GENERAL SERVICES ADMINISTRATION

SPECIAL

GPO : 1963—O—690563
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

November 7, 1957

DATE	INITIALS	CODE
11/12	C	220
13	Com	100
	WSY	400

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

Re: Docket No. DMEA-4504 (tungsten)
Cordero Mining Company
Wild Horse Mine
Custer County, Idaho
Contract No. Idm-E1055

Dear Mr. Selfridge:

Reference is made to your letter of October 28, 1957.

The Field Team is aware that the locations and size of some of the diamond drill holes are not in accordance with contract provisions; however, since the Operator has not yet vouchered for this work, we cannot make any recommendations on this matter. It is possible that reimbursement may not be claimed for some of the drilling. The last voucher received from the Operator was for April 1957 from which was withheld $750.00 pending approval of additional work or making a final audit.

Enclosed are four copies of a final inspection report and sketch by William M. Romischer, dated October 17, 1957. Also enclosed are two copies of a letter from the Operator, dated October 28, in reply to our letter to him of October 18.

By Field Team, Region I

Wing G. Agnew

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

Enclosures

D R MacLaren

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

cc: USGS (2)
USBM (AD)

"Final" Inspection Report

S. H. WILLISTON
VICE-PRESIDENT

JOHN C. AGNEW
SECRETARY-TREASURER

CORDERO MINING COMPANY

131 UNIVERSITY AVENUE
PALO ALTO, CALIFORNIA

Mac
Alvord
Al
USBM LC
DMEA

October 28, 1957

A. E. Weisenborn, Executive Officer
U. S. Geological Survey
U. S. Department of the Interior
So. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4504
(Tungsten)
Wild Horse Mine
Custer County, Idaho
[redacted]

Dear Al:

We are continuing to do a little work at the Wild Horse Mine, mostly drilling. At the present time two of our engineers are there surveying and mapping the work already done, and will develop plans for future exploration when and if the time ever comes to consider mining tungsten. As soon as I receive their maps and reports I will catch up on my reports to you.

I am sorry that no monthly narrative reports have been sent to you but I did not realize they were needed when reports with vouchers were not filed.

As you probably remember, we were interested in doing more drifting with the DMEA; this was not approved. Also, we expected a copy of the geological map which was prepared by your geologists; this was not allowed. These two unexpected developments somewhat disorganized our reporting procedure. We should have it organized again shortly and then I will keep you currently informed.

Very truly yours,

[redacted]

J. Eldon Gilbert
Manager

JEG:L

DMEA

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SPOKANE, WASH.

RECEIVED
DATE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 12 1957
DATE | INITIALS | CODE

October 17, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: William M. Romischer, Mining Engineer, Bureau of Mines

Subject: Final inspection report, Docket No. DMEA-4504 (tungsten), Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was visited October 8. Mr. Don C. Ivie, contract diamond driller, was present.

At the time of the inspection the diamond drilling program consisting of six nearly horizontal holes had been completed.

The DMEA contract work since the last inspection on September 19 consisted of 110 feet of diamond drilling advance in hole No. 6.

Mr. Ivie mentioned he was going to move the diamond drill equipment from the property by the following Saturday and only a watchman would be left at the mine.

The total footage for the six holes drilled in the walls from the adit is 562 feet. Three hundred and forty-four feet was drilled AX core and 218 feet EX.

Scheelite mineralization was observed in the core from holes 5 and 6 in the following intervals:

DDH No. 5

87.0' - 89.3'	2.3 feet of good grade scheelite mineralization
89.3' - 96.6'	7.3 feet--some pin points of scheelite observed
96.6' - 98.9'	2.3 feet of fair grade of scheelite mineralization

DDH No. 6

104.75' - 105.38'	0.6 feet--core slightly mineralized with scheelite

Information on the diamond drill holes is as follows:

Hole No.	Length Ft.	Core size	Bearing	Dip	Remarks
1	70	AX	N 76° W	+ 7°	Water flowing from hole
2	22	AX	S 85° W	+ 7°	Water flowing from hole
3	55	AX			Lost bit at 55 feet; hole plugged at collar.
4	*130	0- 11' EX 11- 33' AX 33-130' EX	S 77° W	+ 7°	Hole probably was reamed from collar for 11 feet to obtain AX core. Water flowing from hole.
5	150	0- 40' AX 40-150' EX	N 44° W	+ 2°	Water flowing from hole.
6	135	AX	N 86° W	+ 5°	Water flowing from hole.

* Hole No. 4 was reported 138 feet long but by block marking core interval at end of core in box, only 130 feet was indicated.

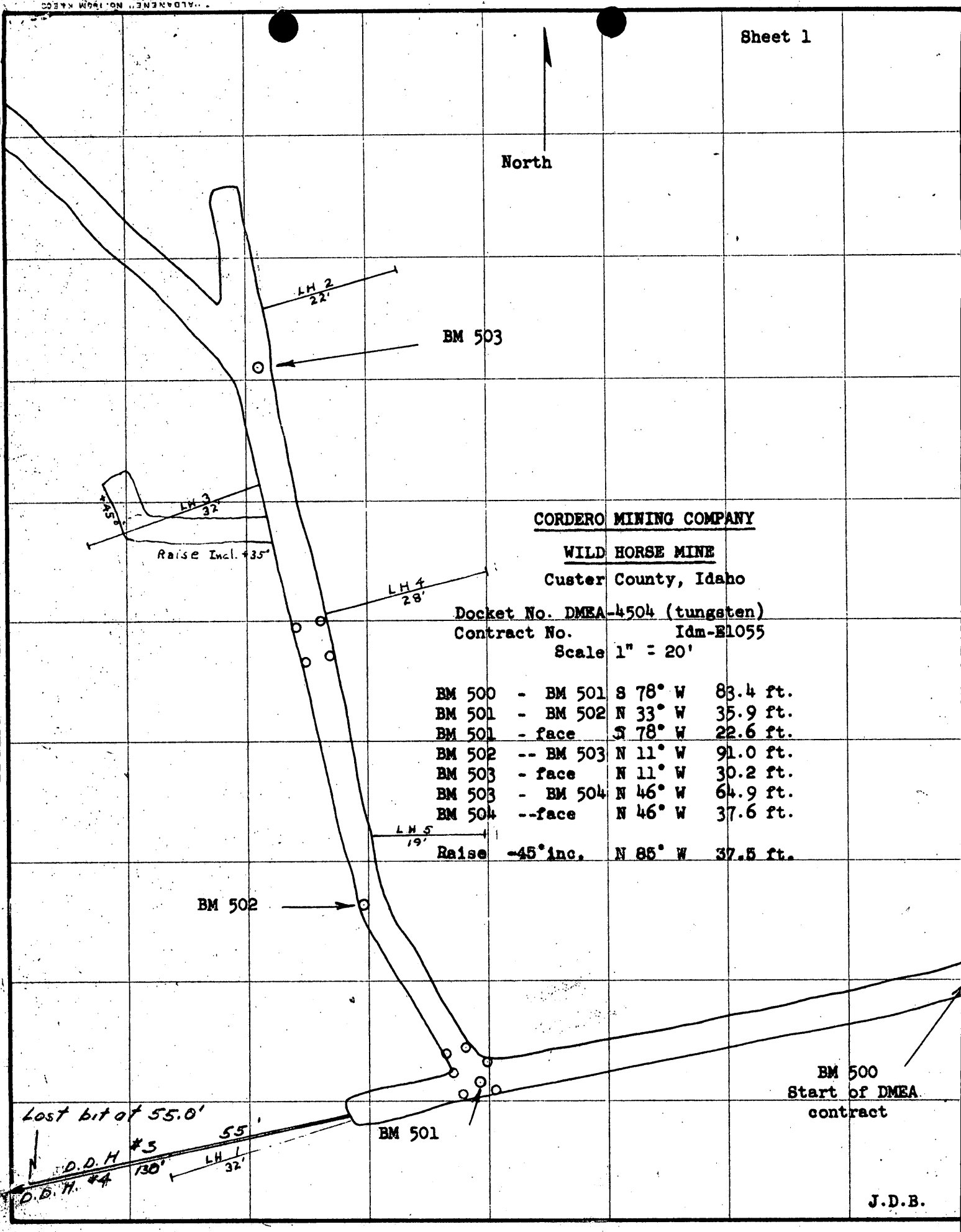
The status of the contract at the time of the inspection was:

	Authorized	Completed	Vouchered Apr. 57
Crosscut and drift	500 ft.	640.9 ft.	500 ft.
" " " timber	120 ft.	25.5 ft.	15.5 ft.
Raise timbered	100 ft.	--	--
Raise untimbered		60.5 ft.	--
Diamond drilling	800 ft.	562 ft.	70 ft.
Reaming and casing, or cementing and redrilling	200 ft.	11 ft.	--
Long hole drilling	303 ft.	303 ft.	303 ft.
Assaying (samples)	100	36	36
Bulldozer, snow removal	100 hrs.	52 hrs.	52 hrs.
Construction, snowshed & compressor-toolhouse	$2276.00	$2276.00	$2276.00

Date of contract: January 17, 1957
Termination date: January 17, 1958
Amount of contract: $28,572.00
Amount spent: 19,770.20 (thru April)

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Turner
Romischer

William M. Romischer



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, Idaho

Docket No. DMEA-4504 (tungsten)
Contract No. Idm-E1055
Scale 1" = 20'

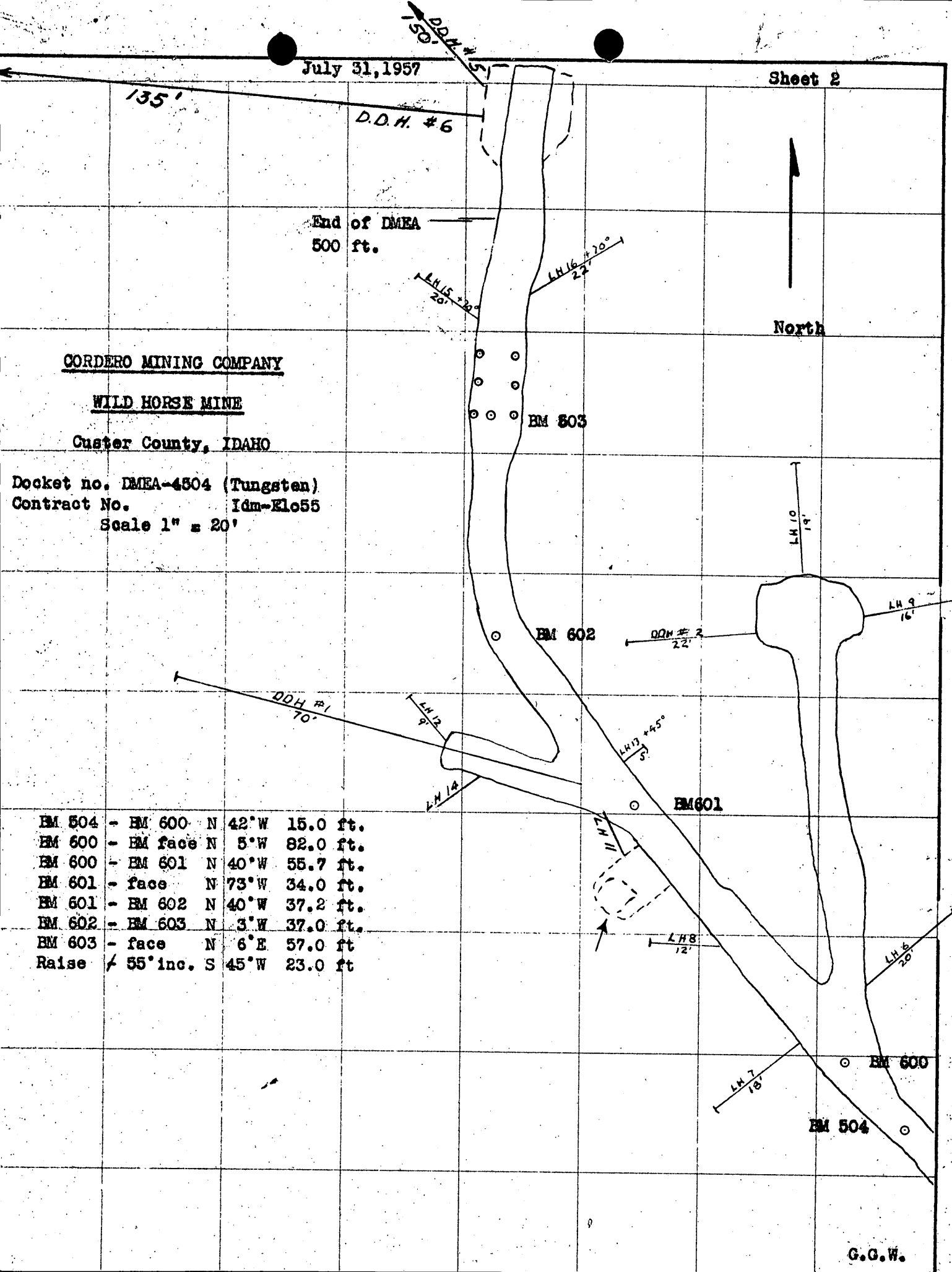
BM 500 - BM 501	S 78° W	83.4 ft.
BM 501 - BM 502	N 33° W	35.9 ft.
BM 501 - face	S 78° W	22.6 ft.
BM 502 -- BM 503	N 11° W	91.0 ft.
BM 503 - face	N 11° W	30.2 ft.
BM 503 - BM 504	N 46° W	64.9 ft.
BM 504 --face	N 46° W	37.6 ft.
Raise -45° inc.	N 85° W	37.5 ft.

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 12 1957

DATE	INITIALS	CODE

July 31, 1957

Sheet 2



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, IDAHO

Docket no. DMEA-4504 (Tungsten)
Contract No. Idm-Elo55
Scale 1" = 20'

BM 504 -	BM 600	N	42°W	15.0 ft.
BM 600 -	BM face	N	5°W	82.0 ft.
BM 600 -	BM 601	N	40°W	55.7 ft.
BM 601 -	face	N	73°W	34.0 ft.
BM 601 -	BM 602	N	40°W	37.2 ft.
BM 602 -	BM 603	N	3°W	37.0 ft.
BM 603 -	face	N	6°E	57.0 ft
Raise	∠ 55° inc.	S	45°W	23.0 ft

G.G.W.

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DKEA
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DATE	INITIALS	CODE

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	B	220
4	Corr	100
10/11	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

September 23, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: William M. Romischer, Mining Engineer, Bureau of Mines

Subject: Interim inspection report, Docket No. DMEA-4504 (tungsten) Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The project was inspected September 19, 1957. No one was at the property at the time of the writer's arrival but Mr. Don C. Ivie, contract diamond driller, arrived later. He said his drill helper quit last week but he expected another helper in a few days.

A trip underground included checking measured units for drifting and crosscutting, location of long holes and diamond drill holes.

No complete examination of diamond drill cores was made because it was considered imperative to leave the vicinity due to darkness and possible snowfall at the passes. The driller mentioned that the holes were not drilled completely with AX core, which the contract stipulates, but some EX size core was drilled.

The only DMEA contract work completed since the last inspection on July 31, 1957 is diamond drilling. The data on diamond drill holes are as follows:

Hole No.	Length	Remarks
1	70'	
2	22'	
3	55'	Lost bit
4	138'	Drilled in approximately same location as hole No. 3.
5	150'	Water under pressure coming from hole.
6	25'	Not completed.
	460'	

The status of the contract at the time of the inspection was:

Date of contract: January 17, 1957
Termination date: January 12, 1958
Amount of contract: $28,572.00
Amount spent: 19,770.20 (thru April)

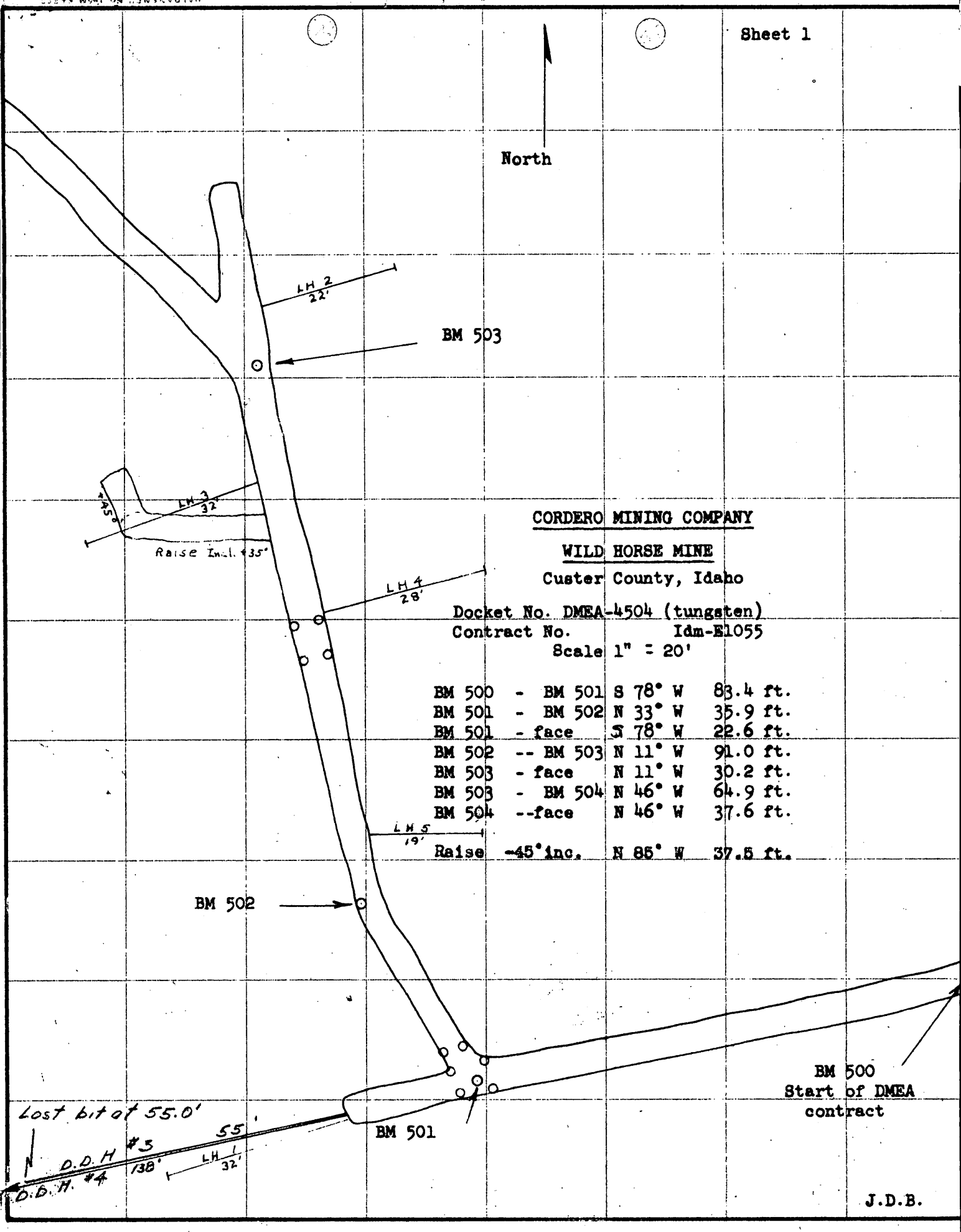
	Authorized	Completed	Vouchered Apr. '57
Crosscut and drift	500 ft.	640.9 ft.	500 ft.
" " " timber	120 ft.	25.5 ft.	15.5 ft.
Raise timbered	100 ft.	--	--
Raise untimbered	--	60.5	--
Diamond drilling	800 ft.	460.0 ft.	70 ft.
Long hole drilling	303 ft.	303 ft.	303 ft.
Assaying	100	36	36
Bulldozer, snow removal	100 hr.	52 hr.	52 hr.
Construction snowshed & toolhouse	$2276	$2276	$2276

