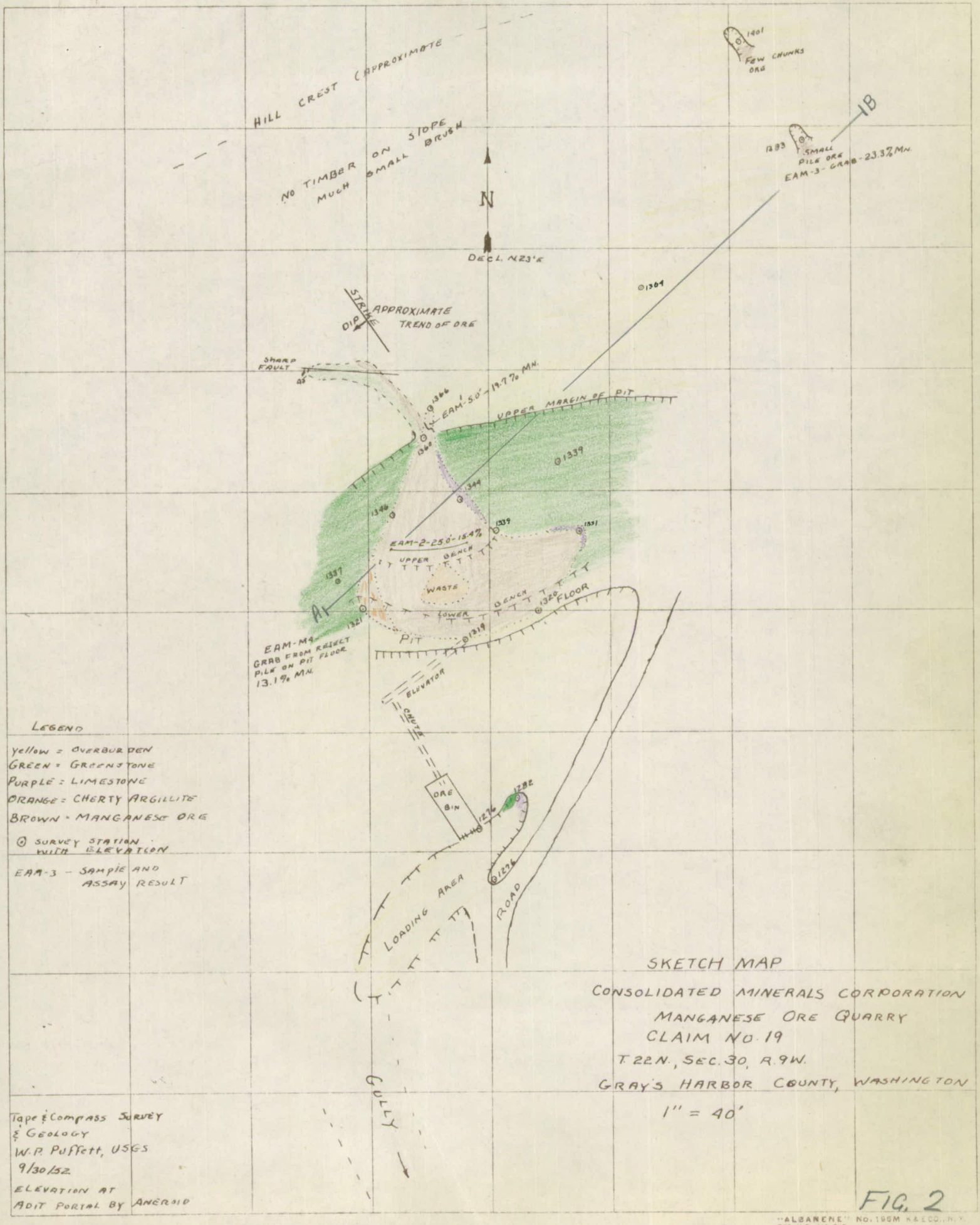
Dear Mr. Johnson:

Enclosed are the original and two copies of an application for exploration assistance submitted by Consolidated Minerals Corporation of Seattle, Washington. The fourth copy is retained here for a field examination which, because of the approach of fall we will attempt to make as soon as we have men in the vicinity of the property.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: USBM(2)



LEGEND

yellow = OVERBURDEN
GREEN = GREENSTONE
PURPLE = LIMESTONE
ORANGE = CHERTY ARGILLITE
BROWN = MANGANESE ORE

⊙ SURVEY STATION WITH ELEVATION

EAM-3 - SAMPLE AND ASSAY RESULT

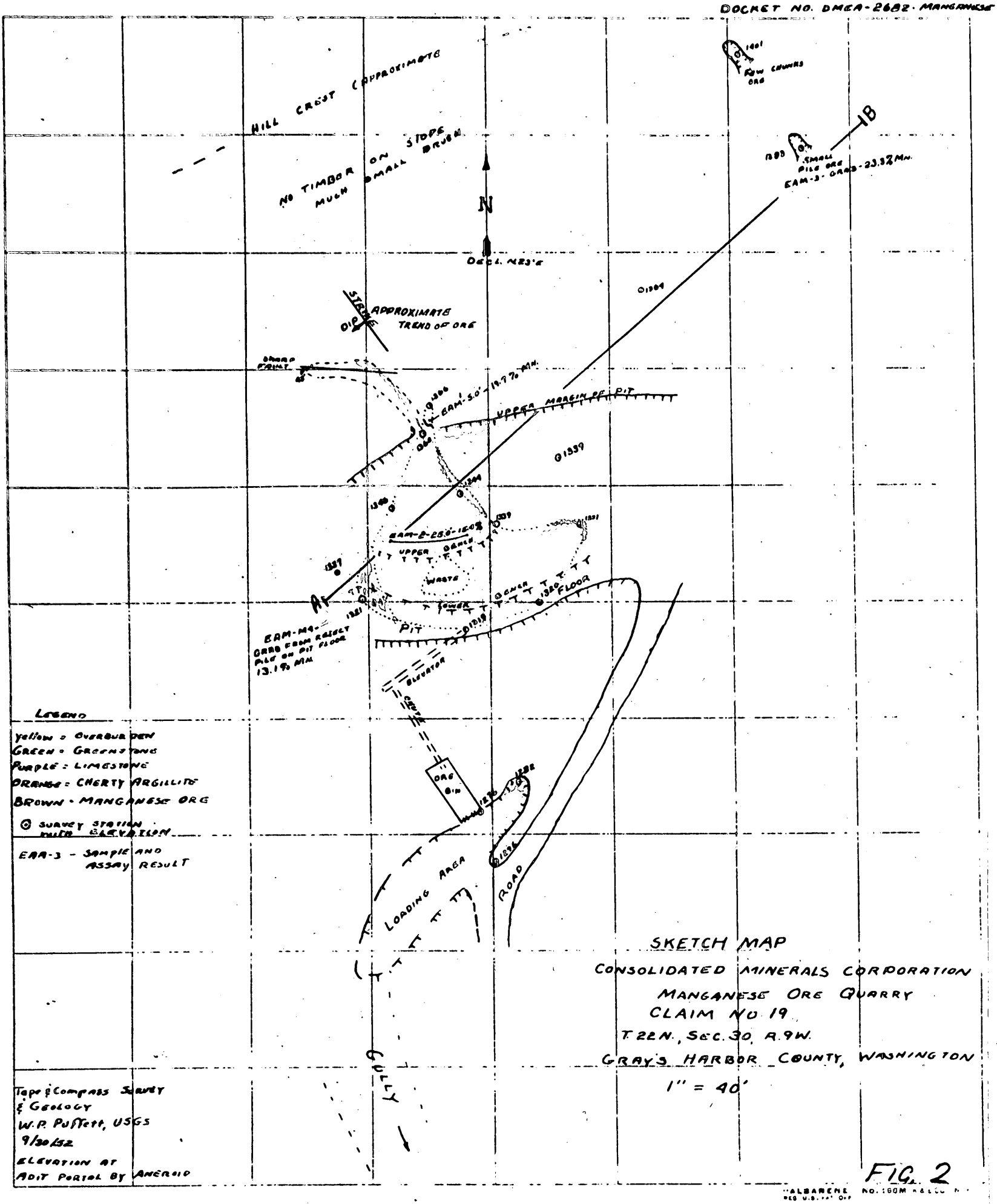
SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAY'S HARBOR COUNTY, WASHINGTON
1" = 40'

Tape & Compass Survey & Geology
W.P. Puffett, USGS
9/30/52
ELEVATION AT ADIT PORTAL BY ANEROID

FIG. 2

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

DOCKET NO. DMEA-2682 · MANGANESE

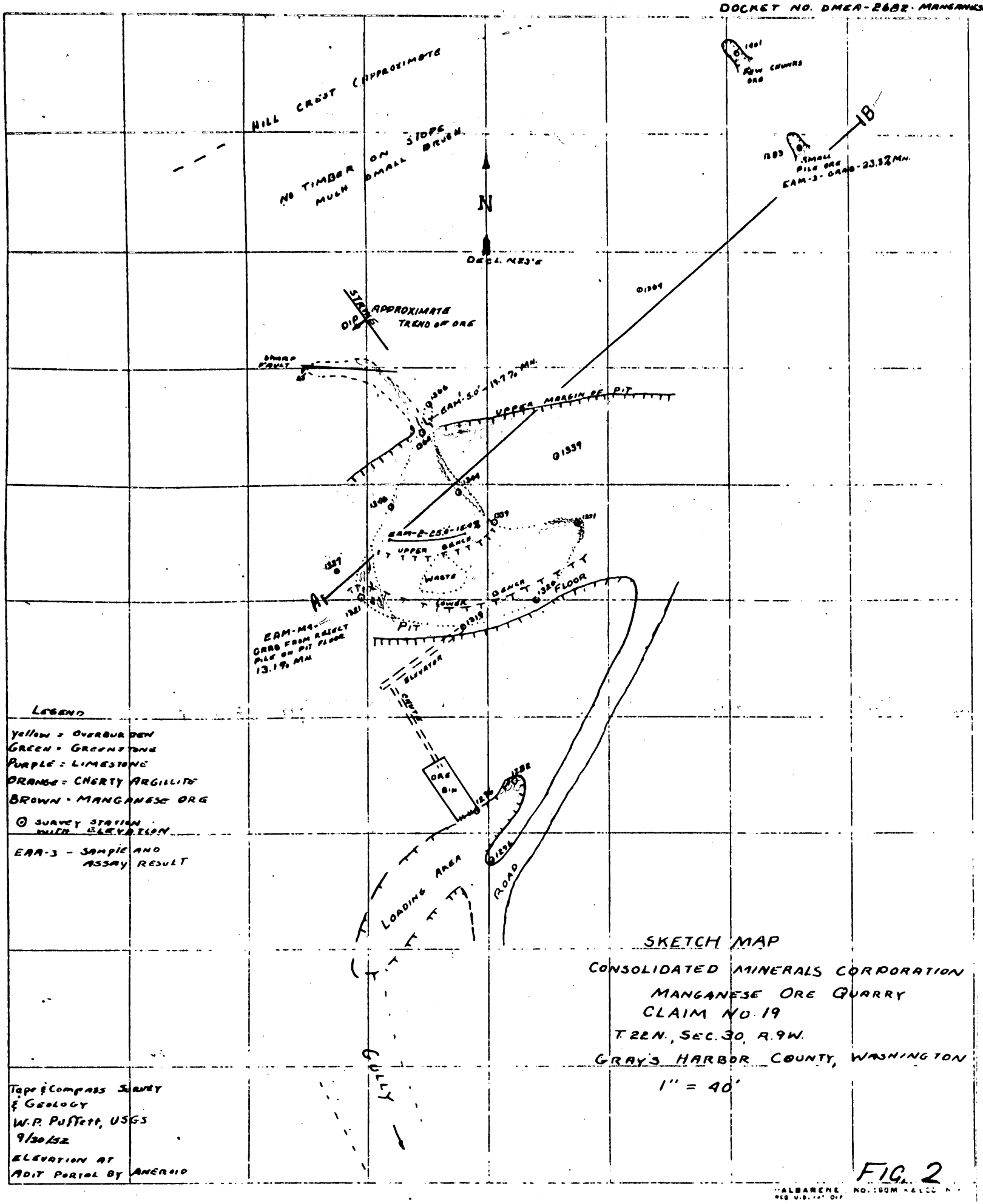


SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAYS HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

ALBARENE NO. 1800M REG. U.S. PAT. OFF.

