Correspondence - to
Aug. 3, 1957.

See folder #3

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 3 1957

DATE	INITIALS	CODE
9/3	[illegible]	220
9/4	[illegible]	800
9/4	WSM	400

1201 N. Division St.
Spokane 2, Washington

August 30, 1957

Umont Mining Company
506 Silver Bow Block
Butte, Montana

Re: Docket No. DMEA 2874
Umont Mining Company
Contract Idm-E604
Monthly operating report for
July 1957

Gentlemen:

Your attention is directed to the attached copy of a memorandum to the Field Team from the DMEA Certifying Officer which explains the addition made on the July MF-104.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I

August 29, 1957

DMEA Certifying Officer, Region I

Contract Idm-E604, Umont Mining Company
Monthly operating report for July 1957

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

An amount of $25.00 has been added to the July MF-104 submitted by the Operator. This covers 10 feet of cementing and redrilling @ $2.50/ft. The contract authorizes 300 feet of reaming and casing, cementing and redrilling. The Operator vouchered for only 290 feet but actually completed the 300 feet. Apparently this was an error in addition.

Dorothy F. Long

cc: DMEA (2)
USGS (2)

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 3 1957

DATE	INITIALS	CODE
9/3	Q	220
9/3	[illegible]	800
9/4	WSM	400

So. 157 Howard Street
Spokane 4, Washington

August 29, 1957

Mr. Dooley P. Wheeler, Jr.
General Manager
Umont Mining Inc.
Norwich Mine Division
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wheeler:

This is in further reference to our letter of July 25, 1957, addressed to Mr. Wilbur F. Criswell to which we presume you reply in the first paragraph of your letter of August 14, 1957.

We appreciate your problems of reproducing the maps, but we must point out that we do not have facilities to reproduce the maps for distribution with your monthly progress reports, and in any event, according to the DMEA contract, it is your responsibility to submit sufficient copies of all maps, sections, etc. We have been considerably handicapped in discussing with you over the telephone your proposals regarding the drilling Holes S-2, S-3, and S-4 because the only copy of the necessary maps and sections were in another office.

Therefore, we again request that you attach a copy of all such maps, sections, drill logs, assays or other appropriate documents to each of the five copies of your Narrative Report as prescribed in Article 5(b)(3) of the contract.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USGM (AD) Pring

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 3 1957

DATE	INITIALS	CODE
9/3	G	220
		130
9/3		400

Air Mail

August 29, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc., Assignee
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are two copies each of two letters dated August 14, 1957 and August 24, 1957, from Mr. Dooley P. Wheeler, Jr., vice-president of the subject company, requesting authorization to use the balance of funds authorized for diamond drilling from the surface and surface bulldozing for preparation of stations to churn drill 1 more hole about 273 feet east of the 3 diamond drill holes recently completed. This hole will be about 200 feet from the end line of the Plutus claim.

not enclosed

Also enclosed are the original and three copies of a memorandum interim inspection report by William C. Prinz, Geologist, Geological Survey, in which he discusses the surface drilling. The drilling has established the presence of a fault which has dropped the volcanics on the east. The drilling has also located the Norwich and Plutus veins on opposite sides of the fault so that the horizontal throw is now known. As pointed out in Prinz's report, the proposed hole would be so located as to cut the veins near their projected intersection about 400 feet below the surface. This intersection is an excellent locus for the formation of an ore body; moreover, this hole would also furnish valuable information regarding the depth of the dacite-granite contact, or the expected backs above the 400 level.

The 3 diamond drill holes have used up 1,138 feet of the authorized surface drilling leaving a balance of 562 feet. The reasons given by Mr. Wheeler for preferring to churn drill are well taken. The only well driller available and willing to do

this work has submitted two quotations which are also enclosed. Mr. Wheeler prefers the second quotation which is on an hourly basis for drilling, plus a cost per foot for lost casing. If there are no delays, we estimate that churn drilling will progress at 20-30 feet per 8-hour day, making the drilling cost average about $3.50 per foot, plus the cost of casing and other incidentals.

We recommend that Stage III of the contract be amended to authorize under Independent Contracts, churn drilling 1 hole to depth not to exceed 562 feet at a cost not to exceed $6.00 per foot. The difference between the estimated cost of $3.50 for drilling and the maximum allowable cost of $6.00 per foot will take care of any cost for lost casing or other unforeseeable difficulties that may arise.

By Field Team, Region I

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD) w/encl.
Prinz "

P. S. Regarding the next to last paragraph in Mr. Wheeler's letter of August 24, we have advised Mr. Wheeler by telephone that any drilling done prior to the receipt of an amendment will be at his own risk and that it is his responsibility not ours to tell the driller when to start. Wheeler said he will postpone starting the drilling until September 15.

Umont Mining Inc

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM ☒
NORWICH MINE DIVISION
P. O. BOX 727
BUTTE, MONTANA

August 14, 1957

MSOM

Mr. A. E. Weissenborn, Executive Officer
U. S. Geological Survey
South 157 Howard Street
Spokane 4, Washington

Dear Mr. Weissenborn:

When maps are needed in our DMEA reports we would like to continue our practice of submitting one map for reproduction and distribution in your Spokane office. We are spread very thin on this job and are not set up for making many copies of maps.

We were glad that you and Mr. Prince visited us last Monday. Such vists make for better understanding of our mutual problems.

Enclosed please find a copy of a letter to Boyles Brothers, requesting a bid on the drill hole 300 feet east of S 1 which we discussed.

The above drill hole will be spotted finally on the basis of information from S 1 and S 2A. Our objectives are to check the depth of volcanics and if we get through them at a depth less than 400 feet, check the Norwich and Plutus vein near their zone of intersection. The hole, we estimate, will be collared in the vicinity of coordinates 5480 North and 6120 East and will be vertical. We will not core until (or unless) we get through the volcanics, but we would hope to be able to core Bx below the volcanics for we have a chrome-lined swivel - tube core barrel that gives very good results.

The above drill hole is a departure from our Stage 3 surface drilling, consequently we would appreciate your gettin the necessary clearance, for this vertical hole and allowance for revised costs.

Yours very truly,

Dooley P. Wheeler, Jr.
General Manager

cc: Burlington, Vermont
Salt Lake City, Utah
Butte, Montana

RECEIVED
AUG 15 1957
U S G S
SPOKANE DOCK

cy to Butte

COPY

Ulmont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 727
BUTTE, MONTANA
August 14, 1957

Mr. F. M. Park
Hughes Brothers Drilling Company
2321 South Main street
Salt Lake City, Utah

Dear Mr. Park:

This is a follow-up to my letter of August 12th to you.

The $500.00 hole can be run down through volcanics by Tricone or some other type of non-coring bit. We merely want to know when we get granite so that we can core some granite and possibly vein. The hole is not for DMEA.

In addition the DMEA wants another vertical hole put down about 300 feet east of the first vertical hole that you drilled for us. This hole can go non-coring from the surface through volcanics until we get to granite. We will then proceed on down, coring Ax or larger in granite to a total depth of about 550 feet. The volcanics may be 550 feet deep or deeper; so we may never get to granite.

Please submit a bid on the DMEA hole drilled in such a manner. We hope that you can give a bid that will give us a chance to get the last hole down for much less than $6.00 per foot. Send the bid in triplicate, for we need copies for DMEA.

This vertical DMEA drill hole will probably go through the same type of volcanics that you went through in hole S 1, the first hole you drilled.

Yours very truly,

Dooley F. Wheeler, Jr.
General Manager

cc: Burlington
Butte
Salt Lake City
DMEA, Spokane

August 24, 1957

Mr. Wesley Lindsey
Price and Lindsey Well Drilling
Olney, Montana

Dear Mr. Lindsey:

For Uncut, I accept your quotation Number Two in your letter written approximately August 21, 1957.

We will expect you to move onto the job not later than September 3. You will need to be prepared to drill to a depth of 565 feet in the first holes and to take and save large samples all the way in, or rite. We will supply the sample containers.

You may consider this acceptance firm, unless you are notified to the contrary by Mr. A. E. Weissenborn of Spokane, Washington, not later than August 27, 1957.

Yours very truly

MOLLY P. WHEELER, Jr.

cc: A. E. Weissenborn

Mary

Bevins Bros.
DRILLING COMPANY

CONTRACTORS · ENGINEERS · GEOLOGISTS
General Offices
[illegible] South State Street Phone [illegible]
SALT LAKE CITY 11, UTAH

August 21, 1957 Reply to: [illegible]

Mr. Dooley P. Wheeler
General Manager
Umont Mining Incorporated
P. O. Box 727
Butte, Montana

Dear Mr. Wheeler:

I am sorry that I have been so long in submitting prices for the holes mentioned in your letter of August 14, 1957.

We submit the following prices, feeling that to give you an adequate job it will be necessary to move in a truck mount drill that quills' a larger rod for the [illegible] necessary in rock bit drilling.

1. Mobilization - $150.00

2. Drilling Rate:

   a. Drilling with Rock Bit will be $75.00 per shift, plus $2.00 per foot plus bits and drilling mud.

   b. Core Drilling to a depth of 600 feet will be $75.00 per shift, plus $3.00 per foot. Shift rate to apply to all shifts worked with crew, moving, setting up, cementing, drilling cement, reaming, installing and pulling casing, surveying or other delays ordered by the Company. Breakdown of surface equipment of over 2 hours will not be charged for.

3. Cementing, if required, will be charged for at shift rate plus the cost of cement or cement substitute, including drilling mud.

4. Reaming, if required, will be charged for at shift rate plus $1.50 per foot.

[illegible] be furnished as we want to begin [illegible]

[illegible]

6. Water to be furnished at drill site at no cost to Boyles Bros.

7. Lost Casing will be charged for at list price f.o.b. the job.

It would seem to me that AX Drilling should only be used as a last resort.

We trust these prices will make it possible to even lower the price you have set. The flexibility of this bid is that you will be able to contract the amount of core that is necessary in given areas and thus save money.

Yours very truly,

P. A. Park
Assistant Manager, Drilling Division

PAP/em

BOYLES BROS.
DRILLING COMPANY

CORPORATION
General Office
1321 South Main Street
Salt Lake City 1, Utah
July 25, 1957

Reply to:

[illegible] Wheeler, Jr.
[illegible] Company
[illegible]
[illegible]

Dear Mr. Wheeler:

We are pleased that we've [illegible] and have a good time [illegible]r. [illegible] will be [illegible] the [illegible] is [illegible].

[illegible] the [illegible] Mr. [illegible] collar [illegible] your approval [illegible] your mine at [illegible].

1. Drilling Rates — NX
[illegible] feet — [illegible] — [illegible].30

2. Cementing, [illegible] per [illegible], [illegible] drill in mud.

3. Reaming, if required, [illegible] rate of 2.[illegible] per foot.

4. Lost Casing will be charged for at [illegible], f.o.b. the job.

5. Alternate Air, after air drill [illegible] will be furnished at no cost to Boyles Bros.

6. Cementing in collar Pipe will be [illegible] at cost of casing and other materials needed, plus [illegible].50 per [illegible].

Thank you for calling on us and we trust we will hear from you in the immediate future as to your decision in this matter.

Yours very truly
s/ P. A. Park

P. A. Park
Assistant Manager, Drilling Division

Drill (2)

COPY

Price and Lindsay
Well Drilling
Clancey, Montana
August 21, 1957

Umont Mining Inc.
506 Silver Bow Block
Butte, Montana

Att: Mr. Wheeler:

1st Quotation on Churn Drilling test holes -

6" Hole - $ 6.00 per ft.

Running and pulling casing - - - - - - - - - $10.00 per hr.

2nd Quotation

$11.00 per hr. Drilling and placing and pulling 6" casing - - Plus cost of ($2.00 per ft) for any casing destroyed in operation.

Price and Lindsay

By Wesley Lindsay

RECEIVED
AUG 26 1957
U. S. G. S.
SPOKANE, WASH.

DMEA 2574 UMONT MINING, INC.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

DL = Day Letter
NL = Night Letter
LC = International Letter Telegram

the date line on domestic telegrams is STANDARD

PRA107

PD=BUTTE MONT

1957 AUG 2

EMBORN

LOGICAL

TH 1ST HOWA

LE GRA AT

THE COMPANY WILL APPRECIATE

PLEASING ITS SERVICE

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 26 1957

DATE	INITIALS	CODE
8/26	P	220
8/26	[illegible]	800
8/26	WSM	400

OFFICIAL FILE COPY
D M E A
RECEIVED JUL 29 1957

DATE		CODE
7/29	C	220
7/29		800
7/31	W 501	400

So. 157 Howard Street
Spokane 4, Washington

July 25, 1957

Mr. Wilbur F. Criswell
Resident Manager
Umont Mining, Inc.
506 Silver Bow Block
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc.
Plutus and Norwich claims
Silver Bow County, Montana
Contract No. Idm-E604 (Amended)

Dear Mr. Criswell:

In the fourth paragraph of your Narrative Report accompanying your 104's for the period June 1-30, 1957, you mention a "long section and plan showing its (hole S-1) relation to the 400 east drift face." We received only one copy of the long section and plan.

As the various copies of the Narrative Report go to different offices, please attach a copy of all supporting maps, sections, drill logs, assays, or other appropriate documentary papers to each Narrative Report.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Prinz

OFFICIAL FILE COPY DMEA RECEIVED AUG 2 1957		
DATE	INITIALS	CODE
8/2	P.K	220
8/5	[illegible]	800
8/5	WSM	400

So. 157 Howard Street
Spokane 4, Washington

July 24, 1957

Mr. Dooley P. Wheeler, Jr.
Vice President
Umont Mining, Inc.
912 Kearns Building
Salt Lake City, Utah

Re: Work Authorization
Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc. (Assignee of Irving and Nelson)
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wheeler:

This is to confirm our telephone conversation of July 23, 1957, and your telegram of July 24, 1957. Drilling of hole S-3 (S2-A) starting at the base of S-2 bearing N. 10° W. minus 77.5°, as outlined in your telegram, is approved.

Regarding the note to DMEA Field Team penned at the top of a copy of a letter dated April 15, 1957 from P. A. Park of Boyle Brothers to you, we regret that the drilling apparently is costing you more than allowed in the contract. However, this is a unit cost contract and we cannot change the rates specified in the contract.

Sincerely yours,

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

cc: DMEA (3)
USBM (2)
USBM (AD)
Prinz

(6)

Urment Mining Inc.

KING STREET DOMICIAL FILE COPY
BURLINGTON, VERMONT DMEA

RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8/5	WSM	400

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 737
BUTTE, MONTANA

July 25, 1957

Mr. A. E. Weissenborn, Executive Officer
U. S. Geological Survey
South 157 Howard street
Spokane 4, Washington

Re: Docket No. DMEA - 2674 (manganese)

Dear Mr. Weissenborn:

On July 23 our diamond drill hole S2, drilling minus 62.5° north from coordinates N 5415 E 5755 at an assumed elevation of 993 (2 feet higher than the collar of S1) hit volcanic tuff at 130 feet. We drilled to a depth of 146 feet in tuff before stopping the hole and calling you. There was minor evidence of fault adjustment near the aplite-volcanic contact. The evidence is that the aplite-volcanic contact dips 80 to 85° NE in the S1 - S2 area. We suspect that the contact is a fault contact and that the fault is the same one found in our exploratory bulldozer pits and represented by the clay hit near the end of our underground hole drilled NE from the NE corner of the face of 400 drift east.

We would like to have followed your suggestion that we continue hole S2 through the volcanics to check the Norwich vein east of the fault under the volcanics, but our evidence is strongly loaded against the probability of hitting the vein with S2. Chances are too great that S2 would re-enter aplite in the footwall of the Norwich vein. This is based upon the depth of volcanics and the Norwich vein in S1 and the depth of volcanics reported in the U.S.B.M. hole # 4 in RI4784. Futhermore, recent bulldozer work along the volcanic-aplite-granodiorite contact strongly suggests that the pre-volcanic bathelith surface in the Norwich area was one of very sharp relief wherein joints, faults and erosionally weak veins formed deep slots in the otherwise generally low relief area. Thus, volcanics can be expected to be deeper than average over sub-outcrops of veins such as the Norwich.

Consequently, yesterday, using the same drill base as S2, but collaring the hole one foot west and one-half foot south, we started another hole, called S2 A, which bears N 10° W at a minus 77.5° angle. Elevation of collar 993. This hole is designed to intersect the Plutus vein at a drill depth of approximately 200 feet and the Norwich vein at a drill depth of approximately 410 feet, west of the "fault" contact between aplite and volcanics and half way between the face of 400 drift east and D D H S1.

DMEA

Yesterday morning at 7:15, I sent you a telegram advising you of the change and requesting a telephone call if you did not approve. Not having heard from you, I assume that [illegible] 32 A.

Yours very truly,

Dooley P. Wheeler, Jr.
General Manager

cc: Burlington Vermont
Salt Lake City
Butte

DPW/ar

air mail

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

PRA051

(59).

PR BUA004 PD=BUTTE MONT 23 645AMM=

A E WEISSENBORN= [illegible] HOWARD ST [illegible] JUL 24 AM 6 08

US GEOLOGICAL SURVEY SPOKANE WASH=

DRILL HOLE S2-A STARTS AT S 2 BASE BEARING NORTH 10 WEST MINUS 77.5 DEGREES. PLEASE PHONE MF 28900 IF YOU DO NOT APPROVE. S 2 IF CONTINUED PROBABLY WOULD MISS NORWICH VEIN=

:DOOLEY WHEELER=

DMEA

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8/5	WSM	400

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8/5	WSM	400

So. 157 Howard Street
Spokane 4, Washington

July 23, 1957

MEMORANDUM

To: The Files

From: A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I

Subject: Telephone conversation with Dooley Wheeler, Jr., General Manager, Umont Mining, Inc., Plutus & Norwich claims, Silver Bow County, Montana, Docket No. DMEA-2874, Amended Contract No. Idm-E604

Wheeler called this date to request authorization to drill a second inclined hole from the surface from the site of hole S-2. The hole, S-3, would be drilled at minus 75° on a bearing of N. 10° W. to a depth of 400 feet.

After checking the results of holes S-1 and S-2 on the map and discussing the proposal with Pinckney, Prinz, and MacLaren, Wheeler was called back. His purpose is to explore the ore possibilities between the face of the 400 east drift and a fault. I urged him to deepen hole S-2 as there is a good chance that he will get the same results from that hole. However, if this turns out to be too costly (hole S-1 cost around $11/ft. in the volcanics), I authorized him to drill S-3 as he requested.

A. E. Weissenborn

cc: DMEA (2)
USBM (2)
Pinckney

Utmont Mining Inc.
KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 725
BUTTE, MONTANA

July 20, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8/5	WSM	400

Mr. P. A. Park
Boyles Bros. Drilling Co.
1321 South Main Street
Salt Lake City, 15, Utah

Dear Mr. Park:

DMEA

We have started the second surface drill hole (SX) at the Norwich. It is entirely in granite and is starting NX. The first day of drilling, yesterday, your crews got to a depth of 70 feet and cased the hole. Recovery has been poor because the ground is sandy decomposed granite, but with greater depth the ground will firm up and recovery will improve, I believe.

Hole S 2 may be our last surface drill hole, but I am having your man from Sacramento go underground today to look at some underground drilling that we want to do in our west face on the 400 level. This drilling would involve 200 to 300 feet of + 5 degree drilling, distributed in two or three holes from the same drill base. Ten foot lengths of casing would need be cemented in the collar of the hole to permit valve regulation of water that we expect to hit. We want BX core, but would be satisfied with AX at the ends of holes. Air and water would be supplied at the drill, but water pressure would need be developed by an air pump.

We would like for your company to submit a bid on the job at the earliest possible date. The rock is fresh granite. Drilling should be good except at the veins and faults where hard shattered quartz and rhodochrosite and clay can be expected. We expect to hit two of each in each hole.

The above underground drilling is not a D M E A assisted drill job, but I am sending them a copy of this letter because of their overall interest in this mine.

Yours very truly,

Bailey P. Wheeler, Jr.
General Manager

cc: Burlington Vermont
DMEA Spokane

RECEIVED
JUL 22 1957

DPW/sm

Note to DMEA Field Team: Hole S-1 was terminated at 49[illegible] feet. Norwich vein hit at 452 and had 2' [illegible]z Zns, Py, 5% Mn CO_3, mud clay and hydro M. Hole cost $11.26 per foot to end of June. Would like revised drill cost allowance from DMEA. The Boyles Bros. agreement, below, shows how we pay. Would like revised allowance along the cost lines below.

/s/ DPW,Jr.

BOYLES BROS.
Drilling Company

1321 South Main Street
Salt Lake City 15, Utah

HU 4-4401

Reply to S. L. C.

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE

April 15, 1957

Mr. Dudley P. Wheeler
Uhmont Mining Incorporated
112 Keenan Building
Salt Lake City, Utah

Dear Mr. Wheeler:

We have Mr. O. C. Bouquot's report after his inspection of your property near Boulder, Montana, for approximately 2700 feet of surface drilling and we submit the following quotation for your consideration.

Mobilization - $450.00 No DMEA

1. Drilling Rates 6.00 DMEA top.

	AX	BX	NX	PIPE
0-250 feet	$6.[illegible]	$6.90	$7.00	$7.60
250-500 feet	6.60	7.40	8.00	
500-750 feet	6.90	7.90		

2. Cementing if required will be done at $10.00 per hour plus cost of cement or cement substitutes including mud.

3. Reaming if required will be $3.90 per foot for all sizes. 2.50 allowed by DMEA.

4. Access roads and drill stations at no cost to us.

5. Water - We will pump it from mine, but water will be furnished at no cost to Boyles Bros.

6. Lost casing will be charged for at list price F.O.B. the job.

If the foregoing rates are satisfactory we would be able to mobilize and start the work immediately.

After completion of this work we will examine our costs and if our profit is excessive we will make an adjustment.

Yours very truly,

/s/ P. A. Park

P. A. Park

PAP/em

P.S. Boyles Bros. have not been doing much better than break even on this basis. D.P.W.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 8 1957

DATE	INITIALS	CODE
7-8	C	220
7/10	WSY	400

July 3, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc.
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are the Government, Audit, and Division copies of Amendment No. 2 to the contract.

Other copies of the amendment have already been distributed.

Sincerely yours,

Donald R. MacLaren

Donald R. MacLaren
Alternate Acting Executive Officer
DMEA Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)
USBM (AD)
Pinckney

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 2 1957

DATE	INITIALS	CODE
7/2	C	220
7/2	[illegible]	[illegible]
7/3	DRC	400

So. 157 Howard Street
Spokane 4, Washington

June 28, 1957

Mr. Dooley P. Wheeler, Jr.
General Manager
Umont Mining Company
506 Silver Bow Block
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc.
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Wheeler:

Enclosed is Amendment No. 2 which provides for drilling AX or EX size holes, at $5.00 and $4.75 per foot, respectively. If it meets with your approval, please sign all copies, retain that copy marked for the Operator, and return the original and four copies to this office. If it does not meet with your approval, please return all copies with your comments.

It will not be necessary for you to revoucher for any disallowances that have been made. It will automatically be taken care of by the Certifying Officer.

Sincerely yours,

Donald R. MacLaren
Alternate Act. Exec. Officer
Field Team Reg. I, NW Dist.

Enclosures

cc: DMEA (2)
USBM (2)
USBM(AD)
Pinckney

EMR

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6-17	Chapman	400
6-17	Martin	400
6-20	Chambers	800
6/21	[illegible]	130
"	Johnson	110
"	Mittelberg	109
6/21	[illegible]	220
		400

JUN 24 1957

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I, NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2874, Manganese
Umont Mining, Inc., Assignee
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Weissenborn:

Enclosed are the original and five copies of proposed Amendment No. 2, to the above-referenced amended contract, signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team.

If the conditions and terms of the proposed amendment are satisfactory to you and the Operator, all six copies are to be signed by the Operator and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

APPROVED:

Chairman, Operating Committee (JLB)

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

N. E. Nelson (JLB)
Member, Geological Survey

Enclosures

TLChapmen 6-17-57 dlm (6-10-57)
cc to : DOCKET
Adm. Reading File
Operating Committee
Gilbert DeHuff, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6-10	Chapman	400
6-10	Martin	400
		800
		130
		110
		100
		220
		400

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I, NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2874, Manganese
Umont Mining, Inc. Assignee
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-[illegible]04

Dear Mr. Weissenborn:

Enclosed are the original and five copies of proposed Amendment No. 2, ~~[illegible]~~ replacing Amendment No. [illegible] of the above referenced amended contract, signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team.

If the conditions and terms of the proposed amendment are satisfactory to you and the Operator, all six copies are to be signed by the Operator and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

TLChapman/dlm 6-10-57

cc to: Docket
Adm. Reading File
Operating Committee
Messrs Gilbert DeHuff, USBM
T.H. Kiilsgaard, USGS

Member, Bureau of Mines

Member, Geological Survey

Enclosures

8627

[illegible]

W[illegible]

[illegible]

AX [illegible]

[illegible]

of AX [illegible]

[illegible]

47

Government's Copy

AMENDED EXPLORATION PROJECT CONTRACT
UMONT MINING, INC. (ASSIGNEE)
DOCKET NO. DMEA-2874

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Umont Mining, Inc. (Assignee), that Amended Exploration Project Contract No. Idm-E604 (Docket No. DMEA-2874), executed September 19, 1956, as amended, is further amended, effective as of that date, as follows:

Amendment No. 1 is revoked in its entirety and the following is substituted therefor:

"1. In Article 1 of the Amended Contract the estimated total cost of the project is increased from $106,010.70 to $108,510.70 and the amount of Government participation at 75 percent is increased from $79,508.00 (rounded) to not to exceed $81,383.00 (rounded)."

"2. In Exhibit 'A' under Description of the Work, the following new Stage IV is added:

"Stage IV

"Diamond drill (EX minimum size) not in excess of 500 feet of hole as follows:

"From the present face of the 400 level east drift (approximately 235 east of the 400 level crosscut from the Plutus shaft) drill one hole approximately N. 45 degrees E. (approximately horizontal with the drift) for about 100 feet to explore for en echelon parts of the vein.

"At approximately 100-foot intervals, as the 400 level east drift is advanced beyond its present face, drill similar holes to check for en echelon parts of the vein. In drilling such holes, a 2-inch pipe with a valve shall be set securely to permit control of any large water flow.

Long
Kluczyn
"Appd. Sol. Off."
Chapman
Martin

"Mineralized zones shall be sampled and assayed for manganese.

"3. In Exhibit "A" under the heading Estimated Cost of the Project, Fixed Unit Cost, the following is added:

"Stage IV

Diamond drill 500 feet at the following rates:

JLC wants to know this out

BX size @ $5.25/ft.
AX size @ $5.00/ft.
EX size @ $4.75/ft.

Minimum

The unit cost includes cementing and redrilling and/or reaming and casing. Total cost not to exceed $2,500.00"

"4. The "Summary" at the end of Exhibit "A" is revised as follows:

Cost of Stage I as audited	$23,190.70
Estimated cost of Stage II	39,740.00
Estimated cost of Stage III	43,080.00
Estimated cost of Stage IV	2,500.00
Estimated total cost of the project	$108,510.70
Government participation, 75% rounded	81,383.00"

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

UMONT MINING, INC.

By_____
Administrator, Defense Minerals Exploration Administration

By_____

Title_____

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 24 1957

DATE	INITIALS	CODE
6/21	C	220
6/24	[illegible]	800
6/24	RC	400

So. 157 Howard Street
Spokane 4, Washington

June 18, 1957

Mr. Dooley P. Wheeler, Jr.
Vice President
Umont Mining Inc.
912 Kearns Building
Salt Lake City, Utah

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-2604

Dear Mr. Wheeler:

This is in reply to your letter of June 8, 1957, regarding further drilling from the surface at the Norwich mine.

Your request to drill hole S-2 in a northerly direction at about minus 62.5° is satisfactory to the Government. However, hole S-1 should be continued to a depth equivalent to the 400 level or to the granite-dacite contact, whichever come first. If the contact is an appreciable distance above the 400 level, hole S-3 should be collared about 150 feet east of S-1. However, should the contact be close to or below the 400 level, hole S-3 should be drilled about 300 feet east of hole S-1.

To change from diamond drilling to churn drilling will require an amendment to the contract. This will require bids in quadruplicate from three independent contractors. In our opinion, we will secure more accurate and satisfactory information from core drilling than from churn drilling. However, if you will secure the necessary bids, we will forward your request to Washington for their consideration.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2) w/2 copies of incoming
USBM (2)
USBM (AD)
Pinckney

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
DOOLEY P. WHEELER JR., VICE PRES.
912 KEARNS BLDG.
SALT LAKE CITY, UTAH

June 8, 1957

al
for
Lindsey
Wm
DMEA

ANSWERED

Mr. D. R. MacLaren
Field Team, Region 1, N.W. District
So. 157 Howard Street
Spokane 4, Washington

Dear Mr. MacLaren:

We are still fighting surface drill hole (#1) number one. At 247 feet we were still not to granite.

The evidence is growing stronger for a strong N-S fault between hole #1 at coordinate N5520 E5840 and proposed hole #2 at coordinate N5415 E5755. This "fault" has an undetermined throw down on its east side. Thus hole #2, if it went NE even at a steep angle might cross the fault and be in volcanics for the balance of the 600-foot drill depth. R. H. Nelson and I have concluded that hole #2 should go north about minus 62.5° in order to be sure to check the Plutus and Norwich vein before it crosses the above-mentioned fault.

The Norwich vein will be cut at an inclined hole depth range of 300 to 400 feet and the Plutus will be cut at a much shallower depth.

We would like to step out farther east from #1 and put down another vertical hole, but such a hole would need be a churn drill hole and would merely check the depth of granite east of the above-mentioned fault.

Yours very truly,

Dooley P. Wheeler, Jr.

DPW:lh

cc: Criswell, Butte
Nelson, Butte
Burlington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

DMEA

JUN 11

Uranium Mining Inc

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 737
BUTTE, MONTANA

June [illegible], 19[illegible]

OFFICIAL FILE COPY DMEA RECEIVED JUN 17 1957		
DATE	INITIALS	CODE
6/17	C	220
6/18	[illegible]	800
6/20	WSM	400

Mr. D. R. MacLaren
[illegible] Team, [illegible]
[illegible] 157 Howard Street
Spokane 4, Washington

Dear Mr. MacLaren:

Enclosed please [illegible] copies of Amendment [illegible] of Contract [illegible]

We sincerely [illegible] for [illegible] that we have [illegible] we have [illegible] any [illegible] cleared.

Please let us know if you [illegible] whether the above role.

Yours very truly
Uranium [illegible]

Dudley P. Wheeler, Jr.
General Manager

Enc. 1
cc: Wilbur Criswell
Burlington file
Salt Lake file

DMEA

RECEIVED
[illegible] 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1957

DATE	INITIALS	CODE
6/10	JWG	220
		~~700~~ notours.
6/12	WSOJ	~~700~~

June 7, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc. (Assignee of Irving and Nelson)
Plutus and Norwich claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are the Government, Audit, and Division copies of Amendment No. 1 to the contract.

Other copies of the amendment have already been distributed.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: USBM (2)
USBM (AD)
Pinckney

Amend #1

orm 7
5)

OFFICIAL FILE COPY

Date	Surname	Code
5/29	Chapman	400
5/29	Martin	400
		140

INTERIOR DEPT.
MAY 31 1957
SOLICITOR

May 29, 1957

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys

Subject: Docket No. DMRA 2874 - Manganese
Uncent Mining, Inc., (Assignee)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Attached is rough draft of Amendment No. 2 to the above captioned contract for your use in preparing in final form.

W. S. Martin

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

Attachment

TLChapman:foc
5/29/57
cc to: Docket
Chron.

RECEIVED
MAY 31 1957
ASSOC. SOLICITOR
MINERAL RESOURCES

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 24 1957

DATE	INITIALS	CODE
5/24	C	220
5/27	WSM	400

May 21, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc.
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

The Operator's narrative report for the period April 1, 1957 to April 30, 1957 describes drilling an underground diamond drill hole N. 45° E. to a depth of 86.5 feet, as follows:

"This hole was started BX with the intention it would at no time be reduced to less than AX in size and the driller was so instructed. However, at 15 feet of advance he, without authorization, reduced to EX size because of unfavorable ground conditions and had proceeded 20 feet with this size before it was discovered. The hole was taking so much time, and costing so much money, it was not deemed advisable to require him to back up for reaming and casing to AX size through the difficult ground and it was allowed to proceed EX size. This hole cost a total of $534.82 or $6.18 per foot and required 12 days to complete. As completed, it was drilled BX 0-11 feet, AX 11-15 feet, and EX 15-86.5 feet."

Equally bad ground may be expected in other underground drilling.

Amendment No. 1 specifies a minimum size of AX for underground drilling, and provides for a unit cost of $5.00 per foot including cementing, redrilling, reaming, and casing. Therefore, we are disallowing payment for the final 71.5 feet of this hole.

In view of the above and the probability of equally bad ground being encountered in future underground holes, we recommend that an amendment be prepared allowing EX drilling at $4.75 per foot.

Until we receive a signed copy of Amendment 1 (see our letter to you of May 10, 1957), we are also withholding payment of the first 15 feet of this hole.

By Field Team Region I, NW Dist.

Wing G. Agnew

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren

Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: USBM (2)
USBM(AD)
Pinckney

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 24 1957

DATE	INITIALS	CODE
5/24	C	220
		800
5/27	WSM	400

1201 N. Division Street
Spokane 2, Washington

May 20, 1957

Umont Mining Company
506 Silver Bow Block
Butte, Montana

Re: Contract No. Idm-8604
Monthly operating report
for April 1957

Gentlemen:

This is to inform you that payment could not be made in the full amount claimed on the subject voucher.

The deletion is explained in the attached copy of a memorandum to the Field Team from the DMEA Certifying Officer, Region I.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I, NW District May 20, 1957

DMEA Certifying Officer, Region I

Contract Idm-2604, Uncmt Mining Company
Monthly operating report for April 1957

The subject operating report has been processed and forwarded to the Disbursing Officer for payment.

A disallowance of $432.50 has been made covering costs claimed for 86.5 feet of diamond drilling. Authority for drilling this hole is provided in Amendment No. 1 and the signed Amendment has been reported lost in transit. Upon receipt of Amendment No. 1 the Operator may reclaim 15 feet of the 86.5 feet previously vouchered. The 71.5 feet is disallowed because it does not conform to AX size specified in the contract.

Dorothy F. Long

cc: DMEA (2)
USGS (2)

COPY
DMEA
RECEIVED
DATE
5/27 W509 400

No. 157 Howard Street
Spokane 4, Washington

May 8, 1957

Mr. Dooley P. Wheeler, Jr.
Vice President and General Manager
Umont Mining, Inc.
Silver Bow Block
Room 506
Butte, Montana

Re: Docket No. [illegible]A-2374 (Manganese)
Umont Mining, Inc. (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-[illegible]

Dear Mr. Wheeler:

On March 5, 1957, we forwarded to you the original and five copies of a proposed Amendment No. 1 to this contract. On March 26, we advised you by telephone that we would insert "effective as of the effective date of the Amended Contract" after the word amended in the first paragraph of Amendment No. 1 and requested that if the proposed amendment were otherwise acceptable, you initial all copies on that line and sign all copies of the amendment, returning them to this office. We would then type in the above phrase and return the "Operator's Copy" to you.

We have since heard nothing further and would appreciate learning your intentions regarding the amendment.

Sincerely yours,

A. L. Weissenborn
Executive Officer,
Field Team, Region 1
Northwest District

cc: [illegible] (2)
[illegible] (2)
[illegible] (A.)
Hockney

OFFICIAL FILE COPY
D M E A
RECEIVED MAY 13 1957

DATE	INITIALS	CODE
5/13		
5/13		220
5/13	WSM	800
		400

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-21	Chapman	400
5-21	Martin	400
5-21	Chamber	300
5/22	GCS	130
"	Mitchenda	100
5/23		220
		400

MAY 22 1957

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I, N. W. District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Umont Mining, Inc., Assignee
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-R604

Dear Mr. Weissenborn:

Your letter of May 10, 1957, reports the loss in transmittal from the Operator of signed Amendment No. 1 to the above-noted Amended Contract.

We are therefore enclosing, for transmittal to the Operator for signature, copies of the amendment signed by the Administrator for the Government, with the added clause "effective as of the effective date of the amended contract."

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (2/6)

APPROVED:

Frank D. Lamb (2/6)
Member, Bureau of Mines

Thor H. Kiilegaard (2/6)
Member, Geological Survey

TLChapman:am 5-21-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG I, NWDist.
Messrs. G. DeHuff, Jr., USBM
T. Kiilsgaard, USGS

Enclosure

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 13 1957

DATE	INITIALS	CODE
5-13	C	220
		130
5/14	WSay	400

May 10, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc. (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

On March 5, 1957, we forwarded to the above-referenced Operator for his signature the original and five copies of a proposed Amendment No. 1 to Contract Idm-E604. We wrote the Operator again on May 8, 1957, advising him that we had heard nothing further from him and asking him what his intentions regarding the proposed amendment No. 1 might be.

Today Mr. Dooley P. Wheeler, Jr., Vice President and General Manager of Umont Mining, Inc., telephoned the Executive Officer to say that he had mailed the signed copies of the amendment about a month ago. We have checked our files and can find no evidence that the amendment was received from the Operator.

In view of the apparent loss of the amendment in the mail between Butte and Spokane, will you please have copies of the proposed Amendment No. 1 prepared, adding, after the word "amended" near the end of the first paragraph, "effective as of the effective date of the amended contract", in accordance with your teletype of March 26, 1957.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: USBM (2)
USBM (AD)
Pinckney

OFFICIAL FILE COPY
DMEA
RECEIVED APR 15 1957

DATE	INITIALS	CODE
4/15	C	220
4/16	[illegible]	800
		225

So. 157 Howard Street
Spokane 4, Washington

April 10, 1957

Mr. Dooley P. Wheeler, Jr.
General Managar
Uncut Mining, Inc.
Norwich Mine Division
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Uncut Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wheeler:

Thank you for your letter of April 9, 1957. You are correct in assuming that there was a typographical error in the Field Team letter of April 5. The coordinates of the proposed hole are 5415N and 5755E as you stated.

The inclination will depend on the results of the vertical hole and can be left to your good judgment.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2)
USBM (2)
USBM (AD)
Pinckney

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 727
BUTTE, MONTANA

April 9, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED APR 15 1957

DATE	INITIALS	CODE

A. E. Weissenborn, Executive Officer
U. S. Geological Survey
S. 157 Howard St.
Spokane 4, Washington

Dear Mr. Weissenborn;

This will acknowledge your letter of April 5, regarding diamond drilling under Docket no. DMEA-2874.

Your suggested inclined hole at about co-ordinates 5415 north and 5155 east, bearing about N. 45° east, must be a typographical error. I assume that you mean 5755 east rather than 5155 east.

About Friday of this week we expect to have a bull dozer prepare the bases and access roads; consequently I would like verifications of the co-ordinates of the inclined hole.

I assume that the inclination of the inclined hole will be left up to us depending upon the results obtained in the vertical hole. If this is not the case please instruct us regarding your wishes.

We have not yet selected a drill contractor but we do expect to be drilling before the end of April.

Yours very truly,
Umont Mining, Inc.

Dooley P. Wheeler, Jr.
General Manager

DPW:mm

OFFICIAL FILE COPY DMEA RECEIVED APR 8 1957		
DATE	INITIALS	CODE
4/9	C	220
4/9	[illegible]	800
		225

So. 157 Howard Street
Spokane 4, Washington

April 5, 1957

Mr. Dooley P. Wheeler, Jr.
Vice President
Umont Mining, Inc.
912 Kearns Building
Salt Lake City, Utah

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wheeler:

This letter is in reference to the discussion in the field between yourself, Mr. Nelson, Mr. Bowsher and Mr. Pinckney concerning the selection of the drilling sites for the surface drilling specified in the Norwich contract.

We are in agreement that an appropriate site for the vertical hole is approximately at coordinates 5520N and 5840E, or about 185 feet east of the present face of the 400 level east drift. This hole should be drilled until granite is penetrated, provided the rhyolite-granite contact is no deeper than 500 feet. Subsequent drilling will depend on the depth to granite. If the top of the granite is greater than 200 feet below the surface, we agree that the hole should be continued in the granite to a depth of 500 feet in an attempt to locate the Norwich veins. We then suggest an inclined hole at about coordinates 5415N and 5155E bearing about N. 45° E. This would determine the attitude of the rhyolite-granite contact and give evidence of possible faulting. We think that this would be better than the incline hole you propose along coordinate 5840E as the hole proposed by you would be collared in the volcanic rocks.

If, in the first hole, the top of the granite is reached at less than 200 feet, then we are in agreement with your proposal for one or more vertical holes to the east to determine the

configuration of the granite surface. Once this is known, inclined holes can be laid out to explore for the presumed eastward extension of the Norwich vein as provided for in the contract.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Pinckney

DMEA Form 7
(12-56)

INTERIOR

DMEA

OFFICIAL FILE COPY

Date	Surname	Code
3-26	Chambers	800
	Rubin	140
3/26	Selfridge	400
3/26	Martin	400
"		130
3/26	Johnson	110
26	Mittendorf	100
3/27	C	220
		225

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXX

14X4401(01) Revolving Fund,
Defense Production Act, Interior (TRANSFER
Working Fund to the Office of the Secy.)

Hold until surveys
office becomes

T E L E T Y P E

MAR 26 1957

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

RE YOUR INQUIRY CONCERNING DOCKET DMEA 2574 UNCONT, AMENDMENT NO. 1

DRILLING, YOU ARE AUTHORIZED TO INSERT A COMMA IN THE FIRST PARAGRAPH

AFTER THE WORD AMENDED, FOLLOWED BY QUOTE EFFECTIVE AS OF THE EFFECTIVE DATE OF

THE AMENDED CONTRACT, COMMA. UNQUOTE.

C. O. Mittendorf (for)

C. O. MITTENDORF
ADMINISTRATOR, DEFENSE MINERALS
EXPLORATION ADMINISTRATION

SPHolt:am 3/26/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG I NWDist
Messrs. G/ DeHuff, Jr. USBM
T. Kiilsgaard, USGS

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 11 1957

DATE	INITIALS	CODE
3/12	C	420
		225

March 8, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Under separate cover, we are sending to you two copies of a map showing the geology of the 400 level, Norwich mine, and two copies of an overlay showing sample locations and assay values. This map was prepared by the Umont Mining Company and was furnished us to use as a reference base.

The west drift is somewhat farther advanced than is shown on the map and the two veins seem to have come together, making a very wide ore shoot. The DMEA portion of the west drift is restricted to the first 150 feet west of the crosscut, but royalty is due (and being paid) on all ore mined from the level up to the property line. The Operator believes that possibly other ore shoots may lie along the extension of the structures that continue southerly where the east drift makes a bend to the southeast. These structures form the target for the northeasterly drilling provided in Amendment No. 1.

By Field Team, Region I, NW Dist.

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Stephen W. Zoldok
for Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
USBM (AD)
Pinckney
Separate cover

OFFICE RECORDS COPY		
RECEIVED MAR 8 1957		
DATE	REMARKS	CODE
3/8	C	220
4/18	[illegible]	800
		225

So. 157 Howard Street
Spokane 4, Washington

March 5, 1957

Mr. Dooley P. Wheeler, Jr.
Vice President and General Manager
Umont Mining, Inc.
Silver Bow Block
Room 506
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc. (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Wheeler:

Enclosed are an original and five copies of a proposed Amendment No. 1 to the above-referenced contract, signed by the Administrator for the Government. This amendment does not provide for any drilling ahead of the east drift for reasons given in my letter air mailed to your Salt Lake City address on March 4. In case this letter has not yet reached you, a copy is enclosed.

You will note that, rather than disturb the surface drilling program as authorized by the contract, additional funds have been provided to drill from the east drift, five 100-foot holes bearing N. 45° E. and spaced at about 100 foot intervals.

If the terms and conditions of this proposed amendment are acceptable, please sign all six copies, retain the one marked "Operator's copy," and return the other five copies to this office. You would still be free to discuss the problem further with Mr. Martin when you are in Washington should you so desire.

If the amendment is not acceptable, please return all six copies, unsigned, to this office.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: DMEA (2)
USBM (2)
USBM (AD)
Pinckney

xxxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

3-7 C 220
3/8 800
225

March 4, 1957

Air Mail

Mr. Dooley P. Wheeler, Jr.
Vice President
Uncent Mining Inc.
912 Kearns Building
Salt Lake City, Utah

Re: Docket No. DMEA-2874 (Manganese)
Uncent Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-5604

Dear Mr. Wheeler:

Your request for an amendment to the DMEA contract to permit additional drilling from the 400 drift east of the Norwich mine has been sent to Washington together with the Field Team's recommendation. From conversations during my recent trip to Washington, I should judge that DMEA will agree to go along with the drilling to the north of the east drift but may regard the drilling ahead of the face as something that, if it is necessary that it be done, should be included in the cost of drifting. To date, however, we have had no official word on this matter.

I feel certain that any drilling that is approved will be at the same rate as the underground drilling already provided for in the contract.

If you are going to be in Washington, D. C. in early March, I think that it would be quite appropriate for you to call on Mr. William S. Martin of the Ferro-Alloys Division and discuss your problem with him. I am sure that Mr. Mittendorf and Mr. Selfridge would be glad to see you, also.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2) w/2 copies of incoming
USBM (2)
USBM (AD)
Pinckney

DMEA Form 7
(12-56)

MAR - 1 1957

OFFICIAL FILE COPY

Date	Surname	Code
2/26	Chapman	400
2/26	Martin	400
2/27	Jaffurt	800
3/1	Selfridge	130
"	Johnson	110
"	Mustedoy	100
		220

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I, N. W. District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Umont Mining, Inc., Assignee
Plutus and Norwich claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Weissenborn:

Enclosed are the original and five copies of a proposed Amendment No. 1 to the above referenced amended contract, signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team.

If the conditions and terms of the proposed amendment are satisfactory to you and the Operator, all six copies are to be signed by the Operator and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

TLChapman:am 2-26-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG I, NWDist
Messrs. G. DeHuff, USBM
T. Kiilsgaard, USGS

Enclosure

8623

Government's copy

AMENDED EXPLORATION PROJECT CONTRACT
UMONT MINING, INC., (Assignee)
DOCKET NO. DMEA-2874

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1957 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Umont Mining, Inc., Assignee, that Amended Exploration Project Contract No. Idm-E604 (Docket No. DMEA-2874), dated September 21, 1953, is amended as follows:

1. In Article 1 of the Amended Contract the estimated total cost of the project is increased from $106,010.70 to $108,510.70 and the amount of Government participation at 75 percent is increased from $79,508.00 (rounded) to not to exceed $81,383.00 (rounded).

2. In Exhibit "A":

(a) Under the "Description of the Work", not to exceed an aggregate of 500 feet of diamond drilling work (AX minimum size) is added to the work to be performed under the Amended Contract, as follows:

From the present face of the 400 level east drift (approximately 235 feet east of the 400 level crosscut from the Plutus shaft) drill one ~~horizontal~~ hole approximately N. 45 degrees E. for about 100 feet to explore for en echelon parts of the vein. (approximately horizontal with the drift)

Drill another hole, about 200 feet long, from the face of the 400 level east drift to explore for volcanic rocks, faults and gouges, and water flow ahead of the face of the drift. A 2-inch pipe with a valve shall be set securely in this drill hole to permit control of any large water flow.

Any portion of the 500 feet of drilling remaining after the completion of the two holes described under this Paragraph 2(a) shall be available for further exploration as approved in writing by the Government.

Mineralized zones shall be sampled and assayed for manganese.

(b) Under the "Estimated Cost of the Project", the following item is added:

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1957

DATE	INITIALS	CODE
3/4	C	220
		225

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

March 1, 1957
Re: DMEA 2874 Idm-E604
Umont Mining, Inc.
Plutus and Norwich mines
Silver Bow County, Montana
Manganese

Memorandum

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

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

Subject: Review of application for an amendment approving 'switch' in drilling from surface to underground.

The contract, awarded as an amendment to Idm-E604, approved the expenditure of $106,010.70 on work in the Norwich vein, on the 400 level of the Plutus shaft, and on surface diamond drilling.

The approved underground work as planned consists essentially of a drift on the vein to, through and beyond a dike. As a result of surface mapping, the dike conception has changed and the presence and location of intrusive and/or volcanic rocks at the 400 level horizon are now matters of conjecture.

To anticipate possible trouble from water and to learn more concerning the ground ahead of the drift, the applicant requests approval of an amendment permitting a switch in the approved surface drilling footage to drilling from the 400 level drift.

In driving the drift easterly from the crosscut an oreshoot about 70 feet long was 'discovered'. It is cut by faults and at the east end stringers out in the drift, but there may be strands of ore in the foot wall. The proposed drilling would probe ahead for the dike (and water) and sidewise for possible strands in the walls of the drift.

I concur with the Field Team in its recommendation that the switch in drilling be approved.

N. E. Nelson
N. E. Nelson

Umont Mining Inc

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
DOOLEY P. WHEELER JR., VICE PRES.
912 KEARNS BLDG.
SALT LAKE CITY, UTAH

Mr. A. E. Weissenborn, Executive Officer
Defense Minerals Exploration Administration
S. 157 Howard Street
Spokane, Washington

Re: Amendment to Contract No. DMA-FA-02

Dear Mr. Weissenborn:

In my letter to you of January 8, 1957 I suggested that DMEA amend our contract to permit us to drill [illegible] feet of additional diamond drilling out of 400 drift east on the [illegible] level of the Norwich mine; said drilling to be for the purpose of safety and exploration as indicated by the second paragraph from the bottom of page one of my letter to you of January 8, 1957.

You subsequently examined the Norwich mine and went over the proposed amendment with us in the office and the field.

We are very interested in having the amendment made and since I am going to be in Washington, D.C. in early March I wonder if there is something I can do to expedite same.

We drilled one 86-foot hole which was in progress while you were at Butte. For the hole we paid the contractor $320.00 and supplied a helper for a week and water, air, timber, etc. The air probably cost ten cents a foot and the helper $140.00. Thus the total cost of the hole was close to probably $468.60 for 86 feet, not counting our supervisory and geological costs. This amounts to about $5.45 per foot. Therefore, for the deeper holes that are contemplated I think that $6.00 per foot is about right for underground drilling.

Yours very truly,

DPW:lh

Dooley P. Wheeler, Jr.

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 18 1957

DATE	INITIALS	CODE
2-18	C	220
	G.	225

February 12, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining, Inc., (Assignee of Irving and Nelson)
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604 (Amended)

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum from A. E. Weissenborn, geologist of the U. S. Geological Survey on the above-referenced Operator's request for additional underground diamond drilling.

Weissenborn points out that the probability of the existence of ore shoots north of the 400 level drift justifies drilling in that direction, and that there is a bare chance that the Operator's fear of encountering an excessive flow of water may be justified. He, therefore, recommends that 500 feet of diamond drilling at $6 per foot be transferred from the surface and allowed as 600 feet at $5 per foot for additional underground drilling.

The Field Team concurs with this recommendation.

By Field Team, Region I, NW District

Wing G. Agnew

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren

Donald R. MacLaren, Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2)
USBM (AD)
Pinckney

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 18 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

February 12, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. E. Weissenborn, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-2874 (Manganese), Umont Mining, Inc., (assignee of Irving and Nelson), Plutus and Norwich Claims, Silver Bow County, Montana, Contract No. Idm-E604 (Amended).

On Friday, January 18, 1957, I visited the Norwich mine accompanied by John Bowsher of the Bureau of Mines, Dooley Wheeler of Umont Mining, Inc., and Robert Nelson of Irving and Nelson. The purpose of the visit was to obtain further information for the diamond drilling requested by Wheeler in his letter of January 8, 1957.

The east drift on the 400 level of the Norwich mine exposes an ore shoot about 70 feet long and extends eastward about 50 feet beyond the last ore showing. The vein appears to have weakened towards the east but it is evident that the structure is complex. There is a good possibility that the vein has branched and that the ore shoot has followed a branch vein into the north wall of the drift. There is also a definite possibility that there are other veins to the north of the drift; therefore, there is obvious justification for the proposed hole to the north to explore for possible ore shoots in the wall of the drift. The current progress map shows this situation quite clearly.

The reason for the requested 200-foot diamond drill hole ahead of the face is not so obvious, and Bowsher and I discussed this at considerable length with Wheeler and Nelson. Briefly, surface geologic mapping done in the late summer and fall (1956) have led Umont to believe that the presumed dike does not exist; what was thought to be a dike is now believed to be the bottom of a flow resting on the old weathered granite surface. It had been thought previously that it would be safe to drive the 400 level east drift to the dike without danger of encountering water. Wheeler now fears that it is possible that the drift may run into a buried channel, in which case, a very serious water problem could develop. The granitic wall rock is highly altered in places to a claylike mass, either from

hydrothermal alteration or from deep weathering, and has been extremely brecciated so that it is doubtful that a water door, if installed, would be effective in holding back any water flow that might be encountered. Wheeler points out that the Anaconda Company encountered an extremely heavy flow of water at the Orphan Girl under the rhyolite flows only 1,200 feet to the south. (Incidentally, they also found excellent ore bodies of both zinc and manganese.) Good grade manganese ore over a highly satisfactory width has been found on the Norwich 400 drift east; Wheeler does not want to risk jeopardizing this ore from a sudden influx of water.

I suggested that the surface holes provided for in the contract would give information on the depth of the flows, but Wheeler pointed out that these holes would not necessarily detect a buried channel. He also pointed out that even if the level were in granite, steep faults which might tap an aquifer zone in the overlying flows would not be detected by surface drilling. It is obvious, of course, that a combination of a flat hole ahead of the face and a vertical hole from the surface would give much more information than the vertical holes alone.

Following the visit to the Norwich mine, I visited Murl Gidel, chief geologist at Butte for the Anaconda Company, and discussed with him in general terms the problem of water in the flow rocks. Gidel said that any buried weathered surface could accumulate water and confirmed that the Orphan Girl did make a good deal of water -- 5,000 gallons or so per minute I believe is the figure he mentioned. He also stated that once the area was drained there was only a small flow of water.

It appears that there is a potential danger from water. Umont, of course, would not be equipped to cope with this, whereas Anaconda was, and a heavy flow of water could wreck the Umont enterprise before they could control it. It is possible that Wheeler is more concerned about this than necessary; nevertheless, DMEA would be in an embarrassing position if we refused to participate in the drill hole and serious trouble developed, perhaps causing a loss of the level. Therefore, I would regard the proposed 200-foot hole ahead of the face as not very expensive insurance, and I recommend that 500 feet at $6 per foot be taken from the surface drilling and transferred to 600 feet of underground drilling at $5 per foot. On present information this should provide sufficient footage for drilling ahead of the face as well as to the north. Provision is already made in the contract for drilling to the south to the Plutus vein.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Pinckney

DMEA Form
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/5	Chapman	400
2/5	Martin	400
		140

February 5, 1957

MEMORANDUM

TO: Associate Solicitor, Division of Mineral Resources

From: Iron and Ferro-Alloys Division, DMEA

Subject: Docket No. DMEA 2874 - Manganese
Umont Mining Co. (Assignee)
Plutus Mine
Silver Bow County, Montana
Amended Contract No. Idm-E604

Attached is draft of proposed Amendment No. 1 for above captioned project for your use in preparing in final form.

W. S. Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

TLChapman:foc
2/5/57
cc to: Docket
Code 400

8623

AMENDED
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA 2874

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Umont Mining, Inc., assignee, that Amended Exploration Project Contract No. Idm-E604 (Docket No. DMEA 2874), dated September 21, 1953, is amended as follows:

1. In Article 1 of the Amended Contract the total estimated cost of the project is ~~changed~~ increased from $106,010.70 to $108,510.70 and the amount of Government participation at 75 percent is ~~changed~~ increased from $79,508.00 (rounded) to not to exceed $81,383.00 (rounded).

2. In Clause "A": ~~Description of the Work~~

(a) Add Description of the work not to exceed an additional 500 feet of

Diamond drilling ~~for a total length of 500 feet shall be~~ work (on a minimum basis) is added to ~~Stages II and III of~~ the work to be performed under the Amended Contract, ~~Holes to be AX in size.~~ as follows:

~~In Stage II~~ From the present face of the 400 level east drift approximately 235 feet east of the 400 level crosscut from the Plutus shaft, drill one horizontal hole ~~about~~ approximately N. 45 degrees E. for about 100 feet to explore for en echelon parts of the vein. Drill another ~~one~~ hole, about 200 feet long, from the face of the 400 level east drift ~~approximately in alignment of drift~~ to explore for volcanic rocks, faults and gouges, and ~~for~~ water flow, ahead of the face of the drift. A 2 inch pipe with a valve shall be set securely in this drill hole to permit control of any large water flow.

~~The balance of drilling, 200 feet,~~ Any balance of the 500 feet of drilling remaining after the completion of the two holes described in 1) and 2) shall be ~~reserved~~ available for further exploration ~~from drift in Stages II or III. This drilling shall have the written~~ approval ~~of~~ as set forth in writing by the Government.

Mineralized zones shall be sampled and assayed for manganese.

(b) under the Estimated Cost of the Project, the following item is added:

(c) The ~~Approx. Unit Costs~~ summary at the end of Exhibit A is revised to read as follows:

Note: Copy the first 3 items of Exhibit A, add the item for drilling, and put in new totals

~~Estimated costs of Stages I, II and III of the Amended Contract~~	~~$106,010.70~~
Diamond drill 500 feet at $5.00/ft. The unit cost includes, cementing, re-drilling, reaming and casing.	2,500.00
Estimated total cost of the project	$108,510.70
Government participation, 75 percent (rounded)	81,383.00

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals
Exploration Administration

UMONT MINING, INC.

By _____

OFFICIAL FILE COPY DMEA RECEIVED FEB 11 1957		
DATE	INITIALS	CODE
2/11	C	220
2/18	E.E.P.	800
	S.	225
February 5, 1957		

[redacted]
No. 157 Howard Street
Spokane 4, Washington

Mr. Harald E. Swim
Regional Comptroller
General Services Administration
Region 10
Seattle 4, Washington

Re: Docket No. DMEA-2874 (Manganese)
Uncut Mining Co. (Assignee of Irving & Nelson)
Herwich and Flutus Mine
Silver Bow County, Montana
Amended Contract No. Idm-860A

Dear Mr. Swim:

This is in reply to your letter of February 1, 1957, regarding royalties due DMEA from production of ore from the Herwich mine. DMEA Contract Idm-860A with Irving and Nelson was amended September 19, 1956, to include that part of the Herwich claim lying east of coordinate 52758 and below the Flutus 300 (No. 5) level, excepting all existing dumps on said claim. On September 26, 1956, Irving and Nelson assigned Contract Idm-860A to Uncut Mining Company who accepted the assignment September 28. The Government's consent to the assignment was executed by the Administrator, DMEA, on October 3, 1956. During the period of negotiation of the amendment, Uncut Mining Company took over operation of the property and their letter to you of September 12 was doubtless an effort to avoid delayed royalty payments pending completion of the contract amendment and assignment.

As certain ores from the Herwich claim are exempted from royalty liability, we have instructed Uncut Mining Company that it is their responsibility to indicate clearly which ore is subject to DMEA royalty, as there is no other way that the General Services Administration can differentiate between the DMEA ore and non-DMEA ore. Please continue to send us royalties on any shipments from Uncut so marked. The mine receipts indicating the source of the ore will be checked by our auditor at appropriate intervals.

We are enclosing a copy of DMEA contract Idm-E604, Amended, including Annexes I and II, and a copy of the assignment of the contract to Umont Mining Company. To save space in your files, we have omitted certain exhibits that refer to a description of work to be performed and the allowable costs; and two maps. Should you desire these items, we will be glad to furnish them.

We regret that you were not advised of this matter before.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: Regional Comptroller, GSA
Denver, Colorado w/copy of contract
DMEA (2) w/copy of incoming
USBM (2)
USBM (AD)
CPF
Turner
Pinckney

GENERAL SERVICES ADMINISTRATION

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 11 1957

DATE	INITIALS	CODE

February 1, 1957

10CRE

U. S. Department of Interior
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn, Executive Officer

[redacted]

On September 12, 1956 Umont Mining Company, Butte, Montana, notified us that they were commencing shipments of manganese carbonate ore from the Norwich Mine and instructed us to deduct royalty for remittance to you on payments made by us for such shipments, for the purpose of repaying the loan under DMEA Contract No. Idm-E604 with Irving and Nelson. By letter dated September 19, 1956 we were advised by Irving and Nelson of their concurrence in the arrangement. At that time we were somewhat doubtful as to the application of royalty to the Norwich Mine since the copy you furnished us of Contract Idm-E604 contained reference only to the Plutus Mine, and we had received no request from you for remission of royalties in connection with Umont's operations.

As requested by Umont and Irving and Nelson we have since made royalty deductions on a series of ore settlements with Umont. However, pending receipt of a request for royalty remittances from your office, we have been holding the funds in our Special Deposit Account. Late last fall Mr. McClintock of our Internal Audit Division contacted your office and discussed this matter with you. We understood from him that you would write this office regarding the royalty payments in question and would furnish us a copy of an amended contract covering the Norwich Mine.

Please advise at this time whether you desire us to remit these royalties and, if so, furnish this office a copy of the DMEA contract pertaining to the Norwich. Also, since administration of the Butte-Phillipsburg Manganese Purchase Program is now being transferred to our Denver Regional Office, it is requested that a copy of your reply letter be directed to the Regional Comptroller, General Services Administration, Denver, Colorado together with a copy of the contract.

Very truly yours,

HAROLD E. [illegible]
Regional Comptroller

DMEA

RECEIVED
FEB 4 1957
U.S. MAIL

OFFICIAL FILE COPY DMEA RECEIVED JAN 22 1957		
DATE	INITIALS	CODE
1-22	C	220
1-23	Fsfge	800
	J.	225
January	16, 1957	
Air Mail		

xxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

Mr. Dooley P. Wheeler, Jr.
Vice President and General Manager
Umont Mining, Inc.
Silver Bow Block
Room 506
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Umont Mining Co. (Assignee)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Wheeler:

This will acknowledge receipt of your letter of January 8, 1957, regarding royalty on ore mined from the Little Sarah claim, and a proposed amendment to permit transfer of the amount required to drill 600 feet at $7 per foot from Stage III to permit drilling the walls and ahead of the face of the 400 drift east.

