GRAND COVE CLAIMS (Cu) LAKE CREEK DISTRICT JACKSON COUNTY

EXPLANATION

Probable Wasson formation (Oligocene?)

Dacitic red-brown to buff colored tuffaceous flow breccias (yellow) with a few interbedded flows of vesicular to scoriaceous andesites (brown). Red stippling indicates visible copper minerals.

Contact

Dashed where obscured and dotted where inferred

cut

fill or dump

Prospect trench or truck trail

2690'

Compass and tape turning point showing elevation

Pond

Assays

Sample No.	Length (feet)	Au (oz/ton)	Cu (%)
S-374B	7.0	Tr.	1.98

S-359B	3.0	0.15	5.76
S-364B	Grab	Tr.	1.51
S-360B	4.5	Tr.	2.6
S-363B	Grab	Tr.	1.20
S-365B	8.0	Tr.	6.02

Main Opening

S-366B	12.0	Tr.	Tr.
S-361B	7.0	Tr.	5.58
S-362B	Grab	Tr.	0.2
S-367B	8.0	Tr.	Tr.
S-368B	14.0	Tr.	Tr.
S-369B	15.0	Tr.	0.02
S-370B	3.0 & 6.0 (split)	Tr.	Tr.
S-371B	14.0	Tr.	Tr.
S-372B	14.0	Tr.	Tr.
S-373B	6.0	Tr.	Tr.

Area 1

S-374B	7.0	Tr.	1.98
S-375B	Grab	Tr.	Tr.
S-376B	8.0	Tr.	Tr.

PROPOSED EXPLORATION

GRAND COVE CLAIMS

DMEA-4600

SE¼ Sec. 29, T. 35 S., R. 2 E.

Jackson County, Oregon

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM 1001				0.7								1	0'- 5'
1002				0.1								1	5'-10'
1003				0.1								1	10'-15'
1004	No	.14		Tr								1	15'-20'
1005				Tr								1	20'-25'
1006				Tr								1	25'-30'
1007				0.15								1	30'-35'
1008				0.1								1	35'-40'
1009				Tr								1	40'-45'
1010				0.1								1	45'-50'
1011				Tr								1	50'-55'
1012				Tr								1	55'-60'
1013				Tr								1	60'-65'
1014	No	.12		Tr								1	65'-70'
1015				Tr								1	70'-75'
1016				Tr								1	75'-80'

M. F. Scott
Chief Chemist

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. ANderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM 1017				Tr								1	80'-85'

M. F. Scott
Chief Chemist

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
1084	Tr	.20		Tr								7	0'- 5'
1085				Tr								7	5'-10'
1086				Tr								7	10'-15'
1087				Tr								7	15'-20'
1088				Tr								7	20'-25'
1089				Tr								7	25'-30'
1090				Tr								7	30'-35'
1091				Tr								7	35'-40'
1092				Tr								7	40'-45'
1093				Tr								7	45'-50'
1094	No	.16		Tr								7	50'-55'
1095				Tr								7	55'-60'

M. F. Scott
Chief Chemist

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
1068				Tr								5	30'-35'
1069				Tr								5	35'-40'
1070				Tr								5	40'-45'
1071				Tr								5	45'-50'
1072				Tr								6	0'- 5'
1073				Tr								6	5'-10'
1074	Tr	.14		.24								6	10'-15'
1075				Tr								6	15'-20'
1076				Tr								6	20'-25'
1077				Tr								6	25'-30'
1078				Tr								6	30'-35'
1079				Tr								6	35'-40'
1080				Tr								6	40'-45'
1081				Tr								6	45'-50'
1082				Tr								6	50'-55'
1083				Tr								6	55'-60'

M. F. Scott
Chief Chemist

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H.O	Hole #	Feet
SM 1050	—	.28		—								4	25'-30'
1051	—	.28		Tr								4	30'-35'
1052	—	.30		Tr								4	35'-40'

M. F. Scott
Chief Chemist

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H.O	Hole #	Feet
SM 1053				Tr								4	40'-45'
1054	No	.18		Tr								4	45'-50'
1055				Tr								4	50'-55'
1056				Tr								4	55'-60'
1057				Tr								4	60'-65'
1058				Tr								4	65'-70'
1059				Tr								4	70'-75'
1060				Tr								4	75'-80'
1061				Tr								4	80'-85'
1062				Tr								5	0'- 5'
1063				Tr								5	5'-10'
1064	No	.24		Tr								5	10'-15'
1065				Tr								5	15'-20'
1066				Tr								5	20'-25'
1067				Tr								5	25'-30'

M. F. Scott
Chief Chemist

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	
SH 1018	—	0.0		Tr								2	2'-5'
1019	Tr	0.0		Tr								2	5'-10'
1020	Tr	.04		Tr								2	10'-15'
1021	Tr	.06		Tr								2	15'-20'
1022	—	0.0		Tr								2	20'-25'
1023	—	0.0		—								2	25'-30'
1024	—	.04		—								2	30'-35'
1025	Tr	.04		—								2	35'-40'
1026	—	.06		—								2	40'-45'
1027	Tr	.06		—								2	45'-50'
1028	Tr	.06		—								2	50'-55'
1029	Tr	.06		—								2	55'-60'
1030	—	.12		—								2	60'-65'
1031	—	.08		—								2	65'-70'
1032	—	.06		—								3	0'- 5'
1033	Tr	.08		—								3	5'-10'

M. F. Scott
Chief Chemist

2m 12 57 10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	
SH 1034	Tr	.20		—								3	10'-15'
1035	—	.20		—								3	15'-20'
1036	Tr	.14		—								3	20'-25'
1037	—	.18		Tr								3	25'-30'
1038	—	.08		—								3	30'-35'
1039	Tr	.10		—								3	35'-40'
1040	—	.20		—								3	40'-45'
1041	—	.30		—								3	45'-50'
1042	—	.30		—								3	50'-55'
1043	Tr	.08		—								3	55'-60'
1044	Tr	.20		—								3	60'-64'
1045	Tr	.20		—								4	0'- 5'
1046	Tr	.30		—								4	5'-10'
1047	Tr	.28		—								4	10'-15'
1048	—	.26		—								4	15'-20'
1049	—	.28		—								4	20'-25'

M. F. Scott
Chief Chemist

CONVERSE Copper

File No. C-10

PROSPECT CARDS

Code No.

Property Name Grand Cove

Property Owner Ford Converse

Submitted by

Location: State Ore.

County Jackson

Mining D.

T 35S R 2E Sec. 29, 32, 33

Followup Recom. NO

Later Review Recom.

Examined by

Company

Date

Where filed

Metals		Production Metal
	Cu	X
	Mo	
	Pb	
	Zn	
	Ag	
	Au	
	Fe	
	Mn	
	Cr	
	Ni	
	W	
	U	
	Re	
	P_2O_5	
	K_2O	
	Sn	
	Be	
	Coal	
	Hg	
Other		

AMS Quad

Other Quad

Production

	None	10^2	10^3	10^4	10^5	50^5	10^6
TONS							

Geology

Host Rock volcanic breccia and vesicular basalt or andesite

Mineralization

Type breccia & vesicle filling

Trend

Ore secondary & native Cu

Gangue

Alteration

Type

Extent

Bibliography

USGS

USBM

Other

Field Time

None

1 Day

1 Week

1 Mo

+1 Mo

Remarkes: some potential for large tonnage later disproven by Sunshine drillholes

Follow-up Recom.

MEMORANDUM REPORT

Re: Ford Converse Copper
Secs. 29, 32, 33,; T 38S., R. 2E. W.M.
Jackson County
Medford, Oregon

Date: June 23, 1958

By: J. B. Colson
Chief Geologist
Sunshine Mine

I. INTRODUCTION

This report is devised solely as an addition or substantiation of one written in November, 1957 by R. L. Anderson, field engineer for this company. The physical aspects will not be discussed in this report and because of limited time spent on the property, deals primarily with the geologic implications.