DOCKET NO. DMEA-2682 · MANGANESE

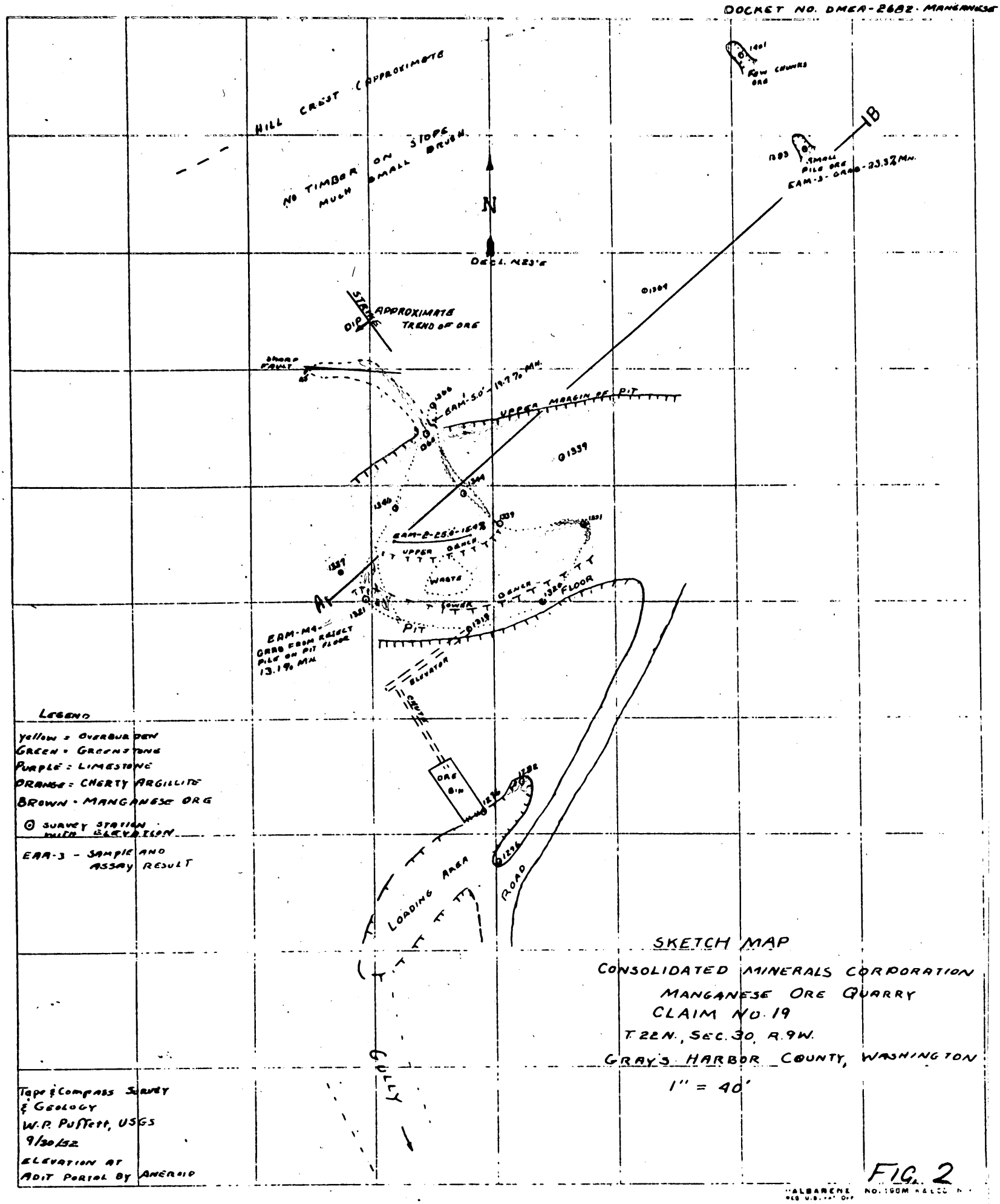


SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAYS HARBOR COUNTY, WASHINGTON
1" = 40'

Tape & Compass Survey
& Geology
W.P. Puffett, USGS
9/30/52
Elevation at
Adit Portal by Aneroid

FIG. 2

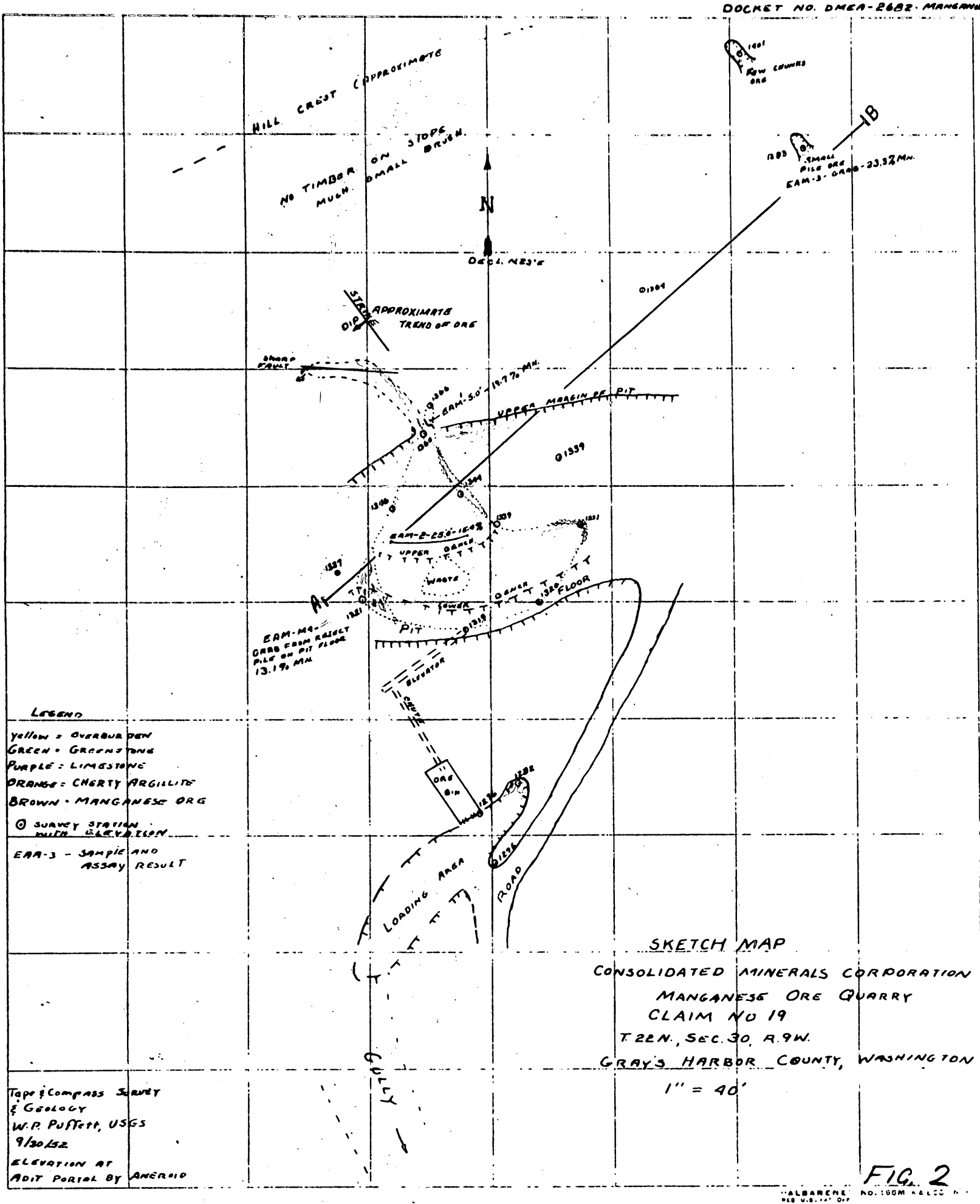
DOCKET NO. DMEA-2682 - MANGANESE



SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAYS HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

DOCKET NO. DMEA-2682 · MANGANESE



LEGEND

Yellow = Overburden
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Orange = Cherty Argillite
Brown = Manganese Ore

⊙ Survey Station with Elevation

EAM-3 - Sample and Assay Result

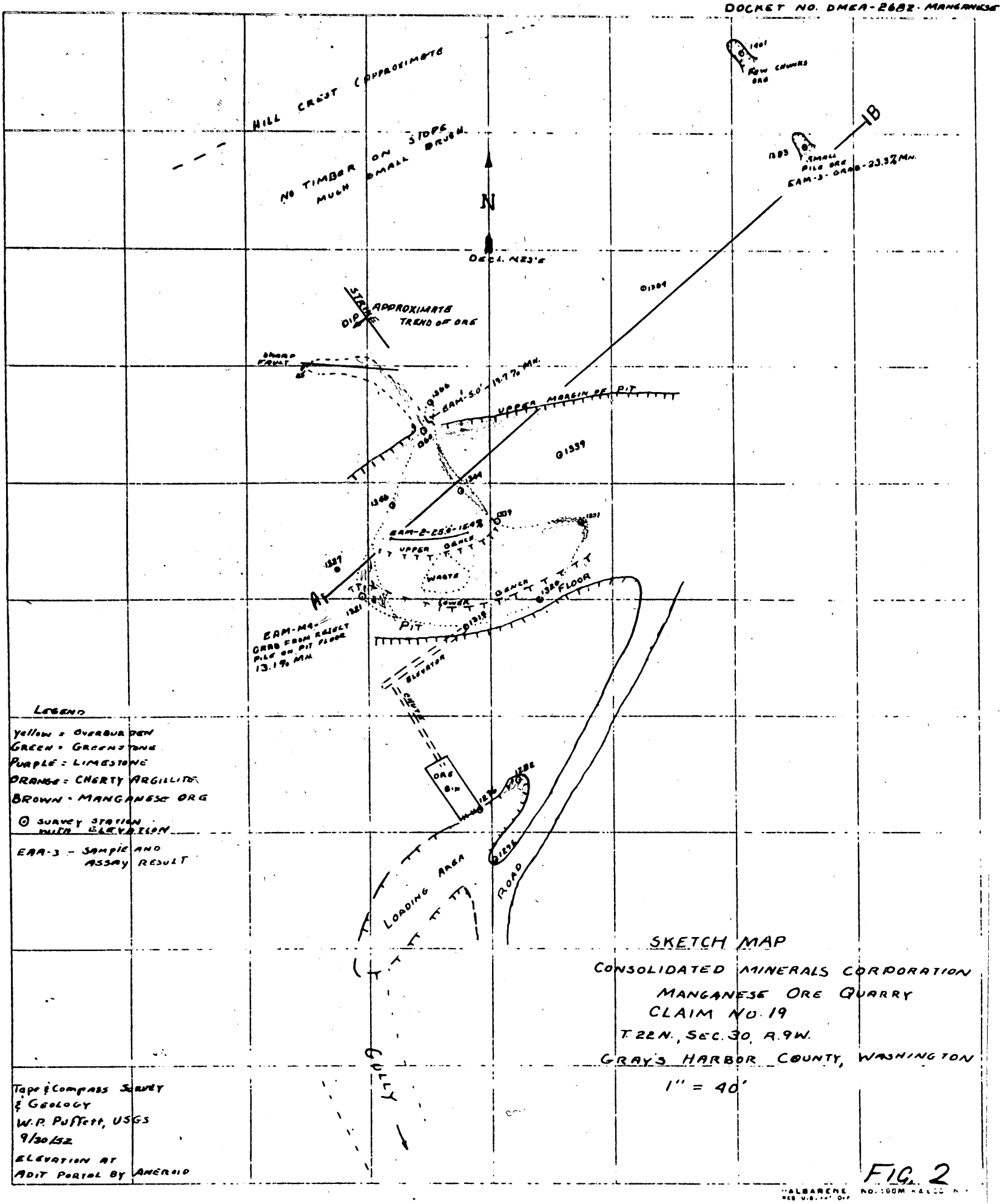
Tape & Compass Survey & Geology
W.P. Puffett, USGS
9/30/52
Elevation at Adit Portal by Aneroid

SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO 19
T. 22N., SEC. 30, R. 9W.
GRAYS HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

ALBARENE NO. 100M K&E CO. REG. U.S. PAT. OFF.

DOCKET NO. DMEA-2682 · MANGANESE



LEGEND

yellow = OVERBURDEN
GREEN = GREENSTONE
PURPLE = LIMESTONE
ORANGE = CHERTY ARGILLITE
BROWN = MANGANESE ORE
⊙ SURVEY STATION WITH ELEVATION
EAA-3 - SAMPLE AND ASSAY RESULT