We are referring the question regarding royalty obligation to our Washington, D. C. office for consideration and will advise you as soon as we hear from them. In a letter dated October 26, 1953, to the Regional Comptroller, General Services Administration, Irving and Nelson requested that G S A deduct royalty due on DMEA ore and make payment direct to DMEA. This letter was written in accordance with a G S A requirement that the Operator request the deduction and payment designating how the shipments would be marked. Therefore, should no royalty be due on the Little Sarah ore, you should advise the G S A and send us a copy of your letter, as you did when you started to ship Norwich ore. It is the Operator's responsibility to keep DMEA and non-DMEA ore separate and to indicate on the shipments which is which, as in the case of the Norwich ore.

Regarding the diamond drilling, as Mr. Weissenborn stated in a telephone conversation with Mr. Nelson last Monday, he will discuss this matter with you when he is in Butte this Thursday or Friday.

Sincerely yours,

D. R. MacLaren
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2)
USBM (2)
USBM (AD)
Pinckney

Upward Mining, Inc
Silver Bow Block
Room 506
Butte, Montana

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

FILE COPY
DMEA
RECEIVED JAN 22 1957

DATE	INITIALS	CODE

FROM ☐
NORWICH MINE DIVISION
P. O. BOX 757
BUTTE, MONTANA

457

Mr. A. E. Weissenborn, Executive Officer
Defense Minerals Exploration Administration
S. 157 Howard Street,
Spokane, Washington

Re: Contract No. [illegible] - 260

Dear Mr. Weissenborn:

Near the end of January 1957 our 400 level drift west on the Norwich vein in Norwich Claim will pass into the Little Sarah patented lode claim which is not included in the above contract. Production from Little Sarah, if any, will be sent to the Butte depot under the heading: Umont - Little Sarah
Class A ore
G S - 10 P(D)-3.

Such ore will not be subject to the DMEA contract royalty deduction as is the ore we are now producing out of the Norwich.

I would appreciate your studied acknowledgement of the above and confirmation to the G S A as well as Umont.

We have stopped the drift east on the 400 level in order to diamond drill ahead as an exploration and water precaution measure. From the same station at the present face of 400 drift east we are drilling northeast to make sure that the present drift is not pulling away from the Norwich vein which could be north of the present face. The present drift could be on an en echelon southeast bearing spur off of the main Norwich vein and the main vein as well as similar spurs could be found by drilling a horizontal hole 100 feet N. 45° East from the present face. The N. 45° E. horizontal 100 foot hole will be drilled first then a 200 foot long hole.

The 200 foot hole will be for general exploration for volcanic rocks, strong fault gouges, mineralization, water and pre-volcanic oxidation. Before the hole is pushed to depth 2" pipe 20' long will be cemented in the collar so that a flow of water can be stopped and the static pressure measured if water is encountered. I feel that we cannot afford to risk driving 400 drift east to the end of stage 2 without such a probing drill hole.

Considering the above I would appreciate your approval of the above drilling, and any additional drilling that may be required for similar reasons out of 400 drift east, for DMEA payment. I suggest that as a limit to drilling of the above nature you allow the amount required to drill one 600 foot hole in stage 3, at $6.00 per foot, and strike out one 600 foot hole in stage three. The 420 feet of drilling for the Plutus vein should be retained in stage 2, however.

DMEA

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

December 26, 1956

2874

604

THIS LETTER FROM
DOOLEY P. WHEELER JR., VICE PRES.
912 KEARNS BLDG.
SALT LAKE CITY, UTAH

RECEIVED
DEC 28 1956
D.M.E.A.

WSG

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

Dear Mr. Mittendorf:

Attached please find a copy of the resolutions drafted by most of the manganese producers of the Butte and Philipsburg mining districts of Montana.

These resolutions were passed and are being distributed as indicated in order to assist in the development of a long-range minerals program.

We are prepared to go into greater detail regarding the reasoning behind our resolutions and regarding the details of specific legislation where new legislation is needed.

Yours very truly,

Dooley P. Wheeler Jr.

Dooley P. Wheeler, Jr.

DPW:bh

The following resolutions, ten in number, drafted this 21st day of December, 1956, have been adopted by the manganese producers of the Butte-Philipsburg Area, whose signatures appear below. It was also agreed to have copies of these resolutions sent to the following:

Sec. of Interior, Fred Seaton,
Senator James E. Murray,
Senator Mike Mansfield,
Senator George Aiken,
Congressman Clair Engle,
Congressman Lee Metcalf,
Congressman Roy Anderson,
D.M.E.A. Administrator C. O. Mittendorf.

1. Continue to support and encourage, on a long range basis, the exploration, development and mining of the super-strategic minerals such as manganese and fluorspar which: (1) are basic ingredients of heavy manufacturing industries and which: (2) by their habits of occurrence in nature can lead to major new centers of hypogene strategic minerals. The support requested should be in the form of a long range market for the metals or minerals such as is now provided by present stockpiling programs, and the products so bought should be stockpiled in their final usable form. In this respect we endorse the statement of Sec. of Interior Fred Seaton, made before the American Petroleum Institute, on November 14, 1956 which we quote: "As to some minerals and metals, an effective answer to our security problems, can be found in stockpiling practice, such as we have followed. As to other materials, some provisions can, and I think should be made for maintenance of the substantial [illegible] Repeatedly, we have [illegible] ourselves to become dependent upon other nations for tungsten, manganese and potash, and many other

metals and minerals only to find ourselves cut off from these supplies, or greatly restricted in their availability during an emergency."

2. Continue to support and encourage, on a long range basis, the exploration, development and mining of silver which has a specific strategic value because of its peripheral position with respect to major senally complete mining districts and because of its habit of extending from the periphery to the core of said districts. Silver can lead the way to major centers of mineralization and does support the efficient exploitation of many base metal-strategic metals mines because of its by-product value. The Silver Purchase Act should be continued.

3. Encourage exploration for and development of new mineral deposits by granting federal tax exemption for a period of three years of full scale production to operators of newly discovered mines or old mines that have long been inactive and have been reopened.

4. Continuation, and possibly increasing, the present depletion allowance.

5. Mineral exploration expenditures should be fully deductible as a cost and present dollar limitations removed.

6. Establish an exploration concession system which will eliminate the abuses of the present lode and placer claim laws through misuse and will permit individuals or companies to hold up to four sections of ground for two years on a small yearly fee [illegible] (Five [illegible] which time valid discoveries and the standard [illegible] valid [illegible] or very [illegible]

xxxxxxxxxxxxxxxxxx
No. 157 Howard Street
Spokane 4, Washington

November 16, 1956

Mr. Dooley P. Wheeler, Jr.
General Manager, Norwich Mine Division
Uncut Mining Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMRA-2874 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Ldm-2604

Dear Mr. Wheeler:

Thank you for your letter of November 13 explaining the nature of the "gross proceeds" from the disposal of the off-grade material which the sub-lessees are blending with higher grade non-DMRA ore.

It would appear to us that although Uncut is not receiving direct payment for this material, the company is benefitting to the extent of $4.25 per long dry ton which is credited against the GSA loan, and thus, $4.25 per ton is, in effect, the "gross proceeds" received by the company for this material. This is not quite correct as hand-sorting would reduce the tonnage to some extent, but we infer that this is not too important: according to your statement most of the rock is blended with high-grade ore without sorting. According to Article 8(e) of the contract the royalty would be 1½ percent of $4.25 or about 6.4 cents per ton.

As far as we can tell, there is nothing incorrect in your disposing of development muck in this manner if it is to Uncut's advantage to do so, and provided the Government receives royalty as provided for in the contract. To simplify the transaction it would be sufficient to keep a record of the tonnage disposed of in this manner and make a periodic settlement. We suggest that if the tonnage involved is small, settlement might be made on a quarterly basis.

As regards the approximately 55 tons of this material you have already given to the sub-lessees, the royalty involved is so small that we suggest that you include this in the next payment -- assuming that you dispose of more off-grade material in this manner. If you decide to cease this practice we do not

think it necessary to make settlement at this time. An appropriate adjustment can be made at the time of the next royalty audit.

We trust this letter will clarify this matter. You will appreciate that the Field Team is not authorized to waive any royalties, however small. Also, it is true that although royalty on each lot of your off-grade material is small, over a period of time this could add up to a fairly substantial sum. We think that the method we have suggested is simple and will not involve any great amount of bookkeeping.

By Field Team Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (3) w/3 cys incoming of 11/13/56
USBM (2)
USBM(AD)
Turner
Pinckney

NOTE: This matter was discussed with Mr. Charles Turner, DMEA auditor. His conclusions on the payment of royalty are in accord with the Field Teams.

AEW

Umont Mining Inc.

THIS LETTER FROM ☐
KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM ☒
912 KEARNS BUILDING
SALT LAKE CITY 1, UTAH

November 13, 1956

Mr. A. E. Weissenborn, Engr. Officer
Field Team Region I, NW. Dist.
U. S. Geological Survey
So. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2874 (Manganese)
Plutus and Norwich Claims, Silver
Bow Co., Montana, Amended Contract
No. Idm-B604

Dear Mr. Weissenborn:

Thanks for your letter of November 7, 1956.

In order to guard against possible involvement I directed our Norwich manager to discontinue giving the sub-lessees at Norwich material that had no value to us, but which they could upgrade to acceptable grade by careful sorting or addition of their own ore.

The material referred to in my letter of October 29th and two or three subsequent drift rounds are all that have been given to the sub-lessees. It had no evident value to us but was "doctored" to acceptable grade by the means described above. Thus, I would like your permission to ignore what little material was turned over to the sub-lessees.

There were no gross proceeds to Umont from the above referred to material as such. The reference to rapid retiring of the GSA loan is justified on the basis that GSA deducts $4.25 per long dry ton from any ore shipped from the Norwich mine whether it be sub-lessee or Umont and regardless of value, as accepted. Thus, by giving a few drift rounds to the sub-lessees which were not acceptable ore, as accepted in the fases by the sub-lessees, we helped retire the debt without receiving pay or sacrificing ore which we need ourselves. It is true that some of the material given to the sub-lessees was, after sorting, ore but very little, if any, was ore as they accepted it and the average was far below ore grade. They raised the material to ore grade before shipping by adding high grade material of their own.

I repeat that no more development rock is being turned over to the sub-lessees, as of November 3, 1956, and I would like authorization from you and Mr. Agnew to forget about the experiment in conservation. If, on the other hand, you feel that one of your DMEA representatives in Butte should investigate the matter, please feel free to have him do so.

For the time being I do not feel justified in asking that the contract be increased to take care of more drilling or exploration work of other types. The request may come later.

Yours very truly,

RECEIVED
NOV 15 1956

Dooley P. Wheeler, Jr.
General Manager

DMEA

DPW:lh
cc: Butte office
Burlington
Irving & Nelson, Butte
File

xxxxxxxxxxxxxxxxx
1201 N. Division Street
Spokane 2, Washington

November 9, 1956

Umont Mining, Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA 2874
Contract Mining, Inc.
Monthly operating report for
October 1956

Gentlemen:

This is to inform you that we were unable to make payment of the subject voucher in the full amount claimed. The $14.00 disallowance made is explained in the attached copy of a letter to the Field Team, Region I, from the Certifying Officer.

By Field Team, Region I, N.W. District

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USGS (2)

DMEA Field Team, Region I, NW District November 9, 1956

DMEA Certifying Officer, Region I

Docket No. DMEA 8174, Contract No. IAm-2604. Unaet Mining, Inc.
Monthly operating report for October 1956.

The contract calls for approximately 150 feet of westerly drifting along the Norwich vein. Therefore, the cost of assaying 4 samples taken from the 400 West Drift beyond the 150 foot point has been disallowed.

Myrtle Purdy

cc: Operator
DMEA (2)
USGS (2)

RECEIVED
NOV 13 1956
D.M.E.A.

Sp. 157 Howard Street
Spokane 4, Washington

November 7, 1956

Mr. Donly P. Wheeler, Jr.
General Manager, Norwich Mine Division
Unomat Mining Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA-2074 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wheeler:

Thank you for your letter of October 29, 1956, in which you inform us of the disposal of 24.3 tons of 10.1 percent ore and 31.5 tons of 9.6 percent ore.

According to Article 6 of the contract, the Government is entitled to royalty which "shall be a percentage of the gross proceeds . . . from the production sold . . ." From your statement that "the above procedure permits us to retire the Irving and Nelson GSA loan faster", the lessees presumably paid something for the ore, in which case DMEA is entitled to royalty based on the amount per ton received for this material, as provided for in Article 6(e) of the contract. If royalty is due, a check in payment thereof should be made out to the Defense Minerals Exploration Administration and sent to the Executive Officer at the above address, together with a statement of the tonnage shipped and value received.

We have also received your letter of November 1, 1956, and have considered your discussion with Mr. Pinckney regarding the amendment you requested, and regret that we cannot change our objections as stated in our letter of October 29. A possible alternative would be to have the contract increased to permit the additional drilling you suggest. This would take some time to process and would require strong justification. We feel certain that DMEA would not be willing to participate in further drifting to the west for reasons we have discussed previously.

By Field Team Region I, NW. Dist.

Wing G. Agnew, Member
U. S. Bureau of Mines

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

cc: DMEA (2) w/incoming 10/29 & 11/1/56
USBM (2)
USGS(AD)
Sample

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 787
BUTTE, MONTANA

November 1, 1956

Mr. A. E. Weissenborn
Executive Officer
Defense Minerals Exploration Administration
S. 157 Howard Street
Spokane 4, Washington

RECEIVED
NOV 13 1956
D.M.E.A.

Re: Norwich Contract No. IDm-E604

Dear Mr. Weissenborn:

This will acknowledge yours and Mr. Agnew's letter of October 29, 1956, regarding my requested modifications of Stage II drift and diamond drill work.

I regret that you cannot see the justification for modifying the contract as I requested.

The above subjects were discussed with Mr. Pinkney October 31st and he will be able to bring you up to date upon the reasoning regarding my request of October 19th. If the information brought in by Mr. Pinkney changes yours and Mr. Agnew's opinion regarding the validity of my requests of October 19th, I would be most interested to hear from you.

Yours very truly,

Dooley P. Wheeler, Jr.
Vice President & General Manager

DPW:k

cc: Burlington
Salt Lake

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 797
BUTTE, MONTANA

October 29, 1956

Mr. A. E. Weissenberg
Executive Officer
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

Re: [redacted]

Dear Mr. Weissenberg:

The DMEA check and my letter of October 19th apparently crossed in the mail. We thank you and the government for the check.

The request concerning extension of the 150-foot drift limit west is still of concern to us and we hope you can shift the limit from east to west in Stage II.

During our present development we have, as you know, shipped only about 113 long dry tons to the depot for which we got paid. We sent another 150 tons to the depot for which we got no pay because it was below grade.

From time to time in development we encounter mineralization that is not near depot acceptance grade (12% manganese) and which has no value but which has of the order of 10% manganese. This material goes on the waste dump normally, but on October 22nd we let the lessees have approximately 24.3 long dry tons assaying 10.1% manganese and again on October 24th we let them take approximately 31.5 long dry tons assaying 9.6% manganese. This material had no value but the lessees mixed higher grade material with it making a large tonnage of acceptable low grade material.

The above procedure permits us to retire the Irving & Nelson GSA loan faster than it would normally be retired, but we realized belatedly that the procedure might be interpreted by someone as a dodge of our responsibility to DMEA. If you so interpret such a procedure please advise us and we will stop it.

I assure you that anything bordering on ore grade (12% manganese) we send to our ore bin because we are, as yet, desperately hungry for ore that we can ship. Such ore, even though of minimum grade, helps us much more than letting the lessees have the manganiferous waste.

Yours very truly,

RECEIVED
OCT 31 1956

Hayley F. Wheeler, Jr.
Vice President & General Manager

HFWsk
cc: Burlington
Salt Lake

DMEA(2)

xxxxxxxxxxxxxxxxxxxx
Sc. 157 Howard Street
Spokane 4, Washington

RECEIVED NOV 2 1956 D.M.E.A.

October 29, 1956

Mr. Dooley F. Wheeler, Jr.
General Manager, Norwich Mine Division
Unont Mining Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-2604

Dear Mr. Wheeler:

This will acknowledge receipt of your letter of October 19, 1956, in which you ask about payment due you for work completed since April 15, 1956, and request certain changes in the work authorized by the contract.

The vouchers for payment were processed on October 15, 1956, and your check should have arrived by now.

Stage II of the exploration program was primarily designed to explore the Norwich vein to the east for ore shoots that might be developed between the shaft and the andesite dike. The exploration to the west was a secondary consideration. Because it is approaching an area which has been mined only a short distance above the 400 level, we could obtain only a limited amount of footage, and had it not been for the favorable target area to the east, it would not by itself have been considered a suitable DMEA project. Therefore, we would not feel justified in requesting curtailment of the footage authorized for the east drift in order to drive the west drift further than the 150 feet authorized in the contract.

The purpose of the 420-foot diamond drill hole on the 400 level is to test the Plutus vein east of the Plutus shaft. The vein in the vicinity of the shaft has been quite thoroughly tested by work on higher levels with only mediocre results, but it has been argued that the vein might improve toward the dike. We recognize that one hole will not be a thorough test, but it with luck should

determine whether the vein is present and, if so, something of its width and general character. It would not be possible to accomplish this objective if the drilling were shifted to the shaft area as you request.

By Field Team, Region I, NW District

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA(2) w/incoming
USGS(2)
USBM(AD)
Pinchmay

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 737
BUTTE, MONTANA

RECEIVED
NOV 2 1956
D.M.E.A.

October 19, 1956

Mr. A. E. Weissenborn
Executive Officer
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

Re: Norwich Contract No. Idm-E604

DMEA

Dear Mr. Weissenborn:

This is to remind you that time is slipping by and we have received no part of our DMEA loan for the work done since April 15, 1956. Anything you can do to speed up the payment will be most appreciated, for the prolonged delay could be very damaging to our Norwich project.

The above is of paramount importance to us and the following should not be tossed onto the table unless it can be done without delaying the payments to us as per our present contract.

Last night we reached the 150 foot mark west on the Norwich 400 level drift west. The vein is complicated by minor gently south dipping strike reverse faults coming into the vein from the hanging wall side. In the last 40 feet the vein has averaged about six feet wide and 5% to 10% manganese with no trend towards better ore to the west. Thus we are confronted with continued exploration towards the west in search of the downward projection of the ore start on the 300 level without DMEA assistance and without production.

Considering the above, we would like to know if you could interpret the wording of the contract "drift approximately 150 feet westerly along the Norwich vein" so that we could continue on to 250 feet west of the crosscut, or until we get into ore under the DMEA contract. If we did that we could sacrifice up to 100 feet off the east drift, which has about 100 linear feet of workings in it now, and go into Stage III when we have used up the permissible linear footage of drifting in Stage II.

We would appreciate your help on the above matter.

Diamond drilling under Stage II would as outlined permit only one drill hole to the Plutus vein thereby relying too much on luck. We would therefore like permission to fan two or more holes south to the Plutus vein from the Plutus shaft, or fan as many as we need from that location until our 420 feet are used up.

Yours very truly,

Dealey P. Wheeler, Jr.
General Manager

DPW:k

XXXXXXXXXXXXXXXXXX
1201 N. Division Street
Spokane 2, Washington

October 17, 1956

Umont Mining, Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA 2874
Contract Idm-2604
Monthly operating report for
September 1956

Gentlemen:

The subject monthly operating report has been received and forwarded to the Disbursing Officer at Portland, Oregon, for pazyment.

This is to inform you that payment could not be made in the full amount claimed. The disallowance made is explained in the attached copy of a memorandum to the Field Team from the Certifying Officer, Region I.

By Field Team, Region I, NW Dist.

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: DMEA (2)
USGS (2)

RECEIVED
OCT 26 1956

DMEA Field Team, Region I, NW District October 17, 1956

Certifying Officer, Region I

Docket No. DMEA 2874, Contract Idm-2604, Unont Mining, Inc.
Monthly operating report for September 1956.

The subject monthly operating report has been received and processed for payment.

The operator claimed costs of $77.00 for Sampling and Analysis, but no assay results were received with the report. Therefore, it was necessary to suspend payment of this cost. The amount suspended may be reclaimed by the Operator if the proper support is attached.

Myrtle Purdy

cc: Operator
DMEA (2)
USGS (2)

400

OCT - 4 1956

Irving and Nelson
43 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 - Manganese
Umont Mining, Inc., Assignee
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-8604

Gentlemen:

Enclosed for your files is copy of "Assignment of Contract" covering the subject contract and sent to us by Umont Mining, Inc., after execution by yourselves and by the same corporation.

The Assignor's copy of said agreement, dated September 26, 1956, with the Government's consent thereto, executed by the Administrator, is returned herewith. To expedite processing of the assignment, the Assignee's executed and dated copy is being sent directly to Umont Mining, Inc., King Street Dock, Burlington, Vermont.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

WSMartin/foc/esf
10/4/56
cc to: Docket
Code 400
Admr. R. File
FT, REG. I - NW DIST.
Messrs: DeHuff, USBM
Kiilsgaard, USGS

R.C.G.

DOCKET
SURNAME
Martin
Dewyer

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

Irving and Nelson
43 Harbour Building
Butte, Montana

Re: Docket No. DMA 257h - Manganese
Summit Mining, Inc., Assignee
Plumas and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-R60h

Gentlemen:

Enclosed for your files is copy of "Assignment of Contract" covering the subject contract and sent to us by Summit Mining, Inc., after execution by yourselves and by the same corporation.

The Assignor's copy of said agreement, dated October 3, 1956, and executed by the Administrator, is returned herewith. To expedite processing of the Assignment, the Assignee's executed and dated copy is being sent directly to Summit Mining, Inc., King Street Dock, Burlington, Vermont.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosures

WSMartin/fec
10/3/56
cc to: Docket
Code 400
Admr. Read. File
FT. REG. I - NW Dist.
Messrs. DeHuff, USBM
Kiilsgaard, USGS

OCT 4 1956

Mr. R. H. Wadhams, Secretary
Umont Mining, Inc.
King Street Dock
Burlington, Vermont

Re: Docket No. DMEA-2874 - Manganese
Umont Mining, Inc., Assignee
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Mr. Wadhams:

This will acknowledge receipt of your letter of September 28, 1956, with enclosed copies of "Assignment of Contract" covering the subject contract and executed by Irving and Nelson and by your corporation.

The Assignee's copy of said agreement, dated September 26, 1956, with the Government's consent thereto, executed by the Administrator, is returned herewith. To expedite processing of the assignment, as you requested, the Assignor's executed and dated copy is being sent directly to Messrs. Irving and Nelson.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosure

WSMartin/foc/esf
10/4/56
cc to: Docket
Code 400
Admr. R. File
FT, REG. I - NW DIST.
Messrs: DeHuff, USBM
Kiilsgaard, USGS

R.G.

DOCKET
SURNAME
400 Martin
Dempsey

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

Mr. R. H. Wadhams, Secretary
Unomé Mining, Inc.
King Street Dock
Burlington, Vermont

Re: Docket No. DMEA 287½ - Manganese
Unomé Mining, Inc., Assignee
Flintop and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-8604

Dear Mr. Wadhams:

This will acknowledge receipt of your letter of September 28, 1956, with enclosed copies of "Assignment of Contract" covering the subject contract and executed by Irving and Nelson and by your corporation.

The Assignee's copy of said agreement, dated October 3, 1956, and executed by the Administrator, is returned herewith. To expedite processing of the assignment, as you requested, the Assignor's executed and dated copy is being sent directly to Messrs. Irving and Nelson.

Sincerely yours,

C. O. Mittendorf

Administrator

WSMartin:foc
10/3/56
cc to: Docket
Code 400
Admr. Read. File
FT. REG. I - NW DIST.
Messrs. DeHuff, USBM
Kiilsgaard, USGS

Enclosure

RECEIVED
OCT - 1 1956

XXXXXXXXXXXXXXXX
So. 157 Howard Street
Spokane 4, Washington

September 28, 1956

Mr. I. O. Irving
Norwich Mine Division
Uncomt Mining, Inc.
P. O. Box 727
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2664

Dear Joe:

Thank you for the copy of your letter of September 26, 1956, addressed to Mr. L. A. Evans, Jr., president Uncomt Mining, Inc. You are correct in your belief that we can not pay the reimbursement due until the Assignment of Contract has been signed by Uncomt Mining, Inc., and the Administrator. As soon as we are notified that the assignment has been completed we will process your claims for payment.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region 1, N. Dist.

cc: DMEA (2) w/c to Uncomming
USBM (2)
USBM (AD)
Sample

Umont Mining Inc.

KING STREET DOCK
BURLINGTON, VERMONT

RECEIVED
OCT - 1 1956

THIS LETTER FROM
NORWICH MINE DIVISION
P. O. BOX 737
BUTTE, MONTANA

September 26, 1956

Mr. L. P. Evans, Jr.
President
Umont Mining, Inc.
King Street Dock
Burlington, Vermont

Re: [redacted]
[redacted]

Dear Lou:

Enclosed are an original and six copies of the Assignment of [redacted] Contract, and also the letter of transmittal from Weissenborn to Irving and Nelson which contains instructions. They also sent us our signed contract which we have put in our files.

You will note that the Assignment has to be approved by an authorized representative of Umont Mining, Inc., and certified with Corporate Seal affixed. The original and all copies must then be returned to Washington for signature by the Administrator. I imagine that reimbursement in the form of a check written to Umont direct will be held up until these signed copies get to Washington and are approved.

Sincerely yours,

/s/ I. G. IRVING

I. G. Irving

IGI:k

Encl.

cc: A. R. Weissenborn
Salt Lake
Irving & Nelson

P.S. [redacted]

43 Hirbour Building
Butte, Montana
September 12, 1956

RECEIVED
OCT - 1 1956

Mr. William R. Ihlenfeldt
Emergency Procurement Service
General Services Administration
Naval Air Station
Seattle 15, Washington

DMEA

Dear Sir:

Today we are starting shipment of manganese carbonate ore from the Norwich Mine to the Butte Purchasing Depot. These shipments will be under Certificate No. in the name of Uncut Mining, Inc. We propose to have the invoices for the ore marked as follows: "Uncut Norwich DMEA Class A".

From the gross value of ore marked as above we hereby instruct you to deduct a royalty upon each lot accepted by you for the purpose of repaying the loan under DMEA Contract No. Idm-2404. Please remit the royalty along with a copy of your settlement sheet to Mr. A. E. Weissenborn, Executive Officer, Defense Minerals Exploration Administration, S. 157 Howard Street, Spokane 4, Washington.

Royalty calculations and time for computation and payment are as follows, taken from Article 6 of the DMEA contract:

(e) Percentages of royalty.-- The percentages of the Government's royalty shall be as follows: One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts. (For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) Time for computation and payment.-- The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this Article.

For the purpose of helping repay the balance of the GSA loan, Contract GS-12F(3)-1, to Irving and Nelson, we further instruct you to deduct $4.25 per long dry ton from payments to Uncut until the loan is retired.

Yours very truly,

Stanley F. Wheeler, Jr.
General Manager
Uncut Mining, Inc.

DWWk
cc: A.E. Weissenborn
Butte Depot
Burlington
Salt Lake
Butte

RECEIVED
OCT - 1 1956

WESTERN UNION FULL RATE TELEGRAM SENT FROM BUTTE, MONTANA, SEPT. 12, 1956.

O. G. BRAUNER
GENERAL SERVICES ADMINISTRATION
FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

WE PLAN TO START SHIPPING MANGANESE CARBONATE ORE TO THE BUTTE DEPOT TODAY AND WOULD APPRECIATE YOUR WIRING OR TELEPHONING OUR CERTIFICATE NUMBER TO THE BUTTE PURCHASING DEPOT TODAY SO THAT THEY CAN ACCEPT THE ORE. PLEASE CHARGE THE TELEPHONING OR WIRING CONNECTED WITH THE CERTIFICATE NUMBER TO URANT MINING, INC., BUTTE, MONTANA. INSTRUCTIONS REGARDING WITHHOLDING $4.25 PER TON FOR GSA LOAN TO IRVING AND WELSON AND PAYMENT OF FIVE PER CENT TO BMBA ARE IN MAIL TO GSA SEATTLE WITH COPIES TO PURCHASE DEPOT, BUTTE, AND WEINGARDEN, SPOKANE.

ROCKLEY F. WHEELER, JR.
GENERAL MANAGER
URANT MINING, INC.

So. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT - 1 1956

September 26, 1956

Irving and Nelson
Birbour Building
Butte, Montana

Re: Docket No. DMEA-2574 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-3604

Gentlemen:

Enclosed is the Operator's Copy of this contract which has been signed by the Administrator, Defense Minerals Exploration Administration, for the Government.

Also enclosed are the original and six copies of an Assignment of Contract, as requested by you and Umont Mining, Inc., for signature. When the original and all copies have been signed by you and an authorized representative of Umont Mining, Inc., including the certification, they should be returned directly to our Washington office for signature by the Administrator.

Sincerely yours,

A. N. Weissenborn
Executive Officer, DMEA
Field Team, Region 1
Northwest District

Enclosures
cc: [illegible] (2)
[illegible] (2)
[illegible] w/copy of contract.
Sample

Umont Mining Inc.
KING STREET DOCK
BURLINGTON, VERMONT

WESTERN OFFICE
SALT LAKE CITY, UTAH

NORWICH MINE DIVISION
BUTTE, MONTANA

Docket

RECEIVED
OCT - 1 1956

September 28, 1956

WSM

C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Plutus and Norwich Claims
Silver Bow County, Montana
Amended Contract No. Idm-E604

Dear Sir:

Enclosed are the original and six copies of an Assignment of Contract which have been executed by the assignor and the assignee. We are forwarding these documents to you in accordance with instructions of Mr. A. E. Weissenborn for your signature.

Anything which can be done to expedite processing of the assignment will be very much appreciated.

Very truly yours,

R H Wadhams

R. H. Wadhams
Secretary

RHW:JSG
Enclosures 7

CC: Mr. A. E. Weissenborn
Mr. D. P. Wheeler, Jr.
Mr. I. G. Irving

Interior

IDMA

14X401, Revolving Fund,
Defense Production Act,
Allocated Working Fund to the Office
of the Secretary.

DOCKET
SURNAME

Martin
Chambers
Pennington
Killgaard
Selfridge
Johnson
Mitchell

XXXXXXXXXXXXXXXXXX

T E L E T Y P E

SEP 21 1956

Mr. A. E. Weissenborn, Executive Officer
IDMA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

REWRITT SEPTEMBER 19, CONTRACT NO. IDM-604, IRVING AND NELSON, DOCKET IDMA 2874. EXECUTED AMENDED CONTRACT BEING MAILED TO YOU, ALSO MAILING ASSIGNMENT AGREEMENT TO BE EXECUTED AND RETURNED TO US FOR GOVERNMENT APPROVAL. YOU ADVISED UMONT CORRECTLY REGARDING ROYALTY PAYMENTS.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

WSMARTIN:foc
9/21/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. I - NWDIST.
Messrs. Gilbert DeHuff, USBM
T. M. Killgaard, USGS

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

DOCKET SURNAME
Holt
Martin
Talbot
Selfridge
Yopes
McKendry

SEP 21 1956

Mr. A. E. Weissenburn, Executive Officer
DMEA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Montana
Irving G. Irving and Robert E. Nelson
Fluxus and Norwich Claims
Silver Bow County, Montana
Contract No. Ide-2874, Amended

Dear Mr. Weissenburn:

Enclosed are the Field Team, Finance Office, and Operator's copy of the subject amended contract returned to us signed by the operator, and now signed by the Administrator for the Government. Please note that the attached Extra Copy was not sent to you with the other copies in our letter of August 6, 1956, and therefore contains the tentative Annex I instead of the revised Annex I prepared in your office as we requested.

Also enclosed are the original and six copies of an Assignment of Contract, as requested by the Operator and the prospective assignee, to be signed by the same parties and returned to us for execution of the Government's Consent.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JLB)

APPROVED:

P. F. Yopes (JLB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JLB)
Member, Geological Survey

WSMARTIN/foc 9/19/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
Ft. REG. I - NW DIST.
Gilbert DeHuff, USBM
T. H. Kiilsgaard, USGS

Enclosures

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

RECEIVED

OCT - 1 1956

September 19, 1956

Mr. B.C. Lillis
Chief, Inspection Division
Emergency Procurement Service
General Services Administration
Naval Air Station
Seattle 15, Washington

Subject: Your Reference No. 10FI
GSA Contract-GS-10P(D)-3
Irving & Nelson (Manganese)
Norwich-Plutus Operation
Silver Bow County, Montana; also
DMEA Contract No. Idm-3-604

Dear Mr. Lillis:

We have your letter of September 17th in which you request confirmation of the arrangements regarding shipments of ore from the Norwich mine, by Uhent Mining, Inc., as outlined in a letter to Mr. Ihlenfeldt dated September 12, 1956, from Mr. B. P. Wheeler, Jr.

We have read the copy of Mr. Wheeler's letter, which you sent us, and approve of the instructions listed therein. Specifically, we concur in the arrangements suggested and authorize your office to:

1. Mark their Acceptance Invoices as: Uhent-Norwich DMEA Class A.

2. Deduct the proper royalty due DMEA in accordance with the contract Irving & Nelson have with DMEA, under Contract No. Idm-3604 and in accordance with the percentage royalty payment schedule described and explained in Article 6 of the above-mentioned DMEA contract. Payment of DMEA royalties should be made, as described, to Mr. A. E. Weissenborn of the DMEA in the manner outlined in paragraph 2 of Wheeler's letter to Mr. Ihlenfeldt.

3. Deduct from each Uhent shipment to apply toward repayment of the Irving-Nelson's loan, under GSA Contract GS-10P(D)-3, the sum of $4.25 for each long dry ton shipped.

We trust this letter comprises the authorization requested.

Very truly yours,

Irving G. Irving

IGI:k

cc: A. E. Weissenborn
Butte Depot

Robert H. Nelson

RECEIVED
SEP 20 1956

2874

RECEIVED
SEP 19 2 22 PM '56
OFFICE OF PUBLIC INFORMATION
BMP - COMMUNICATIONS

AXXXXXXX-106K

XXHXXXXX-107K

AXXXXXXX-108K

XXHXXXXX-109K

XDXXXXXX-110K

WV086-

YWB046 WAF SP 12 I-GS-G

SPOKANE WASH 9-19-56 1105A

GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE, DMEA, DEPT OF THE INTERIOR

WA

PLEASE ADVISE IF ALL DOCUMENTS RE ASSIGNMENT OF CONTRACT IDM-E604 FROM IRVING AND NELSON TO UMONT MINING INC. ARE COMPLETE AND IN ORDER AND WHEN WE WILL RECEIVE AMENDED CONTRACT. UMONT ADVISES THAT THEY ARE NOW SHIPPING ORE FROM NORWICH ON WHICH ROYALTY IS DUE DMEA. I HAVE INSTRUCTED UMONT TO PAY ROYALTY ON ASSUMPTION THAT AMENDED CONTRACT IS IN EFFECT. PLEASE ADVISE.

A E WEISSENBORN, EXEC OFFICE DMEA,

FIELD TEMA REGION I, NORTHWEST DISTRICT

IDM-E604

EKC 1108A

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

SEP 18 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Iron and Ferro-Alloys Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-2874, Irving and ~~Irving~~ Nelson, Contract Idm-2494 (Manganese)

We have reviewed the papers transmitted with Mr. Martin's reference slip dated September 7, 1956, and have prepared the attached Assignment of Contract, as requested in letters to the Operating Committee from Mr. Weissenborn.

As the project has been certified, the Amended Contract may now be executed. The Amended Contract should be executed before the Assignment of Contract is executed, and the date of execution of the Amended Contract should be inserted in the space provided in the Assignment-of-Contract form before the Assignment is executed.

Robert P. Dwyer

Attachments

HCRubin/cmd
Copy to: Solicitor's Docket (2)
DMEA Docket
W. S. Martin
R. P. Dwyer
H. C. Rubin
chron.

RECEIVED
SEP 17 1956

xxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

September 12, 1956

Mr. Dooley P. Wheeler, Jr.
General Manager
Umont Mining, Inc.
43 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Irving and Nelson
Platum Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Wheeler:

Thank you for your letter of September 8, 1956. We forwarded the documents requested by Washington as soon as they were received, and can see no reason why there should be any prolonged delay in the completion of the contract amendment and the assignment of the contract to Umont Mining, Inc.

You are correct in informing GSA to remit 5 percent royalty on production to the Defense Minerals Exploration Administration, mailing the checks and settlement sheets to me at the above address.

Very truly yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2) w/incoming
USBM (2)
USBM (AD)
Sample

2874

406

RECEIVED
SEP 10 1956

43 Hirbour Building
Butte, Montana
September 8, 1956

COPY

Mr. A. E. Weissenborn, Exec. Officer
Defense Minerals Exploration Administration
S. 157 Howard Street
Spokane 4, Washington

WSM

Subject: DMEA Contract No. Idm-E604

Dear Mr. Weissenborn:

We are concerned about the above inasmuch as it has evidently not yet been executed in Washington.

We are now hoisting some ore produced in exploration, and we expect to be shipping ore soon.

We would like to have the contract executed and transferred to Umont at the earliest possible date for the purpose of DMEA assistance this month, as well as for repayment for some of the assistance via royalties out of our impending production.

In the event Umont ships ore in the week starting September 9th, we plan to advise GSA to remit 5% of the value of the ore to you on the assumption that the contract will be signed by then and transferred to Umont.

We would appreciate advice if such procedure should not yet be followed.

Yours very truly,

UMONT MINING, INC.

D P W Jr.

Dooley P. Wheeler, Jr.
General Manager

DPW:k

cc: C.O. Mittendorf
Burlington
Butte
Salt Lake

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
SEP 10 1956

September 7, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

In regard to your teletype of August 24, 1956, we are enclosing two copies of a letter authorizing Irving & Nelson to sublease the three-quarters' interest in the Plutus claim owned by The Anaconda Company and the National Bank of Commerce of Seattle. Also enclosed is a photostatic copy of the amendment dated June 1, 1956 which is referred to in the last sentence of the first document which Mr. Irving sent at our request. This amendment merely gives the lessee right to remove equipment and other improvements from the property, and thus has little effect on the DMEA contract, but we thought that you would want a copy in order to have your file complete.

We hope that you now have the necessary documents to put into effect the amended contract and assign the contract to Umont Mining, Inc.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)
USBM (AD)
Sample

ROBERT H NELSON

IRVING G. IRVING

RECEIVED
SEP 10 1956

Den EA (2)

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

August 31, 1956

Mr. A. E. Weissenborn, Exec. Officer,
Defense Minerals Exploration Administration,
S. 157 Howard Street,
Spokane 4, Washington.

Subject: Docket No. DMEA-2874 (manganese)
Plutus Mine
Silver Bow Co., Montana
Contract No. Idm-E-604

Dear Mr. Weissenborn:

In our phone conversation, referred to in my letter of August 27th, Mr. MacLaren asked about our right to transfer to Plutus lease to Umont. I assured him that a document permitting such action would be in his hands in a few days, and we herewith enclose ~~two~~ photostats of our right to assign the lease, with Umont specifically mentioned. Will this document be sufficient, and serve your purpose, or will you have to have the document, when prepared, that actually assigns the lease. If the latter, please advise. We are very anxious to have the contract assigned to Umont as soon as possible, so that reimbursement for work already done, and reported upon, may be received.

Very truly yours,

I. G. Irving, Mgr.

THE ANACONDA COMPANY

Butte, Montana

F. A. LINFORTH
ASSISTANT TO THE VICE-PRESIDENT

August 23, 1956

Mr. Irving G. Irving
84 Hirbour Building
Butte, Montana

Dear Mr. Irving:

In accordance with your request of August 14, 1956, and with the related provision in the lease dated July 22, 1952, which you hold on the Plutus Lode Claim, Survey No. 3018, located in Sections 10 and 15, Township 3 North, Range 8 West, in Silver Bow County, Montana, above a horizontal plane six hundred (600) feet vertically below the collar of the Plutus Shaft, you are hereby granted the consent of the following named Co-Lessors to assign all of your right, title and interest in the said lease, including its extension dated September 3, 1953, also its further extension and amendment dated April 30, 1956, also its further amendment dated June 1, 1956 to Umont Mining, Inc., a Vermont corporation, with its head offices in Burlington, Vermont, and with western offices in Salt Lake City, Utah, and at Butte, Montana:

The Anaconda Company owner of one-quarter (1/4) interest;
The National Bank of Commerce of Seattle, Trustee, owner one-half (1/2) interest;
and
Irving G. Irving owner of the other one-quarter (1/4) interest,
Co-Lessors

All terms and conditions of the original lease dated July 22, 1952, are to remain in full force and effect in the assignment for which consent is herein granted, except as modified by the extension dated September 3, 1953, the extension and amendment dated April 30, 1956, and the amendment dated June 1, 1956.

Yours truly,

THE ANACONDA COMPANY,

By F. A. Linforth
Assistant to the Vice President.

THE NATIONAL BANK OF COMMERCE OF SEATTLE,
TRUSTEE,

By _____
Vice President

ATTEST:

_____
Assistant Cashier

_____
CO-LESSORS.

THE ANACONDA COMPANY

Butte, Montana

F. A. LINFORTH
ASSISTANT TO THE VICE-PRESIDENT

[illegible],

[illegible]

[illegible]

[illegible]

[illegible] you, [illegible], [illegible] Lode Claim, [illegible] Co. [illegible], located [illegible] and 23, Township [illegible] North, [illegible] over [illegible], [illegible]; [illegible]

[illegible], said lease was extended by [illegible] amendments dated [illegible] 2, [illegible], and April 20, 1956; and

[illegible], said lease as amended provided that upon termination of said lease lessee shall immediately evacuate the premises, and Lessee [illegible] sixty (60) days within which to remove machinery, tools or equipment which may be placed upon said premises by said lessee; and

[illegible], you are contemplating placing certain buildings, steel headframe and other improvements on said premises of a temporary nature, and desire to remove said buildings, the steel headframe and other improvements upon termination of said lease.

[illegible], THEREFORE, AND AGREED by the undersigned, as Co-Lessors [illegible], notwithstanding any provision in said lease as extended, lessee shall have sixty (60) days upon termination of said lease, to extend, [illegible] within which to remove all buildings, the steel headframe and [illegible] .

Yours truly,

THE ANACONDA COMPANY,

By F. A. Linforth
Assistant to the Vice President.

THE NATIONAL BANK OF COMMERCE OF SEATTLE,
TRUSTEE,

By [illegible]
Vice President.

ATTEST:

[illegible]
Assistant Cashier.

[illegible]
CO-LESSORS.

RECEIVED
SEP - 4 1956

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

August 30, 1956
Registered Mail
Return Receipt Requested

Mr. I. G. Irving
Hirbour Bldg.
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Irving:

Enclosed are the copy, with signatures, of your agreement with Umont Mining, Inc., and Exhibits "A", "B", and "C" which you sent us on August 27, 1956. We have made the necessary prints from these documents and have forwarded them to Washington.

As soon as we receive the document now in Seattle for signature, we will forward it air mail.

Thank you for your prompt cooperation.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: DMEA (2)
USBM (2)
USBM (AD)
Sample

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 28, 1956

Air Mail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Irving and Nelson have advised us by phone that the document requested in your teletype of August 24, 1956 has been signed by them and by an authorized officer of Anaconda, and is now in Seattle for the signature of the National Bank of Commerce of Seattle.

As soon as we receive the document, which authorizes Irving & Nelson to sublease the Plutus claim to Umont Mining, Inc., we will forward it to your office.

Sincerely yours,

RECEIVED
AUG 3 0 1956

D R MacLaren
D. R. MacLaren
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

cc: USBM (2)
USBM (AD)
Sample

DOCKET
Surname:

Martin
Nelson
Lauer
Selfridge
Johnson
Mattenberg

AUG 24 1956

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund
Def. Production Act,
Interior (Allocated Working Fund
to the Office of the Secretary)

T E L E T Y P E

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I-Northwest District
South 157 Howard Street
Spokane 4, Washington

Re Docket DMEA-2874, Irving and Nelson. Please submit to us copy of instrument by which Anaconda and The National Bank of Commerce of Seattle agree to Umont acquiring the three-fourths interest in the Plutus Claim owned by Anaconda and Bank and leased to Irving and Nelson.

George C. Selfridge
Chairman, Operating Committee (GCS)

cc: Docket
Adm. Read. File
Code 400
Oper. Committee
T. Kiilsgaard, USGS
H. T. Reno, USBM
H. C. RUBIN, Legal
FT, Reg. I-NW Dist.

WSMartin/HCRubin/FEJohnson/ls
8/24/56

STANDARD FORM No. 14
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

TELETYPE

FROM Interior Department
Defense Minerals Exploration
BUREAU Administration
14X4401(01) Revolving Fund, Defense
CHG. APPROPRIATION Production Act, Interior
(Allocated Working Fund to the
Office of the Secretary)

U. S. GOVERNMENT PRINTING OFFICE 10—1723

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re Docket DMEA-2874, Irving and Nelson. Please submit to us copy of instrument by which Umont acquires the three-fourths interest in the Plutus Claim owned by Anaconda and The National Bank of Commerce of Seattle and ~~apparently now~~ leased to Irving and Nelson.

Chairman, Operating Committee

DOCKET
SURNAME
400 Chapman
Martin

August 21, 1956

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Iron and Ferro-Alloys Division, DMEA

Subject: Proposed Amended Contract
Docket No. DMEA 2874 - Manganese
Irving G. Irving and Robert H. Nelson
Fleming Mine
Silver Bow County, Montana

Transmitted herewith are the original and five copies of the above-captioned proposed amended contract, which have been signed by the operator and returned to this office for approval and signature of the Administrator.

Please review the contract with especial reference to Annex I, substituted by the Field Team for the one prepared here, and return it to this Division with your comments, so that it can be submitted to the Administrator for his signature.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

August 20, 1956
Air Mail

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed is a copy of a letter dated August 14 from Irving & Nelson, accompanied by an agreement between them and Umont Mining, Inc., in which Irving & Nelson request that Contract No. Idm-E604 be assigned to Umont Mining, Inc. to 400

The Field Team is agreeable to the reassignment and recommends that it be done. An amended contract for an exploration program on this property is in the process of being executed by Irving & Nelson and the Government.

By Field Team, Region I, NW Dist.

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E Howard

for: Wing G. Agnew, Member
Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
Sample

RECEIVED
AUG 30 1956

ROBERT H. NELSON

IRVING G. IRVING

mac
al

SAM

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

Alvord
USAM cc } ltr only
DMEA(2) cc

DMEA

August 14, 1956

Mr. A. E. Weissenborn, Executive Officer,
Defense Minerals Exploration Administration,
Field Team, Region 1, NW. District,
S. 157 Howard Street, Spokane, Washington.

Re: Docket No. DMEA-2874 (manganese
Plutus Mine,
Silver Bow County, Montana.
Contract No.-Idm-E604

Dear Mr. Weissenborn:

As stated in our recent telephone conversation, we wish to have the captioned, amended, Exploration Project Contract assigned to Umont Mining, Inc., who have a lease and option on our property, will carry out the work to be done and will act as operators.

Enclosed is a copy of our Agreement with Umont. We have given a copy of this agreement to General Services Administration, in Seattle, and asked them to regard the various provisions as confidential. We make the same request of your Agency.

For your information, Umont Mining, Inc. has its main offices in Burlington, Vermont. The mailing address is-- King Street Dock, Burlington, Vermont. It also has an office at 912 Kearns Building, Salt Lake City, Utah, and at 43 Hirbour Building, Butte, Montana.

Umont's officers are:

L. P. Evans, Jr, President
D. P. Wheeler, Jr., Vice Pres. & Gen. Mgr.
R. H. Wadhams, Vice Pres., Sec. & Treas.

Under separate cover, we are also sending you our first Monthly Report covering work already done, under Stage II of the contract, and we wish to have the government's check reimbursing us for our share of the work done made out to Umont Mining, Inc, rather than Irving and Nelson. We realize that this will require awaiting approval and action on the assignment requested, which we hope will not take too long.

Rec'd 8/20

RECEIVED
AUG 22 1956

Very truly yours,

Irving G. Irving

Robert H. Nelson

DMEA (2)

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

August 20, 1956

Irving & Nelson
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (Manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Gentlemen:

This will acknowledge receipt of your letter dated August 14, 1956, in which you enclose uncertified copy of your agreement with Umont Mining, Inc., and request that Contract No. Idm-E604 be assigned to them.

We have also received a letter from Mr. E. P. Frizelle, president of the Metals Bank & Trust Company, Butte, Montana, stating that the possession of the Norwich claim is now entirely held by Irving & Nelson.

We are forwarding your request, your agreement with Umont Mining, Inc., and Mr. Frizelle's letter to our Washington office for its consideration. However, the Government's consent to this assignment will not be effective until there has been furnished to this office a reproducible copy with signatures of a satisfactory instrument by which you as the assignors transferred to Umont, Inc., your interest in the land. If your request is favorably considered, an agreement will be prepared in Washington and sent to you which, of course, must be signed by both you and Umont, Inc., before reassignment is effective.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Sample

RECEIVED
AUG 2 2 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

August 20, 1956
Air Mail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed is a letter from Mr. E. P. Frizelle of the Metals Bank & Trust Company of Butte, Montana, in which he states that Irving & Nelson are the sole owners of the Norwich Lode claim.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosure

cc: USBM (2) w/inc.
USBM (AD)
Sample

RECEIVED
AUG 23 1956

DMEA

METALS BANK & TRUST COMPANY

ESTABLISHED 1887

BUTTE, MONTANA

[illegible]

Misc
al
Usson (2)
Dmea (2)
above

Mr. A. E. Weissenborn, Executive Officer
Defense Minerals Exploration Administration
[illegible] Street
[illegible]

Re: Docket No. DMEA-2 7[illegible]
[illegible]
[illegible]

Dear Mr. Weissenborn:

[illegible] that we are recently making [illegible] Es. [illegible] deed [illegible] this property [illegible] former owner [illegible] Irving [illegible] Mr. [illegible] Irving

It is our understanding that it was Mr. [illegible] record these deeds immediately, and undoubtedly, [illegible] of the recording of the deeds can be obtained if you [illegible] desire.

Yours very truly,

E. P. Frizelle, President

EPF:wk
cc: Irving G. Irving

ROBERT H. NELSON

IRVING G. IRVING

Docket

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

August 14, 1956

WSM

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

Re: Docket No. DMEA-2874 (Manganese)
Plutus Mine,
Silver Bow Co., Montana
Contract No. Idm-E604

Dear Mr. Mittendorf:

Enclosed are the original and five copies of the captioned contract, which we just received from Mr. Weissenborn, of the Spokane office. Mr. Weissenborn instructed us to sign and send all copies direct to you in Washington, as this would expedite getting your approval and signature, and a signed copy back to us.

Very truly yours,

I. G. Irving

I. G. Irving

RECEIVED
AUG 16 1956

400

Docket
Martin

August 13, 1956

MEMORANDUM

To: Chief, Operations Control and Statistics Division

From: Chief, Iron and Ferro-Alloys Division

Subject: Withdrawal of Docket No. DMEA-4129, Manganese
Irving and Nelson
Norwich Mine
Silver Bow County, Montana

After consultation with the Legal Division, it was deemed advisable not to write a separate contract covering work requested by Irving and Nelson under the captioned docket. Instead, approved work requested by Docket No. DMEA 4129 was incorporated in a proposed Amended Contract No. Idm-E604 (Docket No. DMEA 2874), which was forwarded to the Field Team on August 6.

Accordingly, it is suggested that Docket No. DMEA-4129 be withdrawn from the active files and combined with Docket No. DMEA-2874.

W. S. Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

WSMartin/ls

cc: Docket
Code 400

WITHDRAWN-BY-ASSIGNMENT OF CONTRACT- 9-26-56
TO- 2874

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 13, 1956

Air Mail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Gentlemen:

Upon receipt of Mr. Martin's letter of August 6, 1956 enclosing the above-referenced contract, we called Messrs. Irving and Nelson to determine the ownership of the Norwich claim and the status of the lease on the Plutus claim. The Norwich claim is now wholly owned by Irving and Nelson, partners. Irving and Nelson also own one-quarter interest in the Plutus claim, and have leased the remaining three-quarters from The Anaconda Company and the National Bank of Commerce of Seattle. The lease has been extended from June 30, 1959, as shown in Annex I of the proffered contract, until June 30, 1961.

In accordance with the last paragraph of Mr. Martin's letter, and a telephone conversation with Mr. Mittendorf this morning, we have revised the pertinent recitals in Annex I and have forwarded the contract to Irving and Nelson for their signature. We have asked that all copies of the contract be returned to Washington so that they can be signed by Mr. Mittendorf.

Enclosed are:

1. 2 copies of a letter of August 11, 1956 from I. G. Irving to Executive Officer

2. A photostat copy of a lease extension dated April 30, 1956

3. 2 copies of a letter dated August 11, 1956, I. G. Irving to E. P. Frizelle, President, the Metals Bank & Trust Co.

RECEIVED
AUG 16 1956

4. 2 copies of our letter dated August 13, 1956 to Irving & Nelson

5. 1 copy of revised Annex I, marked "Extra" copy.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: USBM (2)
USBM (AD)
Sample

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIBBOUR BUILDING

BUTTE, MONTANA

August 11, 1956

Mr. A. E. Weissenborn,
Executive Officer,
Defense Minerals Exploration Administration,
S. 157 Howard Street,
Spokane 4, Washington.

Re: Docket DMEA-2874
Contract-Idm-2604
Plutus-Norwich Mine

Dear Mr. Weissenborn:

Enclosed is a photostat of our Lease Extension on the Plutus Claim. You will note that we not only own a quarter interest in the claim, but that the lease has been extended, on the other three-quarters, to June 30, 1961.

You will also note from the enclosed copy of a letter to Mr. E. P. Priselle, Vice President of the Metals Bank, that I have asked him to write you, on Monday, stating that the handling of the escrow arrangements on the Norwich Claim have been completed and that all deeds are in, showing that the claim is again our possession and that no outstanding franchisal interests exist in other hands.

As a matter of fact, just before he went on his vacation, our attorney, James A. Poore, told me that he had taken the deeds up to the Court House to have them recorded.

By Tuesday evening we will have a report in the mail to you on the work already done at the mine under the subject contract, for which we expect re-imbursement, and also a request that the contract be transferred to Great Mining, Inc.

~~Please advise if there is anything else required.~~

Very truly yours,

I. G. Irving

RECEIVED
AUG 13 1956

RECEIVED
AUG 16 1956

Encl. 1.

THE ANACONDA COMPANY

Butte, Montana

F. A. LINFORTH
ASSISTANT TO THE VICE-PRESIDENT

April [illegible], [illegible]

Mr. Irving G. Irving
84 Hirbour Building
Butte, Montana

Dear Mr. Irving:

In accordance with your request, [illegible] quarter (1/4) interest, [illegible] owner of one-half (1/2) interest [illegible] one-quarter (1/4) interest, all de-lessors, hereby extend for two (2) years the lease granted to you on the [illegible] in Silver Bow County, Montana, [illegible] feet vertically below the collar [illegible].

[illegible]

[illegible]

Yours [illegible]

F. A. Linforth

[illegible]

The foregoing extension is hereby accepted by the Lessee in accordance with the conditions and provisions contained herein.

DATED MAY_____, 19__.

August 1[illegible], [illegible]

[illegible] P. [illegible]zelle, President,
[illegible]tals Bank & Trust Company,
[illegible], [illegible]ontana.

Re: Norwich Iola Claim

[illegible] Frizelle:

This is to acknowledge receipt of [illegible] check, in the [illegible] of [illegible]5.00, which is a refund from the [illegible]etals Bank covering abstract costs, revenue [illegible] in connection with the [illegible] Claim, which was [illegible] under [illegible] Account-[illegible], at your bank.

[illegible] further [illegible] Norwich claim, and the [illegible] possession.

[illegible] and, as [illegible] on the [illegible].

[illegible] recall [illegible] all [illegible] and [illegible] but [illegible] this [illegible]tion. However, [illegible] are in.

Could you write a letter to the [illegible] at your bank, that all [illegible] of this day. The letter should be addressed [illegible]

To: A. E. Weissenborn, Executive Officer,
Defense Minerals Exploration [illegible],
[illegible] 157 [illegible] Street,
Spokane 4, Washington.
(Re: Docket No. D[illegible]-2874
Contract [illegible]-[illegible]604
Norwich-Plutus Mine ([illegible])

Thanking you in advance, I remain,

Very truly yours,

[illegible]

AMENDED
EXPLORATION PROJECT CONTRACT
IRVING G. IRVING AND ROBERT E. NELSON, PARTNERS
DOCKET NO. DMRA-2874

ANNEX I

The land referred to in Article 2 of the contract form consists of portions of two patented claims in Silver Bow County, Montana, as follows:

1. That part of the Plutus Lode Mining Claim, Survey No. 3018, located in sections 10 and 15, T. 3 N., R. 8 W., lying above a horizontal plane 100 feet below the collar of the Plutus shaft.

2. The Norwich Quartz Lode Mining Claim, Survey No. 2794, Lot No. 300, T. 3 N., R. 8 W., except that portion of the claim lying west of coordinate 2472. and also above the Plutus 300 (No. 3) level (see attached Figure 1), and all existing dumps on said claim, which are excluded from the land referred to in Article 2.

o o o o o o o o o o o o o o o o o o o o o o o

A one-quarter interest in the Plutus claim is owned by the Operator and the other three-quarters interest is held under a lease from Anaconda Copper Mining Company and the National Bank of Commerce of Seattle. This lease expires June 30, 1968.

The Norwich claim is owned in full by Irving and Nelson, partners.

(Article 2(a)) - The land is subject to a mortgage held by General Services Administration under its Contract GS-10F(D)-3. (Article 2(b)) - The Subordination Agreement of General Services Administration and Consents to Lien of the lessors of the Norwich and Plutus claims are waived.

5

Revision of Annex I.

Please substitute this Annex I for the page in your "Extra" Copy of the proposed contract that you hold in Washington until signed copies come back to you.

EMRaymond

400

DOCKET
Surname:
Holt
Chapman
Naylor
Reno
Lamb
Nelson
Fejfuss

AUG - 9 1956

AIR MAIL

Messrs. Irving G. Irving
and Robert H. Nelson
43 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874, Manganese
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Gentlemen:

Transmitted herewith is a certification of discovery or development issued under the subject contract, which was executed September 21, 1953.

By the terms of the Exploration Project Contract, as amended, and of the certification, all production from the lands described in the referenced contract from the date of the Exploration Project Contract is subject to the Government's percentage royalty as set forth in the contract until the sum of $17,393.03 is paid, or until September 21, 1964, whichever occurs first.

You should continue making royalty payments, as you have been doing, to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, Northwest District, South 157 Howard Street, Spokane 4, Washington. Checks should be made to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct royalties from the amount due on each shipment and forward check direct to the Executive Officer. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the charge certified to be correct by the purchaser.

You are requested to notify Mr. Weissenborn of any changes in ownership or production rights that might have any effect on the Government's rights to its percentage royalty. Also, if production ceases at any time for an extended period, please notify Mr. Weissenborn at 6-month intervals that no production has been made, when that is the case.

Sincerely yours,

C. O. Mittendorf

Administrator

SPHolt/ls
8/6/56

Enclosure

cc: FT, Reg. I-NW Dist.
Clarence A. Fredell, EPS, GSA
Anaconda Company
Nat'l Bank of Commerce of Seattle

cc: Oper. Committee
Adm. Read. File
R. W. Geehan, USBM
H. T. Reno, USBM
Thor Kiilsgaard, USGS

cc: Docket
Code 110
Code 400
Code 800

400

DOCKET
Surname:
Holt
Chapman
Martin
Dunder
Reno
Lamb
Nelson
R Johnson

AUG - 9 1956

Mr. A. K. Weissenborn, Executive Officer
DMEA Field Team, Region I, N. W. District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2874, Manganese
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Weissenborn:

Enclosed are copies of a certification of discovery or development for the above-referenced property, and of related correspondence.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (SHB)

Enclosures

APPROVED:

FRANK D. LAMB (SHB)
Member, Bureau of Mines

N. E. Nelson (SHB)
Member, Geological Survey

cc: Docket
Code 400
Oper. Committee
Adm. Read. File
Code 110
Code 800
R. W. Geehan, USBM
H. T. Reno, USBM
Thor Kiilsgaard, USGS
FT, Reg. I-NW Dist.

SPHolt/ls
8/6/56

DOCKET
Surname:
Holt
Chapman
Martin
Chandler
Reno
Lamb
Nelson
FJ Simon

Mr. Clarence A. Fredell, Acting Director
Materials Division
Emergency Procurement Service
General Services Administration
Washington 25, D. C.

SPHolt/ls
8/6/56

Re: Docket No. DMEA-2874, Manganese
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development issued under the subject contract.

Contract No. Idm-2604 for the exploration of the Plutus mine manganese deposits was executed September 21, 1953. Expenditures up to $25,830.00 were authorized by the contract, of which the Government's share at 75 percent was $19,372.50. The cost of the work completed was $23,190.70, of which the Government's share at 75 percent was $17,393.03.

The object of the exploration program was to test the possible manganese occurrences along a quartz-bearing vein in granite or quartz monzonite and aplite. The program employed drifting and raising along and within the vein to explore the mineralized zone.

The contract, as amended, allowed $25,830.00 to unwater and rehabilitate 56 feet of shaft, excavate 1,300 cubic feet of shaft station-crosscut, drift 470 feet, timber 470 feet of drift, raise 80 feet, pump 150 days, and assay 249 samples for manganese.