William M. Romischer

William M. Romischer

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Romischer

Sheet 1



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, Idaho

Docket No. DMEA-4504 (tungsten)
Contract No. Idm-E1055
Scale 1" = 20'

BM 500	- BM 501	S 78° W	83.4 ft.
BM 501	- BM 502	N 33° W	35.9 ft.
BM 501	- face	S 78° W	22.6 ft.
BM 502	-- BM 503	N 11° W	91.0 ft.
BM 503	- face	N 11° W	30.2 ft.
BM 503	- BM 504	N 46° W	64.9 ft.
BM 504	--face	N 46° W	37.6 ft.
Raise	-45° inc.	N 85° W	37.5 ft.

J.D.B.

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DMEA
RECEIVED OCT 7 1957

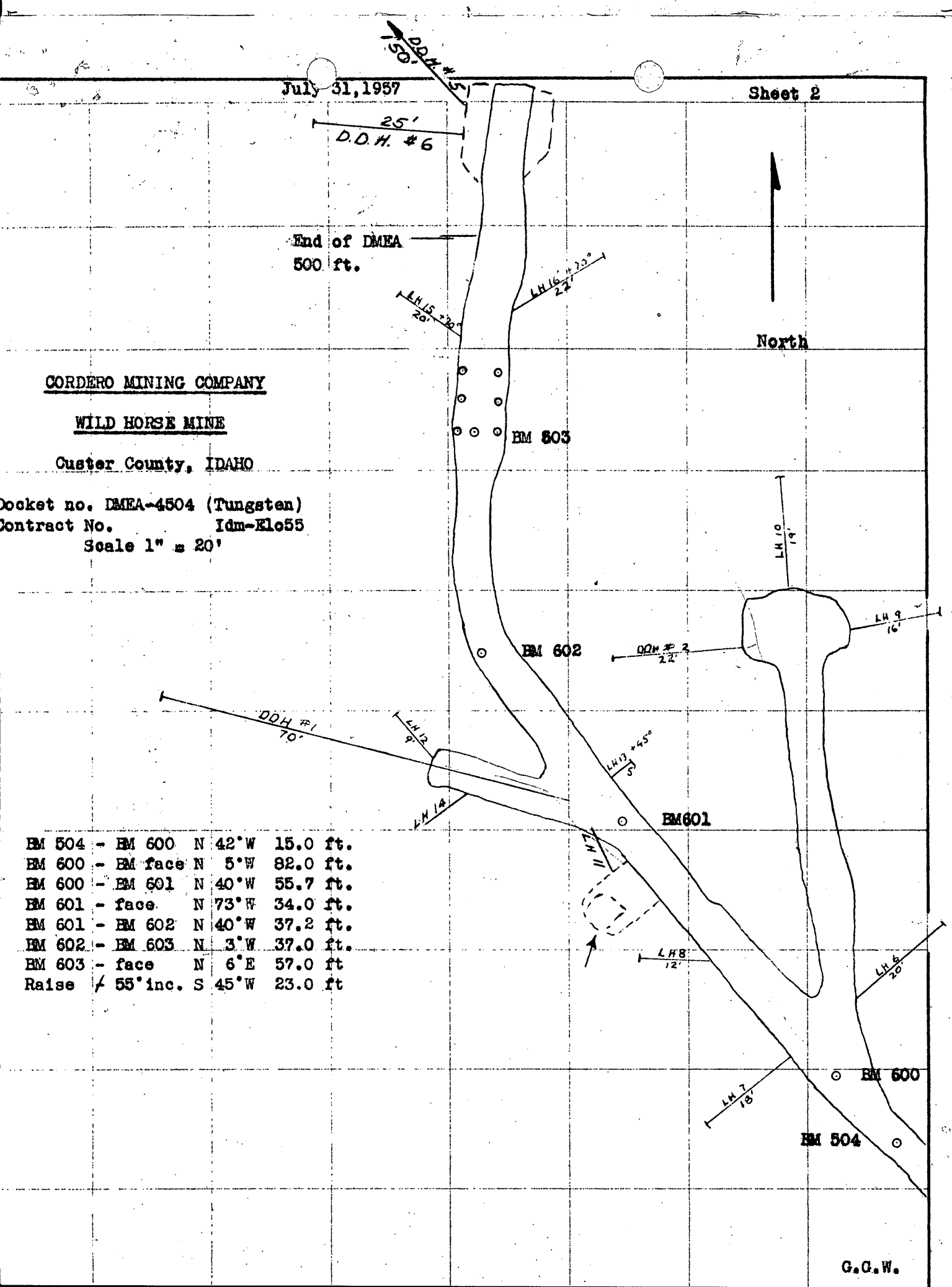
DATE	INITIALS	CODE

Terminated

DMEA-1175 Idm-E251(amended) Copper Region I Terminated	AMADOR MINING COMPANY, ASSIGNEE, MISSOULA, MONTANA. Green Mountain Mine, Sanders County, Montana. Letter to the Field with reference to its letter of September 19, 1957, to Mr. R. E. Dressel, Drake Leasing Company, Osburn, Idaho, regarding the amended contract.
DMEA-3048 Idm-E597 Uranium Region III Terminated	CANOOSE URANIUM MINES OF AMERICA, INC., ASSIGNEE, GRAND [illegible]CTION, COLORADO. Greager Grou[illegible] Claims, Montrose County, Colorado. Telotype to the Field with reference to its telotype of October 2, 1957, requiring [illegible]

July 31, 1957

Sheet 2



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, IDAHO

Docket no. DMEA-4504 (Tungsten)
Contract No. Idm-Klo55
Scale 1" = 20'

BM 504 -	BM 600	N 42°W	15.0 ft.
BM 600 -	BM face	N 5°W	82.0 ft.
BM 600 -	BM 601	N 40°W	55.7 ft.
BM 601 -	face	N 73°W	34.0 ft.
BM 601 -	BM 602	N 40°W	37.2 ft.
BM 602 -	BM 603	N 3°W	37.0 ft.
BM 603 -	face	N 6°E	57.0 ft
Raise	∠ 55° inc.	S 45°W	23.0 ft

G.C.W.

RECEIVED OCT 7 1957
DMEA
CODE

DMEA Operating Committee Minutes
Meeting No. 879
October 9, 1957

Miscellaneous

DMEA-107
Idm-E5
Lead, Zinc,
and Copper
Region III
Coordinated

NEW PARK MINING COMPANY, SALT LAKE CITY, UTAH. Mayflower Mine, Wasatch County, Utah.

Letter to the Field with reference to its memorandum of September 25, 1957, regarding releasing information relating to the project to the Bureau of Land Management.

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

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DMEA
RECEIVED SEP 16 1957

DATE		CODE
9-17	C	220
9/18	WSM	400

September 9, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: Donald C. Alvord, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-4504 (tungsten), Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was inspected on July 26, 1957, in company with Mr. Sui Ju Kung, Mining Engineer, Taiwan, Nationalist China. Mr. Don C. Ivie, miner in charge; and Mr. L. B. Miller, miner; and Mrs. L. B. Miller, camp cook, were on the property.

Since the last geologic inspection on April 30, 1957, the drift northwest had been advanced 108 feet along an alaskite dike, limy biotite schist contact. Only two showings of a few fine disseminated scheelite crystals were encountered by this work (coordinates 1,218E., 1,370N.; and 1,233E., 1,370N., pl. 1). A stub crosscut was driven about 20 feet west along the course of DDH No. 1 to test the scheelite showings penetrated by this hole. The hanging wall of the barren alaskite dike was crossed after about 10 feet of crosscut, the remaining work was in epidote-quartz-biotite schist containing wisps and veinlets of alaskite. Scheelite crystals are scattered throughout this zone but the better concentrations occur along planes of schistosity as filmlike veinlets. The over-all grade of the zone is estimated at 0.25 percent WO_3 or less.

DDH No. 3 had been drilled into the face of the adit crosscut (coordinates 1,236N., 955E.) to a depth of 63.0 feet. The core of this hole was barren but Mr. Ivie reports that a trace of scheelite was observed in the sludge from near the collar of the hole.

It was Mr. Ivie's understanding that the company intended to continue drifting northward along the ore zone and under the old workings during the coming fall and winter and to complete the diamond drilling provided for under the DMEA contract. Mr. and Mrs. Miller were to leave the property at the end of the month; Mr. Ivie and another miner were to stay on to complete the work.

Distribution:
DMEA (Orig. & 3)
Docket
Alvord
USBM (2)
USBM (AD)
Attachment 1

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 10/7/57

Referred to:

1. ~~Mr. Mistendorf~~
2. ~~Mrs. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5. ~~Division~~
6. Docket Control Mails and Files
7. 400

Note comments in report regarding:

1. Contract amendment required,
2. if EX drilling is to be accepted. Also if express X-cut + drift is accepted
3. Talbot 10/11/57
4.

and take appropriate action.

= = = = = = = =

Action taken by Division:

Drafted proposed amendment to permit EX drilling under special circumstances, with the approval of the Government.

S.D.H. 10/24/57

Robert E. Adams

GB

This is something that has to be checked against the contract

U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1/46)

1. Use blocks consecutively, one at a time.
2. Void previous block.
3. Write clearly.

NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM		NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM	
[illegible]	RUN STOP		RUN STOP
[illegible]	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
~~Office of~~ [illegible]	RUN STOP		RUN STOP
[illegible] 2609	RUN STOP		RUN STOP
DMEA Rm 4458	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

August 8, 1957

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DMEA
RECEIVED AUG 19 1957

DATE	INITIALS	CODE
19	[illegible]	100
8/20	WSM	400

MEMORANDUM

To: DMEA Field Team, Region I

From: G. G. Waddell, Mining Engineer, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-4504 (tungsten) Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was inspected July 31, 1957, accompanied by E. W. Parsons, Bureau of Mines engineer.

A brunton and tape survey was made of the new exploration work performed since the last inspection. The results are as follows:

		Measured units	DMEA Approved units
Prior to 3/21/57 (BM500-504 + 37.6)		365.6'	360.6'
Subsequent to 3/21/57			
BM504-600	N.42° W.	15.0	Prior approval
BM600-face	N. 5° W.	82.0	Company proj.
BM600-601	N. 40° W.	55.7	33.1
BM601-face	N. 73° W.	34.0	Company proj.
BM601-602	N. 40° W.	37.2	37.2
BM602-603	N. 3° W.	37.0	37.0
BM603-face	N. 6° E.	57.0	32.1
Raise BM502 + 64'	Due W.	37.5	
Raise BM600 + 45'	S. 45° W.	23.0	
Total drifting and crosscutting			500.0 feet
Timber prior to 3/21/57		15.5	15.5
" subsequent to 3/21/57		10.0	10.0
Total timber			25.5 feet

The status of the contract at the time of the inspection was:

Date of contract: January 17, 1957
Termination date: January 17, 1958
Amount of contract: $28,572.00
Amount spent: 19,770.20 (thru April)

	Authorized	Completed	Approved
Crosscut and drift - ft.	500	640.9	500
" " " - timber - ft.	120	25.5	15.5
Raise timbered	100	--	--
Raise untimbered	--	60.5	--
Diamond drilling - ft.	800	152.0	70
Long hole drilling - ft.	303	?	303
Assaying - no. of samples	100		36
Bulldozer - hrs. snow removal	100	52	52
Construction - snowshed	1	1	1

In a telephone conversation, prior to the inspection, Mr. Haas, assistant manager, stated that he planned to complete the diamond drilling program, then close the mine. A drill station was being cut at the time of the inspection. Most of the crew had been "laid-off" and the cook and one miner intended to move away the following week.

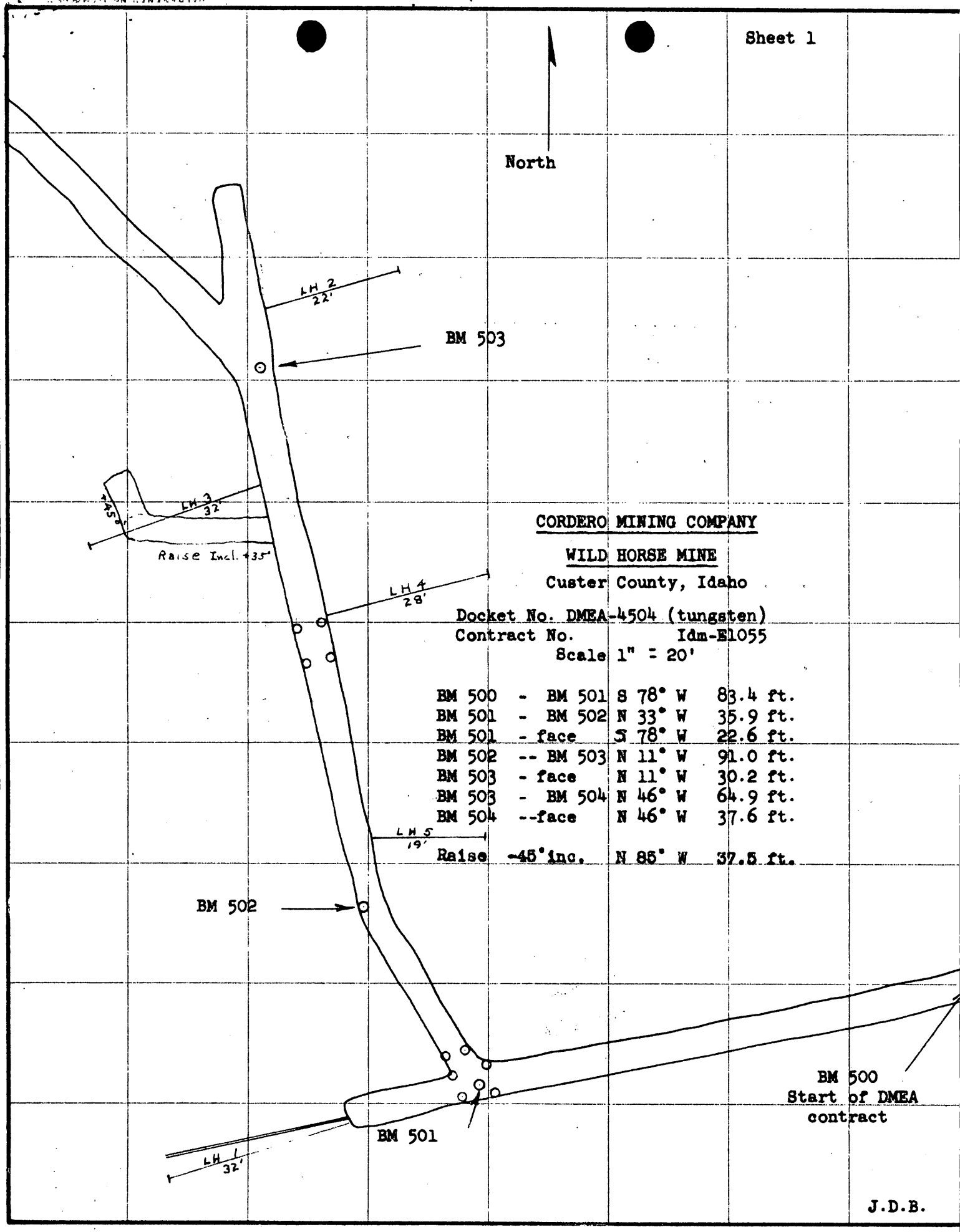
Mr. Haas said he will have the company geologist submit a final report as soon as the contract work is all completed.