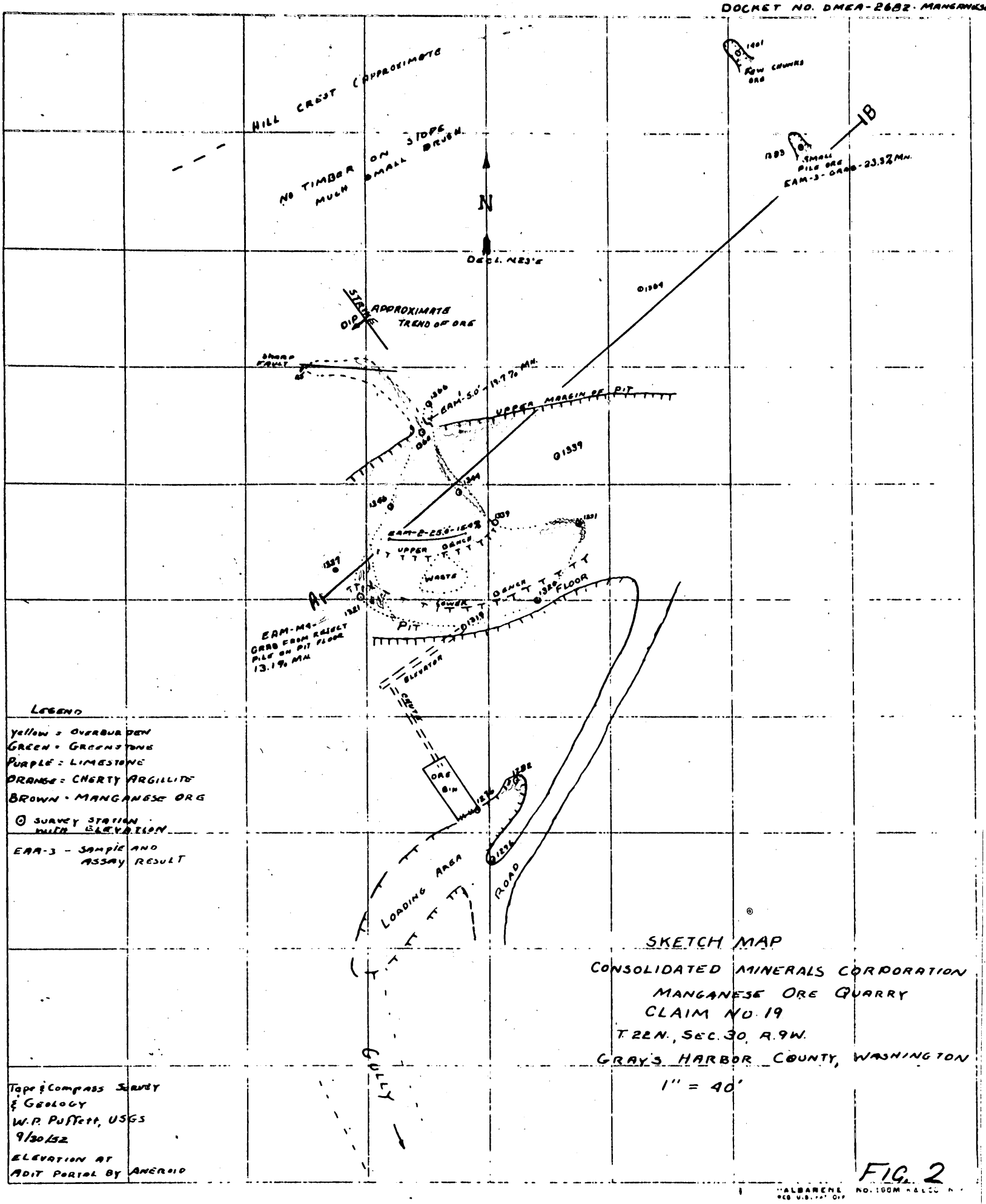
Tape & Compass Survey & Geology
W.P. Puffett, USGS
9/30/52
ELEVATION AT ADIT PORTAL BY ANEROID

SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAYS HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

"ALBARENE" NO. 160M REG U.S. PAT. OFF.

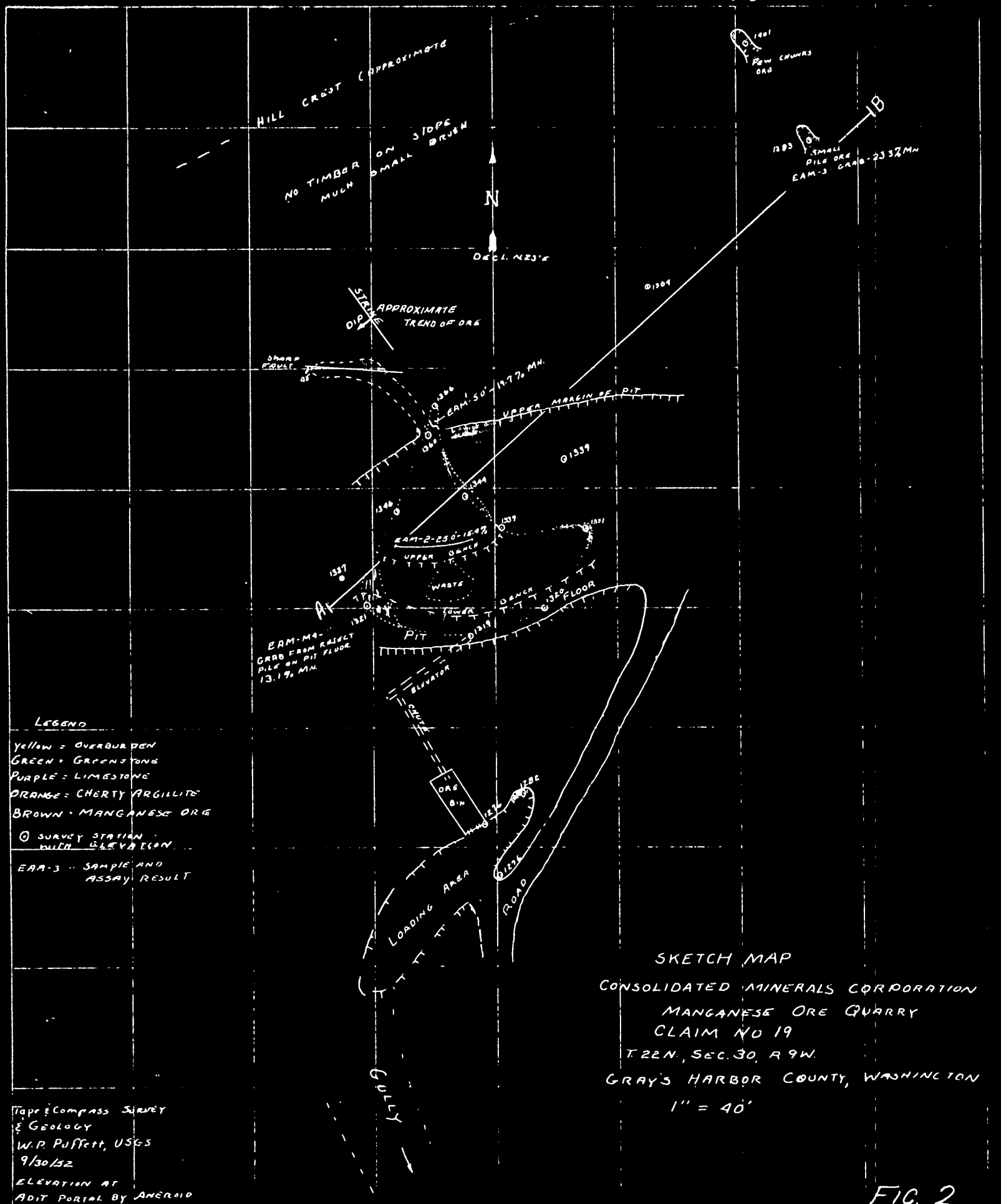
DOCKET NO. DMEA-2682 · MANGANESE



SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO. 19
T. 22N., SEC. 30, R. 9W.
GRAY'S HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

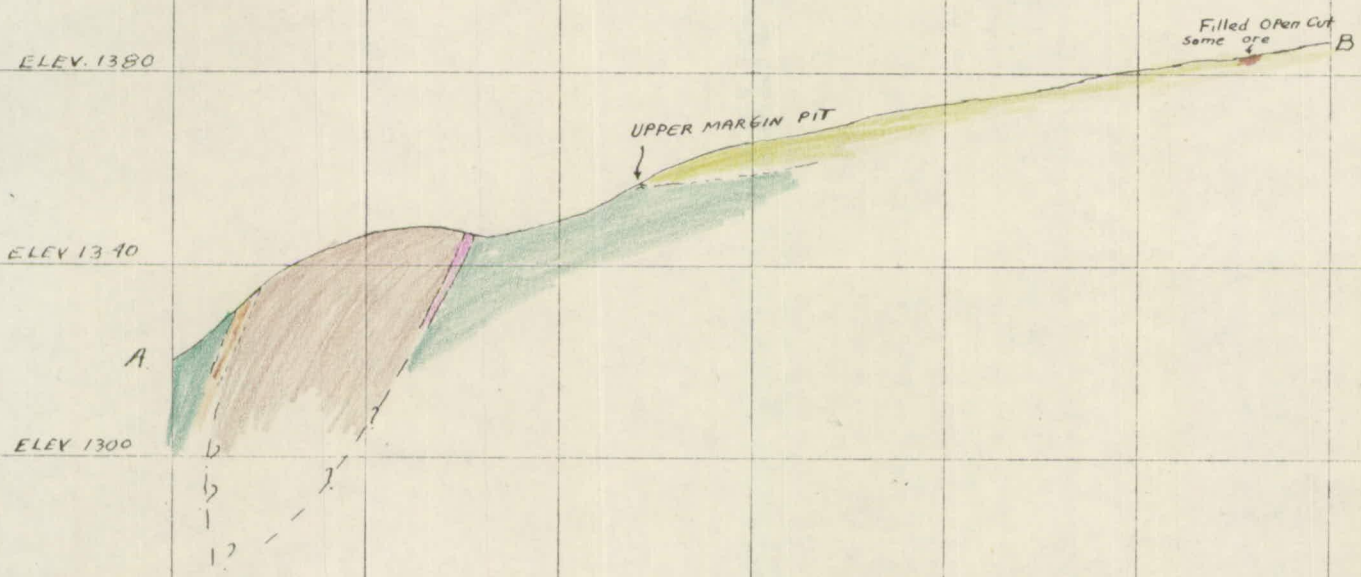
DOCKET NO. DMEA-2682 · MANGANESE



SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY
CLAIM NO 19
T. 22 N., SEC. 30, R 9 W.
GRAY'S HARBOR COUNTY, WASHINGTON
1" = 40'

FIG. 2

DOCKET DMEA No. 2682



YELLOW = OVERBURDEN
GREEN = GREENSTONE
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ORANGE = CHERTY ARGILLITE
BROWN = MANGANESE ORE

SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION
MANGANESE ORE QUARRY

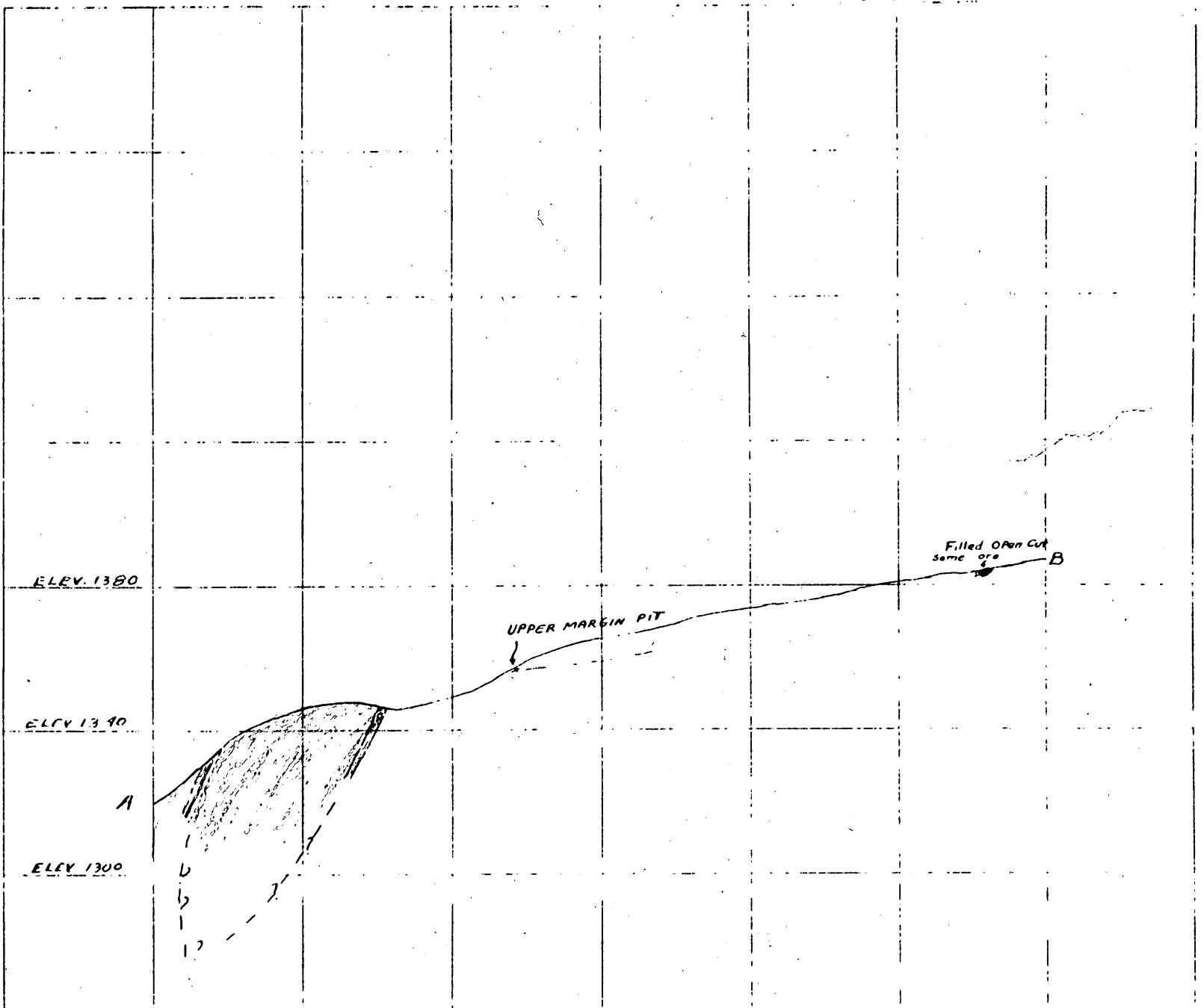
CLAIM No. 19
T22N SEC. 30 R9W
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