Work completed comprised 36.5 feet of shaft rehabilitation, 892.5 cubic feet of shaft station excavation, 467 feet of drifting, 454.9 feet of drift timbering, 72 feet of raising, and assaying 67 samples for manganese.

A preliminary approximation of reserves of manganese ore discovered by project work is 2,000 tons of indicated ore, grade not stated, in addition to about 1,800 long tons of ore, reported by the operator to average 16 percent manganese, which was produced during the course of the project. A formal estimate of ore reserves will be submitted when the Final Report of the Field Team is received.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosure

cc: T. Killsgaard, USGS
H. T. Reno, USBM
FT, Reg. I-NW Dist.

cc: Oper. Comm.
Adm. Read. File
R. W. Geehan, USBM

cc: Docket
Code 400
Code 800
Code 110

400

DOCKET
Surname:
Holt
Chapman
Martin
Reno
Lamb
Nelson
Hylmar

AUG - 9 1956

The Anaconda Company
Hennessy Building
Butte, Montana

Re: Docket No. DMEA-2874, Manganese
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. I[redacted]604

Attention: Mr. F. A. Linforth
Assistant to the Vice
President

Gentlemen:

Transmitted herewith for your information is a copy of the certification of discovery or development issued as a result of the exploration program under the above-referenced contract. The property as set forth in the contract was leased to Irving G. Irving by the Anaconda Copper Mining Company and the National Bank of Commerce of Seattle, Trustee for the Thomas Heirs Trust, under a certain indenture dated July 22, 1952.

Also enclosed is a copy of a letter to Messrs. Irving G. Irving and Robert H. Nelson.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

cc: Docket
Code 400
Code 110
Code 800
Oper. Comm.
Adm. Read. File
R. W. Geehan, USBM
H. T. Reno, USBM
T. Kiilsgaard, USGS
FT, Reg. I-NW Dist.

SPHolt/ls 8/7/56

400

DOCKET
Surname:
Holt
Chapman
Martin
Dunlap
Lamb
Nelson

AUG - 9 1956

National Bank of Commerce of Seattle
Second Avenue at Spring Street
Seattle 1, Washington

Re: Docket No. DMEA-2874, Manganese
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Gentlemen:

Transmitted herewith for your information is a copy of the certification of discovery or development issued as a result of the exploration program under the above-referenced contract. The property as set forth in the contract was leased to Irving G. Irving by the Anaconda Copper Mining Company and the National Bank of Commerce of Seattle, Trustee for the Thomas Heirs Trust, under a certain indenture dated July 22, 1952.

Also enclosed is a copy of a letter to Messrs. Irving G. Irving and Robert H. Nelson.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosures

cc: Docket
Code 400
Code 110
Code800
Oper. Committee
Adm. Read. File
FT, Region I-NW Dist.
T. Kiilsgaard, USGS
R. W. Geehan, USBM
H. T. Reno, USBM

SPHolt/ls
8/6/56

DOCKET
SURNAME

400 Holt
Chapman
Martin
Reno
Lamb
Nelson

August 8, 1956

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: General Summary of Contract and Results Obtained
Docket No. DMEA 2874 - Manganese
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Operator: Irving G. Irving and Robert H. Nelson, partners, 43 Hirbour Building, Butte, Montana.

Operator's Property Rights:

Owner of 1/4 interest and lessee of 3/4 interest in the patented Plutus Lode Mining Claim, U. S. Survey No. 3018, situated in secs. 10 and 15, T. 3 N., R. 8 W., Butte Mining District, Silver Bow County, Montana, above a horizontal plane 600 feet vertically below the collar of the Plutus shaft.

Contract:

(a) Executed September 21, 1953.
(b) Completion period: Work to be commenced within 30 days, and to be completed within 8 months from the date of the contract.
(c) Work authorized:

Agreed Unit Costs

Drift 270 feet westward on 200-foot level @ $34.00/ft.	$ 9,180.00
Drift 200 feet eastward on 200-foot level @ $34.00/ft.	6,800.00
Raise 200 feet @ $35.00/ft.	7,000.00
Drift timbering, 470 feet @ $5.00/ft.	2,350.00
Assaying, 250 samples @ $2.00/each	500.00
Total estimated cost of program	$25,830.00
Government participation @ 75%	$19,372.50

Amendment No. 1, executed January 6, 1954, changed the work authorized the following:

Drift 270 feet westward on the 200-foot level @ $34.00/ft.	$ 9,180.00
Drift 16.4 feet eastward on the 200-foot level @ $34.00/ft.	557.60
Unwater and rehabilitate Plutus shaft to new 400-foot level, 56 feet @ $35.00/ft.	1,960.00
Cut and timber station-crosscut, approximately 1,300 cubic feet @ $1.24/cu. ft.	1,612.00
Raise 80 feet @ $35.00/ft.	2,800.00
Drift 183.6 feet eastward on 400 level @ $34.00/ft.	6,242.40
Drift timbering, 470 feet @ $5.00/ft.	2,350.00
Pumping 150 days @ $4.20/day	630.00
Assaying, 249 samples @ $2.00/each	498.00
Total estimated cost of program	$25,830.00
Government participation @ 75%	$19,372.50

Amendment No. 2, executed April 6, 1954, reallocated the work remaining on the 200-foot level (225.6 feet) to the 244-foot level.

Amendment No. 3, executed August 2, 1954, extended the completion time of the contract from 8 months to 14 months from the date of the contract.

Amendment No. 4, executed November 23, 1954, further extended the completion date of the contract from 14 months to 24 months from the date of the contract.

Amendment No. 5, executed May 12, 1955, effective as of April 1, 1954, corrects an error in Amendment No. 2 by authorizing drifting 44.4 feet westward on the Plutus vein on the 200-foot level.

Amendment No. 6, executed May 25, 1955, effective as of April 1, 1954, deletes 15 feet of crosscutting authorized in Amendment No. 2, and adds 15 feet to the drifting authorized by that Amendment.

Amendment No. 7, executed September 29, 1955, further extends the completion date of the contract from September 21, 1955 to December 31, 1955, and extends the period for payment of the Government's royalty from 10 years to 11 years.

(d) Work completed:

Drifting 467 feet @ $34.00/ft.	$15,878.00
Drift timbering, 454.9 feet @ $5.00/ft.	2,274.50

Raising, 72 feet @ $35.00/ft.	$ 2,520.00
Shaft rehabilitation, 36.5 feet @ $35.00/ft.	1,277.50
Cutting shaft station, 892.5 cu. ft. @ $1.24/cu. ft.	1,106.70
Assaying, 67 samples @ $2.00/each	134.00
Total accepted cost of project	$23,190.70
Government participation @ 75%	$17,393.03

Audits:

A review in lieu of final audit, dated February 24, 1956, was received February 27, 1956.

Reports:

The Operator's Final Report was received February 15, 1956. The Final Report of the Field Team is in preparation.

Certifications:

A certification of discovery or development was issued by this office on AUG 9 1 1956.

Comments:

The project was established to explore for manganese in the Flintus Mine, Silver Bow County, Montana. A preliminary approximation of reserves of manganese ore discovered by project work is 2,000 tons of indicated ore, grade not stated, in addition to about 1,800 long tons of ore, reported by the operator to average 16.0 percent Mn, which was produced during the course of the project. A formal estimate of ore reserves will be submitted when the Final Report of the Field Team is received.

SPHolt/foc
8/7/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

DOCKET
Surname:
Chapman
Robin
Sawyer
Martin
Alexander
Nelson
Fitzpatrick

AUG - 6 1956

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - N.W. District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-2874, Manganese
Irving G. Irving and
Robert H. Nelson
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604, Amended

Dear Mr. Weissenborn:

Enclosed are the original and five copies of a proposed amended contract for an exploration program on the above-referenced property, together with Annex I (1 page), Annex II (2 pages), Exhibit "A (5 pages), and two maps. Two extra copies of Exhibit "A and the other attachments to the proposed amended contract are enclosed for the use of the Field Team.

If any element of the proposed project does not have either your approval or that of the operator, the original and all copies of the proposed amended contract are to be returned to this office, together with the proposed changes for consideration.

We are also enclosing two copies of a memorandum from the Associate Solicitor pertaining to matters that should be checked prior to the signing of the proposed amended contract. After the aforesaid memorandum was written, Mr. Irving informed us by telephone that purchase of the Norwich claim had been completed and that the Plutus lease had been extended an additional two years, but we are still not clear as to ownership of the Norwich claim.

In Annex I and in the contract form, please review the recitals to determine whether ownership of and the rights to possession in the land are held pursuant to the statements therein. After you have checked the information, if you determine the recitals are accurate, the proposed amended contract may be executed by the partnership. Otherwise, revise the recitals before submitting the proposed amended contract to the operator, and then return it to us for signature of the Administrator, with an explanation of the changes.

Sincerely yours,

W. S. Martin
by dsf
ACTING Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan by dsf
Member, Bureau of Mines

N. E. Nelson by dsf
Member, Geological Survey

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
Thor Kiilsgaard, USGS
H. T. Reno, USBM
FT, Region I-N.W.

TLChapman/HCRubin/ls
8/3/56

DOCKET
Surname:
Martin
Chambers
Nelson
Gehone
Johnson

T E L E G R A M AUG - 6 1956

I. O. Irving and R. H. Nelson
Hirbour Building
Butte, Montana

Reurtel July 30, Docket DMEA 2874. Proposed Amended Contract Idm-E604 mailed to Field Team.

G. O. Mittendorf

Administrator

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
H. T. Reno, USBM
FT, Reg. I, NW Dist.

WSMartin/ls
7/31/56

RECEIVED
AUG - 6 1956

AXXXXXXX-227K

XDXXXXXX-228K

YWB164 WAF SP 19 I-GS-G

SPOKANE WASH 8-3-56 440P

GEORGE C. SELFRIDGE, CHAIRMAN OPERATING COMMITTEE

DMEA, DEPARTMENT OF INTERIOR WA

REUR TELETYPE AUGUST 2, DOCKET DMEA 2874, IRVING AND NELSON, PLUTUS MINE. CERTIFICATATION DESCRIPTION SHOULD BE "DRIFTING ON PLUTUS 200, 244, AND 275 FOOT LEVELS ---" INSTEAD OF PLUTUS 200 AND 400 FOOT TEVELS. OTHERWISE PROPOSED DESCRIPTION IS CORRECT.

A. E. WEISSENBORN, USGS, SP

2 DMEA 2874 200 244 275 200 400

VA 443P

DOCKET
Surname:
Holt
Martin
Johnson
Whitehead

AUG 3 1956

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund, Defense
Production Act, Interior
(Allocated Working Fund to the
Office of the Secretary)

T E L E T Y P E

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I-Northwest District
South 157 Howard Street
Spokane 4, Washington

We propose to use the following description in the certification for DOCKET DMEA-2474, Irving and Nelson, Plutus Mine, quote, Drifting on the Plutus 200-foot and 400-foot levels, and raising from the Plutus 200-foot level have indicated a substantial quantity of manganese occurring as manganese oxides and carbonate with small amounts of lead and zinc, in northeasterly to easterly trending quartz-bearing veins in granite or quartz monzonite and aplite. Unquote. Near expiration of six months allowed makes immediate certification necessary. Please teletype promptly whether you concur in our description.

W. S. Martin

ACTING Chairman, Operating Committee

Copy to: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
H. T. Reno, USBM
FT, Reg. I-NW

SPHolt/ls
8/2/56

Docket 2874

F SERVICE

ast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS

DL=Day Lette

NL=Night Le

LT=International Letter Telegram

RECEIVED

JUL 31 1956

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

•OA502 PRB729

PR BUA421 NL PD=BUTTE MONT 30= 1956 JUL 31 AM 1 20

C O MITTENDORF= DEPT OF INTERIOR 19TH&C ST NW

ADMINISTRATOR DEFENSE MINERALS EXPLOAATION

ADMN WASHDC=

Copy retained 400

WSM

WE HAVE GONE AHEAD PREPARING FOR EXPLORATION OF THE 400 LEVEL FAR BEYOND OUR ANTICIPATED UNAIDED LIMIT AND ARE VERY ANXIOUS FOR DMEA ASSISTANCE WE ASSUME THAT IT IS AN AMENDMENT OF THE OLD CONTRACT WHEREIN SHAFT AND CCROSSCUT PREPARATION COSTS WILL BE REFUNDED TO THE EXTENT OF THE GOVERNMENT PARTICIPATION IN THE LOAN WE THERFORE EAGERLY AWAIT OUR DMEA CONTRACT AND HOPE THE

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

(37)

1956 JUL 31 PM 12 38

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

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WT030 DL PD=BUTTE MONT 31 1012AMM=

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JUL 31 1956

:C O MITTENDORF, ADMINISTRATOR=
:DEFENSE MINERAL EXPLORATION ADMN=

RELATIVE TO OUR PHONE CONVERSATION OF YESTERDAY WITH MR MARTIN WE WISH TO POINT OUT AGAIN THAT MINING COSTS ARE MUCH HIGHER IN BUTTE THAN PHILLIPSBURG OWING TO HEAVIER GROUND AND MORE RIDGEDLY ORGANIZED LABOR AND WE THINK THAT PHILLIPSBURG SHOULD NOT BE USED AS A YARD STICK=

:I G IRVING AND R H NELSON=

2874

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

JUL 31 1950

Memorandum

To: The Administrator, DMEA
Operating Committee

From: Associate Solicitor, Division of Mineral Resources

Subject: DMEA-2874 (Manganese)
Irving G. Irving
Silver Bow, Montana

As it is planned to certify the Prior Contract, this Amended Contract should not be signed by the Administrator until after the date the certification is made.

Therefore, probably it should be sent to the Operator for signature first and returned.

Robert P. Dwyer

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

JUL 25 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Iron and Ferro-Alloys Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-2874 (Manganese)
Irving G. Irving and Robert H. Nelson
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

WSM

As requested in Mr. Chapman's memorandum dated July 11, we have prepared the attached Amended Contract.

The "Prior Contract" covered only the Plutus Claim, which is subject to a prior GSA mortgage. DMEA waived subordination by GSA in connection with the Prior Contract.

The Norwich Claim, added to the land in the Amended Contract, is held under a lease and option to purchase agreement dated July 30, 1949. We did not find a copy of the original lease and option for review purposes. However, an amendment thereof dated August 21, 1952, extended the Operator's rights thereunder to June 30, 1956. There are also statements in the Operator's letter dated May 5, 1956, to the Administrator that Umont Mining Company has joined with the Operator in this venture; and that Umont has "acquired the Norwich Claim for us [the Operator]." We are not clear from these facts as to the state of the present ownership of the Norwich Claim; as to the rights of possession of the claim; and as to the status of Umont Mining Company in relation to the project. These matters should be clarified and if any facts are in any way at variance with the recitals in Annex I or elsewhere, (later Amendment to the lease-option agreement; completed purchase of Norwich Claim; Umont Mining added as Operator) the recitals should be revised or completed before the execution of the Amended Contract.

We understand that the subordination of GSA is to be waived and that all Consents to Lien are waived. Of course, if the Operator now owns any part of the Norwich Claim, the Government will have a lien to the extent of the Operator's ownership.

It is noted that the Operator's lease on the Plutus Claim expires in June 1959, and that Mr. Chapman recommends requiring the Operator to obtain an extension of the lease.

Robert P. Dwyer

Docket

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

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JUL 1 0 1956

1201 N. Division St.
Spokane 2, Washington
July 17, 1956

2874

VIA AIR MAIL

Copy related 200

WSM

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 4129 (manganese)
Irving and Nelson
Norwich Mine
Silver Bow County, Montana

Dear Mr. Selfridge:

With further reference to Mr. Martin's letter of June 25 and our reply of June 29, we have talked to the three largest mine operators in the Philipsburg mining district and have obtained estimated timbering costs at the Trout mine of American Machine & Metals Co., the True Fissure mine of Taylor-Knapp Co., and the Scratch All mine of Peter Antonioli.

None of the operators in the district keep their accounts in sufficient detail to enable them to determine with any degree of accuracy what their timbering costs are. The fact that none of the operators in the district employ timbermen as a labor classification may account for this. Timber is placed by the miners who happen to be working in the heading. Factors that they consider in arriving at the cost of a timbered heading, besides the direct cost of labor and timber, are prorated overhead and increased cost of supplies and labor necessary to drive a larger heading when timber is necessary.

In all cases the following cost estimates are for a cross-section 5'x7' in the clear of timber.

American Machine & Metals Co. estimates the cost of a timbered heading to be 20 percent more than an untimbered one or an additional $8.94 per foot. Taylor-Knapp Co. estimates that it costs 25 percent more for timbered than untimbered headings or $9.95 per foot for timber (which includes $0.90 for contingencies). Frank Antonioli estimates the cost of timbering at $11.90 per foot and he states that Philipsburg and Butte costs are comparable.

Deducting the $0.90 for contingencies from Taylor-Knapp's estimate, then we get $9.05 per foot which closely approximates American Machine & Metal Co.'s estimate of $8.94 per foot.

It appears that the only way of arriving at a valid cost estimate for timbering would be by making a time study and then it would be applicable only in the mine where the study was made.

By Field Team, Region I, NW District

Wing G. Agnew

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren

Donald R. MacLaren, Acting Member
U. S. Geological Survey

cc: USGS (2)

DOCKET
Surname:
Selfridge
Y Johnson

Interior Department

Defense Minerals Exploration Administration

14X4401(01) Revolving Fund, Interior Defense Production Act

(Allocated Working Fund to the Office of the Secretary)

Irving G. Irving, and
Robert H. Nelson
Hirbour Building
Butte, Montana

JUN 29 1956

Reurtels June 26 and 28. Processing of your application expected to be completed in next few days. If a contract can be made, it should probably be forwarded to you in about two weeks. However, cost estimates in present application, even allowing for new Union scale effective July 1, seem unreasonably high. We understand you advised our Field Team that you might not accept contract unless it included substantially your unit cost figures. If this is so, please advise us promptly.

G. O. Mittendorf (for)

Administrator, DMEA

Copy to:
Docket DMEA 2874
Code 400
Oper.Committee
Adm. Read. File
T. Kiilsgaard, USGS
G. DeHuff, USBM
FT, Reg. I-NW Dist.

TLChapman/FEJohnson/ls
6/29/56

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 2 - 1956

June 29, 1956

Air Mail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Dmea 2874

Re: Docket No. DMEA-4129 (Manganese)
Irving and Nelson
Norwich Mine
Silver Bow County, Montana

Dear Mr. Selfridge:

Reference is made to Mr. Martin's letter of June 25 and telephone conversation of June 27 with the Executive Officer regarding sill timbering costs at the subject property. We will attempt to obtain cost information from Antonioli as soon as possible. In the meantime it might be helpful to clarify the basis for our previous estimate.

Labor

First, the heading crew will stand the timber as separate timber crews are the exception rather than the rule in Butte, as well as elsewhere in the Northwest. Bowsher's basic assumption was that the heading crew would stand, block and lag a set of timber in 2 hours or, stated in another way, that 4 sets or 22 linear feet could be completely installed in a shift. We have seen no better performance than that in the Region.

Since this is a shaft operation other labor in addition to the heading crew is involved and the timbering portion of the cycle must stand its fair share of this labor. Irving and Nelson contend that since the DMEA work will be the only operation carried on during the night shift the full wages of a hoistman, topman and shift boss should be included in the cost of the DMEA operation as well as the two miners and a trammer. Bowsher assumed that even though the production operation was not active during night shift it would not be necessary or even possible for the shift boss, hoistman and topmen to spend full time on DMEA work but that one-half of their time could be spent on work which would contribute to production. Since the miners and trammers would work only on the DMEA level they would have to be charged full time to DMEA work.

Using the Norwich wage scale, which is $1.00 per shift higher than Anaconda's, and assuming a 6-shift/week, night shift operation the cost of labor and supervision for timbering would be:

Labor for timbering drift (1 shift) 22 linear feet

Topman	1/2 time	$ 9.81	$0.45
Hoistman	1/2 time	11.21	0.51
2 miners	Full "	42.52	1.94
Trammer/sta. tender	" "	21.26	0.97
		84.80	3.87
Shift boss	1/2 time @ $23.84	11.92	0.54
		$96.72	$4.41

The contract labor price in Butte at the present time for sill timbering is $0.023 per cubic foot according to information from private sourse. The new labor contract which should be in effect within a month will undoubtedly provide for a raise in this price.

A lead-set (2 posts-1 cap and 2 girts-lagged and blocked) on the sill in Butte is considered to be about 380 cubic feet. Using these figures we get:

$$\frac{380 \times .023}{5\frac{1}{2}} = \$1.59/\text{ft.}$$ to be split between the two contracting miners.

The $1.59 figure does not include overtime, insurance, taxes, etc. which would add about 20 percent or $0.32, making a total of $1.91 - only $0.03 below the $1.94 obtained above.

It is not possible to get an exact cost for the other labor (hoisting, tramming, surface and supervision) for Anaconda's operations but it is obvious that a prorated portion of that cost should be included in the cost of timbering. The amount would probably be less than at the Norwich because the larger operation would permit a wider distribution of the total cost of this item. For the night-shift, single DMEA operation proposed by Irving and Nelson we believe the distribution shown above is not excessive.

Accounting

Since no question has been raised about this cost, we assume it is acceptable to you. Irving and Nelson state that the increased work in this connection will cost $75 per month.

75 x 12	=	$ 900.00 per year
900/52	=	17.31 " week
17.31/6	=	2.89 " shift
$\frac{2.89}{22}$	=	$ 0.13/ft. of timbering

Timber

The costs stated by Irving and Nelson for timber were checked locally by Bowsher and found to be accurate.

Posts and caps are squared and are 8" x 8" or 10" x 10" as required by the nature of the ground. Standard Butte framing is used as the timber is purchased packaged from the Anaconda Company.

2 posts	@	$2.10	=	$ 4.20
1 cap	@	2.10	=	2.10
2 girts	@	2.10	=	4.20
Backlagging		83 b.f.		
Side "		77 b.f.		
		160 @ 0.65	=	10.40
Blocking, wedges			=	2.00

$22.90/5½'-set = $4.16/ft.

Power

Irving and Nelson state that the average power bill of $408.36 will be increased 50 percent by a 2-shift operation or that the DMEA work would entail a power cost of $204.18 per month.

$$\frac{204.18 \times 12}{52 \times 6} = \$7.85 \text{ per shift}$$

$$7.85/22 = 0.36/\text{ft. of timbering}$$

Equipment Depreciation

Depreciation on operating equipment used in connection with the drift work should be prorated to the timbering part of the cycle. Total equipment depreciation per shift for the sill work, according to Bowsher's listing, would be $15.02.

$$\frac{15.02}{22} = \$0.68/\text{ft. of timbering}$$

RECAPITULATION

Labor and supervision	$4.41
Accounting	0.13
Timber	4.16
Power	0.36
Depreciation	0.68
Total	$9.74/ft. of timbering

The $9.74 estimate would hold only if the DMEA work was done on night shift with no concurrent production operation. If the work were done on day shift concurrently with the production operation, the distributed costs or "overhead" would be less and this is the situation we assumed in suggesting the figure of $8.58 in our letter of June 15. On a day-shift operation the cost of the top man, hoistman and shift boss would be reduced by an estimated 50 percent or $0.75 per foot. Depreciation on the compressor and hoist would not be applicable decreasing the total depreciation by $0.25 per foot. Additional power required would be negligible for a day shift DMEA operation; therefore, the power cost would be decreased by an estimated $0.25 per foot. This would give 9.74 - 1.25 = $8.49 per foot of timber. It would probably be advisable to provide for both types of operation in the contract.

For a comparison, Anaconda's costs for drifting in 1952 were as follows:

Drifting costs - 9' x 7' (rock section)

Labor	$11.40	
Timber	2.00	
Tram	1.20	
Rail	2.40	
Supply	10.00	$27.00/ft.
Hoisting		
Compressed air		
Ventilation	13.00	
Equipment		
Supervision		13.00/ft.
Total drifting costs		$40.00/ft.

Assuming a 20 percent increase in labor costs since 1952 and using the price Irving and Nelson pay for timber, our estimate and Anaconda's experience are not too far apart.

11.40 + (11.40 x 0.20) = 13.68 total labor

It is estimated that 20 percent of the total labor cost is for timbering. Therefore:

Labor (13.68 x 20%)	=	$2.74
Timber	=	4.16
Distributed costs (13.00 x 20%	=	2.60
		$9.50

In regard to Mr. Martin's specific questions concerning Anaconda's operations, we have the following information:

(1) Most of Anaconda's timbering is done on contract though some, mostly in the nature of repair work, is done on "day's pay."

(2) There is no union regulation limiting output.

(3) The average contract labor price for sill timber at the Belmont mine in Butte is $0.023 per cubic foot.

By Field Team, Region I, NW District

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E Howard

for: Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
Pinckney

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

1220

1956 JUL 2 0 AM 9 04

SYMBOLS

DL=Day Letter

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VLT=Int'l Victory Ltr.

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WT008 LONG 118 NL COLLECT 4 EXTRA=BUTTE MONT JUN 29=

:C O MITTENDORF=

ADMN DEFENSE MINERALS EXPLORATION ADMN=

RECEIVED
JUL 2 - 1956

REURTEL 29TH. WE REGRET EXCEEDINGLY THAT AN ERRONEOUS IMPRESSION HAS CREPT INTO THE NEGOTIATIONS SOMEPLACE REGARDING OUR APPLICATION FOR DMEA ASSISTANCE FOR THE NORWICH PLUTUS MINE. NEITHER JOE NOR I ARE ADAMANT REGARDING OUR ESTIMATES OF COSTS AND HAVE SO STATED REPEATEDLY. AFTER DISCUSSING YOUR WIRE WITH THE SPOKANE OFFICE THEY ASSURED ME THAT AT NO TIME DID THEY EVER GET THE IMPRESSION THAT WE WOULD NOT ACCEPT A CONTRACT UNLESS IT INCLUDED SUBSTANTIALLY OUR UNIT COST FIGURES. BE ASSURED WE ARE VERY ANXIOUS FOR DMEA ASSISTANCE AND WE WILL GIVE SERIOUS AND CAREFUL CONSIDERATION TO THE CONTRACT YOUR STAFF PROPOSES AND WE WILL APPRECIATE RECEIVING THE PROPOSED CONTRACT AS QUICKLY AS POSSIBLE=

IRVING G IRVING AND ROBERT H NELSON=

Docket 4129 + 2874

July 11, 1956

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Amended Contract
Docket No. DMEA-2874, Manganese
Irving G. Irving and Robert H. Nelson
Plutus and Norwich Claims
Silver Bow County, Montana
Contract No. Idm-E604

Transmitted herewith is a rough draft of an amended contract to the above-captioned contract for your use in preparing the final draft. Please note the last paragraph of the Field Team's letter of May 4, 1956, to the Chairman, Operating Committee.

Thos. L. Chapman, Acting Chief
Iron and Ferro-Alloys Division

Attachment

TLChapman/ls
7/11/56

cc: Docket
Code 400

MF-200A
(Rev. April 1956)

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT
(Short Form)

DMEA No.	*Commodity*	*Contract No.*	*County*	*State*
2874	Manganese	*Idm–E* 604	Silver Bow	Montana

It is agreed ....., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Irving G. Irving and Robert H. Nelson, Partners

whose mailing address is 84 Hirbour Building, Butte, Montana

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority and project.*—(a) This contract is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200A), the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed therein. The project work is a search for indicated or undeveloped deposits of the commodity designated above. The Operator shall begin the work on or before ....., and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within 51 1/3 months from the date of the contract.

(b) The description of the work and the fixed cost for each unit of work to be performed (per foot of drilling, per foot of drifting, per hour of operations, etc.) are hereby agreed upon as specified in Exhibit A. The estimated total cost of the project work is $106,010.70. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $79,508.00 (rounded), in accordance with the provisions of Articles 4 and 5.

(c) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's rights of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances: Plutus claim, Consent to Lien; Norwich claim. Lease and Option (Annex II)

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached, as follows: Guaranty on Prior Contract

(c) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing

in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. Two copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 6 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. *Performance of the work.*—(a) Operator's responsibility.—The work shall be performed diligently, efficiently, expertly, in a workmanlike manner, and in accordance with good mining standards and State regulations governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work, as specified in Article 1 (a).

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after certification of discovery or development, to inspect production operations and underground workings. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. *Contribution by the Government.*—The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5 (b); but all payments by the Government are provisional only, subject to audit, and until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been rendered, the Government may withhold such sums as it sees fit but not in excess of 10 percent of the estimated total cost of the work. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government will not contribute to the cost of any work performed prior to the date of this contract. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) Operator's records.—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered a sufficient final report (see Article 5), may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer or as surety if the Operator is not the producer (for example, if the Operator either transfers or fails to retain his interest in the land), shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling, assaying, or transportation performed or paid by the Operator or by anyone other than the buyer are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent) after the lapse of six months from the date the ore was extracted from the ground remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this Article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 7. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 7 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and liens to secure the payment thereof, and such rights shall be fully preserved.

ARTICLE 8. *Notices to be given by the Government* may be delivered to the Operator or may be sent by registered mail addressed to the Operator at the mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 9. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 10. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

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: 1956—O-383069

AMENDED
EXPLORATION PROJECT CONTRACT
IRVING G. IRVING AND ROBERT H. NELSON, PARTNERS
DOCKET NO. DMEA-2874

ANNEX NO. I

WHEREAS, the parties to this amended contract are also parties to Contract No. Idm-E604, Docket No. DMEA-2874, dated September 21, 1953, as amended seven times, hereinafter called the "Prior Contract"; and

WHEREAS, the exploration work provided for under the Prior Contract was completed prior to December 31, 1955, and the parties desire to expand the exploration program and enlarge the area of the exploration project;

NOW THEREFORE, it is mutually agreed that:

1. Effective as of September 21, 1953, the Prior Contract is amended and superseded by this amended contract, which shall govern all the rights and obligations of both parties, except that vouchers and claims for the Government's contribution to the work performed under the Prior Contract and payment thereof by the Government shall be as therein provided.

2. The period thirteen (13) years is substituted for the period eleven (11) years from the date of the contract as it appears in Amendment No. 7 of the Prior Contract.

3. The Operator hereby releases and agrees to save harmless the Government from all claims and demands out of the Prior Contract, except as herein provided.

4. In Amendment No. 7 of the Prior Contract, the date of completion of the contract is extended from December 31, 1955, to December 31, 1957.

5. In Exhibit "A" of Amendment No. 1 of the Prior Contract, delete $25,830.00 and $19,372.50 and substitute the sums $106,010.70 and $79,508.00 (rounded).

AMENDED
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-2874

ANNEX II

The land referred to in Article 2 of the contract form consists of the following:

The Plutus Lode Mining Claim, Survey No. 3018, patented, located in sections 10 and 15, T. 3 N., R. 8 W., above a horizontal plane 600 feet below the collar of the Plutus shaft.

The Norwich Quartz Lode Mining Claim, Survey No. 2794, Lot No. 590, patented, is added to the above area as designated in the prior contract.

The Plutus Claim, one-quarter is owned by the Operator and three-quarters is under lease. This lease expires as of June 30, 1959. It will be necessary to extend this lease for a period of a minimum of 5 years.

The Norwich claim is under a lease and option to purchase for $50,000.00; $26,000.00 has been paid on the option. The lease and option expires as of June 30, 1956. It will be necessary to complete the purchase or have the lease and option extended.

For royalty purposes, the land on the Norwich Claim lying west of coordinate 5275E., figure 1, and above the Plutus 300 (No. 5) level is excluded, also all dumps that are now on the Norwich claim.

AMENDED
EXPLORATION PROJECT CONTRACT
IRVING G. IRVING AND ROBERT H. NELSON, PARTNERS
DOCKET NO. DMEA 2874

~~(3) In Exhibit "A" of Amendment No. 1, delete $25,830.00 and $19,372.50 and substitute the sums $103,610.70 and $77,708.00.~~

~~(4) The period for payment of the Government's royalty is extended to 13 years.~~

EXHIBIT "A"

Description of the Work

Two maps are attached to this amendment.

Figure 1, Plan of Plutus and Norwich claims, showing proposed rehabilitation, drifting, and crosscutting.

Figure 2, Longitudinal Section along Norwich vein.

The work completed is designated as Stage I; this Amendment No. 8 will be carried out as Stage II and III.

Stage I

Work completed on Plutus claim in and around Plutus shaft.

Stage II

The Operator shall perform the work as set forth in Stage II and so much of the work specified in Stage III as the Government approves in advance in writing.

Install necessary water line, electric cable, and pumping equipment to the 300 level of the Plutus shaft.

Rehabilitate the Plutus shaft from the 300 to the 410-foot level and install necessary equipment for operation.

Rehabilitate and enlarge the 400 station to approximately 10 feet by 10 feet by 50 feet, by blasting and removing about 3,200 cubic feet of material, with necessary timbering.

From the 400 level station to intersection with the Norwich vein, rehabilitate 400 level crosscut, to be 5 feet by 7 feet in the clear, with 20-pound rail, 3-inch air line, 2-inch water line, ventilation line and timber as necessary.

Drift approximately 150 feet westerly and 400 feet easterly to andesite dike along the Norwich vein. The drifts to be 5 feet by 7 feet in the clear and timbered as necessary. Additional allowances to be made for extra heavy timbering, or for spiling if necessary.

Diamond drill a flat hole southerly from the 400 level from a point to be selected with the approval of the Government to intersect the downward extension of the Plutus vein. This hole shall be approximately 420 feet in length and AX in size.

In mineralized zones sample drifts at 5-foot intervals and split diamond drill cores and assay for manganese, and for lead and zinc if warranted.

Stage III

Stage III to be dependent upon conditions encountered in drift east on the 400 level, such as strength of vein and intersection point with the andesite dike, fault indications, and possible magnitude of the fault. If indications are that vein continues on the east side of dike, then the following work shall be carried out:

Bulldoze access roads and drill sites for surface diamond drilling on the east side of dike. The diamond drill holes to be not less than AX in size.

Hole No. 1 for testing depth of the tertiary flows shall be vertical and shall not exceed 500 feet in depth. The point of drilling shall be approved by the Government. If the underlying granites are found sufficiently close to the surface, then holes No. 2 and No. 3 shall be drilled.

Holes No. 2 and No. 3 shall dip to the north at about 60 degrees and shall not exceed 600 feet in depth. The total drilling shall not exceed 1,700 feet and the location, direction, and inclination shall be subject to approval by the Government.

If the above diamond drill holes find extensions of the Norwich or other veins to the east of the dike, then the following work shall be carried out:

Extend the Norwich east drift on the 400-foot level through the dike approximately 150 feet, crosscut to vein or veins indicated by drilling, and drift easterly on the vein or veins for a total, including dike crosscut, crosscut to veins, and drifts, not to exceed 650 feet. Crosscuts and drifts shall be timbered as necessary. Extra allowances to be made for extra heavy timbering or spiling if necessary.

Diamond drill a flat hole from a point in the Norwich east drift to be approved by the Government to intersect the downward extension of the Plutus vein. This hole shall be approximately 420 feet in length and AX in size.

In mineralized zones sample drifts and/or crosscuts at 5-foot intervals and split diamond drill cores and assay for manganese, and for lead and zinc if warranted.

Estimated Cost of the Project

Agreed Unit Costs

Stage I

Cost of Stage I, by audit		$23,190.70

Stage II

Procuring and installation of necessary equipment in Plutus shaft to 300 level	$ 2,082.00	
Rehabilitation of Plutus shaft from 300 to 410 level, procuring and installing necessary equipment and pumping out water	3,148.00	
Total for equipping, installations, and pumping		5,230.00
Rehabilitate 400 level station and 240 feet of crosscut to Norwich vein at $20.50/ft.	4,920.00	
Enlarge 400 station. 3,200 cubic feet of material at 50 cents per cu. ft.	1,600.00	
Total for rehabilitation and enlargement		6,520.00

Drifting 550 feet at $32.00/ft.	17,600.00	
Normal timbering, 550 feet at $10.00/ft.	5,500.00	
Extra sets in heavy ground, 100 feet at $8.00/ft.	800.00	
Spiling 50 feet at $30.00/ft.	1,500.00	
Total for drifting		25,400.00
Diamond drilling, 420 feet at $5.00/ft. (to include cementing, re-drilling, reaming, and casing)	2,100.00	2,100.00
Assaying 140 samples at $3.50 each	490.00	490.00
Estimated total for Stage II		$39,740.00

Stage III

Bulldoze access roads and drill sites. 15 hours at $14.00/hr. (RD7 or equivalent bulldozer, includes all cost of operation)		210.00
Diamond drilling on surface, 1,700 feet at $6.00/ft.	10,200.00	
Cementing and re-drilling or reaming and casing, 300 feet at $2.50/ft.	750.00	
Estimated cost of surface drilling		10,950.00
Crosscutting and drifting, 650 feet at $32.00/ft.	20,800.00	
Normal timbering, 600 feet at $10.00/ft.	6,000.00	
Extra sets in heavy ground. 100 feet at $8.00/ft.	800.00	
Spiling 60 feet at $30.00/ft.	1,800.00	
Estimated total for crosscutting and drifting		29,400.00
Diamond drilling underground, 420 feet at $5.00/ft (to include cementing, re-drilling, or reaming and casing.)	2,100.00	2,100.00
Assaying 120 samples at $3.50 each	420.00	420.00
Estimated total for Stage III		$43,080.00

SUMMARY

Cost of Stage I by audit	$23,190.80
Estimated cost of Stage II	39,740.00
Estimated cost of Stage III	43,080.00
Estimated total cost of project	$106,010.70
Government participation at 75 percent (rounded)	79,508.00

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals Exploration Administration

IRVING G. IRVING AND ROBERT H. NELSON, PARTNERS

By _____

SENDER WAITING
WESTERN UNION
Answer by WIRE
SENDER WAITING
6286(5A)

WESTERN UNION

W. P. MARSHALL, PRESIDENT

(04)

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = Full Letter Telegram
VLT = Int'l Victogram

JUN 28 AM 11 08

The time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

RECEIVED JUN 28 1956

WSM

WP013 PD AR=BUTTE MONT 28 725AMM=

C O MITTENDORF ADMINISTRATOR, DEFENSE MINERALS EXPLORATION ADMN=BETWEEN 18 & 19 ON C NORTHWEST=

IN ORDER TO PROPERLY PLAN OUR OWN FINANCIAL AFFAIRS WE ARE VERY ANXIOUS TO KNOW WHEN WE MAY EXPECT A DECISION FROM YOUR OFFICE REGARDING THE MAKING OF A LOAN TO US FOR THE NORWICH PLUTUS PROJECT. AND IF THE DECISON IS FAVORABLE WHEN CAN WE EXPECT YOUR PROPOSED CONTRACT PLEASE ADVISE BY WIRE COLLECT=

IRVING G IRVING AND ROBERT H NELSON=

DMEA-2874

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

1956 JUN 26 AM 2019 54

(49)

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=Int'l Letter Telegram
VLT=Int'l Victory Ltr.

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RECEIVED

JUN 26 1956

WT005 DL PD=BUTTE MONT 26 715AMM=

C O MITTENDORF, ADMINISTRATOR, DEFENSE MINERALS EXPLORATION ADMN=

THE NEW UNION SCALE EFFECTIVE IN BUTTE JULY 1ST WILL IN EFFECT INCREASE THE LABOR COST FOR ALL BUTTE OPERATORS ABOUT 7 AND ONE HALF PERCENT. THEREFORE IN CONSIDERING OUR APPLICATION FOR A LOAN ON THE NORWICH PLEASE BE ADVISED THAT THE LABOR COST ESTIMATES AS SUBMITTED IN OUR AMENDED EXHIBIT D ARE TOO LOW BY SEVEN AND ONE HALF PERCENT=

ROBERT H NELSON AND IRVING G IRVING=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

SEEN-READ-ACTED ON FIRST
WESTERN UNION
TELEGRAM
ALWAYS ON TOP
6052

DOCKET
SURNAME
McMahon
Martin
Harrison
Hartendorf

400

JUN 25 1956 AIR MAIL

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 4129 - Manganese
Irving and Nelson
Norwich Mine
Silver Bow County, Montana

Dear Mr. Weissenborn:

Referring to the third paragraph of your letter of June 15, 1956, on timbering costs at the subject property, we attempted to obtain some general information about Butte practices from Anaconda's New York office and were advised informally that such information might be requested of Mr. Lester Bishop, Chief of the Mining Research Department in Butte. We did not ask for actual cost data, but for what we believe would be the type of information that would not be considered confidential, as follows:

(1) Is most of Anaconda's timbering done on contract or "day's pay."

(2) For that done on "day's pay", is there some union regulation limiting output to the standing of certain number of sets (or cubic feet) per shift.

(3) What would be a general average contract labor price (cubic feet price) for standing mill timber? (It is understood that these prices are posted weekly for all working places at the various mines).

In connection with comparative timbering costs in the Phillipsburg and Butte districts it occurs to us that Mr. Antonioli might be willing to offer some information based on his experience with both areas.

We are anxious to develop, at the earliest opportunity, an equitable cost-estimate for timbering at the subject property, and any

additional information that you can obtain for our guidance will be much appreciated.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (WS)

APPROVED:

P. F. Yopes

Member, Bureau of Mines (WS)

Thor H. Kiilsgaard

Member, Geological Survey (WS)

ADMcMAHON/foc
6/21/56
cc to: Docket ✓
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. I - NWDIST.
Messrs. DeHuff, USBM
Kiilsgaard, USGS

Docket

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

RECEIVED
JUN 18 1956

So. 157 Howard Street
Spokane 4, Washington

June 15, 1956

Air Mail

WSM

Mr. W. S. Martin
Acting Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Copy retained 200

Re: Docket No. DMEA-4129 (Manganese)
Irving and Nelson
Norwich Mine
and
Docket No. DMEA-2874 (Manganese)
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Martin:

In reference to your teletype of June 8 we have contacted Mr. Robert Nelson on timbering costs in his application. Mr. Nelson stated that he would consider (but not necessarily sign) a contract that would embody timbering costs comparable to those paid other Operators in the area for similar ground conditions. He said that to date it had not been necessary to timber in the Norwich mine closer than 5-1/2-foot centers so the assumption is that the ground is not too heavy; however, as the proposed exploration will be in hitherto unexplored areas the situation might change.

Mr. Nelson was very specific in stating that his acceptance of a contract would depend upon his reading the contract after it arrived in the field. We have not asked him specifically whether he would accept a unit cost for drifting and timbering but we are sure that his answer would be the same.

We have been unable to obtain timbering costs at the Anaconda properties in Butte.

The nearest comparable district is Philipsburg, but all of our contracts in this district are on a unit cost basis so that we have no record of actual cost. It is highly probable that the actual cost of timbering at Philipsburg is somewhat above the $6.50 per foot which we are currently allowing. It is our opinion that

under the conditions at the Irving and Nelson property timbering costs would be about midway between the $6.50 per foot we are allowing at Philipsburg and the $10.65 estimated by Bowsher in his memorandum of May 1, 1956, or about $8.58 per foot. This does not take into account some of the operating overhead which enters into Bowsher's figures.

By Field Team Region I, NW. Dist.

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
Pinckney

Docket

June 13, 1956

MEMO re phone call from A. E. Weissenborn to W. S. Martin

Re: Docket No. DMEA-2874
Irving and Nelson

WSM

Hanging wall -- 6.5 running 24.6

2½ ft. @ 5.4

9.7 ft. @ 12.0

4.5 ft. @ 11.8

These are the Operator's figures; not our. These are not our assays; presume okay.

Through width is 17 feet; apparent width is 23 feet. It is a substantial looking vein.

This timbering is to be 5 x 7.3 in the clear; more or less normal width on 5-ft. centers.

Mr. Martin indicated costs submitted with application seemed unduly high---$4.50 for setting the timber; if 4 sets instead of 3, would reduce cost to around $3.50 a foot, which would give $8.50/ft. for timbering. Mr. Martin told Weissenborn to send us some kind of figure on what is being spent by other operators; e.g., how many sets did workmen for Jennie Moore set per day?

Mr. Weissenborn stated that Nelson had indicated that if he did not like any proposed contract we might send to Field Team, he would come in and talk to Washington Office about it.

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUN 14 1956

June 11, 1956

Mr. W. S. Martin, Acting Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

WSM

Re: Docket No. DMEA-4129 (Manganese)
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA-2874 (Manganese)
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Martin:

In accordance with the verbal request to me when I was in Washington, D. C., enclosed are four copies each of three cross sections for the Norwich mine. The location of the cross sections are indicated on the mine maps sent in with the application.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Enclosures
cc: USBM(2)
Pinckney

Interior Department
Defense Minerals Exploration
Administration
14X4401 (01) Revolving Fund,
Defense Production Act,
Interior (Allocated Working Fund to the
Office of the Secretary)

Docket
Surname
Holt
Martin
Johnson
Matheny

XXXXXXXXXXXXXXXXXX

T E L E T Y P E

JUN - 8 1956

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re Docket DMEA 2874, Contract Idm-8604, Flutum Mine, and Docket 4129, Application, Norwich Mine, please advise if Irving and Nelson would accept unit costs for drift timbering in line with prices paid other Operators for comparable work, or would prefer to timber on actual cost basis with reasonable maximum, and with Field Team distinguishing between timber essential for exploration and timber installed preparatory to production.

W. S. Martin
ACTING Chairman, Operating Committee (SHB)

SPHOLT:foc
6/7/56
cc to: Docket
Code 400
Admr. Read. File
Operating Comm.
FT. REG. I - NW Dist.
Gilbert DeMuff, USBM
Thor H. Kiilsgaard, USGS

Docket

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

RECEIVED
MAY 29 1956

May 25, 1956

Memorandum

To: W. S. Martin, DMEA

Dmea 2874

From: G. L. DeHuff, Jr., Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Copy retained 400

Subject: DMEA - 4129. Manganese. Irving and Nelson

The Field team by letter of May 4, 1956 recommends an exploration project at the Norwich mine, located two miles west of the center of Butte, Silver Bow County, Montana.

As proposed by the Field Team, after conference with the applicant, the proposed project is to be in two stages, of which diamond drilling is an important part. Total cost is given as $147,855.76. However, it is obvious that certain items have been added twice in the recapitulation used to arrive at the total. It is also noted that the figures for some items do not agree with the figures given in the detailed breakdown in the report. In attempting to check these items, difficulty is experienced because of either errors, or loose usage, in the designation of levels in the shaft.

It is noted that the Field Team has added an item for enlarging the present crosscut off the shaft. This was not in the applicants' program and it is believed that reconsideration should be given as to whether or not this is necessary for an exploration project of the nature planned. It is admittedly of value to the operators should development work be done after exploration, and could or could not be of similar value to the exploration project.

It is believed that further consideration should be given to the raising items in the program:

1. Whether they are in effect exploration or development.

2. If the former, whether they are necessary to the exploration

Copy retained 409

3. If the answers to 1 and 2 are in the affirmative, whether this part of the exploration could be done more effectively by diamond drilling.

I concur with the program as submitted by the Field Team, with the above qualifications, but can not agree to the costs as submitted. Their presentation requires correction and clarification.

G. L. DeHuff, Jr.

Docket

IN REPLY REFER TO:

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

May 21, 1956

Re: DMEA 4129 - Manganese
I. G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
Est. (Application) $101,083.87
Est. (Recommended) Indefinite

Copy retained 450

Memorandum

WSM

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

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

Subject: Review of Field Team report

The applicants requested assistance in exploring by drifting and raising a structure which old and probably not too reliable records indicate is manganese-bearing and perhaps a faulted part of a vein structure now being mined 250 feet to the west.

The work proposed and recommended by the examiners and the Field Team includes rehabilitation of the Plutus shaft and a cleanup of a crosscut to the vein on the 400 level of the Plutus mine. Such work is necessary before the reputed 12-15 vein (half quartz and half manganese carbonate) can be seen. The vein, which by the applicants, is correlated as a faulted section of the main vein, apparently was considered of small importance when originally intersected. At that time attention was centered in "a footwall structure of unknown designation." (Application.)

In 1950-51 the U. S. Bureau of Mines prospected for the easterly extension of the Norwich structure by drilling. Hole No. 5 intersected "19.4 feet of mineralization;" reported with sludge assays ranging from nil to 14.9% Mn, as:

Hole No. 5

0.9	feet of sludge	14.9% Mn
2.7	" " "	10.2% "
11.5	no report	
4.3	feet sludge	7.3% "
19.4		"

RECEIVED

Copy retained 450

The intersection, as interpreted by the applicants, is in the same structure as the showing in the crosscut on the 400 level, 240 feet below. A cross section is needed to justify the correlation. Such a structure would have a much steeper dip than the average dip of the main vein to the west, unless the apparent steepening is attributed to an inferred 'bent' fault.

I consider prospecting for the, as now known, inferred low-grade structure is warranted, but I would attempt to get confirming evidence of its existence and an idea of the grade to be expected, by diamond drilling probably from the east drift on the 275 level of the Plutus shaft. At least 1,000 feet of underground drilling should be done as a preliminary to the shaft and crosscut rehabilitation work. If a structure justifying exploration should be found by the drilling the work as outlined, except for some raising, would be warranted. The drill intersections might make unnecessary some of the raising. The costs, instead of those of the "Recapitulation" on page 16 of the Field Team report, might approximate:

Stage I			
	Diamond drilling 1,000 feet at $6.00		$6,000.00
Stage II			
	Shaft rehabilitation	6,738.85 *	
	Station and crosscut rehabilitation	8,397.72 *	
			15,136.57
Stage III			
	Drifting and cross-cutting 1,650 feet	53,575.50	
	Timbering	25,027.50	
	Diamond drilling 4,100 feet	24,295.00	
	Assaying	997.50	
	Technical services	3,600.00	
			107,495.50
	Total		$128,632.07

* Considering the prospective nature of the project the estimate of the applicants for the rehabilitation work is more realistic. The figures are, pages 3 and 4 of application, $3,372.87 + $6,666.00 = $10,038.87.

Except for the above changes, and two or three items in the "Recapitulation" which I am unable to reproduce, I concur with the recommendation of the examiners and the Field Team.

N. E. Nelson

N. E. Nelson

ROBERT H. NELSON

IRVING G. IRVING

Docket

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

RECEIVED

MAY 14 1956

May 12, 1956

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
Washington 25, D. C.

WJM

Subject: Docket No. DMEA-4129--Manganese
Irving G. Irving & Robt. H. Nelson,
Norwich Mine, Silver Bow Co., Montana
and
Docket No. DMEA-2874--Manganese
Plutus Lode Mining Claim
Silver Bow Co., Montana.
Contract No.-Idm-E604

Dear Mr. Mittendorf:

When we first took up the matter of the subject application, for DMEA assistance in developing the Norwich Vein on the 400 level, which level is one hundred feet below our present working level, and was under water and will require expensive rehabilitation, we asked in our initial discussion with Al Weissenborn, in Spokane, that:

1. The cost of any work done, in connection with the proposed project, such as pumping out the Plutus shaft, and the 400 level, plus repair and rehabilitation work in the shaft and on the level itself, be included as part of the contract.

2. We also pointed out that, pending approval of the application and contract, we would probably start the work ahead of time and requested that the expenses incurred during this period be considered retroactive and subject to reimbursement to the extent of the government's participation in the project, if approved.

Copy retained 400

Our basis for requesting retroactive treatment of costs incurred pending approval of the application is, among other things, the fact that the present application (Docket No.-DMEA-4129) is tied to the previous contract and exploration job, done through the Plutus shaft (Docket No.-DMEA-2874; Contract No.-Idm-E604) and the repayment of the earlier loan will come out of ore produced out of the proposed project. This being the case, it appears to us that we are in one sense, and in effect, merely amending and extending the first contract.

Work started on Plutus shaft rehabilitation (below the 300 level) on April 17th and, as of the date of this writing, we

have unwatered and repaired the shaft to the 400 level. Guides are being put in to that level, and the station is being mucked out and cleaned up. A cave was found sixty feet north of the shaft and the work of spiling through the cave has already been started. One can see fifty feet beyond the cave and the cross-cut, though small, is open to at least that point. Perhaps other caves will be encountered before the vein is reached.

Our expenditure to date, with regard to this work, amounts to about $7,000.00. As stated above, we are requesting that this expenditure, plus the additional money to be spent in going ahead, be regarded as an item to be treated retroactively and subject to reimbursement for the government's share, if and when the project is approved and the contract issued.

Very truly yours,

Irving B. Irving

Irving B. Irving

Robert H. Nelson

Robert H. Nelson

Copy to A. E. Weissenborn

Robert H. Nelson

Irving G. Irving

NELSON AND IRVING

MINING CONSULTANTS

HIRBOUR BLDG. BUTTE, MONTANA

TELEPHONE 2-3445

GEOLOGICAL INVESTIGATIONS
Supervision of
DEVELOPMENT - EXPLORATION

MINE VALUATION
Counsel in
MINE MANAGEMENT

4129

May 5, 1956

RECEIVED
MAY 7 - 1956

C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Norwich Manganese Mine
Butte, Montana

Dear Mr. Mittendorf:

As you know, Joe Irving and I recently filed a D.M.E.A. application in the Spokane office for financial assistance in a project designed to reopen the bottom level of the Plutus shaft, rehabilitate about 240' of sill work from the bottom of the shaft, and thereafter explore, to the east, the main Norwich vein. The proposed project has been estimated to cost in excess of $170,000, and we have requested D.M.E.A. assistance for 75% of the cost.

In March, 1955, I discussed in general, with you and Frank Johnson, the objectives we hoped to reach through eastward development of the Norwich vein. While members of the U.S.G.S. and others who have studied our objectives agree regarding the great desirability of the project, you and Frank pointed out that our lease at that time on the Norwich claim was of short duration, and until we had actually acquired the property, favorable consideration of a D.M.E.A. application could not be given.

Umont Mining Company has now joined with us in our venture, and I believe you met their Vice President, Mr. Dooley P. Wheeler, when he was in Washington recently. Umont has acquired the Norwich claim for us, and with this acquisition by Irving and Nelson (and in accordance with our conversation in March, 1955), it is now appropriate to formally reopen negotiations for D.M.E.A. assistance.

In conformance with the Umont-Irving and Nelson agreement, on April 16th, Umont commenced rehabilitation of the Plutus shaft, and started the job with a crew of four shaft men, a hoist engineer, and one supervisor. In addition to other preliminary work, larger underground power cables were installed, a 40 h.p.

centrifugal pump was placed in the shaft, together with two 10 h.p. Jaegers in tandem, to supplement our 35 h.p. submersible in unwatering the bottom (400') level. Actual pumping commenced on April 30th, but it now appears the entire installation does not have sufficient capacity to make appreciable inroad on the water which must be handled to get to the 400' level of the Plutus shaft. Today we are installing a 50 h.p. pump in place of the 40 h.p. We hope that the new pumping facilities will do the job. However, the expensive time delay and additional electrical installation cost has already exceeded our estimated costs for this phase of the project. Such happenings merely point up the uncertainties of any cost estimates for any mining job.

Wheeler and I have had prolonged discussions regarding the cost of the project with members of the D.M.E.A. field team in Spokane. While we do not know what the field team members will finally recommend as to appropriate costs, we have had the impression that they may consider as being too high our cost estimates shown in the application. If such be the case, we would feel that we had not been sufficiently convincing in presenting what we are sure is a conservative estimate of the cost of the proposed project. I know the cost will be as much, or more, than we have set up in the application, and that is true whether we do the work, Umont does the work, or Anaconda does the work.

It is possible that a condition exists today similar to the condition in Washington that you and I remember so well in the early '40's. I have often thought that you, Don Rait and I were the only analysts in Washington who came up with realistic but seemingly high mine costs, which invariably were higher than our contemporaries', but even they proved later to be too low when the project was completed.

The runaway cost of supplies, a substantial increase in labor costs sure to come in Butte this summer, together with the uncertainties of exploration in a hitherto unexplored country heavily charged with water, all make us hope that we have come just somewhere close to the overall cost of the project.

Joe and I hope your staff will have time to review realistically the actual probable costs which will surely accrue against the project, and we will appreciate having your boys call on us for any further information that may be required in order to justify the estimates we set forth in the application.

With kindest personal regards, I am

Yours very sincerely,

Bob Nelson

Robert H. Nelson

RHN:mn
cc: Al E. Weissenborn

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAY 7 - 1956

May 4, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

WSM

Re: Docket No. DMEA-4129 (Manganese)
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA-2874 (Manganese)
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are four copies of memorandums by Darrell M. Pinckney, Geological Survey, and John A. Bowsher, Bureau of Mines, recommending an exploration project at the Norwich mine. Enclosed also are three copies of a letter dated April 9, 1956 in which the applicant has presented new costs (Appendix B Amended).

The Norwich mine is adjacent to the Plutus mine recently explored by a DMEA project (Docket No. DMEA-2874). Manganese ore bodies are present on the Plutus vein and on the Norwich footwall vein and the exploration of the Norwich vein west of the dacite dike seems to be worthwhile exploration.

Search for the Norwich vein east of the dacite dike and beneath a cover of volcanic rocks is valid exploration, much in the nature of a long shot, however. The Norwich vein may have been faulted out of contract ground along a fault plane now occupied by the dacite dike, or the prevolcanic valley east of the dike may be so deep that any drift on the 400 level would be in volcanics. These are important geologic questions, however, that can be determined only by physical exploration. The discovery of productive veins below the post-ore volcanics would be of much more than local significance and might well stimulate additional exploration of this part of the Butte district.

We therefore recommend that the application be approved.

Reviewed by
DMEA OPERATING COMMITTEE
5-11-56
(date)

It is our recommendation that all production from above the 300 (No. 5) level and west of a vertical plane along coordinate E 5245 be exempt from royalty. Any production from the indicated ore blocks below the 300 (No. 5) level should be subject to royalty.

A particularly important feature is the 36.5 feet of the Plutus shaft below the 244, or No. 3, level sill rehabilitated as part of the Plutus contract. Annex II of the Plutus contract explicitly exempts all Norwich ore from royalty payment. If an amended contract is prepared, cognizance should be taken of this previous exemption so that no royalty is exacted from Norwich ore mined from the excluded block. In addition, we suggest that production from any existing dumps on the Norwich claim be exempt from royalty.

By Field Team, Region I, NW District

A. E. Weissenborn /T.H.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard
for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USBM (AD)
USGS(SRO)
Nickelson

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

RECEIVED
MAY 7 - 1956

1201 N. Division St.
Spokane 2, Washington
May 1, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Cost analysis, Docket No. DMEA-4129 (manganese), Irving G. Irving and Robert H. Nelson, Norwich Mine, Silver Bow County, Montana

A program of exploration has been worked out in conference between the applicants and Field Team representatives.

The work would be done in two stages, the second stage contingent upon the success of the first stage. Work under Stage I consists of 105 feet of shaft rehabilitation, 240 feet of crosscut rehabilitation, 550 feet of drifting, 150 feet of raising, and 2,150 feet of surface and underground diamond drilling. Stage II would consist of 1,100 feet of crosscutting and drifting, 150 feet of raising, and 1,950 feet of diamond drilling.

A cost analysis is hereby prepared to apply to the mine under its local environment of costs of labor, supplies, materials, equipment, etc., and operating conditions.

At present all the mine facilities of the Norwich mine are being used at full capacity on the day shift in development and production on and above the 300-foot level (No. 5) to complete a General Services Administration contract. Consequently, the proposed program of DMEA exploration will be carried on a separate shift, the afternoon and/or graveyard shift, and under separate supervision.

Schedule of Labor

Since the Norwich mine is located in Butte, Montana, the labor contract agreed upon between the union and the Anaconda Mining Company determines the rate of pay, pay differentials, working hours, working conditions and fringe benefits. These circumstances establish the labor costs to all operators.

Reviewed by
DMEA OPERATING COMMITTEE
5-11-56
(date)

The Operators of the Norwich mine state they must compete with the Anaconda Mining Company in obtaining steady, reliable and efficient labor. To offset the greater fringe benefits obtained from the larger and better operating facilities, the Norwich mine has established a rate of $1.00 per shift more than the existing Anaconda Mining Company scale.

Type of work	A.M.Co. scale	Night shift differential	Rate	Norwich scale
Geared hoist oper.	$17.32	60¢	$17.92	$18.92
Shaft	16.88	60¢	17.48	18.48
Miners	15.91	60¢	16.51	17.51
Surface	14.97	60¢	15.57	16.57
Shift boss	550.00/mo.			550.00/mo.

It is expected that the labor renegotiations between the Anaconda Mining Company and the union this summer will result in an increase of the over-all labor scale.

Montana Industrial Accident compensation rates are figured at 8 percent and 5 percent of gross, without overtime, respectively, for underground and all other operations.

State unemployment tax and social security tax are respectively 2.7 percent and 2 percent of gross, with overtime, for underground and all other operations.

Table of labor and supervision cost - 6 day week

	Scale	6 days	Accid.	O.T.	Reg./O.T.	Unemp. tax	S.S. tax	Totals	Per day
Shift boss	$21.15	$126.90	$10.15	$10.58	$137.48	$3.71	$2.75	$154.09	$25.68
Hoistman	18.92	113.52	5.68	9.46	122.98	3.32	2.46	134.44	22.41
Shaftman	18.48	110.88	8.87	9.24	120.12	3.24	2.40	134.63	22.44
Miner	17.51	105.06	8.40	8.76	113.82	3.07	2.28	127.57	21.26
Topman	16.57	99.42	4.97	8.29	107.71	2.91	2.15	117.74	19.62

The accounting for the applicant is handled by a public accounting firm. It has been estimated by the accounting firm that the extra work imposed by the DMEA contract would require $75.00 each month for accounting. ?

Schedule of Supplies

The applicant has submitted a schedule of the cost of supplies (pages 5-7 incl. of his application). The cost of the materials has been checked and verified through distributors in Butte.

The schedule of supplies has been used in the Bureau of Mines analysis of cost incorporated in this report.

Power

At present the connected active load on operating equipment amounts to 267 h.p. The power bill for that connected load for January-March 1956 inclusive amounted to $1,225.09 or $408.36 average per month, one shift operation.

Montana Power Company engineers estimate that a 2-shift operation (same connected load) would make an added consumption for a new total consumption, at a lower rate, to increase the present power bill about 50 percent to about $600 per month.