Galen G. Waddell
G. G. Waddell

Attachments

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Waddell

Sheet 1



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, Idaho

Docket No. DMEA-4504 (tungsten)
Contract No. Idm-E1055
Scale 1" = 20'

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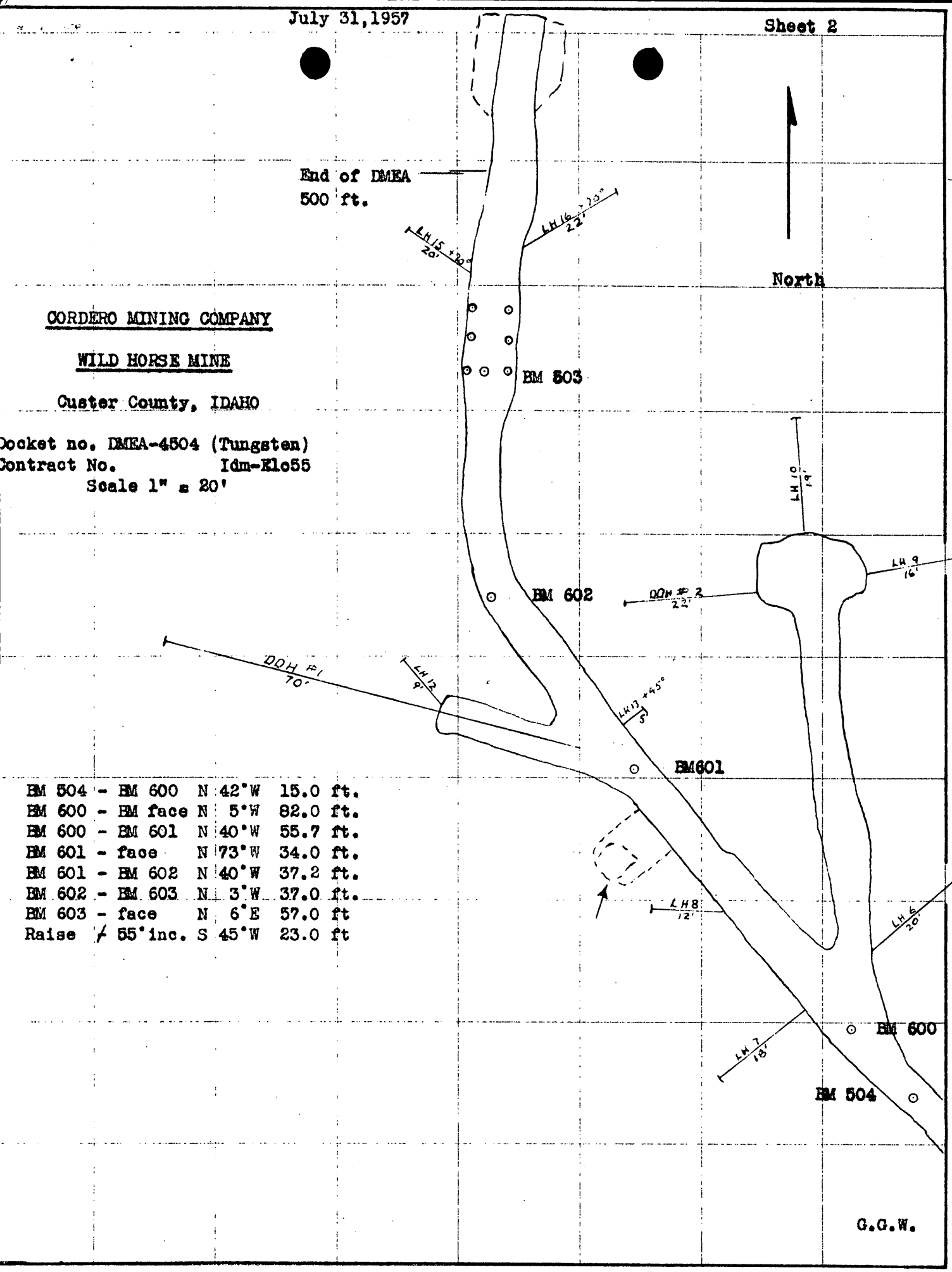
July 31,1957

Sheet 2



CORDERO MINING COMPANY

WILD HORSE MINE

Custer County, IDAHO

Docket no. DMEA-4504 (Tungsten)
Contract No. Idm-Elo55
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BM 602 -	BM 603	N 3°W	37.0	ft.
BM 603 -	face	N 6°E	57.0	ft
Raise	∠ 55°inc.	S 45°W	23.0	ft

Gendron Co Spokane

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

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

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 22 1957

DATE	INITIALS	CODE

May 13, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Interim inspection report and recommendation for additional work, Docket No. DMEA-4504 (tungsten), Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was visited on April 30, 1957. Mr. Verne Haas, company engineer, accompanied the examiner. The advance was mapped and two samples were cut. The inspection was made to determine the feasibility of additional work consisting essentially of what was recommended in the original examination report dated November 16, 1956, by Howard B. Nickelson, geologist, U. S. Geological Survey, and D. D. Walker, mining engineer, U. S. Bureau of Mines.

On March 21, 1957, John D. Bardill, mining engineer, U. S. Bureau of Mines, and the writer visited the property to evaluate additional work requested by the Operator in his letter dated March 6, 1957. The examination of March 21 showed that very minor amounts of tungsten mineralization had been cut and, at that time, the results hardly justified additional work. However, since that time the Operator has cut a flat-dipping alaskite dike with a small but good grade ore body occurring on the footwall and hanging wall of the dike (pl. 1). This ore body appears small but additional exploration may show it has greater extent.

PROJECT GEOLOGY

The adit crosscut, driven S. 83° W., a distance of 221 feet, cut across a series of quartzite, quartzite-biotite schist, biotite schist, and marble beds that strike north and dip 70°-80° east. The last 25 feet of the crosscut cut marble and tactite beds that contained minor amounts of scheelite and powellite. A long hole, TH-1, drilled 32 feet beyond the face of the crosscut, also showed minor amounts of scheelite in the sludge. The drift to the north was started along the marble beds but at Station USBM 502 a fault cut these beds and the drift continued into biotite schist-quartzite rock that contained scheelite-powellite. Muck pile sample assays along this portion of the drift are low. A streak of low-grade ore was

encountered about 70 feet from Station USBM 502. The low-grade ore in this area will average 0.5 to 0.6 percent WO_3. The No. 2 Raise, driven to a height of 16 feet, showed the mineralization continuing but there was no appreciable increase in the grade of the material. A fault cut the mineralization off a few feet south of Station USBM 503. At Station USBM 503, the drift was turned N. 43° W. to crosscut the beds. Minor amounts of scheelite were encountered along this crosscut. This crosscut was stopped about 30 feet beyond Station USBM 504 and a drift bearing N. 15° W. was started to locate the continuation of the mineralization that was found between Stations USBM 502 and USBM 503. No mineralization was found and the drift was stopped at about 75 feet. The N. 43° W. crosscut was then advanced an additional 53 feet exposing a dike and an associated ore body.

The hanging wall of the dike strikes about N. 25° W. and dips 20°-25° NE. The scheelite ore occurs on the hanging wall of the dike in a marble bed continuing for about 6 or 8 feet above the dike as shown in the raise section on plate 1. Muck pile samples are low in this area because approximately one-third or less of the total muck is vein material. A 5-foot channel sample across the ore assayed 2.97 percent WO_3. The locations of these samples are shown on plate 1. The scheelite is associated with epidote and it was estimated by lamping that the ore would average 1.5 to 2 percent.

The Operator widened the face of the N. 43° W. crosscut and drilled diamond drill hole No. 1 on a bearing of N. 75° W., inclined up about 5°. The log of this hole is as follows:

Interval (ft.) From	To	Core description	Recovery
0	13.5	Alaskite dike	92%
13.5	16.3	Epidote and scheelite; scheelite crystals 1/8" to 1/4" in diameter.	28%
16.3	18	Alaskite dike	92%
18	19	Mica schist, some scheelite)	36%, 18'-23'
19	20	Epidote and scheelite)	
20	24	Marble, quartz and mica schist)	32%, 23'-28'
24	26	Epidote and scheelite)	
26	35	Marble	21%, 28'-35'
35	43	Marble	25%

Interval (ft.) From	To	Core description	Recovery
43	63	Marble	100%
63	65	Alaskite dike	100%
65	67	Low-grade scheelite in mica schist; crystals fair sized	100%
67	70	Marble, some mica schist	100%

A very heavy flow of water was encountered throughout the length of the hole and it was impossible to recover any sludge. This heavy flow of water may also be responsible for the low core recovery in the ore zones.

Another ore zone from 13.5 to 26 feet was found to lie under the alaskite dike and there is a possibility that this could develop into a small ore body.

The Operator plans to extend the N. 43° W. crosscut along the No. 1 drill hole to explore the ore showing, then to drift in a northwest direction along the ore zone. He also plans to drive a dog hole raise at the face of the N. 43° W. crosscut to test further the ore shoot on the hanging wall of the dike. When the drift along the ore indicated in the No. 1 drill hole is in the clear of the crosscut, the Operator plans to continue the No. 1 drill hole to the maximum depth allowed by the contract.

The Operator also plans to drill a diamond drill hole from the face of the adit crosscut. This hole will also be about 350 feet deep.

The completed work has not yet resulted in the discovery of a large ore shoot but it does show that scheelite occurs throughout the area as minor disseminations and occurs as high-grade lenses in limestone beds associated with alaskite dikes. From the surface showing, the best target area lies ahead of the completed work.

Continuation of the work as proposed in the original examination report, with minor modification, is justified (pl. 2). The additional work would consist of the following:

(1) 1,500 feet of drifting. The drifting would follow along the mineralized zone passing under the old workings as was proposed in the original report.

(2) 400 feet of raising. From the results of the completed work, raising is an important method of exploring these ore bodies. Most of the raises will be short prospect raises that will not require timber except perhaps for stulls to drill from or to separate chute from the manway. In the most part, chutes will not be needed because the muck can be picked up with a mucking machine. This type of raise can be driven cheaper than those allowed in the present contract. Mr. Haas verbally requested this change. He has not claimed payment for the raises he has driven because they are not timbered.

(3) 2,200 feet of diamond drilling, AX size. This footage is the balance of what was recommended in the original examination report. The locations of the holes should be 200 feet apart, unless shorter intervals are approved by the Field Team, and the holes should not exceed 400 feet in length. Check holes would be advisable in certain areas. It is recommended that the Field Team have authority to approve such holes with any remaining footage that may be left after the probing holes on 200 centers along the drift have been drilled.

(4) 700 feet long hole drilling. These would be used to test the drift walls between diamond drill holes.

(5) 200 feet of timbering. No timber has been required to date and it is believed this amount will be adequate.

(6) 150 assays for tungsten.

If any work remains in the present contract, it is recommended that it not be deleted but it can be used for this additional work.

Mr. Haas thought that the two-shift schedule would be cut to one shift because they are losing several of their miners and because the company would be able to control the exploration work better with only one shift.

The area is potentially a good place to prospect for tungsten, and the exploration proposed appears to have a reasonable chance of discovering tungsten ore bodies.

It is recommended that the proposal for additional work be approved.

The estimated costs for the additional work follows.

ESTIMATED COST OF THE PROJECT

It is recommended that the same fixed unit costs be used for the new proposed work except that untimbered raises be at the rate of $27 per foot. The original contract shall comprise Phase I and the new work, Phase II of the project.

Fixed Unit Costs

Phase I:		$ 28,572.00
Phase II:		
1. 1,500 feet drifting and/or crosscutting @ $32.00/ft.	$48,000.00	
2. 400 feet raising @ $27.00/ft.	10,800.00	
3. (a) 2,200 feet diamond drilling AX or larger @ $4.50/ft.	9,900.00	
(b) Reaming and casing, or cementing and redrilling, 500 ft. @ $2.00/ft.	1,000.00	
4. 700 feet long hole drilling @ $1.00/ft.	700.00	
5. 200 feet drift and/or crosscut timbering @ $6.40/ft.	1,280.00	
6. 150 assays for tungsten @ $4.25/sample	637.50	
Total Phase II		$ 72,317.50
Estimated Total Cost of the Project		$100,889.50

Enclosures

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

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 5/27

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Wimberley~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5. Division
6. Docket Control Mails and Files

7,400

Note comments in report regarding:

1. Doesn't look too hot!
2.
3.
4.

and take appropriate action.

- - - - - - - - -

Action taken by Division:

This report, dated May 10, refers to an examination made Mar. 21. Nickelson of G.S., and Walker, of B.M. made a later examination, April 30, see Interim report dated May 13, 1937, which is more favorable. S.P.H.

Robert E. Adams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

May 10, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE
5/27	C	220
"	Com	100
5/28	WSM	400

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-4504 (tungsten) Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was visited March 21, 1957, accompanied by J. Elton Gilbert, general manager, Verne R. Haas, assistant manager, and H. B. Nickelson, geologist, U. S. Geological Survey.

The main crosscut, approximately 163 feet long, bears about S. 78° W. to the vein structure at BM 501. It was then driven 22 feet further into the marble footwall. The vein structure was several feet wide and contained occasional specks of scheelite. ✓

A long hole was drilled 32 feet from the face of the crosscut into the footwall. Drill cuttings were barren of tungsten mineralization. ✓

A drift was driven approximately 155 feet in a northwesterly direction from Sta. BM 501. A small amount of scheelite mineralization was observed at 90 and 110 feet. ✓

Since the scheelite had disappeared in approximately the last 40 feet of the drift, a branch from the drift was started about 25 feet back from the face and driven roughly 103 feet, bearing about N. 46° W. through more barren ground. ✓

The following measurements were made of the DMEA contract work by Brunton compass and tape.

Start of contract	BM 500 - BM 501	S. 78° W.	83.4 ft.
	BM 501 - face	S. 78° W.	22.6 ft.
	BM 501 - BM 502	N. 33° W.	35.9 ft.
	BM 502 - BM 503	N. 11° W.	91.0 ft.
	BM 503 - face	N. 11° W.	30.2 ft.
	BM 503 - BM 504	N. 46° W.	64.9 ft.
	BM 504 - face	N. 46° W.	37.6 ft.
			365.6 ft.
Corrected allowable drifts and crosscut after deducting for curves			360.6 ft.

The status of the contract at the time of the inspection was:

Date of contract: January 17, 1957
Termination date: January 17, 1958
Amount of contract: $28,572.00
Amount spent: 17,587.65 (thru March)

	Authorized	Completed
Crosscut and drift - ft.	500	360.6
Timber crosscuts and drifts - ft.	120	15.5
Long hole drilling - ft.	303	32
Assaying - samples	100	21
Bulldozer - hours	100	44
Snowshed-compressor house	1	1

John D. Bardill

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

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

1201 N. Division St.
Spokane 2, Washington

February 15, 1957

OFFICIAL FILE COPY
D M E A
RECEIVED MAR 7 1957

DATE	INITIALS	CODE
3/7	CMK	100
3/11	WSM	400

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: D. D. Walker, Mining Engineer, Bureau of Mines

Subject: Initial inspection report, Docket No. DMEA-4504 (tungsten) Cordero Mining Company, Wild Horse Mine, Custer County, Idaho, Contract No. Idm-E1055

The property was visited February 6, I was accompanied by H. B. Nickelson, geologist, U. S. Geological Survey. Several miners were present.

A 20'x43' compressor and repair shed has been erected and two snowsheds have been built. One of these is 49 feet long and leads to the ore dump. The other is 75 feet long and leads to the waste dump.

The crosscut has been advanced 163 feet (80 feet of which was done prior to the contract date) on a general heading of S. 79° W. Twenty-nine feet of overburden, 43 feet of biotite quartz schist, and 91 feet of quartzite were passed through, but no ore has yet been encountered. Six sets (30 feet) of timber were used. These were installed prior to the contract date. Timbering was unnecessary after solid rock was reached. A DMEA measure point was set at a distance 49.0 feet from the face of the drift.

Muck is trammed from the face in one-ton cars. Four cars are in use at the present time. Two mucking machines, an Eimco 11 and and Eimco 12, are alternated to load cars.

Air is furnished by a Gardner-Denver WBK2, 100 psi compressor run by a Caterpillar diesel engine.

Drilling equipment consists of two small Copco sinker drills (used for plugging); a large Copco with leg, and a large Thor 380 with leg for drifting. Actually the company has been experimenting with several types of drills to determine which is best suited to their operation.

Ventilation is furnished by a Coppus fan driven by a 5 HP Allis Chalmers motor. Air is sucked from the face of the drift and expelled outside the compressor house.

The operation is on two shifts per day and generally averages one round every 1-1/2 shifts. Thirty to thirty-three holes are used in the 6x8 heading. They are loaded with six or seven sticks each (except lifters which take eight) and are blasted electrically.

210
24
112/234
say 2 cases

Workmanship is satisfactory.

Status of the contract is:

Date of contract: January 17, 1957
Termination date: January 17, 1958
Amount of contract: $28,572.00
Amount spent:

	Authorized	Completed
Crosscut and drift	500 feet	83 feet
Timber crosscut and drift	120 "	
Timber raise	100 "	
Diamond drilling	800 "	
Cementing, casing, reaming	200 "	
Long hole drilling	303 "	
Assaying	$100	
Snow removal	100 hours	10 hours
Construct snowshed	$1476	Yes
Compressor-toolhouse	$ 800	Yes

D. D. Walker

D. D. Walker

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

Box 69-T

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
February 4, 1959

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 10 1959		
DATE	INITIALS	CODE

11/27/74

Gail:

I need the docket for:
DMEA 4504 Idm E-1055
Cordero Mining Company
Wild Horse Mine
Custer County, Idaho.

If it is in Archives, please arrange to get it.

The Westinghouse Corporation has permission from the owners of the property to examine the information obtained on this project.

Mr. Larry Ball
(301) 765-5551

I will phone this party after I have reviewed the docket.

HK

12/3/74

Mr. Ball phoned. Promoters evidently don't have legal papers on the property. Held docket for several months.