The property was visited in the company of Mr. G. C. Taylor and Mr. Ford Converse. One full day was spent on the property, all areas of interest were visited, and samples were cut where exposures of mineralization were seen.

II. GENERAL

U.S.G.S. Bulletin No. 893 covers the geology of the area, but is quite general. This is because only minor superficial work has been done and conclusions have to be drawn from hypothesis and inference. It is readily noted that a dark brown to black vesicular basalt or rhyolite is the country rock. No sedimentary rocks were observed in the area, so copper mineralization has been emitted entirely through basic igneous rocks. The exact relationship of mineralization to the host rocks can at this moment only be inferred. It appears reasonable to conclude that copper sulphides did at one time exist as probable finely divided and disseminated particles in the vesicular basaltic rock. Circulating ground water, combining with calcite filled vesicles; leached out the copper and redeposited it as carbonates and oxides in a flat brecciated zone or unconformity between two basic flows. The only substantiation of this theory is drawn from the fact that trenching has revealed the deposition to be flat and relatively continuous for considerable lateral distance. Mineralization is cut in many places by dense, hard ribs of dike-like basalt. Dike-like is used here as a descriptive term and is not to be misconstrued as literal. These then present an uneven surface or as an undulating surface with copper mineralization occurring in the concave sections and terminating against these resistant ribs.

Copper minerals seen are malachite, asurite, cuprite, and native copper.

Where exposed by trenching, the mineralized zone varies from 3.0' to 4.5' wide. As mentioned in the report by R. L. Anderson, one cut reveals a six-foot zone of mineralization dipping 60° to the southwest to a depth of ten feet below the surface. He has concurred that this is possibly a steeply dipping dike or altered structure. It must be pointed out at this writing that this condition may not exist as explained by Mr. Anderson, but that it is only a continuation of the flat lying zone occurring as a segment that happens to be dipping steeply. I feel that this is the exception rather than the rule, in that of the limited amount of dozing done, only this one upturned zone was evident. Spotty copper minerals are found in another trench roughly 1,000 feet away and this also has a horizontal attitude, further substantiating a flat lying zone.

The "copper zone" is basically a brecciated, altered zone of varying widths that can be easily explored by bulldozing and surface vertical drill holes. Much of the top lying flow has been eroded leaving a cover of from 2 to 30 feet of overburden on this brecciated zone. The relationship of the orebody to its host can be explored by these simple surface methods and a relatively close tonnage-grade figure can be obtained.

Samples cut assayed from .25% Cu. to 3.0% Cu. These are noted on the accompanying sketch.

III. RECOMMENDATIONS:

A large, relatively good grade copper deposit may be available here. Inexpensive exploration methods can be used to decide how far to go. Very little work has thus far been done. Inference has been necessary to evaluate the potential, but enough is in evidence to support a rather optimistic view of the chances of finding an orebody. I am in agreement with Mr. Anderson that possibilities of a large open pit operation are evident, but if drilling does not produce this, then the chances become quite questionable of the feasibility of underground, or the ability of the area to make a mine. I feel that an initial limited drill program is in order and if a satisfactory agreement can be made with Mr. Converse, we begin the job immediately.

Respectfully submitted,

J. B. COLSON
Chief Geologist
Sunshine Mine

10b

SUNSHINE MINING COMPANY
ASSAY OFFICE

NAME J. C Olson DATE June 18, 195?

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	
SI 2139				2.0								
2140				1.5								
2141				1.0								
2142				.30								
2143				.25								

H. F. Scott

Chief Chemist

Sunshine Mining Co
Medford Exploration
Drilling.

D. C. TOYE COMPANY

MONTHLY JOB COST DISTRIBUTION

BLASTING DIVISION

For Month Ending 7/22 — 7/30 1958 Signed _____

PACIFIC STATY. & PRINTING CO. PORTLAND

ITEMS	Job___	Job___	Job___	Job___	Job___	Job___	Job___	TOTALS
Labor	405.41							
Payroll Insurance and Taxes	54.28							
Automobile Mileage								
@ 10 Per Mile 750 mi	75.00							
Truck Mileage Rented Transport	198.00							
Over Flat @ 20 Per Mile 450 mi	90.00							
HEAVY EQUIPMENT:								
Compressors - 500 cfm.	150.00							
Wagon Drills - Air trac	250.00							
Wagon Jacks								
Jack Hammers								
Air Hoist								
Miscellaneous D-6 Cat	200.00							
Drill Bits 466' @ 10¢	46.60							
Drill Steel 466' @ 10¢	46.60							
Air Hose	Included							
Fuels	40.44							
Explosives	—							
Small Tools Sample Box	18.02							
Pump	6.75							
Travel Expense Air Express —	7.58							
R. C. Toye —	50.00							
B. D. O.								
G. O. 5%	81.93							
Miscellaneous								
TOTALS	1720.61							

Sunshine Mining Co.

Medford Exploration
Drilling

D. C. TOYE COMPANY
PORTLAND, OREGON

Date. From 7/22/58 to 7/30/58 Inc.

AME July		22	23	24	25	26 Sat	27 Sun	28	29	30		TOTAL
son, Victor	R	8	8	8	8		X	8	8	8	= 56 hrs @ 2.90 =	162.40
	OT		2		½	8			1	2	= 13½ " @ 4.35 =	58.73
y, T.A.	R		8	8	8		X	8	8	8	= 48 hrs @ 2.70 =	129.60
	OT		2		½	8			1	2	= 13½ " @ 4.05 =	54.68
												405.41

- 22: (loading equip at Portland + hauling to Roseburg)
- 23: (Roseburg to Medford + Job Move-In)
- 24: Finish Move-In + ½ day drilling)
- 25: Drilling
- 26: Drilling
- 28: Drilling
- 29: Drilling
- 30: Move-Out to Roseburg [END]

Payroll Taxes:

Soc. Security – 2¼ %
Ind Acc — 4.14%
Unemp — 3%
Health + Welfare – 4%
13.39% — = 54.28

Total Labor — 459.69

CAL-ORE MACHINERY CO., INC.

CONSTRUCTION, LOGGING, MILL and MINING SUPPLIES and EQUIPMENT

INVOICE COPY

SALES
SERVICE
RENTALS

1105 COURT STREET • MEDFORD, OREG

PHONE SPRING 3-4507 • POST OFFICE BOX

BILLING DATE 8/13/58

DATE 8/13/58

DATE SHIPPED

INV. NO. 7223

BACK ORDER NO.

BACK ORDERED FROM

SOLD TO

D.C. TOYE & CO., INC.

SHIP TO

ADDRESS

CUSTOMER'S ORDER NO.	SHIP VIA	F. O. B.	TERMS

ITEM NO.	AMOUNT ORDERED	BACK ORDERED	AMOUNT SHIPPED	DESCRIPTION OF PARTS	UNIT PRICE	EXTENSION
				To credit rental billed on Gardner Denver 500 cu. ft. Compressor, Serial 110401 (our sales ticket #6479-R) Reduce billing from $200 to $150		(50.00)
				To reduce our billing on DC-6 Crawler Tractor Sales Ticket #6992-R from $250 per ~~month~~ week to $200		(50.00
				Total credit		($100.00
				See letter attached.		

Paid 8/18/58

A CHARGE OF 10 PER CENT WILL BE CHARGED FOR RETURN OF ALL MERCHANDISE ACCORDING TO ORDER.

THIS INVOICE CONSTITUTES AN ORDER.

SIGNED FOR BY

INVOICE COPY

CAL-ORE MACHINERY CO., INC.

SALES
SERVICE
RENTALS

CONSTRUCTION, LOGGING, MILL and MINING SUPPLIES and EQUIPMENT

1105 COURT STREET • MEDFORD, OREGON

PHONE SPRING 3-4507 • POST OFFICE BOX 232

SOLD TO: D.C. Joyce & Co Inc.

BILLING DATE 7/24/58
DATE 7-24-58
DATE SHIPPED 7-24-58

INV. NO. 6567

BACK ORDER NO.