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

DOCKET DMEA No. 2682



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BROWN = MANGANESE ORE

SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T22N SEC 30 R9W

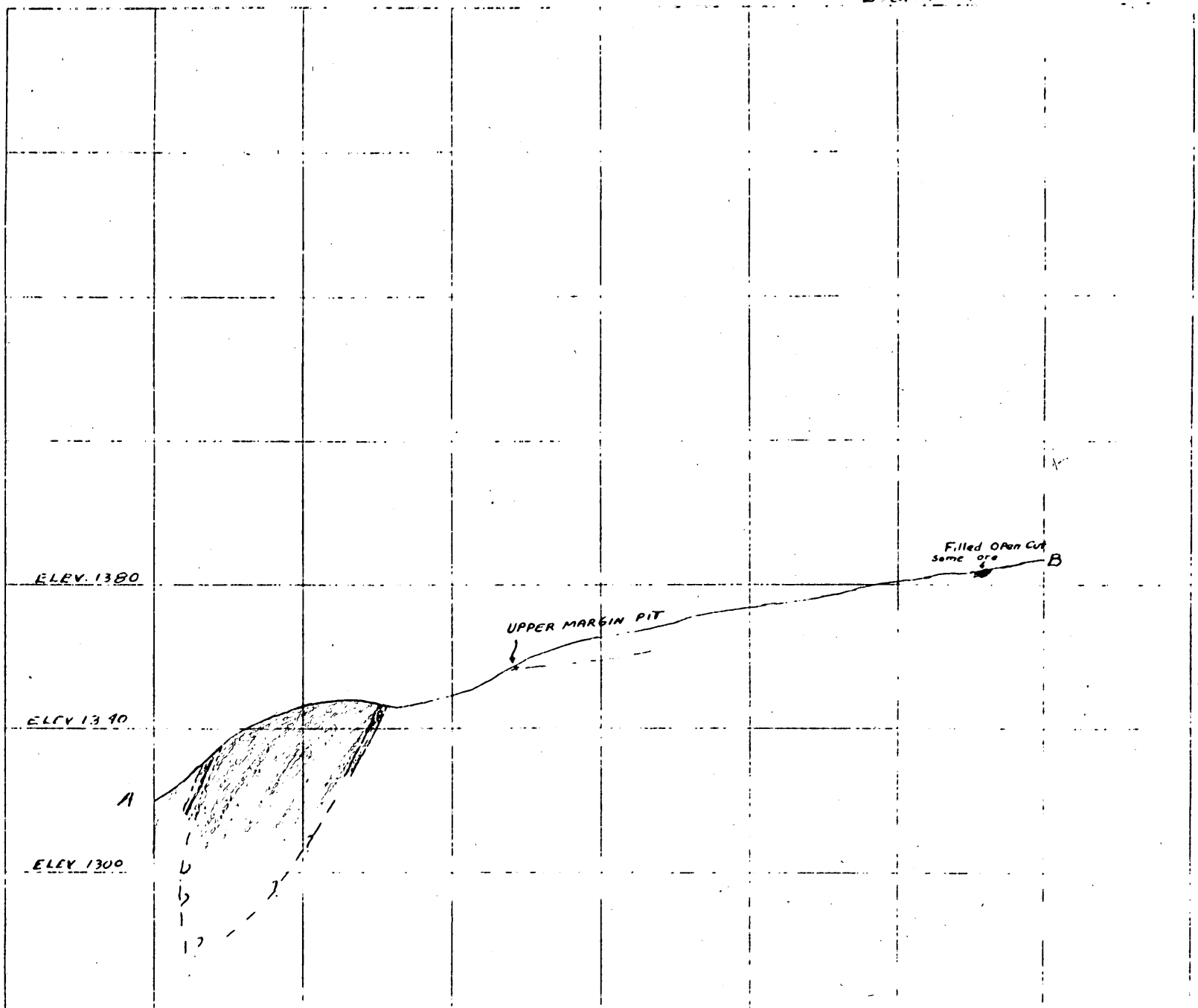
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 165M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET DMEA No. 2682



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BROWN = MANGANESE ORE

SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T22N SEC 30 R9W

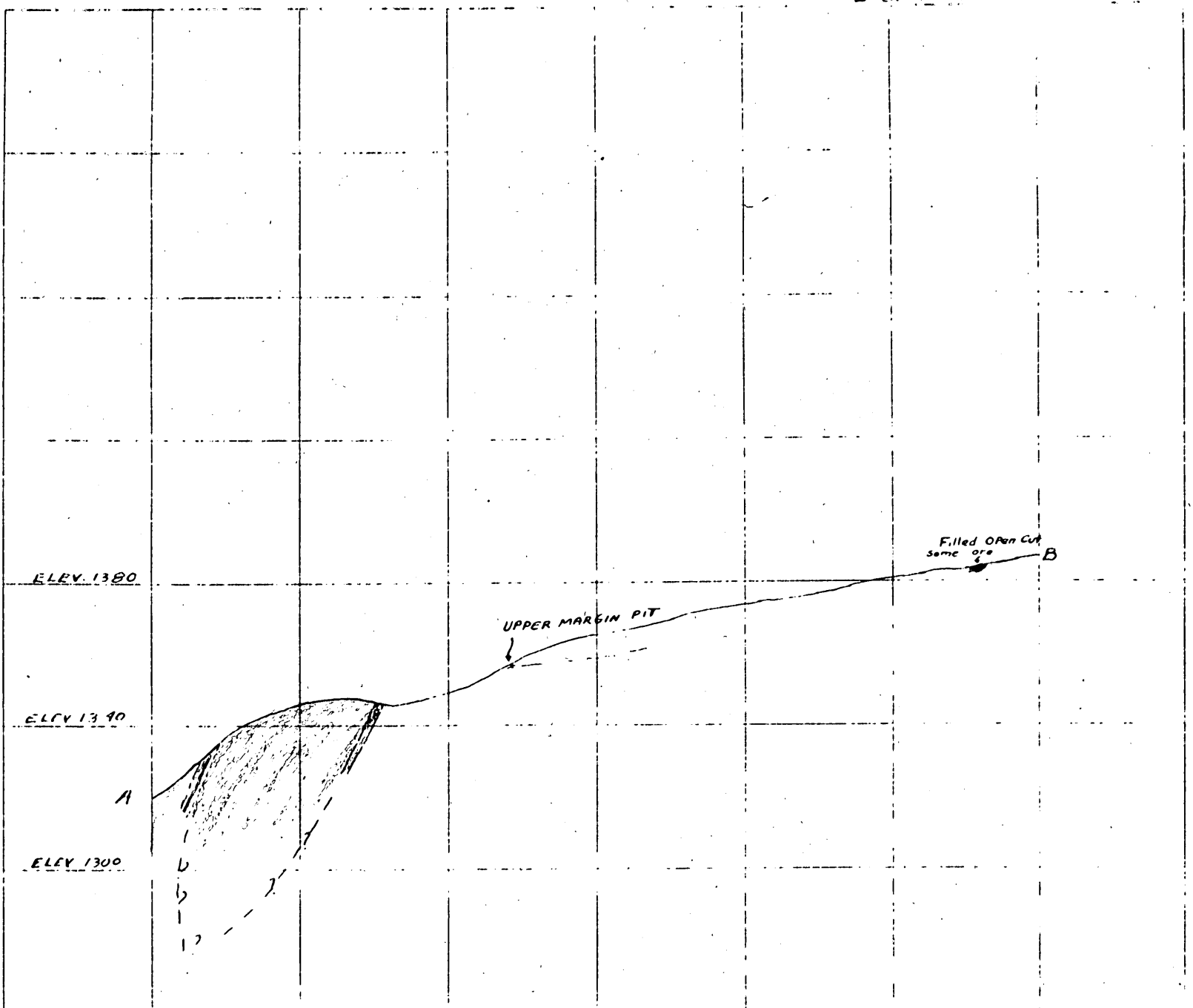
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 166M H&ECO., N.Y.
REG. U.S. PAT. OFF.

DOCKET DMEA No. 2682



YELLOW = OVERBURDEN
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SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T22N SEC 30 R9W

GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 166M K&E CO., N.Y.
REG. U.S. PAT. OFF.

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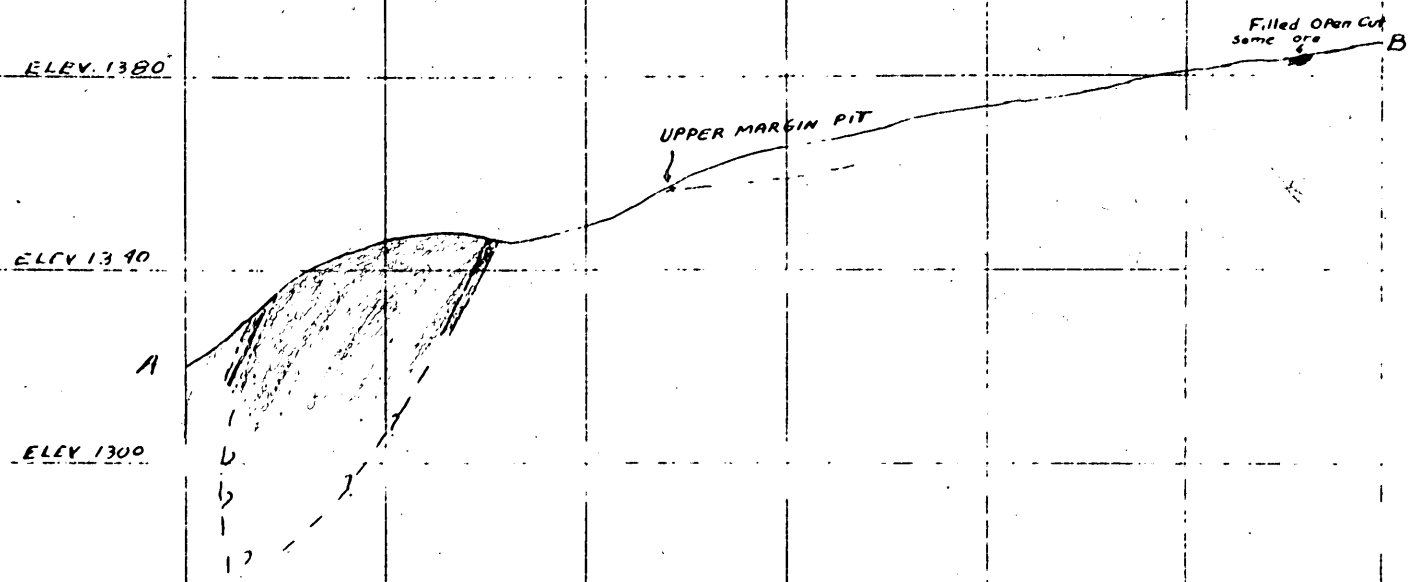

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SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T 22 N SEC 30 R 9 W

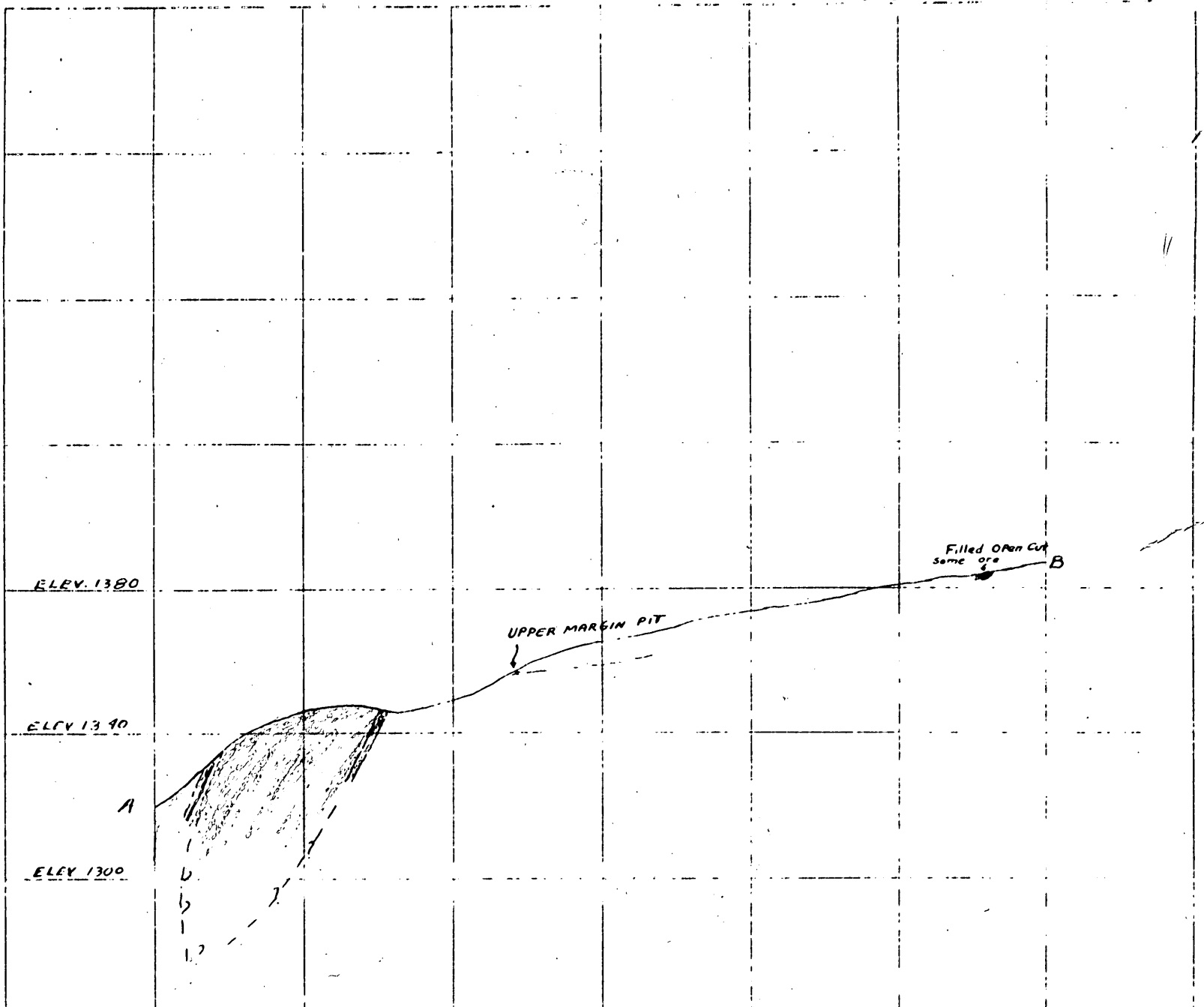
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" No. 166M H&ECO., N.Y.
REG. U.S. PAT. OFF.