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 10 1959

DATE	INITIALS	CODE
2/13	JG	130
		220

FT's FINAL REPORT

DEPARTMENT OF THE INTERIOR

OFFICE OF MINERALS EXPLORATION

FIELD TEAM, REGION I

FINAL REPORT

Contract Idm-E1055

by

William M. Romischer
Mining Engineer
U. S. Bureau of Mines

Donald R. MacLaren
Geologist
U. S. Geological Survey

CORDERO MINING COMPANY
131 University Avenue
Palo Alto, California

Docket No.:	DMEA-4504
Commodity:	Tungsten
Contract date:	January 17, 1957
Completion date:	October 31, 1957

Reviewed by
OME OPERATING COMMITTEE
2-13-59
(date)

WILD HORSE MINE
Alto Mining District
Custer County, Idaho

Spokane, Washington

February 1959

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ILLUSTRATIONS

Plate 1.	Composite map showing DMEA and Steep Claim workings	In pocket
2.	Geologic map, Wild Horse Mine, Steep Climb Deposit	In pocket
3.	Geologic map, Wild Horse Mine, DMEA adit	In pocket
Figure 1.	Index map showing location of Wild Horse Mine, Custer County, Idaho	In pocket

FINAL REPORT

CORDERO MINING COMPANY
Wild Horse Mine
Alto Mining District
Custer County, Idaho

Contract Idm-E1055

* * * *

INTRODUCTION

This report describes a project conducted jointly by the Defense Minerals Exploration Administration and the Cordero Mining Company to explore for tungsten ore at the Wild Horse mine, Custer County, Idaho.

Summary

The purpose of the project was to explore a tungsten-bearing zone indicated by a shallow mine working and a few scattered trenches. The work completed under the contract consisted of 500 feet of crosscutting and drifting of which 25.5 feet was timbered, diamond drilling of 190 feet of AX size hole and 75 feet of EX size, 303 feet of long-hole drilling, 36 samples assayed for WO_3, 66 hours of bulldozing for snow removal, and the construction of a snowshed and a compressor-toolhouse.

The total cost of the work completed was $20,860.95, of which the Government's participation was 75 percent or $15,645.71.

The exploration program was unsuccessful. Although some small lenses of ore-grade material were disclosed, no deposits of significant size were discovered.

Recommendations

No Certification of Discovery or Development is recommended. No further exploration with Government participation is warranted unless new geologic targets are discovered.

LOCATION AND ACCESSIBILITY

The Wild Horse mine is on Wild Horse Creek, a northward flowing tributary of Big Lost River, about 30 miles east of Ketchum, Idaho (fig. 1). The property is situated in the northwestern part of T. 5 N., R. 20 E. Boise meridian in the Alto Mining District, Custer County, Idaho.

The property can be reached from Ketchum by traveling northeasterly about 23 miles over the Trail Creek road, which is an improved gravel road connecting paved U. S. Highways 93 and 93A. At the East Fork of the Big Lost River continue southeasterly for about 1.8 miles on the East Fork road and take the road to the right along Wild Horse Creek for about 8 miles to the mine. During the winter time the property is usually inaccessible from Ketchum because of heavy snow in the vicinity of Trail Creek summit. The Trail Creek road is usually open from the east from U. S. Highway 93A.

The 8-mile access road to the mine is an unimproved dirt road which is rough and winding, especially near the mine, and which will require snow removal during the winter and early spring. The snowfall at the mine is usually 4-5 feet deep. Snowslides occur and spring floods have destroyed several bridges along Wild Horse Creek during recent years.

Altitudes in the vicinity of the property range between 7,700 and 8,300 feet. The terrain is rough and slopes are covered by overburden and a thick growth of timber. The overburden is deep and mainly composed of large boulders along with talus. Glacial moraines cover some of the lower slopes.

PROPERTY

The land that was subject to the exploration project contract consists of 16 unpatented lode mining claims which are recorded in the Custer County courthouse at Challis, Idaho, as follows:

Name	Recorded Book No.	Recorded Page No.
Steep Climb 1 to 6, incl.	14	150-155
Steep Climb 7, 8, and 9	14	169-171
Steep Climb 10 to 16, incl.	14	183-188

The above property is owned by John Rosenkrance, Bill Brooks, A. L. Hall, and Mrs. Afton McBride, and is leased by them with an option to purchase to the Cordero Mining Company, a Nevada corporation. The Consent to Lien and Subordination Agreement was obtained from the owners.

Approximately 1,500 tons of tailings from previously milled ore and about 300 tons of ore reported stockpiled and mined previously by the applicant was excluded from the royalty provisions of the contract.

History and Production

The Wild Horse property (pl. 1) consists of 3 groups of claims, Hard to Find, Steep Climb and Beaver, which total 40 claims. Only the Steep Climb claims were explored under the DMEA project.

The mine is a new property for the deposit was discovered in August 1953 by the owners. It was leased and optioned to the Cordero Mining Company, a subsidiary of Sun Oil Company, in September 1953.

The company built a mill on the property in 1954 and by December all surface facilities had been completed and mining and milling operations started. Some concentrate was produced in 1954, but none was shipped until the following year.

From 1954 to near the end of 1956 the property produced 12,621 tons of ore, which contained 7,461 units of tungsten. Of this ore, 5,677 tons containing 5,706 units of tungsten came from the Steep Climb group; some of this ore was phenomenally rich. During the period of operation 5,639.6 units of tungsten were recovered and sold to the General Services Administration for $347,097.67. There is no record of any production after 1956.

Surface Facilities

The surface plant at the Wild Horse mine consists of an office, a 50-ton per day gravity concentrator, a 10-man bunkhouse, cookhouse, and several small buildings which are used as shops.

The equipment in the 50-ton mill includes a crusher, rolls, jig, tables, roaster, and magnetic separator.

Mining equipment includes a Chicago Pneumatic 260 cfm compressor, drills, mucking machine, and a TD-14 bulldozer.

Mine Workings

Mine workings on the Steep Climb claims consist of surface and shallow underground workings (pl. 2). There are 3 surface pits, an adit crosscut (95 feet long), and a drift (400 feet long) from which ore was stoped to the bottom of the southernmost pit. Only about 80 feet of backs are above the north face of the drift.

Other workings include a surface pit on the Beaver claims and another on the Hard to Find claims. Each of these pits is credited with a minor amount of the past production of tungsten ore.

GEOLOGY

The geology of the area has been described by Joseph B. Umpleby, Lewis S. Westgate, and Clyde P. Ross in "Geology and Ore Deposits of the Wood River Region," U. S. Geological Survey Bulletin 814, 1930, and that of the Wild Horse mine and the adjacent area has been described by Earl F. Cook in "Tungsten Deposits of South-Central Idaho," Idaho Bureau of Mines and Geology Pamphlet 108, 1956. The local geology has also been described by Howard B. Nickelson, U. S. Geological Survey, in a memorandum examination report on the Wild Horse mine. Each of these sources have been freely drawn upon in preparing this report.

Rocks of the area are metamorphosed sedimentary rocks probably of the East Fork or Hyndman formation of Precambrian age. These are surrounded by biotite gneiss which grades from light to dark in color and which is bounded on three sides by granodiorite. This assemblage of rocks has been uplifted and is almost entirely surrounded by rocks of the Wood River formation of Pennsylvanian age.

In the mine area the rocks are gneiss which locally contains beds of marble, marble banded with biotite schist, quartzite, biotite schist, and tactite. The beds have been intruded by a light-colored granite which has formed migmatites in the gneiss and schist and by alaskite dikes. The foliation in the gneiss appears to be parallel to the bedding which strikes northerly and dips steeply to the east. Generally, the alaskite dikes are flat, tabular masses believed by Cook to be formed by replacement. The alaskite dikes appear to be younger than the metamorphic rocks, but their age has not been established closer than that.

Scheelite is associated with epidote, garnet, biotite, or biotite schist, but the dominant gangue mineral is epidote. Tungsten ore is found only in tactite which has been formed by local replacement and recrystallization of marble beds where they have been cut by alaskite dikes. Tactite forms more readily in the impure marble than in the pure. Where beds of pure marble have been cut by alaskite dikes similar to those which cut the impure beds, no tactite has been formed and no scheelite in ore amounts has been found. Cook therefore believes that the control of ore deposition has been the intersection of alaskite and impure marble beds. Nickelson believes that the alaskite dikes are later than the tungsten, but his evidence is not convincing.

At the Steep Climb deposit (pl. 2) ore lenses have been exposed in three surface cuts and a drift. The northernmost cut was sloughed when the application examination was made and has not since been cleaned out. According to Nickelson the ore occurred along the bedding and the presence of alaskite dikes was noted. From this pit 564 tons of ore containing 0.81 percent WO_3 has been mined. About 350 feet south is a second pit, also sloughed, in a marble bed, which has produced 421 tons of ore containing 1.22 percent WO_3. This bed can be traced for about 70 feet to the south. About 150 feet southeasterly is a third pit from the north half of which 1,050 tons of ore containing 1.26 percent WO_3 have been mined. A drift passes under the south half of this pit and exposes the same ore shoot, part of which has been stoped. The stope and the south half of the pit combined have produced 3,642 tons of ore containing slightly better than 0.95 percent WO_3. In the floor of the drift, at the end of the adit crosscut, is a lens of ore 1½ to 2 feet thick and about 20 feet long. This lens is in tactite developed along an alaskite-marble contact. The same alaskite dike is exposed in the back of the drift just below the stope.

The zone of ore lenses just described strikes northwest to north and dips steeply to the east. About 1,200 feet southeasterly from the Steep Climb workings there is a bulldozed trench (pl. 1) which exposes a 4-foot band of scheelite-bearing rock estimated to contain 1 percent WO_3. The DMEA crosscut was directed to pass beneath this showing (pls. 1 and 3). It cut across a series of quartzite, quartzite-biotite schist, biotite schist and marble beds that strike northerly and dip 70°-80° E. Some scheelite in scattered blebs and coating fractures occurs in these rocks but not until the final 25 feet of crosscut was a series of marble and tactite beds cut. These beds contained minor amounts of scheelite and powellite.

The drift to the north was started along the marble beds, but at about 30 feet a fault cut off the beds and the drift continued in beds of quartzite with biotite-schist bands which contained scheelite and powellite in sparse amounts for about 70 feet. Here a streak of low-grade ore, averaging 0.5 to 0.6 percent WO_3, was encountered. A raise followed the ore for 16 feet without encountering any appreciable change in the grade. Within a few feet the ore streak in the drift was cut off by a fault.

A crosscut was then driven northeasterly across the beds, which contain minor amounts of scheelite. At about 80 feet the crosscut exposed a bed of marble cut by an aplite dike. The hanging wall of the dike strikes about N. 25° W. and dips 20°-25° NE. Scheelite ore occurs along the hanging wall of the dike in the marble. A raise on the ore shows that it only continues for 6 or 8 feet above the dike. The scheelite is associated with epidote and a channel sample taken across the ore shoot in the raise assayed 2.97 percent WO_3 over a width of 5 feet.

On the hanging-wall side of the alaskite dike is a zone about 10 feet wide of epidote-quartz-biotite schist containing wisps and veinlets of alaskite. Scheelite is scattered throughout the zone and is slightly more abundant as coatings along planes of schistosity.

THE PROJECT

In the Steep Climb area, small lenses of tungsten ore occur in beds of impure marble where the beds have been cut by alaskite dikes. In a zone about 650 feet long and 20 to 30 feet wide, 5,677 tons of ore containing slightly better than 1 percent WO_3 had been mined from 3 open pits and 1 short drift. About 1,200 feet southeasterly of the Steep Climb workings, an old trench exposed similar scheelite-bearing beds. Thus, a potential scheelite-bearing zone at least 1,800 feet long was indicated.

The Cordero Mining Company proposed to explore this zone by driving a crosscut adit to cut the exposure made in the trench at the west end of the zone and drifting northerly along the zone exploring the walls by long holes and diamond drill holes. The proposal included 200 feet of crosscutting from a point near the mill, 1,800 feet of drifting along the structures, 700 feet of raising to determine the upward extent of any ore shoots found by drifting, 1,000 feet of diamond drilling, 2,000 feet of long holing to test for other favorable beds in the walls of the drift, and 250 hours of bulldozing. The estimated cost of the program was $136,034.50.

Examinations of the property were made by DMEA representatives and from their recommendation, together with that of the Washington office, a considerably reduced exploration program was worked out.

The contract authorized the following work items to be done on a fixed unit cost basis:

1. Crosscut west for approximately 200 feet to intersect the possible downward extension of the ore showing in the bottom of the bulldozer trench; then drift northerly for about 300 feet on the ore showings noted above or other favorable mineralization. Timber, where necessary, not to exceed 120 feet.

2. Timbered raises, not to exceed 100 feet at sites approved by the Government.

3. Diamond drill, not to exceed 800 feet of AX size holes, the holes to be spaced not less than 200 feet apart.

4. Long hole, not to exceed 303 feet of holes,

5. Assay 100 samples for tungsten trioxide.

6. A maximum of 100 hours of bulldozing for snow removal. The bulldozer should be at least D-6 or equivalent in size.

7. Construction of a snowshed and a wooden compressor-toolhouse.

The estimated total cost of the project was $28,572, and the Government's participation at 75 percent was $21,429.

The contract, dated January 17, 1957, was approved and signed by the Operator. Work was to begin January 18 and to be completed within 12 months.

The applicant had already completed 80 feet of the crosscutting before the effective date of the contract. By the end of January he had completed the construction of the compressor-toolhouse and the snowshed.

The adit crosscut, 222 feet long and bearing about S. 78° W., penetrated metamorphic rocks intruded by alaskite dikes until it entered marbleized limestone a short distance before it intersected the mineralized zone on which the drifting was done. A drift was turned in a northerly direction to follow the mineralized showing. A total of about 640 feet of crosscutting and drifting was completed in which the 500 feet authorized by the contract was included. In general the drift was driven along or near the contact between the gneissic and schistose rocks and the limestone.

Long holes aggregating 326 feet were drilled into the walls from the drift. Along the contact were found spots of tactite, some of which contained scheelite; however, no deposit of significant size was encountered.

Six diamond drill holes were collared from the drift. Although some of the holes encountered tactite in the limestone with varying amounts of scheelite, no deposit of significant size was encountered. The diamond drilling was completed about October 8. The Operator drilled 6 holes for an aggregate footage of about 562 feet; only 344 feet of the holes were drilled AX size and the remaining 218 feet was EX. As the contract provided only for AX drilling, it was amended to allow some EX drilling. Only combined DDH's 3, 4, and 6, totaling 190 feet of AX size hole and 75 feet of EX size could be considered as having met the contract specifications.

The diamond drilling was the last work done under the exploration contract, which was completed by October 31, 1957. The Operator requested approval of the balance of the 1,800 feet of drifting, 1,000 feet of diamond drilling, and 2,000 feet of long-hole drilling, which he had originally proposed, but this request was denied. He was offered assistance to winze and drift below the Steep Climb workings. He declined to accept this because all the diamond drill holes had unloosed a considerable water flow and he felt that the winze workings would encounter similar flows which would result either in excessive pumping cost or the loss of the workings by flooding.

Amendment No. 1, dated March 21, 1958, changed the footage of AX size holes to be drilled from 800 to 725 feet and authorized 75 feet of EX size hole.

Seventeen long holes collared from the DMEA drift aggregating 326 feet of drilling were completed as listed below:

Hole	Bearing	Length in feet	Inclination	Remarks
1	S.84°W.	32	+3°	Lamps some scheelite, best showing 12-18' (Assay 0.012%)
2	N.62°E.	22	+5°	Blank
3	N.60°W.	32	+5°	Lamps 0.1 to 0.29 first 6'; very little beyond.
4	N.72°E.	28	+5°	Lamps fair first 6'; very little beyond.
5	N.80°E.	19	+5°	Lamps little first 6'; fair from 6' to 12'; very little 12-19'.
6	N.65°E.	22	+5°	Very small amt. scheelite.
7	S.45°W.	18	+5°	Very small amt. scheelite.
8	S.71°W.	12	+10°	Good ore to 12' (+1.0%).
9	N.68°E.	15	+5°	Very small showing.
10	N. 5°E.	20	+5°	Very small showing.
11	S.85°W.	22	+5°	Very small showing.
12	N.40°W.	9	+10°	Good showing to 7'. (Assays 0.68%)
13	N.30°E.	5	+45°	Good showing to 4'.
14	N.10°E.	9	+50°	Ore from 5'-8'.
15	N.52°W.	20	+70°	Very little scheelite.
16	N.20°E.	22	+70°	Good showing (0.5 to 1.0%) entire hole.
17	S.50°W.	19	+20°	Good scheelite showing at 10'.
	Total	326		

Long Holes No. 8, 12, 13, 14, 16, and 17 had a good showing of scheelite mineralization in the cuttings, but the remaining 12 holes had only a weak showing, except Hole No. 2 which was blank.

Six diamond drill holes totaling about 562 feet were drilled. The contract specified that the interval between holes had to be at least 200 feet. Because some of the holes did not meet the contract specifications in respect to the interval between holes and hole size, only 190 feet of AX hole and 75 feet of EX were considered to meet contract specifications. The AX footage comprises 55 feet in Hole No. 3 and 135 feet in Hole No. 6. The EX footage is from 55 to 130 feet in Hole No. 4. Only Hole No. 5 penetrated material with a fairly good scheelite showing. All the other holes were blank or had only a weak showing of mineralization. All the diamond drill holes encountered large quantities of water.