BACK ORDERED FROM

SHIP TO

ADDRESS

CUSTOMER'S ORDER NO.	SHIP VIA	F. O. B.	TERMS

ITEM NO.	AMOUNT ORDERED	BACK ORDERED	AMOUNT SHIPPED	DESCRIPTION OF PARTS	UNIT PRICE	EXTENSION
	9 3/4 #		9 3/4 #	1/8" Thick # 100 Rubbertex Neoprene Sheet Packing	.90 #	8.78

Paid 7/28 Co

TERMS: 2% CASH DISCOUNT IF PAID BY 10th OF FOLLOWING MONTH

A CHARGE OF 10 PER CENT WILL BE CHARGED FOR RETURN OF ALL MERCHANDISE ACCORDING TO ORDER.

THIS INVOICE CONSTITUTES AN ORDER.

SIGNED FOR BY T. A. Bailey

401 E. McANDREWS RD.
MEDFORD, OREGON
SPring 3-5072

MILANI TRUCK RENTAL

EQUIPMENT RENTAL AGREEMENT

No. 252

DATE July 24-58

RENTEE: D C Joyce & Co Inc (NAME) 3020 North Cath 97th Ave (ADDRESS) Portland (CITY) Oregon

POWER UNIT NO. Auto Co. TRACTOR ____ TRUCK ____ VAN ____ LICENSE NO. ____

TRAILER UNIT NO. Beall. SEMI ____ FULL ____ VAN ____ LICENSE NO. ____

ENDING MILEAGE		FROM	Coast Forg Mfg. Co.
STARTING MILEAGE		TO	Lake Oswego
MILES USED		ROUTE	D 6 B & W.
RATE PER MILE		REMARKS	
AMOUNT OF RENTAL	$64.09	SPECIAL PERMIT NO.	
DEPOSIT			

Paid

RENTOR agrees to deliver to the RENTEE, in good and serviceable condition and equipped to comply with I. C. C. safety regulations, the above equipment.
Thereafter to be in complete care, custody and control of the RENTEE until released to the RENTOR or his agent

at Medford (City) on July 24-58 (Date) PM AM

RENTOR: MILANI TRUCK RENTAL

By Louis Milani RENTEE D C Joyce By V R Kurz

McANDREWS RD.
DFORD, OREGON
Spring 3-5072

MILANI TRUCK RENTAL

EQUIPMENT RENTAL AGREEMENT

No. 383

DATE July 24-58

RENTEE: D. C. Joye & Co Inc. (NAME) 3020 N.E. 81st Ave. (ADDRESS) Portland Ore. (CITY)

POWER UNIT NO. Mack TRACTOR ..... TRUCK ..... VAN ..... LICENSE NO. .....

TRAILER UNIT NO. Fruehauf SEMI ..... FULL ..... VAN ..... LICENSE NO. .....

ENDING MILEAGE		FROM	Medford.
STARTING MILEAGE		TO	Lakeview.
MILES USED		ROUTE	500 Denver Gardner.
RATE PER MILE		REMARKS	Compressor.
AMOUNT OF RENTAL	$35.00	SPECIAL PERMIT NO.	
DEPOSIT			

Paid CK

RENTOR agrees to deliver to the RENTEE, in good and serviceable condition and equipped to comply with I. C. C. safety regulations, the above equipment.
Thereafter to be in complete care, custody and control of the RENTEE until released to the RENTOR or his agent

at Medford (City) on July 24 - 58 (Date) PM AM

RENTOR: MILANI TRUCK RENTAL

By ..... RENTEE D. C. Joye By .....

...McANDREWS RD.
...DFORD, OREGON
...Spring 3-5072

MILANI TRUCK RENTAL
EQUIPMENT RENTAL AGREEMENT

No. 255

DATE 7/30/58

RENTEE: D. C. Toye (NAME) 3020 NE 37 Ave (ADDRESS) Portland Ore. (CITY)

POWER UNIT NO. a Car TRACTOR ..... TRUCK ..... VAN ..... LICENSE NO. .....

TRAILER UNIT NO. Beal SEMI ..... FULL ..... VAN ..... LICENSE NO. .....

ENDING MILEAGE		FROM	Lake Creek
STARTING MILEAGE		TO	Crater Lake Mackinaw
MILES USED		ROUTE	
RATE PER MILE UN		REMARKS	D6 - Blade & Winch
AMOUNT OF RENTAL		SPECIAL PERMIT NO.	
DEPOSIT			

Paid 7/31 Co

RENTOR agrees to deliver to the RENTEE, in good and serviceable condition and equipped to comply with I. C. C. safety regulations, the above equipment.
Thereafter to be in complete care, custody and control of the RENTEE until released to the RENTOR or his agent

at Medford (City) on July 30 1958 (Date) PM AM

RENTOR: MILANI TRUCK RENTAL

By Louis Milani RENTEE T. A. Bailey By W P Kurz

1 McANDREWS RD.
MEDFORD, OREGON
SPring 3-5072

MILANI TRUCK RENTAL
EQUIPMENT RENTAL AGREEMENT

DATE July 30, 19[illegible]

RENTEE: D C Joyce + Co. Inc. (NAME) (ADDRESS) (CITY)

POWER UNIT NO. Mack TRACTOR ____ TRUCK ____ VAN ____ LICENSE NO. ____

TRAILER UNIT NO. Pierce SEMI ____ FULL ____ VAN ____ LICENSE NO. ____

ENDING MILEAGE		FROM	Medford
STARTING MILEAGE		TO	Lake Creek
MILES USED		ROUTE	
RATE PER MILE		REMARKS	Compressor
AMOUNT OF RENTAL	$35.00	SPECIAL PERMIT NO.	
DEPOSIT	-		

Paid

RENTOR agrees to deliver to the RENTEE, in good and serviceable condition and equipped to comply with I. C. C. safety regulations, the above equipment.
Thereafter to be in complete care, custody and control of the RENTEE until released to the RENTOR or his agent

at Medford (City) on July 30 19 58 (Date) P A

RENTOR: MILANI TRUCK RENTAL

By Lavina Milani RENTEE ____ By Neil W[illegible]

SUNSHINE MINING COMPANY

Memorandum for: _____ **Date** 12-15-60

Call from Ford Converse this morning pertaining to his claims near Quartzville, Oregon

Has been doing a little work and has showings on 5 claims The best showing, at the road, is exposed in cut 10' deep and 30' "wide" (long?) Mr. Mel Sukey (SUKEY), government man, called it 2' of $100 rock. 100 pounds hauled by Converse to ASR assayed: (ASR - 100# @ $80)

AU	AG	PB	ZN	Cu	AS	SB	Insol	Fe	S
.02	6.7	11.7	17.2	3.2	0.1	0.2	34.68	11.3	19.8

Five veins in the 30' cut

6' - $20±

Told him that area not sufficiently consistent in mineralization to warrant special Trip. See previous correspondence of 10-7-60. May be filed under name of Paymaster Mine.