DOCKET DMEA No. 2682



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SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM No. 19

T22N SEC 30 R9W

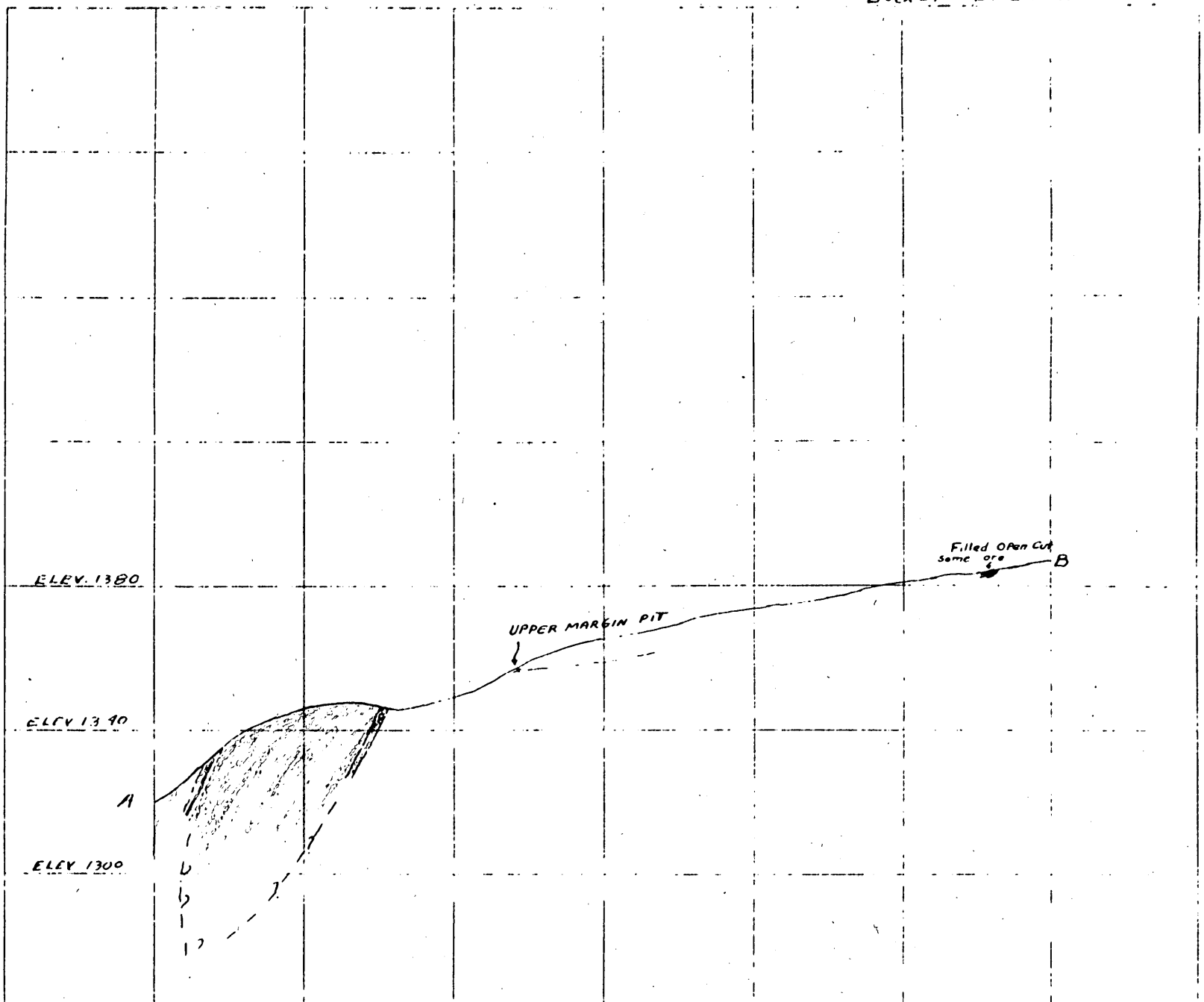
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 165M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET DMEA No. 2682



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SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T22N SEC 30 R9W

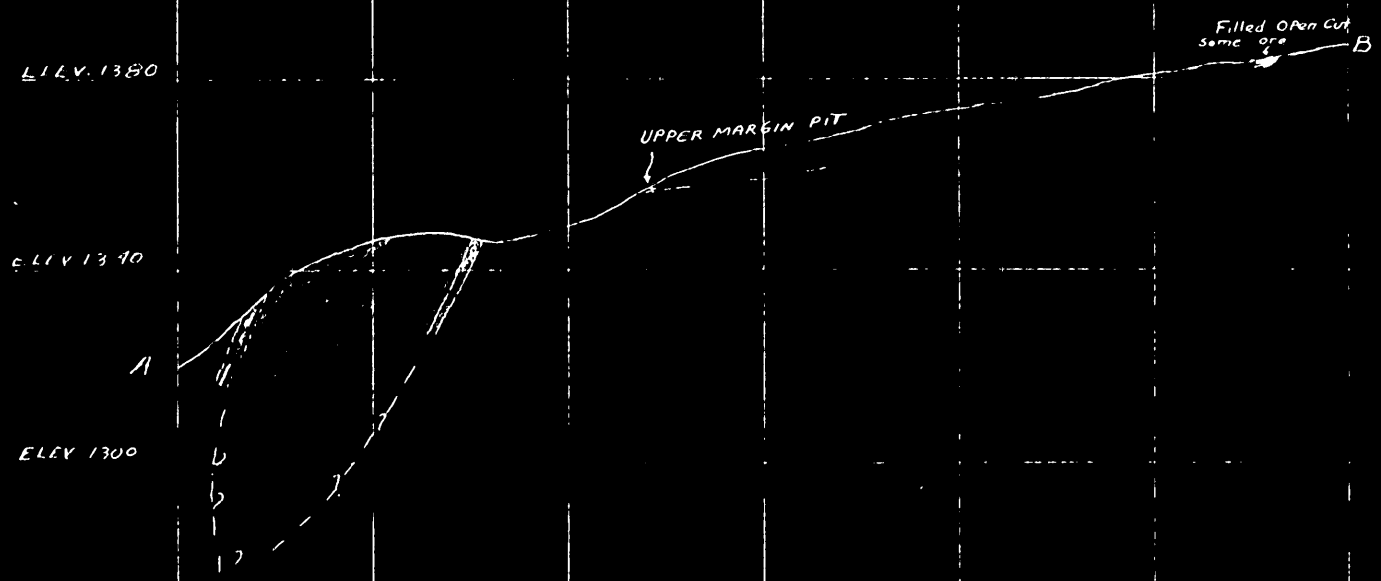
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 165M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET DMEA No. 2682



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SKETCH SECTION A-B

THROUGH MANGANESE ORE LENS

CONSOLIDATED MINERALS CORPORATION

MANGANESE ORE QUARRY

CLAIM NO. 19

T22N SEC 30 R9W

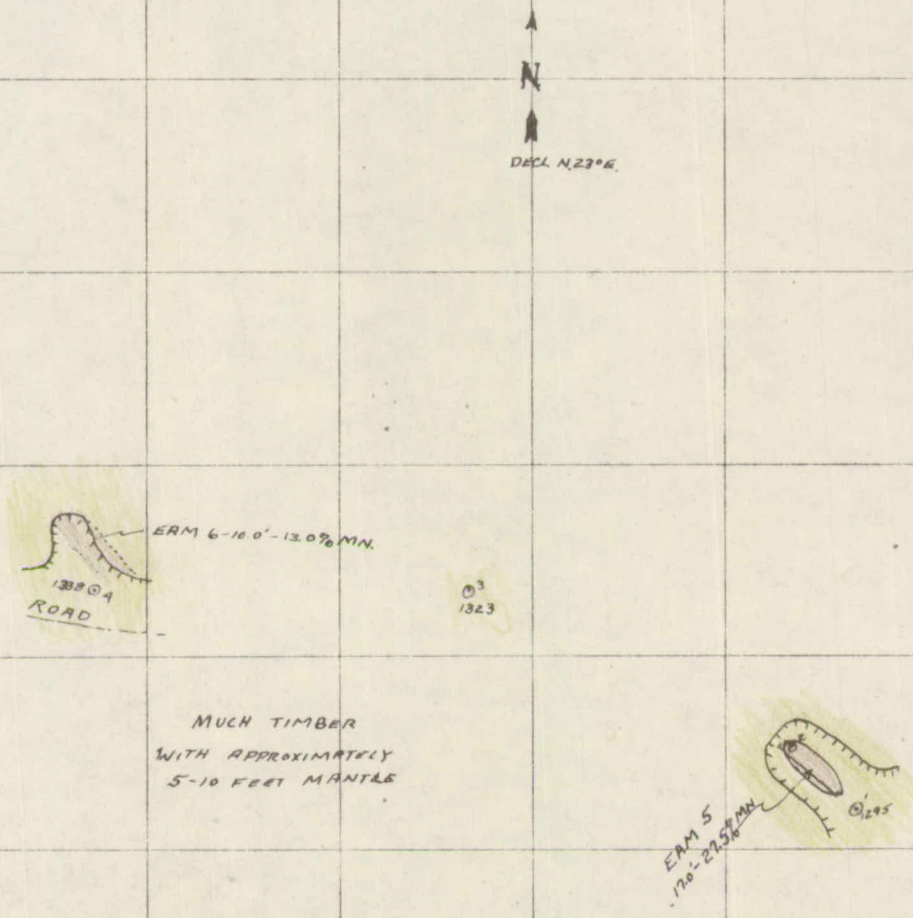
GRAYS HARBOR COUNTY, WASHINGTON

1" = 40'

FIG. 3

"ALBANENE" NO. 195M N.&E.C., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE



YELLOW = OVERBURDEN
BROWN = MANGANESE ORE

⊙1338 SURVEY STATION
WITH ELEVATION

SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
CLAIM STEVENS NO. 5
1" = 40'

Tape and compass survey
W. P. Puffett, USGS.
9/30/52
Elevation SE Pit
by aneroid

FIG. 4.