Hole No.	Collar Location	Length (feet)	Size	Dip	Direction	Remarks
1	Near BM601	70	0- 70 AX	+5°	N.76°W.	Only trace of scheelite mineralization; water flowing from hole.
2	72' north of BM600	22	0- 22 AX	+7°	S.85°W.	No significant scheelite mineralization.
3	22' west of BM501	55	0- 55 AX	+3°	S.77°W.	Lost bit; hole plugged.
4	22' west of BM501	130	0- 33 AX 33-130 EX	+7°	S.77°W.	No mineralization; water flowing from hole.
5	54' north of BM603	150	0- 40 AX 40-150 EX	+2°	N.44°W.	87.0-89.3, good scheelite mineralization. 96.6-98.9, fair scheelite mineralization. Water flowing from hole.
6	49' north of BM603	135	0-135 AX	+5°	N.86°W.	106.8-107.2, tactite, some WO_3; weakly mineralized. Water flowing from hole.

Summary of Factual Data

Work authorized by the contract was completed on a fixed unit cost basis for all items. The allowable costs were:

Item	Authorized	Completed	Fixed unit cost	Total cost
Crosscutting and/or drifting	500 ft.	640.9 ft.	$ 32.00	$16,000.00
Timbering crosscut or drift	120 ft.	25.5 ft.	6.40	163.20
Timbered raises	100 ft.	none	36.00	none
Diamond drilling: AX size	725 ft.	1/ 190.0 ft.	4.50	855.00
EX size	75 ft.	1/ 75.0 ft.	4.25	318.75
Reaming, casing, cementing and redrilling	200 ft.	none	2.00	none
Long-hole drilling	303 ft.	326.0 ft.	1.00	303.00
Samples assayed for WO_3	100 ea.	36 each	4.25	153.00
Snow removal	100 hr.	66 hr.	12.00	792.00
Construct snowshed	Job	Job	1,476.00	1,476.00
Construct compressor-toolhouse	Job	Job	800.00	800.00
Total cost				$20,860.95

1/ Only combined DDH's 3, 4, and 6 are considered as meeting contract specifications as to size and interval.

Total amount of contract	$28,572.00
Government's participation at 75 percent	21,429.00
Total amount expended	$20,860.95
Government's participation at 75 percent	15,645.71
Total amount unexpended	$ 7,711.05
Government's share unexpended	5,783.29
Net value of production during contract period	none
Royalty payments received	none

The Government has no equity in equipment, supplies or materials used at the project.

Discussion of Conclusions

Except for some of the diamond drill holes not meeting contract specifications in regard to size and interval, the work was performed competently and progress was rapid.

Small amounts of ore-grade material were encountered by the exploration work performed under the contract, but no deposit of significant size was found. No raising was warranted as authorized by the contract, but two short untimbered raises were driven by the Operator at his own expense. No Certification of Discovery or Development is recommended.

This is a tungsten area and further study is warranted. However, unless new geologic targets are discovered, no further participation by DMEA in exploration of the Wild Horse property is recommended.

Enclosures
Distribution:
OME(3)
USBM(5)
USGS(SRO)
Docket
MacLaren

Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Reg. No. 51; Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Bu. Vou. No. 2169

(Department, bureau, or establishment)

cher prepared at Spokane, Washington 6/2/58
(Give place and date)

E UNITED STATES, Dr.,

Payee's Account No. Idm-E1055

o Cordero Mining Company
(Payee)

131 University Avenue Palo Alto California
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	October 1957	As per attached certified form MF-104 dated November 25, 1957, adjusted to Audit of May 15, 1958				818	06
PAYMENT: Complete ☐ Partial ☐ Final ☐		FINAL PAYMENT					
		Use continuation sheet(s) if necessary					

Shipped from to Weight Government B/L No. Total 818 06

(Payee must NOT use this space)

Differences .....

Account verified; correct for 818 06

(Signature or initials) D. L.

Contract No. Date Req. No. Date Invoice Rec'd.

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
{ Cash, $....., on ....., 19.....

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22900a-2

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of OCTOBER, 1957 Docket No. DMEA 4504 Contract No. E 1055
Operator's Name CORDERO MINING COMPANY Minerals Tungsten
Address 131 University Avenue, Palo Alto, California
Contract Amount, $ 28,572.00 Government Participation: 75 % Amount, $ 21,429.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	2,358.00	315.00	2,673.00	858.75	315.00	1173.75
Long Hole		303.00	303.00		303.00	303.00
Snow Removal	168.00	624.00	792.00	168.00	624.00	792.00
Drifting		16000.00	16,000.00		16000.00	16000.00
Timbering		99.20	99.20	64.00	99.20	163.20
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.		2276.00	2,276.00		2276.00	2276.00
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		153.00	153.00		153.00	153.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2,526.00	19,770.20	22,296.20	1090.75	19,770.20	20860.95

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 25, 1957 Payee CORDERO MINING COMPANY

Per J. Elton Gilbert Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 818.06

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 6/2/58 Vou. No.

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 1055 in accordance with the terms of the contract.

Signature /s/ Stephen W. Goldok Title Mining Engr. Date 5-29-58

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date May 29, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1957 Docket No. DMEA 4504 Contract No. E 1055
Operator's Name CORDERO MINING COMPANY Minerals Tungsten
Address 131 University Avenue, Palo Alto, California

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	1 ft.			16,000.00	500		500	32.00
Crosscutting	1 ft.							
Raising	1 ft.						100	36.00
~~Stoper~~ Timbering				99.20	15.5		120	6.40
Winzes								
Drilling: Core	1 ft.	2,358.00	524	2,673.00	594		800	4.50
~~Stoper~~ Long Hole				303.00	303		303	1.00
Auger								
Stripping								
Trenching								
~~TEXXXXX~~ Assay				153.00	36		100	4.25
Roads and Trails								
Snow Removal	1.hr.	168.00	14	792.00	66		100	12.00
TOTAL DISTRIBUTED COSTS		2,526.00		20,020.20				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.				2,276.00				
TOTAL COSTS		2,526.00		22,296.20				

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

Date Nov. 25, 1957 Operator CORDERO MINING COMPANY

Per J. Eldon Gilbert Title General Manager
J. Eldon Gilbert

NOTE.—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.

(Instructions on reverse)

REMARKS:

(For Government use only)

May 29, 1958
/s/ Stephen W. Goldock
Mining Engr.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

NARRATIVE DESCRIPTION OF PROGRESS AND FINAL REPORT

Docket No. DMEA-4504 (Tungsten)
Cordero Mining Company
Wild Horse Mine
Custer County, Idaho

Since the last report was submitted to Defense Minerals Exploration Administration (April 1957) some work has been done at Wild Horse, the execution of which has been sporadic. We have stopped all work now so the following is a resume of the progress from the time of the last report to the present. Also, we enclose Operator's Monthly Report and Voucher and Operator's Unit Cost and Progress Report forms to cover this period.

The enclosed map is up to date and shows the location of all drifts, cross cuts, raises, long holes and diamond drill holes. The geology is shown with notes on scheelite mineralization. Details of the drilling are given in the accompanying logs of diamond drill holes.

The only exploration work done since April was the drilling of 5 diamond drill holes, (No. 2 thru No. 6 inclusive) to total 524 ft. of hole. Nothing spectacular was discovered by this drilling (See attached logs).

In addition, 14 hours were spent in early May on snow removal after two late snow storms.

The general plan for exploration, as given in the application for DMEA aid, was followed. Naturally, the details of underground conditions were not known and those affected the work somewhat.

The portal cross cut was driven to cut the contact zone, as encountered on the surface. The distance to this zone was about as anticipated. In drifting along the zone, however, we found that it was repeatedly cut by offsetting faults which trenched N.E., and that the northern segment was nearly always moved to the west. Inasmuch as these offsets were often difficult to see and understand when encountered, the drifting and cross cutting was not always done in the most favorable geologic setting. In general, however, the drift was driven along the gneiss-limestone contact.

Additional exploration was done from the drift by long holes, drilled by percussion drills. In spots along this contact tactite zones were encountered and most of them were scheelite-bearing, although none of them contained scheelite in commercial quantities.

Diamond drilling into the limestone foot wall indicated that the limestone was about 130 ft. thick and that the other was probably contacted with a gneiss-like rock. This contact also contained scheelite in a garnet tactite. No commercial scheelite was found here but only a small amount of work was done.

On the surface mining it was noted that a relationship seemed to exist between the amount of scheelite and certain alaskite dikes. In the underground work the hang-wall gneiss, the limestone, and apparently the footwall gneiss, are all cut by

a multitude of alaskite dike. Here, however, there seems to be no correlation between the dikes and scheelite.

At this time it appears that the only work which should be done on this property is the extention of underground drifting and crosscutting. Application to do this with DMEA assistance has been denied by DMEA and the market for scheelite is so low that it is not feasible for the company to do additional exploration. We, therefore, request the termination of our contract by mutual agreement and ask that DMEA furnish us with a statement of no discovery.

/s/ J. Eldon Gilbert

J. Eldon Gilbert
Cordero Mining Company
131 University Avenue
Palo Alto, California

November 25, 1957

CORDERO MINING COMPANY
131 University Avenue
Palo Alto, California

Pocket No. [illegible] 4504
Contract No. [illegible]

W24 Horse Mine
Custer County, Idaho
Tungsten

DIAMOND DRILL LOG

Diamond Drill Hole #1

-45° 275°W

Depth	Recovery	Description
0-14	11.0	Alaskite inclusion of tactite (chrome mica Mg) at 6'
14-16	1.8	Green tactite, some Mg
16-18	1.5	Alaskite
18-24	3.0	Tactite 0.1' band at 19' with some Mg
24-59	29.4	Crystalline limestone, some tactite minerals dispersed. Traces of Mg
59-63	4.0	Fine grained silicified tactite
63-65	1.7	Aplite dike, pink
65-70 (end)	5.0	Fine grained silicified tactite. Traces Mg at 66'

Diamond Drill Hole #2

-5° 265°

0-5.2	5.2	Gneiss
5.2-10	4.8	Alaskite
10-12.5	2.5	Gneiss
12.5-56 (end)	6.0	Alaskite

[illegible] MINING COMPANY
[illegible] University Avenue
Palo Alto, California

Project No. [illegible]
Contract No. [illegible]

Wild Horse Mine
Custer County, Idaho
Tungsten

DIAMOND DRILL LOG

Diamond Drill Hole #2

+3° S67°W

Depth	Recovery	Description
0-3	2.0	Crystalline Limestone
3.0-7.0	2.6	Siliceous tactite (garnet)
7.0-21	11.0	Crystalline limestone
21-30	8.6	Chlorite schist, minor dikes
30-41	10.2	Alaskite, some calcite
41-45	2.1	Soft sandy limestone
45-55 (end)	6.6	Alaskite, some limestone inclusions

Diamond Drill Hole #4

+3° S67°W

0-20	16.2	Crystalline limestone
20-21	1.0	Alaskite
21-24.5	3.5	Mica schist
24.5-26	1.5	Alaskite
26-33	5.4	Chlorite schist
33-43	4.8	Alaskite, some limestone inclusions
43-57	5.7	Silicified limestone
57-60	1.7	Alaskite
60-70	3.6	Crystalline limestone, some garnet
70-105.5	30.4	Alaskite, some limestone inclusions
105.5-119	4.9	Crystalline limestone
119-123	2.7	Garnet tactite, siliceous
123-128	2.0	Alaskite
128-130 (end)	1.0	Gneiss

Diamond Drill Hole #5

+5° N38°W

0-3.0	3.0	Alaskite
3.0-4.2	2.4	Gneiss
6.2-7.6	1.4	Alaskite
7.6-[illegible].0	13.7	Alaskite, some gneiss
[illegible]-19	20.3	Alaskite
19.0-33.0	1.7	Calcareous, garnet
33.0-57.0	1.5	Alaskite
57.0-60	0.5	Tactite
60-63.5	2.9	Crystalline limestone
63.5-66	5.2	Garnet tactite
66-67.1	13.6	Crystalline limestone
67.1-69.5	2.4	Tactite, some WO_3
69.5-70.1	1.1	Tactite, no WO_3
70.1-73.0	1.6	Crystalline limestone

Diamond Drill Hole #5 (Continued)

93.0-97.0	3.6	Alaskite
97.0-98	1.0	Tactite, no WO_3
98-99.1	1.1	Tactite, some WO_3
99.1-100.7	1.6	Green tactite, no WO_3
100.7-103	1.1	Alaskite
103-148 (end)	28.5	Limestone, silicified

Diamond Drill Hole #6

44° due West

0-2	1.6	Gneiss
2.0-5.5	3.5	Alaskite
5.5-20	8.5	Gneiss
20-32	10.2	Crystalline limestone
32-33	1.0	Alaskite
33-95	48.0	Crystalline limestone
95-95.2	0.2	Tactite, trace WO_3
95.2-106.8	8.6	Crystalline limestone
106.8-107.2	0.4	Tactite, some WO_3
107.2-125	14.2	Crystalline limestone
125-129.5	4.5	Alaskite
129.5-135 (end)	5.5	Crystalline limestone

Standard Form No. 1034—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. _____

Bu. Vou. No. 2097

U. S. _____
(Department, bureau, or establishment)

Voucher prepared at Spokane, Washington 1/2/58
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idn-E1055

To Cordero Mining Company
(Payee)

131 University Avenue Palo Alto, California
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	April 1957	Amount withheld under Voucher No. 1988 dated June 4, 1957				750	00
PAYMENT: Complete ☐ Partial ☐ Final ☐		Use continuation sheet(s) if necessary					
Shipped from	to	Weight	Government B/L No.		Total	750	00

I certify that the above bill is correct and just and that payment therefor has not been received.

(Sign original only)

Date _____ *Payee _____
(This certificate not required when a like certificate is made by payee on attached bill or bills)

Per _____ Title _____

(Payee must NOT use this space)

Differences _____

Account verified; correct for 750 00

(Signature or initials) _____

Contract No. Date Req. No. Date Invoice Rec'd.

Pursuant to authority vested in me, I certify that this account is correct and proper for payment.

† Approved for $ _____

By _____

Title _____

SIGN ORIGINAL ONLY

† _____
(Authorized Certifying Officer)

Title _____

Date _____

THE REVERSE OF THIS FORM MUST BE EXECUTED WHEN PURCHASES ARE MADE OR SERVICES SECURED WITHOUT WRITTEN AGREEMENT IN ANY FORM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. _____ dated _____, 19____, for $_____ } on Treasurer of the United States in favor of payee named above.
{ Cash, $_____, on _____, 19____. Payee _____ (Sign original only)

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary", or "Treasurer", as the case may be.
† If the ability to certify and authority to approve are combined in one person, one signature only is necessary; otherwise the approving officer will sign on the line below "Approved for $_____", and over his official title.

Per _____

Title _____

16—22900-3

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

16—22900-2 ☆ U. S. GOVERNMENT PRINTING OFFICE : 1950—O-75806

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 7 1957 Docket No. DMEA 4504 Contract No. B 1055
Operator's Name Cordero Mining Company Minerals Tungsten
Address 131 University Avenue, Palo Alto, California
Contract Amount, $ 28,572.00 Government Participation: 75 % Amount, $ 21,429.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Contracts: Short Form						
Drilling: Core	315.00		315.00	315.00		315.00
Drilling: Long Hole	271.00	32.00	303.00	271.00	32.00	303.00
Bulldozing: Snow Removal	96.00	528.00	624.00	96.00	528.00	624.00
Crosscutting	1436.00	14563.20	16000.00	1436.80	14563.20	16000.00
Drifting		99.20	99.20		99.20	99.20
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs		2276.00	2276.00		2276.00	2276.00
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment	63.75	89.25	153.00			
Sampling and Analysis				63.75	89.25	153.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2182.55	17587.65	19770.20	2182.55	17587.65	19770.20

RECEIVED JUN 30 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.

Date July 10, 1957 *Payee Cordero Mining Company

Per George M. Dean Title Ass't. Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

$1636.91
Withhold 750.00
Pay $886.91

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 886.91

Signature Dorothy F. Lang
(Authorized Certifying Officer)

Date 6/4/57 Vou. No. 1988
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-1055 in accordance with the terms of the contract.

Signature /s/ John A. Bardill Title Metallurgist Date May 21, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Wing L. Agnew Title Acting Exec. Date 5-24-57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form ME-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of [illegible] 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible]
Address [illegible] Minerals [illegible]

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Crosscutting	[illegible]							
Raising	[illegible]						[illegible]	[illegible]
Shafts				[illegible]	[illegible]		[illegible]	[illegible]
Winzes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Drilling: Core		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Churn								
Auger								
Stripping								
Trenching								
Test Pits		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Roads and Trails	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Total Distributed Costs		[illegible]		[illegible]				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.								
Total Costs		[illegible]		[illegible]				

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

Date [illegible] Operator [illegible]

Per [illegible] Title [illegible]

NOTE.—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.

(Instructions on reverse)

Remarks:

(For Government use only)

/s/ John A. Pardill, Metallurgist

RECEIVED JUN 10 1957 DMEA

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

REPORT NO.4 FOR APRIL 1957

Docket No.DMA-4504 (Tungsten)
Gordero Mining Company
Wild Horse Mine
Custer County, Idaho

Work progressed quite well at Wild Horse for the month of April with the drifting being stopped on the 14th as it had exceeded the amount authorized for this phase of the project. Work continued on diamond drilling, long holes and raising.

Drifting for this month consisted of completing No.2 Drift to 81' where a drill station was cut. Very little mineralization was found in this last work.

Raise No.1 whichwas started on the ore found near the end of No.2 Crescent, was driven to 26' following a small stringer of ore. It appears that the most of the ore here lies on top of a flat dike. Test Holes 8 and 9 are both in the ore and show it to be 8' and 10' respectively. A cut sample has been taken in the ore along the right rib of the raise by Mr. Nicholson.