70.00/T for Al_2O_3 at Columbia Falls

BAUXITE

	U.S. Output	Imports
1st 1/4 1958 -	299527	1,925,248
1957 - 1st Quar -	368705	1433951
2nd "	370404	1600120
3rd "	375170	1960279
4th "	301893	2106548
	1416172	7100998
1956	1743344	5669833
55	1788341	4882493
54	1994896	4988122
53	1579739	4230082

55-58% Al_2O_3	- 1.5-2.5% Fe_2O_3	- 8.00 @ 8.50
56-59 "	5.0-8.0% SiO_2	- 8.00 @ 8.50
Calcined or Dried 56-59 "	8-12 "	14.00 @ 16.00
50-52% "	crude Arkansas	5.00 @ 5.50

2m 12 57 10b

SU SHINE MINING COMPANY

Grand Cove

ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM 1001				0.7								1	0'- 5'
1002				0.1								1	5'-10'
1003				0.1								1	10'-15'
1004	No	.14		Tr								1	15'-20'
1005				Tr								1	20'-25'
1006				Tr								1	25'-30'
1007				0.15								1	30'-35'
1008				0.1								1	35'-40'
1009				Tr								1	40'-45'
1010				0.1								1	45'-50'
1011				Tr								1	50'-55'
1012				Tr								1	55'-60'
1013				Tr								1	60'-65'
1014	No	.12		Tr								1	65'-70'
1015				Tr								1	70'-75'
1016				Tr								1	75'-80'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. ANderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM 1017				Tr								1	80'-85'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	
SM 1018	—	0.0		Tr								2	2'-5'
1019	Tr	0.0		Tr								2	5'-10'
1020	Tr	.04		Tr								2	10'-15'
1021	Tr	.06		Tr								2	15'-20'
1022	—	0.0		Tr								2	20'-25'
1023	—	0.0		—								2	25'-30'
1024	—	.04		—								2	30'-35'
1025	Tr	.04		—								2	35'-40'
1026	—	.06		—								2	40'-45'
1027	Tr	.06		—								2	45'-50'
1028	Tr	.06		—								2	50'-55'
1029	Tr	.06		—								2	55'-60'
1030	—	.12		—								2	60'-65'
1031	—	.08		—								2	65'-70'
1032	—	.06		—								3	0'- 5'
1033	Tr	.08		—								3	5'-10'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	
SM 1034	Tr	.20		—								3	10'-15'
1035	—	.20		—								3	15'-20'
1036	Tr	.14		—								3	20'-25'
1037	—	.18		Tr								3	25'-30'
1038	—	.68		—								3	30'-35'
1039	Tr	.10		—								3	35'-40'
1040	—	.20		—								3	40'-45'
1041	—	.30		—								3	45'-50'
1042	—	.30		—								3	50'-55'
1043	Tr	.08		—								3	55'-60'
1044	Tr	.20		—								3	60'-64'
1045	Tr	.20		—								4	0'- 5'
1046	Tr	.30		—								4	5'-10'
1047	Tr	.28		—								4	10'-15'
1048	—	.26		—								4	15'-20'
1049	—	.28		—								4	20'-25'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM 1053				Tr								4	40'-45'
1054	No	.18		Tr								4	45'-50'
1055				Tr								4	50'-55'
1056				Tr								4	55'-60'
1057				Tr								4	60'-65'
1058				Tr								4	65'-70'
1059				Tr								4	70'-75'
1060				Tr								4	75'-80'
1061				Tr								4	80'-85'
1062				Tr								5	0'- 5'
1063				Tr								5	5'-10'
1064	No	.24		Tr								5	10'-15'
1065				Tr								5	15'-20'
1066				Tr								5	20'-25'
1067				Tr								5	25'-30'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 6, 1958

Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	
SM 1050	—	.28		—								4	25'-30'
1051	—	.28		Tr								4	30'-35'
1052	—	.30		Tr								4	35'-40'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

	Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM	1068				Tr								5	30'-35'
	1069				Tr								5	35'-40'
	1070				Tr								5	40'-45'
	1071				Tr								5	45'-50'
	1072				Tr								6	0'- 5'
	1073				Tr								6	5'-10'
*	1074	Tr	.14		* .24	*							6	10'-15'
	1075				1.32								6	15'-20'
	1076				Tr								6	20'-25'
	1077				Tr								6	25'-30'
	1078				Tr								6	30'-35'
	1079				Tr								6	35'-40'
	1080				Tr								6	40'-45'
	1081				Tr								6	45'-50'
	1082				Tr								6	50'-55'
	1083				Tr								6	55'-60'

M. F. Scott
Chief Chemist

2m 12 57 10b

SU SHINE MINING COMPANY
ASSAY OFFICE

NAME R. L. Anderson DATE August 7, 1958

	Sample Number	Au. Ozs.	Ag. Ozs.	Pb. %	Cu. %	Fe. %	As. %	Sb. %	Bi. %	Zn. %	S %	H_2O	Hole #	Feet
SM	1084	Tr	.20		Tr								7	0'- 5'
	1085				Tr								7	5'-10'
	1086				Tr								7	10'-15'
	1087				Tr								7	15'-20'
	1088				Tr								7	20'-25'
	1089				Tr								7	25'-30'
	1090				Tr								7	30'-35'
	1091				Tr								7	35'-40'
	1092				Tr								7	40'-45'
	1093				Tr								7	45'-50'
	1094	No	.16		Tr								7	50'-55'
	1095				Tr								7	55'-60'

M. F. Scott
Chief Chemist

MEMORANDUM REPORT

Re: Grand Cove Group
Drilling Project
Sec. 29, T35S, R2E, W.M.
Jackson County, Oregon

August 7, 1958

From: R. L. Anderson

Drilling equipment was moved into the drilling area in the north zone of copper mineralization on the Grand Cove group on Thursday, July 24, and drilling of Hole #1 started that date. The last hole, Hole #7, was completed the afternoon of Tuesday, July 29, and the compressor and D6 Cat were moved three miles to the haulage point at the county road the same day. The rented compressor and Cat were hauled back to Medford the morning of Wednesday, July 30.

Seven vertical holes, 2-5/8 inch diameter, were drilled varying in length from 50 to 85 feet, a total of 474 feet. Hole #1 was collared between the trench and the pit, both of which exposed malachite and azurite in their walls. In spite of its location, this hole appeared virtually barren of mineralization. Holes 2, 3, 4, and 5 were collared 200 feet from Hole #1, north, west, east, and south respectively. Hole #6 was collared 15 feet southeast of the edge of the best showing in the copper pit and Hole #7 was collared 25 feet southwest of the pit. Holes 1, 6, and 7 formed a tight triangle around the pit. All were virtually barren of mineralization.

Penetration below the existing water table was accomplished in every hole in the hope of finding secondary enrichment. Hole depths and water table depths are shown below.

Hole No.	Depth at bottom	Water Table
1	85	27 Flow
2	70	35 Flow
3	64	37 Damp
4	85	35 Damp
5	50	32 Damp
6	60	31 Flow
7	60	22 Flow

A Gardner-Denver "Airtrack" 123 with extendable steel in 12-foot sections and a 2-5/8" tungsten carbide bit were used satisfactorily for the drilling. Actual penetration was at the rate of about a foot a minute, but dampness was a hindrance both in plugging the bit and in causing the sample to stick to the hole wall. This was overcome by hauling water to the location and adding at the collar as needed. Expulsion of sample from the hole probably approached 100% with this aid.

Caving ground at 42 feet and 80 feet in Hole #1 and at 60 feet in Hole #3 caused lost time and eventually stoppage of drilling in these holes. Dampness above water table caused some lost time in all holes. Poor sample expulsion and poor sampling technique caused lost time in the early holes. The latter was overcome satisfactorily by the use of a good sampling tray and cover. This we designed and made at a Medford tin shop. The tray was made of heavy galvanized iron, 24 inches long, 18 inches wide, and 6 inches high. In the center of the bottom of the tray a three-inch hole was cut and a minus three-inch galvanized tube inserted

and soldered, extending three inches into the tray and three inches below the bottom. The bottom end was crimped to make it slightly smaller, about 2-7/8 inch O.D. Several feet of 3 inch O.D. galvanized tube were rolled and taken to the job from which the correct length for each hole was cut to serve as hole collar, the collar having been drilled several inches to two feet deep with a 3-inch collaring bit. The tube from the tray fit sufficiently snugly within the collar that no sample and practically no water passed between them, indeed sometimes the removal of the tray caused the collar to be pulled from the hole when a move was made to a new hole location. Its I.D. was sufficiently large to readily allow passage of the 2-5/8" bit and the drill steel sleeves.