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

DOCKET No. DMEA 2682-
MANGANESE

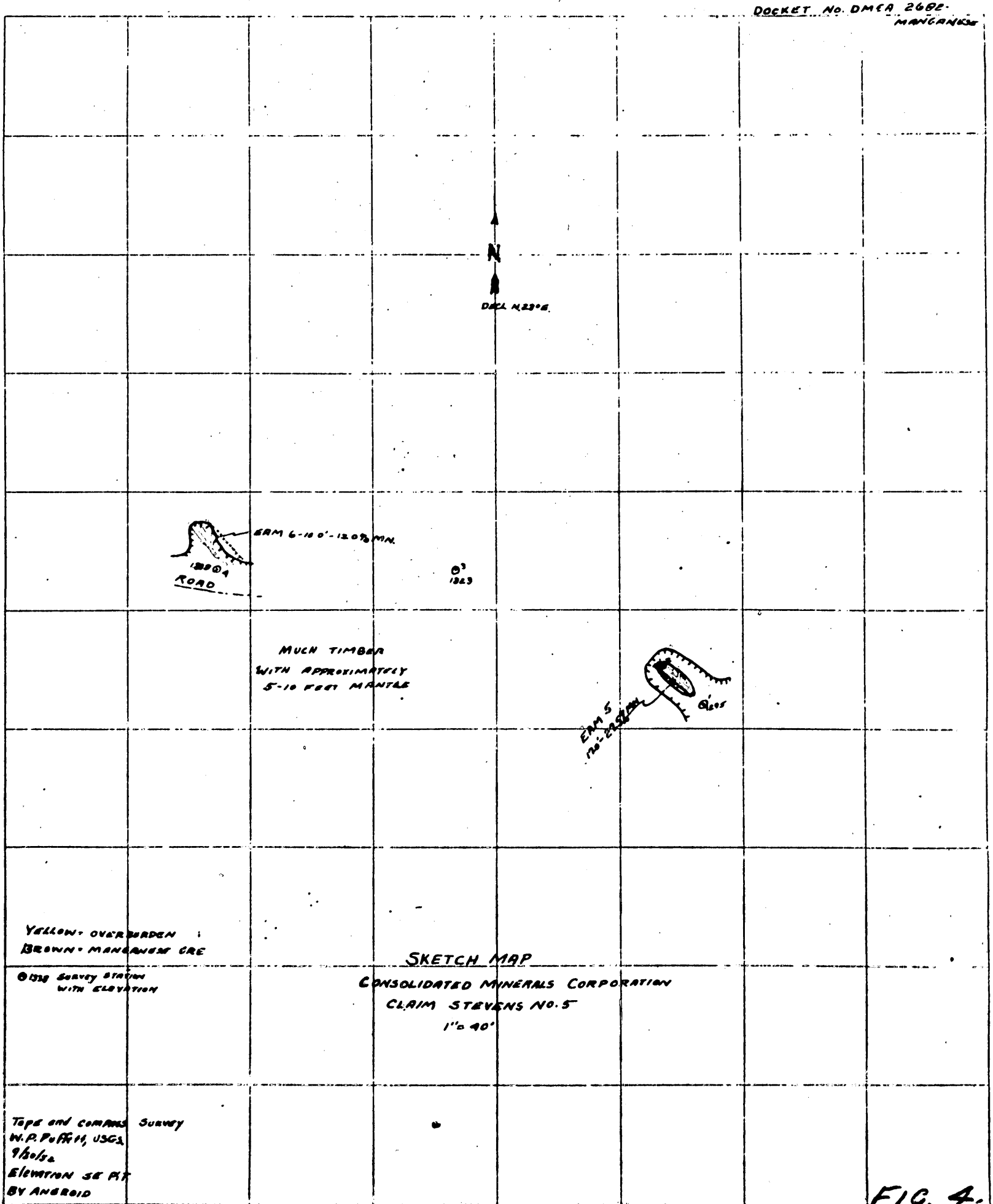
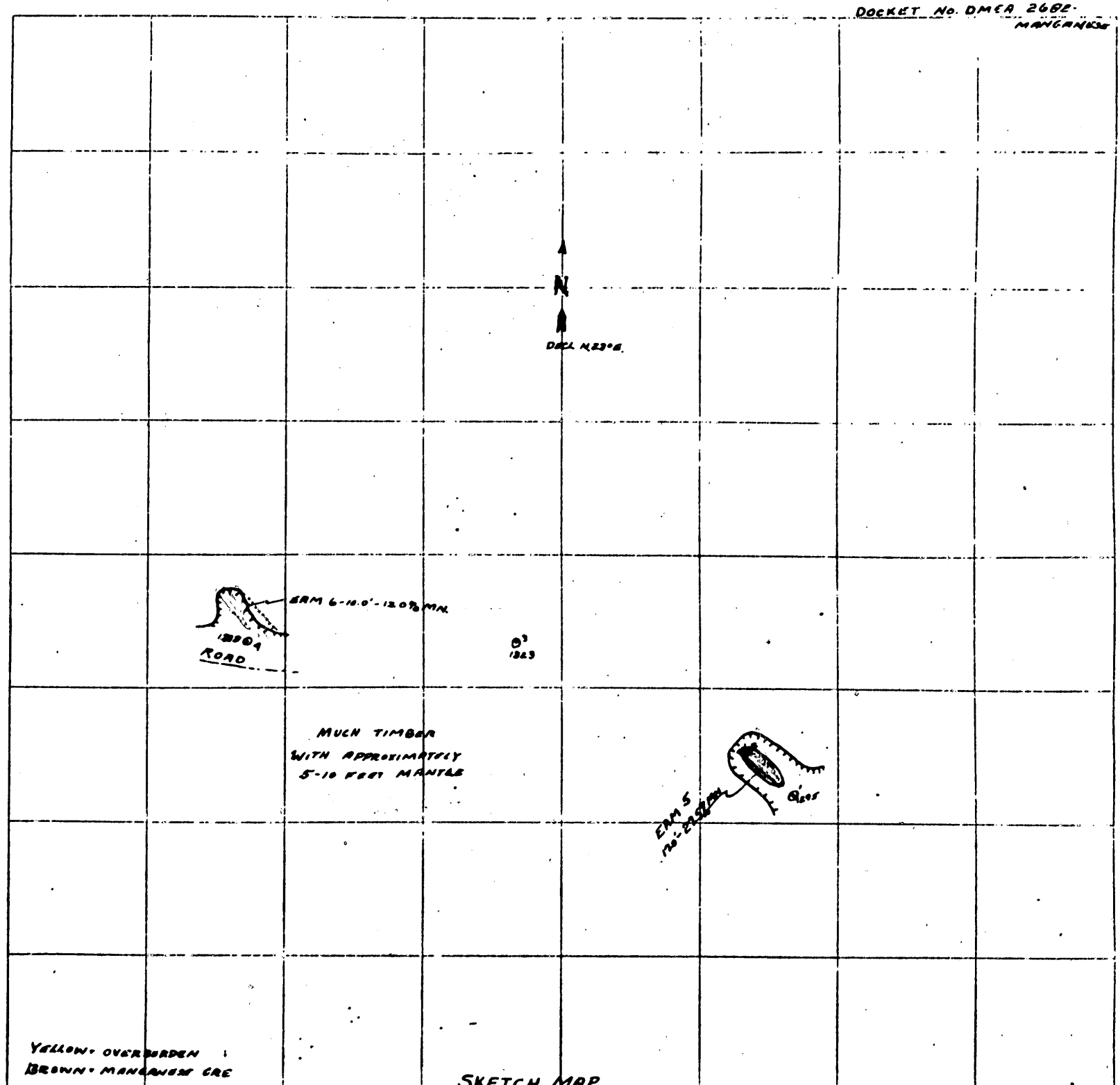


FIG. 4.

"ALBANENE" No. 160M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE



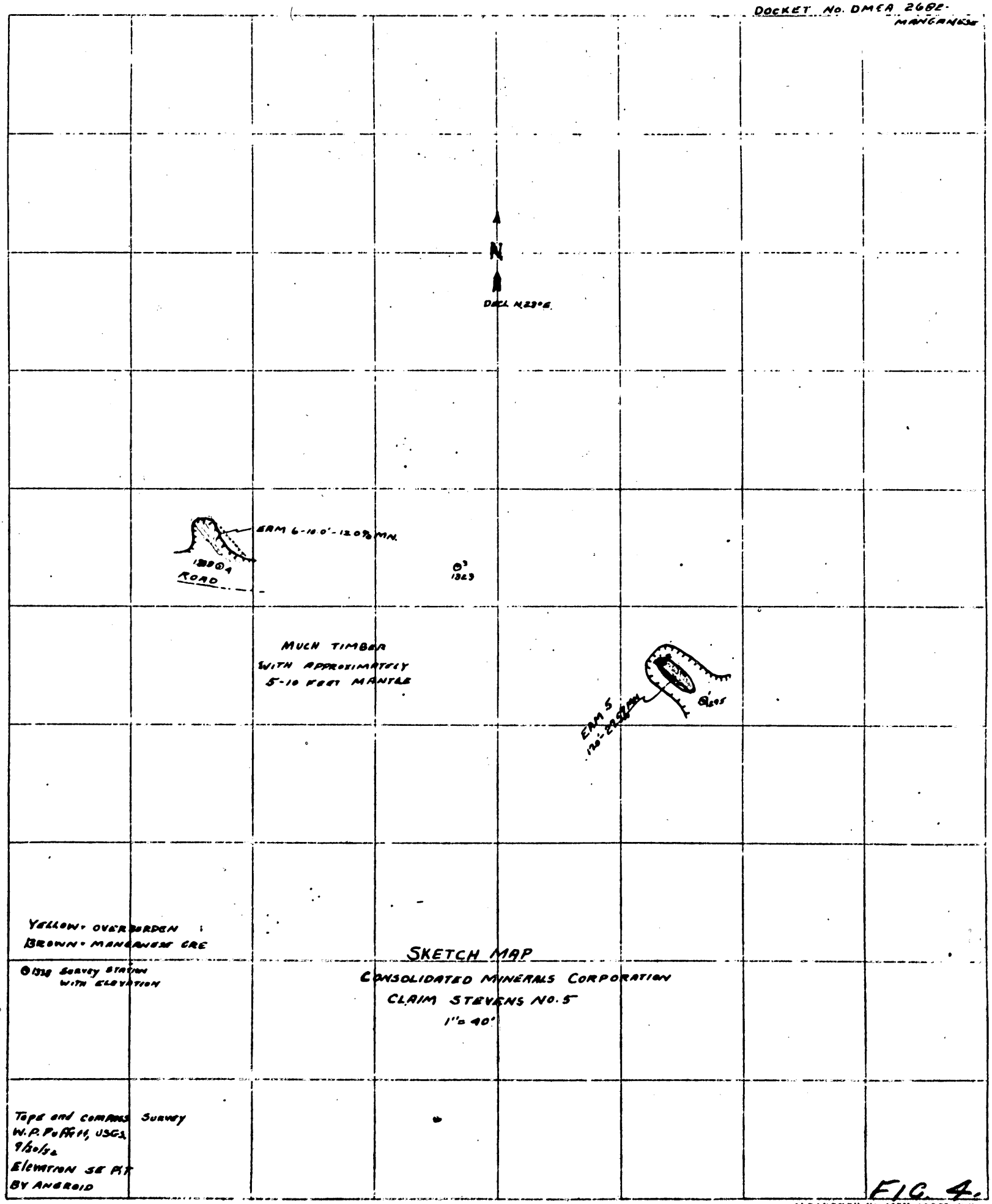
SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
CLAIM STEVENS NO. 5
1" = 40'

Tape and compass survey
W. P. Puffett, USGS
9/20/54
Elevation SE Pit
By Aneroid

FIG. 4.

"ALBANENE" No. 1559M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE



SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
CLAIM STEVENS NO. 5
1" = 40'

FIG. 4.

"ALBANENE" No. 1050M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE

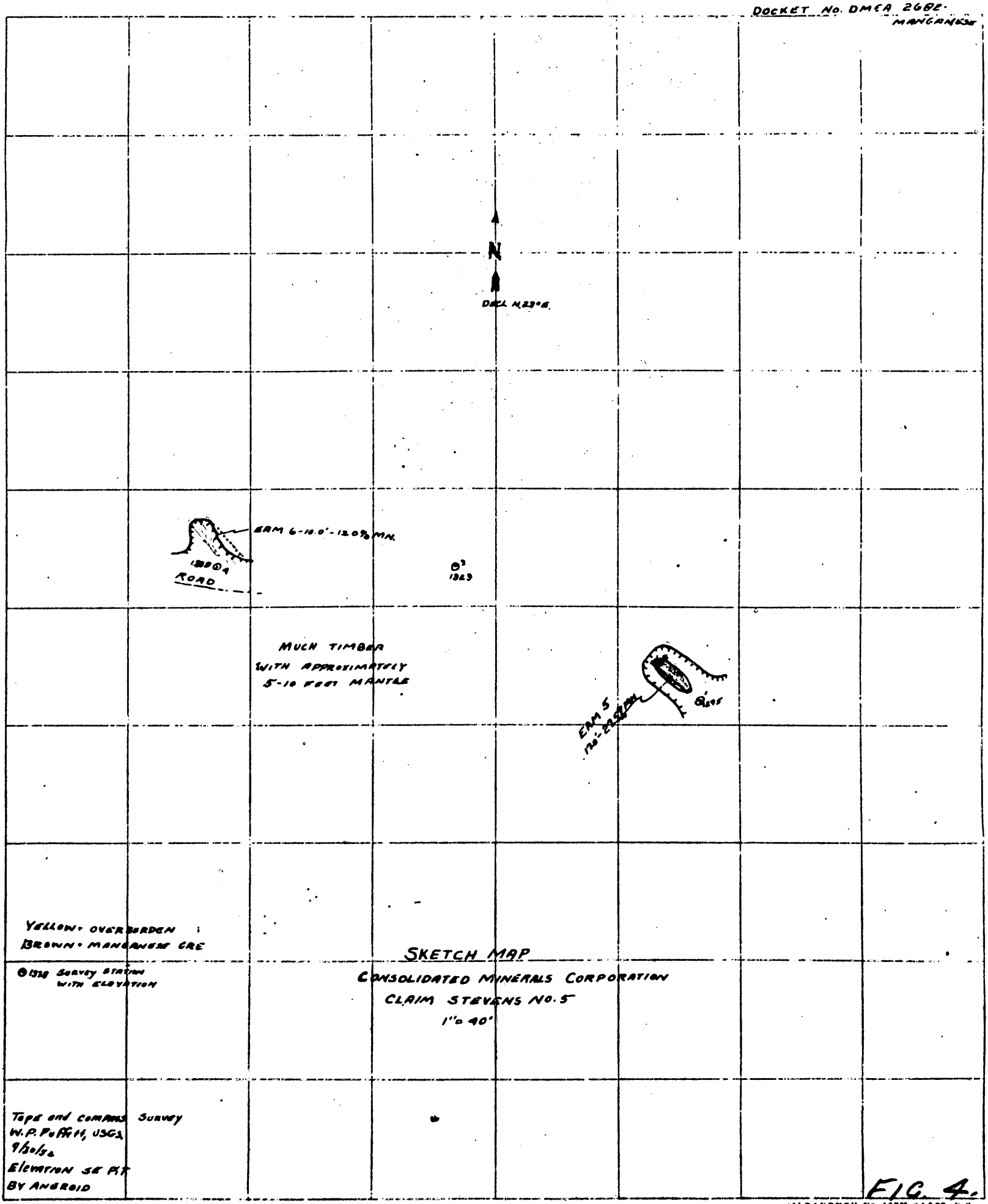
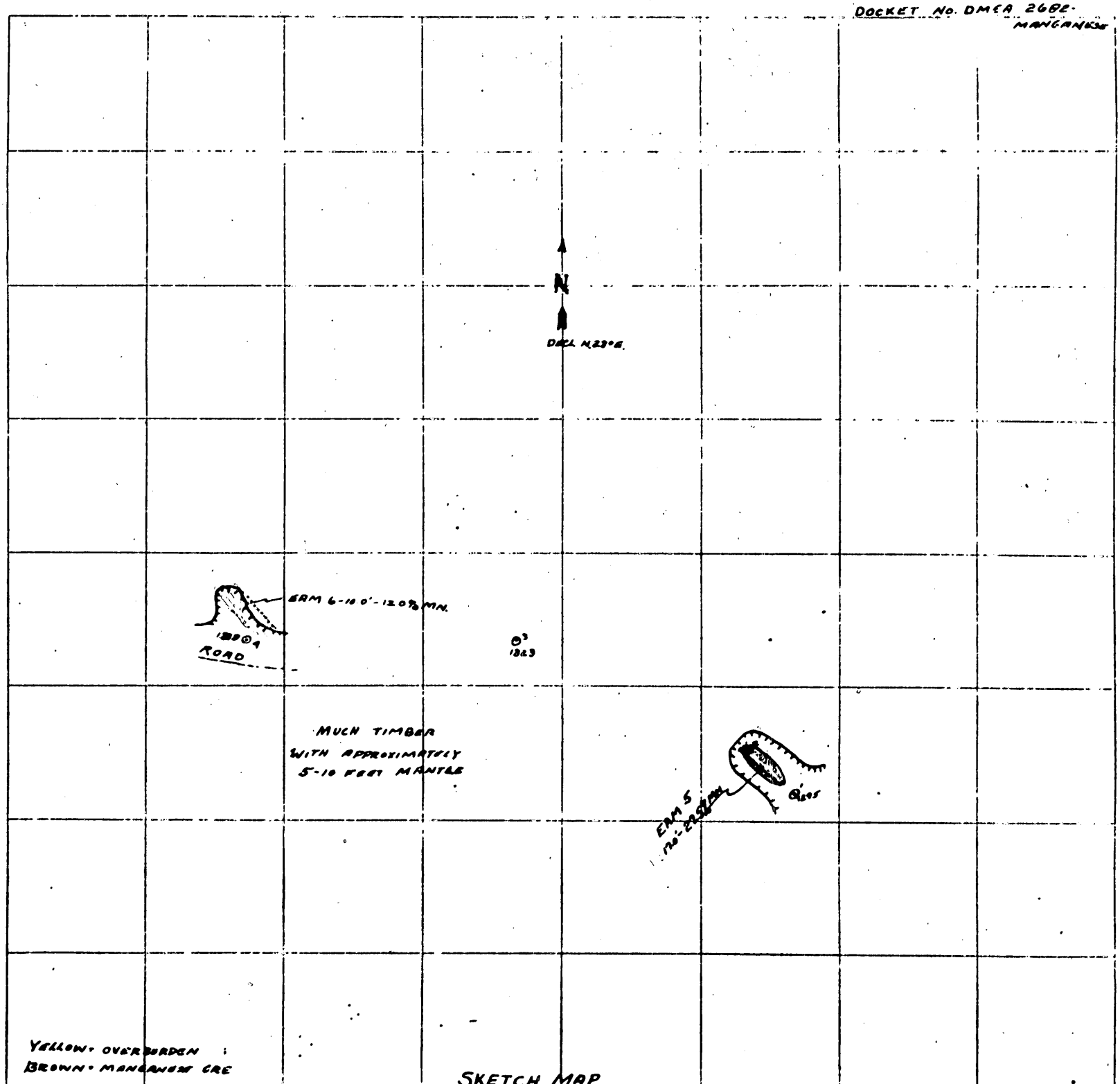