Diamond Drill Hole No.1 was drilled from the face of No.2 Crescent for 70'. This hole had seven showing of scheelite. As the zones containing the ore did not core well and the large flow of water made it impossible to save sludge samples it is hard to determine the exact width of the ore zones but were thought to be from 4" to over one foot. The best showings were at 13' and we will check this with the crescent. This hole was stopped partly because of the excessive flow of water and to let the raise crew complete the work in No. 1 Raise.

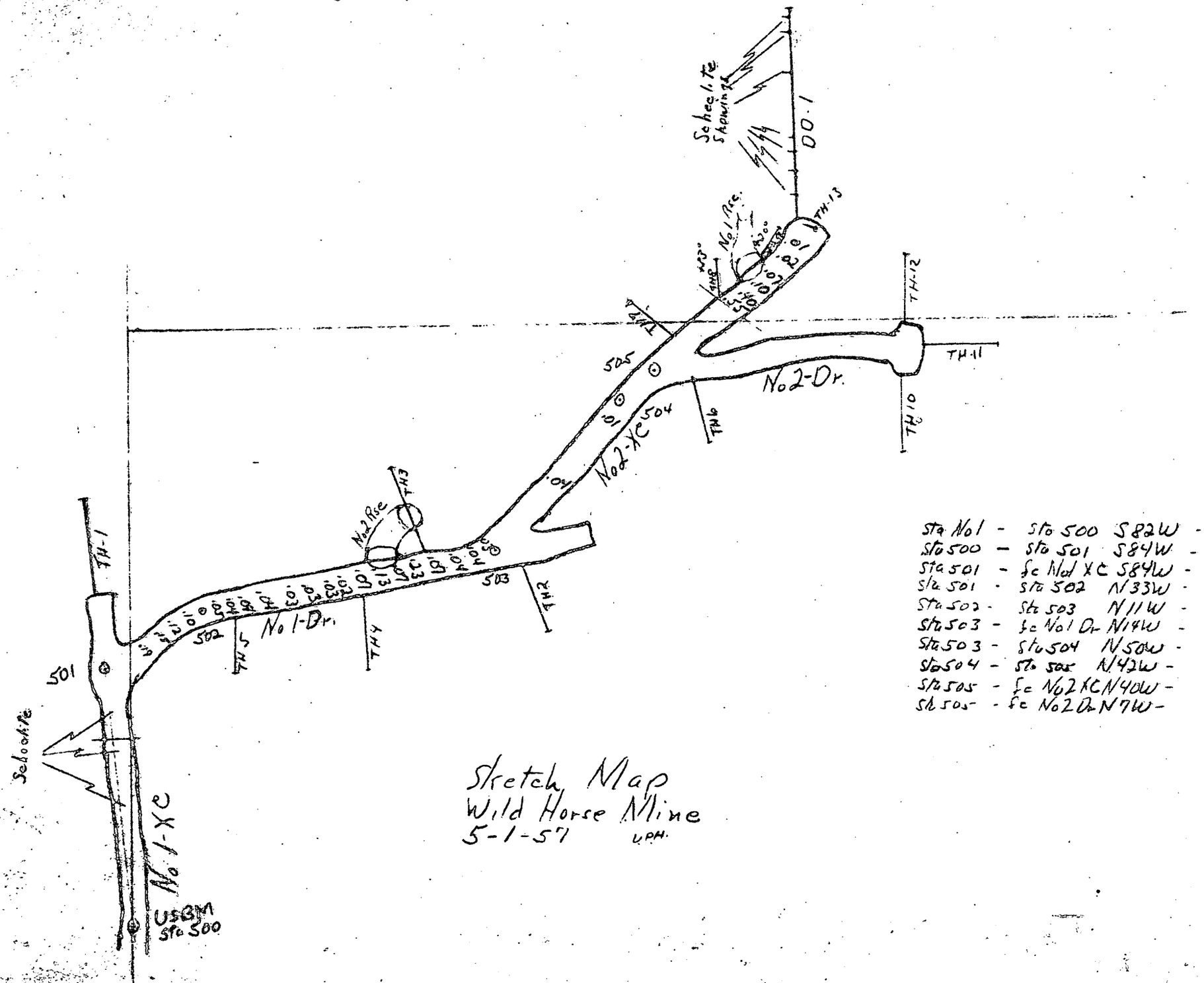
Raise No.2 was started from No.1 Drift on the better showing of scheelite and was driven for 25' following a good band of scheelite.

The long hole drilling has been completed to the amount authorized with hole drilled in the last part of No.2 Crescent and in No.2 Drift. The holes in No.2 Crescent were probing the ore there as described above and holes in No.2 Drift show very little mineralization

On April 30th a field conference was held at Wild Horse with Mr. Nicholson of the USGS and Verne Haas of Gordero Mining Co. Plans were made to explore to ore already found and to setup the diamond drill in the end of No.1 Crescent for a long footwall hole.

It will be noted that we have driven some 51' in raises which are not shown on MF-104A. We did not feel that the leads in this area justified the driving of a two compartment timbered raise as authorized so have used these small raw raises.

RECEIVED
DATE
CODE



Sketch Map
Wild Horse Mine
5-1-57 U.P.H.

Sta No1	-	Sta 500	S82W	- 115.5'
Sta 500	-	Sta 501	S84W	- 83.1
Sta 501	-	fc No1 XC	S84W	- 22.5'
Sta 501	-	Sta 502	N33W	- 35.9'
Sta 502	-	Sta 503	N11W	- 91.3'
Sta 503	-	fc No1 Dr	N14W	- 30.0'
Sta 503	-	Sta 504	N50W	- 64.9'
Sta 504	-	Sta 505	N42W	- 15.0
Sta 505	-	fc No2 XC	N40W	- 65.2
Sta 505	-	fc No2 Dr	N7W	- 81.0

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DATE | INITIALS | CODE

MONTANA LABORATORY COMPANY

CHEMISTS AND ASSAYERS

Philipsburg, Montana, April 15, 1957

The Following Analyses Were Made For Cordero Mining Company

	Per Cent H_2O	Ozs. Silver Per Ton	Ozs. Gold Per Ton	$ Gold Per Ton	Per Cent ~~XXXX~~	Per Cent Mn. Dioxide	Per Cent Iron	Per Cent Lead	Per Cent Manganese	Per Cent Silica	Per Cent Zinc
					WO_3						
#1					0.546						
2					0.390						
3					0.093						
4					0.070						
5					0.022						
6					0.016						
7					0.040						
					WO_3						
#8					0.004						
9					0.010						
10					0.012						
11					0.046						
12					0.009						
13					0.009						
14					0.016						
					WO_3						
#15					0.216						

RECEIVED JL 10 1957 D.M.E.A.

1201 N. Division St.
Spokane 2, Washington

June 5, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1957
DATE | INITIAL | CODE

Cordero Mining Company
131 University Avenue
Palo Alto, California

Re: Docket No. 4504 (Tungsten)
Contract No. K1055
Monthly operating report for
April 1957

Gentlemen:

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

We are withholding an amount of $750.00, pending approval of additional work or final audit review by a representative of the Contract Administration and Audit Division of Defense Minerals Exploration Administration. This is the customary procedure and is applicable to all contracts.

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)
USGS (2)
Contract Admin.
AD
JAB

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of MARCH, 1957 Docket No. DMEA 4504 Contract No. E 1055
Operator's Name CORDERO MINING COMPANY Minerals TUNGSTEN
Address 131 University Avenue Palo Alto, California
Contract Amount, $ 28,572.00 Government Participation: 75 % Amount, $ 21,429.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	32.00	—	32.00	32.00	-0-	32.00
Bulldozing						
Crosscutting } Timbering	6816.00	7747.20	14563.20	6816.00	7747.20	14563.20
Drifting } Timbering	35.20	64.00	99.20	35.20	64.00	99.20
Snow Removal	192.00	336.00	528.00	192.00	336.00	528.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	—	2276.00	2276.00		2276.00	2276.00
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	89.25	—	89.25	89.25	-0-	89.25
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	7164.45	10423.20	17587.65	7164.45	10,423.20	17587.65

RECEIVED MAY 13 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date April 10, 1957 Payee CORDERO MINING COMPANY
Per [signature] Title Ass't. Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 5373.34

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 5/10/57 Vou. No. 1976
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E1055 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date 5/8/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date 5/6/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of MARCH 1957 Docket No. DMEA 4504 Contract No. E 1055

Operator's Name CORDERO MINING COMPANY Minerals TUNGSTEN

Address 131 University Avenue Palo Alto, California

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	1 ft.	6816.00	213.0	14563.20	455.1		500	32.00
Crosscutting								
Raising	1 ft.						100	36.00
Shafts Timbering	1 ft.	35.20	5.5	99.20	15.5		120	6.40
Winzes								
Drilling: Core	1 ft.				—		800	4.50
Churn					—		200	2.00
Auger Long Hole	1 ft.	32.00	32 ft.	32.00	32 ft.		303	1.00
Stripping								
Trenching								
Test Pits Assaying		89.25	21	89.25	21		100	4.25
Roads and Trails								
Snow Removal	1 hr.	192.00	16	528.00	44		100	12.00
TOTAL DISTRIBUTED COSTS		7164.45		15311.65				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.				2276.00				
TOTAL COSTS		7164.45		17587.65				

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

Date April 10, 1957 Operator CORDERO MINING COMPANY

By Verne F. Haas Title Ass't. Manager

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only)

/s/ John A. Lardill, Metallurgist

RECEIVED MAY 13 1957 D.M.E.A.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

NARRATIVE DESCRIPTION OF PROGRESS

REPORT NO.3 FOR MARCH 1957

Docket No.DMEA-4504 (Tungsten)
Cordero Mining Company
Wildhorse Mine
Custer County, Idaho

During the month of March drifting at Wild Horse progressed very rapidly on a two shift schedule. No.1 Drift advanced along the general strike of the formation for 157'. A good portion of this showed scheelite mineralization and in places approached ore grade. At about 105' the mineralization was cut off by a cross fault. The remaining 52' failed to show mineralization so a drifting cross cut, designated No.2 Cross Cut, was started from a point 120' from No.1 Cross Cut. After advancing 100' and nearing what appeared to be the footwall of the formation another mineralized zone was encountered. This zone was 20' wide and is much better that anything found so far. The first 5' was estimated to assay over .75 % WO3 while the remaining 15' averaging about .40% WO3. This heading was driven 15' beyond this zone without further mineralization so a diamond drill station was cut at the end where a diamond drill hole will probe this wall further.

A pilot raise was started from No.2 Cross Cut near the footwall of this last mineralized zone and advanced 12' from the sill. This raise will be driven back thru the zone planning to cross cut it in about 30'. Car samples from this work are estimated to average about .75% WO3

On March 21st a field conference was held at Wild Horse with Mr. Bardill of the U.S. Bureau of Mines, Mr. Nicholson of the USGS, J.Aldon Gilbert and Verne Haas of Cordero Mining Company. At this time Mr. Bardill put USBM stations in place of our company stations so that now our Station #2 is USBM #500, Our #3 is USBM #501 and so on.

Drilling with the long hole machine has commenced with the first hole into the footwall from the end of No.1 Cross Cut. The drillings show some scheelite, assay results of which will be in next months report.

As the first diamond drill hole was planned from the end of No.2 Cross Cut the extra work in this last mineralized zone has set this program back but drilling will start the first week in April.

Drifting along the formation has 100' been continuing starting from No.2 Cross Cut at No.1 Drift plus 180'. Advance here has been 39' and todate has very few showings of scheelite.

Enclosed are forms MF-104 and MF-104A with sketch map of the progress for March 1957 including the assays we have to date. All assays are on car samples

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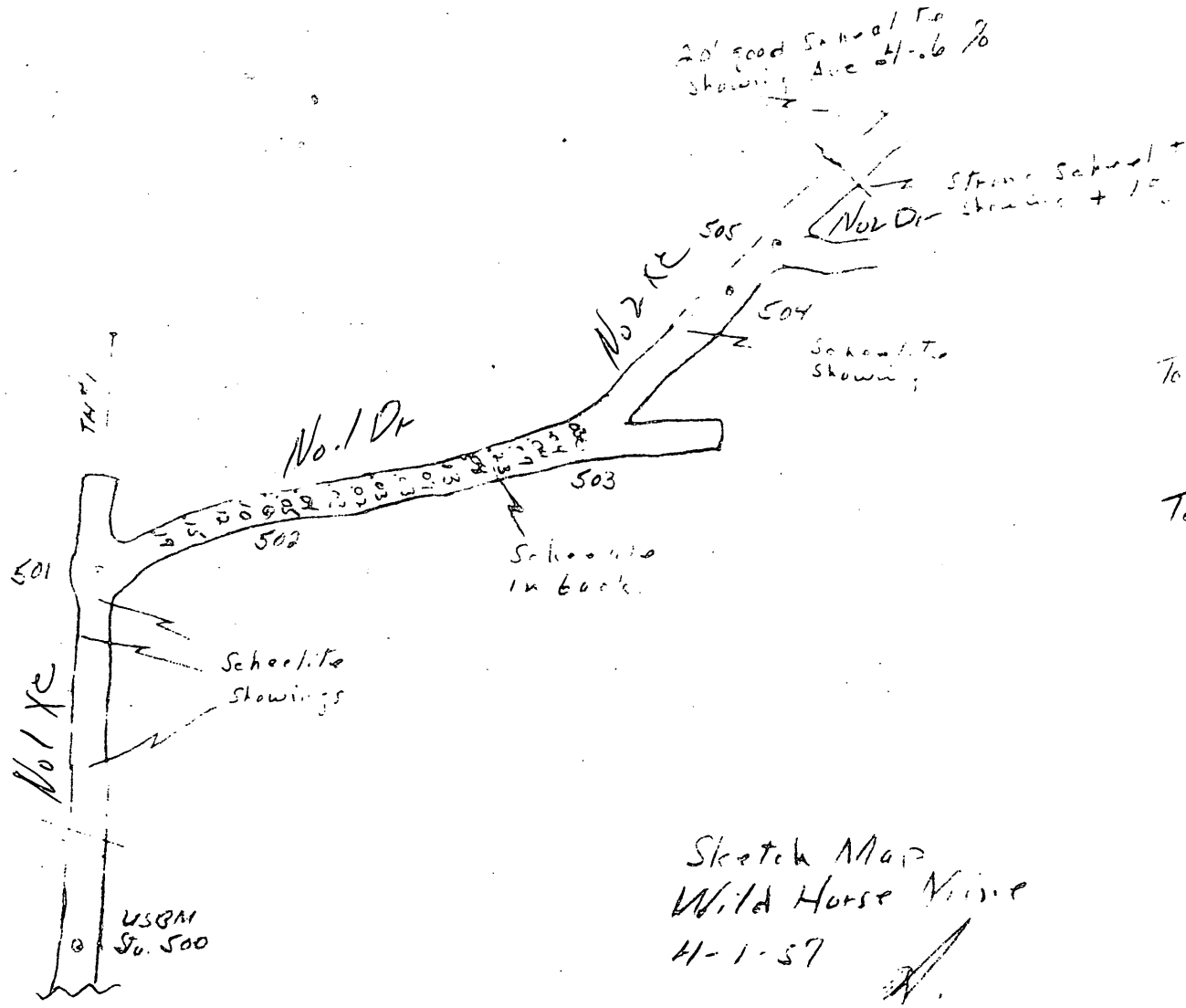
GEOLOGICAL FILE COPY
DMEA
RECEIVED MAY 13 1957
DATE | INITIALS | CODE

SHEET NO. ____ OF ____
JOB NO. ____
SUBJECT ____
BY ____ DATE ____
CHKD. BY ____ DATE ____



Sketch Map
Wild Horse Mine
4-1-57

Sta #1 - 500 - 115.5'
500 - 501 - 83.1'
501 - Sc #1 Xc - 22.5'
501 - 502 - 35.7'
502 - 503 - 91.3
503 - Sc #1 Dr - 30.0'
503 - 504 - 64.9'
504 - 505 - 14.0'
505 - Sc #2 Xc - 45.6'
505 - Sc #2 Dr - 39.8'

542.6
Less pillar 80.0
Less 15% Turnoffs 462.6

Total 3-31-58 - 455.1

Test Hole #1 32'

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DATE	INITIALS	CODE

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1957 Docket No. DMEA 4504 Contract No. 1055
Operator's Name Cordero Mining Company Minerals Tungsten
Address 131 University Avenue, Palo Alto, California
Contract Amount, $ 20,572.00 Government Participation: 75 % Amount, $ 21,420.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting } Mobering	6022.40	1724.80	7747.20	6022.40	1724.80	7747.20
Drifting }	64.00		64.00	64.00	—	64.00
Snow Removal	216.00	120.00	336.00	216.00	120.00	336.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	0	2276.00	2276.00	—	2276.00	2276.00
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6302.40	4120.80	10423.20	6302.40	4120.80	10,423.20

RECEIVED APR 5 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date March 6, 1957 *Payee Cordero Mining Company
Per J. Ellen Gilbert Title General Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4726.80

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 4/2/57 Vou. No. 1960
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E1055 in accordance with the terms of the contract.

Signature /s/ John D. Bordell Title Metallurgist Date 3/25/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Executive Officer Date 3/25/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1957 Docket No. DMEA 4504 Contract No. B 1055

Operator's Name Cordero Mining Company Minerals Tungsten

Address 131 University Avenue, Palo Alto, California

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting } Crosscutting }	1 ft	6022.40	168.2	7747.20	242.1		500	32.00
Raising } Shafts } Timbering	1 ft	64.00	10.	64.00	10.		100	36.00
							120	6.40
Winzes								
Drilling: Coring & Casing	1 ft						800	4.50
Churn	1 ft						200	2.00
Auger Long Hole	1 ft						300	1.00
Stripping								
Trenching } Test Pits } Assaying							100	4.25
Roads and Trails } Snow Removal	1 hr	216.00	16.	336.00	20.		100	12.00
Total Distributed Costs		6302.40		8147.20				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.				2276.00				
Total Costs		6302.40		10423.20				

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

Date March 6, 1957 Operator Cordero Mining Company

Per J. Elton Gilbert Title General Manager

J. Elton Gilbert

Remarks:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

/s/ John A. Bardiel, Metallurgist

RECEIVED APR 5 1957 D.M.E.A.