The cover for the tray was made also of galvanized iron with overhanging lip on four sides. To allow removal after each drilling interval, five feet in most instances, for easy and rapid collection of the sample from the tray, a 2" slot was cut from the center to one side. This allowed passage of the lid past the drill steel when removing the lid and vertical passage of the drill steel and sleeves through the lid while drilling. To keep the sample and air or water from blowing up through the slot in the lid, the slot was covered with a heavy rubber with a hole in the it the size of the drill steel sleeves and a slit for easy removal plus a second heavy rubber with a smaller hole the diameter of the drill steel. Excepting for the extreme fines that escaped with the water overflow it was felt that virtually 100% of the sample was trapped in the tray. The sample was removed at sampling intervals with a thin-lipped dust pan and the tray blown clean with compressed air before resumption of drilling.

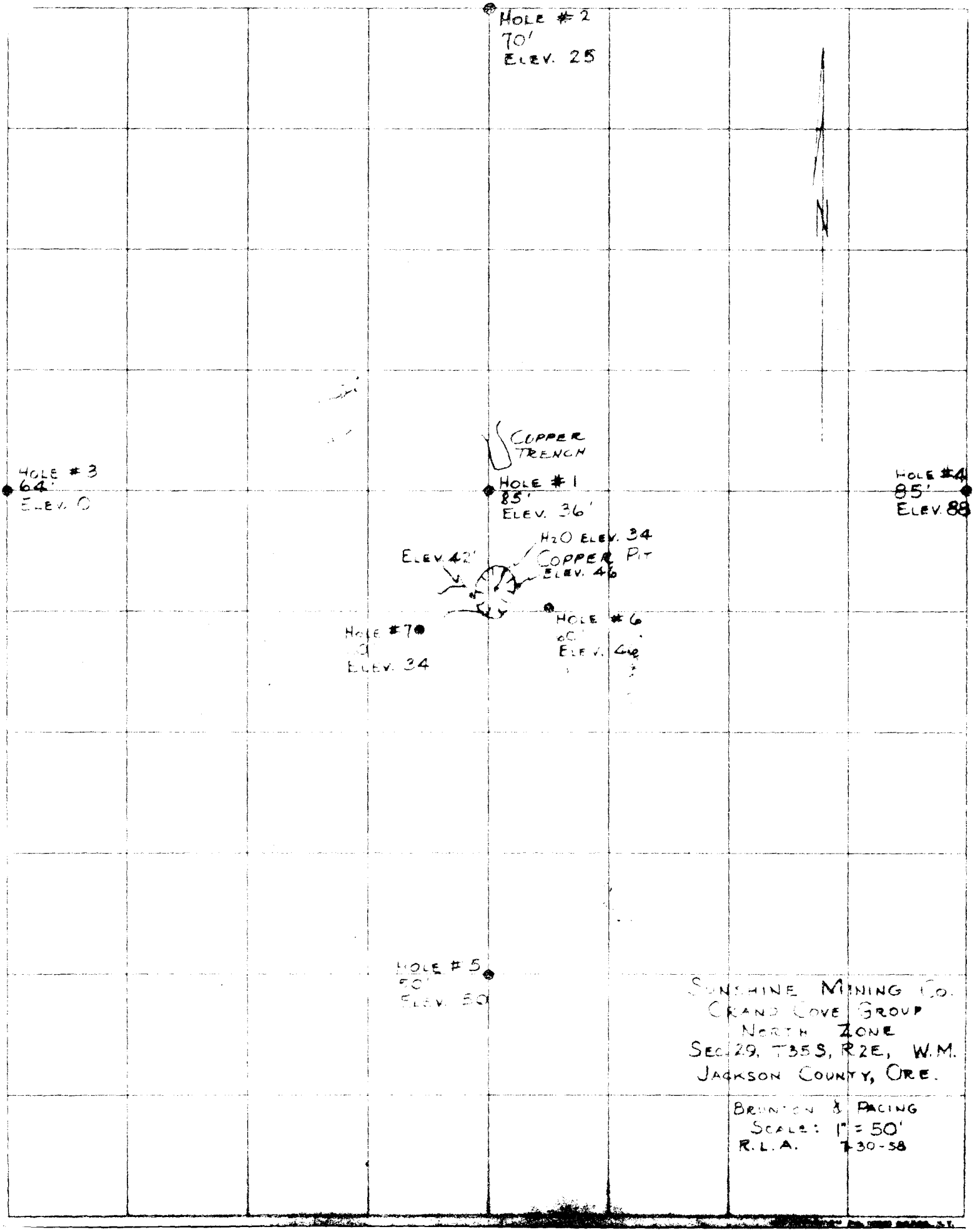
Dry samples were cut immediately with a standard assay lab splitter and two samples taken from each five feet. Wet samples were cut down in size with the same splitter and placed on aluminum foil to dry in the air, then cut further after mixing when dry and split into two samples from each five feet.

Steep pitches at three places in the road to the property and the need for some drill site preparation and access preparation between sites necessitated the rental of a D6 Cat. This was an additional expense not originally contemplated. Dampness caused additional difficulty and delay as did improper preparation for sample collection in the early holes. Drilling rate in Hole #1 was only 8.5 feet per hour, even with heavy water flow, an assistance in later holes. In contrast, three holes were drilled the last day, the rate, including time of collaring two holes and the time of two moves between holes, was 24 feet per hour.

It is expected that the drilling bill will be about $1,750 or about $3.70 per foot. Had the job continued the rate would have dropped to $1.25 to $1.50.

Mr. D. C. Toye, the "contractor", of Portland, Oregon, and his driller and helper were all most energetic and anxious to do the right thing. The driller and helper even went out on the job on Sunday on their own time to overcome some mechanical difficulties.

Plan, 1" = 50' attached.


HOLE # 2
70'
ELEV. 25
N
COPPER TRENCH
HOLE # 3
64'
ELEV. 0
HOLE # 1
85'
ELEV. 36'
HOLE #4
85'
ELEV. 88
H2O ELEV. 34
ELEV. 42'
COPPER PIT
ELEV. 46
HOLE #7
ELEV. 34
HOLE # 6
ELEV. 46
HOLE # 5
50'
ELEV. 50
SUNSHINE MINING CO.
GRAND COVE GROUP
NORTH ZONE
SEC. 29, T35S, R2E, W.M.
JACKSON COUNTY, ORE.
BRUNTON & PACING
SCALE: 1" = 50'
R.L.A. 7-30-58

SUNSHINE MINING COMPANY

Memorandum for: JKG **Date** 7/21/58

Converse lease returned today signed.

Am taking original back because They made slight error at bottom of page 1, put "19th" where "July" should be, no month at all.

Driller to arrive Medford about Wednesday noon.

My address - Medford Hotel.

RLA

SUNSHINE MINING COMPANY

Memorandum for: Ford Converse **Date** July 17, 1958

Dear Ford: If the lease is satisfactory please sign, have you/wife sign, and have the signing notarized by Notary Public. Please also have the Notary fill in the day at the top of page 1 and the same day and month at the bottom of page 1. If it is notarized on the 18th day of July, the top and bottom blanks of page 1 will also be the 18th day of July. Kindly return the first copy (original) to me at 50 West Mission, Spokane 1, Washington, and retain the second copy for yourselves. If I receive the signed original on Monday the 21st, I shall be ready to leave that afternoon and arrive at Medford Tuesday evening.