Operating Equipment

The present schedule of mine operation on development and production on and above the 300-foot level (No. 5) requires full use of the existing operating equipment. To establish a second shift additional equipment must be acquired either by purchase or rental.

Since the Government does not wish to share an equity in obtaining additional equipment, consideration will be given to a rental rate or depreciation rate on all equipment used for the DMEA exploration program.

Equipment to be acquired and/or used	Present Value (new)	Deprec. per mo.	Shifts used	Deprec. per shift
Stationary compressor, 640 cfm	$15,000	$250.00	50	$5.00
Mine stationary hoist, 85 h.p. (used)	1,500	25.00	50	0.50
Mancha battery trammer & battery	5,800	96.67	25	3.87
B12 Eimco mucker	3,435	57.25	25	2.29
Mine cars, 18 cu.ft., 15 @ $225/ea.	3,375	56.25	25	2.25
I-R, MRV--2 mine pump, 40 h.p. (cable & controls)	2,932	48.87	50	0.98
Jaeger sinking pump, 15 h.p. (cable & controls)	1,800	30,00	50	0.60
Ventilation fan, 20 h.p.	1,016	16.93	25	0.68
Mine air hoist, 5 h.p.	1,000	16.67	25	0.67
Jackleg drill	650	10.83	25	0.43

Work Performance Underground

The applicant has divided the work performance underground into six categories: (1) breaking ground in crosscut and drift; (2) breaking ground in raise; (3) breaking ground in enlarging; (4) timbering crosscut and drift; (5) timbering raise; (6) spiling.

(1) Breaking ground in crosscut and drift

A crew of 3 men underground (2 miners and 1 trammer/station tender), topman, hoisting engineer and shift boss will break 5.5 feet per shift (8x7) or 22 feet in 4 shifts. The crew will drill, blast, muck, and advance rail, pipe and ventilation facilities.

The cost of linear advance, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $43.08/ft.

(2) Breaking ground in raise

For purposes of calculation it is assumed that two raises will be driven simultaneously. Two miners in each raise will be serviced by one miner/trammer on the sill, topman, hoisting engineer, and shift boss. One-half the labor of servicing the raise advance is to be charged to the advance in each raise. Each raise will advance 5.5 feet per round (2 compartment, 8x6) or 22 feet in 4 shifts. The crew will drill, blast, muck, and advance ladders, pipe and ventilation facilities.

The cost of linear advance, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $27.20/ft.

(3) Breaking ground in enlarging

A crew of 3 men underground (2 miners and 1 trammer/station tender), topman, hoisting engineer, and shift boss will enlarge a 6x5 heading to 8x8 for a linear distance of 15 feet (total of 510 cu.ft.) in one shift. The work of enlarging would apply to drift, crosscut, diamond drill stations, and sill preparation for raises.

The cost of excavation, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $0.39/cu. ft.

(4) Timbering crosscut and drift

A crew of 3 men underground (2 miners and 1 trammer/station tender), topman, hoisting engineer, and shift boss will stand 4 drift sets of timber (22 linear feet) in 2 shifts (7x5 clear of timber). The crew will block tight, crib 1 foot above back if necessary, and lag sides and back.

The cost of linear advance, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $21.07/ft.

(5) Timbering raise

A crew of 2 men in each raise and serviced half-time by a trammer/station tender, topman, hoisting engineer, and shift boss, will stand 4 sets of raise timber (22 linear feet) in two shifts. The raise crew will do all blocking and advance ladder, timber slide, pipe and ventilation facilities.

The cost of linear advance, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $19.07/ft.

(6) Spiling

A crew of 3 men underground (2 miners and 1 trammer/station tender), topman, hoisting engineer, and shift boss "may" make 3 feet advance per shift if such work is necessary.

The cost of linear advance, as enumerated above and including labor, supervision, engineering, accounting, supplies, power and equipment rental or depreciation, amounts to $66.76/ft.

Comparative cost analysis on a unit basis of the applicant's work performance

Breaking ground in crosscut and drift (per shift)

Item	Applicant	Bureau of Mines
Labor		
Topman	$ 19.67	$ 9.81
Hoistman	22.48	11.21
Miners (2)	42.74	42.52
Trammer/station tender	21.37	21.26
Total labor	106.26	84.80
Supervision		
Shift boss	22.96	12.84
Technical Services		
Engineer-geologist	12.52	--
Accounting		
Bookkeeper	2.89	2.78
Supplies		
Explosives	11.82	11.82
Air, water, ventilation facilities	18.15	18.15
Track	15.68	15.68
Drill steel	4.07	4.07
Misc. tools	1.27	1.27
Total supplies	50.99	50.99
Power	12.25	12.25
Equipment (rental or deprec.)	29.20 (rental)	14.95 (deprec.)

Recapitulation

Labor	106.26	84.80
Supervision	22.96	12.84
Technical services	12.52	--
Accounting	2.78	2.78
Supplies	50.99	50.99
Power	12.25	12.25
Equipment (rental or deprec.)	29.20	14.95
Total (one shift--5.5 ft. advance)	$236.96	$178.61
Cost per linear foot advance	$ 43.08	$ 32.47

It is recommended that the cost of supervision, topman and hoisting engineer be divided one-half to the DMEA program since they will not be fully occupied on such activity during each shift. Technical services would better be carried as a separate item of unit cost instead of including with all other costs.

Breaking ground in raise (per shift)

Item	Applicant	Bureau of Mines
Labor		
Topman	$ 9.89	$ 9.81
Hoistman	11.24	11.21
Miners (2)	42.74	42.52
Trammer/station tender	10.69	21.26
Total labor	$74.56	$84.80
Supervision		
Shift boss	11.48	12.84
Technical Services		
Engineer-geologist	6.26	—
Accounting		
Bookkeeper	1.39	2.78
Supplies		
Explosives	11.82	11.82
Air, water, ventilation facilities	18.15	18.15
Drill steel	4.07	4.07
Misc. tools	1.27	1.27
Total supplies	35.31	35.31
Power	6.13	12.25
Equipment (rental or deprec.)	14.60	14.95

Recapitulation

Labor	74.56	84.80
Supervision	11.48	12.84
Technical services	6.26	—
Accounting	1.39	2.78
Supplies	35.31	35.31
Power	6.13	12.25
Equipment (rental or deprec.)	14.60	14.95
Total	$149.73	$162.93
Cost per linear foot (5.5-ft. advance)	$ 27.22	
Cost per linear foot (8-ft. advance)		$ 20.37

The Bureau of Mines estimate of the cost per linear foot of advance is based upon an 8-foot round each shift rather than the applicant's performance of 5.5-foot round per shift.

Technical services would better be carried as a separate item of unit cost instead of including with all other costs.

Breaking ground in enlarging

The applicant has assumed that a crew of 3 men underground (2 miners and 1 trammer/station tender), topman, hoisting engineer, and shift boss would break and muck 510 cubic feet in one shift for a cost of $0.39 per cubic foot. This is considered over-optimistic. Operator means muck

It is recommended that a unit cost of enlarging be based on the Bureau of Mines unit cost of drifting and/or crosscutting per linear foot of advance for an 8x7 cross section. Converting the cost of $32.47 per foot of linear advance, 8x7 cross section, to an equivalent cost would amount to $0.58 per cubic foot. Should be less of 32.47 & muck.

Timbering crosscut and drift (one shift)

Item		Applicant	Bureau of Mines
Labor			
Topman		$ 19.67	$ 9.81
Hoistman		22.48	11.21
Miners (2)		42.74	42.52
Trammer/station tender		21.37	21.26
Total labor		$106.26	$84.80
Supervision			
Shift boss		22.96	12.84
Technical services			
Engineer-geologist		12.52	--
Accounting			
Bookkeeper		2.78	2.78
Supplies			
Timber	(2 sets)	52.17	104.34 (4 sets)
Misc. tools		2.53	2.53
Total supplies		54.70	106.77
Power		12.25	12.25
Equipment (rental or deprec.)	(rental)	29.20	14.90 (deprec.) - ?

Recapitulation

Labor	106.26	84.80
Supervision	22.97	12.84
Technical services	12.52	--
Accounting	2.78	2.78
Supplies	54.70	106.77
Power	12.25	12.25
Equipment (rental or deprec.)	29.20	14.90
Total	$240.68	$234.34
Cost per linear foot advance (11 ft.)	$ 21.88	
Cost per linear foot advance (22 ft.)		$ 10.65

The Bureau of Mines estimate of the cost per linear foot of advance is based upon a performance of standing 4 sets (22 linear feet) of drift timber in one shift. The applicant's cost per linear foot of advance is based upon a performance of standing 2 sets (11 linear feet) of timber in one shift.

Technical services would better be carried as a separate item of unit cost rather than including with all other costs.

Timbering raise (one shift)

Item	Applicant	Bureau of Mines
Labor		
Topman	$ 9.89	$ 9.81
Hoistman	11.24	11.21
Miners (2)	42.74	42.52
Trammer/station tender	10.69	21.26
Total labor	$74.56	$84.80
Supervision		
Shift boss	11.48	12.84
Technical services		
Engineer-geologist	6.26	--
Accounting		
Bookkeeper	1.39	2.78
Supplies		
Timber	47.80 (2 sets)	56.49 (3 sets)
Misc. tools	1.27	3.80
Total supplies	49.07	60.29
Power	6.13	12.25
Equipment (rental or deprec.)	14.60	14.95

Recapitulation

Labor	74.56	84.80
Supervision	11.48	12.84
Technical services	6.26	—
Accounting	1.39	2.78
Supplies	49.07	60.29
Power	6.13	12.25
Equipment (rental or deprec.)	14.60	14.95
Total	$163.49	$187.91
Cost per linear foot advance (11 ft.)	$ 14.86	
Cost per linear foot advance (16.5 ft.)		$ 11.39

The Bureau of Mines estimate of the cost per linear foot of advance is based upon a performance of standing 3 sets (16.5 linear feet) of raise timber in one shift instead of 2 sets (11 linear feet) in one shift as estimated by the applicant.

Technical services are carried as a separate item of cost rather than including with all other costs.

Extra timbering, crosscut and drift

Anticipating the possible encountering of heavy running ground which would necessitate the installation of extra timber such as doubling the sets of normal timbering on the sill and/or spiling, bricking, and cribbing, the applicant has estimated a unit cost for spiling at $66.96 per linear foot.

The cost of spiling is predominantly a labor cost and variable over a large range, none of which can be accurately estimated. It is recommended that the spiling be considered on an actual cost basis.

Abnormal timbering or heavy timbering such as the doubling up of the drift sets could be paid at double the unit cost for normal timbering.

Shaft rehabilitation

At present the Plutus shaft, 2-compartment, hoisting and manway, is in excellent operating condition to the 300-foot level (No. 5). The shaft is open and timbered to the 380-foot level where muck and broken timber is encountered and a submersible pump is located. The shaft guides in the hoisting compartment extend 5 feet below the 300-foot level.

The greatest task of rehabilitation will be the removal of debris from the 380-foot level to the 410-foot level, and there is no valid means of estimating the cost of this portion of this rehabilitation since it is under water.

The applicant proposes to install new pumping facilities from the surface to a dam on the 320 level and continue the use of the submersible pump now installed.

It is recommended that the shaft rehabilitation be put on an actual cost basis and establish a maximum based on the applicant's detail of cost, which follows:

Rehabilitation of shaft to 380 level

Set 4-inch water column line from surface to 320 level, build dam on 320 level, and install station pump.

Time - 8 days, 40 manshifts

Labor and supervision (includes O.T., taxes, etc.)

		Applicant	Bureau of Mines	
1 hoistman	8 shifts @ $22.41	$179.28	(1/2) $ 89.64	179.28
1 topman	8 shifts @ 19.62	156.96	(1/2) 78.48	—
2 shaftmen	8 shifts @ 44.88	359.04	359.04	359.24
1 bookkeeper	8 shifts @ 3.00 (75/25)	24.00	24.00	24.00
1 shift boss	8 shifts @ 25.68	205.44	—	205.44
Total		$924.72	$551.16	767.98

Supplies

500 feet, 3 cond., #0 power cable	1,100.00	1,100.00
Line starters, panel box, float switch, hangers, etc.	340.00	340.00
300 feet 4-inch pipe and victaulic couplings @ $162.80/100	488.40	488.40
30 pipe hangers and bolts @ $2/ea.	60.00	60.00
Cement and forms for dam	20.00	20.00
Total supplies	2,008.40	2,008.40

Power

8 shifts @ $12 (600/50)	96.00	96.00

Equipment depreciation

Mine hoist - 8 shifts @ $0.50	4.00	4.00
Compressor - 8 shifts @ 5.00	40.00	40.00
I.R. MRV-2 mine pump - 8 shifts @ $0.98	7.84	7.84
Jaeger sinking pump - 8 shifts @ 0.60	4.80	4.80
Ventilation fan - 8 shifts @ 0.68	5.44	5.44
Total equipment	62.08	62.08

Recapitulation

Labor and supervision	924.72	551.16	767.98
Supplies	2,008.40	2,008.40	2008.40
Power	96.00	96.00	64.00
Equipment depreciation	62.08	62.08	62.08
Totals	$3,091.20	$2,717.64	2902.46

Install air hoist on 300 level; mucking 30 feet of shaft debris; lining manway and installing shaft guides, 300-400 levels; lowering submersible sinking pump.

Time - 20 days, 100 manshifts

Labor and supervision (includes O.T., taxes, etc.)

	Applicant	Bureau of Mines	
1 hoistman - 20 shifts @ $22.41	$ 448.20	(1/2)$ 224.10	448.20
1 topman - 20 shifts @ 19.62	392.40	(1/2) 196.20	392.40
(2) 3 shaftman - 20 shifts @ 67.32	1,346.40	1,346.40	1,346.40
1 shift boss - 20 shifts @ 22.96	459.20	--	459.20
1 bookkeeper - 20 shifts @ 3.00 (75/25)	60.00	60.00	60.00
Total	2,706.20	1,826.70	2,257.40

Supplies

Boots, slickers for shaft work	75.00	75.00
Lining manway (2"x5'x100') 1,000 bf @ $65/M	65.00	65.00
Installing shaft guides--2(2"x5'x100') 200 bf @ $350/M, lag screw & blocks	77.00	77.00
Signal and light cable - 125 ft. @ 0.84/ft.	105.00	105.00
Pull bobs (station signals)	29.00	29.00
Electric light fixtures	8.00	8.00
3" air line, 100' @ 0.92/ft + 5% fittings	96.60	96.60
2" water " 100' @ 0.45/ft + 5% "	47.25	47.25
10" vent tube, 100' @ $1.30/ft.	30.00	30.00
	532.85	532.85

Power

20 shifts @ $12 (600/50)	240.00	240.00

Equipment depreciation

Mine hoist - 20 shifts @ $0.50	10.00	10.00
Compressor - 20 " @ 5.00	100.00	100.00
I.R. MRV-2 mine pump - 20 shifts @ $0.98	19.60	19.60
Jaeger sinking pump - 20 " @ 0.60	12.00	12.00
Ventilation fan - 20 " @ 0.68	13.60	13.60
Mine air hoist - 20 " @ 0.67	13.40	13.40
	168.60	168.60

Recaptiulation	Applicant	Bureau of Mines
Labor and supervision	$2,706.20	$1,826.70
Supplies	532.85	532.85
Power	240.00	240.00
Equipment depreciation	168.60	168.60
Totals	$3,647.65	$2,768.15

Applicant	Bureau of Mines
$\frac{3647.65}{100}$ = $36.48/ft.	$\frac{2768.15}{100}$ = $27.68/ft.
$\frac{3647.65}{30}$ = $121.58/ft.	$\frac{2768.15}{30}$ = $92.27/ft.

Station and Crosscut Rehabilitation

Since the crosscut is under water it is recommended that the rehabilitation be put on an actual cost basis and establish a maximum based on the applicant's detail of cost.

The applicant states that existing maps of the 400-foot level indicate that the station was cut in aplite and that several minor veins were cut by the crosscut before the main vein was encountered. Experience confirms that the station timber may be in usable condition but that the crosscut may be filled with slime and muck washed from the vein structures explored. It is expected that the station will need enlarging and that some of the crosscut will require timbering and spiling.

The applicant has submitted an estimated cost of station repair and 240 linear feet of crosscut rehabilitation as follows:

Item	Days	Man-shifts	Labor cost	Supply cost	
Station repair					
(1) Extending air & water lines	2	10	$ 225.60	$ 117.00	1.42
(2) Install signal & elec. lights	2	4	140.00	142.00	1.17
(3) Mucking sta., set turnsheets, etc.	3	15	318.87	—	
Crosscut rehabilitation, 240 feet	30	150	3,188.70	1,476.00	19.44 ft.
Supervision @ $38.26/day	35		1,339.30		5.58
Power @ 12.25/day	35		428.25		1.78
Equipment rental @ 29.20/day	35		1,022.00		4.26
Totals			6,662.72	1,735.00	33.64

Total labor cost	$6,662.72
" supply "	1,735.00
	$8,397.72

Linear cost per foot - $34.99

The applicant has not included an item for possible enlarging of the present crosscut off the shaft to minimum station requirements, such as 10'x10'x75' (7,500 cu.ft.).

It is recommended that the station and crosscut rehabilitation be put on an actual cost basis with an allowable maximum of $0.58 per cubic foot for station enlarging as determined by the Bureau of Mines and an allowable maximum of $34.99 per linear foot for crosscut rehabilitation as determined by the applicant.

Diamond drilling

The applicant will contract the surface and underground diamond drilling to an independent contractor.

The R. S. McClintock Diamond Drill Company of Spokane submitted a bid to contract the drilling for $6.50 per linear foot with air, water and underground station provided by the applicant. It is assumed that the bid is for underground drilling only. This bid is considered high and probably could be lowered under competitive bidding.

The DMEA program proposes diamond drilling three holes from the surface totaling 500 feet, 600 feet, and 600 feet, respectively, and 1,650 feet maximum from underground stations.

The following cost analysis for diamond drilling, based on comparable circumstances included on other DMEA contracts, is recommended by the Bureau of Mines:

Road work and drill site preparation by bulldozer - 1 day @ $100/day	$ 100.00
Moving equipment in and out for three drill sites	200.00
Preparation of underground drill stations - 4 stations - 4,000 cu.ft. @ $0.58/cu.ft.	2,320.00
Core drilling, surface and underground - 4,100 feet (AX) @ $4.75/ft.	19,475.00
Reaming and cementing - 200 feet @ $2.50/ft.	500.00
Core boxes - 60 @ $5.00/ea.	300.00
Assays - core samples - 200 @ $3.50/ea.	700.00
Assays - sludge " - 200 @ 3.50/ea.	700.00
Totals	$24,295.00

Cost per foot - $5.93

Assaying

The proposed program lists 285 samples for assaying; 155 samples under Stage I and 130 samples under Stage II. The samples are to be assayed for silver, zinc and manganese.

Assaying 285 samples @ $3.50/ea. $997.50

Technical Services

Professional services for surveying and mapping geological data would utilize the services of a competent experienced engineer and/or geologist for a period of 6 days per month maximum.

Engineer-geologist, 6 days/mo. @ $50/day $300.00

RECAPITULATION

	Unit	Cost/ft.	Recommended costs Total cost	
Breaking ground				
Crosscut and drift	1,650 ft.	$32.47	$53,575.50	
Raise	300 ft.	20.37	6,111.00	
Enlarging	600 ft.	0.58/cu.ft.	348.00	
Timbering				
Crosscut and drift	1,650 ft.	10.65	17,572.50	
Raise	300 ft.	11.39	3,417.00	
Extra				
Heavy	500 ft.	10.65	5,325.00	
Spiling	100 ft.	actual cost	2,130.00	(max. allow.)
Shaft rehabilitation			6,838.85	(max. allow.)
Surface to 380-foot level		actual cost	3,091.20	(approx.)
300 level to 400 level		actual cost	3,747.65	(approx.)
Station and crosscut rehab.		actual cost	8,397.72	(max. allow.)
Station and crosscut enlarging	(approx) 7,500 cu.ft.	0.58/cu.ft. (max. allow.)	4,350.00	
Station and crosscut rehab.	(approx) 116 ft.	34.99/cu.ft. (max. allow.)	4,058.84	
Diamond drilling	4,100 ft.	5.93	24,295.00	
Assaying	285 samples	3.50	997.50	
Technical services	72 days	50.00	3,600.00	
Total			$147,855.76	
Government participation @ 75 percent			$110,891.82	

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAY 7 - 1956

April 12, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Darrell M. Pinckney, Geologist, U. S. Geological Survey

Subject: Analysis of application, Docket No. DMEA-4129 (Manganese), Irving and Nelson, Norwich mine, Silver Bow County, Montana.

RECOMMENDATIONS

It is recommended that the Government enter into a contract with the applicants to explore the veins in the Norwich and Plutus claims.

Summary and Conclusions

Two important and one minor manganese-bearing veins in the Norwich and Plutus claims trend eastward into an area of post-ore volcanic rocks west of the center of the Butte district. One moderate-sized ore body is on the Norwich vein; two smaller ore bodies are on the Plutus vein. The objectives of the proposed program are to find additional manganese ore by (1) exploring the veins to the edge of the volcanic rocks and (2) searching for extensions of the veins under the volcanic cover. The work would be done in two stages. Stage I would include 105 feet of shaft rehabilitation, 240 feet of crosscut rehabilitation, 550 feet of drifting, 150 feet of raising, and 2,150 feet of surface and underground diamond drilling. Stage II would include 1,100 feet of crosscutting and drifting, 150 feet of raising, and 1950 feet of diamond drilling.

The merits of this program are far greater than the mere possibility of finding more ore on the Norwich vein. Such a program, as outlined here, will help determine if the great vein systems of Butte extend westward from the main part of the district into an area that has never been explored although it is along the strike of the main east-west vein systems.

Reviewed by
DMEA OPERATING COMMITTEE
5-11-56
(date)

LOCATION AND ACCESSIBILITY

The property is about 2 miles west of the center of Butte in secs. 10 and 15, T. 3 N., R. 8 W., M.P.M., Silver Bow County, Montana. It can be reached from U. S. Highway 10S, immediately west of Butte, by about 1½ miles of good graveled road.

THE PROPERTY

The application includes only the Norwich claim; however, the applicants agree that the adjacent Plutus claim should also be included (fig. 1).

The Norwich claim is held under a lease and option agreement that expires June 30, 1956. The applicants state that if a DMEA loan is granted, the remainder of the purchase price will be paid to secure the property. The applicants own a quarter interest in the Plutus claim and have a lease until June 30, 1959, for the remaining three-quarters interest. They state that they will obtain a lease good for an additional 5 years.

History and Production

The following data on history and production are taken from conversations with the applicants, their application, and material in the U. S. Geological Survey, Spokane office files.

The property was located in 1889 and prospected for silver ore. During World War I a small amount of manganese was produced from the Norwich vein outcrops. In 1920 and 1921 the Plutus shaft was sunk about 400 feet and a crosscut was driven to the Norwich vein. Apparently no ore was produced; however, at the time this work was done, the principal mineral of the vein, rhodochrosite, was a gangue mineral. During World War II about 9,000 tons of about 25 percent manganese ore was produced from the Norwich vein.

In 1952 the applicants acquired control of the property and with the assistance of a GSA loan sank the 120-foot R.A.L. shaft on the Norwich vein, reopened part of the deeper Plutus shaft, and developed part of the Norwich vein from the Plutus shaft. The applicants did some exploration on the Plutus vein with DMEA assistance (Docket No. DMEA-2847, Contract No. Idm-E604) and found two small ore bodies which have produced about 1,500 tons of manganese ore and contain about 2,000 additional tons of indicated ore.

According to the application the Norwich vein has produced a total of 26,259 tons of ore that contained 21.4 percent manganese and 6.2 ounces of silver per ton.

Mine Workings

The Norwich vein has been opened by levels at depths of 82, 135, 170, 244, and 300 feet below the collar of the Plutus shaft. The levels on the Plutus are at 125, 200, 244, 275, and 400 feet below the shaft collar. The Norwich 244 and 300 levels are connected to the Plutus shaft by crosscuts and to the upper Norwich levels by raises. According to the applicants an old crosscut (below the presently accessible part of the Plutus shaft) was driven from the 400-foot level of the shaft northward through the Norwich vein to an unnamed vein about 130 feet farther north. All of the Norwich workings lie west of a north-striking vertical plane through the Plutus shaft.

Condition of the Workings

The Plutus shaft is in excellent condition and is being used to a depth of 300 feet. According to the applicants, shaft guides extend downward 305 feet from the collar and the shaft is in good condition from this point to the present water level at 370 feet. Below 370 feet the condition of the shaft is not known.

Character of the Ground

For the most part the ground in the drifts at Butte is very heavy because of faulting and intense alteration; it requires very heavy timber. The rock in crosscuts (except in vein zones or faults) is fresh to only slightly altered and stands quite well.

GEOLOGY

Geologic Setting of the Butte District

The Butte district is near the center of the Boulder batholith, a large, intrusive body of quartz monzonite and granodiorite of Late Cretaceous age. After the consolidation of at least its upper part, the batholith was intruded by many late-stage aplite and alaskite bodies and both the batholith and alaskitic rocks were cut by many faults and sheeted joint zones. Most of these faults and joint zones trend east or northeast and became channelways for hydrothermal solutions that deposited ores valuable chiefly for their content of copper, silver, zinc, and manganese. The gangue materials are quartz, carbonates, and altered rocks.

In mid-Tertiary time the unroofed batholith was partly covered by dacite, quartz latite, and rhyolite extrusives that are dominantly tuffaceous rocks. Many dikes and small stocks or plugs were intruded into the batholith and the overlying tuffs during this period. All of these mid-Tertiary volcanic rocks are post-ore in age as shown in places in the Butte mines where dikes cut the veins. The tuffs probably overlie the eroded tops of many veins.

In a general way the ore deposits at Butte are arranged in a zonal pattern with a central copper zone, an intermediate zinc zone, and an outer carbonate zone. Several square miles of the peripheral zones west and northwest of the central zone are underlain by the post-ore volcanic rocks and have not been adequately prospected.

For a more complete description of the Butte district see publications by W. H. Weed entitled "Butte Special Folio, Montana" (U. S. Geol. Survey Folio 38, 1897) and "Geology and ore deposits of the Butte district, Montana" (U. S. Geol. Survey Prof. Paper 74, 1912), and publication by L. H. Hart entitled "The Butte district, Montana" (XVI International Geological Congress, Copper Resources of the World, v. 1, p. 287-305, 1935).

Geology of the Norwich-Plutus Area

The Norwich and Plutus claims are in the manganese carbonate zone about 1½ miles west of the western edge of the central copper zone at Butte. They cross the contact of the Boulder batholith with the Tertiary volcanic rocks (fig. 1). Near the contact is a northwest-trending dike of unknown but probably steep dip. (This dike is referred to as andesite on the maps submitted with the application.)

Three eastward-trending veins cut the batholith and probably extend eastward under the volcanic rocks. The Norwich vein is a very persistent, sheared, and mineralized structure that strikes east and dips about 55° S. It has been found over a horizontal distance of about 3,000 feet and about 500 feet down the dip; its single known ore body has been developed for about 200 feet horizontally and about 350 feet down dip. The ore body on the 300 (No. 5) level, where it reaches a thickness of 12 feet, is dominantly composed of rhodochrosite, with minor amounts of pyrite and quartz.

Within the area opened by the 244 (No. 3) and 300 (No. 5) levels, the Norwich vein is cut by two fault systems. One fault system strikes a little more northward than the vein and dips from 40° to 50° S. The vertical component of movement on several strands of this fault appears to have cut the vein and dropped the hanging wall so that the upper and lower segments of the vein overlap and are separated by a few inches of gouge. The horizontal component of movement may have pulled the vein apart a few tens of feet. Many north-trending steeply dipping cross faults have displaced the vein a few inches to a few feet. The Norwich vein is indicated in the area of proposed exploration west of the dike by 19 feet of mineralized rock in DDH 5 and by a vein about 15 feet wide on the old Plutus 400 level (see applicants' maps numbered 4 and 5). As the exposure of the Norwich vein in the 400 level crosscut is inaccessible, we have no firsthand information about the vein in the target area although the applicants assure us that Murl Gidel, well-known Anaconda geologist, mapped the crosscut and has exhibited to them his original field sheets.

The Plutus vein is a strong mineralized structure that strikes between N. 70° E. and dips about 70° S. Two small manganese ore bodies have been found along it, and there is some possibility that other ore bodies may be found on the vein east of the dike. The downward extension of the two DMEA ore bodies should be determined by diamond drilling from the Norwich 400 level drift.

An unnamed vein that lies in the footwall of the Norwich vein was found in the old workings on the 400 level north of the Norwich vein. According to the maps submitted with the application, this vein strikes N. 80° E., dips 85° S., and probably contains quartz, rhodochrosite, and sphalerite.

The presence of these veins east of the dike under the volcanic cover is a matter of conjecture, as is the matter of the thickness of the volcanic rocks. Available evidence suggests that the volcanic rocks are no more than 100 feet thick in the Norwich claim, but it would be desirable to test this with surface diamond drill holes before the 400 level drift is advanced into this part of the claim.

The dike was probably emplaced along a fault, but there is at present no way of determining the direction of movement along the fault plane. Possibly the veins will have been moved out of the Norwich and Plutus claims, but again surface diamond drill holes should be able to find the veins if they are present. Quite possibly there has been only negligible movement along this, as yet hypothetical, fault; experience at Butte suggests that this may well be the case. The surface diamond drill holes can test both the thickness of the volcanic cover and determine the location of the veins.

THE PROJECT

To summarize, in some areas underlain by the batholith west of Butte many veins at the surface appear to end at the edge of the areas underlain by volcanic rocks; because these rocks are post-ore, many veins probably exist under them. The purpose of the project is to locate the eastern extension of the Norwich vein under the volcanic rocks and to look for an ore body along the vein both to the east and to the west of the volcanics and to test the veins to the north and south of the Norwich by diamond drilling. The Norwich vein is considered the best place for such exploration because it is a strong, well-mineralized vein with a record of significant production.

Proposed Program

The following two-stage program has been worked out in conference between the applicants, the Field Team Executive Officer, and Field Team representatives. It is set up in two stages, the second stage to be contingent upon the success of the first stage. The purpose of Stage I is (1) to explore at greater depth by means of drifts and raises a part of the Norwich vein located between the productive part of the mine and a post-ore dike; (2) by diamond drilling in the area east of the dike to determine the depth of the extrusive volcanic cover and the location of the three veins below this cover; and (3) to determine by drilling from the Norwich vein the existence of a possible downward extension of the small ore body found in the DMEA work on the Plutus 275 level. If the results of the work on the Norwich vein up to the dike are encouraging, a second stage of exploration should be done. The objective of Stage II is to explore the three veins east of the dike, and under the volcanics.

To attain each of the objectives of the proposed exploration program the following work will be required:

Stage I

(1) Rehabilitate 105 feet of the Plutus shaft to a total depth of 410 feet.

(2) Rehabilitate 240 feet of the 400-level crosscut to the Norwich vein.

(3) Drift west on the 400 level on the Norwich vein 150 feet from the crosscut. ?

(4) Drift east a maximum of 400 feet on the Norwich vein on the 400 level or to the dike whichever is the least.

(5) Raise 150 feet on the Norwich vein. ?

(6) Diamond drill a total maximum of 2,150 feet partly from the surface and partly from underground as follows:

(a) 500 feet maximum for one vertical hole collared on the surface east of the dike to determine the thickness of the volcanic rocks.

(b) 1,200 feet total maximum for two holes to be collared on the surface east of the dike and to be inclined about 60° northward. The purpose of these holes is to determine if the veins are present below the volcanic cover.

(c) 450 feet maximum to be drilled from the 400 level to test the small Plutus 275-level ore shoot at the elevation of the 400 level and possibly to test the vein north of the Norwich vein at a depth of about 100 feet below the 400 level.

(7) 155 samples to be assayed for silver, zinc, and manganese.

Stage II - to be performed on the 400 level:

(1) Crosscut about 100 feet to get through the dike.

(2) Drill horizontal holes to the north and south from the east side of the dike up to a maximum of 750 feet to locate the three veins east of the dike.

(3) Crosscut and drift 350 feet to parallel veins and for diamond drill setup.

(4) Diamond drill from the Norwich vein east of the dike up to 450 feet to test the Plutus vein at depth, and diamond drill from the crosscut north of the Norwich vein east of the dike a maximum of 750 feet to test the Norwich vein at depth.

(5) Crosscut to the Norwich vein and drift along it for a total maximum of 650 feet of crosscut and drift to stop within 200 feet of the Norwich east end line.

(6) Raise 150 feet on the Norwich vein.

(7) 130 samples to be assayed for silver, zinc, and manganese.

Excluded Ground

As noted above and in the applicants' letter of January 7, 1956, a part of the Norwich vein has been completely developed by the applicants, and they wish ore from this area to be excluded from DMEA royalty. It is recommended that all ore from the Norwich vein mined from above the 300 (No. 5) level and from between the Norwich west end line and a vertical plane along the 5245 ~~north~~ East coordinate line be excluded from DMEA royalty. Also production from any existing dump on the Norwich claim should be exempt from royalty.

It would not be practicable to put in a provision that all ore that passes through workings to the cost of which DMEA has contributed should pay royalty. DMEA has assisted in the rehabilitation of 36.5 feet of the Plutus shaft at a cost of $1,257.00; if this provision were included in the contract, all Norwich ore would pay royalty. Annex II to the Plutus contract specifically exempts from royalty Norwich production, and Irving and Nelson would never agree to subjecting their known reserves in the Norwich to DMEA royalty because DMEA had contributed less than $900.00 to rehabilitation of the Plutus shaft (three-fourths of $1,257.00).

Enclosure
Distribution:
DMEA(4)
USBM(2)
USGS(SRO)
Docket
Pinckney

4) 1257
314.25
942.75

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
APR 23 1956

So. 157 Howard Street
Spokane 4, Washington

April 17, 1956

Mr. F. W. Nolan, Trust Officer
The National Bank of Commerce
Second Avenue at Spring Street
Seattle 1, Washington

Owner 2874

WSM

Subject: Thomas Heirs Trust - Prop. 355
Plutus Lode Mining Claim

Dear Mr. Nolan:

With respect to your letter of April 13, 1956, we have had a contract with Irving & Nelson to explore in the Plutus claim, but we do not know what figures you refer to in their annual report.

We would be glad to talk with Mr. Gallup but the amount and type of information we can discuss is limited by existing Department of the Interior regulations.

By Field Team, Region I, NW Dist.

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Verne C. Fryklund, Jr., Member
U. S. Geological Survey

cc: DMEA (2) w/incoming
USBM (2)
Pinckney

Re: Docket No. DMEA-2874, Irving & Nelson, Plutus Lode Mining Claim, Silver Bow County, Montana, Contract No. Idm-E604

THE NATIONAL BANK OF COMMERCE
OF SEATTLE
SECOND AVENUE AT SPRING STREET
SEATTLE 1, WASHINGTON

RECEIVED
APR 23 1956

ANSWER TO	ACTION	NOTED	DATE
ANSWERED			

TRUST DEPARTMENT

April 13, 1956

4 1700 0

Mr. A. E. Weissenborn
U. S. Geological Survey
S. 157 Howard Street
Spokane, Washington

Subject: Thomas Heirs Trust - Prop. 355
Plutus Lode Mining Claim

Dear Mr. Weissenborn:

The National Bank of Commerce of Seattle as Trustee for the Thomas Heirs, holds in trust a one-half interest in the Plutus Lode Claim, Survey #3018, located in Silver Bow County, Montana. The other one-half interest is owned in equal shares by the Anaconda Copper Mining Company and Mr. I. G. Irving and Mr. R. H. Nelson. At the present time the Plutus Claim is leased to Nelson and Irving under lease dated July 22, 1952.

In the final report of the lessees for the year 1955, there was enclosed information to the effect that the facts and figures included in this report could be verified through your office and the Bureau of Mines. In view of a recent offer by the lessees to purchase the Trust's one-half interest, we feel that a rather complete investigation of past production and future potential to be a prerequisite to any decision along this line.

The heirs of this trust estate have requested that Mr. Gordon D. Gallup, Mining Consultant of 1100 Queen Anne Avenue, Seattle, Washington be commissioned to make this investigation on their behalf. Mr. Gallup plans to be in Spokane some time within the next three weeks and we would sincerely appreciate the assistance of your office to the extent that Mr. Gallup may have adequate opportunity to secure whatever information he may desire. Your assistance in this regard will be sincerely appreciated.

Sincerely yours,

F. W. Nolan,
Trust Officer

FWN:MG
cc - Mr. Gordon D. Gallup
cc - Mr. Garroll G. Thomas

RECEIVED
APR 16 1956
U.S.G.S.
SPOKANE

ROBERT H. NELSON

IRVING G. IRVING

RECEIVED
MAY 7 - 1956

	ACTION	NOTED	DATE
al			
Irving			
USBM	Start on docket & copy 4/11/56.		
ANSWERED			

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

April 9, 1956

Mr. A. E. Weissenborn,-Executive Officer, U.S.G.S.
Sourh 157 Howard St.,
Spokane 4, Washington

Re: Docket #DMEA 4129 (Manganese
Docket #DMEA 2874 (Manganese)

Dear Mr. Weissenborn:

On January 7, 1956 the first captioned application was presented to your office requesting D.M.E.A. assistance for a Project designed to explore the eastward extension of the Norwich vein in an area the surface over which is covered with "rhyolite". The then estimated cost of the project was $101,083.87, and D.M.E.A. assistance in the amount of $75,812.91 was requested.

On March 19, 1956, I. G. Irving and D. P. Wheeler (also interested in the project) discussed the proposed project with you, Member of the U.S.G.S. familiar with the area, together with other members of the D.M.E.A. field team. A revised exploration program was agreed upon.

On March 27, 1956, R. H. Nelson discussed estimated costs of the original proposed project with John Bowsher, local Bureau of Mines and D.M.E.A. representative in the area. At this latter conference it was agreed that the original cost estimates were not applicable and did not completely cover the proposed program as revised by the March 16th conference.

Enclosed for your consideration is an Amended and enlarged application for the proposed program.

It is now estimated that the exploration task will cost $170,297.22, and D.M.E.A. assistance in the amount of $122,722.92 is hereby requested.

Enclosed are copies of Amended Appendix B, and you are requested to consider the project and the unit costs thereunder instead of the original Appendix B submitted with the application dated January 7, 1956.

Yours very sincerely,

Robert H. Nelson - partner
Robert H. Nelson

RECEIVED
special delay
APR 10 1956
U. S. G. S.
SPOKANE, WASH.

Reviewed by
DMEA OPERATING COMMITTEE

(date)

Appendix B Amended

To accompany D.M.E.A. Exploration Project Application of I. G. Irving and Robert H. Nelson, 43 Hirbour Bldg. Butte, Montana on the NORWICH MINE (Manganese)

In Answer to Question 6, Form MF-103

The proposed project is designed not only to explore the manganese ore making possibilities in one of the major east-west vein structures in the Greater Butte district, but the project also is designed to fully explore the ore making possibilities in this same structure in an area wherein all veins are cut by a post-mineral andesite dike, and the surface east of that dike is covered completely by thin "rhyolite" flows and other post mineral pyroclastics. Because of these superficial surface coverings, essentially no exploratory work, except USBM drill hole #4, has been done anywhere in the Butte district in areas similar to the subject proposed project.

The Norwich vein is traceable on the surface west from the andesite dike for a distance of more than 3,000 feet, and throughout its entire explored length considerable manganese ore has been found. On the Norwich property above about 26,250 L.D.T. of manganese ore averaging 21.6% Mn has been mined. There is a calculated reserve of at least 45,000 L.D.T. of 21.9% Mn in the Norwich.

The Norwich vein, which strikes about N 70 E and dips south about 50°, is presently being worked through the Plutus shaft (a vertical shaft on the adjoining Plutus claim). The lowermost Norwich workings are at a level 300 feet vertically below the collar of the Plutus shaft.

The Plutus shaft is known to exceed 400 feet in depth. From the old "400" level, work mapped in 1921 exposed the downward extension of the Norwich vein in a crosscut at a point about 220 feet north of the Plutus shaft. The exposure (mapped by a competent geologist) was described as a structure 12 to 15 feet wide containing half rhodochrosite and half quartz, together with about a foot of good sulfide ore. This exposure is recorded about 150 feet vertically below 19 feet of manganese mineralization revealed in U.S.B.M. diamond drill hole #5. No other exploratory work has been done on the vein anywhere in this area.

(References above to U.S.B.M. diamond drill holes are holes drilled by the Federal Government on the property in 1949-50, and the entire project is described in the Federal Bureau of Mines R.I. 4784. Drill core recovery in the vein was poor due to techniques used at that time, but new core recovery techniques developed during the past few years indicates that much better core recovery now can be expected than was achieved in the previous drilling campaign.)

At the present time the Plutus shaft is in excellent, operating shape to a point 300 feet below its collar. From the 300' station a crosscut extends northward 400 feet and from these workings ore is being extracted from the Norwich vein. Below the 300' (#5) level the shaft is open for about 80 feet at which point muck and timber blocks the entry. When the water table is stabilized the mine makes about 90 g.p.m. of slightly corrosive water. However, to depress the water table requires several months pumping at the rate of 180 to 200 g.p.m.

Exploration of the Norwich vein in the eastern two-thirds of the property is a significant undertaking, both from the ore making possibilities on the property itself as well as from the major significance to the Butte district as a whole. The project has been discussed with officials and geologists of the Anaconda Company, private consulting geologists and mining engineers, members of the U.S.G.S. familiar with the details of the area, Bureau of Mines officials, various members of the D.M.E.A. field team, and the concensus of their recommendations may be outlined as follows:

Stage 1.

Step 1 - Repair the Plutus shaft to service the 400 foot level.

Step 2 - Rehabilitate the 240 feet of crosscut north from the Plutus shaft to the point where the Norwich vein was cut and mapped in 1921.

Step 3 - Drift west on the Norwich vein at least 150 feet.

Step 4 - Drift east on the Norwich vein to its intersection with the post-mineral andesite dike. (It is thought the dike may be encountered in about 400 feet.)

Step 5 - Diamond drilling from the surface amounting to about 1,700 feet for geologic information. The location of the holes to be determined after conference with U.S.G.S. and D.M.E.A. field team members.

Step 6 - 150 feet of raising on the Norwich vein.

Stage 2.

Step 1 - Crosscutting through the andesite dike. (It is thought the dike may be about 100 feet thick.)

Step 2 - Diamond drilling amounting to 750 feet to locate the vein east of the dike.

Step 3 - When the vein has been located east of

the dike by work in step 2 above, crosscut to the vein. (The offset on the dike may amount to 150 feet or more.)

Step 4 - When the Norwich vein has been recovered east of the dike, drift east 500 feet on the structure (or to a point 200' west of the east endline of the Norwich Claim.)

Step 5 - 150 feet of raising on the Norwich vein east of the dike.

Step 6 - Crosscut 350 feet into the hangingwall of the Norwich vein and cut out diamond drill station.

Step 7 - From this station perform about 750 feet of diamond drilling to explore the downward extension of the Norwich vein below the 400 level. In addition perform about 450 feet of horizontal diamond drilling southward to further explore the Plutus vein at depth.

The proposed project, outlined above, calls for 105 feet of shaft rehabilitation, 240 feet of crosscut repair, 1,650 feet of new sill development, 300 feet of raising on vein exposures and 3,650 feet of diamond drilling. It is expected that the project will be completed within 72 weeks from the time work commences.

The total cost of the project is estimated to be $ 170, 297.22, and this application requests a loan of 3/4 of that amount to be repaid from usual royalties levied against the production of the mine from ore developed and mined on the 400 level.

C O S T S

A. Basic data on which cost calculations are made.

(1) Labor:

The Butte camp is a highly unionized area, and it is impossible to operate in the area without union recognition. The present bargaining agent is the Butte Miners Union #1 and the I.M.M. & S.U. The contract agreed upon between the Union and the Anaconda Company determines, to a large measure, the rate of pay, pay differentials, working hours, and fringe benefits which establishes the costs to all operators, including the small ones. The Norwich operators are competitive with Anaconda for good labor, and in order to attract other than Anaconda's inefficient rejects, it is necessary to pay over the going base wage scale in the camp.

The following comparative wage scales show the labor cost at the Butte mines and at the Norwich in conformance with our contract with the I.M.M. & S.U. It also shows the actual rate paid at the Norwich.

Type of work	day's pay	& night shift differential	Rate	Norwich
Geared hoist man	$17.32	60¢	17.92	18.92
Shaft men	16.88	60¢	17.48	18.48
Miners	15.91	60¢	16.51	17.51
Surface labor	14.97	60¢	15.57	16.57

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Working a 6 day week, together with usual overtime, compensation insurance - the actual cost of an employee for 6 days to an employer is as follows.

Miner $17.51 x 6½ -	113.81		
plus 8% comp. ins. -	9.10		
= 4.7% taxes* -	5.35		
Cost weekly	128.26	or	21.37 per day
Hoistman $18.92 x 6½ -	122.98		
plus 5% comp. ins. -	6.15		
= 4.7% taxes* -	5.78		
Cost weekly	134.91	or	22.48 per day
Shaftman $18.48 x 6½ -	120.12		
plus 8% comp. ins. -	9.61		
= 4.7% taxes* -	5.66		
Cost weekly	135.39	or	22.56 per day
Topman $16.57 x 6½ -	107.61		
plus 5% comp. ins. -	5.38		
= 4.7% taxes* -	5.06		
Cost weekly	118.05	or	19.67 per day

A crew of 3 miners, a topman and hoisting engineer costs:

3 x 128.26	= 384.78	
Hoist	= 134.91	
Top	= 118.05	
Weekly	637.74	or $106.29 daily.

In actual operating practice the Norwich contract with the Union calls for seven paid holidays during the year together with a 5 day paid vacation. The net result to the operator is that his labor costs actually average about 3½% higher than indicated in the foregoing.

*Taxes

(2) Supplies:

(a) Timber:

(1) Shaft guides 4 x 6 Oregon fir cost $350 per M.
(2) Sill timber, obtained framed from Anaconda mine yards costs about as follows:

Posts 2.10 each
Caps 2.10 each
Girts 2.10 each
Lagging $65 per M
Wedges 4¢ each
Blocks $65 per M
Ladders 24¢ ft.

Thus the timber cost for 5½'(regular Butte sill set) is:

2 post @ 2.10	= 4.20	
1 cap @ 2.10	= 2.10	
2 girts @ 2.10	= 4.20	
Backlog 83 b.f.		
Sidelog 77 b.f.		
160 b.f. @ 65.00	=10.40	
Blocking, wedges, etc.	= 2.00	
Total cost	$22.90	or $4.17 per lin. ft.

In a 2 compartment raise, leaving the chute end unlined the timber cost is as follows:

6 posts @ 2.10	= 12.60	
3 caps @ 2.10	= 6.30	
2 girts @ 2.10	= 4.20	
Hanging wall logged	= 165 b.f.	
Center log	= 83 b.f.	
1 end logged	= 82 b.f.	
	330	
330 b.f. @$65.00	= 21.40	
Wedges, blocking	= 2.00	
Ladders	= 1.32	
Total cost	= 47.82	or $8.69 per lin. ft.

(b) Explosives for 5.5' round

40# dynamite @ $22.70	= 9.08	
16 caps @ 2.39¢	= .38	
192' fuse @ 1.23¢	= 2.36	
Total cost	$11.82	or $2.15 per lin. ft.

(c) Track for project:

To use mucking machine and Mancha trammers for handling broken material 25# rails are requisite.

?

Turnouts, switches, and double track show that (with some reuse or salvage) 1790' of track (3580' of rail) are needed for the project. Therefore 15 tons of rail, 10 switchpoints, 450 ties and misc. hardware will be used on 1390' of tracked sill.

Rail 15 tons @ $215 ?	=	3225	20# = 12 lbs @215 3210
Switch points 10 @ $30	=	300	
Fish plates 238 @ 61¢	=	145	
100# bolts	=	25	
200# spikes @ 15.65	=	31	
450 ties @ 52¢	=	234	
1390' Total cost		3960	or $2.85 per lin. ft. ?

(d) Miscellaneous items

(1) Pipe and fittings & ventube

Drill water is to be carried throughout the mine workings in a 2" line, but a 3" air line is necessary to assure adequate pressure and volume at the working face.

1390' of 2" pipe @ 53¢	=	737
12 - 2" ties @ 1.42	=	17
12 - 2" grd unions @1.56	=	19
12 - 2" gate valves@6.41	=	77
1390' of 3" pipe @ 89¢	=	1237
139 Vic couplings @$211	=	293
80 pipe hangers @ 50¢	=	40
Misc. fittings	=	25
16" Ventube		
33-50' lengths @$65.00	=	2145
1390' Total cost		$4590 or $3.30 per lin. ft.

4" water column and Vic couplings for shaft pump	$140.00
Pipe hangers & bolts for shaft water column 40 @ 2.90	116.00
3" valves 32.96 - plugs, T's @ 3.35 hangers @ 5.80	42.00

(2) Drill steel and bits

Jack legs with coromat steel with integrated chisel bits are used at the Norwich Mine. Experience has shown that at least 600 feet of hole can be expected from each drill steel. 54 pieces of steel should be consumed in the project.

54 x 22.50 = $1215 divided by 1650 of sill = $0.74 per lin. ft.

(e) Misc. tools and equipment

25 gal. machines oil @ $1.30	=	32
6 axes	=	35
3 saws	=	36
1 double jack	=	5
4 wrenches	=	16
Machine repairs	=	256
1650' costs		380 or $0.23 per lin.ft.

(f) Other supplies to be used on project

500' of used 1-0 cable	$1100
Line starters, motor control	
Panel box, float switch used	300
Power cable hangers 40 sets @ $1.00	40
Signal & light cable 125' @ 84¢	105
Pull bobs (2)	29
Light fixtures	8

(3) Supervision, bookkeeping and accounting

As the facilities of the Norwich are being used at capacity on the day shift in completing the G.S.A. contract with the operators, the proposed project will be conducted essentially on the night shift. To properly supervise the operation will require the services of 1 full time shift boss (pay scale in Butte $550/month.) The mine surveying, geologic mapping, sampling and map posting can be done in 6 days per month by a competent man. Going rates for such work is $50 daily. Increased work load on the accountant because of this project will cost about $75 monthly.

Cost of supervision:

1 shift boss @ $550.00		
plus 8% Ind acc	44.00	
plus taxes 4.7%	25.85	
	619.85	619.85
1 engineer geologist part time		
6 days @ $50	$300.00	
plus 8% Ind acc	24.00	
plus taxes 4.7%	14.10	
	$338.10	338.10
1 Bookkeeper	75.00	75.00
	Monthly cost	$1032.95
	Weekly cost	229.55
	Daily cost	38.26

7.00

(4) Power cost

The Norwich mine is serviced by a short stub from one of the main lines of the Montana Power Co. There is at present a connected active load of 267 h.p. For the past 3 months the power bill is as follows:

January	395.43
Feb.	389.43
March	440.23
	3/1225.09
1 shift operation	408.36 average monthly cost

? Power load for hoisting only

It is estimated by the Montana Power engineers that in working 2 shifts (instead of 1) there will be an added meter reading of about 1650 KWh/day and this figure provides for additional pumping time. The added consumption should make the total consumption take a lower rate per KWh and it is predicted that the average present power bill will be increased about 50%.

The power bill then would be
408.36 plus 204.18 = $612.54

If 50 shifts are worked in the month the power charge would be
<u>$12.25 per shift</u>

(5) <u>Rental</u> charges applicable to project

Although the Norwich is adequately equipped to mine sufficient ore to complete the G.S.A. contract, and utilization of some of the equipment at the property is possible for this proposed project, much new or good used equipment must be acquired to prosecute the proposed project without interruption. It is hereby suggested that the operator will acquire by purchase or rental all equipment necessary for the project, and then charge the project with a reasonable rental for the equipment involved.

Study of the rates established by the Associated Equipment Distributors 1955 Edition "Compilation of Rental Rates for Construction Equipment", rates established after discussion of the project with nearby renters or machinery suppliers, and on some equipment a fair rental value from our own equipment is shown.

The following rental schedule is proposed:

Item	Where used	Time used	Monthly rate
125HP compressor	entire proj.	entire proj.	$200 x 60 = 12000 etc
85HP Single drum hoist	" "	" "	100
B12 Eimco Mucker	All sill work	" "	50
20HP Vent. fan	All sill work	" "	25
Mancha Trammer	" " "	" "	200? etc.
15-18 cu. ft. Mine Cars	" " "	" "	110?
Jackleg complete	" " "	" "	45
		Rental	$730 monthly
		25 days per mo.	$29.20 per day

In addition the following equipment must be rented to complete shaft and crosscut rehabilitation.

Item	Where used	Time used	Monthly rate
40HP 2 MRV pump	Shaft repair	1 month	75.00
15HP Jaeger sinker	" "	1 month	150.00
Air driven sinking hoist	" "	1 month	35.00

C O S T S

B. Calculation of Unit Costs based on foregoing data.

Stage 1.

Step 1 - Estimated cost to repair the Plutus shaft to service the 400' level. (105' shaft repair)

The Plutus shaft is in excellent operating condition to a point 300 feet below the collar. The shaft is open and timbered to a point 380 feet below the collar, but at that point the shaft is blocked with muck and broken timber. At 320 feet below the collar a 50 foot crosscut south from the hoisting compartment side of the shaft will be converted into a surge tank into which dirty water from the shaft will be pumped. Through an independent 4" line to the surface a 40 HP centrifugal, capable of handling 200 gpm against a 320 foot static head will deliver the water from the surge tank. Water will be pumped from the sump to the surge tank by 15 HP Jaeger sinking pumps.

As shaft mucking progresses the present submersible pump will be lowered and will maintain the new water level during the 16 hours in which no work is performed in the shaft.

The shaft muck and timber will be hoisted by air hoist to the 300 station, dumped into regular mine cars and hoisted to the surface for disposal. The work will progress through the 400 station and at least ten feet below that sill.

The itemized cost of Step 1 is as follows:

Item	Days	Man shifts	Labor cost	Supply cost
(1) Set 4" water column from 320 level to surface	4	16	360.96	
100' 4" pipe & Vic couplings				140
Pipe hangers and bolts				116
(2) Build dam on 320 level	1	3	67.68	
Forms and cement				20
(3) Install new power cable from panel box at surface to 320' pump installation	1	3	67.68	
500' 1-0 cable (used)				1100
Line starters, panel box Power cable, float switch hangers, etc.				340
Electrician and helper (contract)	2	4	140.00	
(4) Installing sinking pumps	1	3	67.68	
Sinking pumps rental				225
(5) Installing sinking hoist on 300	1	3	67.68	
Hoist rental				35
(6) Lining manway with 2" material	2	4	90.24	
$\frac{2 \times 144 \times 80}{12}$ = 1920 say 2Mbf @ 65				130
(7) Installing guides to bottom	2	4	90.24	
Guides 500 bf @ $350				175
Lag screws and blocks				7

Item	Days	Man shifts	Labor cost	Supply cost
(8) Mucking out 30 feet of shaft	17	85	1917.60	
Boots, slickers, wet clothes				75
Topman and engineer for 17 days			716.55	
Total			3586.31	$2363
(9) Supervision 29 days @ $38.26			$1109.54	

Item		
Labor		3586.31
Supplies		2363.00
Supervision		1109.54
Regular rental	17 @ 29.20	496.40
Power	17 @ 12.25	208.25

Stage 1, STEP 1 - 105' -
Total cost $7763.50 or $73.94/ft.

Stage 1. Step 2.

Estimated cost to rehabilitate the 240 feet of crosscut north from the Plutus shaft to the point where the Norwich vein was cut and mapped in 1921.

Existing maps of the 400 foot level indicate the station was cut in aplite, and that there were several minor veins revealed before the main vein was cut. Experience suggests that the station timber may be OK, but that the crosscut may be essentially filled with slime and muck washed out from the old vein exposures. It is also likely that the old crosscut may require enlarging to accommodate modern equipment; some of the ground may require timber, and some areas may require spiling.

The itemized cost estimate of (Stage 1) Step 2 is as follows:

Item	Days	Man shifts	Labor costs	Supply cost
Station Repair				
(1) Extending air and water lines	2	10	225.60	

Item	Days	Man Shifts	Labor Cost	Supply Cost
120' air line unions, valves				75
4" to 3" connections valves, plugs, tees, etc.				42
(2) Signal and light system	2	4	140.00	
2 contract electricians				
Signal and light cable				
Light fixtures, pull bobs				142
(3) Mucking out station	2	10	212.58	
(4) Turnsheets and takeoff	1	5	106.29	
Crosscut Rehabilitation				
Labor	30	150	3188.70	
Track 240 x $2.85				684
Pipe, Ventube 240 x 3.30				792
Sub total	35		3873.17	1735
Supervision 35 days @ 38.26			1339.30	
Power 35 days @ 12.25			428.25	
Rental 35 days @ 29.20			1022.00	
			6663.22	
			1735.00	
Stage 1, Step 2 - 240 ' - Total cost			$8398.22	or $34.96 lin. ft.

Stage 1. Steps 3 and 4 and Stage 2. Steps 1,3,4,6

(a) Breaking ground:

A crew of 3 men underground (2 miners and 1 trammer/station tender) together with a topman and hoisting engineer, supervised by one shift boss under proper direction, will break 5.5' per shift or 22 feet in 4 shifts. The crew will drill, blast and muck the round, stand rail and advance air and water lines together with ventilating facilities.

Itemized costs for these steps, embracing a contemplated 1650 feet of sill work, are as follows:

	cost	Per foot
Labor cost		
4 x 106.29	425.16	19.32
Supplies		
Explosives		2.15
Air and water lines		
Vent. facilities		3.30
Track		2.85
Drill steel and bits		0.74
Misc. tools and equipment		0.23
	Sub total	28.59

(Brought forward)	28.59
Supervision 4 x 38.26 divided by 22	6.96 ?
Power 4 x 12.25 divided by 22	2.22
Rental 4 x 29.20 divided by 22	5.31 ?
(No timber) Total cost per Lin. ft. advance	$43.08

(b) Sill timbering.

A crew of 3 men underground (2 miners and 1 trammer/station tender) together with 1 topman and hoisting engineer, supervised by 1 shift boss under proper direction, will stand 4 drift sets of timber, properly block tight against the back, place sheeting caps if necessary and lag both sides and back of sill in 2 shifts. Cost per foot of timbering, in place, is summarized below:

Labor cost 2 x 106.29 - 212.58 divided by 22	9.66
Supplies (Timber)	4.17
Supervision 2 x 38.26 divided by 22	3.48
Power 2 x 12.25 divided by 22	1.11
Rental 2 x 29.20 divided by 22	2.65
Sill timbering total cost per ft. timbered	$21.07

Timbering 1650 feet of sill work would cost
1650 x $21.07 or $34,765.50

(c) Enlarging.

A crew of 3 men underground (2 miners and 1 trammer/station tender) together with a topman and hoisting engineer, supervised by 1 shift boss, may be expected to enlarge backs and sides of existing workings and handle 510 cu. ft. per day. (This would enlarge a 5 x 6 heading into an 8 x 8 heading over a 15 foot side swipe) - or the work may apply on excavations for diamond drill stations. A contingency item for handling 16,000 cu. ft. of rock under the category of enlarging is requested.

Detailed cost per cu. ft. of breaking

Labor	106.29
Supplies(powder)	11.82
Supervision	38.26
Power	12.25
Rental	29.20
510 cu. ft. cost	$197.82 or $0.388 per cu. ft.

16,000 cu. ft. would cost
16,000 x $0.388 or $6208

(d) Spiling.

A crew of 3 men underground (2 miners and 1 trammer/station tender) together with a topman - hoisting engineer, supervised by 1 shift boss may make 3' advance per shift if such work is necessary. Under the above assumptions the cost per foot of advance is as follows:

Labor	106.29	
Supplies spiling	8.00	
Timber false set	6.30	
Supervision	38.26	
Power	12.25	
Rentals	29.20	
3' advance	$200.30	or $66.76 per ft.

It is being requested that a provision for 50 feet of spiling be included or
50 x 66.76 = $3338.00

Stage 1. Step 6 and Stage 2. Step 5.

(a) Raising on the Norwich vein (breaking)

It is assumed, for purposes of this calculation, that 2 raises will be driven at the same time. In each raise will be 2 miners serviced on the sill ½ time by a third miner/trammer. One half of the topman and hoisting engineer's time as well as ½ of other proper charges will be levied against each heading. The 2 miners will break 22' advance in 4 rounds (and 4 man shifts in the raise) will be required to timber that advance.) Cost per foot of advance is as follows:

			Per foot
(1) Labor			
in raise	2 x 21.37 x 4 =	170.96	
on sill	½ x 21.37 x 4 =	42.74	
Topman	½ x 19.67 x 4 =	39.32	
Hoistman	½ x 22.48 x 4 =	44.96	
	Labor	$297.98 divided by 22	13.54
(2) Supplies			
Explosives		2.15	
Air, water, vent.		3.30	
Drill steel & bits		0.74	
Misc. supplies		0.23	
		6.42	6.42
(3) Supervision			
½ of 38.26 x 4 = $76.52 divided by 22			3.48

(4) Power
½ of 12.25 x 4 = $24.50 divided by 22 — 1.11

(5) Rentals
½ of 29.20 x 4 = $58.40 divided by 22 — 2.65

Total cost per lin. ft. advance — $27.20

Advancing 300 feet of raising without timber would cost 300 x 27.20 = $8160.00

(b) Raise timbering:

Assuming that 2 raises are being driven at the same time, that 2 men are in the raise and are serviced by ½ of the time of the miner on the sill, topman and hoisting engineer, and charging ½ of the other appropriate charges against the operation, the cost of timbering 22' advance in the raise will be as follows:

		Cost	Cost per ft.
(1) Labor			
in raise	2 x 21.37 x 2 =	85.48	
on sill	½ x 21.37 x 2 =	21.37	
Topman	½ x 19.67 x 2 =	19.67	
Engineer	½ x 22.48 x 2 =	22.48	
	Labor	149.00 divided by 22	6.77
(2) Supplies			
Raise timber			8.69
(3) Supervision			
½ of 38.26 x 2 = 38.26 divided by 22			1.74
(4) Power			
½ of 12.25 x 2 = 12.25 divided by 22			0.55
(5) Rentals			
½ of 29.20 x 2 = 29.20 divided by 22			1.32
Total timbering cost per lin. ft. advance			$19.07
Timbering 300 ft. of raise would cost 300 x $19.07 =			$5721.00

Stage 1. Step 5 and Stage 2. Steps 2 and 7.