FIG. 4.

"ALBANENE" No. 105M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET No. DMEA 2682-
MANGANESE



SKETCH MAP
CONSOLIDATED MINERALS CORPORATION
CLAIM STEVENS NO. 5
1" = 40'

FIG. 4.

"ALBANENE" No. 165M K&E CO., N.Y.
REG. U.S. PAT. OFF

DOCKET No. DMEA 2682-
MANGANESE

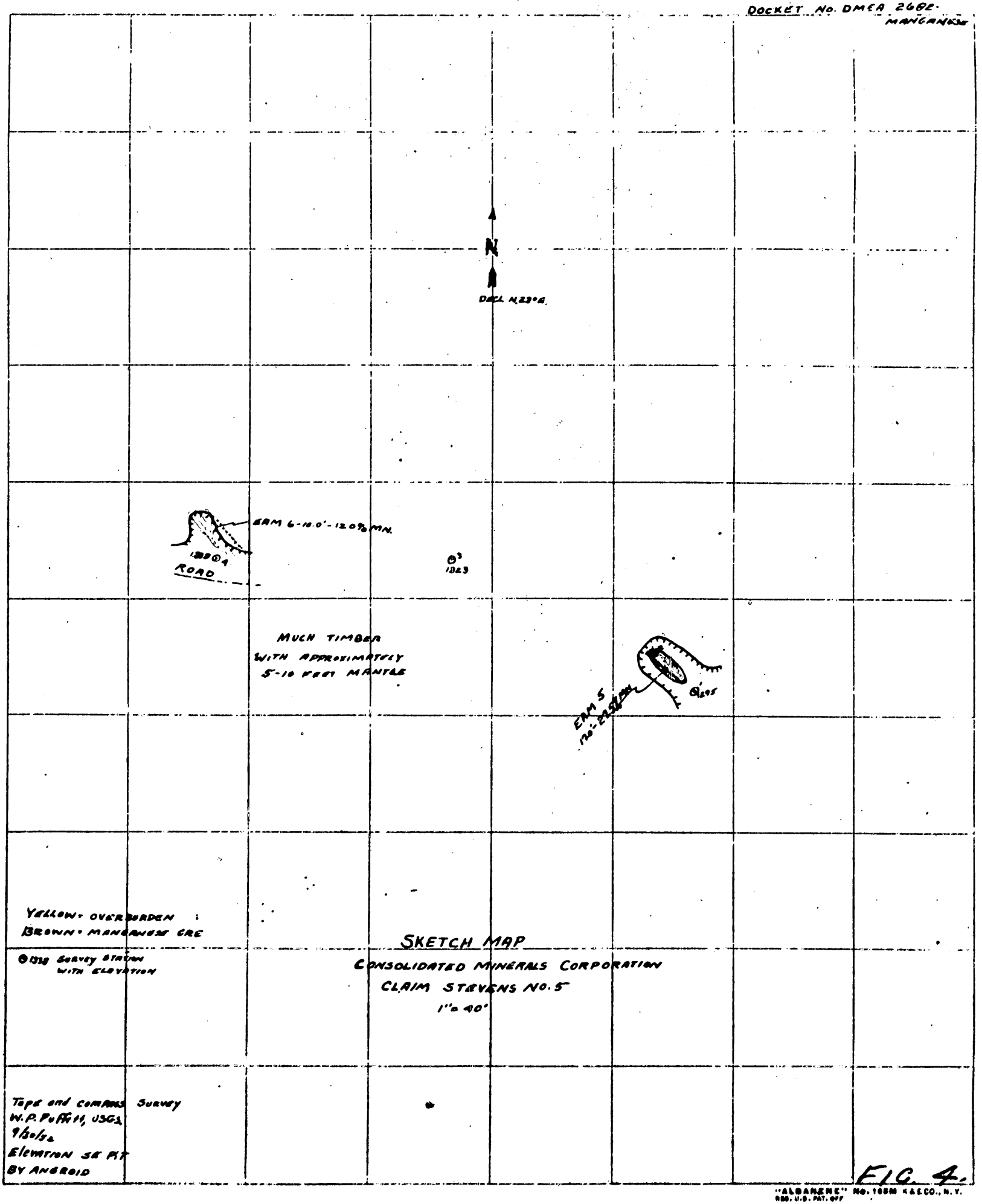


FIG. 4.

"ALBANENE" No. 188M K&E CO., N.Y.
REG. U.S. PAT. OFF.

DOCKET NO DMEA 2682
MANGANESE

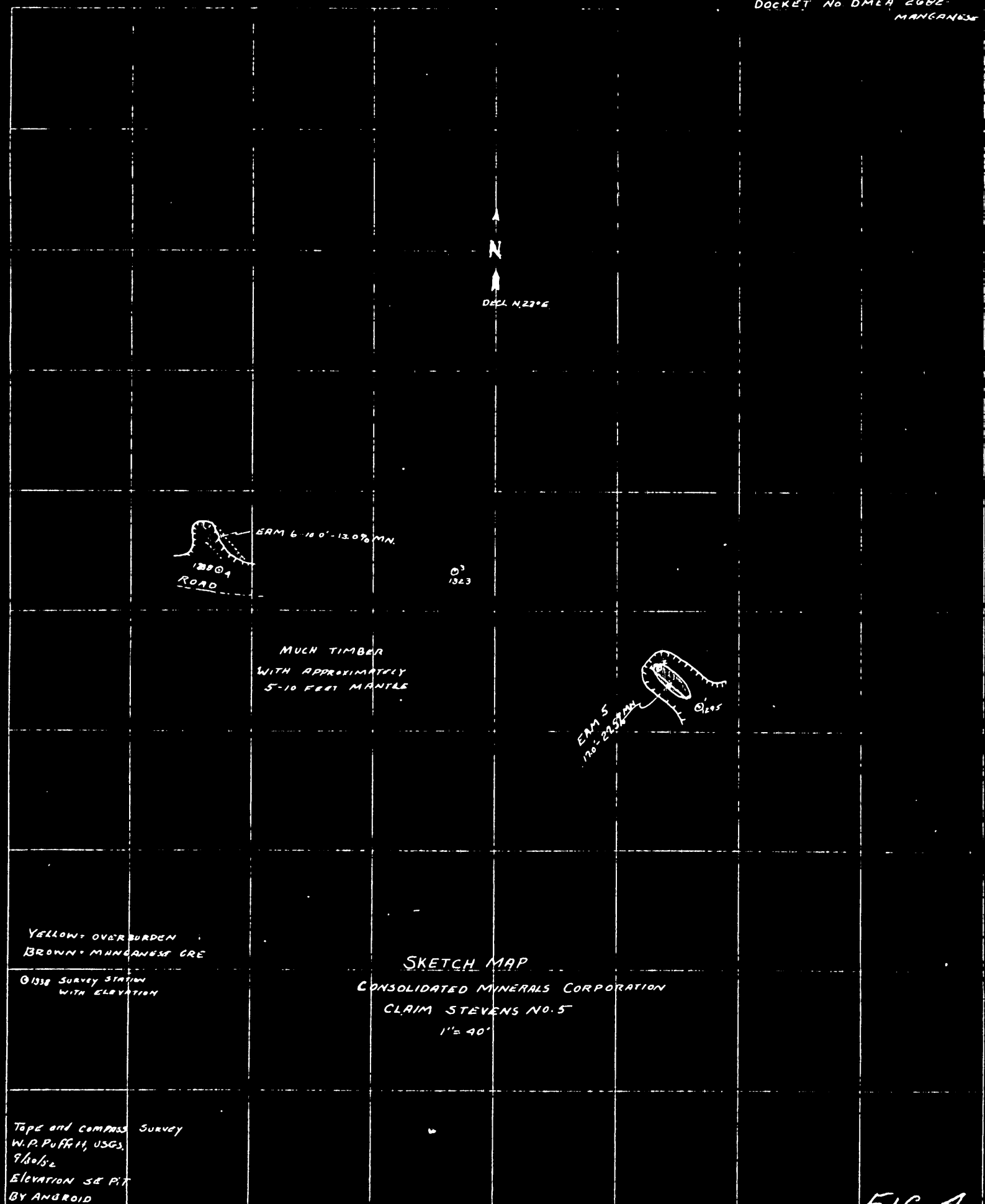


FIG. 4.

"ALBANENE" NO. 105M K&E CO., N.Y.
REG. U.S. PAT. OFF.

GS-MCl-398 Rev.