Copy

Best regards,

R. L. Anderson

- MINING LEASE -

THIS LEASE, Made this _____ day of July, 1958, by and between FORD M. CONVERSE and HAZEL J. CONVERSE, husband and wife, whose address is 1234 N.W. 25th Avenue, Portland 10, Oregon, LESSORS, and SUNSHINE MINING COMPANY, a Washington corporation, whose principal place of business is 738 Peyton Building, Spokane 1, Washington, LESSEE, WITNESSETH:

1. Lessors for and in consideration of the royalties to be paid as hereinafter provided, and of the mutual covenants and agreements to be performed as hereinafter stated, do hereby grant, demise and lease to the Lessee all of the following described property, to-wit:

The Grand Cove Group consisting of ten unpatended lode mining claims situated in Section 29, Township 35 South, Range 2 East, Willamette Meridian, County of Jackson, State of Oregon, and whose Notices of Location are recorded in the official records of Jackson County, Oregon, at Medford, as follows, to-wit:

Claim Name	Volume	Page	Number
Grand Cove No. 0	64	343	408631
Grand Cove No. 1	63	415	395488
Grand Cove No. 2	63	416	395489
Grand Cove No. 3	63	418	395490
Grand Cove No. 4	63	420	395491
Grand Cove No. 5	63	422	395492
Grand Cove No. 6	63	424	395493

the vicinity of the Grand Cove Group of claims, to-wit: in Section _____, Township _____, Range _____, _____County, Oregon, in order to make the operation a more workable mining unit. Lessors further agree to transfer to the Lessee, if the Lessee so requests, such lease or leases, at a total royalty on the leased property not exceeding ten per cent (10%).

Lessors further agree that any additional lode mining claims located by Lessors within one mile distance from the extremities of the Grand Cove Group of claims, during the life of this agreement, shall be leased to Lessee and included under the terms of this lease to the same effect as if fully described herein, provided the Lessee requests said leases; and the Lessors agree to execute valid leases covering the same to the Lessee upon Lessee's request.

2. Lessee agrees to enter upon the aforesaid premises and to prospect the same by drilling and/or bulldozing, the drilling to be done from the surface with churn drill, diamond drill, or percussion drill, using not less than two men, and Lessee agrees that during the first ninety (90) days of the term it will expend not less than Two Thousand Dollars ($2,000) on said prospecting. In the event of drilling Lessee shall take sledge and/or core samples at maximum intervals of five feet and assay the same for gold, silver and copper. If experience of the first hundred samples shows less than one ounce silver per ton average or less than two hundredths (0.02) ounce gold per ton average, then composite samples may be assayed for silver and/or gold values thereafter. In the event commercial ore in quantity is found, Lessee agrees to work and mine the premises in accordance

with generally accepted mining practices, complying with all applicable laws, rules and regulations of governmental agencies having jurisdiction in the premises.

3. The decisions of the Lessee made and exercised in good faith relating to the mining and working of the premises shall relieve the Lessee from any liability to the Lessors for any act done or omitted to be done in the mining or working of the premises.

4. The annual assessment work on the Grand Cove Group of lode mining claims included in this lease, and any other claims which may come under this lease, shall be performed by the Lessee, and it shall record such proof of performance work as is required by law.

5. Lessee agrees to expend at least 40 man shifts on the premises covered by this lease, including any lease added to the mining unit, during each month starting July 1, 1959, through June 30, 1960, and 80 man shifts during each month starting July 1, 1960, and thereafter; provided, however, that the Lessee may be relieved of said obligation for any month in which the 40 man shifts have not been expended between July 1, 1959, through June 30, 1960, by paying $225.00 to the Lessors and $25.00 to G. Cleveland Taylor, whose address is 2381 Purinton Drive, Sacramento 21, California, or his heirs or assigns, for each month, and may be relieved of the obligation to expend 80 man shifts in any month after July 1, 1960, by paying for such month $450.00 to the Lessors and $50.00 to the said G. Cleveland Taylor, or his heirs or assigns.

6. Lessee agrees to pay the Lessors as a royalty nine per cent (9%) of the net moneys paid by the smelter or other purchaser after deduction of any railroad, freight or haulage

with generally accepted mining practices, complying with all applicable laws, rules and regulations of governmental agencies having jurisdiction in the premises.

3. The decisions of the Lessee made and exercised in good faith relating to the mining and working of the premises shall relieve the Lessee from any liability to the Lessors for any act done or omitted to be done in the mining or working of the premises.

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6. Lessee agrees to pay the Lessors as a royalty nine ~~per cent (9%) of the net moneys paid by the smelter or other~~ purchaser after deduction of any railroad, freight or haulage

charges, and a royalty to G. Cleveland Taylor of One per cent (1%) of the net moneys paid by the smelter or other purchaser after deduction of any railroad, freight or haulage charges.

7. Lessee agrees that at such time as it concludes that ore of sufficient grade and quantity has been developed and proven to warrant the construction of mining plant facilities and/or mill, that it will construct such facilities of the size and type it deems advisable for the economic production of ores and/or extraction of metallic concentrates or metals therefrom.

8. Notwithstanding any of the other provisions or obligations in this lease, it is understood and agreed that after the expenditure of Two Thousand Dollars ($2,000) for prospecting work, as provided for in Paragraph 2, the Lessee shall have the right to terminate this lease by written notice to the Lessors, sent by registered mail at the address of the Lessors herein, and after such termination the Lessee shall be absolved and relieved from any further obligations under this lease, and the said further obligations shall be null and void and of no force or effect; and the Lessee shall transfer by valid transfer, but without warranty, any interest it may have in the said Grand Cove Group of lode mining claims or any lease comprising the mining unit; provided, however, the Lessee shall have sixty (60) days after the notice of the termination to remove any and all of its equipment and installations exclusive of the following materials installed underground, to-wit: water pipe, air pipe, ventilation pipe, track and ties.

9. If the Lessee fails to perform the covenants as hereinbefore provided, this agreement may then, at the option of the Lessors, be forfeited and the Lessors, if they shall elect to forfeit this agreement, shall serve on the Lessee a written

notice that unless Lessee performs such covenant within thirty (30) days after the giving of said notice, this agreement shall thereupon become forfeited and terminated and at an end; and at the end of said thirty (30) day period, the terms meanwhile not having been complied with by the Lessee, the Lessee agrees to surrender the premises to the Lessors and to execute instruments transferring the claims and leasehold interests, without warranty, to the Lessors, but the Lessee shall have sixty (60) days after date of such forfeiture to remove any and all of its equipment and installations exclusive of the following materials installed underground, to-wit: water pipe, air pipe, ventilation pipe, track and ties.

10. Any notices referred to in this agreement shall be in writing and shall be deemed to have been sufficiently given within twenty-four (24) hours after mailing of such notice by fully prepaid registered letter, addressed to the Lessors at 1234 N.W. 25th Avenue, Portland 10, Oregon, and addressed to the Lessee at 738 Peyton Building, Spokane 1, Washington. Any party may change the address herein set forth by notice to the other party herein in writing.

11. Lessee agrees to keep proper books and records showing the mining operations conducted upon the premises and the proceeds therefrom, and agrees that the said books and records relating to this property shall be open to the inspection of the Lessors, or their duly authorized representatives, at reasonable times and at the Lessee's customary place of business. Copies of smelter returns shall be furnished to the Lessors by the smelter, but in the event that the smelter will not do so, copies of the smelter returns will be furnished to the Lessors by the Lessee within ten (10) days after their receipt by the Lessee.

12. This agreement shall be binding upon the heirs, successors and assigns of the parties hereto.

IN WITNESS WHEREOF the parties hereto have executed this agreement the day and year first above written.

Ford M Converse

Hazel J Converse

LESSORS

SUNSHINE MINING COMPANY

By _____
President

Attest: _____
Secretary

LESSEE

STATE OF OREGON)
) SS.
COUNTY OF MULTNOMAH)

I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this

_____ day of _____, 1958, personally appeared before me FORD M. CONVERSE and HAZEL J. CONVERSE, husband and wife, to me known to be the individuals described in and who executed the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

_____
NOTARY PUBLIC for the State of Oregon, Residing at Portland.

My commission expires_____

STATE OF WASHINGTON)
) SS.
COUNTY OF SPOKANE)

On this _____ day of _____, 1958, before me, a Notary Public in and for the above named County and State,

personally appeared _____ and

_____, to me known to be the _____

President and _____ Secretary, respectively, of SUNSHINE MINING COMPANY, the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and each on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
NOTARY PUBLIC for the State of Washington, Residing at Spokane.