Diamond drilling for geologic information.

Approximately 3650 feet of diamond drilling is contemplated, 1700 feet of which will be run from the surface and the balance will be run from the 400' level when sill development had been

partially completed. The R. S. McClintock Co., Spokane has made a firm offer to contract the drilling for $6.50 per lin. ft., provided the Norwich furnishes air and water and provides tail room for underground drilling. It is thought that drilling, making effort for good core recovery can be accomplished at the rate of 15' per 8 hour shift.

Cost of Diamond Drilling
3650 x $6.50 = $23,725

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Other Costs

Sampling: A study of the project shows that provisions should be made for the assaying of 284 samples, each to be run for Ag, Mn, Pb and Zn. (These determinations per sample will cost $4.00.)

Cost of Assaying
284 x 4.00 = $1136

Summary of cost of entire project for which D.M.E.A. assistance is requested.

	Total Cost	Cost per ft.
105' Shaft repair	7,763.50	73.94
Rehabilitate 240' of 400' x C	8,398.22	34.96
Driving 1650' of sill on 400'	71,082.00	43.08
Timbering 1650' of sill on 400'	34,765.50	21.07
Driving 300' of raise above 400'	8,160.00	27.20
Timbering 300' of raise above 400'	5,721.00	19.07
Diamond drilling 3650' hole	23,725.00	6.50
Enlarging (16,000 cu. ft. @$0.388)	6,208.00	.388 cu.ft.
Spiling (50' @$66.76)	3,338.00	66.76
Assaying (284 samples at $4.00)	1,136.00	- --
Calculated Total Cost of Project	$170,297.22	

Respectfully submitted
Robert H. Nelson
Partner

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAR 26 1956

March 23, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

If the present contract is not amended we recommend certification of the contract on the basis of ore reserves found in two ore bodies by the DMEA work and the production from these bodies.

Indicated ore found by the DMEA exploration is approximately as follows:

	LDT	%Mn	Produced LDT	%Mn
Carbonate ore:	1,565	18	975	17
Oxidized ore:	400	16	180	15.5

To date the operator has paid $987.50 in royalties on production.

If the contract is extended, however, we suggest that Certification be deferred.

By Field Team, Region I, NW Dist.

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E Howard
Thomas E. Howard, Acting Member
U. S. Bureau of Mines

cc: USBM (2)
USBM (AD)
Pinckney

RECEIVED
MAR 12 1956

XXXXXXXXXXXXXXXXXX
1201 N. Division Street
Spokane 2, Washington
March 2, 1956

Mrs. Myrtle Purdy, Certifying Officer
DMEA Field Team, Region I, NW
1201 N. Division Street
Spokane 2, Washington

Re: Contract Idm-E604
Docket No. DMEA-2874
Irving G. Irving and
Robert H. Nelson

Dear Mrs. Purdy:

Work under the subject contract has been completed to the satisfaction of the Government. A final report evaluating the results of the exploration program has been presented by the Operator and accepted by the Executive Officer.

The Government has no interest in supplies or equipment purchased for use on the project.

The Field Team will recommend that a Certification of Discovery or Development be issued covering this project.

A final Report of Review dated February 24, 1956 by DMEA Auditor C. A. Turner has been received.

As all contract requirements have been met, it is requested that final settlement of our account with the Operator be made.

Sincerely yours,

A. E. Weissenborn,
Exec. Officer, DMEA Field
Ream, Region I, NW

cc: DMEA (2)
USGS (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAR - 5 1956

February 29, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (Manganese)
Irving G. Irving and Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are the original and one copy of the Operator's final report which is acceptable to the Field Team.

We received the report February 15, 1956 with only one set of maps; we requested additional copies and these were received February 24.

The Field Team will recommend that the project be certified.

By Field Team, Region I, NW Dist.

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: USBM (2)
USBM (AD)
Pinckney

FINAL FT REPORTS

Robert H. Nelson

Irving G. Irving

NELSON AND IRVING

MINING CONSULTANTS

GEOLOGICAL INVESTIGATIONS
Supervision of
DEVELOPMENT - EXPLORATION

HIRBOUR BLDG. BUTTE, MONTANA
TELEPHONE 2-3445

MINE VALUATION
Counsel in
MINE MANAGEMENT

DMEA

RECEIVED
MAR - 5 1956

February 14, 1956

Mr. A. E. Weissenborn,
Executive Officer, D.M.E.A.
So. 157 Howard Street,
Spokane 4, Washington.

Subject: Final Report on:
Docket No. DMEA-2874 (Manganese)
I. G. Irving & R. H. Nelson
Plutus Mine, Silver Bow Co., Mont.
Contract--No. Idm-E604

Dear Mr. Weissenborn:

Enclosed are five copies of our final report on the subject exploration project, now finished. Our regular monthly report was sent in several weeks ago.

Under separate cover we are sending you a set of maps, fully posted, in ink, which show the geology of the work done, and in long section, the stoping, assays and what ore reserves are carried.

In your letter of February sixth, you stated that you would withhold from the payment on our last voucher, as little as possible, and that it would help if I sent in our final report as soon as possible. You also stated that you would have an audit made of the contract quickly.

I hope that we will receive some kind of a payment soon on the work done, during the last month, as we have already laid out the money for the cost of this work, and would greatly appreciate some reimbursement soon.

Sincerely yours,

I. G. Irving, Mgr.

Copy sent to:
Mr. Wm. G. Agnew

Final Report

on

Exploration Project Contract No. 2847
Contract Idm-E-604
Irving G. Irving & Robert H. Nelson
43 Harbour Bldg., Butte, Montana

RECEIVED
FEB 15 1956
U. S. G. S.
SPOKANE, WASH.

RECEIVED
MAR - 6 1956

Plutus Mine--(Manganese)
Silver Bow Co., Montana

The work outlined in the subject contract, whose completion date was extended by Amendment No. 7 to December 31, 1955, has been largely done. No further work is intended and the cost and the extent of the work completed is detailed in the Monthly Report, for December, 1955, recently sent in. It will be noted that 467.0 feet of the 470 feet of drifting allowed was completed. The original contract called for 200 feet of raising. As a result of various Amendments made, during the life of the contract, as extended, some of this raise work was converted to other forms of exploration -- involving some shaft repair and station cutting.

To summarize, the actual work allowed, under the contract as amended consisted of:

470 feet of drifting
80 feet of raising
56 feet of shaft repair
1300 cubic feet of station cutting
249 samples.

Actually done was the following:

467 feet of drifting
72 feet of raising
36.5 feet of shaft repair
892.5 cubic feet of station cutting
67 samples

The total authorized cost of the contract was set at $25,830.00, with the Government (at 75%) paying for $19,372.50 of this amount, if fully done.

The actual cost of the work done was $23,190.70. Seventy-five percent of this, which was the Government's share, amounts to $17,393.03. Against this expenditure by the Government is the repayment, at 5% of the gross value of ore produced during the development work, of (according to our figures) $1,405.14. The net cost to the Government to date, is thus $15,987.89.

Some ore, not yet mined, was developed by the work, and although the so-called "ore reserves" are relatively small (see section on ore reserves) the mining of this ore which is now taking place, will further reduce the cost of this work. A detailed discussion of the results of the exploration project will now be given.

Property and Location-

The property consists of the Plutus Lode Mining Claim, Survey No. 3018, situated in Sections 10 and 15, T. 3 N., R. 8 W., in the Independence (unorganized) Mining District, Silver Bow County, Mont. The property is held under lease to June 30, 1959, by the operators, who also own a one-quarter interest in the claim.

General Geologic Environment-

The Plutus Claim is situated in the western part of the Butte District, whose general geology is too well known to require detailed description here.

Butte, with a total production in excess of three billion dollars, displays a zonal pattern with regard to mineral deposition. The Plutus claim is located in the manganese-rich peripheral zone. Production in the area has come from a complex network of east-west, northwest and northeast veins. The great bulk of the ore produced, however, has come from the great and continuous East-West Veins, some of which may be traced for miles, both on the surface and underground. The Plutus claim embraces the outcrop of one of the east-west veins, and displays in places commercial manganese ore.

Development and Detailed Geology-

Prior to the initiation of the work done under the subject contract, the Plutus vein had been partially developed by a number of cuts and shallow shafts, on the surface, and by some drifting off the Plutus shaft, on the so-called 125 and 200 levels. The work on the 125 level seemed to be in a strike-faulted area, but the drifting on the 200 level showed good manganese ore. In fact, the west face of the 200 level drift, about 23 feet west of the shaft, showed 6.8' of 21.6% manganese. This underground work was done some thirty-five years ago in search for silver ore.

The ore revealed by some of the earlier work, especially in the Tonner shaft, was sufficiently attractive to induce lessees to mine and ship some manganese ore during the last war. The record of their shipments, plus the good showing on the 200 level previously mentioned, permitted the present operators to hope that further exploration would reveal sizeable ore bodies, particularly in conjunction with the fact that the nearby and parallel Norwich vein to the north had become an important manganese producer. All in all the exploration work applied for, in the request for D.M.E.A. assistance, seemed well based.

The drifting and raising done, under the subject contract involved work on three different levels, and exposed and developed the vein over a strike-length of about 460 feet, and a vertical range, when the surface work off the Tonner shaft is considered, of about 275 feet. Only erratic and small lenses of "ore" were revealed.

The work, although disclosing a strong and persistent vein structure and producing some ore, was on the whole quite disappointing.

If the set of maps accompanying this report be studied it will be seen that the Plutus vein strikes on the average north 72 degrees east and dips about 55 to 60 degrees to the south. As mentioned above the structure is a strong one and exhibits much strike faulting, with its attendant heavy clays.

On the 200 level as drifting west was pursued, it appeared as though a small oreshoot was being developed that might extend irregularly to the ore seen in the Tonner shaft above. The drift however passed out of commercial ore at a point about 115 feet west of the 200 level station, after revealing ore on this sill for a distance of about 120 feet. The vein, as exposed in the drift for this length, ranged from 2 to 6 feet in width and averaged about 15.6% manganese. Shipments ranged from 11.3% Mn to 19.4% Mn.

If the longitudinal section on Map 4 be inspected (on which assays and attempts at stoping are shown) it will be seen that a stope was started above this 200 level drift west in two places. The stopes went up only one floor with waste, or non commercial ore, coming into the back. A sub-lessee (Mickey Bolton) attempted to go down on the ore shown in the Tonner shaft above but finally quit after making several shipments. The ore apparently became too narrow to mine. This result above, in conjunction with the attempts to stope upward from the 200 level, and when considered in connection with the barren showing on the 125 level in between, seems to preclude the possibility of carrying any legitimate ore reserve blocks in this area, above the 200 level drift west. The west face of this drift is in waste also.

Subsequently, westerly drifting on the so-called 244 level below was started. Directly under the showing of good ore on the 200 level above, only waste, or very lean and spotty vein was found. The ore that extends downward from the 200 drift west was finally mined by an intermediate level and stoped, out completely. No ore reserve may be properly carried in this area. (See Map 4.)

As the 244 drift west advanced under the 200 sill above only erratic and spotty showings of manganese mineralization were disclosed to a point 168 feet west of the shaft. No ore could be carried above or below this work to this point. At 168 feet, however, a short lense of what might be indicative of an oreshoot in the making, made its appearance. This lense showed fair samples for a distance of 37 feet, but went into low grade material at 205 feet west of the shaft. This 37 feet averaged 2.8' in width and 20.3% manganese.

The vein throughout the length of this small lenticular showing was decidedly narrower in the back of the drift and nothing was seen that would allow a stope to be started. This

fact, in conjunction with the waste in the face of the 200 level drift west, just 44 feet above, precludes the carrying of any ore reserve above this working. It might be contended that this 37-foot length of ore may extend downward. However, in the four samples that make up the average shown above, one of the samples (near the center of the lens) is only 2.0' wide and assays 11.9% Mn. With this lean spot showing in the center of such a small lens of possible ore, it would not seem good engineering practice to carry any ore blocks below either. The balance of the westerly drifting, beyond this little showing, revealed only lean vein material or spotty mineralization too narrow to be considered ore. See Map 3 for these and other details, and all samples taken.

As the 244 level station was cut, the Plutus Vein was exposed, just a few feet north of the shaft. Here over five feet of excellent ore was revealed. It did not extend to the west, however, as later drifting showed, and a hope was entertained that the ore shown in the west drift on the 200 level above might have an easterly rake. The easterly drifting on the so-called 275 level was then started to explore this possibility. Prior to the start of this work, however, the drift east on the 200 level above had been extended about 57 feet with some manganese oxide ore being disclosed. A D.M.E.A. approved raise was then sent up on this showing to the old 125 level above. The raise revealed ore for about 50 feet then went into waste (on the east side). In the course of this raise work about 180 tons of 15.5% material was taken out and shipped. Some ore may still be left off this raise.

The 275 drift east was put in to a distance of 183.6 feet east of the station. The first 32 feet of this working showed only stringery vein material, thus indicating that the pod of ore on the 244 level station had little if any downward extent unless one conceived of it having a very flat easterly rake. The next 45 feet of this drift showed a lens of ore averaging 2.2' in width and assaying 21.3% Mn. This showing could be the downward extension, and probably is, of the similar showing in the 200 drift east directly above. And it is on this basis that a block of ore is being designated. The mining of this block is already under way, with the first shipment assaying 19.0% Mn. See longitudinal section on Map 4 for all of these relationships. The balance of the easterly drifting on this level was in waste -- showing only barren fault clay, probably a strike fault that has pulled the vein apart.

A careful study of the set of maps, accompanying this report will be necessary to get a complete picture of the extent of the development work done, the very spotty nature of the mineralization and the generally disappointing results.

Ore Reserves-

As mentioned in preceding paragraphs, no ore reserves of any consequence whatsoever can, or should be, carried in workings west of the shaft, on any level, or at any elevation. Small pods occur,

and the more important of these have been mined out, but the material left, according to any standard and recognized definition of the word, cannot be called ore.

East of the shaft small ore blocks (B & C) are being carried off the 300 level raise. This is oxide material and definitely marginal, but an attempt will be made to mine it. Above the 275 level and under the 200 east drift a small block, heavily discounted for waste areas and dilution (Block A) is designated. This block may not extend through between the levels, but all of the ore that is there, will be mined and is being mined now. Whether to carry any indicated ore on such a small and narrow exposure below the 275 level is a question that will have to be determined by the Government engineers. It seems to the operators that the showings are to erratic and narrow, and also marginal, to permit a discovery to be certified and ore reserves carried below this 275 level.

Ore Reserves

A. Indicated Ore

Block No.	Tons	Wd	% Mn	Remarks
A	590	2.6'	18.5	(mostly carbonate)
B	235	3.0	16.3	(oxide ore)
C	165	3.6	15.2	" "
Total	990			

Shipments

During the course of the exploration project, the following ore was shipped:

	L.D.T.	% Mn	oz Ag	Gross Value
A. Carbonate Ore	1474.7	15.6	0.6	$22,238.81
B. Oxide Ore	311.1	18.1	---	5,864.05
Total & Av. Grade	1785.8	16.0	0.6	$28,102.86

On the above production, which averaged $15.74 a ton, a total repayment to the Government (our figures, as calculated) at 5% of the gross value, was $1405.14.

If the above tabulated ore reserve is realized and mined as is intended, it is possible that perhaps 500 to 1000 more tons will be mined and an additional repayment to the Government of perhaps $600.00 more will be made, and so reduce the cost of the project accordingly.

Conclusions

The project, though apparently well based and obviously representing a good geologic gamble, did not reveal sufficient ore to completely offset its cost. Such must be the case in many instances where major prospecting is the intent. The operators feel, however,

that much valuable information has been gained regarding the potentialities of this vein structure and hope that the Government's attitude on the value of the work is in general agreement.

Respectfully submitted,

I. G. Irving

I. G. Irving, Mgr.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAR - 2 1956

February 28, 1956

Mr. I. G. Irving
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-4129 (Manganese
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA-2874 (Manganese)
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Ida-2604

Dear Mr. Irving:

Our Washington office has referred your application to this office.

We believe it will be desirable for our field man to discuss the proposed project with you and to examine pertinent exposures at the Norwich mine.

Before we make a definite appointment, however, we would appreciate your comments on the following two matters.

First, work on the Norwich vein cannot be treated as a separate contract. It is, and has been for some time, DMEA policy to conduct such new work as you propose on the Norwich vein by amending any pre-existing contract. This, of course, means that if ore is discovered on the Norwich vein the total Government royalty would include cost of the Government's participation in the Plutus work as well as the Norwich work.

Second, the Government would not consider excluding the entire western third of the Norwich property. It is possible, however, that certain exclusions can be made. In general, such exclusions are made for ground above the lowest level in a known ore body. In any event ore removed through workings to the cost of which DMEA contributed would be subject to royalty.

DMEA

We will be glad to discuss this matter with you further as well as the technical details of the proposal at a mutually convenient time. We would prefer to do this in Spokane but could come to Butte if anything is to be gained by so doing.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Pinckney

DOCKET
SURNAME
400 Chapman
Martin
Williams
Johnson
Mittenthal

FEB 21 1956

Mr. A. K. Weissenborn, Executive Officer
DMEA Field Team
Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 4129 - Manganese
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA 2374 - Manganese
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-864

Dear Mr. Weissenborn:

Reference is made to your letter of February 9, 1956, in answer to our referral of February 3, on the above noted dockets.

Referring to the third paragraph of your letter we would consider excluding from royalty payments the developed portion of the hanging and footwall veins in the Norwich claim above the present bottom level of each, but any ore mined outside the two zones described above, or removed through workings to the cost of which DMEA contributed would be subject to royalty.

We would appreciate your opinion on the merits of the proposed program, with as much substantiation as possible.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (JG)

APPROVED:

/s/ Robert W. Geehan (JB)
Member, Bureau of Mines

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

TLCHAPMAN:foc 2-20-56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. I - NWDist.
Gilbert DeHuff, USBM
T. H. Kiilsgaard, USGS

DOCKET
SURNAME
Chapman
Martin
Chandler

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

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team
Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 4129 - Manganese
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA 2874 - Manganese
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-8604

Dear Mr. Weissenborn:

Reference is made to your letter of February 9, 1956, in answer to our referral of February 3, on the above noted dockets.

Referring to the third paragraph of your letter we would consider excluding from royalty payments the developed portion of the Norwich claim above the present bottom productive level, but any ore mined outside that excluded block or removed through workings to the cost of which DMEA contributed would be subject to royalty.

We would appreciate your opinion on the merits of the proposed program, with as much substantiation as possible.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

TLCHAPMAN:FOC 2/15/56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.

cc to: Audit Div.
FT. REG. I - NW DIST.
Gilbert DeRuff, USBM
T. H. Kilsgaard, USBS

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
FEB 13 1956

February 9, 1956

Copy retained 400

WSM

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 4129 (Manganese)
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA 2874 (Manganese)
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-E604

Copy

Dear Mr. Selfridge:

This is in reply to your letter of February 3.

We believe we will be able to explain to Irving and Nelson that work in the Norwich mine will have to be done as an Amendment to the Plutus contract.

In previous correspondence Irving and Nelson have expressed their opinion very forcibly on subjecting Norwich ore to royalty repayment and we feel strongly that further discussion with them would be useless. A possible alternative would be to exclude the west third of the Norwich claim - or at least that part of it above the lowest operating level - but exact a toll on any ore that passed through the rehabilitated portion of the shaft, the 400 level crosscut or any other working to the cost of which the DMEA had contributed. Unless this or some similar arrangement can be considered it is almost certain that the application will be withdrawn.

We will present to Irving and Nelson the views expressed in your letter if the alternative cannot be considered but before doing so we want you to be fully informed on our estimate of the situation. Consequently, we will await word from you on this point before commencing an analysis of the application.

Sincerely yours,

A. E. Weissenborn
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Concurred in by
The U. S. Bureau of Mines

Thomas E. Howard
Thomas E. Howard

cc: USBM (2) Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
FEB - 6 1956

February 6, 1956

Mr. I. G. Irving, Manager
Norwich Mine
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2374 (Manganese)
I. G. Irving and A. N. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Irving:

Thank you for your letter of January 28, 1956.

We will, of course, withhold from payment as small an amount as we can. We will have an audit made on the contract as soon as possible. It would also help if you would submit your final report on the project as soon as possible.

By Field Team, Region 1, NW District

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: [illegible] A(2) w/cys incoming
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[illegible] "
Farmer "

ROBERT H. NELSON

IRVING G. IRVING

NOTE TO	NOTED	DATE
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ac		

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

a. BM see cy

January 28, 1956

RECEIVED
FEB - 9 1956

Mr. A. E. Weissenborn, Exec. Officer,
Defense Minerals Exploration Admin.
S. 157 Howard Street,
Spokane 4, Washington.

Subject: DMEA # 2874; Contract Idm-E504
Plutus Mine, Silver Bow Co. Mont.
Irving G. Irving & R. H. Nelson,

Dear Mr. Weissenborn:

I have just handed, to Mr. J. A. Bowsher, of the U. S. Bureau of Mines, our final Monthly Report on the subject contract. As you will see, on reading it, we have completed the work outlined. The project did find some ore--about two thousand tons have been shipped--but was on the whole unsuccessful. We think the work had merit, and it just falls into the category of one of the jobs that did not expose sufficient ore to pay off.

Mr. Bowsher stated that he was going to mail our report in to you this weekend, so it ought to be on your desk, about the same time you receive this letter.

There is about nineteen hundred and thirty two dollars coming back to us, on this last month's work, and since we are always in need of money, we would appreciate it very much if you could arrange to have the holdback, which is usual with the last report held down to a minimum. I think when we finished the Garibaldi, they held back three hundred dollars or so. I do hope that not any more will be held back, but of course that is dependent upon your rulings on such matters. Anything you can do along this line will be appreciated.

Very truly yours,

I. G. Irving, Mgr.

RECEIVED
JAN 30 1956

Copy sent to:
Wing G. Agnew

400

DOCKET
SURNAME

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

FEB - 3 1956

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 4129 - Manganese
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana
and
Docket No. DMEA 2874 - Manganese
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Ida-2604

Dear Mr. Weissenborn:

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

Copies of memoranda dated January 19 and 27, 1956, by M. E. Nelson, Geological Survey and G. L. DeHuff, Jr., Bureau of Mines, respectively, relating to the project are enclosed for your information.

You will appreciate, of course, that in cases where proposed new work is closely related to earlier DMEA work our consistent policy is to write an amended contract which preserves the Government's interest therein. We cannot therefore give favorable consideration to the suggestion in Irving and Nelson's letter to you of January 7, 1956, that the new application, covering work at the Norwich Mine be treated as a separate project entirely distinct from the project at the Plutus (Docket No. DMEA 2874).

Likewise, we could not accept the suggestion, which follows in the applicant's same letter, that ore from the Norwich property would be subject to DMEA royalty only if mined from an area east of a specified N-S coordinate, so chosen as to exclude the west 1/3 of the Norwich property. In this connection please refer to Docket No. DMEA 2874 for our letter to you of October 28, 1954, and correspondence relevant thereto.

R.C.L.

The applicant sent in a number of maps, but no cross-section, although cross-sections are noted on the map. We would especially appreciate having sections O-O' and/or O-O''.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (WB)

Enclosures

APPROVED:

/s/ Robert W. Geehan (WB)
Member, Bureau of Mines

Thor H. Kiilsgaard (WB)
Member, Geological Survey

TLCHAPMAN;foc
2-3-56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. I - NW Dist.
Messrs. DeNuff, USBM
Kiilsgaard, USGS

DOCKET
SURNAME
Chapman
Martin

400

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

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 4129 - Manganese
Irving G. Irving and Robert H. Nelson
Norwich Mine
Silver Bow County, Montana

Dear Mr. Weissenborn:

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

Copies of memoranda dated January 19 and 27, 1956, by N. E. Nelson, Geological Survey and G. L. DeHuff, Jr., Bureau of Mines, respectively, relating to the project are enclosed for your information.

Reference is made to Irving and Nelson's letter to you of January 7, 1956, in which they state their belief that the project should be considered to have no connection with the Pintus project (DMEA No. 2874). We would be more inclined to agree to a contract written so as to relate to their former project, but would appreciate having your opinion on the subject.

The applicant sent in a number of maps, but no cross-section, although cross-sections are noted on the map. We would especially appreciate having sections O-O' and/or O-O'''.

Sincerely yours,

Enclosures

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

cc to: Operating Comm.
FT. REG. I - NW DIST.
Messrs. T. H. Kiilsgaard, USGS
Gilbert DeHuff, USBM

TLCHAPMAN:fec
1-31-56
cc to: Docket
Code 400
Adm. Read. File

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

400

DOCKET
SURNAME
Chapman
Martin
Kilegaard
Huffman
Johnson

FEB - 3 1956

Messrs. Irving G. Irving and Robert H. Nelson
43 Hibour Building
Butte, Montana

Re: Docket No. DMEA 4129 - Manganese
Norwich Mine
Silver Bow County, Montana

Gentlemen:

The above docketed application for exploration assistance has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and is being referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, Northwest District, South 157 Howard Street, Spokane 4, Washington, for review and a possible field examination of the property.

The field team will advise you if a field examination is considered necessary and any assistance that you may give the members of the field team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLCHAPMAN/fec
1-31-56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. I - NW Dist.
Messrs. Kiillsgaard, USGS
DeHuff, USBM

RCh.

Docket

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

RECEIVED
JAN 27 1956

January 27, 1956

Memorandum

To: W. S. Martin, DMEA

Copy retained 400

From: G. L. DeHuff, Jr., Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

WSM

Subject: DMEA-4129. Manganese. Irving and Nelson

Application is made by the partnership of Irving and Nelson for assistance in exploration for manganese at the Norwich Mine, Silver Bow County, Montana, located on the western edge of the Butte district two miles from the center of the city. Applicants have estimated total cost of the project to be $101,083.87.

The Norwich claim is held under lease and option by the applicants, who expect to be the owners by the time the option expires June 30, 1956. Applicants are operating the Norwich and are delivering manganese ore to the Government purchase depot at Butte under General Services Administration contract No. GS-10P(D)-3, which calls for delivery of 30,000 long dry tons. More than half of this tonnage is reported by the applicants to have already been delivered.

The applicants also have a current DMEA exploration contract (DMEA-2874) for exploration for manganese at the adjoining Plutus claim.

Irving and Nelson now propose to explore virgin ground on the Norwich claim. The essential elements of the project are:

1. Rehabilitating 240 feet of the old Plutus 400 level crosscut and of the Plutus shaft from 370 feet to 410 feet below the collar.

2. Drifting 440 feet on the Norwich vein atthis level.

3. Crosscutting an estimated 160 feet through andesitic dike expected to be found in the above drifting.

4. Locating the vein beyond the dike by possibly 300 feet of crosscutting, and drifting approximately 500 feet upon it after it is found.

5. Exploration of the vein upward at favorable locations by 300 feet of raising.

It is recommended that this application be referred to the Field Team. It is also recommended that the Field Team consider the possibility that the desired exploration might be better accomplished at considerably lower cost by the substitution of diamond drilling (a) for all of applicants' proposed program, or (b) for part or parts of applicants' proposed program. If any program is recommended by the Field Team, regardless of the program's nature, it may be advisable that it be set up in stages with prosecution of later stages dependent upon success of the preceding ones.

G. L. DeHuff, Jr.

IN REPLY REFER TO:

Docket

RECEIVED

JAN 20 1956

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

January 19, 1956

Re: DMEA 4129
Irving G. Irving and R. H. Nelson
Norwich Mine
Silver Bow County, Montana
$101,083.87 - Manganese

Memorandum

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

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

Subject: Review of application.

The application concerns another project designed, primarily, to explore the Norwich vein on the 400 level of the Plutus shaft.

The work includes rehabilitation of the Plutus shaft from the 370-foot depth to the 400 level, and rehabilitation of a crosscut to the point where it is reported the Norwich hanging wall vein was cut. If the vein is found as reported it will be drifted east and west of the crosscut. On the east the vein will probably end against a dike. As proposed the dike will be penetrated, the vein will be searched for and, if found, drifted and raised upon on the easterly side of the dike.

The Norwich and Plutus mines have been the subject of exploration and production contracts and royalties are being paid on current production against the advances. The Plutus mine is the subject of Contract No. Idm-E604 (DMEA 2874). As of November 30, 1955, $20,814.00 had been spent. The work to date in the Plutus vein has been slow and not too successful, but $900.00, as royalty, has been repaid.

Current production, largely from the Norwich vein, averages about 790 tons per month of ore averaging about 20.7% Mn and 3.7 oz. silver per LDT and valued at $20,097.80. Ore reserves, positive, probable, and inferred, in the Norwich vein as of January 1, 1956, as calculated by the operators, amount to 66,585 tons at 21.9% Mn, and 5.6 oz. silver per LDT worth (gross) in the neighborhood of $1,850,000.00. Little, if any, of the reserve ore would be subject to royalty under a contract, if granted, under the referenced application, No. 4129.

Copy

Copy

The applicants profess confidence in the report that the Norwich vein was cut in the crosscut in the 400 level crosscut from the Plutus shaft. If as wide and as good as reported, one questions why it was passed up and a drive made to the east on the north split of the Norwich footwall vein. If the vein is present as expected and is more or less continuous to the projected position of the dike, sizable additions to the reserve tonnages would be in order. That the vein is there could be determined quickly and cheaply by two or three diamond drill holes from the station at the 320 level of the Plutus shaft.

If the vein is there and the drive to and through the dike is made but the vein is not hit 'on the nose' as the crosscut through the dike leaves the dike, and considerable displacement is indicated, diamond drilling, in place of work along the dike, should be used to locate the vein. By inference and using the plan map in R. I. #4784 as a base, the thickness of the dike may not exceed 110 to 120 feet.

With the noted exceptions the well supported proposal has merit. Referral to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

402

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

So. 157 Howard Street
Spokane 4, Washington

January 19, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

dmaa 4129

Re: New DMEA application (Manganese)
Irving G. Irving and Robert M. Nelson,
Copartners
Norwich Mine
Silver Bow County, Montana

Dear Mr. Selfridge:

Reference is made to our letter of January 10, 1956, transmitting a new application for exploration assistance on the Norwich Mine.

Enclosed are two more sets of five maps submitted by the applicant.

Sincerely yours,

Verne C. Frykland, Jr.
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USGS (2)
Quinlan

January 17, 1956
Subject: DMEA-4129
Re: Exploration Assistance
Norwich Mine

Mr. Irving G. ~~Nelson~~ Irving:
43 Hirbour Building
Butte, Montana

My dear Mr. ~~Nelson:~~ Irving:

The receipt of your application dated January 7, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4129 and referred to the Iron & Ferro-Alloys Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

January 17, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region I NW

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region I NW.

DMEA - 4129 Irving G., Irving & Robert H. Nelson

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

Docker

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

RECEIVED
JAN 23 1956

So. 157 Howard Street
Spokane 4, Washington

January 19, 1956

WSG

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

dmea 4129

Re: New DMEA application (Manganese)
Irving G. Irving and Robert H. Nelson,
Copartners
Norwich Mine
Silver Bow County, Montana

Dear Mr. Selfridge:

Reference is made to our letter of January 10, 1956, transmitting a new application for exploration assistance on the Norwich Mine.

Enclosed are two more sets of five maps submitted by the applicant.

Sincerely yours,

Verne C. Fryklund Jr.

Verne C. Fryklund, Jr.
A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)
Quinlan

1 set given to Mr. Dr Hoff
1 set sent to Mr. Kilsgaard
1-23-56
fa

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JAN 16 1956

January 10, 1956

Irving G. Irving & Robert H. Nelson
Hirbour Building
Butte, Montana

4129

Re: New DMEA Application (Manganese)
Norwich Mine
Silver Bow County, Montana

Gentlemen:

We wish to acknowledge receipt of your application for exploration assistance at the Norwich Mine. The application has been sent to our Washington office to be reviewed and to receive a docket number.

Sincerely yours,

Verne C. Fryklund, Jr.
Acting Executive Officer, DMEA
Field Team, Region I, NW Dist.

cc: DMEA (2)
USBM (2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JAN 1 0 1956

January 10, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New DMEA application (Manganese)
Irving G. Irving and Robert H. Nelson,
CoPartners
Norwich Mine
Silver Bow County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of an application submitted by Irving G. Irving and Robert H. Nelson, Co-Partners, Hirbour Building, Butte, Montana. We have retained one copy for our files.

Sincerely yours,

Verne C. Fryklund Jr.

Verne C. Fryklund, Jr.
Acting Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure 1 (in trip.)

cc: USBM (2)
Quinlan

P.S. Only two sets of maps were received with the application. We kept one set and as soon as we receive the other two we will forward them to you.

ROBERT H. NELSON

IRVING G. IRV

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

January 7, 1956

Mr. A. E. Weissenborn
Executive Officer
D.M.E.A. Field Team, Region 2
c/o U. S. Geological Survey
S. 157 Howard St.
Spokane 4, Washington

Re: Norwich Mine

Dear Mr. Weissenborn:

Enclosed is an original and 3 copies of an application for D.M.E.A. assistance in developing the Norwich manganese vein in the Norwich Claim. The cost of the proposed project is estimated at $101,083.87 one fourth of which we are prepared to furnish as required.

As is obvious from a study of this new application, the proposed project is in no way connected with the present Plutus contract (DMEA #2874) which was completed in December, 1955. Therefore we feel that the enclosed application should be considered on its merits alone, and treated in its entirety as a separate and distinct project.

Insofar as the west 1/3 of the Norwich property contains a substantial manganese ore reserve, and all of the work under the proposed project is east of any known ore in order to establish a clear line of demarkation, we suggest that only ore discovered by the proposed DMEA project, or otherwise, east of N-S coordinate 5275, (as shown on maps submitted with our application) be hypothecated to repayment of the proposed loan from D.M.E.A.

As is pointed out in the application itself we will own the Norwich claim in the very near future. We realize several weeks will elapse before a decision can be reached on this submitted application, but, as soon as we own the Norwich we hope this exploration work can be commenced. You will note it is suggested in the application that final approval of the project be contingent upon our ownership of the Norwich claim (subject, of course, to the existing mortgage to G.S.A.).

Feel free to make any investigation of any phase of our operation, and we will be glad to answer in detail any questions which may arise in your study of our proposed project.

Yours very truly,

I. G. Irving

Robert H. Nelson

Robert H. Nelson

RECEIVED
JAN 10 1956
U. S. G. S.
SPOKANE, WASH.

original

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
JAN 10 1956
U. S. G. S.
SPOKANE, WASH.

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-4129
Metal or Mineral Manganese
Date Received 1-16-56
Estimated Cost $101,083.87
Participation (Government %)

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: Irving G. Irving and Robert H. Nelson, Co-Partners
43 Hirbour Building, Butte, Montana

(*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.

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

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Only the two partners shown above (I. G. Irving & Robt H. Nelson)

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 Exploration project to be confined to the Norwich Quartz Lode Mining Claim, Sur. No. 2794, Lot 590, located in Sections 10 & 15, T. 3N, R. 8W, MPM, in the "Independence Mining Dist., (the west side of the Butte District) Silver Bow County, Montana.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Applicants have lease and option on Norwich claim. Will take up option this spring See Appendix A)

(*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. Copy of lease submitted with prior app.. Is in DMEA file.

(*e*) If you own the land, describe any liens or encumbrances on it Applicants lease and option and all equipment have been assigned to G.S.A.. See Appendix A.

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

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. See Appendix A.

(*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. See Appendix A.

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

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

16—66551-1

5. *The exploration project.*—(*a*) [redacted]te the mineral or minerals for which you w[redacted]o explore Manganese

(*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. See Appendix A, also set of five maps, also Appendix B

(*c*) The work will start within 30 days and be completed within 18 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 Appendix A.

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: Appendix B

(*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.). none

(*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: See Appendix B

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

(*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. See Appendix B

(*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. See Appendix B

(*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. See Appen. B

(*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. See Appendix B

(*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. See Appendix B

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)? Yes

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

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

Explain in detail on acompanying paper. See Appendix B.

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 1/7/56, 195__

Irving G. Irving
Robert H. Nelson
(Applicant)

By

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

APPENDIX A
(To accompany DMEA application, submitted by
Irving G. Irving & Robert H. Nelson, Co-Partners
43 Hirbour Bldg., Butte, Montana
Norwich Mine)

(Detailed treatment of questions asked on Form MF-103)

Question 3-c

The Norwich Claim is held under lease and option by the applicants. The lease and option expires June 30, 1956. The option price is $50,000.00. To date the applicants have paid $25,563.62 toward this option price, through escrow arrangements at the Metals Bank & Trust Co., of Butte, Montana. The balance due, of $24,436.38, will be paid in the near future. The applicants submit that they will be owners of the property (subject to assignments of present lease and option and all equipment to the General Services Administration) early in 1955, or will acquire the property by payment of balance due on option price, when such action is required by favorable consideration of the subject DMEA application. The applicants realize that the granting of a DMEA contract will be dependent on ownership of the claim.

Question 3-c

A copy of the applicants' present lease and option was submitted to the DMEA in connection with a prior application, dated December 19, 1953, and copies are also on file with government agencies under DMA-1790 and DMEA-2874.

The Norwich Claim is being operated through a shaft located on the adjoining Plutus Claim. The operators own a one quarter interest in the Plutus Claim and have a lease on the other three-quarter interest to June 30, 1959. See copies of this lease and its extension, on file with the DMEA, under file No. 2874.

Question 4-a

The Norwich Mine is presently being operated by the applicants who are delivering manganese ore to the Government purchasing depot, at Butte, Montana under General Services Administration Contract No. GS-10P(D)-3. This contract calls for the delivery of 30,000 L.D.T. of manganese ore and more than half of this tonnage has already been delivered. The mine uses electric power, and is fully equipped with all necessary surface and modern underground equipment. About 14 men are presently employed.

Regarding the history of the property:--The Norwich claim, exhibiting prominent vein outcrops and situated on the western edge of the Butte District, was located in 1889 and some minor prospecting followed, in search for silver ore. During World War I, some manganese oxide ore was mined from the outcrop and locally treated. In 1920-21 the Butte & Plutus Company extended the Plutus shaft (on an adjoining claim) to the 400 level and

crosscut the Norwich vein at this horizon. This work will be discussed in detail in a later paragraph and in the section treating the geology. During World War II, approximately 9,700 tons of material assaying 24.6% Mn were mined and shipped to the Butte depot. This ore came from workings off the Norwich inclined shaft and from several levels, the deepest of which was 170 feet on the incline. See maps. An oreshoot several hundred feet long was revealed by this work.

In 1952 the present operators took over, reopening the Norwich shaft and sunk the so-called R.A.L. shaft to probe for the easterly extension of the oreshoot off the old Norwich workings.

Later in 1952, aided by a loan (approximately $107,000.00) from the G.S.A., the Plutus shaft was rehabilitated and subsequently three levels were turned off. Two of these levels (the 3 and 5 levels) contain long crosscuts to the north where the Norwich Vein was intersected and drifted upon. Approximately 2,700 feet of sill work and raises have been driven under the current operation. See maps accompanying this application.

The purpose of this application is to enlist government aid, through the D.M.E.A., that will permit the reopening of the old Plutus 400 level and explore the Norwich vein mapped there some thirty years ago. This level driven in 1921, by the Butte & Plutus Development Co. shows about 1,000 feet of work and exposes the main Norwich Vein in a crosscut about 220 feet north of the shaft. The Vein was not drifted upon, but was mapped as 12 to 15 feet wide and as being "half quartz and half manganese carbonate". It is on this structure, and on this level, (below and far to the east of our present workings) that the operators wish to do extensive exploratory work in virgin ground. A full treatment of the nature and merits of this work will be submitted in the discussion of the geological aspects of the project.

Present facilities, including shaft capacity, permit the hoisting of approximately 70 L.D.T. of material per eight-hour shift.

Total of all development work closely approximates 5,000 feet. About 70% of this footage is accessible and open to examination. The mine is operated through the Plutus shaft which was sunk vertically to a depth of 400 feet. The old inclined Norwich shaft is used for ventilation and a second man escape. The Plutus shaft has been dewatered to a point about 370 feet below its collar, and the old Plutus 400 level is, of course, under water with its state of repair and general condition problematical. As stated above, the reopening of this level is one of the objectives of the work proposed.

APPENDIX A
(To accompany DMEA application, submitted by
Irving G. Irving & Robert H. Nelson, Co-Partners
43 Hirbour Bldg., Butte, Montana
Norwich Mine)

Question 4-b - **Production**

Production from the Norwich Vein alone* may be listed as follows:

Period	L.D.T.	% Mn	oz Ag	Gross Value (Approx.)
		Old Production		
1916-17	A few tons	25% (approx)	?	?
1942-45	9,766	24.6%	6.4	$333,900
		New Production (current operation)		
1952	352	23.2	4.7	10,625
1953	2,347	20.2	5.1	59,600
1954	6,267	18.7	6.9	150,525
1955	7,527	19.9	6.2	198,200
Total Production*	26,259	21.4	6.2	$752,850

(*Production from the Plutus Vein approximated 2,000 tons (16.0% Mn) during same period)

Current monthly production is best shown by tabulating the production of the last three months which is as follows:

Month	L.D.T.	% Mn	oz Ag	Gross Value
Oct., 1955	766.5	19.5	2.7	$17,551.17
Nov., 1955	769.9	22.6	3.9	22,156.00
Dec., 1955	831.6	20.1	4.3	20,586.23

Average Current Production
789.3 L.D.T. 20.7% Mn 3.7 oz Ag $20,097.80

Ore Reserves

A recent calculation, made on December 31, 1955, showed the following ore reserves, carried on the main Norwich Vein alone.-

Classification	L.D.T.	% Mn	oz Ag
A. Measured Ore	21,825	22.8	6.4
B. Indicated Ore*	23,700	23.3	5.9
C. Inferred Ore**	21,060	19.5	4.6
Total & Average Grade	66,585	21.9	5.6

*Note: In the Indicated Ore category, blocks are carried down only to the old Plutus 400 level, just 100 feet below present working

level where the ore is being revealed as wider and of better grade than above. Also, the vein has been mapped, as strong and wide as shown on Map 4, on this level, though 250 east of any downward projection of ore blocks. It is Butte practice, through experience over many years, to project Indicated (or Probable) blocks 100 feet on the major East-West Veins, known to contain major oreshoots.

**Note:- The Inferred Ore is confined to the lateral limits of the oreshoot, as known, and projected only 100' below the Indicated Ore.

Question 4-c

Geologic Features of the Property

The Norwich Mine is situated in the western part of the famous Butte District. The general geology of a camp that has produced over three billion dollars in copper, zinc, manganese, lead, silver and gold is too well known to all mining men to require any detailed treatment here. However, a few salient features pertaining to the position of the property in relation to the district, and the general nature of the mineralization exhibited will be set forth, before discussing the detailed geology of the Norwich Mine itself.

As is well known, the mineralization of Butte displays a zonal pattern. The central zone, dominantly copper is succeeded by an intermediate zone wherein zinc, with some lead, predominates, and this zone is "encircled" by outer zone in which zinc and lead ore in a manganiferous gangue (and containing appreciable silver) is most commonly found. The outer edge of this peripheral zone is characterized by dominantly rhodochrosite-quartz mineralization with occasional shoots of commercial silver ore. In this zone zinc and lead are sparingly distributed. The large and important manganese orebodies of Butte are in this area.

The Norwich Mine is situated in the manganese-rich peripheral zone of Butte, Montana. To be more specific, the Norwich is about 4,000 feet northwest of the Anaconda's famous Orphan Girl shaft, through which mining is taking place on the 3,000-foot level.

Butte production has come from a complex network of east-west, northwest and northeast veins. But the great bulk of the production derives from the great east-west veins such as the Emma, the Anaconda-Stewart, the Mountain Con, the Badger and Rainbow lodes, to name the more important ones. These are strong, wide and persistent structures and mining on all of them is continuing today at great depths. The Norwich claim embraces the outcrop of a large, prominent east-west vein, obviously the westerly extension of one of the giant structures exhibited in the heart of, and western part of, the Butte district.

APPENDIX A
(To accompany DMEA application, submitted by
Irving G. Irving & Robert H. Nelson, Co-Partners
43 Hirbour Bldg., Butte, Montana
Norwich Mine)

To date, with only shallow development work, the Norwich Vein has produced over 26,250 tons of manganese ore, averaging 21.4% Mn and 6.2 oz silver, which has a total value, at present market prices, of over $750,000.00. No Butte mine has ever failed in depth to date, and the Norwich vein, as developed, together with its totally unexplored easterly extension, gives every indication of being an important ore-bearing structure to great depths also.

The detailed geology of the Norwich claim itself will now be described.

The eastern two thirds of the Norwich claim is covered with post-mineral volcanics of dacitic composition. Specimens of this extrusive rock were classified, after petrographic study, by a member of the U.S.G.S., as being a porphyritic volcanic, at least partly pyroclastic in nature, of biotite-dacite composition. This is the so-called "rhyolite" of Big Butte and the western and northwestern part of the district, known to be a very late post-mineral rock and mapped by Weed, P.P. No. 74, as being extrusive. Broadly viewed, it is undoubtedly a tuffaceous, dacitic lava. Since the western edge of this "flow" which extends outwardly and generally northwestwardly from Big Butte, can be mapped on the Norwich claim, its thickness cannot be very great on the property itself.

Bordering this extrusive, on its west edge and trending northwesterly across the Norwich claim is a distinctly different volcanic, or intrusive, rock, which is without question dike-like in its habit. This dike is about 125 to 160' wide. The same petrographic study, mentioned above, determined this rock as being a porphyritic hornblende andesite. Dikes of this type, and of varying composition, have long been recognized in the western part of the Butte District. They are also definitely post mineral.

Members of the U.S.G.S. have recently examined this exposure and have told the operators there is very little question of its dike-like habit. The dike was first mentioned, in connection with the Norwich Mine, by Max Crittenden when he examined the property for the U.S.G.S. in 1945-46.

If the map of the areal geology of the Butte District, prepared by Weed, be examined it will be seen that the veins of the Butte District with faithful alignment pass under the volcanic flows and pyroclastics and reappear on the other side. If one stands on the Norwich claim and looks easterly along the general strike of the east-west vein system one can see, on the other side of this area covered by volcanic flows, the headframes of some of the important Butte mines; geologically speaking, there is no question that the veins of the Butte system, and the quartz monzonite that encloses them, pass under these late flows.

APPENDIX A
(To accompany DMEA application, submitted by
Irving G. Irving & Robert H. Nelson, Co-Partners
43 Hirbour Bldg., Butte, Montana
Norwich Mine)

In the winter of 1950-51, the Bureau of Mines conducted a drilling campaign on the Norwich Claim. The results of this work appear as B. of M. Report of Investigation No. 4784, by John W. Cole, 1951. During the course of this work one of the holes (Hole No. 4, pg 10) was deliberately put down in the so-called "rhyolite" flow area to see how thick this extrusive was. The hole remained in "rhyolite" for 347.1 feet and then penetrated the underlying "granite" and remained in "granite" to a depth of 410.2 feet, the bottom of the hole. This work proved without question the existence of quartz monzonite of pre-ore age (the wall rock of the Butte Vein system) under the volcanics and on the other side of the andesitic dike. See maps. Regarding the thickness of the flows, it turned out, and could be seen when the snow melted in the spring, that the hole was actually put down in the dike itself and apparently came out of the east wall of the dike at the depth of 347.1 feet. The attitude of the dike, with its surface position known, was thus determined, but the hole was obviously no measure of the actual thickness of the flow rocks on the other side of the dike. The flows are probably only 100 to 200 feet thick in this area, if that much.

As mentioned at the outset, and as shown on Map 1, the eastern two-thirds of the Norwich Claim is covered by dacitic volcanics, bordered on their west edge by an andesitic dike. Now, to a discussion of the vein system outcropping within the aplite, or grano-aplite (a phase of the quartz monzonite of the Boulder batholith) on the western third of the property. Two prominent outcrops are here displayed. They parallel one another and are about eighty feet apart. Both veins consist primarily of quartz and manganese oxide minerals and exhibit commercial ore.

These veins strike N 70 to 80 degrees east and display dips to the south ranging from 50 to 75 degrees. The veins are traceable on the Norwich claim itself, in outcrop or bulldozer cut, from the west end line of the Norwich claim to the point, about 450' to the east, where they are interrupted by the dike, or pass under the volcanics. The fact that they do go under the volcanics is shown by noting the position of the east face of the drift east on the old Plutus 400 level (Map 4) in relation to the position of the volcanics on the surface.

Underground work (see complete set of geologic mine maps) rather definitely indicates that the south or so-called Hanging-wall Vein, seen on the surface is a down-faulted block of the north, or so-called Footwall Vein. A strong flat fault, trending northeasterly and irregularly along the vein structure appears to have accomplished this duplication on the surface, and at places underground, and the relationship of the various vein segments to the fault, and its several branches will become clear if the maps are studied.

APPENDIX A
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43 Hirbour Bldg., Butte, Montana
Norwich Mine)

The north, or Footwall Vein, is the main structure and has been developed on the various levels. This structure also correlates very well with the large vein mapped in the crosscut north on the old Plutus 400 level.

The Norwich Vein not only crops out for 450 feet on the Norwich Claim before it is obscured to the east by the post-mineral volcanics, and the dike, but also can be traced as a prominent, strong outcrop (mined at various places in early days for silver ore and recently for manganese ore) for over 3,000 feet to the west through the Little Sarah, Mapleton and Great Republic claims. As stressed previously, it is one of Butte's major east-west vein structures and undoubtedly correlates with one of the important veins developed in the center or northern part of the Butte district, on the other side of the volcanics, to the east.

Vein widths in the outcrop range from 4 to 15 feet. On the No. 3 (or 244) level the vein displays an oreshoot, as developed to date, over 465 feet long in the Norwich claim and of unknown extension in the Mapleton claim, and has widths that range between 4 and 11 feet. An average width of 5.5 feet is shown on this level. On the No. 5 level the drifting on this structure, to date, has revealed continuous ore for more than 200 feet, the last 160 feet of which reveals ore averaging 7.2' wide and assaying 24.7% manganese and 4.5 ounces silver. There is definite evidence that the ore has become wider and somewhat better in grade on the present bottom level. A glance at the Longitudinal Section (Map 5) accompanying this application will show the length and grade of the ore developed and the relationship of this developed ore reserve to the proposed work which is far to the east of any proper downward projection of ore blocks and involves for the most part pure exploration work on this strong vein in entirely virgin country. A discussion of the proposed exploration work follows:

Map No. 4 shows the old Plutus 400 level. It also shows the downward projection of the vein being developed above. The correlation of the big vein in the 400 crosscut north with the Norwich Vein as developed is evident.

The geologic mapping of the old Plutus 400 level was done in 1921 by a prominent Butte geologist. Two veins are shown. The first one, shown in the crosscut, about 220 north of the shaft, is mapped as being 12 to 15 feet wide and consisting of "half quartz and half manganese carbonate". The reliability of this mapping has already been accepted by various government agencies, as it was this exposure, in conjunction with surface showings and Bureau of Mines drilling, that was the basis of the advance granted the operators under GSA Contract No. GS-10P(D)-3. This major structure is the Norwich Vein. The structure to the north on which over 500 feet of drifting was expended is a footwall structure of unknown designation.

APPENDIX A
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43 Hirbour Bldg., Butte, Montana
Norwich Mine)

The andesitic dike, seen on the surface has been projected down on the basis of observed steepness of dip, and the information in diamond drill hole No. 4 previously referred to.

Essentially the DMEA aid sought, as an exploration project, consists of:-

1. Rehabilitating the old Plutus 400 level, and
2. Drifting on the Norwich Vein (exposed in the 400 crosscut north) 140 feet to the west and 300 feet to the east, then,
3. Crosscutting the andesitic dike (expected to cut the vein approximately at this point) and
4. Locating the vein east of the dike and drifting on it, under the surface flows, to the east end line of the Norwich Claim, estimated at 500 feet of additional drifting.
5. And finally exploring the vein upwardly at advantageous points by 300 feet of raising.

All of this work is in virgin ground and the bulk of it is in totally unexplored territory to the east. If successful the work could produce a very large tonnage of newly discovered ore.

Further details on the exact nature of the work and the estimated costs thereof are set out in Appendix B. A full set of maps showing this proposed work accompanys the application also.

Question 4-d

The property is located in the western part of the Butte district, about 2 miles from the center of town and is therefore highly accessible. Butte is, of course, a shipping point and a town of some 40,000 residents. A good new road connects the property with the city of Butte.

Question 4-e

Butte is a source of highly skilled manpower, including expert miners and mechanics. It is also a supply and distribution point for supplies, electric power, etc.

Respectfully submitted,

Irving G. Irving

Irving G. Irving

Question 5-d - <u>Background and Operating Experience of the Applicants, who will carry on and supervise operations;</u>

Both Irving and Nelson are mining engineers and have had

twenty-eight years experience in this field. They have done all kinds of mining engineering and geological work and have operated numerous properties. The Norwich Mine has been under their direct supervision since operations started over three years ago.

Biographical sketches describing background and experience follow:

Irving G. Irving was born in Brooklyn, N. Y., on July 2, 1902. He is 5' - 11" tall, weighs 165 pounds and is in excellent health.

Irving attended Columbia University and the Columbia School of Mines, in New York City, from 1920 to 1927 and received the following degrees:

Bachellor of Arts in 1924
Bachellor of Science in 1926
Engineer of Mines in 1927

During his last two years he specialized in Mining Geology and the art of ore finding and mine development. During the summer of 1925 he worked in the mines of the New Jersey Zinc Company at Franklin, N. J. For three months in the summer of 1926 he was employed as sampler and geologist on the Comstock Lode, at Virginia City, Nevada, where he also collected material to write his thesis on the Geology of the Comstock.

In July 1927, Irving came to Butte, Montana and was immediately employed as geologist for the Anaconda Copper Mining Company, in Butte. The position of geologist for the A.C.M. Co. was held continuously until June, 1932, when he resigned and returned to the East owing to depressed conditions in Butte. During the five years involved, he was geologist in charge of development supervision at the Anaconda, Neversweat and St. Lawrence mines, which are major units on the Butte hill. It might be of interest to state here that during this period Irving helped on preliminary geologic studies that formed an early basis for continued studies that have resulted in the Greater Butte Caving Project now in operation. At the same time he was extensively employed on "outside examination" work and examined properties for the Anaconda Copper Mining Company throughout the entire west.

From July 1932 through August 1936 Irving was identified with a fuel oil business on Long Island, N. Y. This was a company that he helped to organize (during the depths of the depression) and became its sales manager.

Returning to Butte in 1936, Irving was immediately re-employed by the Anaconda Copper Mining Company as geologist of

the Mountain Con Mine -- one of the largest units in Butte. In June 1937 Irving was transferred to the International Smelting Company, an Anaconda subsidiary in Salt Lake City, and served for a year and a half there as field geologist and examining engineer. During this period he examined and reported upon numerous properties for the company and became familiar with and did work in many of the great mining districts of the west.

In the fall of 1938, Irving resigned from the International Smelting Company and went to Harvard University for two years of additional intensive study in the field of Economic Geology. While here he picked up another degree (Master of Arts in Geology) and completed all scholastic work for a doctor degree.

Graduating from Harvard in 1940, Irving then went into the consulting business and shortly thereafter became occupied with the development and operation of small mines. From 1942 through 1944 he was Manager of the Quartz Hill Leasing Company and laid out and supervised development work at this company's property in Beaverhead County, Montana, that resulted in the finding of appreciable ore.

From April 1, 1945 through June 30, 1946 Irving was with the War Production Board, in Washington, D. C. in the capacity of Engineer-Analyst for the Copper Division. While there he helped to administer the Premium Price Plan and served as alternate member of the Quota Committee.

In June 1946 Irving resigned from the W.P.B. and returned to Montana to organize the Quartz Hill Development Company and resumed development work at this famous old silver property. For three years he managed this operation and considerable ore was produced.

During the period 1948-1950, Irving supervised operations at the Pyrenees Development Company property near Georgetown, Montana.

On September first, 1950 Irving joined the staff of The Galigher Company of Salt Lake City, Utah as geologist and for two years examined and evaluated mining properties for clients.

Irving resigned from The Galigher Company on December 31, 1952 and has been fully occupied since then with the management and development of the Norwich-Plutus manganese operation at Butte, Montana.

Irving is a member of the "Amer. Institute of Mining Engineers" and the "Society of Economic Geologists."

APPENDIX A
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43 Hirbour Bldg., Butte, Montana
Norwich Mine)

Robert H. Nelson was born in Minnesota, Nov. 20, 1902. He is 6' - 1" tall, weighs 180 pounds and enjoys perfect health. From 1920-23 he attended the Colorado School of Mines, but was graduated from Stanford in 1924.

From 1924 to 1928 he worked for several mines, mills and smelters during which time he familiarized himself with the various phases of the mining industry. From Dec. 1928 until June 1932 Nelson was employed as a Geologist, under Reno Sales, for the Anaconda Copper Mining Company in Butte. His immediate superior was Chester Steele, now a Vice President of Anaconda. During this period Nelson's after hours were spent in a study of the Alexander Hamilton course in Business Administration. In 1932 the Anaconda properties were shut down and the Geological Department was drastically curtailed.

In 1934 Nelson and associates formed Taylor, Nelson and Knapp (now the Taylor-Knapp Company and one of the major producers of manganese in the United States). T.N.K. was successful, but in 1938 Nelson sold out his interest to his partners, and became manager of one of T.N.K.'s subsidiaries, Victoria Mines, Inc., a gold property initiated and developed by T.N.K.

On Dec. 8, 1941 Nelson was called to Washington where he joined the Mining Branch of R.F.C. He was in Washington during the War years and was in charge of all of the small loans made for the rehabilitation of mines. In 1947, at his request he was transferred to the Helena Agency of R.F.C., and until Feb. 19, 1952 when he resigned, he acted as Principal Engineer of the Helena Branch of R.F.C.

Nelson is primarily a geologist, and is a member of the A.I.M.E., but his years of training have given him a full understanding of all phases of business and finance, operation and management, particularly in the mining and allied industries.

Irving and Nelson have been close associates since 1938. As a team they function smoothly, cooperatively and efficiently.

APPENDIX B

(To accompany DMEA Exploration Project Application of I. G. Irving & Robert H. Nelson, 43 Hirbour Bldg., Butte, Montana)

Norwich Mine (manganese)

in answer to Question 6, Form MF-103

The proposed project is designed not only to explore the manganese ore making possibilities of one of the major east-west vein structures of the Greater Butte district, (a structure traceable on the surface for more than 3000 feet, a structure which, in the Norwich alone, has produced 26,250 L.D.T. of manganese averaging 21.6% Mn, a structure which, at the present time in the Norwich, is calculated to contain a reserve of at least 45,000 L.D.T. of 21.9% Mn), but the project also is designed to fully explore ore making possibilities of this same structure in an area wherein all vein structures are cut by a post mineral andesite dike, and the surface east of this dike is covered completely by thin "rhyolite" flows and other post mineral pyroclastics. Because of these superficial surface coverings, essentially no exploratory work except USBM drill hole No. 4 has been done anywhere in the Butte district in areas similar to the proposed project.

The Norwich vein, which dips south about 50°, is presently being worked through the Plutus shaft (a vertical shaft on the adjoining Plutus claim). The lowermost Norwich workings are at a level 300 feet vertically below the collar of the Plutus shaft.

The Plutus shaft is known to exceed 400 feet in depth. From the old "400" level, work mapped in 1921 exposed the downward extension of the Norwich vein at a point about 220 feet north of the Plutus shaft. The vein (mapped by a competent geologist) was described as a structure 12 to 15 feet wide containing "half rhodochrosite and half quartz," together with about a foot of good sulfide ore. This exposure is recorded about 150 feet vertically below 19 feet of mineralization revealed in USBM diamond drill hole No. 5.

To date we have partially rehabilitated the Plutus shaft to a point 370 feet below the Plutus collar (70 feet below our present bottom level). Below the 370' point the shaft is filled with muck, the condition of the shaft timber is unknown as is the condition of the station and crosscut thought to be located at a point 400 feet below the Plutus shaft collar. When flow is stabilized after the country is drained the mine makes about 90 g.p.m. of slightly corrosive water.

The proposed project consists of the following steps:

(1) Rehabilitating Plutus shaft to a point about 410 feet below the collar.
(2) Rehabilitating 240 feet of crosscut north through the point where the Norwich vein was completely exposed in 1921.

(3) Drifting eastward an estimated 300 feet to a point where it is expected the vein will be obliterated by a steep northwest trending andesite dike, and drifting westward 140 feet to the area wherein possible ore reserves might be carried on the Norwich vein below our present bottom level.

(4) From the face of the drift east, when the vein is obliterated by the andesite dike, crosscutting the dike for a distance of possibly 160 feet or until quartz monzonite is again encountered east of the dike.

(5) When quartz monzonite is again encountered, provisions must be made to crosscut northwest and southeast (parallel with the dike) - possibly a total of 300 feet - to find the Norwich vein east of the dike. Considerable water will undoubtedly be encountered in Steps 4 and 5.

(6) When the Norwich vein is encountered east of the andesite thence drift 500 feet easterly to the Norwich east end line.

(7) Complete at least 300 feet of raising on the Norwich vein at points to be determined when the sill work is completed.

It is proposed to perform all work in connection with the planned project on a unit cost basis.

ESTIMATED COST OF EACH STEP OF PROJECT

Step (1) Rehabilitate Plutus shaft to a point about 410 feet below the collar.