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

NARRATIVE DESCRIPTION OF PROGRESS

REPORT NO. 2 FOR FEBRUARY 1957

Docket No. DMEA-4504 (Tungsten)
Cordero Mining Company
Wild Horse Mine
Custer County, Idaho

Work at the Wild Horse Mine under DMEA Contract No. E-1055 continued through the month of February.

The cross cut which was being driven to intercept the mineralized zone, was advanced 87.2' (from Station 1 plus 133.9' to Station 1 plus 221.1') A fractured zone showing some scheelite was cut and a drift was commenced at Station 1 plus 198.6'. This fractured zone actually showed spots of tungsten mineralization for about 50' in the cross cut, and inasmuch as the limestone foot wall was not found, a few more rounds in the cross cut will be driven, and drilling done into the foot wall.

The drift was driven 101' (Station 3 is set at the junction of the cross cut and drift at Station 1 plus 198.6'. All drift measurements will be from Station 3) Scheelite occurred in spots during the first 50', and the last 50' was on a band about 1' wide. It is of sufficient grade to probably carry the drift at from 0.2 WO_3 to 0.5 WO_3.

About 2½' of new snow fell in February but did not unduly hamper the exploration program.

Enclosed are reports MF-104, MF-104A and a sketch map of progress for February 1957.

J. Elston Gelbert

JHG:L

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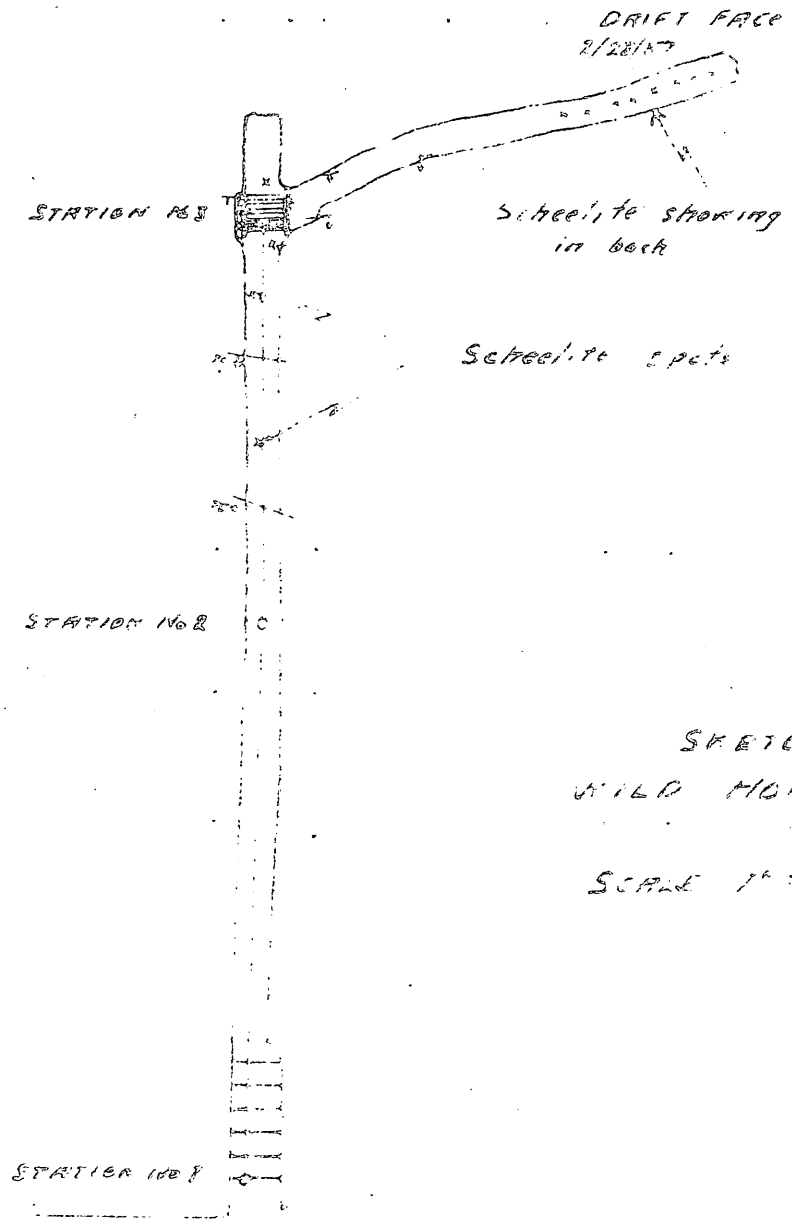
DATE	INITIALS	CODE



SKETCH MAP
WILD HORSE MINE

SCALE 1" = 40'

3/4/58

SHEET NO. ..... OF .....
JOB NO. .....
SUBJECT .....
DATE .....
BY .....
CHKD BY .....
DATE .....

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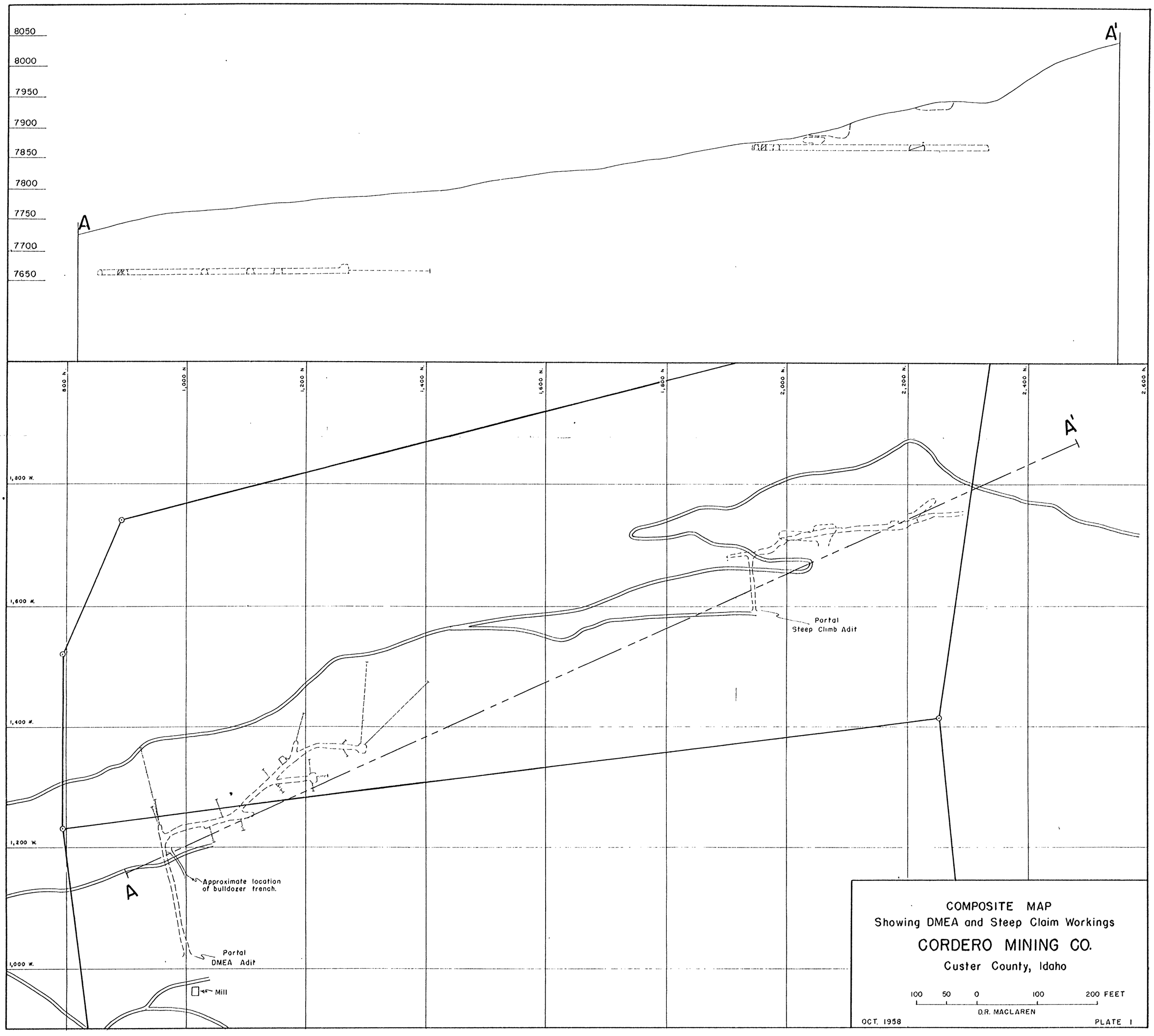
D M E A
RECEIVED APR 5 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FINAL REPORT

DOCKET NO. DMEA 4504



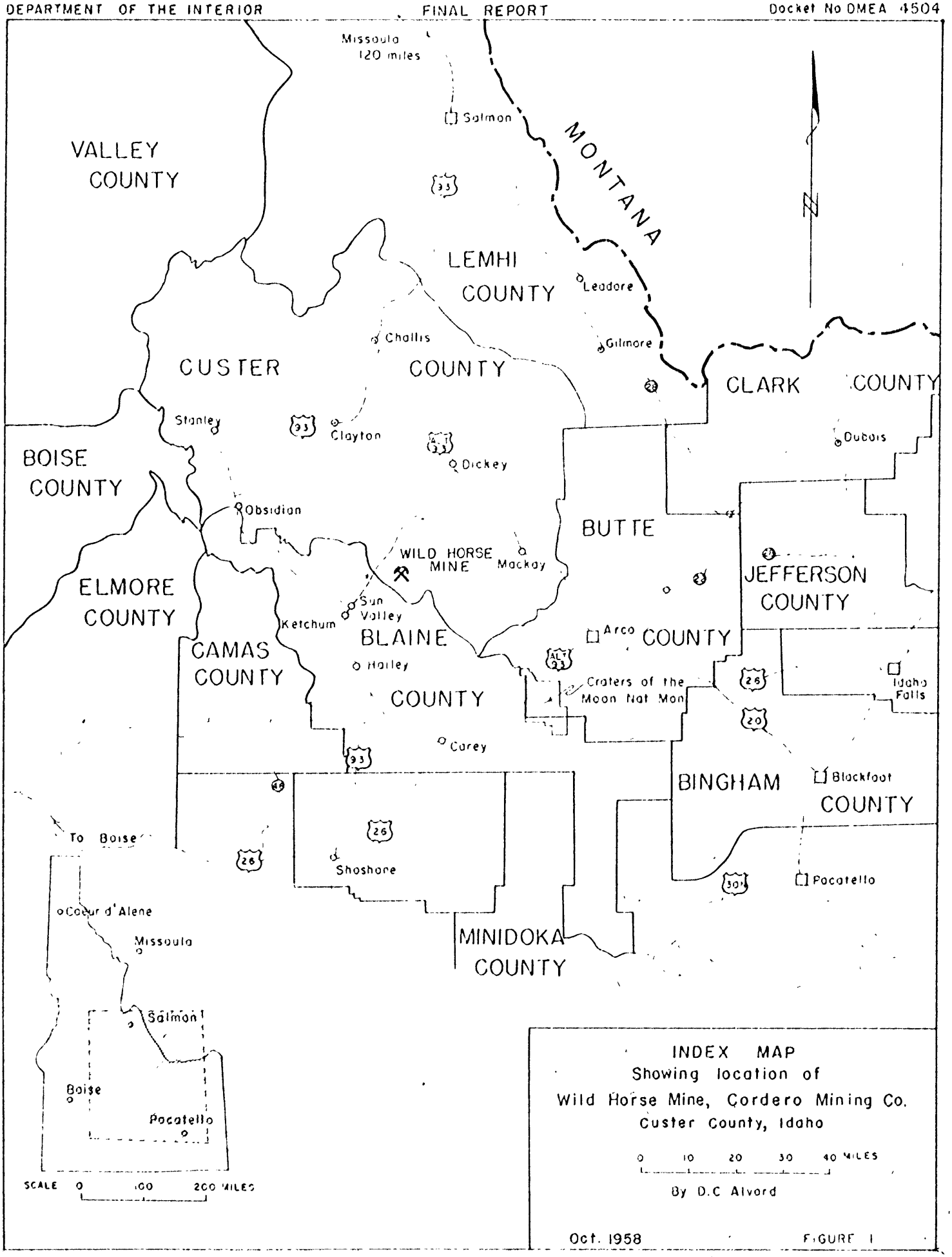
COMPOSITE MAP
Showing DMEA and Steep Claim Workings
CORDERO MINING CO.
Custer County, Idaho

100 50 0 100 200 FEET

D.R. MACLAREN

OCT. 1958

PLATE I


Missoula
120 miles
Salmon
MONTANA
VALLEY
COUNTY
LEMHI
COUNTY
Leadore
Gilmore
Challis
CUSTER
COUNTY
CLARK
COUNTY
Stanley
Clayton
Dubois
Dickey
BOISE
COUNTY
Obsidian
BUTTE
WILD HORSE
MINE
Mackay
JEFFERSON
COUNTY
ELMORE
COUNTY
Sun
Valley
Ketchum
BLAINE
COUNTY
Arco
COUNTY
CAMAS
COUNTY
Hailey
Craters of the
Moon Nat Mon
Idaho
Falls
Carey
BINGHAM
Blackfoot
COUNTY
To Boise
Shoshone
Pocatello
Coeur d'Alene
Missoula
MINIDOKA
COUNTY
Salmon
Boise
Pocatello
SCALE 0 100 200 MILES
INDEX MAP
Showing location of
Wild Horse Mine, Cordero Mining Co.
Custer County, Idaho
0 10 20 30 40 MILES
By D.C Alvord
Oct. 1958
FIGURE 1

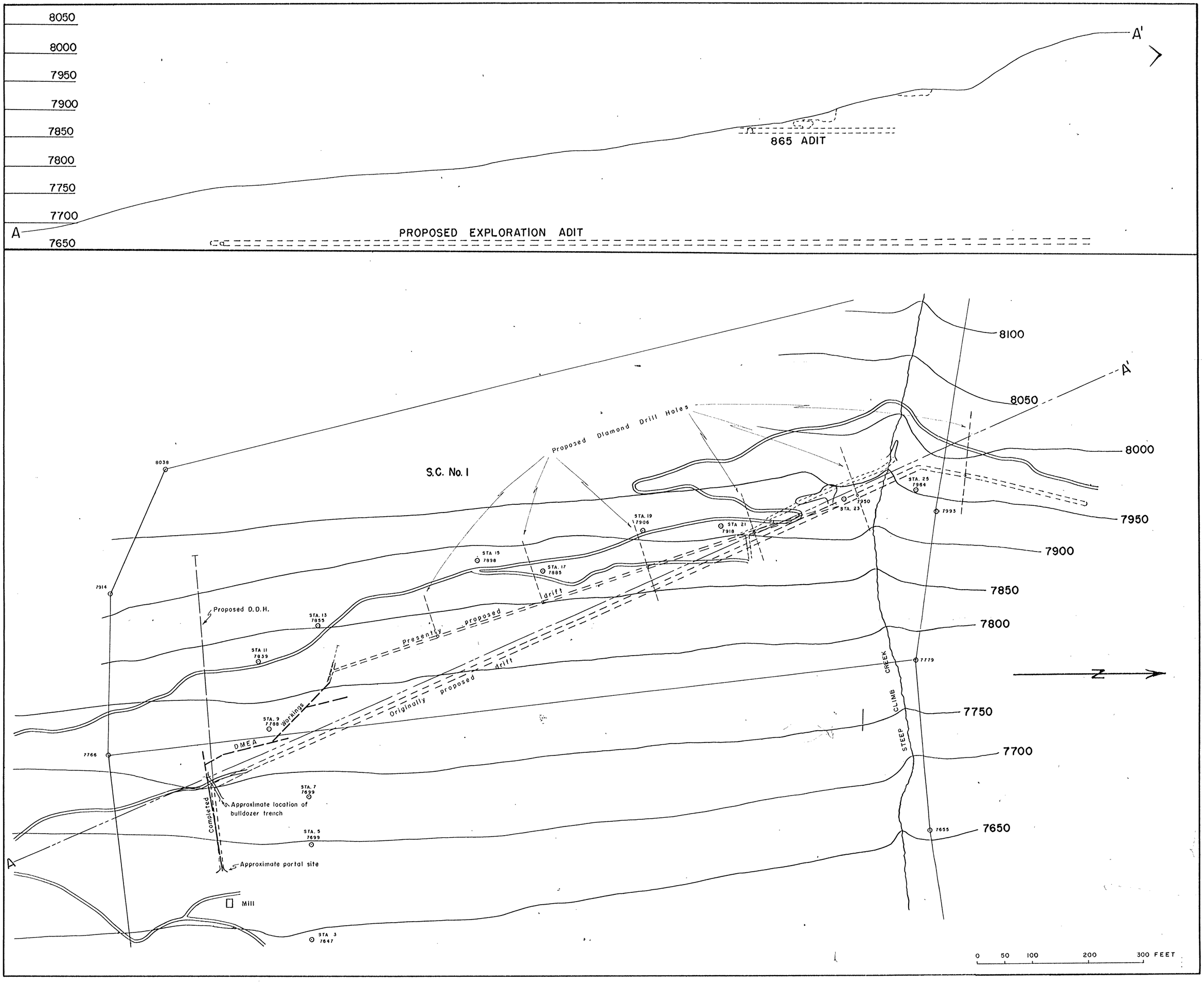
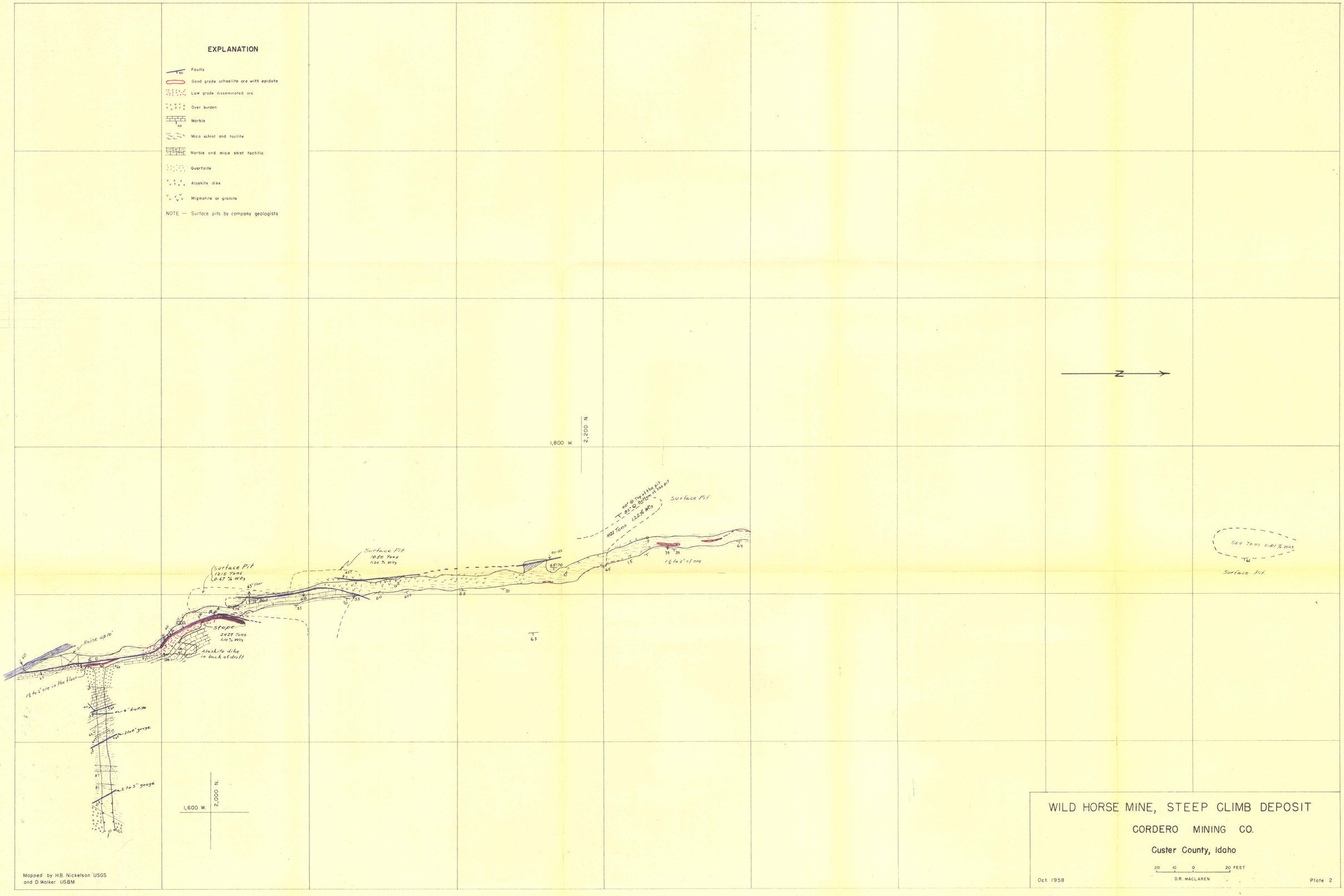