My commission expires_____

MEMORANDUM REPORT

Re: Ford Converse Copper
Secs. 29, 32, 33,; T 35S., R. 2E. W.M.
Jackson County
Medford, Oregon

Date: June 23, 1958

By: J. B. Colson
Chief Geologist
Sunshine Mine

I. INTRODUCTION

This report is devised solely as an addition or substantiation of one written in November, 1957 by R. L. Anderson, field engineer for this company. The physical aspects will not be discussed in this report and because of limited time spent on the property, deals primarily with the geologic implications.

The property was visited in the company of Mr. G. C. Tayler and Mr. Ford Converse. One full day was spent on the property, all areas of interest were visited, and samples were cut where exposures of mineralization were seen.

II. GENERAL

U.S.G.S. Bulletin No. 893 covers the geology of the area, but is quite general. This is because only minor superficial work has been done and conclusions have to be drawn from hypothesis and inference. It is readily noted that a dark brown to black vesicular basalt or rhyolite is the country rock. No sedimentary rocks were observed in the area, so copper mineralization has been emitted entirely through basic igneous rocks. The exact relationship of mineralization to the host rocks can at this moment only be inferred. It appears reasonable to conclude that copper sulphides did at one time exist as probable finely divided and disseminated particles in the vesicular basaltic rock. Circulating ground water, combining with calcite filled vesicles; leached out the copper and redeposited it as carbonates and oxides in a flat brecciated zone or unconformity between two basic flows. The only substantiation of this theory is drawn from the fact that trenching has revealed the deposition to be flat and relatively continuous for considerable lateral distance. Mineralization is cut in many places by dense, hard ribs of dike-like basalt. Dike-like is used here as a descriptive term and is not to be misconstrued as literal. These then present an uneven surface or as an undulating surface with copper mineralization occurring in the concave sections and terminating against these resistant ribs.

Copper minerals seen are malachite, asurite, cuprite, and native copper.

Where exposed by trenching, the mineralized zone varies from 3.0' to 4.5' wide. As mentioned in the report by R. L. Anderson, one cut reveals a six-foot zone of mineralization dipping 60° to the southwest to a depth of ten feet below the surface. He has concurred that this is possibly a steeply dipping dike or altered structure. It must be pointed out at this writing that this condition may not exist as explained by Mr. Anderson, but that it is only a continuation of the flat lying zone occurring as a segment that happens to be dipping steeply. I feel that this is the exception rather than the rule, in that of the limited amount of dozing done, only this one upturned zone was evident. Spotty copper minerals are found in another trench roughly 1,000 feet away and this also has a horizontal attitude, further substantiating a flat lying zone.

The "copper zone" is basically a brecciated, altered zone of varying widths that can be easily explored by bulldozing and surface vertical drill holes. Much of the top lying flow has been eroded leaving a cover of from 2 to 30 feet of overburden on this brecciated zone. The relationship of the orebody to its host can be explored by these simple surface methods and a relatively close tonnage-grade figure can be obtained.

Samples cut assayed from .25% Cu. to 3.0% Cu. These are noted on the accompanying sketch.

III. RECOMMENDATIONS:

A large, relatively good grade copper deposit may be available here. Inexpensive exploration methods can be used to decide how far to go. Very little work has thus far been done. Inference has been necessary to evaluate the potential, but enough is in evidence to support a rather optimistic view of the chances of finding an orebody. I am in agreement with Mr. Anderson that possibilities of a large open pit operation are evident, but if drilling does not produce this, then the chances become quite questionable of the feasibility of underground, or the ability of the area to make a mine. I feel that an initial limited drill program is in order and if a satisfactory agreement can be made with Mr. Converse, we begin the job immediately.

Respectfully submitted,

J. B. COLSON
Chief Geologist
Sunshine Mine

MEMORANDUM REPORT

Re: Ford Converse Copper
Secs. 29, 32, 33,; T 35S., R. 2E. W.M.
Jackson County
Medford, Oregon

Date: June 23, 1958

By: J. B. Colson
Chief Geologist
Sunshine Mine

I. INTRODUCTION

This report is devised solely as an addition or substantiation of one written in November, 1957 by R. L. Anderson, field engineer for this company. The physical aspects will not be discussed in this report and because of limited time spent on the property, deals primarily with the geologic implications.

The property was visited in the company of Mr. G. C. Taylor and Mr. Ford Converse. One full day was spent on the property, all areas of interest were visited, and samples were cut where exposures of mineralization were seen.

II. GENERAL

U.S.G.S. Bulletin No. 893 covers the geology of the area, but is quite general. This is because only minor superficial work has been done and conclusions have to be drawn from hypothesis and inference. It is readily noted that a dark brown to black vesicular basalt or rhyolite is the country rock. No sedimentary rocks were observed in the area, so copper mineralization has been emitted entirely through basic igneous rocks. The exact relationship of mineralization to the host rocks can at this moment only be inferred. It appears reasonable to conclude that copper sulphides did at one time exist as probable finely divided and disseminated particles in the vesicular basaltic rock. Circulating ground water, combining with calcite filled vesicles; leached out the copper and redeposited it as carbonates and oxides in a flat brecciated zone or unconformity between two basic flows. The only substantiation of this theory is drawn from the fact that trenching has revealed the deposition to be flat and relatively continuous for considerable lateral distance. Mineralization is cut in many places by dense, hard ribs of dike-like basalt. Dike-like is used here as a descriptive term and is not to be misconstrued as literal. These then present an uneven surface or as an undulating surface with copper mineralization occurring in the concave sections and terminating against these resistant ribs.

Copper minerals seen are malachite, asurite, cuprite, and native copper.

Where exposed by trenching, the mineralized zone varies from 3.0' to 4.5' wide. As mentioned in the report by R. L. Anderson, one cut reveals a six-foot zone of mineralization dipping 60° to the southwest to a depth of ten feet below the surface. He has concurred that this is possibly a steeply dipping dike or altered structure. It must be pointed out at this writing that this condition may not exist as explained by Mr. Anderson, but that it is only a continuation of the flat lying zone occurring as a segment that happens to be dipping steeply. I feel that this is the exception rather than the rule, in that of the limited amount of dozing done, only this one upturned zone was evident. Spotty copper minerals are found in another trench roughly ~~1,000~~ 1,500 feet away and this also has a horizontal attitude, further substantiating a flat lying zone.

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J. B. COLSON
Chief Geologist
Sunshine Mine

C O P Y

From U. S. G. S. Bulletin No. 893

GRAND COVE AREA

"The Grand Cove prospect, in Jackson County, reveals native copper as nodules in volcanic breccia between vesicular flows of dark labradoric andesite or basalt without any vein or indications of sulphides. It thus differs markedly from the mineral deposits previously described. The seven claims of the property comprise parts of Secs. 29, 32, 33 and 35, T. 35 S., R. 2 E., 5 miles north of Lakecreek, on an open gently sloping upland bench. The distance by road from Medford, by way of Brownsboro and Salt Creek, is 26 miles. The 12 miles nearest the prospect could not be traveled by car in 1931.

The workings consist of an open cut 60 feet long with a maximum depth of 10 feet and a shaft reported to be 30 feet deep on a gently sloping bench at an altidude of nearly 2,900 feet. The deposit was discovered in 1917 by L. A. Obenchain, while searching for manganese. A carload of ore is said to have been shipped to the Tacoma smelter, but no data on the dhipment are available.

The copper is confined to volcanic breccia associated with vesicular black labradorite andesite or basalt that is nearly horizontal but dips slightly to the west at the prospect. The flow rock contains red spots that are iddingsite pseudomorphs after olivine and calcite amygdules that are stained greenish near the rock. The breccia is highly altered to clay minerals and contains little greenish spots and vainlets consisting mainly of chrysocolla with a little malachite and very little azurite. (my leaching test appears to indicate there is very little chrysocolla, G.C.T.) Limonite and some manganese oxide occur in irregular black spots and fracture fillings through the altered rock. The copper occurs in dendritic form in nodules, some of which are 6 inches long. The copper is partly changed to cuprite, which in turn is surrounded by opal and chalcedony, with small amounts of chrysocolla and malachite. Openings are partly filled with the chocolate-colored clay mineral beidellite.