The Plutus shaft now is in excellent condition to a point 370 feet below the collar. A 35 h.p. submersible pump is set on the muck pile at a point 380 feet below the collar. Shaft guides extend 305 feet below the collar. At the 320-foot level a crosscut south from the shaft is of sufficient size to erect a surge tank and settling basin, complete with a 35 h.p. pump which will deliver about 200 gpm to the surface, independently of the present pumping system. Shaft rehabilitation will be performed by pumping all shaft water to the 320 level, thence to the surface. Shaft muck will be hoisted to the 300-foot level by bucket, transferred to regular mine cars, and then hoisted to the surface. When the old 400-ft. station has been made accessible, and adequate sump facilities have been established, the level will be serviced by the main hoisting facilities of the mine.

APPENDIX B

(To accompany DMEA Exploration Project Application of I. G. Irving & Robert H. Nelson, 43 Hirbour Bldg., Butte, Montana - Norwich Mine)

Cost of Step 1:

Item	Man-Shifts	Labor	Supplies
Set 4" water column from 320 level to surface	16	$359.36	we furnish
Build dam on 320 level	3	67.38	$ 20
Lining manway with 1" material	4	89.84	80
New power line to 320 level (50 h.p. needed)	2	50.00	300
Installing Jaeger sinker pump	3	67.38	150(rental)
Setting sinking hoist on 300 level	3	67.38	we furnish
250' of Oregon fir 4x6 guides installed @ $350 per M	4	89.84	85
Mucking out 15 feet shaft, complete (includes changing center post for guides)	40	898.40	--
Sump arrangements	30	673.80	we furnish
Totals ----------		$2,363.38	$655
		655.00	
Expected total		3,018.38	
15% contingency		354.49	
Estimated cost of 40' shaft reopening		$3,372.87	
Cost per foot = $84.32			

Step (2) Rehabilitate 240 feet of crosscut north through the point where the Norwich vein was completely exposed in 1921.

Existing maps of the "400" level indicate the station was cut in aplite, that there were several minor veins intersected before the main vein was cut, and that an established bulkhead may have been prevented or checked the flow of fines and slimes. Our own experience suggests that station timber may be usable and adequate, but that at least 1/3 of the rehabilitation of the level will need timbering or retimbering. It is with grave trepidation that the following cost estimate is compiled as it has been the experience of all Butte operators that shaft or sill rehabilitation usually substantially exceeds any reasonable estimates.

APPENDIX B
(To accompany DMEA Exploration Project Application of Irving G. Irving & Robert H. Nelson, 43 Hirbour Bldg., Butte, Montana - Norwich Mine)

Cost of Step 2:

Item	Labor	Supplies
(a) Clean out station, replace sills, drains, turnsheets, establish signals and lights, etc.	$ 800	$ 200
(b) Rehabilitate 240 feet of crosscut of which 1/3 is to be timbered, together with tracks, switches, ventilation, drainage facilities		
5 men (including top crew) - 30 days	$3,365*	
80' of timbered sill work		$ 333*
290' of track		627*
240' of ventilation		312*
Pipe and fittings		254*
Supervision	300	
Power	475	
Totals	$4,940	$1,726
	1,726	
240' estimated to cost	$6,666	
or $27.78 per linear foot.		

*For breakdown of figures, see analysis in Step 3.

If the reopening of the level requires spiling the cost per foot will probably be double the estimate shown above. In the summary of the project a contingency item of $2778 is requested to make provisions for 50 feet of spiling at $55.56 per foot.

Step (3) Drift eastward an estimated 300 feet to a point where it is expected the vein will be obliterated by a steep northwest trending andesite dike, and drift westward 140 feet to the area wherein possible ore reserves might be carried on the Norwich vein below our present bottom level.

During the next two years the facilities of the Norwich are committed during the day shift to the fulfillment of our G.S.A. contract. The proposed exploration must be done on the second shift.

Regardless of assists by rock bolts, all sills must be timbered in Butte. In such headings a 3-man crew should average four 5.5-ft. rounds in 6 working days, will lay track, transport timber to working face, timber, advance pipe and ventilation facilities, maintain drainage ditches, transport muck to station, and send it to the surface.

APPENDIX B
(To accompany DMEA Exploration Project Application of I. G. Irving & Robert H. Nelson, 43 Hirbour Bldg., Butte, Montana - Norwich Mine)

Therefore, 3 men underground should give 22 feet advance weekly, but must be supplemented on the surface by a topman and hoisting engineer.

(a) Labor cost of 6-day week:

1 miner, 6 days, @$18.40 / O.T.	=	$119.60	
12.7% comp. ins. & taxes	=	15.18	
		$134.78	gross cost to operator
3 miners - 3 x 134.78	=	$404.34	U. labor
1 hoistman, 6 days @$18.30 / O.T.	=	$125.44	
9.7% comp. & taxes	=	12.16	
		$137.60	hoistman
1 topman, 6 days @$18.40* / O.T.	=	$119.60	
9.7% comp. & taxes	=	11.60	
		$131.20	topman

6 shift total underground labor $673.14

22 feet advance costs $\frac{\$673.14}{22}$ or $30.60 per lin. ft.

*Note - Present Norwich pay scale for second shift for good men. (Rate is 1.00/day above basic Butte scale and is necessary to get good men)

(b) Timber cost for 5-1/2 feet (regular Butte sill set)

2 posts @ $2.10	$4.20	
1 cap @ 2.10	2.10	
2 girts @ 2.10	4.20	
back lagging, 83 b.f.) = side " , 77 b.f.) 160 b.f. @ $65.00	10.40	
blocking, wedges, etc.	2.00	
Timber per 5.5' set =	$22.90	or $4.17 per lin. ft.

(c) Explosives for 5.5-ft. round, 9x7 heading

40# dynamite @ $22.70	$ 9.08	
16 caps @ 2.39¢	.38	
192' fuse @ 1.23¢	2.36	
Explosives per 5.5' round	$11.82	or $2.15 per lin. ft.

(d) Track for project.

To use mucking machines and air trammer for handling broken material, 25# rail are requisite. Present quotations are $215

per ton. Switches, double track on switches show that 1790 feet of track are needed or 3580 feet of rail. Fifteen tons of rail will be used together with 10 switch points and 10 kegs of spikes on the project.

Rail cost: 15 tons @ $215	$3,225	
Spikes - 10 kegs	40	
10 switch points	300	
Rail on 1640 feet of sill	$3,565	or $2.17 per lin. ft.

(e) Miscellaneous:

(1) Pipe and fittings:
2" pipe for air and water @ $0.53 = $1.06 per lin. ft.
16" ventube
33 - 50' lengths @$64.00 1.30 " " "

Drill steel & bits for project
16 pieces of 6' steel @ $22.50 0.21 " " "

Misc. expendable supplies:
hose, oil, fittings, etc. 1.35 " " "

Ordinary repairs to equipment .61 " " "
Total $4.53 per lin. ft.

(f) Other costs chargeable to project:

		Monthly
(1)	Supervision, including surveying, geologic work, direction, etc.	$300
(2)	Power	475
(3)	Bookkeeping and accounting	75
(4)	Equipment depreciation	75
	Total	$925

This amount is chargeable against 88' advance or $10.50 per lin. ft.

(g) Recap of drifting cost (crosscutting) on unit basis.

All labor	$30.60	per linear foot
All timber	4.17	" " "
All explosives	2.15	" " "
All trackage	2.17	" " "
All miscellaneous	4.53	" " "
Other costs	10.50	" " "
Total cost	$54.12	per linear foot

Cost of Step 3: 440 feet @ $54.12 = $23,812

(4) From the face of the drift east, when the vein is obliterated by the andesite dike, crosscut the dike for a distance of possibly 160 feet or until quartz monzonite is again encountered east of the dike; and

APPENDIX B
(To accompany DMEA Exploration Project Application of I. G. Irving & Robert H. Nelson, 43 Hirbour, Bldg., Butte, Montana - Norwich Mine)

(5) When quartz monzonite is again encountered, provisions must be made to crosscut northwest and southeast (parallel with the dike - possibly a total of 300 feet - to find the Norwich vein east of the dike. Considerable water will undoubtedly be encountered in Steps 4 and 5; and

(6) When the Norwich vein is encountered, east of the andesite, thence drift 500 feet easterly to the Norwich east end line.

Steps 4, 5 and 6 embrace a maximum total of 960 feet against which unit prices detailed in Step 3 are applicable.

Total cost: 960 feet x $54.12 = $51,955

(7) Complete at least 300 feet of raising on the Norwich vein at points to be determined when the sill work is completed.

Rule of thumb in Butte indicates that raise costs average about 75% of drift costs. Applying this empirical rule, raising would cost 3/4ths of $54.12 or approximately $40 per linear foot.

Total cost of raising: 300 x $40 = $12,000.

SUMMARY OF COST OF ENTIRE PROJECT FOR WHICH DMEA ASSISTANCE IS REQUESTED

	Footage Involved	Estimated cost of step	Time Involved	Cost per unit
Step 1	40 feet	$ 3,372.87	8 weeks	$84.32
Step 2	240 feet	6,666.00	5 weeks	27.78
Step 3	440 feet	23,812.00	14 weeks	54.12
Steps 4-5-6	960 feet	51,955.00	36 weeks	54.12
Step 7	300 feet	12,000.00	15 weeks	40.00
Previously unaccounted contingencies				
Spiling	50 feet	2,778.00	---	55.56
Assaying	250 samples	500.00	---	---
Total estimated cost of project		$101,083.87		

Question No. 6 (a): There will be no independent contractors.

Question No. 6 (b): In conformance with our contract with the Butte Miners Union and I.M.M. & S.U., together with other independent operators in the camp, the following wage rates for labor apply.

APPENDIX B
(To accompany DMEA Exploration Project Application of
I. G. Irving & Robert H. Nelson, 43 Hirbour Bldg., Butte,
Montana - Norwich Mine)

Second shift	- underground miners	- $17.40	per shift
" "	- topmen	16.40	" "
" "	- hoisting engineers	18.30	" "

All Butte mines now work a 6-day week.

However, in order to obtain an excellent, skilled miner and keep him, the small mines of Butte are forced to pay at least $1.00 per shift over the going wage scale in Butte where the average contract miner for A.C.M. earns more than $20 a shift in "take home" pay.

Supervision of proposed project is by applicants who are charging only 1/4 of approved supervisory costs allowed by G.S.A. against present operation.

Question No. 6 (c) and (d): The mine is fully equipped and operating. The present connected load with Montana Power exceeds 285 h.p.

Eimco 12B mucking machines, air trammers, mine cars, drills, fans, and all miscellaneous tools necessary to rapid prosecution of the proposed project are available and will be used on the project at no cost to the project other than minimum depreciation and ordinary repair to the equipment involved.

Question No. 6 (e): None

(f): None

(g): Covered previously.

(h): Covered previously.

Respectfully submitted,

Robert H. Nelson

Robert H. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 8, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Attached are the Government, Docket and Division copies of Amendment No. 7. Distribution of this amendment is being made in the usual manner. This amendment was prepared in Washington in accordance with the Operator's request of October 11, 1955.

Sincerely yours,

Verne C. Fryklund Jr.

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures as indicated

cc: Finance Office w/encl.
USBM (2)
Quinlan

RECEIVED
NOV 14 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
NOV - 7 1955

November 4, 1955

Mr. I. G. Irving
Kirbour Building
Butte, Montana

Re: Docket No. DMEA-2674 (manganese)
I. G. Irving and R. E. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Irving:

I'm sorry to have to return Amendment No. 7, but in our letter of November 1, 1955, sending it over to you for signature, we asked that you initial, under Item 1, the date "December 31, 1955", which you overlooked doing. Would you please do so on each copy of the amendment and return it to us? Thank you.

Sincerely yours,

Verne C. Fryklund, Jr.
For: A. R. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: DMEA (2)
[illegible] (2)
[illegible] (AB)
Spinlan

DOCKET
SURNAME
Martin

Call Letter NET

Charge to: DMEA (14X14.01 (01),
Revolving Fund
November 3, 1955

I. G. Irving, 64 Hirbour Building, Butte, Montana

REURTEL NOVEMBER 2 DOCKET DMEA 2874 MANGANESE. PLEASE APPLY DIRECTLY TO EXECUTIVE OFFICER, DMEA, SPOKANE, WASHINGTON FOR LATEST INFORMATION.REFERRED REQUEST 7 WHICH WE MAILED TO FIELD TEAM OCTOBER 24.

Frank E. Johnson

ACTING ADMINISTRATOR, DMEA

WSMARTIN/foc
11/2/55
copy to: Docket
Code 400
Adm. Read. File
FT. REG. I - NW DIST.
MESSRS. DeNuff, USBM
Killsgaard, USGS

SENT
NOV 3 1955
Clerical Sendee Section

R.C.L.

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

NOV 2 PM 1 12

FX-1201

(06)

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=Int'l Letter Telegram

VLT=Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

WP017 PD=BUTTE MONT 2 1039AMM=

C O MITTENDORF, ADMINISTRATOR DEFENSE MINERALS

EXPLORATION ADMIN=

COULD WE HAVE EARLY DECISION REGARDING OUR REQUEST FOR

EXTENTION TO DEC 31ST OF DMEA CONTRACT #2874 PLUTUS MINE=

=I G IRVING=

RECEIVED

NOV - 2 1955

RECEIVED

NOV - 1955

:31 DMEA #2874 PLUTUS=

ENDER IS AWAITING A SPEEDY

answer

PLEASE GIVE IT TO THE MESSENGER OR TELEPHONE

WESTERN UNION

7477-D (6-48)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
~~XXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
NOV - 4 1955

November 1, 1955

Mr. I. G. Irving
Kirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Platus Mine
Silver Bow County, Montana
Contract No. Idm-2664

Dear Mr. Irving:

In accordance with your request of October 11, 1955, enclosed are the original and six copies of proposed Amendment No. 7.

The completion date specified in this amendment of the contract has been changed from October 21, 1955, to December 31, 1955. Under Item 1 please initial the changed date on each copy of the amendment.

Sincerely yours,

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: DMEA (2)
[illegible] (2)
[illegible] (AB)
Quinlan

DOCKET
Surname:
Holt
martin
Selfridge
Johnson

OCT 24 1955

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving and Nelson
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Weissenborn:

Enclosed are the original and five copies of proposed Amendment No. 7 to the above-referenced contract.

In accordance with the request of the operator in his letter of October 11, 1955, and the recommendation in your memorandum dated October 14, 1955, the completion date specified in this proposed amendment of the contract has been changed from October 21, 1955, to December 31, 1955. The change in date has been initialled on all copies by Mr. Johnson, acting for Mr. Mittendorf. The operator should also initial the changed date when signing the contract.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures - (Orig. and 5 copies of Amendment 7, plus 2 extra copies)

APPROVED:

/s/ Robert W. Geehan (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

cc: Docket
Adm. Read. File
Oper. Committee
Code 400
FT, Reg. I - Spokane
Thor Kiilsgaard, USGS
Gilbert DeHuff, USBM

SPHolt/ls
10/20/55

R.C.K.

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 19 1955

October 14, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

WSM

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed, unsigned, are all copies of Amendment No. 7 of the Irving and Nelson contract. Their letter of October 11, 1955, copies enclosed, is self-explanatory. Copies of our reply to the Operator are also enclosed.

We reluctantly recommend that their request be granted.

By Field Team, Region I, NW District

for: Thomas E Howard
Wing G. Agnew, Act. Exec. Officer
U. S. Bureau of Mines

Verne C. Fryklund Jr.
Verne C. Fryklund, Jr., Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2)
USBM (AD)
Quinlan

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

So. 157 Howard Street
Spokane 4, Washington

October 14, 1955

Mr. Robert H. Nelson
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Nelson:

We have returned the unsigned copies of Amendment No. 7 to our Washington, D.C. office with your request of October 11 that the contract be extended to December 31 instead of October 21, 1955.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Verne C. Fryklund, Jr., Acting Member
U. S. Geological Survey

cc: DMEA (2)
USBM (2)
USBM (AD)
Quinlan

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE
HIRBOUR BUILDING
BUTTE, MONTANA

October 11, 1955

Verne
Jim

Mr. A. E. Weissenborn
Executive Officer, D.M.E.A.
Field Team, Region 1, N. W. District
S. 157 Howard St.
Spokane, Washington

Re: Contract No Idm - E604

Dear Mr. Weissenborn:

On Oct. 10, 1955 we received your Amendment #7, extending the expiration date of the captioned contract until Oct. 21, 1955.

Because of the considerable delay in reaching a decision in this matter we regret that the effective ten days granted us would not now be sufficient to complete our contract footage. Therefore we are returning all copies of the Amendment.

Labor day holidays coupled with miners' paid vacation of two weeks prevented any work on the contract in September before the original expiration date of Sept. 21.

However we are anxious to complete the project because, as your engineers have reported to you, the last 60 feet of work to the east has revealed mineable ore. I feel additional drifting on the Plutus eastward is warranted.

Therefore, in order for us to properly reorganize our operation so as to be able to accomplish this prospecting we respectfully request that the expiration date be extended to Dec. 31, 1955. May we have your decision on the matter.

Yours very truly,

Robert H. Nelson

Robert H. Nelson

RECEIVED
OCT 14 1955
U. S. G. S.
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
No. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 10 1955

October 7, 1955

Mr. I. G. Irving
Kirbour Building
Butte, Montana

Re: Docket No. DMEA-2074 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Irving:

Reference is made to your letter of September 3, 1955, requesting an extension of time for completion of your contract.

Enclosed are the original and six copies of proposed Amendment No. 7, signed by the Administrator for the Government.

If the terms and conditions of this proposed Amendment are satisfactory to you sign all copies, retain the one marked Operator's copy, and return the rest to this office as soon as possible. However, if for any reason the Amendment does not meet with your approval, all copies should be returned to us with your comments.

Sincerely yours,

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: DMEA (2)
DMEM (2)
DMEM (AD)
Finskney

DOCKET
SURNAME
400
Chapman
Martin
Talbut
Selfridge
Fitzhugh

OCT 3 - 1955

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2574 - Manganese
Irving and Nelson
Plutus Lode Mining Claim
Silver Bow County, Montana
Contract No. Idm-8604

Dear Mr. Weissenborn:

Enclosed are the original and five copies of proposed Amendment No. 7 to the above referenced project, signed by the Administrator for the Government.

If the terms and conditions of this proposed amendment are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHS)

Enclosure

APPROVED:

/s/ Robert W. Geehan (JHS)
Member, Bureau of Mines

N. E. Nelson (JHS)
Member, Geological Survey

TLCHAPMAN:foc 9-29-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. I - NW DIST.
Gilbert DeHuff, USBM
Thor H. Kiilsgaard, USGS

R.C.S.

DOCKET
SURNAME
Chapman

September 16, 1955

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of proposed Amendment No. 7
Docket No. DMEA 35[illegible] - Manganese
Contract No. [illegible]
Irving and Nelson
Pintus Lode Mining Claim
Silver Bow County, Montana

Transmitted herewith is a rough draft of a proposed amendment for your use in preparing the final draft.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

TLCHAPMAN:foc
9-16-55
cc to: Docket
Code 400
Adm. Redd.File

Chapman
martin

EXPLORATION PROJECT CONTRACT
IRVING G. IRVING AND ROBERT H. NELSON, PARTNERS
DOCKET NO. DMEA 287½

AMENDMENT NO. 7

It is agreed this _____ day of _____, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Irving G. Irving, and Robert H. Nelson, Partners, that Exploration Project Contract, Idm-E6Ok (Docket No. DMEA 287½), dated September 21, 1953, as amended, is amended as follows:

The completion date of this contract September 21, 1955, according to Amendment No. 4, is extended for 30 days to October 21, 1955.

The period of repayment, 10 years according to Article 6 of the Contract, is hereby extended to 11 years for any minerals mined or produced from the land described in Article 2 of the Contract.

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, nor the agreed unit cost of any item of work.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Administrator, DMEA

Irving G. Irving and
Robert H. Nelson

By_____

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
SEP 12 1955

September 8, ~~1954~~1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are two copies of a letter from Mr. I. G. Irving requesting a 30-day extension to the contract.

We believe this to be a reasonable request and recommend that an amendment extending the contract period be prepared.

By Field Team, Region I, NW District

for Thomas E Howard
Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Verne C. Fryklund Jr.
Verne C. Fryklund, Jr., Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2)
Pinckney

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
SEP 12 1955

September 8, 1955

Mr. I. G. Irving
Heibour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-1604

Dear Mr. Irving:

Thank you for your letter of September 3, 1955, requesting a 30-day extension of your contract.

We have forwarded your request to Washington.

Sincerely yours,

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

cc: DMEA (2)
USBM (2)
Pinckney

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE
HIRSOUR BUILDING
BUTTE, MONTANA

September 9, 1955

Mr. A. E. Weissenborn, Exec. Officer,
Defense Minerals Exploration Admin.
So. 157 Howard Street,
Spokane, Washington.

RECEIVED
SEP 12 1955

Re: Plutus Mine, Silver Bow. Co
Montana.
Irving G. Irving & R. H.
Nelson. DMEA-2874, Contract
No. Idm-E-604

Dear Mr. Weissenborn:

As the attached Monthly Narrative Report will indicate, there remains only 76.6' to be done on the subject contract.

We have only been averaging about forty feet a month, and since our contract expires on September 21, 1955, it would appear that an extension of thirty days would be required to permit the completion of the work.

It may well be that the administrators of the DMEA do not particularly care if this work is carried out to its completion, but the operators are desirous of doing so, and hereby request a thirty day extension to permit the work being done. May we have a ruling on this in the very near future?

Very truly yours,

I. G. Irving

RECEIVED
SEP 9 1955
U.S. DMEA
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 29 1955

July 22, 1955

Mr. I. G. Irving
Nelson and Irving
Hirbour Bldg.
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving & Robert H. Nelson
Fintas Mine
Silver Bow County, Montana
Contract No. Idm-2604

Dear Mr. Irving:

This is in reply to your letter of June 30, 1955, requesting transfer of funds from various categories in order to do 37 feet of drifting.

We are pleased that the shaft repair, station cutting, and raising were accomplished at a saving over the costs anticipated under the contract. We wish to point out, however, that it is not necessary to expend completely all the funds in a contract if the objectives for which they were allotted have been accomplished; in fact, funds normally cannot be diverted from one category to another without referring the matter to our Washington office, with our justification of why the funds should be transferred.

In the present circumstance we do not see how an additional 37 feet of drifting would reach any particular objective or accomplish any particular purpose except to add 37 feet to the drift. If we are incorrect in this we will be glad to make an appropriate recommendation, but with our present information we can not in good conscience recommend the transfer of the remaining funds for additional drifting.

By Field Team, Region I, NW District

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2) w/cys incoming
USBM (2) do
USBM (AD)
Quinlan

NELSON AND IRVING

GEOLOGICAL INVESTIGATIONS
Supervision of
DEVELOPMENT EXPLORATION

MINING CONSULTANTS
HIRBOUR BLDG. BUTTE, MONTANA
TELEPHONE 2-3445

MINE VALUATION
Counsel in
MINE MANAGEMENT

REFER TO	ACTION	NOTED	FILE
al			
Jim			
Ulrich			

RECEIVED
JUL 20 1955

June 30, 1955

Mr. A. E. Weissenborn,
Executive Officer,
U. S. Geological Survey,
So. 157 Howard Street,
Spokane 4, Washington

Re: Docket No. DMEA-2874 (Mn)
Plutus Mine
Silver Bow Co., Mont.
Contract No. Idm-E-604

Dear Mr. Weissenborn:

I have the letter, dated June 14th, signed by you and Mr. Agnew, which was in reply to my letters of June 6th and earlier. Reference is also made to Mr. Fryklund's reply of June 10th.

You point out that the transfer of unused funds, allocated for other than drifting, would require an Amendment made in Washington, and you hesitate to do this for only a few feet of additional drifting.

Actually, we have left in the "odds and ends" category the following:

~~8' of Raising @ $35.00 a foot.~~
19.5' of shaft repair " "
407.5 cu. ft. of station cutting @ $1.24/cu. ft.

This represents a money value of $1,467.80 and converted to drifting (timbered drift @ $39.00/ft) it would allow 37.63 feet of drifting, which I think is not to be considered as negligible.

We are, at present, drifting easterly on the so-called 275 level and as shown by our Monthly Report, just sent in, we have only 140.6' left to go. Then, unless we are to clean up the work allowed and comprising the so-called odds and ends we are finished. What puzzles me is just where do we use up those funds? We are not going to cut any more station and we have repaired the shaft ourselves below the 275 level. Isn't there some way those funds could be transferred to westerly drifting, and if not where should they go?

RECEIVED
JUL 5 1955

Very truly yours,

I. G. Irving

Copy to Mr. Agnew

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

July 15, 1955

MEMORANDUM

To: Mr. Robert E. Adams, Chief
Operations Control and Statistics Division

From: Iron and Ferro-Alloys Division, DMEA

Subject: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E-604

Attached are copies of a proposed Amendment No. 3 to the subject contract, which proposed amendment was unacceptable to the operators. These copies were returned to the DMEA by the Field Team's letter of August 3, 1954, with a copy of the operator's letter of rejection. The copies of the proposed amendment were transmitted to the division and inadvertently placed in the division file rather than being returned to the official docket. The proposed amendment is "dead" so far as the subject contract is concerned.

W S Martin
W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachments

Docket copy

EXPLORATION PROJECT CONTRACT
IRVING G. IRVING and ROBERT H. NELSON, PARTNERS
DOCKET NO. DMEA-2874

AMENDMENT NO. 3

It is agreed this ~~21st~~ 29th day of ~~May~~ June, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Irving G. Irving and Robert H. Nelson, partners, that Contract Idm-E604 (Docket No. DMEA-2874), dated September 21, 1953, as amended, is further amended, effective September 21, 1953, as follows:

1. The following patented mining claim is added to Article 2 of the contract:

Norwich Quartz Lode, U. S. Survey No. 2724, Lot 590, T 3N., R. 8W., in Silver Bow County, Montana.

The Operator represents and undertakes that the Operator is a lessee-optionee in possession and entitled to possession of this mining claim until June 30, 1956.

2. In Article 3 of the contract, delete the period "8 months, and substitute the period "16 months."

3. In Article 4 of the contract, delete the figures "$19,372.50" and "$25,830.00," and substitute the figures "$35,535.00" and "$47,380.00," respectively.

4. Annex III, attached hereto and made a part hereof, is substituted for the provisions of Article 6 of the contract as amended by Annex I attached thereto. All the land described in Article 2 of the contract as amended herein constitutes "the land" referred to in Annex III, attached hereto.

5. In Annex II attached to the contract:

a. In the first paragraph, delete the words following the last comma; and

b. Delete the third paragraph.

6. Exhibit "A" is deleted and a new Exhibit "A" is substituted, reading as follows:

EXHIBIT "A"

Description of the Work

The objective of this project is the exploration for manganese on the Plutus and Norwich patented mining claims.

The work consists of three stages and is substantially shown on the attached map entitled "Norwich-Plutus Mine, Silver Bow County, Montana -------Nelson and Irving, Butte, Montana -------- Composite Plan- Map 1."

All drifts, crosscuts, and raises shall be timbered as necessary and shall be not less than 5 feet by 7 feet in the clear.

Not to exceed 500 representative samples shall be taken of all mineralized ground encountered. Each sample shall be divided into at least two parts, one of which shall be furnished to the DMEA Field Team. The samples shall be analyzed for silver and manganese.

The location, direction, and extent of all work are subject to the approval of the Government.

Stage I

1. On the 200-foot level of the Plutus shaft drift easterly 16.4 feet along the Plutus vein from a face 3 feet east of USBM tag No. 256.

2. On the 200-level of the Plutus shaft drift westerly 44.4 feet along the Plutus vein from a face 21 feet west of USBM tag No. 255.

3. Unwater and rehabilitate the Plutus shaft 36.5 feet below the 244-foot level to establish a new level at the 275-foot level and provide for a sump. Rehabilitation includes all necessary retimbering, rearrangement of dividers, and installation of skip guides.

3. Dependent upon the results of the above drifting and/or crosscutting under items 1 and 2 under this stage, the Operator, with the prior written approval of the Government, shall perform not to exceed 100 feet of raising.

Agreed Unit Costs 1/

Drifting and/or crosscutting 920 feet @ $34.00/ft.	$31,280.00
Timbering 920 feet of drifts and/or crosscuts @ $5.00/ft.	4,600.00
Raising 210 feet @ $35.00/ft.	7,350.00
Unwatering and rehabilitating shaft, 36.5 feet @ $35.00/ft.	1,277.50
Cutting and timbering station-crosscut, 1,002 cubic feet @ $1.24/cu. ft. (rounded to)	1,242.50
Pumping 150 days @ $4.20/day for each day the replacement pump described under item 5, Stage II, is used	630.00
Analyzing 500 samples for manganese and silver @ $2.00/sample	1,000.00
Estimated Total Agreed Unit Costs	$47,380.00
Government Participation @ 75%	$35,535.00

1/ The unit costs include all costs whatsoever incidental to the completion of the work.

* * * * * *

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Irving G. Irving (partner) By C O Mitchenor
Administrator, Defense Minerals Exploration Administration

By Robert Hoffling

Robert H. Nelson (partner) Chamberlin

ANNEX III

The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Royalty on production.--The Operator, as principal, if the Operator is the producer, or as surety, if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract* until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract,* or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* With respect to the Norwich claim added to the contract by paragraph numbered 3 of Amendment No. 3, the words "from the date of the contract" in items (1) and (2) of paragraph b of this Annex III mean "the date of Amendment No. 3."

6. Exhibit "A" is deleted and a new Exhibit "A" is substituted, reading as follows:

EXHIBIT "A"

Description of the Work

The objective of this project is the exploration for manganese on the Plutus and Norwich patented mining claims.

The work consists of three stages and is substantially shown on the attached map entitled "Norwich-Plutus Mine, Silver Bow County, Montana -------Nelson and Irving, Butte, Montana -------- Composite Plan- Map 1.

All drifts, crosscuts, and raises shall be timbered as necessary and shall be not less than 5 feet by 7 feet in the clear.

Not to exceed 500 representative samples shall be taken of all mineralized ground encountered. Each sample shall be divided into at least two parts, one of which shall be furnished to the DMEA Field Team. The samples shall be analyzed for silver and manganese.

The location, direction, and extent of all work are subject to the approval of the Government.

Stage I

1. On the 200-foot level of the Plutus shaft drift easterly 16.4 feet along the Plutus vein from a face 3 feet east of USBM tag No. 256.

2. On the 200-level of the Plutus shaft drift westerly 44.4 feet along the Plutus vein from a face 21 feet west of USBM tag No. 255.

3. Unwater and rehabilitate the Plutus shaft 36.5 feet below the 244-foot level to establish a new level at the 275-foot level and provide for a sump. Rehabilitation includes all necessary retimbering, rearrangement of dividers, and installation of skip guides.

4. On the 275-foot level in the Plutus shaft cut and timber a station-crosscut 15 feet southeasterly from the Plutus shaft to the Plutus vein. Total excavation for the station-crosscut shall not exceed 1,002 cubic feet.

Stage II

1. On the 275-foot level of the Plutus shaft drift easterly along the Plutus vein not more than 183.6 feet from the end of the station-crosscut.

2. On the 244-foot level of the Plutus shaft drift westerly along the Plutus vein not more than 210.6 feet from the end of the west crosscut.

3. On the 244-foot level of the Plutus shaft crosscut 15 feet to the south from the face of the west crosscut.

4. Dependent upon the results of the drifting and/or crosscutting under Stage I and the first three items under Stage II, the Operator, with the prior written approval of the Government, shall perform not more than 110 feet of raising.

5. From the time work is started on the 275-foot level the Operator shall keep that level pumped dry until all work on that level is completed. Should it become necessary for the Operator to replace the pump presently operating, with equipment of greater pumping capacity, a pump capable of pumping 200 gallons per minute against a 400-foot hydraulic head shall be installed.

Stage III

1. From the 244-foot level crosscut drift easterly on the Norwich Hanging Wall vein not more than 375 feet to intersect the rhyolite contact.

2. From a point in the East drift on the 244-foot level approximately 250 feet from the 244-foot level crosscut, crosscut southerly not more than 75 feet to the mineralization indicated by Bureau of Mines' diamond drill Hole No. 5.

3. Dependent upon the results of the above drifting and/or crosscutting under items 1 and 2 under this stage, the Operator, with the prior written approval of the Government, shall perform not to exceed 100 feet of raising.

Agreed Unit Costs 1/

Drifting and/or crosscutting 920 feet @ $34.00/ft.	$31,280.00
Timbering 920 feet of drifts and/or crosscuts @ $5.00/ft.	4,600.00
Raising 210 feet @ $35.00/ft.	7,350.00
Unwatering and rehabilitating shaft, 36.5 feet @ $35.00/ft.	1,277.50
Cutting and timbering station-crosscut, 1,002 cubic feet @ $1.24/cu. ft. (rounded to)	1,242.50
Pumping 150 days @ $4.20/day for each day the replacement pump described under item 5, Stage II, is used	630.00
Analyzing 500 samples for manganese and silver @ $2.00/sample	1,000.00
Estimated Total Agreed Unit Costs	$47,380.00
Government Participation @ 75%	$35,535.00

1/ The unit costs include all costs whatsoever incidental to the completion of the work.

* * * * * *

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Irving G. Irving (partner) By C O Mitchenor
Administrator, Defense Minerals Exploration Administration

Robert H. Nelson (partner) By Hoffling Chamberlin

ANNEX III

The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Royalty on production.--The Operator, as principal, if the Operator is the producer, or as surety, if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract* until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract,* or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* With respect to the Norwich claim added to the contract by paragraph numbered 3 of Amendment No. 3, the words "from the date of the contract" in items (1) and (2) of paragraph b of this Annex III mean "the date of Amendment No. 3."

Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

d. Unsold production.--If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.
>
> (For instance: the royalty on an amount of five dollars ($5.00) per ton, would be one and one-half ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. Lien for payment.--To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

g. Notice to purchasers.--The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

h. No obligation to produce.--Nothing in this contract is 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.

i. Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

58694

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

June 28, 1955

Memorandum

To: Miss Curtin, Statistics and Control Division

From: Hazel Berry, Operating Committee
Ley 2 57

Subject: Amendments to Contract

Attached are the following docket copies of amendments to contract which have been reviewed and approved by the Commodity Division, Contract Administration and Audit Division, and the Legal Division. The official docket is also attached.

Irving and Nelson, DMEA-2874, Idm-E604, Amendments Nos. 5 and 6.

Attachments

RECEIVED
JUN 20 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 14, 1955

Irving and Nelson
34 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2374 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract Ida-3604

Dear Mr. Irving:

I am enclosing a copy of the first royalty audit certificate and report made by C. E. Fisher, DMEA auditor, on the Plutus contract. This covers sales of manganese ore for the period September 21, 1953, to April 4, 1955.

Sincerely yours,

A. L. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Enclosures
cc: DMEA(2)
DMEF(2)
Turner(2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUN 27 1955

June 14, 1955

Mr. Irving G. Irving
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Irving:

Reference is made to your letter of June 6, 1955, and Mr. Fryklund's reply of June 10, 1955.

On reconsidering your request for transferring unused funds for the purpose of extending the 244 level drift west on the Plutus vein we have reached the conclusion that this requires an amendment made in Washington rather than by the Field Team. Although we recently amended the contract locally to permit 15 more feet of drifting we hesitate to refer to Washington an amendment for only a few feet of additional drifting.

We are sure that you will understand our reasons for not wishing to put a minor amendment through the Washington mill.

By Field Team, Region I
Northwest District

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Quinlan

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

June 6. 1955

Mr. A. E. Weissenborn,
Executive Officer,
U. S. G. S. (D.M.E.A.)
So. 157 Howard Street,
Spokane, Washington.

Re: Docket No. DMEA-2874 (manganese)
Irving & Nelson
Plutus Mine
Silver Bow Co., Mont.
Contract No. Idm-E604

Dear Mr. Weissenborn:

I have your letter of May 20th, and have noted contents. I have also your letter of June 3rd, containing Amendment No. 6, the signed copies of which I am enclosing.

In your letter of May 20th, in the third paragraph, you state that before an amendment can be prepared transferring unused contract funds for additional drifting west on the 244 level it will be necessary to have Washington's approval.

We have completed the allowable westerly drifting on the 244 level, and have already started on the additional fifteen feet (transferred from crosscutting) allowed by Amendment No. 6.

The crew have already gone down to the so-called 275 level and have already started the easterly drifting at that elevation allowed, which drifting totals 158.6 feet and this work will be pursued steadily.

However, getting back to the unused funds. We still would like to have that converted into westerly drifting on the 244 level so that we may continue out in that direction also.

In my letter of May 4th, the unused funds were stated to consist of: 19.5' of shaft repair, at $35.00 a foot, and 407.5 cu ft. of station cutting at $1.24 a cu. ft., totalling $1187.80. I forgot to mention 8' of unused raising, in this letter. Raising was allowed at $35.00 a foot also.

RECEIVED
JUN 8 1955
U. S. G. S.
SPOKANE, WASH.

The total money unused in all three categories is $1467.80 and if this were converted to westerly drifting (timbered) at a timbered cost of $39.00 per ft. ($34.00 plus $5.00) it would amount to 37.64' of drifting.

We would still like this 37.64 feet of drifting on the 244 level to the west. Will you consider this letter a formal application for permission to have the unused funds detailed above, converted to westerly drifting on our 244 level, and transmit our request to Washington for approval?

Very truly yours,

I. H. Irving

I. H. Irving.

400

RECEIVED JUN 17 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXXXXXXXXXXXXXXXX~~
WASHINGTON 25, D.C.
~~So. 157 Howard Street~~
Spokane 4, Washington

June 14, 1955

Mr. Irving G. Irving
Hirbour Building
Butte, Montana

WGM

Re: Docket No. DMEA-2874 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Irving:

Reference is made to your letter of June 6, 1955, and Mr. Fryklund's reply of June 10, 1955.

On reconsidering your request for transferring unused funds for the purpose of extending the 244 level drift west on the Plutus vein we have reached the conclusion that this requires an amendment made in Washington rather than by the Field Team. Although we recently amended the contract locally to permit 15 more feet of drifting we hesitate to refer to Washington an amendment for only a few feet of additional drifting.

We are sure that you will understand our reasons for not wishing to put a minor amendment through the Washington mill.

By Field Team, Region I
Northwest District

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: DMEA (2)
USBM (2)
USBM (AD)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 8, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are the Government, Docket, and Division copies of Amendment No. 6 with attached justification to the above-cited contract.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

Verne C. Fryklund, Jr.

Verne C. Fryklund, Jr.
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Attachment

cc: Finance Office w/encl.
USBM (2)
Quinlan

RECEIVED
JUN 22 1955
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUN - 6 1955

June 3, 1955

Mr. Irving G. Irving
84 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-K604

Dear Mr. Irving:

Enclosed are the original and six copies of a proposed Amendment No. 6 to the above-cited contract, which transfers 15 feet of crosscutting to 15 feet of additional drifting for a total of 225.6 feet. This proposed change was discussed recently with you by J. D. Bardill of the Bureau of Mines.

If the terms and conditions of this amendment meet with your approval, please sign all copies, retain that copy marked for the Operator and return the remaining copies to this office.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Enclosure

cc: DMEA (2)
USBM (2)
USBM(AD)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

May 25, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Attached are the Government, Docket, and Division copies of Amendment No. 5 to the above-cited contract, with attached justification.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Attachment

cc: Finance Office w/encl.
USBM (2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
No. 137 Howard Street
Spokane 4, Washington

MAY 31 1955

May 25, 1955

Mr. I. S. Irving
Norwich Mine
Hirbour Building
Butte, Montana

Re: Project No. [illegible]-2074 (manganese)
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. 1[illegible]-1604

Dear Mr. Irving:

Enclosed [illegible] original and six copies of Amendment No. 5 to the captioned contract. This amendment provides for 44.4 feet of drifting on the 200 level which was inadvertently deleted from the contract by [illegible] 2.

If this amendment is acceptable to you and Mr. Nelson, please sign all seven copies, [illegible] the one designated for the operator, and return the remaining copies to this office at your earliest convenience.

It will be necessary to have Washington's approval before an amendment can be prepared transferring unused contract funds for additional drifting on the 244 level as requested in your letter of May 5, 1955. We wish to call your attention to a phone conversation you had with the Executive Director in November at which time you were advised that the [illegible] informed us that your request for transferring the drifting from the [illegible] level to the 200 level could be considered provided you were willing to reimburse the Government for its share of the cost of work done under the [illegible] contract below the 244 level. It [illegible] that the same conditions would apply if work were transferred [illegible] 200 to the 244 level. If this is acceptable to you and you [illegible] us that every effort will be made to complete all contract [illegible] before the contract expires in September, we would be glad to [illegible] send to Washington that serious consideration be given to [illegible] transfer unused contract funds to westerly drifting on the 244 [illegible]

Mr. Quinlan will be in Butte sometime next week and you could discuss this matter further with him if you wish.

By field look, Region 1, Butte District

. A. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Snow, Member
U. S. Bureau of Mines

Enclosure as indicated

cc: DMEA (2)
USFS (2)
USBM(BD)
Quinlan

DOCKET
SURNAME
Rutledge
Martin
Chambers

400

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

APR 29 1955

Office of Investigations
General Accounting Office
Washington 25, D. C.

Re: Docket No. DMEA 287½ - Manganese
Irving and Nelson
Plutus mine
Silver Bow County, Montana
Contract No. Idm-860½

Attention: Mr. Joseph Gregory
Room 6116
New G.A.O. Building

Dear Sir:

On April 21, 1955, Mr. Gregory requested a brief resume of the exploration project being carried out under the above referenced contract. A summary of the contract and the results obtained through March 1955 follows:

1. Operator: Irving G. Irving, 84 Harbour Bldg., Butte, Mont., and Robert H. Nelson, 512 Clark Street, Helena, Montana, Partners.

2. Operator's property rights:

Owner as to a 1/4 interest in the Plutus Lode Mining Claim, Survey No. 3018, patented, located in Sections 10 and 15, T. 3 N., R. 8 W., above a horizontal plane 600 feet vertically below the collar of the Plutus shaft, and

Lessee as to a 3/4 interest of the above-referenced property; Owner's Consent to Lien attached to contract.

3. Contract No. Idm-860½ executed September 21, 1953, authorized the following:

270-foot drift westward on 200-foot level @ $34.80/ft.	$19,180.00
200-foot drift eastward on 200-foot level @ $34.00/ft.	6,800.00
200-feet of raising @ $35.00/ft.	7,000.00
470-feet of timbering @ $5.00/ft.	2,350.00
250 analyses @ $2.00	500.00
	$25,830.00
Government participation @ 75%	$19,372.50

4. Amendment No. 1 was executed January 6, 1954, at the Operator's request, as the east face on the 200-foot level, although started in low-grade carbonate ore, showed no winnable ore on the structure after an advance of 16.4 feet. In addition, bulldozing to the east on the surface had revealed only very lean ore.

Amendment No. 1 authorized the following:

270-foot drift westward on 200-foot level @ $34.00/ft.	$9,180.00
16.4-foot drift eastward on 200-foot level @ $34.00/ft.	557.60
Unwater and rehabilitate Fixtus shaft to new 400 level, 56 feet @ $35.00/ft.	1,960.00
Cutting and timbering station-crosscut, approximately 1,300 cu. ft. @ $1.24/ft.	1,612.00
Raising 80 feet @ $35.00/ft.	2,800.00
183.6-foot drift eastward on 400 level	6,242.40
470 feet of timbering @ $5.00/ft.	2,350.00
Pumping 150 days @ $4.20/day	630.00
249 samples @ $2.00 ea.	498.00
	$25,830.00

5. Amendment No. 2, dated April 6, 1954, reallocated the work remaining on the 200-foot level (225.6 feet) to the 244-foot level.

6. Amendments Nos. 3 and 4 extended the period for completion of the exploration project.

7. Work completed through March 31, 1955.

16.4 feet drifting eastward on 200-foot level @ $34.00/ft.	$ 557.60
44.4 feet drifting westward on 200-foot level @ $34.00/ft.	1,509.60
56.3 feet timbering drifts on 200-foot level @ $5.00/ft.	281.50
72.0 feet raising on 200-foot level @ $35.00/ft.	2,520.00
36.5 feet shaft rehabilitation @ $35.00/ft.	1,277.50
Station cutting, 892.5 cu. ft. @ $1.24/cu. ft.	1,106.70
25.0 feet drifting eastward on 400-foot level @ $34.00/ft.	850.00
25.0 feet timbering drift on 400-foot level @ $5.00/ft.	125.00
132.0 feet drifting westward on 300-foot level @ $34.00/ft.	4,488.00
121.0 feet timbering drifts on 300-foot level @ $5.00/ft.	605.00
53 analyses @ $2.00 each	106.00
	$13,836.90

Comments:

The subject contract between Irving G. Irving and Robert H. Nelson, Partners, and the Government was entered into after considerable correspondence with the applicants and the Defense Materials Procurement Agency (DMPA) as the applicants were engaged in a development program on the combined Plutus-Norwich property under DMPA contract No. GS-10P (D)-3. The exploration contract was executed only after it had been determined that the DMPA development project would not benefit at the expense of the DMEA exploration project.

Later the operators requested additional exploration assistance on the Hanging-wall vein of the Norwich claim. A proposed amendment was prepared that contained, as one of the conditions for the Government's participation in the project, payment of a percentage royalty on all production from the Norwich claim in addition to that already in effect on the production from the Plutus claim for repayment of the funds advanced under the DMEA program. This was unacceptable to the operator and only that work authorized in the contract as amended is to be completed.

Progress under the exploration project has been slow as the operator is concentrating most of the work on the production of ore from the Norwich claim. This is being done in order to complete the purchase of the Norwich claim by June 30, 1956.

However while the units of work completed under the DMEA contract have been small in relation to the time consumed, the quality of work is excellent. In addition, payment of the Government's share of the exploration costs is on an agreed unit cost basis.

For your information, the enclosed copies have been prepared of the following correspondence from the subject docket.

Feb. 6, 1953	Field examination and cost estimate by McNabb
Feb. 13, 1953	Memorandum by M. D. Crittenden, Jr., Geological Survey.
Feb. 18, 1953	Memorandum by G. L. DeHuff, Jr., Bureau of Mines.
Feb. 18, 1953	Field Team letter.
Mar. 24, 1954	Field Team letter enclosing report dated March 22 by J. S. McNabb, Jr., Bureau of Mines.
Apr. 21, 1954	Memorandum by Iron and Ferro-Alloys Division, DMEA
May 8, 1954	Letter from Irving & Nelson
May 25, 1954	Report on Norwich Mine by Irving & Nelson.
Nov. 30, 1954	Field Team letter enclosing report dated November 24, 1954 by Irving.

Any further information that we have on the subject is, of course, at your disposal.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

FARutledge:fec
cc to: Docket
Code 400
Adm. Reading File
FT. REG. I - NWDIST.
Mr. Chambers - Code 800

DEPT. OF THE INTERIOR
Minerals Administration
RECEIVED
JAN 14 1955

THE FOLLOWING NOTE WAS WRITTEN ON THE BOTTOM OF OUR LETTER TO OPERATOR DATED DECEMBER 29, 1954:

Dear Al:

There was no Plutus 16 shipment. It was made and delivered on the ground at the plant, but it was too low grade to be accepted and we had to remove it !

Signed: I. G. Irving

Re: Docket No. DMEA-2874 (manganese)
Irving & Nelson
Plutus Mine
Silver Bow County, Montana
Contract Idm-E604

Distribution:
DMEA(2)
USBM(2)
Turner
Nickelson

Docket

XXXXXXXXXXXXXXX
No. 157 Howard Street
Spokane 4, Washington

December 23, 1954

Mr. I. G. Irving
Irving & Nelson
84 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2674 (mmmmmmm)
Plutus Mine
Silver Bow County, Montana
Contract Idm-E604

Dear Joe:

In going over your royalty account, we find that there is no record of Lot 16, although we have records indicating that Lots 15 and 17 have been shipped to GSA.

In order that our records may be complete, would you please let us know whether or not this lot is subject to DMEA royalty. If it is, we would appreciate receiving the usual settlement sheets and the Government's percentage royalty. It may be, of course, that this particular number (16) was never assigned to a shipment. If this be the case, please inform us.

Sincerely yours,

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

cc: DMEA (2)
UTM (2)
Turner
Nickelson

Copy retained 400

XXXXXXXXXXXXXXXXX
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC - 6 1954

November 30, 1954

Mr. I. G. Irving
Norwich Mine
Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Irving:

As you have requested, I am sending to our Washington office copies of your letter of November 24, 1954, to me as well as copies of the narrative report and the production record for October 1954 which you sent to the General Services Administration.

Sincerely yours,

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

cc: DMEA (2)
USBM (2)
Quinlan

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
DEC - 6 1954

November 30, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving and R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

At the request of Mr. I. G. Irving of Irving and Nelson I am enclosing a copy of Mr. Irving's letter to me of November 24, 1954. Also enclosed are copies of his narrative report and production record for October 1954, which Irving and Nelson made to the General Services Administration.

Sincerely yours,

A. E. Weissenborn

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

Enclosure - [redacted]

cc: USBM (2)
Quinlan

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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DEC - 6 1954

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NOV 26 1954
U. S. G. S.
SPOKANE, WASH.

November 24, 1954

Mr. A. E. Weissenborn,
Defense Minerals Exploration Admin.
S. 157 Howard Street,
Spokane 4, Washington.

Re: DMEA-2874-Contract-Adm-E6C4
Plutus Mine (and Norwich)
Manganese, Butte, Mont.
I. G. Irving & R. W. Nelson

Dear Al:

Am sending you two copies of our regular Monthly Narrative Report and also our Production Report, for October, 1954. We have to send these to the GSA, monthly, and I am going to have extra copies made so that you have one for your files (to keep track of things) and one to be sent to the DMEA office in Washington, if you think that would be proper.

I do wish you would send a copy to Washington, because I somehow or other believe that there is not too much faith back there--perhaps I am wrong--about the ultimate outcome of the Norwich Mine and its ability not only to complete property purchase but also pay off the GSA advance.

At the present moment the GSA advance has been reduced from $106,000.00 to about $83,000.00 and the Property purchase obligation reduced from $50,000.00 to about $34,000.00. And we have only been stoping for about four months----prior to that all of the work was development.

Our latest figures (calculated by myself and Bob Nelson, who are not only former Anaconda geologists, but also spent time with the various government agencies as engineers) show that in addition to at least five thousand tons of Measured ore remaining above our present working level (244 level) and probably as much again, or more, Indicated ore, plus a lot of Inferred ore, we also have what we call Proven Ore, but you would call a combination of Measured and Indicated Ore, to the extent of 17,560 tons below our 244 level and above our new lower level (56' vertically below) which we now have started to get. This block of assured ore averages 22.6% mn and 9.5 ounces in silver.

COPY

We have about 300 feet of crosscutting to do to get into this ore and have already started down the shaft. It will give us a back of about 70 feet on the dip of the vein. I strongly point

these facts to youx (which can be easily verified by anyone from your office) because we would like to have our contentions brought to the attention of the DMEA office, in Washington, D. C.

We have a mine and we know it. We want the facts known so that when we come in again, this Spring, with an application for DMEA assistance to drift out the Norwich Hangingwall Vein on our bottom level there will be better understanding of our property.

As mentioned above, we are going to open up a lower level with our own resources, but we will undoubtedly need assistance in going still lower, down to the old original Plutus 400 level, where we can without question pick up another forty thousand tons or more of manganese ore--which we are told is essential to the National Defense.

I would greatly appreciate it, then, if you will send a copy of this letter and our recent Monthly Report to GSA, on to Washington.

Sincerely yours,

I. G. Irving.

COPY

November 17, 1954

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC - 6 1954

RECEIVED
NOV 26 1954
U. S. G. S.
SPOKANE, WASH.

Irving G. Irving and Robert H. Nelson

G.S.A. Contract No. GS-10P(D)-3

General Narrative Report on

Norwich-Plutus Operation

for

October, 1954

As shown on the attached Production Report the tonnage produced during the month, showed a decided increase over the previous month, with the following production being achieved:

Norwich-Little Sarah Ore

910.71 L.D.T. -- averaging 19.3% Mn and 11.08 oz. Ag

also

Plutus Oxide Ore

94.0 L.D.T. (approx) - assaying approximately 15.0% Mn.

The Plutus ore payment awaits testing at Albany, Oregon, to determine, among other things, recoverability before payment is made. It is expected to net over $15.00 a ton.

During the month stoping, stope filling and exploratory crosscutting in the hangingwall of the stopes accounted for most of the activity. Advances, however, were also made in two raises. The ore in the Little Sarah raise was cut off by a fault at a point 70 feet above the sill, but exploratory work off the top of this raise, now underway, is expected to reveal the position of the faulted segment.

East of the "Line Raise" stoping operations have revealed a strong vein of commercial ore in the hangingwall of the Main Footwall Vein. The extent and significance of this find will have to await the completion of additional exploratory work off the stope as this structure is opened up.

An advance, in good ore, was also made in the so-called Evans Raise which is going up in virgin ground west of the old LaVelle stoping. It is planned to extend this raise eventually to the surface.

COPY

The continuance of such development, as is described above, in conjunction with the exploratory crosscuts off the stopes in certain areas -- which must be done so that the vein structures in the hangingwall are fully revealed to permit proper planning of mining -- is having the effect of slowing up production in the current month. However, despite this necessary work, production should exceed 750 tons in November, and get back to the 1000-ton-a-month rate in December.

The raise on the Plutus 200 level was advanced 37 feet further and holed the old Plutus 125 level. The last 15 feet of this advance was in lean material, averaging less than 13% manganese, which was stockpiled for possible future treatment, rather than shipped.

It may be added that the management is now working on plans for future development, of major proportions that envision carrying out almost 400 feet of exploratory drifting on the Plutus Vein on two levels and opening up a new lower level to permit the intersection and development of the Norwich Veins in their downward extension.

Respectfully submitted,

I. G. Irving, Mgr.

COPY

November 17, 1954

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC - 6 1954

Irving G. Irving and Robert L. Nelson

G.S.A. Contract No. GS-10.(S)-3

Production Report on

Norwich-Plutus Operation

for

October, 1954

Lot #	Invoice Date	L.D.T.	% Mn	oz. Ag	Gross Received
		Norwich Ore			
92	10-8-54	74.08	17.6	9.50	$ 1,730.08
93	10-11-54	87.18	15.4	9.10	1,820.20
94	10-21-54	82.77	18.2	10.70	2,121.18
95	10-25-54	85.65	19.3	10.20	2,394.34
Totals & Aver. Grade		329.68	17.6	9.88	7,765.80
		Little Sarah Ore			
Carbonate Ore					
12	10-4-54	89.11	21.0	12.50	2,884.09
13	10-5-54	86.81	21.4	10.70	2,775.78
14	10-13-54	77.63	20.5	14.10	2,522.65
15	10-14-54	85.61	21.3	13.10	2,841.66
16	10-18-54	85.83	19.7	12.60	2,590.70
17	10-26-54	81.81	18.5	11.10	2,176.20
18	10-29-54	74.35	19.5	7.90	1,977.19
Totals & Aver. Grade		581.05	20.3	11.77	17,768.27
Oxide Ore					
Ls-3-4-5 10-11-54 (final pymt.)					1,804.47
Grand Total and Average Grade(Norwich & Little Sarah Ore)		910.71*	19.3	11.08	$27,338.54
		Plutus Ore			
Plutus Oxide 1 (cars 2 & 3)		94.0**	15.0**		**
Total Tonnage (approx.**		1004.71			

*Equals 1064.055 short wet tons.
**Tons and grade approximate only. Final figures and payment await testing at Albany, Oregon.

COPY

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

Defense Minerals Administration
RECEIVED
JUN 4 1954

May 25, 1954

Docket
2874

Report on the Norwich Mine

(Foreword:

There is not available to us any disinterested third party's report on the Norwich property. Both of the partners in this venture are established, consulting mining geologists and engineers, each having more than 25 years actual and constructive experience in mining. As a matter of practice both partners consult constantly with other geologists, engineers, mine superintendents of the district as well as a host of metallurgists all of whom are familiar with our operation and similar operations in Butte. Factual, demonstrable data acquired in the course of the Norwich development, together with composite opinions of our contemporaries color our thinking and influence our conclusions regarding the merits of our property. So far as is humanly possible we try to avoid deluding ourselves. We try, in the report following to tell about the Norwich as we would any property in which we had no financial interest.)

I LOCATION

The Norwich Mining property is located in Secs. 10 and 15, T. 3 N., R 8 W., Silver Bow Co., Montana. This is less than 3 miles from the business center of Butte, less than 3/4 miles from Anaconda's Orphan Girl Mine and deep working shaft, about a mile from Anaconda's Anselmo mine, less than 1500 feet from Anaconda's Nettie Hibernia mine. The property is also less than 3 miles, over pavement or improved gravel road, from the site of the Government Stockpile purchase depot. One of the Montana Power high tension lines crosses the propert, as well as one of the main natural gas lines leading to Butte.

II GEOLOGY

Butte has produced more than 3 billion dollars worth of metal from mineral deposits found in veins or stockworks enclosed in a monzonitic type of rock. The main Butte camp, owned and

COPY

operated largely by Anaconda, consists of a block of ground roughly 2½ miles long (in an east-west direction) and 1½ miles in a north-south direction. Within this block mining operations a mile below the surface are presently being conducted, and it is estimated that if mining continues at the rate of 25,000 tons a day the known deposits of Butte will not be exhausted within a century.

The veins in the Butte district are broadly classified as of two types: the "East-Westers" and the "Northwesters". Many of the veins can be traced without interruption for several thousand feet along the surface and the vein structures persist in depth to the deepest points explored to date. Mineral deposition within the veins appears to follow a zonal pattern. Copper ores predominate in the central zone, zinc ores in the intermediate zone, while silver and manganese ores are found principally in the peripheral zone.

The Norwich and Little Sarah claims cover the apex of a characteristic, large "East-West" Butte vein. The vein structure can be traced west of the Little Sarah for at least 4,000 feet. To the east along the strike the vein is hidden on the surface by post mineral rhyolite flowrock.

Development has shown that the Norwich vein is a structure from 40 to 100 feet between hangingwall and footwall. Along both the hangingwall and footwall a comparatively high grade concentration of rhodochrosite (manganese carbonate) is found. For convenience these zones of concentration are referred to as "the hangingwall vein" and "the footwall vein."

The vein structure dips south about 55°.

The so called oreshoots consist principally of quartz and rhodochrosite, usually from 4 to 15 feet wide, and extending in strike length for several hundred feet. These deposits are valuable primarily for their manganese content, but all ore to date has carried a few ounces of silver which enhances the value of the ore by several dollars.

Parallel with, but south of the Norwich vein is the Plutus vein. The Plutus vein has been traced on the surface for about 1500 feet, and the outcrop is marked by a persistent manganese content in the vein.

Both the Norwich and Plutus veins exhibit the usual geologic characteristics of other typical major veins in the Butte peripheral zone.

Butte geologists believe that rhodochrosite ore may extend in depth to a point at least 1,000 feet below the surface. Thereafter, for several thousand feet increasing amounts of lead and zinc may be expected to occur with the rhodochrosite.

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III MINE DEVELOPMENT

The Norwich and Plutus vein structures have been developed by shaft sinking and lateral work from the shafts.

The Norwich vein was first developed in World War II by sinking an inclined shaft (The Lavelle shaft) 170 feet and drifting on the vein at 3 levels from this shaft. During that time about 9600 tons of manganese ore averaging 24.6% Mn and 5.0 ounces silver was produced. (On today's market that ore would have a gross value of more than $300,000.) Irving and Nelson rehabilitated the shaft and thereafter mined about 1,000 tons of high grade manganese. The shaft has also been extended to a point about 230 feet below the collar, and when development has been completed the Lavelle shaft will serve as a second entry into the mine.

At 180 feet east of the Lavelle shaft a new shaft 120 feet deep was sunk. From this new shaft about $26,000 worth of ore was produced, and considerable low grade material remains to be mined.

The Plutus shaft is about 600 feet south of the Lavelle shaft. Irving and Nelson completely rehabilitated the vertical Plutus shaft to a point 275 feet below the shaft collar. The shaft is open to the old "400" level.

At a point 245 feet below the collar of the Plutus shaft a station was made, and from that level a crosscut was run northerly, 450 feet to intersect the downward extension of the Norwich footwall vein.

Since Jan. 1, 285 feet of drift west on the footwall vein has exposed continuous mineralization. From this drifting 890 tons of development ore averaging 16.7% Mn and 3.3 oz. Ag have been shipped. Approximately 80' feet of drifting west still remains to be done to reach the west end line of the Norwich claim.

At a point about 320 feet from the Plutus shaft the crosscut exposed the "Hangingwall Vein." The mineralization is about 4.5' wide and averages about 15% manganese where cut. (A D.M.E.A. contract has been approved for about 375 feet of drifting on the structure on the 244 level.)

The Plutus vein crosses the Plutus shaft at a point 250 feet below the collar of the shaft. A D.M.E.A. exploration contract has been approved to explore the vein for a distance of about 500 feet. Some mining has also been conducted on the structure, but the ore exposed to date ranges from 15 to 25% Mn in grade. Shipments to date have averaged 15.6% Mn. Further work has been deferred until facilities are available to realize fully on the basic value of 15% manganese material.

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The Plutus Shaft was sunk in 1920 in a search for rich silver ores similar to those found in the Nettie-Hibernia Mine a thousand feet south of the Plutus. The Plutus shaft was sunk to the 400 level and thereafter a crosscut was run North about 170 feet to the Norwich vein. No "silver" ore was found, but the Norwich vein, where cut, was mapped by a competent geologist as being a vein 15' wide, half manganese-half quartz (possibly 15-25% Mn rock.) The project was abandoned but the old work clearly demonstrates the continuity of the Norwich vein and the grade and character of the vein at substantial depths. The water level, at present is 305 feet below the collar of the Plutus, but shaft soundings show that the shaft is open and apparently in good shape to the 400.