Plate 2. — WILDHORSE MINE "STEEP CLIMB" DEPOSIT — Cordero Mining Co., Custer County, Idaho

COPIED BY H.B.N. U.S.G.S.
FROM CORDERO MINING COMPANY

Plate 2



WILD HORSE MINE, STEEP CLIMB DEPOSIT

CORDERO MINING CO.

Custer County, Idaho

20 10 0 20 FEET

D.R. MACLAREN

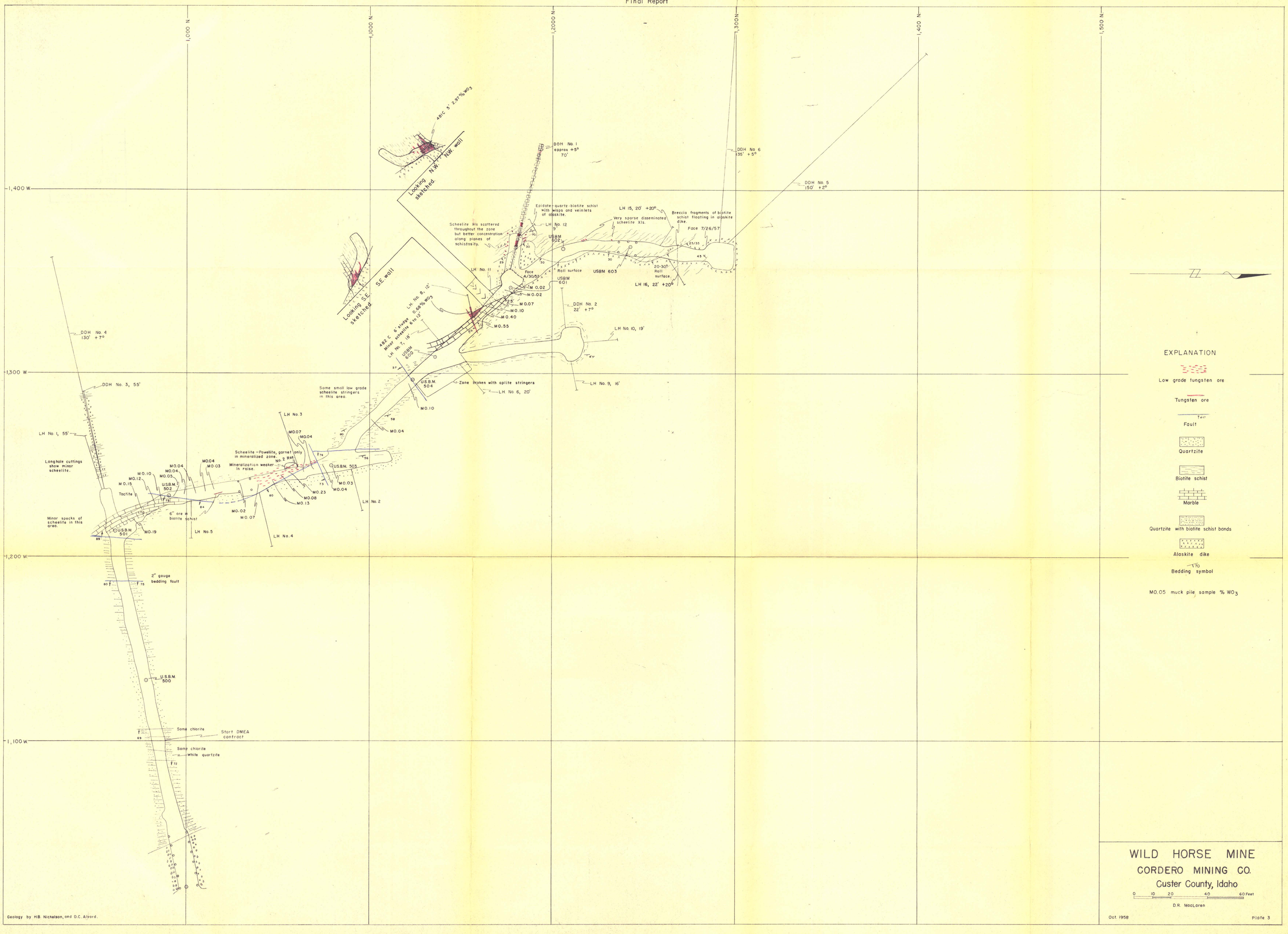
Oct. 1958

Plate 2

United States
Department of the Interior

Prepared For
Defense Minerals Exploration Administration
Final Report

Docket No. DMEA 4504



WILD HORSE MINE

CORDERO MINING CO.

Custer County, Idaho

0 10 20 40 60 Feet

D.R. MacLaren

Geology by H.B. Nickelson, and D.C. Alvord.

Oct. 1958

Plate 3

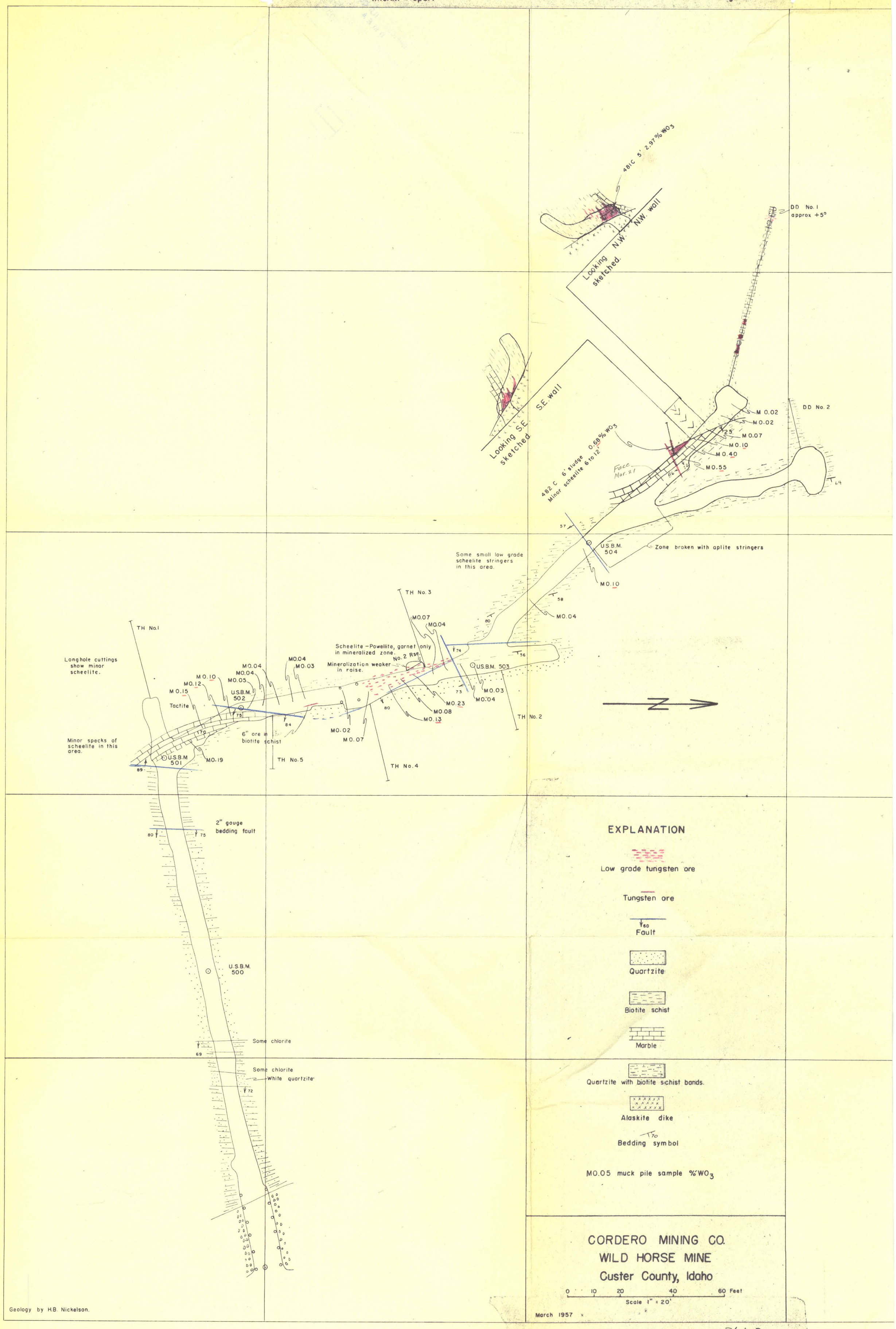
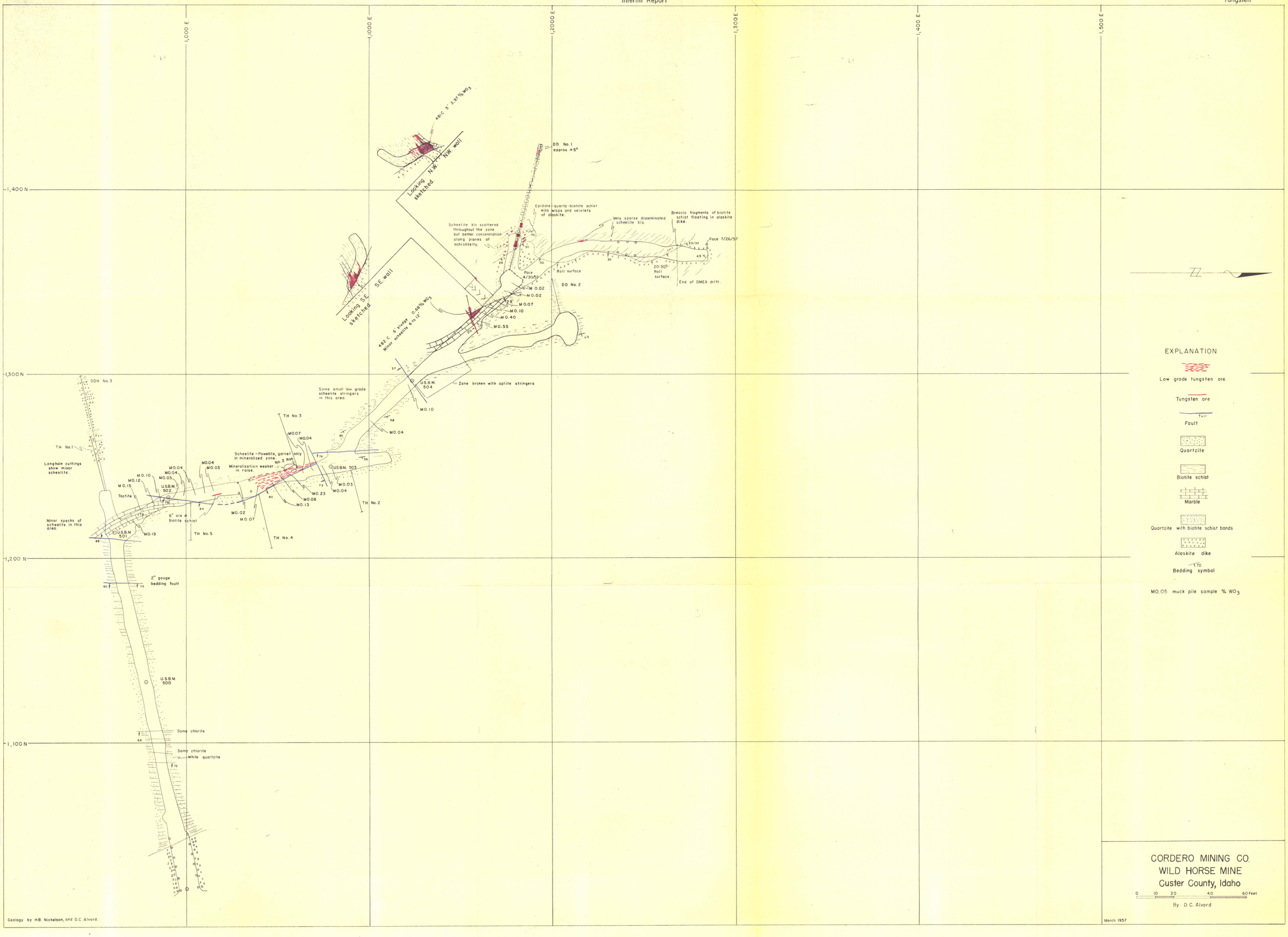

481C 5' 2.97% WO3
Looking N.W. sketched.
N.W. wall
DD No. 1
approx +5°
Looking S.E. sketched
S.E. wall
DD No. 2
M 0.02
M 0.02
M 0.07
M 0.10
M 0.40
M 0.55
482 C 6' sludge 0.68% WO3
Minor scheelite 6 to 12'
Face Mar. 21
U.S.B.M. 504
Zone broken with aplite stringers
Some small low grade scheelite stringers in this area.
M 0.10
M 0.04
TH No. 3
M 0.07
M 0.04
Scheelite - Powellite, garnet only in mineralized zone.
No. 2 Rse.
Mineralization weaker in raise.
U.S.B.M. 503
M 0.03
M 0.04
M 0.23
M 0.08
M 0.13
TH No. 2
TH No. 1
Longhole cuttings show minor scheelite.
M 0.04
M 0.03
M 0.04
M 0.04
M 0.05
M 0.10
M 0.12
M 0.15
U.S.B.M. 502
Tactite
6" ore in biotite schist
M 0.02
M 0.07
TH No. 5
TH No. 4
Minor specks of scheelite in this area.
U.S.B.M 501
M 0.19
2" gouge bedding fault
U.S.B.M. 500
Some chlorite
Some chlorite
White quartzite
EXPLANATION
Low grade tungsten ore
Tungsten ore
Fault
Quartzite
Biotite schist
Marble
Quartzite with biotite schist bands.
Alaskite dike
Bedding symbol
M0.05 muck pile sample %WO3
CORDERO MINING CO.
WILD HORSE MINE
Custer County, Idaho
0 10 20 40 60 Feet
Scale 1" = 20'
March 1957
Geology by H.B. Nickelson.

Plate 1

United States
Department of the Interior

Prepared For
Defense Minerals Exploration Administration
Interim Report

Docket No. DMEA 4504
Tungsten