Prospecting has not been sufficient to reveal the full extent of the deposit. The copper ore appears to be very erratic in its distribution."

Samples of the rock were taken to Mr. Hollis Dole, Director of the Oregon Department of Geology and Mineral Resourses, and Mr. Dole called the rock olivine-basalt. He believes the copper came from the basalt and that it has been deposited at certain ground water levels and the ore will be found in those horizons and drilling should be done with this in mind. He further said that proper shallow drilling over the area might be expected to show a considerable deposit that could be mined with power equipment.

G. Cleveland Taylor

From U. S. G. S. Bulletin No. 893

Grand Cove Area, Oregon .

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G.C.T.

MORSE LABORATORIES

RESEARCH, ENGINEERING, ANALYTICAL

316 SIXTEENTH STREET
SACRAMENTO 14, CALIFORNIA
HUdson 1-2572

June
Fourth
1956

G. Cleveland Taylor
2381 Purinton Drive
Sacramento, California

#34689
(5/28/56)

	A	B	C
Strength of H_2SO_4 acid	2%	4%	4%
Solution to ore ratio	2:1	2:1	2:1
pH before treatment	1.2	.5	-
pH after treatment	2.1	.95	-
Time of agitation	30 min.	30 min.	1 hour
Head analysis (Cu)	3.10%	1.77%	.43%
Copper in solution	1.33%	1.34%	.37%
Tail analysis (Cu)	1.77%	.43%	.03%
Recovery (Cu)	43%	86%	97%

Procedure: The sample of 1/2 lb. of ore submitted by Mr. Taylor was agitated 30 minutes with the above results marked "A." The tailings from "A" sample were treated again as shown as sample "B." The tailings from "B" were again treated, as shown above marked "C."

MORSE LABORATORIES

G. H. Morse

GHM:hr

[illegible] copy

MF-200
(Revised June 1954)

Docket No. DMEA -4600

Commodity Copper

Contract No. Idm-E [illegible]

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Fred H. [illegible]

.....

.....

.....,

whose mailing address is 2885 S. W. Fairview Blvd,
Portland 1, Oregon
hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200), the attached Exhibit "A," Annex I, and [illegible]

.....

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Oregon, County of Jackson, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the entire interest in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

.....

.....

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un"

16—[illegible]-1

of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

.....

.....

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of copper. ..... The work to be performed is described in Exhibit "A." The Operator on or before September 15, 1957. ..... shall commence the work, and on or before 8 mos. from date of cutoff. (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $7,200.00 ..... The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $3,600.00 .....: *Provided*, That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except*, that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer*, sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 2. [illegible Article 13.]

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

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

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—
In Article 4(a), the words "Article 9" are changed to "Article 8."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ C. O. MITTENDORF

Administrator, Bauxite Minerals
Exploration Administration

[redacted]

By /s/ FORD M. CONVERSE

2885 S W. Fairview Blvd

Portland 1, Oregon

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

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE : 16 76117-1

EXPLORATION PROJECT CONTRACT
FORD M. CONVERSE
DOCKET NO. DMEA-4600

ANNEX I

The land referred to in Article 2 of the contract consists of eight unpatented lode mining claims situated in section 29, Township 35 S., Range 2 E., Jackson County, Oregon. Notices of Location of said claims are recorded in the official records of Jackson County, Oregon, at Medford, as follows:

Claim Name	Volume	Page	Number
Grand Cove No. 0	64	343	408631
Grand Cove No. 1	63	415	395488
Grand Cove No. 2	63	416	395489
Grand Cove No. 3	63	418	395490
Grand Cove No. 4	63	420	395491
Grand Cove No. 5	63	422	395492
Grand Cove No. 6	63	424	395493
Grand Cove No. 7	64	341	408630

The claims are shown on the attached map entitled "Claim Map of the Grand Cove Claims," attached hereto and made a part hereof.

The Operator is the locator of the claims.

EXPLORATION PROJECT CONTRACT
FORD M. CONVERSE
DOCKET NO. BMEA-4600

EXHIBIT "A"

Description of the Work

The purpose of the project is to explore for ores of copper by bulldozing (with auxiliary drilling and blasting) and by churn drilling.

The bulldozing will be performed with a D8 tractor or equivalent unit.

The churn drill holes will be of minimum diameter of six inches and will be fully cased to insure accuracy of sampling. Sludge samples will be taken at intervals not greater than five feet and such sludges will be dried, sampled and assayed for copper, gold, and silver. Duplicate samples of the sludges will be preserved and made available to the Government.

The work will be in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved in advance in writing by the Government.

Stage I

(A) Bulldoze not in excess of 80 hours of actual working time, in the area known as the "Main Opening" to further expose the presently opened copper mineralization. As required, bulldozing will be facilitated by drilling and blasting of the harder sections. The approximate location of the bulldozing is shown on the attached map entitled "Proposed Exploration, Grand Cove Claims."

(B) Churn drill four holes, each to an approximate depth of fifty feet. The aggregate total of the four holes shall not exceed 200 feet. Three of the holes will be drilled at the approximate locations shown on the above-cited map. The fourth hole will be drilled in the area designated on the map as "Area 1" at a location approved by the Government.

Stage II

Churn drill four holes to the east of the holes drilled in Stage I in the "Main Opening" area. The holes shall be drilled to

an approximate depth of 100 feet. The aggregate total footage of the four holes shall not exceed 400 feet. The actual locations and depths of such holes will require prior Government approval.

Estimated Costs of the Project

Actual Costs

Stage I

Category (1) Independent Contracts

Bulldozing, 80 hours @ $15.00/hr.	$1,200.00	
Churn drilling (with casing) 200 feet @ $5.00/ft.	1,000.00	$2,200.00

Category (2) Personal Services

Subcategories (a) and (b) Supervision and Technical Services

1 Supervisor-sampler, 1 month @ $600.00/mo.	600.00	

Subcategory (c) Labor

1 miner, 20 days @ $16.00/day	320.00	$ 920.00

Category (3) Operating Materials and Supplies

Explosives	150.00	
Gasoline and oil	50.00	
Detachable bits	15.00	
2 Sludge bombs @ $10.00/ea.	20.00	235.00

Category (4) Operating Equipment

Subcategory (a) Rental

1 jeep or pickup, 20 days @ $10.00/day	200.00	
1 compressor and jackhammer, with hose and drill steel, 1 month @ $175.00/mo.	175.00	375.00

Subcategories (b) and (c) Purchases and Depreciation

None

Categories (5) and (6)

None

Category (7) Miscellaneous

40 samples for assays @ $3.00/sample	$ 120.00	
40 sample bags and sample transportation @ $0.65/ea.	26.00	
Insurance	138.00	$ 284.00
Estimated Total Cost of Stage I		$4,014.00

Stage II

Category (1) Independent Contracts

Churn drilling, (with casing) 400 feet @ $5.00/ft.	$2,000.00	$2,000.00

Category (2) Personal Services

Subcategories (a) and (b) Supervision and Technical Services

1 Supervisor-sampler, 1 month @ $600.00/mo.	600.00	

Subcategory (c) Labor

None		600.00

Category (3)

None

Category (4) Operating Equipment

Subcategory (a) Rental

1 jeep or pickup, 20 days @ $10.00/day	200.00	200.00

Subcategories (b) and (c) Purchases and Depreciation

None

Categories (5) and (6)

None

Category (7) Miscellaneous

80 samples for assays @ $3.00/sample	$ 240.00	
80 sample bags and sample transportation @ $0.65/ea.	52.00	
Insurance	94.00	$ 386.00
Estimated Total Cost of Stage II		$3,186.00

SUMMARY

Estimated Total Cost of Stage I	$4,014.00	
Estimated Total Cost of Stage II	3,186.00	
Estimated Total Cost of Project		$7,200.00
Government's Participation @ 50%		$3,600.00