IV MINE EQUIPMENT

The mine is presently equipped to handle about 100 tons of ore per 8 hour shift. Electricity is supplied at the shaft collar by Montana Power at 2200 volts. At present there is a connected load of about 300 h.p. Any quantity of electricity is available.

Compressed air is supplied by an I. R. Imperial 10 V-belt drive 880 cu. ft. compressor with a 40 H.P. air cooled I.R. 220 cu. ft. compressor as auxiliary air. The mine is serviced by a single drum 55 H.P. hoist with rope speed of 360 ft. min. Two Eimco 12B mucking machines service the development work on the sills. Tramming is done with a Gardner Denver air trammer. Drilling is done mainly with one of 3 jacklegs although drifters, stopers and jackhammers are available at the mine. Pumping is done by a 15 H.P. Lancaster submersible pumping into a surge tank which automatically discharges to the surface by a 20 H.P. I.R. pump. Ventilation is supplied by a 20 H.P. 5000 cu. ft. Westinghouse fan at the collar of the Plutus shaft. A natural circulation of air will be effected by July 1st.

V ORE RESERVES

By definition, in this report, "ore" is material containing sufficient quantities of manganese and silver to permit mining at a profit. Operations at the Norwich indicate that rock extraction costs about $10 a ton. Consequently material containing values exceeding probable costs is classified as ore. The mining cut off should be at $12 a ton gross return. Material returning less than $12 is waste -- over $12 ore.

Any engineer calculating the ore reserves of any mine will be guided by many variables among them being, the nature of ore deposition in the area under consideration, continuity of mineralization to be expected, cost of extraction and treatment for sale of end product, as well as certain more or less empirical rules which arbitrarily classify available material into various categories.

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Both Irving and Nelson are Anaconda trained geologists whose duties, among other things, were the calculation of ore reserves in the operating mines of Butte. The Norwich-Plutus ore reserves are calculated consonant with the accepted practices of Butte.

The ore in the Butte veins is usually found in ground that is comparatively soft. Ore extraction follows closely the sill development of various blocks. Actual "ore reserve" tonnages, in the restricted use of the phrase "reserve" is amazingly small. Seldom is more than a year's supply of ore blocked out.

To offset these small reserves, a procedure is followed by the operators whereby actual development precedes ore extraction at a rate so designed that a ton of "new" ore is developed for each ton of ore actually extracted. This "ton-for-ton" program under the direction of the geological department has maintained the life of the individual mines for more than fifty years. The ton-for-ton system obviously works in a camp where no major vein has, to date, been worked to exhaustion.

The Norwich's two veins and Plutus vein, similar in every respect to any of the other large veins of the peripheral zone, will permit a sustained mining program conducted on the Butte ton-for-ton system of operation.

At this time (May 20, 1954) the drifting on the 244 level on the Norwich footwall vein has developed 24,065 tons of 17.7% Mn with 3.3 oz. silver per ton. This figure includes 8,630 tons of ore with calculated assay value of 22.0% Mn and 4.9 oz. silver. Ton-for-ton development in the drifting west on the footwall vein is developing ore above the sill at the rate of about 100 tons of plus 20% Mn for each linear foot of advance.

Work has commenced on the development of the hangingwall Norwich vein by drifting on the ore on the 244 level. (This work is being done under a D.M.E.A. contract.)

At the present time this work will develop ore by subtracting from the "inferred" classification and adding to the "Reserve" and "probable" classification.

Summarized we believe the probabilities of the property substantially exceed the following:

(a) Measured and probable:

<u>48,870 tons of 18.1% Mn and 3.4 oz. Ag</u>
(Gross value if shipped about $985,000.00)

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(b) Inferred:

168,350 tons of 13.7% Mn and 1.6 oz. Ag.
(Gross value if shipped without beneficiation about $1,900,000.00)
(Returns to be expected if milled and concentrates shipped about $2,750,000.00)

The above estimates are for the Norwich "footwall" and "hangingwall" veins above the 400 level to the surface. If the development were carried to the 1000 foot level (comparatively shallow depths for the Butte camp) ore reserves exceeding one million tons could probably be developed by such new work.

Also, no consideration is given to possibly 35,000 tons of about 15% ore which might be developed by a ton-for-ton on the Plutus vein.

VI METALLURGICAL TESTS

Although as early as 1927 Butte rhodochrosite ores were utilized for their manganese content, it was not until 1940 when Anaconda built a 1500 ton flotation mill to treat manganese ore alone, that Butte manganese really became a big item in National Defense.

Prior to the erection of the Anaconda mill, exhaustive beneficiation tests were conducted. Gravity tests were run, leaching was investigated, and finally all flotation was decided upon at Anaconda. Twelve to 20% heads uniformly concentrate into a 35% product with a 1.5 to 2% final tail. Separate silver-lead and zinc concentrates also are made.

In Philipsburg, Montana battery manganese has been made for years by jigging, tabling electrostatic or magnetic separation and other time tested processes.

About 1950 exhaustive tests were made on Butte ores by various sink-float methods, and although good recoveries can be effected in most cases by sink-float, simple gravity concentration on one hand may give a cleaner product with very good recoveries -- and on the other hand flotation gives excellent recoveries and also permits the selective removal of other accompanying minerals.

In 1954 the U. S. Bureau of Mines conducted sink-float tests on the Norwich and Plutus ores. On the Plutus ores a 72.5% recovery into a plus 31% manganese product was made. On Norwich ores, and using a different specific gravity media a 65.3% recovery into a 26.1% manganese product was indicated. Fines from the sink-float tests demonstrated the amenability of the ore to treatment by jigs and tables.

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Individual discussion of the preliminary results with 8 competent metallurgists lead to the concensus that serious consideration of sink-float is not warranted at this time. Flotation could be expected to give a better overall recovery, but a flotation concentrate is not acceptable by the Government for stockpile purchase except by special arrangement. Simple gravity concentration by means of tables (possibly with jigs) historically promises to give recoveries from an estimated low of 70% to a possible high of 85% into a product acceptable by the Government under the Stockpile purchase program.

VII MARKETING

Federal legislation has been enacted which provides for the accumulation for National Defense of various strategic metals, including manganese. Several programs are now in effect to accomplish the requirements of the act. As an example: The Butte-Philipsburg area has been allocated the production of 6 million units of manganese (300,000 tons of 20% manganese ore). This production must come from new producers (Anaconda does not qualify because it is not a new producer. The Norwich does qualify.) Over and above the expected production from new mines, a national acquisition program calling for the accumulation of 19 million units is in effect.

Insofar as the United States imports 96% of its manganese requirements it is apparent that domestic manganese production will be given federal stimulous and protection for years to come.

Irving and Nelson have contracted with the Government for delivery of 30,000 tons of ore. Ore is defined as that material meeting certain Federal specifications. The grade may vary from a low of 12% manganese and up. Natural concentrates, or table and jig products are as acceptable as crude ore.

By milling it appears that the Norwich will be able to utilize, profitably the large tonnages of lower grade ore known to be present in the vein. Under their contract they can deliver, not 30,000 tons of higher grade rock, but can actually mine, mill and sell the concentrates from possibly 70,000 tons of ore during the life of their contract above.

Irving and Nelson are of the belief that there will be a sustained market for domestically produced manganese for the foreseeable future.

VIII ECONOMIC CONSIDERATIONS

The Norwich Mine has now blocked out for immediate mining a hard core of "ore reserve" of at least 9,000 tons of plus 22% Mn with 6 oz. ag. (Gross value approximately $29.00 per ton.) Sill development is

COPY

increasing this hard core of reserve at the rate of 100 tons plus per linear foot of development on the 244 level west. When the sill is completed at least 30,000 tons of "high grade" should have been developed on the level.

In addition to the hard core of ore reserve a large tonnage of lower grade manganese material is developed, exposed or indicated. Most of this lower grade material is susceptible to beneficiation so that it, too, can be considered as a large asset of the property.

Mining extraction costs may vary at the property from a low of $8.00 a ton to an upper limit of possibly $12.00 a ton. $9.00 appears to be a reasonable average at present. Translated into manganese content plus 15% material appears to be ore of shipping grade. Usually it costs as much to mine a ton of 10% manganese material as it does a ton of 25% manganese ore. However, the profit will range from zero (or minus) to possibly $20 a ton.

There is enough ore reserve now being developed to assure a profitable operation from the plus 20% manganese ore. A much greater profit appears to be indicated if consideration is given to utilizing the plus 12% manganese also present.

These additional profit possibilities are suggested by the following example which is based on metallurgist's conservative estimates:

> 15% manganese ore, if shipped without beneficiation will return $11.43 a ton or $0.76 a unit of contained manganese.
>
> However if this same 15% manganese ore is milled, and a 70% recovery is made into a 31% manganese product, that product will sell at $1.65 a unit.
>
> 15 units x .7 = 10.5 units
> @ $1.65 per unit (See Govt. regulations)
> $17.32 - gross value of ore if milled
> 11.43 - gross value of ore if shipped direct
> $ 5.89 Difference in value per ton of crude ore if shipped as compared with milling.
> (No consideration given to the silver in this example)

We realize this simple example is subject to many controllable variables, but the principle remains the same and the conclusion reached is constant.

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By milling, a large tonnage of presently available "break even" rock becomes ore that, in itself, will return a handsome profit.

From all information available concerning the mine we are of the opinion that, with adequate milling facilities together with a ton-for-ton program the mine would sustain a 300-500 ton a day production for many years.

The analysis is so compelling that ways and means are now being considered to take the next step in the logical growth of the property -- the erection of a mill. We are convinced the step is warranted.

Respectfully submitted,

Irving G. Irving

Irving G. Irving

Robert H. Nelson

Robert H. Nelson

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 29, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving and Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Attached are the Government, Docket, and Division copies of Amendment No. 4 to the captioned contract, with attached justification.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

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

Attachments

cc: Finance Office w/encl.
USBM (2)
Quinlan

RECEIVED
DEC 31 1954
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

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
DEC - 2 1954

November 26, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

On receipt of your teletype of November 22, 1954, Mr. I. G. Irving of Irving and Nelson was contacted by phone and was told that his requested amendment to transfer the 275 level drifting to the 200 level could be considered provided that the company would reimburse the Government for its share of the funds expended to reach the 275 (or 400) level. This letter is intended to amplify the Executive Officer's teletype to you of November 19, 1954, on this matter.

The decision regarding the Plutus seems so completely logical that it leaves no grounds for dispute; nevertheless, we were mildly surprised when Irving stated without argument that he also agreed with the decision.

Apparently since last week there has been another change in plans on the project. The intention now is to proceed as rapidly as possible with the drifting on the 244 level after which drifting will be done on either the 200 level or the 275. In view of the decision which the Field Team transmitted to them, this drifting will now be done on the 275. This will now be possible according to Irving because the plan is to recover the old 300 level which has a long crosscut toward the Norwich vein, and drive from the end of this crosscut to the Norwich. This will all be done at company expense without the assistance of the DMEA. Irving claims 18,000 tons of ore in the Norwich (unconfirmed note subject to correction) which they expect to mine rapidly. The objective of the work on the 300 level is to prepare a lower level for mining before the upper level ore is exhausted. At the same time they intend to push the exploration of the Plutus as provided in the present contract.

Because of this change in plans which they state they are now prepared to carry out vigorously--and something obviously has happened to alleviate the former tight financial situation--the matter of the requested amendment transferring the work to the 200 level will be dropped, as will the matter of the exploration of the Norwich hanging wall vein. Irving stated that by the time the Norwich vein is reached they expect in effect to own the property so nearly outright that the matter of the lease and the subordination agreement would no longer be a problem. He stated that having straightened out this they then might consider asking for DMEA assistance for the exploration of the Norwich hanging wall vein, probably from the 300 level.

Since the contract expired on the 22nd of November, an extension is necessary in order to continue the work. On Irving's specific statement that exploration of the Plutus would be resumed at once and would be prosecuted vigorously, an amendment extending the contract has been prepared and sent to him for signature.

We trust that the Plutus exploration will now be completed according to the present plan.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
Quinlan

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 26 1954

XDXXXXXX-019K

YWA020 WAF SP 30 I-GS-G

SPOKANE WASH 11-23-54 500P

MR. GEORGE C SELFRIDGE CHAIRMAN OPERATING COMMITTEE DMEA

WA

RE IRVING M. NELSON DOCKET NBR DMEA 2874. OPERATOR NOW PLANS TO FOLLOW TERMS OF PRESENT CONTRACT SO SUGGESTED AMENDMENT IN OUR LETTER NOV. 10 NO LONGER REQUIRED. WE ARE MAKING AMENDMENT TO EXTEND TIME. LETTER FOLLOWS.

A E WEISSENBORN SP

DMEA 2874 10

MH 500P

REP BY VA 816A 11-24-54

No answer necessary - advice
11-29-54 - me Martin

Nov 24 4 37 PM '54

BUREAU OF MINES
MAIL ROOM
WASHINGTON D C.

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
NOV 29 1954

November 23, 1954

Mr. Irving G. Irving
84 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving and Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2664

Dear Mr. Irving:

In accordance with your request of November 15, 1954, enclosed are seven copies of Amendment No. 4 to the captioned contract. This amendment extends the completion period of the contract to 24 months, or until September 21, 1955.

If this amendment is acceptable to you and Mr. Nelson, please sign all seven copies, retain the one designated for the Operator, and return the remaining copies to this office at your earliest convenience.

Sincerely yours,

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

Enclosures

cc: DMEA (2)
USBM (2)
USBM(AD)
Quinlan

DOCKET
Surname:
Rutledge
Chapman
DeHuff
Newcomb
Hedges
Selfridge
Johnson
Whitendale

T E L E T Y P E

NOV 22 1954

xxxxx 14X4401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secretary)

A. E. Weissenborn, Executive Officer, DMEA Field Team, Region 2
Spokane, Washington

Reurlet November 10, 1954, Docket DMEA 2874, Irving and Nelson, Contract Idm-E604. Requested amendment may be considered if operator agrees to reimburse Government for its share of expenditures on the so-called 400 level. These total $3,377.20, subject to audit. Please advise by wire.

George C. Selfridge
by ESJ
Chairman, Operating Committee

cc: Docket
FT, Reg. 2 - confirmation
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
Gilbert DeHuff, USBM
Code 400

FARutledge/ls
11-19-54

R.C.G.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 19, 1954

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Robert H. Nelson and Irving G. Irving
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

In amplification of our teletype of November 19, we are enclosing two copies of a letter of November 15 from Irving and Nelson requesting an extension of time on the Plutus contract. Please note that this extension is requested for 10 months rather than the 14 months erroneously stated in the teletype. The contract expires November 21, 1954.

As you know, progress on the Plutus contract has been quite slow in the last several months. This was pointed out to the Operator, and in a telephone conversation with Mr. Irving, it was stated to the Executive Officer that they are now in a position and are anxious to complete the work specified in the contract and will push it with considerable rapidity. Irving stated over the telephone that they are anxious to have the east drift driven from the 200 level rather than from the 275 level, and that they would be prepared to drive it from either level if the amendment to transfer the work to the necessary level cannot be given.

On the assumption that the Operator will complete the remaining work with due diligence, it would be to the Government's advantage to grant the necessary extension of time. If you have not already done so, will you please advise us by wire whether or not the extension will be granted, as Irving states that they are making preparations to begin driving immediately on the 244 level but will not be able to do this without DMEA assistance.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure 1 (in dupl.)
cc: USBM (2)
Quinlan

ROBERT H. NELSON IRVING G. IRVING

NORWICH MINE
Hirbour Building
Butte, Montana

November 15, 1954

Mr. A. E. Weissenborn, Exec. Officer,
Defense Minerals Exploration Admin.
S. 157 Howard Street,
Spokane, Washington.

Re: DMEA-2874, Plutus Mine,
Silver Bow County, Montana
Irving-Nelson.

Dear Mr. Weissenborn:

During the past several weeks we have been engaged in a critical survey of the manganese-producing possibilities of Plutus and Norwich claims. We now feel justified in expending every effort to develop, as fully as possible, all of the geologic possibilities which may exist on the Norwich-Plutus holdings.

Therefore, among other things, we feel it advantageous to complete the DMEA program for crosscutting and drifting to the west of the Plutus shaft on the 244 level. (This work is described in Amendment 2 of the Contract) Actual ground breaking will be started before November 20th.

Amendment No. 3 of the contract extended our contract to expire 14 months after September 21st, 1953.

This letter requests that the contract again be extended at least ten months beyond its present expiration, as determined by Amendment No. 3. Naturally we hope to have the contract completed before this ten months extension now being requested; but as you know our ability to do exploration depends primarily on our shaft capacity.

Very truly yours,

/s/ ROBERT H. NELSON
Robert H. Nelson by I.G.I.

/s/ IRVING G. IRVING
Irving G. Irving

XDXXXXXX-081K FOR UAF

WWA264-

YWA150 WA F SP 22 I-GS-G

SPOKANE WASH 11-19-54 207P

MR. GEORGE SELFRIDGE

CHAIRMAN OPERATING COMMITTEE

DMEA WA

RE DOCKET NO. DMEA 2874, IRVING AND NELSON, PLUTUS MINE. CONTRACT E604 EXPIRES NOVEMBER 21. IN LETTER BEING FORWARDED TO YOU OPERATOR REQUESTS EXTENSION. IN LETTER AND FROM CONVERSATION HE STATES HE WILL VIGOROUSLY CARRY OUT WORK REMAINING IN CONTRACT AND WANTS TO IMMEDIATELY START DRIVING WEST ON 244 LEVEL. HE HAS REQUESTED CONFIRMATION THAT CONTRACT WILL BE EXTENDED BY 14 MONTHS. THIS IS ASIDE FROM PENDING REQUEST TO MOVE WORK FROM 275 LEVEL TO 200 LEVEL OPERATOR STATES HE WANTS TO DO WORK FROM 200 LEVEL BUH WILL DO FROM 275 LEVEL IF CONTRACT IS NOT AMENDED. PLEASE WIRE US AS TO REQUEST FOR EXTENSION.

A. E. WEISSENBORN, USGS, SP

2874 E604 21 244 14 275 200 200 275

VA 213P

Defense Materials Administration
RECEIVED
NOV 22 1954

NOV 22 9 17 AM '54
BUREAU OF MINES
MAIL ROOM
WASHINGTON D. C.

Docket File

Rutledge Chapman

November 18, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Request for amendment changing work back to that authorized in contract
Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

This Division recommends that the subject contract be amended to allow the 200-foot drift eastward on the Plutus 200-foot level as originally authorized by the contract, if the Operator will agree to reimburse the Government for the $3,377.20 (subject to audit) spent in reaching the 400 level and work on the 400 level. A resume of the subject contract follows:

1. Contract No. Idm-E604 executed September 21, 1953, authorized the following:

   270-foot drift westward on 200-foot level
   200-foot drift eastward on 200-foot level
   200 feet of raising
   470 feet of timbering
   250 analyses

2. Amendment No. 1 was executed January 6, 1954, at the Operator's request as the east face on the 200-foot level, started in low-grade carbonate ore, showed no minable ore on the structure after an advance of 16.4 feet. In addition, bulldozing to the east on the surface had revealed only very lean ore.

   Amendment No. 1 authorized the following:

   270-foot drift westward on 200-foot level
   16.4-foot drift eastward on 200-foot level
   Unwater and rehabilitate Plutus shaft to new 400 level
   Shaft station on 400 level
   183.6-foot drift eastward on 400 level
   80 feet of raising
   470 feet timbering
   249 analyses

R.C.H.

Note: 400 level designation of new level by Operator. Actually 275 feet below collar of shaft.

3. April 6, 1954, the contract was further amended by the Field Team changing the location of the balance of the 270-foot drift westward on the 200-foot level (225.6 feet) to the 244-foot level. This amendment contains an error in that all of the work westward on the 200-foot level was deleted when the remainder of the footage was transferred to the 244-foot level.

4. Costs of the work completed on the 400 level and in reaching the 400 level that will not now benefit the DMEA exploration program follow:

Shaft rehabilitation, 36.5 ft. @ $35.00/ft.	$1,277.50
Station cutting, 892.5 cu.ft. @ $1.24/cu.ft.	1,106.70
Drifting, 25.0 ft. @ $34.00/ft.	850.00
Timbering, 25 feet @ $5.00/ft.	125.00
Analyses, 9 @ $2.00 each	18.00
	$3,377.20

The project was inactive from February 1, 1954, to September 1, 1954. The Operator now states that operations below the 245-foot level interfere with the Norwich operations. This should also be true with the work authorized on this level by Amendment No. 2.

All progress at the Plutus mine since September 1, 1954, consists of drifting eastward on the 200-foot level and raising from this level.

F. A. Rutledge, Acting Chief
Iron and Ferro-Alloys Division

cc: Docket
Adm. Read. File
Oper. Committee
Code 400

FARutledge/ls
11-18-54

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
NOV 15 1954

November 10, 1954

Air Mail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Your letter of October 28 concerning the subject docket has been received and in accordance with instructions given therein, Irving and Nelson have been informed that their proposal of October 7 is unacceptable and that since they are not willing to agree to the amendment as written the case is considered closed. Since a decision has now been reached, further discussion of the matter is unnecessary.

We do feel that there are some misunderstandings concerning the Field Team's actions in this matter which we would like to clarify and we would like the opportunity to do this at a later date.

Concerning the last paragraph of your letter, we are sorry that the operator's report to GSA was not entirely clear to you. In reply to your question, the 86 tons of Plutus production from the raise is not the same as that reported from a sub-lessee's block of Plutus ore, and we believe that DMEA is entitled to royalty on both lots. As far as we know the lessee's ore has not yet been shipped.

As you point out, exploration of the Plutus vein has been somewhat disappointing, although it now appears certain that there will be at least some recovery from Plutus black ore. As explained in the enclosed two letters from Irving and Nelson (October 27 and November 8) the operators now wish to transfer the east drifting on the Plutus vein from the 275 to the 200 level. They believe that the Plutus vein should be explored out to the rhyolite as provided in the contract but prefer to do this from the 200 level, which is now in ore and which is further east than the 275 level (having been extended approximately 40 feet at the operator's expense). The operator presents reasons why it will be more practicable to do the work from the 200 level than from the 275. You will recall that by Amendment 1 the east drifting, which was originally scheduled on the 200 level, was transferred to the 275 level, and an amendment will

therefore be required to transfer it back to the 200 level.

After careful consideration, the Field Team is of the opinion that the drifting could be done equally well from either the 200 or 275 level, and that in view of the operating advantages we would be willing to approve the transfer of the drifting to the 200 level. We think that since there are no changes in the objectives the required amendment is within the power of the Field Team to authorize. Nevertheless, there have been so many misunderstandings concerning this contract that we prefer to refer the matter to you.

Will you please wire us at once of your decision so that we can notify the operator one way or the other. If your reply is affirmative we can then prepare the amendment here or it can be prepared in Washington, whichever you prefer.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures - 2 (in dupl.)

cc: USBM (2)

P.S. We are, of course, cognizant of the fact that if the work is transferred to the 200 level the $3,368.12 spent in rehabilitating the shaft, station cutting, and the 25 feet of drifting will in effect have been wasted. Therefore, it probably would be advisable that if the proposed amendment is approved it incorporate a provision whereby the Operator reimburse the Government for its share of that expenditure.

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE
HIRBOUR BUILDING
BUTTE, MONTANA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 15 1954

October 27, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.
Spokane 4, Wash.

Re: D.M.E.A. 2874
Plutus & Norwich Mine
Contract IDM E 604

Dear Mr. Weissenborn:

This letter confirms our conversation of Oct. 27th.

On Oct. 6 I talked with your office regarding the advisability of continuing the Plutus raise on the 200 level up for a total of 80 ft. (the full amount of raising still available under the present D.M.E.A. contract). Your office verbally approved the work.

As of today the raise is 69 ft. above the back of the 200 sill. The first 55 feet of the raise produced about 170 tons of material averaging 15.6% Mn. The last 14 feet of raise has produced 12.5% Mn from a vein about 4' wide. The material from the raise has been shipped as "oxide ore" acceptable for stockpile purposes under the new oxide regulations. The 170 ton lot of one (Plutus oxide #1) is now being subjected to mill tests by the U. S. B. of M. at Albany.

Insofar as the raise has disclosed a continuous body of mineralization which might prove to be "ore" under the present Manganese regulations, it seems to us that possibly we are about ready to reveal sufficient mineralization so that an "ore body" can be considered as discovered under the project. Obviously more exploratory work is necessary before such assertion is valid.

The original D.M.E.A. contract provided for 200 feet of drifting eastward on the Plutus 200 level. Subsequent work on the vein suggested the advisability of drifting east on the 275 level rather than the 200 level, and your office concurred in the change. Still later, and on our own account we extended the 200 drift east about 36' and this work revealed oxide ore of minable grade and width under the new regulations. Based on this sill work the D.M.E.A. sponsored raise appeared advisable, and your office concurred.

RECEIVED
Air Mail
OCT 29 1954
U.S.C.S.
SPOKANE, WASH.

ROBERT H. NELSON

IRVING G. IRVING

Department of the Interior
Defense Minerals Administration
RECEIVED
NOV 15 1954

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

November 8, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.
Spokane 4, Washington

Re: D.M.E.A. 2874
Plutus and Norwich Mine
Contract IDME 604

Dear Mr. Weissenborn:

On Oct. 27th we wrote you requesting that about 158 feet of drifting east on the Plutus vein be transferred from the 275 level up to the 200 level (where it had originally been planned.) We pointed out the reasons why, from an ore searching standpoint, together with changed manganese acceptance regulations, the change to the 200 level appeared advisable.

On Oct. 29th Quinlan and Bardill examined the raise as well as the accessible workings on the "125" level which the raise holed on the 28th.

On Nov. 5th we discussed with you the operating conditions which confront us concerning the project. This letter explains why, from a matter of mine operation, we feel it advisable to do further work on the Plutus vein from the 200 level, rather than the 275 level.

During October we handled 1300 mine cars of Norwich ore, about 50 cars of waste from the Norwich, together with some Plutus ore and some Plutus waste. In addition all timber and other supplies for the Norwich was handled by the Plutus shaft. Our shaft facilities were about at capacity from the 245 level.

Preparatory to raising on the Plutus vein from the 200 level we constructed a 2 compartment ore pass between the 200 and 245 sills. One compartment handles ore, and the other compartment handles waste. With waste storage facilities underground the 200 crew can work independently of the Norwich activities on the 245 station. During lulls in Norwich activity either waste or ore can be taken to the surface from the 245 storage space. To all intent and purposes the Plutus operation is independent of the Norwich, and the Plutus crew is able to complete its schedule regardless of Norwich activity.

RECEIVED
NOV 9 1954
U.S. ...
SPOKANE ...

ROBERT H. NELSON

IRVING G. IRVING

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 15 1954

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

October 27, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.
Spokane 4, Wash.

Re: D.M.E.A. 2874
Plutus & Norwich Mine
Contract IDM E 604

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RECEIVED
OCT 29 1954
U.S.G.S.
SPOKANE, WASH.

I. G. Irving and R. H. Nelson
D.M.E.A. 2874

October 27, 1954

Before Nov. 1, the raise will have been completed with what we consider a favorable showing. Further drifting east on the structure now appears to be advisable.

Under the present D.M.E.A. contract there remains 158.6 ft. of drifting east on the 275' level.

Because of the changed circumstance recited above, because of the desirability of exploring the Plutus vein to the east toward the rhyolite, and because of the favorable showings revealed in the D.M.E.A. raise now being worked, we respectfully recommend and request that 158.6 feet of drifting east now assigned to the 275 level be transferred back to be done from the present face of the 200 level. (The present face is 56' east of U.S.B.M. Sur. tag #256).

Yours very truly,

Robert H. Nelson

Robert H. Nelson _ Partner

ROBERT H. NELSON

IRVING G. IRVING

Defense Minerals Administration
RECEIVED
NOV 15 1954

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

November 8, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.
Spokane 4, Washington

Re: D.M.E.A. 2874
Plutus and Norwich Mine
Contract IDME 604

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RECEIVED
NOV 9 1954
U.S. ... SPOKANE ...

November 8, 1954

If drifting is conducted on the Plutus vein below the 245 sill the Plutus crew must utilize the shaft only when the shaft facilities are not being used by the Norwich operation. It would be impossible to mesh the Plutus operations with the Norwich and obtain any degree of efficiency from either operation. As you know the Norwich production must be given priority.

We are set up to do the Plutus work on the 200. We are not set up to do it on the 275. We have a showing of commercial mineralization in the D.M.E.A. raise above the 200. We have revealed no commercial ore on the 275 level. With the remaining footage of the contract east we can probably reach the rhyolite on the 200 level. It is unlikely we can do that with the remaining footage if the work is done from the 275 level. We are now drifting east on the 200 level and will continue that drifting uninterruptedly if you transfer the remaining footage to the 200 level. If we are held to doing the work on the 275 level it may be months before operating conditions will permit us to work from that level.

In light of these many reasons we request an immediate, and we hope a favorable reply to our letter to you dated Oct. 27th.

Yours very truly,

Robert H. Nelson

Robert H. Nelson - Partner

DOCKET
SURNAME

400

Martin
Selfridge
Johnson
Mattendorf

OCT 28 1954

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Weissenborn:

This will acknowledge receipt of your letter of October 18, 1954, with enclosures as listed therein.

We note your belief that the proposal set forth in detail in the Operator's letter of October 7, 1954, has considerable merit and that you suggest it to us as a possible compromise to resolve what you call "the present impasse". At the same time we note that you have been unable to answer the Operator's letter to you of July 15, 1954, because we have not replied to your letter of August 3, 1954.

The last paragraph of your letter of August 3 has been a matter of no small concern to us. Apparently you share the Operator's opinion that collection of royalty is our primary aim and that you have met some new and unexplained royalty policy. On the contrary, you can rely on all the instructions now available to you for guidance on royalty questions.

Our problem in preparing the proposed amendment which the Operator found unacceptable, was to protect the Government's interest by complying with the requirements of DMEA Order-1 Amended concerning the Operator's property rights. As you know, that Order provides that the Administrator may waive any deficiencies in the Operator's interest in the land when he finds such action to be in the best interest of the Government. We believed that the proposed royalty provision would offset the obvious deficiencies, prospective if not immediate, with which we were faced.

In every case where we increase the Government's contribution to a project, we attempt to bring in some balancing consideration to justify the change. As you are aware, in this instance we had accepted the Operator's guaranty inasmuch as he was unable to obtain Owner's Consent to Lien for the leased 3/4 interest in the Plutus claim. We made another significant concession to the Operator in rewording the proposed

R.C.S.

Amendment No. 3 to omit our previous requirement that he obtain an extension of the Norwich lease beyond June 30, 1958.

Your attention has already been called (the last time by our letter of February 23, 1954) to the presence in the files of estimates suggesting that there may be no more than enough ore in the Norwich claim to liquidate existing Government advances. We realize that subsequent ore reserve estimates for that claim area are more optimistic, but it now seems that the Plutus project itself looks somewhat less attractive than it did at first.

We believe you will agree that no generalizations about DMEA policy could reasonably be based on this unusual case. In this instance we can assure you that we are not looking for a compromise. We feel that we have already gone far enough in offering the proposed amendment in the first place, considering all the above-mentioned special circumstances. Therefore, unless the amendment is acceptable as written, it would be in the best interest of the Government to close the case, and you should so notify the Operator.

We also have your letter of October 19, 1954, with its enclosures which are somewhat less than self-explanatory to us. The immediate question is whether the 86 tons of Plutus ore production from a raise mentioned on the first page of the Operator's report to General Services Administration of October 16, 1954, is the same as that reported,, on the second page, for sub-lessees of a block of Plutus ore near the surface; if not, DMEA would presumably be entitled to royalty on both productions.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (DB)

APPROVED:

J. H. Hedges (DB)

Member, Bureau of Mines

Thor H. Kiilsgaard (DB)

Member, Geological Survey

WSMartin:foc
10-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

DOCKET
Surname:
Martin
Butin

Mr. A. E. Weissenborn, Executive Officer
DMEA FieldTeam, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Weissenborn:

Our letter of August 19, 1954, informed you that pending results of discussions then in progress we would defer replying to your letter of August 3 regarding the subject project.

In that letter you expressed doubt that the funds expended to date on the Plutus would be repaid in full from the Plutus claim alone. At the same time you reported that a successful strike on the Norwich hanging wall vein was a reasonable expectation.

In contrast, your memorandum of February 12, 1954, to the Field Team, Region II, stated:

> "Inasmuch as two different, although neighboring veins, are being explored, it might be argued that the work should be done on two separate contracts so that the Plutus project, which has already found ore, would not be assessed royalties to pay for the Norwich Hanging Wall vein exploration should this be a failure; . . ." (Itallics supplied).

Your letter of September 10, 1954, enclosed a copy of Mr. I. G. Irving's letter to you of September 9, containing the statement: " . . . the whole Plutus exploration, to date, has been pretty disappointing . . ." Similarly, in their letter to you of July 15, 1954, copy of which you sent us, Messrs. Irving and Nelson reported: "No ore of any consequence has been discovered to date on the Plutus vein structure but exploration of the structure is obviously warranted."

Our latest record of DMEA work at the Plutus is for January 1954, and according to your letter of September 15, 1954, most of the efforts of the company in recent months have been directed toward production from the Norwich Footwall Vein. We have since learned that a 50-foot raise is being driven on the Plutus 200 level.

Please keep in close touch with the subject project. If in the Field Team's opinion continued exploration at the Plutus is not in the best interest of the Government, termination of our contract should be recommended.

The last paragraph of your same letter of August 3 also calls for comment. Apparently you share the Operator's opinion that collection of royalty is our primary aim and that you have met some new and unexplained royalty policy. On the contrary, you can rely on all the instructions now available to you for guidance on royalty questions.

Our problem in preparing the proposed amendments which the Operator found unacceptable, was to protect the Government's interest by complying with the requirements of DMEA Order-1 Amended concerning the Operator's property rights. As you know, that Order provides that the Administrator may waive any deficiencies in the Operator's interest in the land when he finds such action to be in the best interest of the Government. We believed that the proposed royalty provision would offset the obvious deficiencies, prospective if not immediate, with which we were faced.

In every case where we increase the Government's contribution to a project, we attempt to bring in some balancing consideration to justify the change. As you are aware, in this instance we had accepted the Operator's guaranty inasmuch as he was unable to obtain Owner's Consent to Lien for the leased 3/4 interest in the Plutus claim. We made another significant concession to the Operator in rewording the proposed Amendment No. 3 to omit our previous requirement that he obtain an extension of the Norwich lease beyond June 30, 1958. Your attention has already been called (the last time by our letter of February 23, 1954) to the presence in the files of estimates suggesting that there may be no more than enough ore in the Norwich claim to liquidate existing Government advances.

Considering all the above-mentioned special circumstances, it is difficult to understand how you could base your generalizations about DMEA policy upon such an unusual case.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

cc: DOCKET
CODE 400
OPER. COMM.
FT, REG. II
ADM. READ. FILE
G. DeHUFF, USBM
THOR KIILSGAARD, USGS

WSMartin/ls
10-14-54

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 - 1954

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

October 28, 1954

Mr. Irving G. Irving
Hirbour Building
Butte, Montana

Re: Docket No. DMA-2374 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Ism-2604

Dear Mr. Irving:

This is in reply to your letter of October 7, 1954, requesting that the entire 50 feet of raising provided for in the captioned contract be used for the raise now being driven from the 200 level east drift.

Our letter of August 2, 1954, authorized the use of 50 feet of the raise footage provided for in the contract for the raise now being driven from the 200 level east drift. As this raising has proved encouraging we agree that extension of the raise an additional 50 feet is warranted. We, therefore, are authorizing the use of the remaining 50 feet of raise footage provided for in the contract in order to extend the present DMEA raise from the 200 level east drift to a point 50 feet above the level.

By Field Team, Region II

King G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

John S. Vlay, Acting Director
U. S. Geological Survey

cc: USBM (2)
USBM(RD) w/c, incoming
DMEA (2) w/c/c incoming
Quinlan

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIRBOUR BUILDING
BUTTE, MONTANA

October 7, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.,
Spokane, Washington

Re: D.M.E.A. 2874

Dear Mr. Weissenborn:

As I told you in our telephone conversation yesterday work has progressed steadily, under the contract, in the raise on the Plutus vein, above the 200 level of the Plutus shaft.

Yesterday the back of the raise was 44 feet above the back of the 200 sill. The raise has been in continuous mineralization, averaging 4.5 feet of 17.8% manganese (by box samples at the mine). The material has been shipped as low grade oxide manganese ore, but it will be several months before final word is received as to the financial value of the material being sent to stockpile.

The raise is being driven on a strong structure which strikes about N 65°E and dips south about 60°. If continued it appears that the raise will not hole the 125 level of the Plutus, but will actually be 10 to 20 feet to the north of the Plutus workings.

Based on the mineralization presently exposed we believe further vertical development of the vein is well warranted. Under the captioned contract we have been allowed 80 feet of raising (fifty feet of which has already been approved for the raise we are now driving.)

We respectfully request that the entire 80 feet of raising on the Plutus vein (allowed in our contract) be appropriated for the raise now being driven.

Yours very truly,

R H Nelson
By I. G. Irving

I. G. Irving

RECEIVED
OCT 11 1954
U. S. G. S.
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

October 19, 1954

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 2874 (manganese)
Irving and Nelson
Plutus Mine
Silver Bow County, Montana
Contract Idm-E604

Dear Mr. Selfridge:

I am enclosing a copy of a self-explanatory letter dated October 18, 1954, from I. G. Irving of Irving & Nelson together with a copy of the narrative report for September 1954 which they apparently made to the General Services Administration in connection with a GSA contract.

Sincerely yours,

A. E. Weissenborn

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

Enclosures - ~~to 400~~
cc: USBM(2)
Quinlan

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

October 18, 1954

Mr. A. E. Weissenborn,
Executive Officer,
Defense Minerals Exploration Admin.
S. 157 Howard Street,
Spokane, Washington.

Subject: DMEA-2874--Plutus Mine (Manganese)
and
Recent Norwich Hangingwall Vein
Application----(no decision yet)

Dear Al:

Enclosed you will find two copies of our regular monthly Narrative Report and also our Production Report for the month of September.

You will note that production is holding up quite well from the Norwich Footwall Vein, and I send you these reports now, because, as I pointed out on page two, we very definitely wish to go ahead of the Norwich Hangingwall Vein, along the lines of our recent correspondence, and would put the mine on a two shift basis, if we got approval. This would be quite easy to do, for not only could we drift on the Norwich H. W. Vein, but also on the Plutus Vein on the 2?? level and there would also be a few men working night shift on the Norwich F.W. Vein, so that we have the Foreman needed serve a crew of at least six men underground which would be more economic ofcourse than having a top crew just service one heading. In other words if we got approval on the application referred to, we could do a lot of DMEA work not possible now, because production has to come first and the shaft is pretty well occupied with Norwich ore now, during the one shift we are working.

I send two copies of this letter and also our September reports, as it is just possible you might want to send them to Mr. Wittendorf's office for their perusal.

Sincerely yours,

I. G. Irving

RECEIVED
OCT 19 1954
U. S. G. S.
SPOKANE, WASH.

COPY

October 16, 1954

Irving G. Irving and Robert H. Nelson

G.S.A. Contract No. GS-10P(D)-3

General Narrative Report on

Norwich-Plutus Operation

for

September, 1954

During September production compared favorably with that achieved in August. Actually, a slight gain in tonnage was made. But the grade was somewhat lower owing to the fact that one of the stopes developed a much greater than average vein width, with some lowering in grade. This is, of course, a very encouraging development, because the material occurs in satisfactory grade over this increased width and the silver content holds up well. As stope development proceeds in this area, and crosscuts are extended into the hangingwall from adjacent stopes and raises, more will be known of the quantity of the "new ore" so disclosed and further comment will be made.

As shown on the attached Production Report, a total of 885.41 (approximate) L.D.T. were produced. Approximately 86 L.D.T. of this amount represented Plutus oxide ore for which payment has not yet been received. The combined production from the Norwich and Little Sarah properties, however - averaging $28.92 a ton -- assayed as follows:-

799.41 L.D.T. -- 19.25% Mn and 12.49 oz. Ag

No mill work was done during the month. Work was confined to extending the Norwich and Little Sarah raises already started and stoping.

On the Plutus claim, a raise which was started in August was extended to a total height of 35 feet producing the 86 L.D.T. of material shown as Plutus ore on the Production Report. This material will probably average 15.5 to 16.5 percent in manganese and will eventually be paid for at the rate of approximately $17.00 a ton. An appreciable block of ore seems to be indicated off this Plutus raise and the tonnage to be produced, when stoping is started, is expected to be a factor of some importance in the overall picture.

COPY

Irving G. Irving and Robert H. Nelson
G.S.A. Cont. No. GS-102(D)-3

October 16, 1954

No further word has been received regarding approval by the D.M.E.A. of the Norwich Hangingwall Vein project, altho this work is expected to go ahead eventually.

Sub-lessees have begun to produce on the block of Plutus ore near the surface assigned to them and results here are encouraging, though the ultimate tonnage produced may prove to be limited.

Production is expected to maintain the August-September rate with some slight increase, until the mine is put on a two-shift basis, which will be done if the Hangingwall Vein project is approved.

Respectfully submitted,

I. G. Irving, Mgr.

COPY

October 16, 1954

Irving G. Irving and Robert H. Nelson

G.S.A. Contract No. GS-10P(D)-3

Production Report on

Norwich-Plutus Operation

for

September, 1954

Lot #	Invoice Date	L.D.T.	% Mn	Oz Ag.	Gross Received
		Norwich Ore			
87-88	9-3-54	115.41	19.6	12.60	$ 3,459.13
89	9-10-54	72.12	17.3	11.20	1,695.35
90	9-22-54	43.34	21.5	15.50	1,512.08
91	9-27-54	81.07	17.8	13.00	2,100.36
Totals & Aver. Grade		311.94	18.9	12.78	$ 8,766.92
		"Little Sarah Ore"			
6	9-1-54	130.00	20.3	11.15	3,963.10
7	9-8-54	81.04	20.1	8.95	2,342.92
8	9-13-54	43.83	14.0	9.40	781.00
9	9-17-54	104.05	19.3	15.80	3,242.29
10	9-21-54	41.87	20.3	16.50	1,404.96
11	9-29-54	86.68	19.9	12.10	2,629.36
Totals & Aver. Grade		487.47	19.4	12.21	$14,363.63
Grand Total (Norwich & Little Sarah)		799.41*	19.25	12.49	$23,130.55
		Plutus Ore			
Cars 1 & 2 Plutus oxide 1,**		86.00**	1.60**		**
Total tonnage for mo.		885.41			

*Note: Equals 930.695 short wet tons

**Note: Tons and grade approximate only. Final figures and amount to be received await determinations & testing at Albany, Ore.

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
OCT 22 1954

October 18, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving and Nelson, Plutus mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

During a recent inspection of the Plutus and Norwich mines, John D. Bardill and James J. Quinlan of this office had occasion to discuss with Mr. Nelson what action, if any, Washington is taking in regard to their objections to Amendment No. 3 which would have permitted work on the Norwich hanging wall vein. The operators state that they have never received an official reply to their letter of July 15, 1954, addressed to Mr. Weissenborn, Executive Officer, explaining why they were unwilling to sign the amendment as prepared. This letter was forwarded to you on August 3, 1954, for action along with the Field Team comments. Although, from time to time, we have received several inquiries from your office regarding operations and production from the Plutus and Norwich mine, we have not been informed of any definite action your office plans to take and assume that the operators' refusal to accept the contract amendment has closed the subject unless the operators should make some alternate proposal.

During the course of the recent discussion between Messrs. Bardill, Quinlan and Nelson, Mr. Nelson indicated a willingness to work out some sort of compromise on the matter of royalties from the Norwich footwall vein. Mr. Nelson stated that the operators would be willing to subject to DMEA royalty any ore from the Norwich footwall vein 100 feet east of the R.A.L. shaft. He confirmed this in a telephone call he made to the Executive Officer and has again confirmed this in a letter dated October 7, 1954, to the Executive Officer, copies of which are enclosed. This proposal would, in effect, subject to DMEA royalty all ore from the Norwich claim east of a north-south striking vertical plane passing 100 feet northeast of the R.A.L. shaft, and exclude from royalty all ore produced west of this plane. At present there is only a small amount of ore that can be inferred along the Norwich footwall vein east of the plane. However, we feel that there is a good chance for more ore because there is some

evidence to suggest that the Norwich footwall and hanging wall veins may intersect east of this plane, and such an intersection is regarded as favorable for ore deposition. For the location of this plane with respect to the known ore bodies and recent development work, you are referred to Maps 1 and 2 accompanying Mr. John McNabb's memorandum of March 22, 1954, additional copies of which are enclosed herewith.

We believe Nelson's proposal has considerable merit and we suggest it to you as a possible compromise to resolve the present impasse.

We are enclosing a record of the entire production from both the Norwich and Plutus properties through August 1954, which we believe will be of interest to you.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U.S. Bureau of Mines

Enclosures 4 (in dupl.)

cc: USBM (2)
USBM (AD)
Quinlan

DMEA

Robert H. Nelson

Irving G. Irving

NORWICH MINE
Hirbour Building
Butte, Montana

Bureau of Mines
Defense Minerals Administration
RECEIVED
OCT 22 1954

October 7, 1954

Mr. A. E. Weissenborn, Executive Officer
D.M.E.A.
South 157 Howard St.
Spokane, Washington

Re: D.M.E.A. # 2874 (Manganese)
Plutus-Norwich Mines
Butte, Montana

Dear Mr. Weissenborn:

On July 15, 1954 we wrote you declining the proposed Amendment 3 to our present contract. (This amendment provided for drifting on the Hangingwall Vein of the Norwich vein structure and also provided for repayment of the loan by allocating a portion of the proceeds from shipments now being made from the ore reserves previously developed by funds provided by G.S.A.). Reasons for our refusal were stated in our July 15th letter.

However we did state in our letter that we would still be willing to do the exploration work if loan repayment could be made solely from the mining of newly discovered orebodies resulting from the exploration project. No reply has been received to our letter.

We realize some difficulty might be encountered in determining whether ore found by the proposed exploration was "newly discovered" or was a part of reserve blocks previously developed.

To clarify the matter, and to expedite final consideration of the application we propose that you consider the following suggestion:

We are willing to pay 5% of the proceeds of any ore shipped from either the hangingwall or footwall vein of the Norwich vein structure if such ore is obtained east of a north-south vertical plane drawn through a point 100 feet east of the Norwich #2 (RAL) shaft.

We believe consideration of the above suggestion should so clarify the matter that there will never be any question as to whether or not ore found by the exploration work is a new discovery.

May we have a reply soon regarding our application when considered in light of the above suggestion?

Yours very truly,

/s/ I. G. Irving
I. G. Irving

/s/ R. H. Nelson by IGI
R. H. Nelson

COPY

...MENT OF THE INTERIOR
Bureau of Mines Minerals Administration
RECEIVED
OCT 22 1954

Irving G. Irving and Robert H. Nelson
Exploration Project Contract No. Idm-E604
Docket No. DMEA-2874 (manganese)
Silver Bow County, Montana

Norwich Mine Production: January 1954 - August 1954
(Carbonate ore except as noted)

Month	Tons (LDT)	% Mn	ozs. Ag	Gross received
Norwich Claim: (Production almost entirely from Norwich footwall vein)				
January	215.46	14.4	1.54	$ 2,808.57
February	305.77	18.8	3.0	6,468.11
March	188.08	15.8	4.6	3,110.66
April	179.08	16.6	3.06	3,189.50
May	373.81	19.3	5.4	8,916.76
June	594.62	22.8	7.23	18,988.86
July	209.9	15.7	6.03	3,429.11
August	426.65	21.2	13.13	13,934.16
Little Sarah Claim: (Production from Norwich footwall vein)				
January	None			
February	None			
March	None			
April	None			
May	None			
June	None			
July	108.50	24.7	8.68	$ 3,929.50
	49.98*	28.6	--	1,543.98
August	301.48	22.5	12.31	10,438.85
	113.30*	18.9	--	802.14
				841.08 1/

* Oxide ore.
1/ Additional settlement for oxide shipment made in July.

DMEA

Encl. 3

THE SECRETARY OF THE INTERIOR

WASHINGTON

MEMORANDUM

TO: All Bureau Heads and Interior Department Employees

FROM: Secretary of the Interior

SUBJECT: Memorial Ceremony

Wednesday, November 10, at 11:00 a.m., in the Interior Department Auditorium, Post No. 63, The American Legion, will hold its annual Veterans Day Memorial Ceremony. Music will be furnished by the U. S. Army Band. The guest speaker will be Father Albert [illegible] Hoffman, the National Chaplain [illegible] the American Legion. Father Hoffman is Professor of Religion [illegible] and Spanish at Loris College in Dubuque, Iowa.

This impressive service is dedicated to those Department of the Interior employees who gave their lives in this country's wars that we m[illegible] enjoy the way of life which we [illegible] deeply cherish.

I regret exceedingly that I am unable to join with you personally in commemorating this memorable and patriotic occasion but I shall be out of the city on official business of the Department of the Interior. I earnestly urge all employees that possibly can to attend the Memorial Ceremony. The Service will take approximately 30 minutes and there will be no charge to annual leave.

Douglas McKay

Secretary of the Interior

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
SEP 20 1954

September 15, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving and
Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

This will acknowledge your letter of September 3, 1954, requesting additional information on production from the Plutus and Norwich mines, as well as on progress of work under the captioned contract since February 1954.

Present production from the two properties is essentially all from the Norwich footwall vein. There has been no significant production from the Plutus vein in recent months and the only production from the Norwich hanging wall vein has been development ore from a few feet of drifting.

Most of the efforts of the company in recent months have been to get the Norwich footwall vein into production. The last record of DMEA work on the property was in January 1954. Mr. John Bardill of the Bureau of Mines last discussed the project with Mr. Irving at Butte, Montana, on August 6, 1954. Mr. Irving reported at that time that they would start the DMEA raise from the 200 level east drift during the month of August. Irving informed the Executive Officer by telephone recently that they are now ready to resume raising and drifting on the Plutus vein.

By Field Team, Region II

for: Thomas E Howard
Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

John S. Vhay
John S. Vhay, Acting Member
U. S. Geological Survey

cc: USBM (2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

September 10, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
I. G. Irving & R. H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

I am enclosing two copies of a self-explanatory letter dated September 9, 1954, from I. G. Irving of Nelson and Irving, which should answer some questions you have raised with regard to the Plutus and Norwich property.

Sincerely yours,

A. E. Weissenborn

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

cc: USBM (2)
Quinlan

COPY

Robert H. Nelson

Irving G. Irving

NELSON and IRVING
Mining Consultants
HIRBOUR BLDG. BUTTE, MONTANA
Telephone 2-3445

Geological Investigations
Supervision of
Development - Exploration

Mine Valuation
Counsel in
Mine Management

September 9, 1954

Mr. A. E. Weissenborn,
Executive Officer,
Defense Minerals Exploration Admin.
So. 157 Howard Street,
Spokane 4, Washington

Re: Docket No. DMEA-2874-Mn.
I. G. Irving & R. H. Nelson
Plutus Mine (Contract Idm-604)
Silver Bow County, Montana

Dear Al:

This will serve as a monthly report on the captioned contract. We have started the raise allowed on the Plutus 200 level, on the Plutus Vein. The raise is already up six feet and they are putting in the chute this afternoon. The results are gratifying so far, and the material being obtained from a vein about three feet wide is a mixture of oxide and carbonate and may go for low grade oxide ore. Before starting the raise we drifted ahead (on our own) about twelve feet further and stopped when the vein became narrow. As mentioned previously, the whole Plutus exploration, to date, has been pretty disappointing, but this raise which we intend to send up the fifty feet allowed will tell more of the story.

Regarding our Norwich Hangingwall Vein application, we are still very anxious to go ahead with that project and will do so, if granted with the changes requested in our last letter, and we will put the mine on a double shift basis to get the work done. If there is any news on this application, please advise.

Sincerely yours,

/s/ Joe
I. G. Irving

400
DOCKET
SURNAME
Rutledge
Martin
Johnson
Selfridge
Mitchell

SEP 3 1954

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus mine
Silver Bow County, Montana
Contract No. Idm-8604

Dear Mr. Weissenborn:

This will acknowledge your letter of August 26, 1954, with reference to the proposed Amendment No. 3 to the subject contract that was refused by the Operator.

It would be appreciated if you could give us more details on the sources of the present production from the Plutus-Norwich mines. Our records indicate that production from the Plutus mine is small, and on the production from the Norwich Mine we have no breakdown between the production from the Norwich Footwall and Hanging Wall veins.

In addition, it would be appreciated if we could be advised of the progress (since February 1954) of the work approved under the subject contract.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

APPROVED:

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

Thor H. Kiilsgaard
Member, Geological Survey (JHB)

FARutledge:foc
9-1-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. II
Gilbert DeHuff, USBM
Thor H. Kilsgaard, USGS

R.C.S.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 26, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving & Robert H. Nelson
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

With reference to your letter of August 19, 1954, I did tell Mr. Mittendorf in a phone call that I would contact Joe Irving in Butte with respect to his refusal of Amendment No. 3 to his contract. Unfortunately, both Mr. Irving and his partner were out of town and I was unable to see them. I have talked to Irving since then on the phone and transmitted to him the attitude of the DMEA as expressed to me by Mr. Mittendorf. Irving is appreciative of the help he has received from the DMEA so far and he reaffirms the statement made in his letter of July 15, 1954, that if the conditions with respect to the payment of royalty from the Norwich footwall vein are removed, he would be very much interested in the amendment which he has refused.

Irving frankly admits that the financial position of the operation was touch and go, but now seems confident that they are over the hump. He states that in August they will have produced 1,100 tons and have actually delivered to GSA 925 to 950 tons. He believes that the mine will now yield a sustained production of 1,000 tons or better per month, averaging around 23 percent manganese and 11 to 12 ounces silver per ton, worth between 30 and 35 dollars per ton. At this rate he believes that the operation will be profitable, the DMPA loan paid off and the purchase of the property completed in a relatively short time. We have no one available for a field check, but previous information from our field men indicates that there is no reason why the production rate and grade claimed by Mr. Irving could not be achieved.

Sincerely yours,

A. E. Weissenborn

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

cc: USBM (2)
Quinlan

DOCKET
Surname:
Rutledge
Martin
Johnson
Weissenborn

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Weissenborn:

This will acknowledge receipt of your letter of August 3, 1954, returning six copies of our proposed Amendment No. 3 to the captioned contract which has been returned unsigned to you by the Operator as unacceptable. Receipt is also acknowledged of your letter of August 9, enclosing a new and different Amendment No. 3 prepared in your office to allow additional time for completion of the contract.

It was our understanding from your conversation of August 12, 1954, with the Administrator, that you planned to discuss this project further with Messrs. Irving and Nelson immediately. We shall, therefore, defer replying at length to your above-mentioned letter until you inform us of the results of your most recent discussions.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (JHB)

Approved:

J. H. Hedges

Member, Bureau of Mines (JHB)

D. M. Larrabee

Member, Geological Survey (JHB)

cc: Docket
FT, Reg. 2
Code 400
Admin. Read. File
Oper. Committee
G. DeHuff, USBM
E. L. Newcomb, USGS

WSMartin/ls 8/18/54

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 9, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving G. Irving & Robert H. Nelson
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Selfridge:

Enclosed are the original and two signed copies of Amendment No. 3 to the cited application with attached justification.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

John S. Vhay

John S. Vhay
Acting Member, DMEA
Field Team, Region II

Attachments

cc: Finance Office w/encl.
USBM (2)
Nickelson

7

DOCKET COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 3, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2874 (manganese)
Irving & Nelson
Plutus and Norwich Mines
Silver Bow County, Montana
Contract Idm-E604

Dear Mr. Selfridge:

We are enclosing six copies of Amendment 3 of the above contract which have been returned unsigned to us by Irving and Nelson as unacceptable. Attached is a copy of a letter dated July 15, 1954, from Irving and Nelson to the Executive Officer, explaining why they are unwilling to sign the amendment as it is now written.

In the opinion of the Field Team, expressed in the Executive Officer's memorandum of February 12, 1954, and again in the Field Team letter of March 24, 1954, production from the Norwich footwall vein should have been excluded from the payment of royalties, as this ore would in no way have benefited from DMEA exploration. Nevertheless, when Amendment no. 3 stipulated payment of royalty on Norwich footwall ore, it was presented to the operator without comment. It is easy to understand, however, why Irving and Nelson have refused to accept the amendment. Our field men report that the Norwich footwall vein is now ready for full-scale production. If the exploitation of the footwall vein is as successful as now appears likely, it is not improbable that royalty from Norwich footwall production might accumulate almost as rapidly as contract funds are expended in exploring the hanging wall vein. Under these circumstances, there would be little value to the operator in exploring the hanging wall vein with a DMEA contract.

Our field men report that work done by Irving and Nelson on the hanging wall vein on their own account, while awaiting action on Amendment no. 3, is very encouraging. The Field Team, therefore, would favor granting Amendment no. 3 with the exclusion of the

Norwich footwall ore from the payment of royalty. A successful strike on the hanging wall vein is a reasonable expectation, and such a strike would enhance the possibility that the funds expended to date on the Plutus would be repaid in full, a possibility which is now very remote.

Whatever decision is made, careful attention should be given to the Irving-Nelson letter, for it expresses an opinion held by a number of mine operators in this area that the DMEA is becoming too rigid in its attitude on royalties and is tending to reach for royalties on ore which has not been discovered or benefited by DMEA work and to which, consequently, it is not entitled. Thus, in their opinion, the DMEA is not sharing the risks of exploration, the announced objective of the program. Such an attitude is hard to combat and is extremely detrimental to the DMEA program. The Field Team feels very strongly that if there is a real change in the policy with regard to repayment that this should be clearly and publicly announced.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

ROBE H. NELSON

IRVING G. IRVING

DOCKET COPY

NORWICH MINE

HIRBOUR BUILDING

BUTTE, MONTANA

July 15, 1954

Mr. A. E. Weissenborn, Exec. Officer
Defense Minerals Exploration Administration
South 157 Howard St.
Spokane, Washington

Re: DMEA #2874
(Manganese)
Plutus-Norwich Mines
Butte, Montana

Dear Mr. Weissenborn:-

Your letter of July 2, 1954 transmitted 6 copies of Amendment 3 of our D.M.E.A. contract #2874. We appreciate the careful manner in which your staff has handled our application and we are happy that you concur on the obvious merits of the proposed project. We have every reason to believe that drifting east on the Norwich Hangingwall vein will reveal substantial quantities of manganese ore.

Since receiving Amendment 3, in its finally corrected form we have discussed proposed amendment with our lawyers, with our accountants, with interested members of the mining industry, and with our own sub-lessees who had expected to join with us in the project. Without exception they have advised against our entering into this contract with the Government. The force of their argument is so great that we must follow their reasoning; therefore, with deep reluctance, we return the Amendment 3 and inform you that the proposed amendment is unacceptable.

The gist of our advisors' objections may be summarized as follows:

The original Plutus contract called for the performance of certain exploratory work on the Plutus vein. The Plutus vein is parallel with two other veins on our combined holdings, but the Plutus vein is wholly within the Plutus claim. No ore of any consequence has been discovered to date on the Plutus vein structure but exploration of the structure is obviously warranted. Both we and the Government are willing to explore the Plutus vein, and we have agreed to repay the Government advance out of any production which might result from the exploratory work financed jointly by the Government and us. No other means of repayment was expected nor asked by the Government.

COPY

On a nearby vein (the Norwich footwall vein) we have a recognized assured ore reserve block which we are now preparing for mining. Because of the certainty of the assured block another branch of the Government advanced us $106,000.00 so that the mine could be brought into production. The assured reserve is sufficient in magnitude and grade to permit full repayment of the $106,000.00 advance and in addition permit the operators to make a substantial profit.

Our attorneys point out that on signing Amendment 3 we will put an additional financial burden on our known reserve. Under the existing contract our indebtedness to D.M.E.A. (amounting to approximately $3,800.00) is a contingent liability payable out of ore mined from the Plutus vein. Amendment 3 would change that contingent liability to an immediate liability, payable as ore is mined from the Norwich. Our attorneys do not believe we contracted the D.M.E.A. indebtedness with any thought other than the indebtedness would be repaid from proceeds obtained from newly discovered ore.

Our accountants point out that our working capital position would be seriously jeopardized if we were suddenly called upon to absorb the D.M.E.A. indebtedness and pay it at once by means of an additional assessment on our present production.

On any production schedule pictured by us for the next few months, the D.M.E.A. repayment would exceed substantially the money the D.M.E.A. might advance to us for work we could do on the contract. Furthermore, if it appeared that drifting on the hangingwall vein (or even the Plutus vein) were inadvisable, and work stopped on the contract, our accountants point out that D.M.E.A. reimbursements would continue until our entire debt to D.M.E.A. were extinguished. At this time, and in the immediate future, we are unwilling to take on the obligation of repaying D.M.E.A. by utilizing other resources of ours (in this case our assured Norwich ore reserve.)

Interested members of the Mining profession point out that to even request repayment of D.M.E.A. advances with funds obtained from any source other than the mining of newly discovered ore as a result of the project is discriminatory, not in keeping with the intent expressed in D.M.E.A. Order 1, nor in keeping with all publicity attendant to the program. In fact, Amendment 3 is, in essence, asking for full security for the Government's participation in the exploratory projects under consideration. It smacks of R.F.C. procedures, the which may God forbid.

COPY

Norwich Mine

July 15, 1954

Our split check sub lessees (who have the right to mine all ore on the Norwich Claim) flatly refuse to be a party to the proposed project. They refuse to accept the penalty of our present D.M.E.A. indebtedness as an added burden to the already hazardous task of finding new ore. We appreciate their attitude.

However, our attorneys, our accountants, our sub lessees and our mining friends are unanimous in agreeing that we could and should accept Amendment 3 if Government advances were to be repaid from ore discovered as a result of exploratory work done under the Amendment.