GENEVA STEEL COMPANY

L 1201

Chemical Laboratory
Chemical Analysis of Raw Material

(By Geneva Steel Company is meant COLUMBIA-GENEVA STEEL DIVISION, United States Steel Company)

DATE May 10 1952

P.O. 516

Material MANGANESE ORE

Car Numbers SP 151505 Consolidated

Silica	41.93	As	.005
Alumina	.91	Zn	.02
Lime	4.42	H_2O	6.0
Magnesia	.69		
Sulphur	.036		
Iron	11.5		
Phosphorus	.036		
Manganese	18.5		

Screen Test

Size	%
⊄ 3	40.0
⊄ 1/4	50.0
- 1/4	10.0

Remarks:

METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

by (signed) G. W. MADSEN

****

GS-MCl-398 Rev.2

GENEVA STEEL COMPANY
Chemical Laboratory
Chemical Analysis of Raw Material

L 2002

DATE July 29, 1952

P.O. 516

Material MANGANESE ORE

Car Numbers SP 152518 Consolidated

Silica	40.46	As	.01
Alumina	.89	Zn	.01
Lime	3.22	H_2O	1.1
Magnesia	1.60		
Sulphur	.033		
Iron	10.9		
Phosphorus	.042		
Manganese	18.3		

Screen Test

Size	%
⊄ 3	60.0
⊄ 1/4	30.0
- 1/4	10.0

Remarks:

METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

BY (signed) G. W. MADSEN

****

GS-MCl-398 Rev. 2

GENEVA STEEL COMPANY
Chemical Laboratory
Chemical Analysis of Raw Material

L 2001

DATE July 29, 1952

P. O. 516

Material MANGANESE ORE

Car Numbers SP 150147 Consolidated

Silica	37.20	As	.01
Alumina	1.05	Zn	.01
Lime	3.80	H_2O	1.0
Magnesia	1.42		
Sulphur			
Iron	12.4		
Phosphorus	.052		
Manganese	21.6		

Screen Test

Size	%
⊄ 3	55.0
⊄ 1/4	35.0
- 1/4	10.0

Remarks:

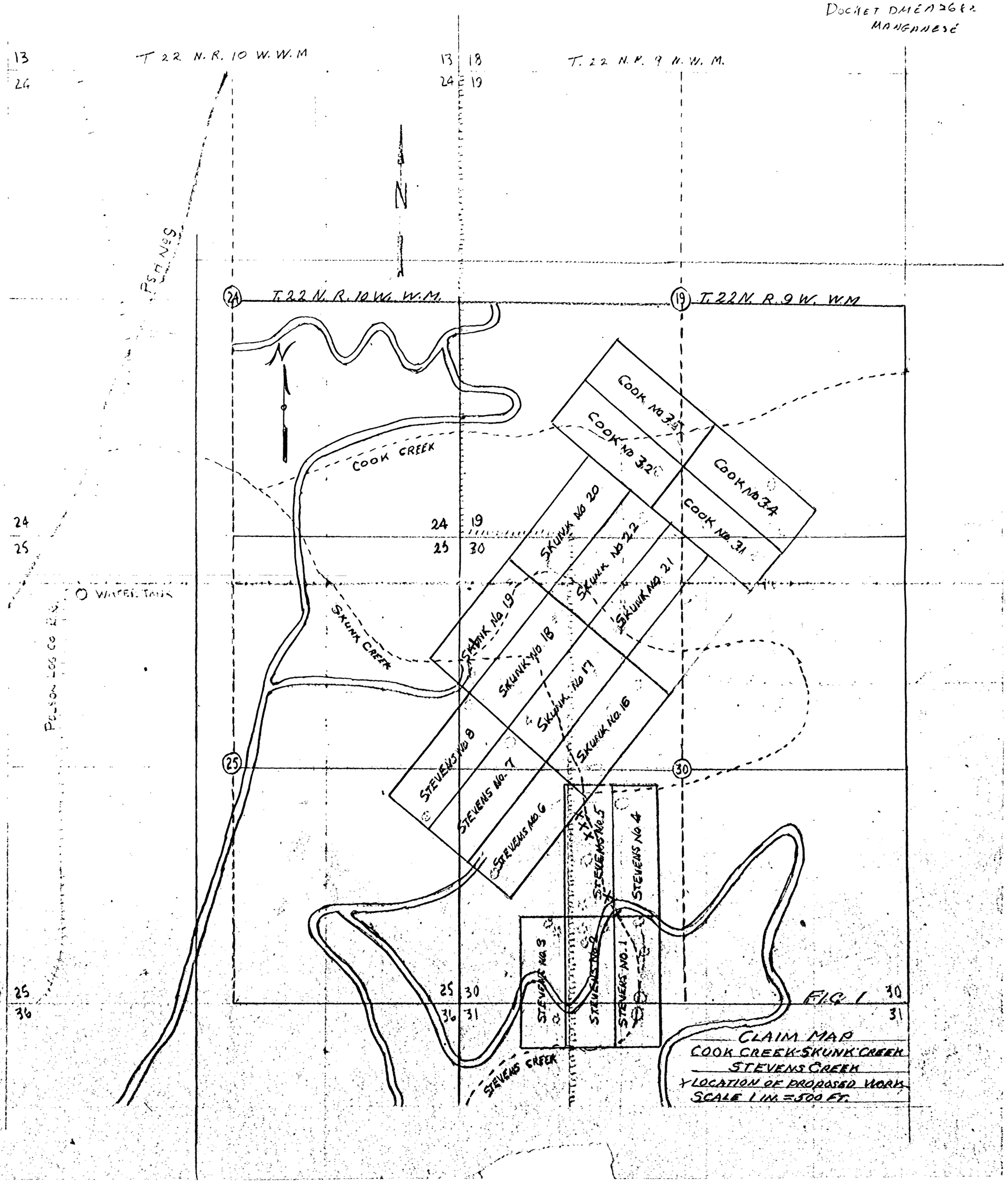
METALLURGICAL, CHEMICAL, & INSPECTION DEPARTMENT

by (signed) G. W. MADSEN

CONSOLIDATED MINERALS
CORPORATION
Seattle, Wash.

****

DOCKET DMEA 2682
MANGANESE



CLAIM MAP.
COOK CREEK - STEVENS CREEK
SKUNK CREEK.

SCALE 1 IN. = 500 FT.

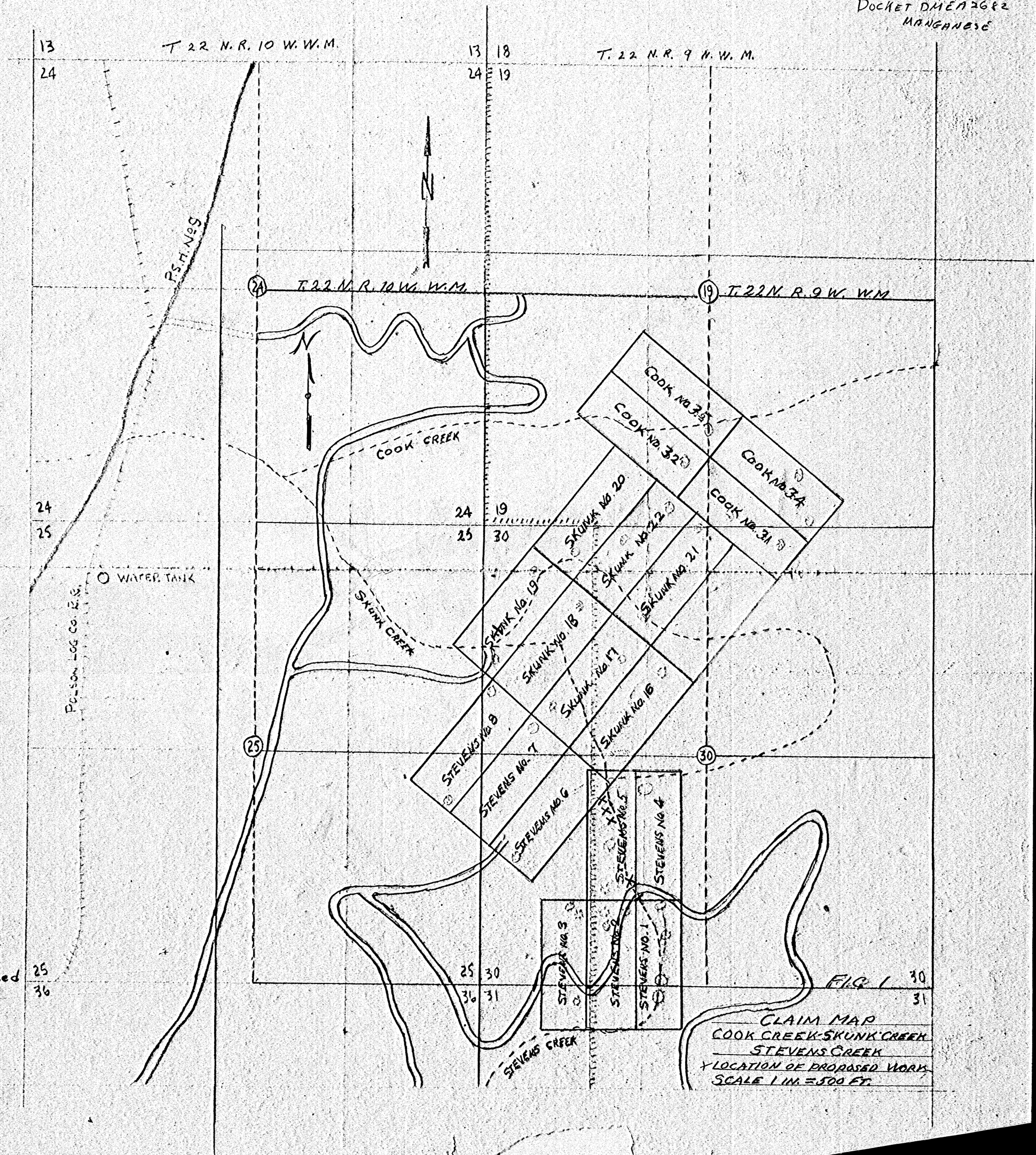
⊗ = DISCOVERIES

X = Locations of proposed work.

FIG 1

CLAIM MAP
COOK CREEK-SKUNK CREEK
STEVENS CREEK
X LOCATION OF PROPOSED WORK
SCALE 1 IN. = 500 FT.

DOCKET DMEA 2682
MANGANESE



CLAIM MAP,
COOK CREEK-STEVENS CREEK
SKUNK CREEK,

SCALE 1 IN. = 500 FT.

(19) = DISCOVERIES

X = Locations of proposed work.

FIG. 1

CLAIM MAP
COOK CREEK-SKUNK CREEK
STEVENS CREEK
X LOCATION OF PROPOSED WORK
SCALE 1 IN. = 500 FT.

DOCKET DMEA 2682
MANGANESE

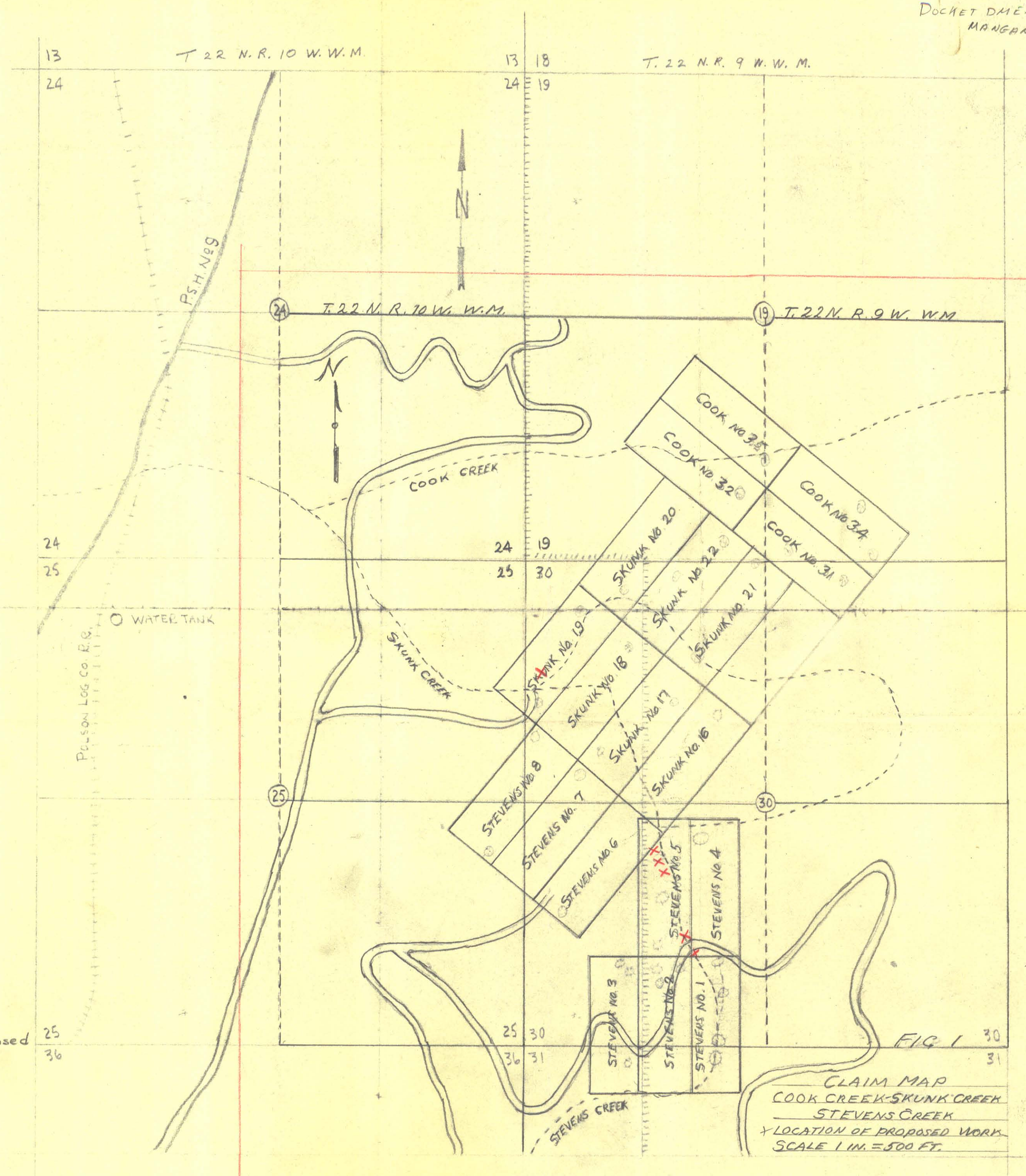


FIG 1

CLAIM MAP
COOK CREEK-SKUNK CREEK
STEVENS CREEK
× LOCATION OF PROPOSED WORK
SCALE 1 IN. = 500 FT.

CLAIM MAP.
COOK CREEK-STEVENS CREEK
SKUNK CREEK.

SCALE 1 IN. = 500 FT.

⊗ = DISCONTINUED

× = Locations of proposed work.