If it is true that there is a critical shortage of manganese in this country and exploration for new deposits is desirable, and if it is an established policy of D.M.E.A. to expect repayment of advances solely from newly discovered orebodies resulting from programs approved by them, then we sincerely hope our application for a D.M.E.A. loan will be considered and approved with conditions consonant with such a policy.

Very truly yours,

Robert H. Nelson

Robert H. Nelson

Irving G. Irving

Irving G. Irving

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
~~XXXXXXXXXXXXXXXX~~
So. 157 Howard Street
Spokane 4, Washington

August 2, 1954

Messrs. Irving and Nelson
94 Hirbour Building
Butte, Montana

Re: Docket No. DMEA-2374 (manganese)
Plutus Mine
Silver Bow County, Montana
Contract No. Idm-2604

Gentlemen:

We note that the time limit on the captioned contract expired May 21, 1954. We are therefore enclosing seven copies of Amendment No. 3 to the contract, which extends the contract time limit from 8 to 16 months. This amendment has been prepared in order to allow you time to complete the work authorized in the contract. If the amendment meets with your approval, please sign all copies, retain the copy marked for the Operator, and return the remaining copies to this office.

Pending return of executed copies of the amendment to this office, Field Team approval is hereby given for the use of 30 feet of the raising footage allowed in the contract for a raise to be driven on the Plutus vein from the 200 level east drift within 30 feet of the crosscut to the vein on this level. This raising was discussed with Mr. Kiilsgaard and Mr. Quinlan at the time of their recent visit to the Plutus and Norwich mines. We wish you the best of luck in this raising operation.

By Field Team, Region II

A. F. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure
cc: DMEA(2)
USBM(2)
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
~~XXXXXXXXXXXXXXXXXXX~~
No. 157 Howard Street
Spokane 4, Washington

July 2, 1954

Mr. Irving G. Irving
64 Hirbour Building
Butte, Montana

Re: Docket No. DME -2874 (manganese)
Plutus and Norwich Mines
Silver Bow County, Montana
Contract No. Idm-3604

Dear Mr. Irving:

I am enclosing an original and six copies of Amendment No. 3 to the subject contract for your approval and signature. Please note that this is a revision of Amendment No. 3 which was sent to you previously and that the qualification "that the Operator shall obtain an extension of the Norwich lease which terminates not sooner than June 30, 1958" has been removed.

Please note also with respect to Annex III that the footnote to Article 6 clearly states that royalty from all ore produced from the Norwich claim will be subject to payment of royalty to the Government from the date of Amendment No. 3. This date as originally written was the 21st day of May 1954, but following our phone conversation of the other day, I contacted Mr. Mittendorf and have been authorized and requested to change the date of the amendment to the date the amendment is presented to the operator for execution, or not later than June 29. Consequently, I have crossed out the date May 21 and have substituted June 29, and have initialed this alteration. In addition to signing Amendment No. 3, please indicate your approval of this alteration by also initialing the change.

Sincerely yours,

[illegible] L. Nelsenborn
Executive Officer, DME
Field Team, Region II

Enclosures

cc: USBM (2)
DMEA (2)
Nickelson

TELETYPE
XXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXX

Interior Department

Defense Minerals Exploration Adm.

14X401(01) Revolving Fund
Defense Production Act, Interior
(Allocated Working Fund to the Office of the Secretary)

Martin
Brown
Guild
Hedges
Selfridge
Fleming
Rutledge

JUN 30 1954

A. E. Weissenborn, DMEA Executive Officer, Region II, Spokane, Washington

Re Docket DMEA 2874, Contract Idm-8604, Irving and Nelson. In accordance with your telephone recommendation of June 29, you are hereby authorized and requested to change date of Amendment No. 3 from May 21, 1954, to date you presented amendment to Operator for execution, not later than June 29, 1954.

George C. Selfridge

G. C. Selfridge (SHB)
Chairman, Operating Committee

cc: CONFIRMATION - FT. Reg. 2
Docket
Code 400
Operating Committee
Adm. Reading File
Audits Divn., Bur. Mines
G. DeHuff, USBM
L. Pavlides, USGS

WSMartin/foc

R.C.S.

400

Docket
Surname
Rutledge
Talbot
Martin
McKnight for
Fraser
Selfridge
Johnson
Hetherington

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 2874 - Manganese
Irving G. Irving & Robert H. Nelson
Plutus and Norwich mines
Silver Bow County, Montana
Contract No. Idm-E604

Dear Mr. Weissenborn:

Enclosed are the original and five copies of Amendment No. 3 to the subject contract signed by the Administrator for the Government.

The qualification contained in Amendment No. 3, as previously submitted for execution; "That the Operator shall obtain an extension of the Norwich lease which terminates not sooner than June 30, 1958," has been removed. No such "Guaranty" as was attached to the original contract will be required to protect the Government as this protection is now provided by Item b, Annex III.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (246)

Enclosures

FARUTIE DGE:FGC 6-18-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. II
Gilbert DeHuff, USBM
Louis Pavlides, USGS

APPROVED:

J. H. Hedges
Member, Bureau of Mines (246)

s/ Edwin J. McKnight
Member, Geological Survey (246)

R.C.S.

ROBERT H. NELSON

IRVING G. IRVING

NORWICH MINE
HIRBOUR BUILDING
BUTTE, MONTANA

DEPT. OF INTERIOR
Defense Minerals Administration
RECEIVED
JUN 14 1954

June 8, 1954

Mr. C. O. Mittendorf, Administrator

Defense Minerals Exploration Administration

Washington 25, D.C.

WSM

Re: Docket No. D.M.E.A. 2874 (Mn)
Plutus and Norwich Mine
Silver Bow Co., Montana
Contract No. Idm - E 604

Dear Mr. Mittendorf:

In a letter dated June 2, 1954, Mr. Thor H. Kiilsgaard, Acting Member D.M.E.A., Field Team, Region II, transmitted to us an original and 6 copies of Amendment No. 3 of the subject contract signed by you for the Government, and submitted to us for acceptance.

Unfortunately, even after your long and careful consideration of our proposed project, in agreeing with the desirability of the proposed project -- you have interposed conditions in Amendment No. 3 with which we are unable to comply.

We are unable to comply with the following provision "---- within 60 days from the date of this agreement operator shall obtain an extension of the lease which terminates no sooner than June 30, 1958."

When we made application for a D.M.E.A. loan to do work on the hangingwall vein of the Norwich we anticipated your request that the lease should be extended. In our application we enclosed a guarantee of royalties to the government (a procedure which had been acceptable by the government in other similar cases); but, in addition, we wrote the spokesman for the lessors requesting that our lease be extended. The lessor's spokesman would not cooperate with us in this respect. His refusal is understandable, and a review of the Norwich history quickly points up the lessor's attitude.

Norwich Mine June 8, 1954

After months of negotiation on Aug. 30, 1949, the lessors gave us a 5 year lease on the Norwich and agreed to a bond price of $50,000 for the Norwich claim. At the time of signing the lease and bond there was no interest whatsoever in domestic manganese. To the property owners the bond price was, comparatively speaking, high. It was a good deal for them.

You are familiar with all of the delays which marked the launching of the domestic manganese program. So were the lessors. On Aug. 21, 1952 the lessors extended our lease and bond to expire June 30, 1956.

For more than two years we have worked hard to make the Norwich a mine. And in this we have succeeded. Today the property has a potential sale value of seven significant figures. By our development to date our reserves of Measured and Indicated ore, above the 400 level exceed 50,000 tons. Estimates of Inferred ore which may be proved by further development of the mine above the 400 level, approximate 130,000 tons. As shown on the long sections (Blocks C, D, D^1, E, E^1, and G) we have a hard core, in these reserves, of at least 11,250 tons of $32.00 ore, above our 244 sill, developed and ready for mining. We are extracting this ore currently at a rate of approximately 650 tons per month and by mid-July this high grade will be extracted at the rate of at least 1,000 tons a month. Royalties, (which are applied against the bond price) are expected to exceed $3,500 a month.

We repeat, we have developed a significant, valuable ore reserve, even by Butte standards.

(For your information we have enclosed a copy of a report we have prepared on the mine, together with plan maps and long sections showing ore-reserve calculations as of May 25th.)

The property owners are as familiar as we with the results of our development. Naturally they regret having sold a million dollar property for $50,000. Naturally they insist and will insist on the strictest compliance with all terms of the lease and bond. Naturally they want all of their $50,000 as quickly as it can accumulate by royalties, or full payment by June 30, 1956.

Likewise we are planning to own the Norwich on or <u>before</u> June 30, 1956. The property will have been paid for through the royalties accruing from the shipping of about 11,000 tons of our high grade. That production, to be won from blocks C, D, D^1, E, E^1, and G is now essentially prepared for mining. If necessary, a short winze could be sunk to get additional production from high grade blocks H, K and K^1 below the 244 level.

Norwich Mine June 8, 1954

We expect to own the property months before our present lease expires. We have already agreed to recognize the Government D.M.E.A. obligation, and guarantee repayment of the D.M.E.A. loan from ore produced -- even if the loan were repaid from present ore reserves and not from ore which might be revealed by the D.M.E.A. exploratory work.

But we cannot get another extension of the terms of our Norwich lease.

Therefore we respectfully request that Amendment 3 of the contract #ldm - E 604 be changed by striking those portions of the amendment which makes reference to our obtaining an extension of the present lease and bond on the Norwich claim.

To expedite your consideration of this request we are returning to you the original and six copies of the contract which were sent us by Mr. Kiilsgaard.

Yours very truly,

I. G. Irving

Robert H. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
xxxxxxxxxxxxxxxxxxxx
c/o 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 7 1954

June 2, 1954

Messrs. Irving G. Irving and
Robert H. Nelson
84 Hirbour Building
Butte, Montana

Re: Docket No. DMA-2674 (manganese)
Plutus and Norwich mines
Silver Bow County, Montana
Contract No. Idm-2604

Gentlemen:

Enclosed are the original and six copies of Amendment No. 3 to the subject contract signed by the Administrator for the Government. If the terms and conditions of this amendment meet with your approval, please sign all copies, retain that copy marked for the operator and return the remaining copies to this office.

Your attention is directed to the following provisions:

1. This amendment embodies all prior changes in the program made by Amendments 1 and 2.

2. No part of the production from the Norwich claim is excluded from that on which the Government's percentage royalty will be due.

3. The operator is required to obtain an extension of his lease within 60 days from date of amendment. Failure to do so will be a breach of the contract.

Sincerely yours,

Thor H. Kiilsgaard
Acting Member, DMA
Field Team, Region II

Enclosures

cc: DMEA (2)
USBM (2)
Nickelson

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

OFFICIAL BUSINESS

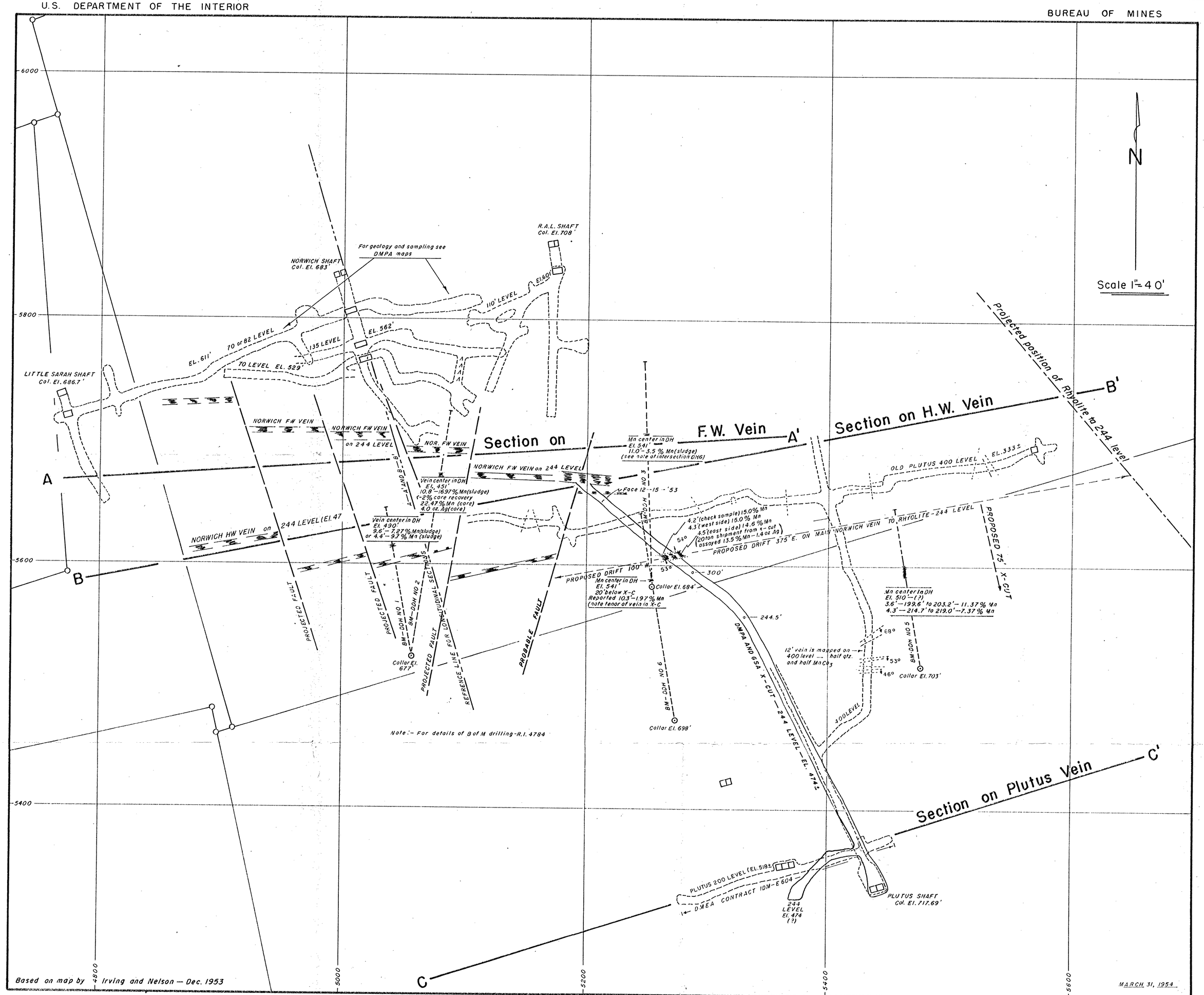
PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

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

OFFICIAL BUSINESS

U.S. DEPARTMENT OF THE INTERIOR

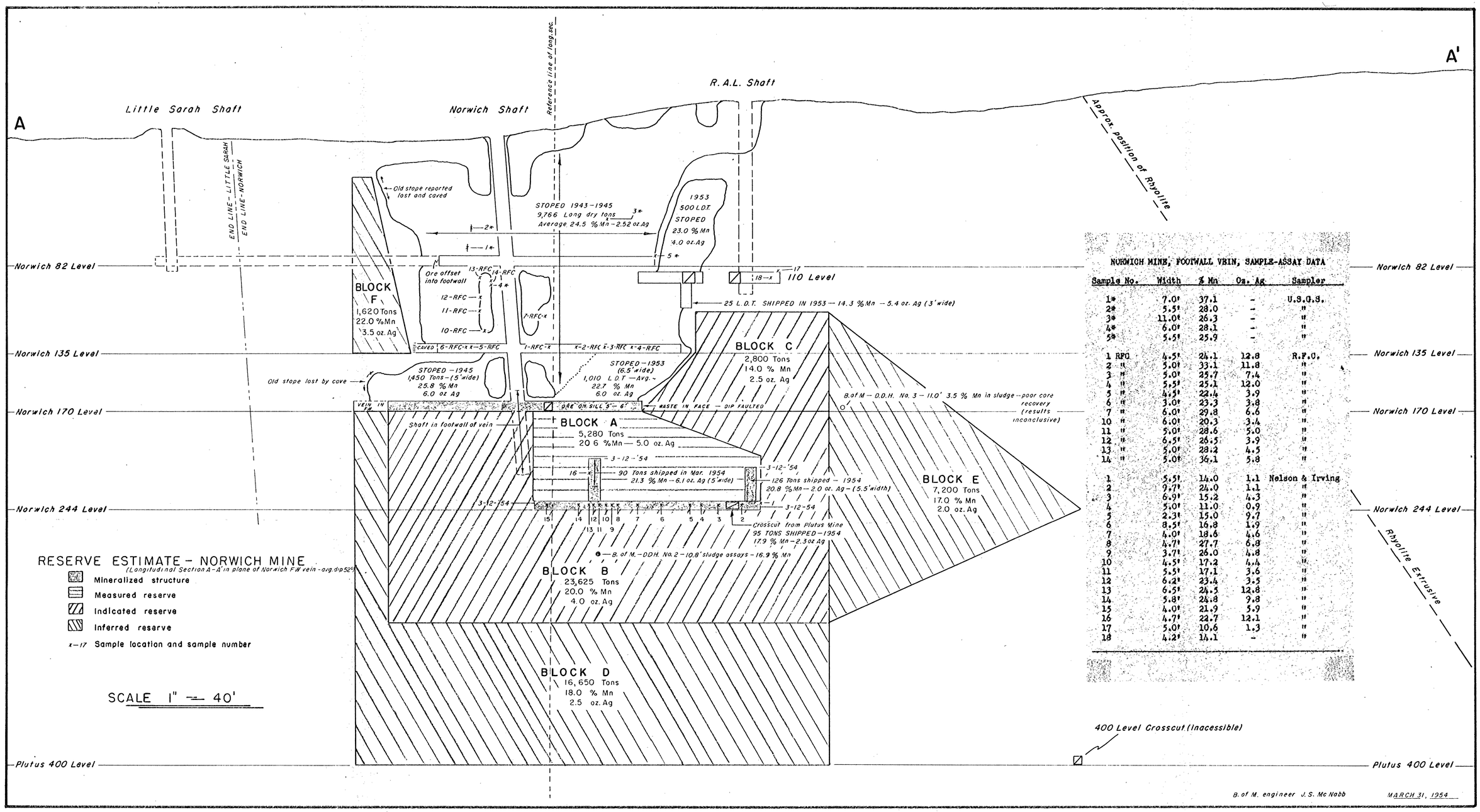
BUREAU OF MINES



NORWICH – PLUTUS MINE, SILVER BOW COUNTY, MONTANA.

NELSON AND IRVING, BUTTE, MONTANA

COMPOSITE PLAN – MAP I.

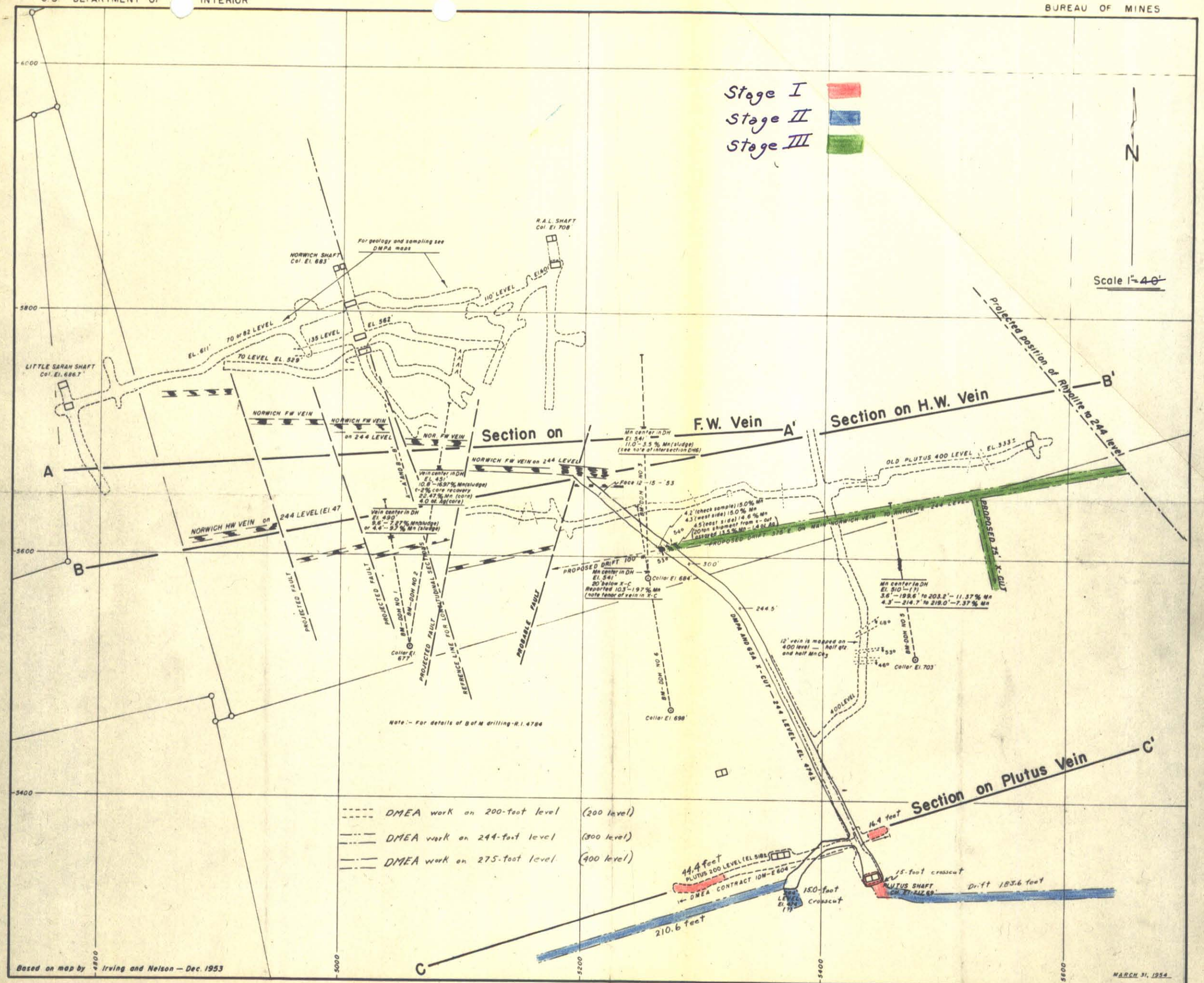


NORWICH MINE, FOOTWALL VEIN, SAMPLE-ASSAY DATA

Sample No.	Width	% Mn	Oz. Ag	Sampler
1*	7.0'	37.1	-	U.S.G.S.
2*	5.5'	28.0	-	"
3*	11.0'	26.3	-	"
4*	6.0'	28.1	-	"
5*	5.5'	25.9	-	"
1 RFC	4.5'	24.1	12.8	R.F.C.
2 "	5.0'	33.1	11.8	"
3 "	5.0'	25.7	7.4	"
4 "	5.5'	25.1	12.0	"
5 "	4.5'	22.4	3.9	"
6 "	3.0'	23.3	3.8	"
7 "	6.0'	29.8	6.6	"
10 "	6.0'	20.3	3.4	"
11 "	5.0'	28.6	5.0	"
12 "	6.5'	26.5	3.9	"
13 "	5.0'	28.2	4.5	"
14 "	5.0'	36.1	5.8	"
1	5.5'	14.0	1.1	Nelson & Irving
2	9.7'	24.0	1.1	"
3	6.9'	15.2	4.3	"
4	5.0'	11.0	0.9	"
5	2.3'	15.0	9.7	"
6	8.5'	16.8	1.9	"
7	4.0'	18.6	4.6	"
8	4.7'	27.7	6.8	"
9	3.7'	26.0	4.8	"
10	4.5'	17.2	4.4	"
11	5.5'	17.1	3.6	"
12	6.2'	23.4	3.5	"
13	6.5'	24.5	12.8	"
14	5.8'	24.8	9.8	"
15	4.0'	21.9	5.9	"
16	4.7'	22.7	12.1	"
17	5.0'	10.6	1.3	"
18	4.2'	14.1	-	"

U.S. DEPARTMENT OF THE INTERIOR

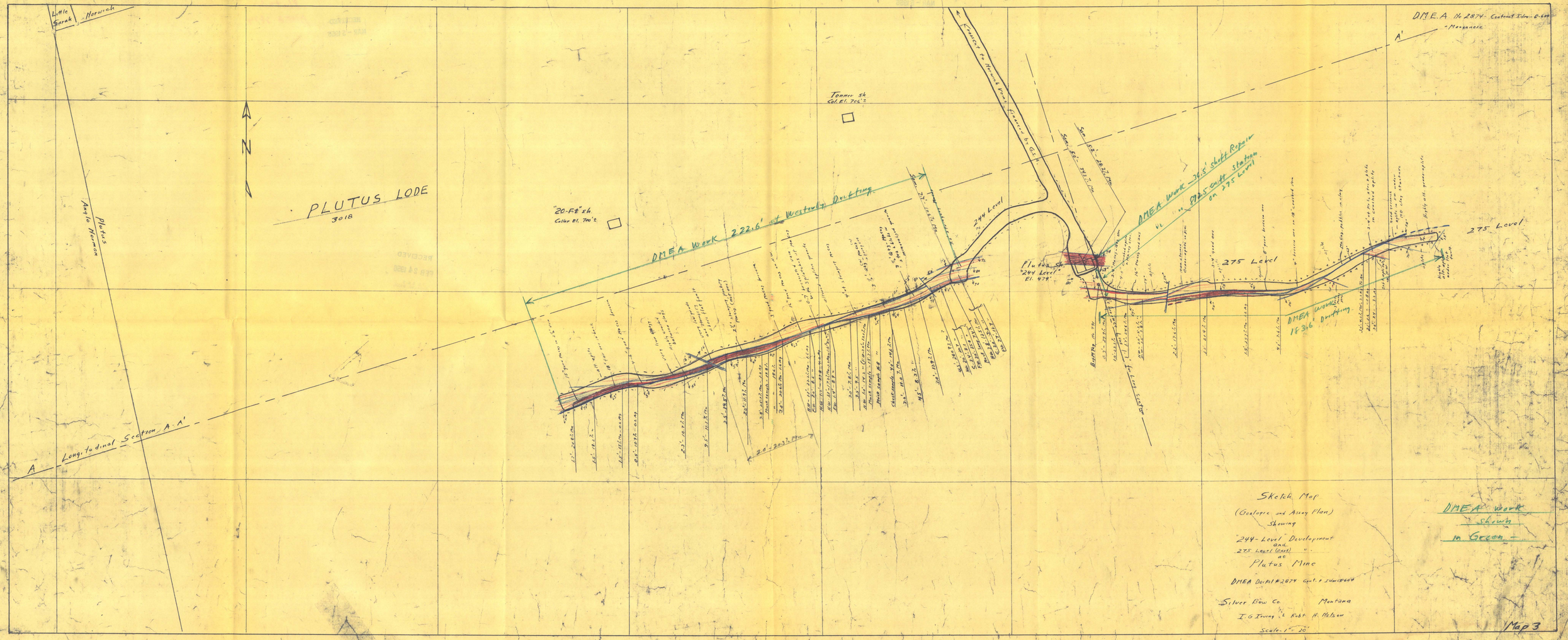
BUREAU OF MINES

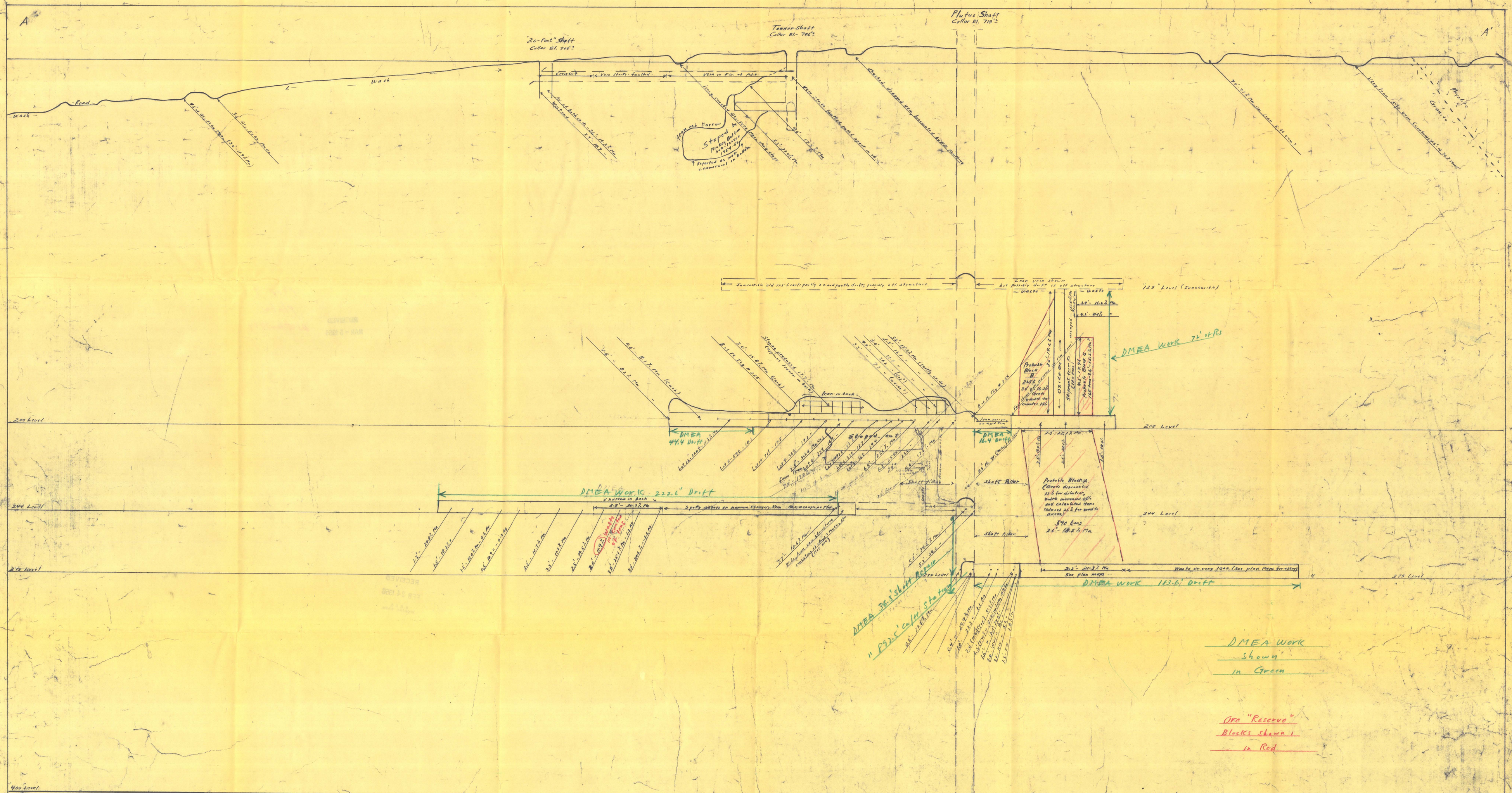


NORWICH-PLUTUS MINE, SILVER BOW COUNTY, MONTANA.

NELSON AND IRVING, BUTTE, MONTANA

COMPOSITE PLAN - MAP I.


Little Sarah
Horwick
Anglo Norman
Plutus
PLUTUS LODE
3018
N
"20-Ft" sh.
Collar El. 700'±
Tonner sh.
Col. El. 705'±
Road to Plutus Mine
Cleared by G.L.P.
DMEA Work 222.6' of Workings Drifting
244 Level
Plutus sh.
"244 Level"
El. 479'
DMEA Work 34.5' Shaft Repair
" " 34.5' Shaft Station
on 275 Level
275 Level
DMEA Work
18.36 Drifting
DMEA Ile 2874 - Contract Inv. E-669
- Manganese
A'
A
Longitudinal Section A-A'
Sketch Map
(Geologic and Assay Plan)
Showing
244-Level Development
and
275 Level (East) "
of
Plutus Mine
DMEA Dist. # 2874 Cont. # Inv-E669
Silver Bow Co. Montana
I. G. Irving & Robt. H. Nelson
Scale 1" = 20'
DMEA Work
shown
in Green
Map 3



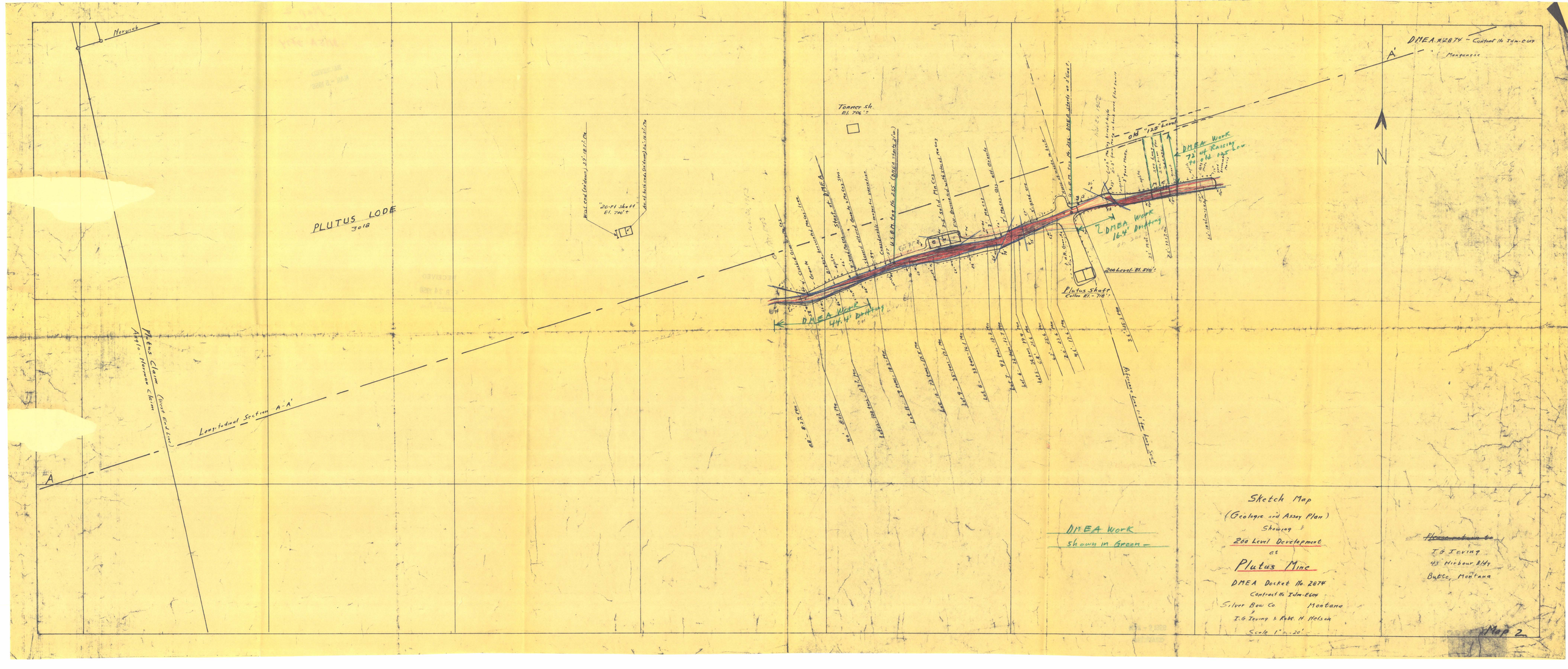
Longitudinal Section A-A'
In Place of Vein (on Dip-67°)
of
Plutus Vein

Plutus Mine, Silver Bow Co, Montana
1" = 20'

DMEA Docket - No 2874
Contract Idn - E-664

I G Irving and Robert H Nelson
43 Hirshberg Bldg, Butte, Montana

Map 4


Norwich
PLUTUS LODE
3018
Plutus Claim (Patented)
Anglo-Norman Claim
Longitudinal Section A-A'
A
A'
Tonner sh.
El. 706'±
"20-ft Shaft
El. 706'±
West end (bottom) 32'-18'/1.0%
East bottom (bottom) 26'-13'/1.0%
Contact Mn Jam-Eck
Manganese
N
"125" Level
DMEA Work
72' of Raising
Old Rock Low
DMEA Work
164' Drifting
200 Level El. 516'±
Plutus Shaft
Collar El. 706'±
DMEA Work
44.4' Drifting
Raises
Sketch Map
(Geologic and Assay Plan)
Showing
200 Level Development
at
Plutus Mine
DMEA Docket No. 2874
Contract No. Jam-E604
Silver Bow Co. Montana
&
I.G. Irving & Robt. H. Nelson
Scale 1" = 20'
DMEA Work
shown in Green
~~Plot made by~~
I.G. Irving
43 Harbour Bldg.
Butte, Montana
Map 2

DMEA #2874 - Contract No Idm E-604

Manganese

PLUTUS LODE
3018

Norwich Lode

Anna Mormon Lode

Road

Wash

Wash

Longitudinal Section A - A'

A

2.5-ft 40' Qtz. Mang.-Fluor.
(Sam. 36' 16.37% Mn)

20-FE" sh.
Collar El 700'

See other notes for profiles of this adit

Sam. - 40' - 17.85% Mn

Sam. 33' - 33.37% Mn

Tonner Sh.
Col. El. 706'

Central Grizzly Gravel in adit off Gr.

Slope 30% off Gr.

Plutus Sh.
Col El. 718'

Reference Line 61' for Longitude

El. 680'

3' Qtz. Mang. at surface

2.5' 3' Qtz. Mang.-Fluor.
in 4% at vice surface
Sam. 30' 11.37% Mn

El. at Pit 705'

4' 4½' Iron Qtz.-Manganese Fox
Sam. - 40' - 7.17% Mn

2" Qtz. Fox

4-18" Qtz. Supp. Mang.

5' vein with 2' of Qtz. Mang. in
(Sam. 16' 7.61% Mn - 16% Mg)

8" Qtz. Mang. 3-18" Fox
(Sam. 8'. 6.15% Mn - 7.9% Mg)

Parallel Gr.

Parallel Gr.

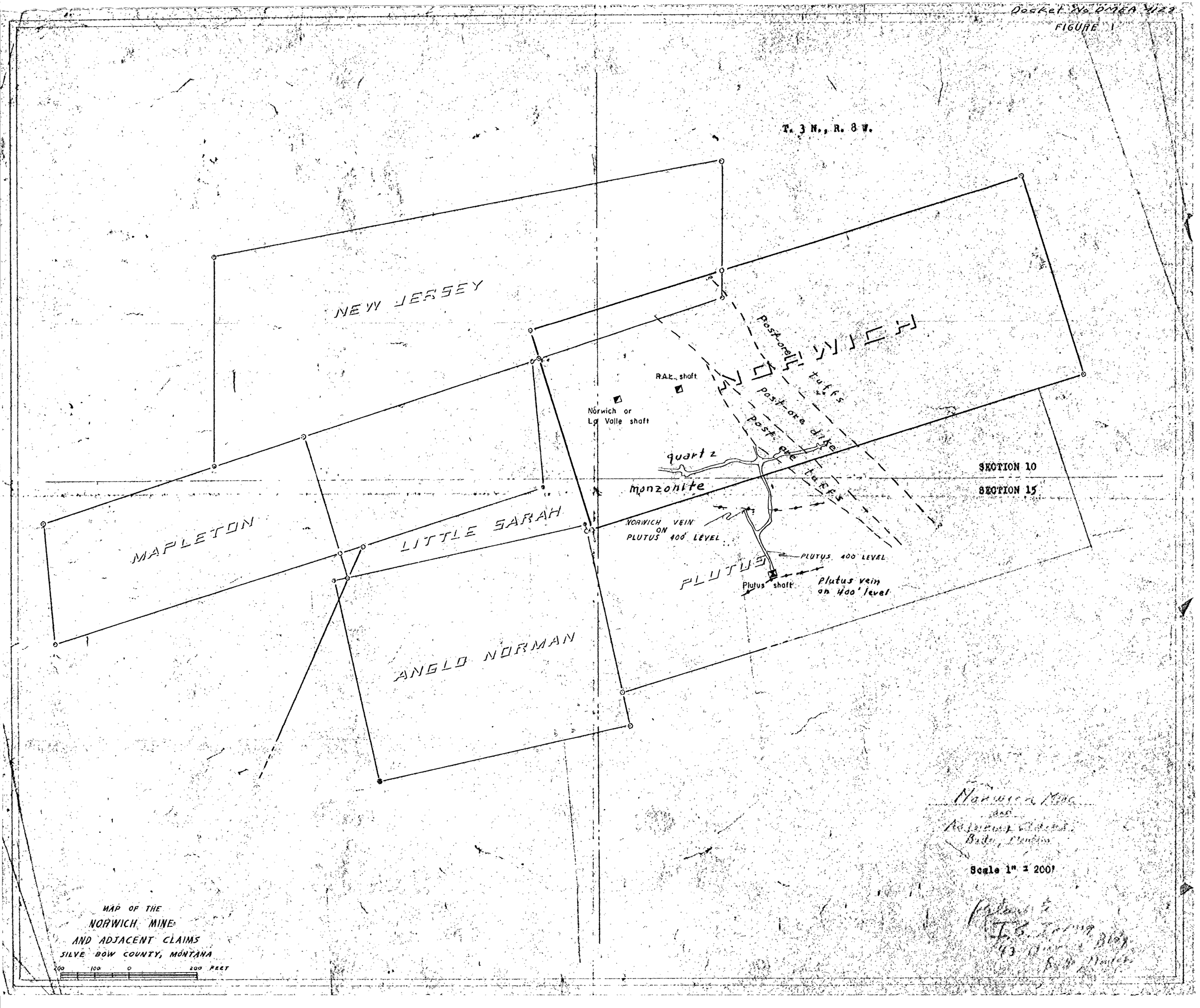
Note
These bulldozer cuts put in subsequent to application

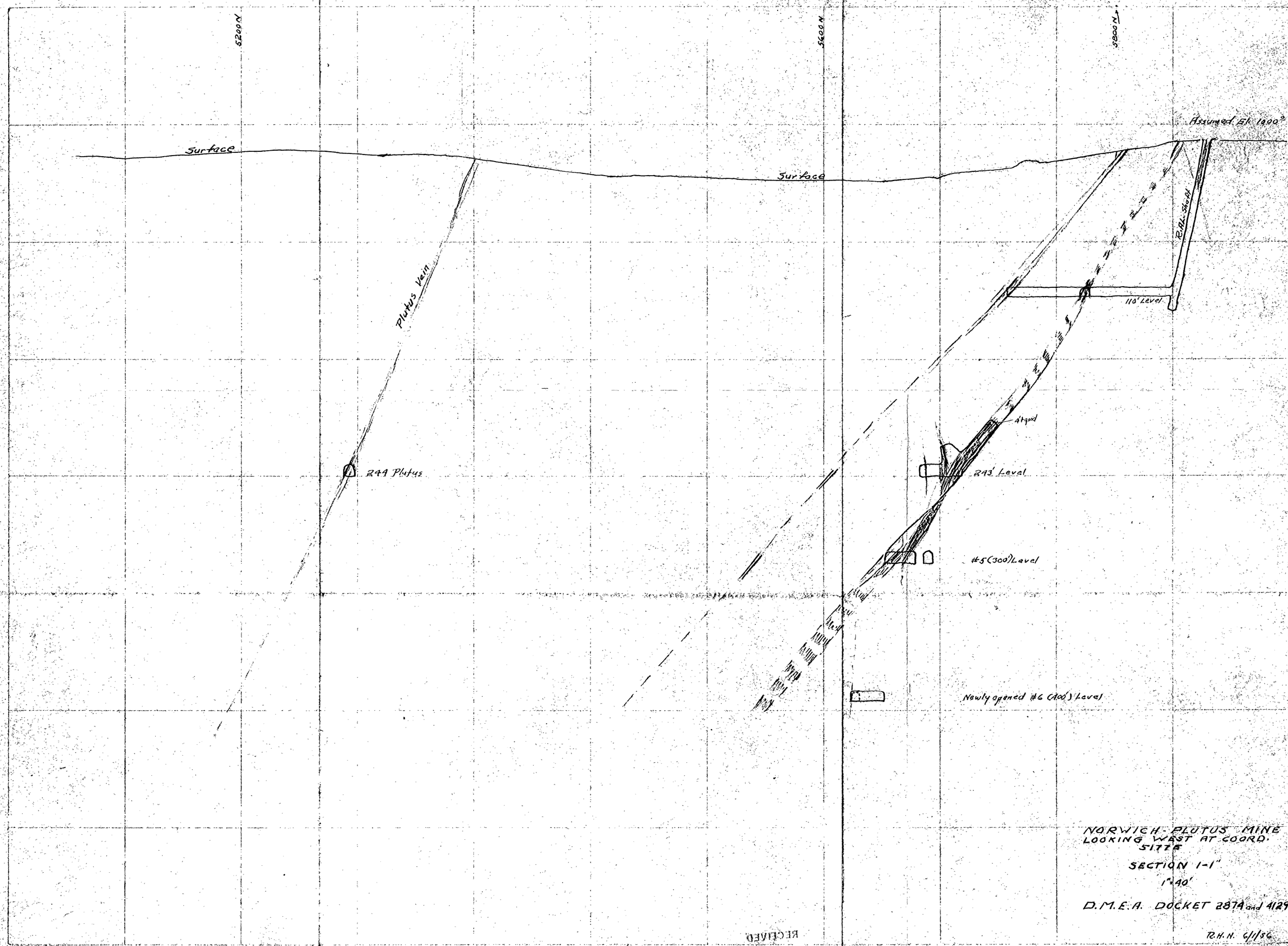
Sketch Map
(Geologic and Assay Plan)
Showing
Surface & Cuts
at
Plutus Mine
DMEA Docket No 2874
Contract No Idm. E604
Silver Bow Co Montana
I G Irving & Robt. H. Nelson
Scale - 1" = 20'

Map 1

Docket No. DMEA 4129

FIGURE 1





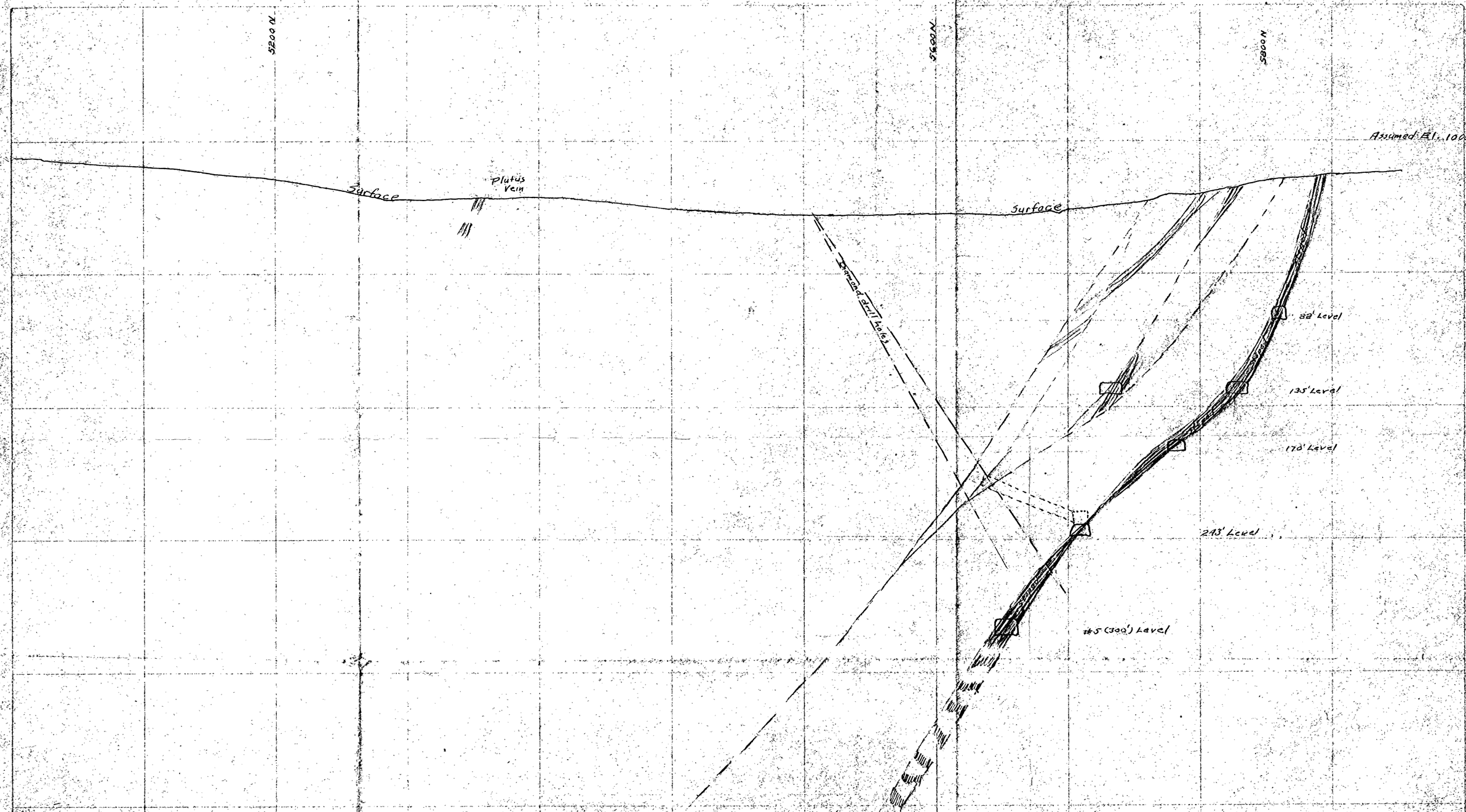
NORWICH-PLUTUS MINE
LOOKING WEST AT COORD. 5+75E

SECTION 1-1"
1"=40'

D.M.E.A. DOCKET 2874 and 4129

R.H.N. 6/1/86

RECEIVED
JUL



NORWICH-PLUTUS MINE
LOOKING WEST AT COORD.
5055 E

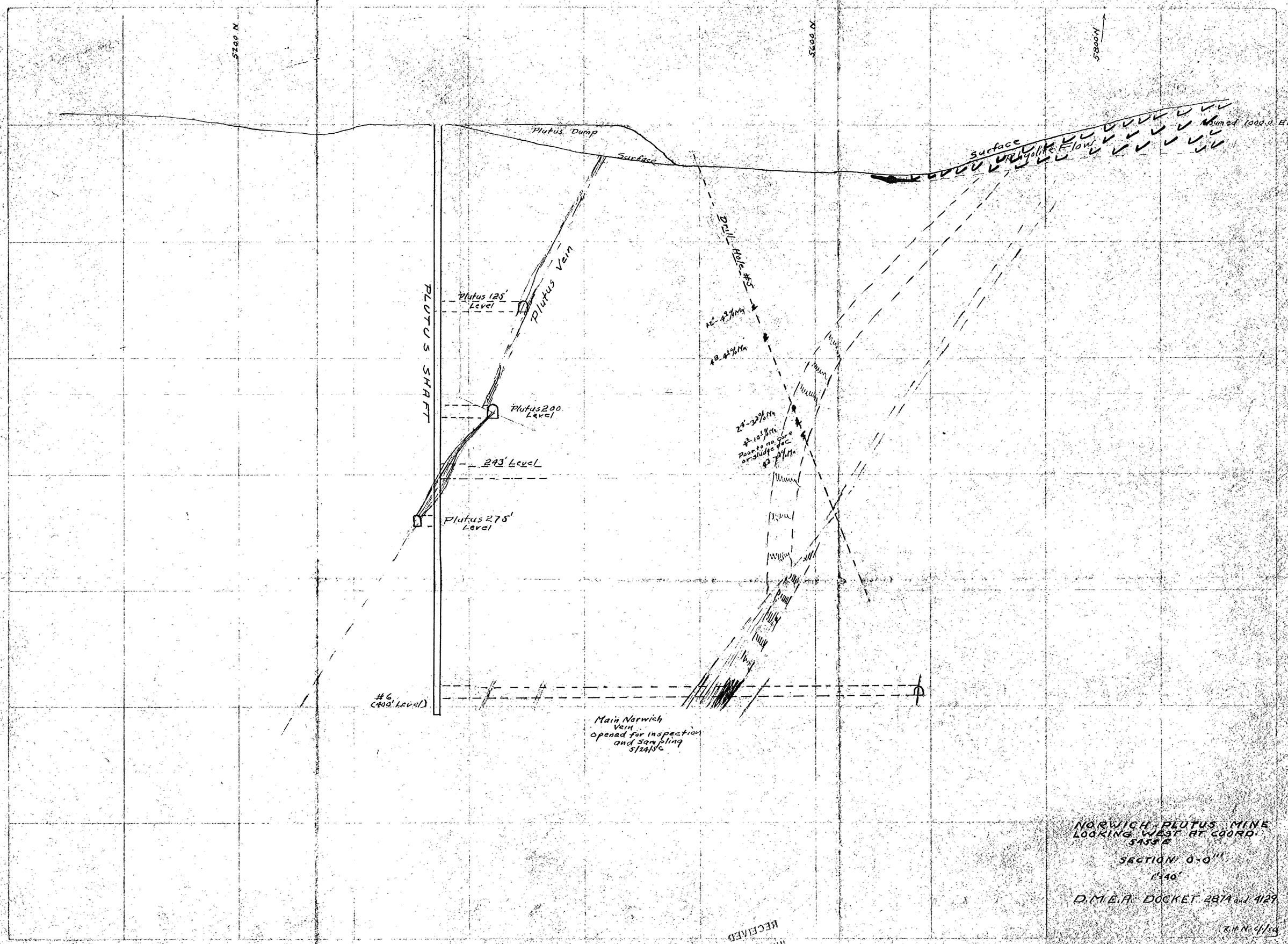
SECTION 3-3'

1" = 40'

D.M.E.A. DOCKET 2874 and 4129

R.H.N. 6/1/56

RECEIVED
JUN 4 1956



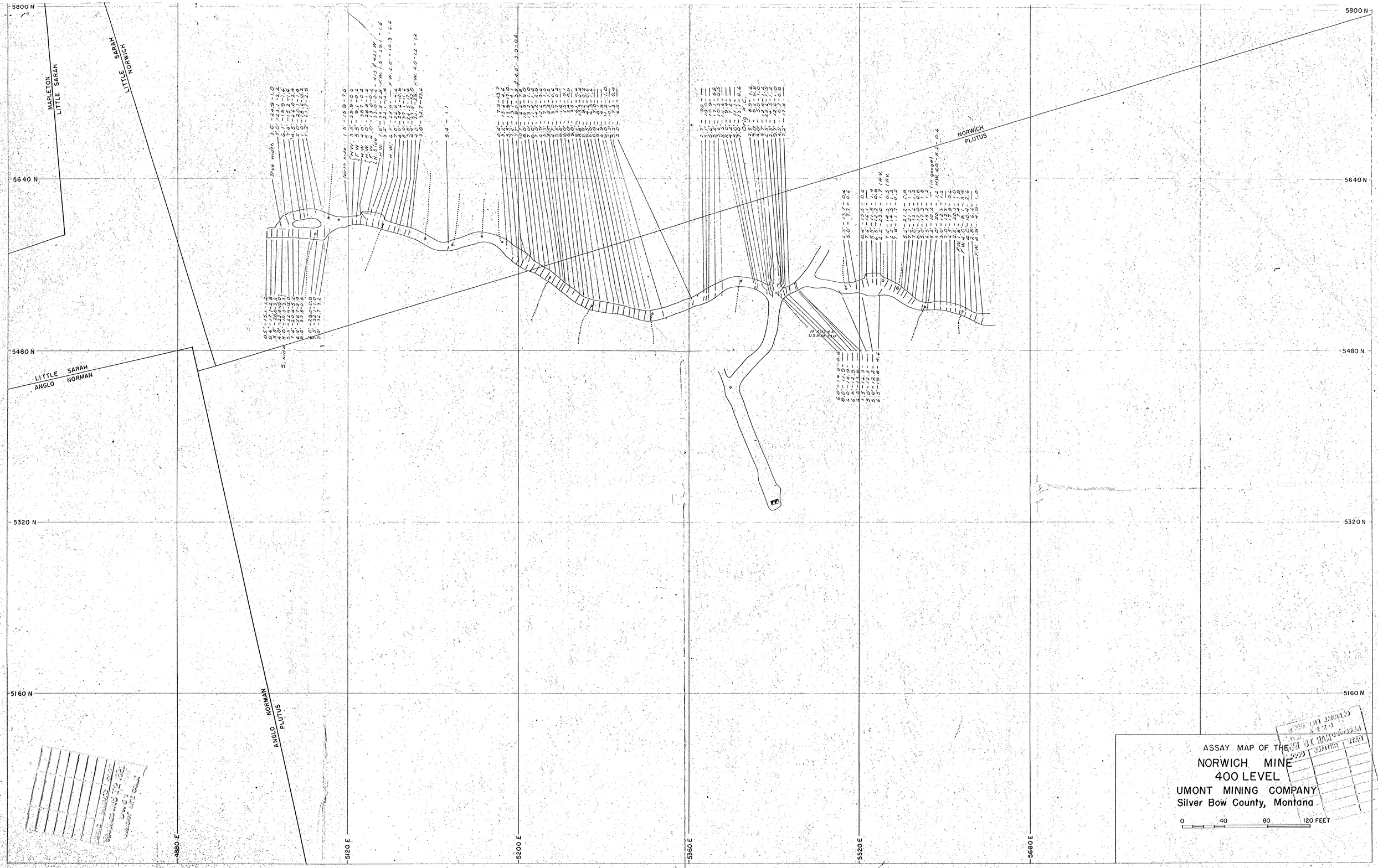
NORWICH-PLUTUS MINE
LOOKING WEST AT COORD. 5455 E

SECTION 0-0'''
1"=40'

D.M.E.A. DOCKET 2874 and 4129

R.H.N. 4/56

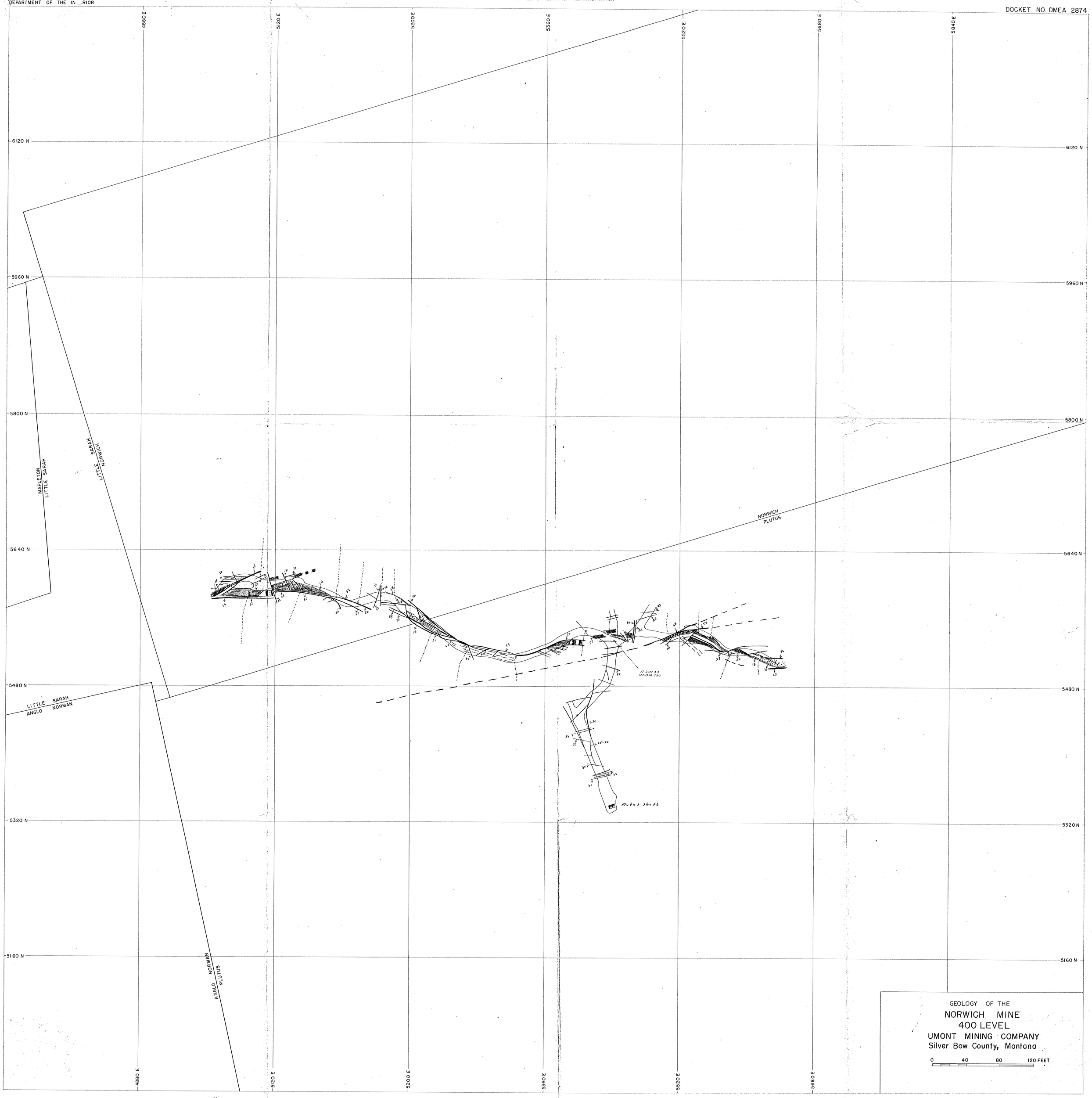
RECEIVED
JUN 1 1956


5800 N
5640 N
5480 N
5320 N
5160 N
4880 E
5120 E
5200 E
5360 E
5520 E
5680 E
MAPLETON
LITTLE SARAH
LITTLE SARAH
NORWICH
LITTLE SARAH
ANGLO NORMAN
NORWICH
PLUTUS
ANGLO NORMAN
PLUTUS
ASSAY MAP OF THE
NORWICH MINE
400 LEVEL
UMONT MINING COMPANY
Silver Bow County, Montana
0 40 80 120 FEET

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DOCKET NO. DMEA 2874



GEOLOGY OF THE
NORWICH MINE
400 LEVEL
UMONT MINING COMPANY
Silver Bow County, Montana

0 40 80 120 FEET