Extra cl.

Chap

801480

Appendix to Report of
Dr. Victor Dolmage dated
June 17, 1942, to
McVicar Mining Company Limited

The following is a detailed description of the ore showings so far exposed by work done to date on the property of McVicar Mining Company Limited (exclusive of the eight Surbriggen claims), together with the assays of samples taken therefrom:

Lily-Rose Showings, Area 1

The Lily-Rose showings are situated in the south-east corner of the property. The Lily showings are detailed on Map No. 1 accompanying this report, and the Rose showings lie about 400 feet nearly due north.

The Lily showings expose a zone of mineralization 15 to 18 feet wide, from which the following samples were taken:

NO.	WIDTH	Au. Oz/Ton.	Ag. Oz/Ton.	Pb. %	Zn. %	Cu. %
O'Grady	4.5'	Tr.	1.0	-	-	0.9
"	4.5	Tr.	1.4	-	-	2.4
"	4.5	Tr.	1.8	-	-	6.6
"	4.5	Tr.	1.8	-	-	7.6
"	4.5	Tr.	1.8	-	-	5.8
M 11	10	Tr.	0.15	-	-	0.7
M 10	10	.005	0.15	-	0.9	2.15
M 13	17	Tr.	0.80	-	Tr.	2.2
O'Grady	15	Tr.	2.0	2.8	1.1	5.2
"	10	Tr.	1.0	11.1	1.3	1.0
"	10	Tr.	1.0	1.6	0.9	0.9

The Rose showings follow a narrow vein of copper striking in a northerly direction. Three samples from this vein assayed as follows:

NO.	WIDTH	Au. Oz/Ton.	Ag. Oz/Ton.	Pb. %	Zn. %	Cu. %
M 16	5'	Tr.	0.10	-	Tr.	10.6
M 17	4	Tr.	.50	-	-	0.60
O'Grady	2	Tr.	4.0	-	-	12.5

This vein is exposed at close intervals over a length of 60 feet. It strikes towards the Lily showings and may be connected with them.

Whistler Showings, Area 2

These showings are situated near the centre of the Whistler claim which is the most southerly of the group. The showings are at elevation 6400 feet above sea level and are the highest on the property. They are among the earliest showings discovered on the property and have been opened up by six open cuts as shown on the accompanying Map No. 2. Also indicated on this map are two of the three diamond drill holes put in by Britannia Mining and Smelting Company.

The farthest south trench is about 100 feet in length and runs in a direction N70 East. There are three bands of sulphide ore in this trench. The most westerly one contains besides copper and zinc, a band of solid galena. Two samples from this showing assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
H 8	8'	0.01	1.0	4.2	6.2	2.0
O'Grady	4.75	Tr.	3.5	14.5	14.4	3.3

The next sulphide body to the east is 20 feet distant and gave the following samples:

H 9	7'	0.005	2.10	-	15.1	4.8
O'Grady	12	Tr.	2.8	2.7	7.4	4.9

The third sulphide body is exposed only on the south side of the trench but there is a pile of good ore on the dump which apparently came from the bottom of the trench. No samples were taken.

The next trench to the north is only 15 feet in length but exposes a solid vein of galena 10 to 12 inches wide, bordered

by disseminated copper and zinc ore. Two samples by O'Grady assayed as follows:

WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
6'	Tr.	2.8	0.6	9.0	-
1'	0.005	8.8	69.3	1.6	6.2

The galena vein in this trench continues easterly through the westerly showing in trench 1 and through trenches 4, 5 and 6.

Trench 3 is 80 feet due east of trench 2. It was caved at the time of the present examination but the following sample was taken from this end of the trench by O'Grady.

WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
5'	0.04	1.5	0.6	6.0	1.0

Trench 4 is 80 feet north of trenches 2 and 3 and is 45 feet in length. There is a strong band of sulphide ore at each end of the trench. The following samples were obtained from the west end of the trench.

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 1	11'	0.02	2.25	-	12.5	2.6%
O'Grady	5.5	Tr.	2.5	Tr.	14.9	3.2%

From the east end of trench 4 the following samples were taken:

M 7	6'	0.033	0.60	-	30.0	1.80
O'Grady	5'	0.01	1.5	-	39.9	1.7

Trench 5 is 10 feet north of the west end of trench 4. One sample from this by O'Grady assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
		Tr.	1.7	23.8	12.0	-

Trench number 6, twenty feet north of trench 3 gave the following samples:

O'Grady	Selected	Tr.	1.5	3.9	4.5	1.5
"	6'	Tr.	1.4	-	3.3	1.6
Dolmage	4'	0.03	1.4	1.1	7.3	-

Under these trenches three holes were drilled by Britannia Mining and Smelting Co. The positions and directions of two of the three holes are shown on the accompanying Map No. 2. The results of this drilling are not available for publication or study. However, these surface showings judged from their size, metallic content and geological environment appear to have considerable possibilities.

Grouse Fraction Showings

At a point 70 feet south of the Harding claim and on the Grouse fraction a strong shear highly altered and mineralized is exposed in a trench 10 feet in length. Small amounts of chalcopyrite, galena and sinchlende are associated with larger amounts of pyrite. The shear has the usual northwest strike and steep dip. This shear is cut by a 2 foot lamprophyre dyke which strikes easterly and dips steeply north.

Northwest of this and 30 feet north of the southern boundary of the Harding claim is a copper vein about 2 feet wide, striking north 25 degrees west and dipping vertically. A sample from this taken by O'Grady assayed: Gold, trace; Silver, 3.0 oz per ton; copper, 7.4%. Further showings similar to the above and on the same strike were observed to the north of these showings.

Harding showings, South Area 2

The Harding showings are situated in the central part of the Harding claims near the old diamond drill camp and at elevation 4000. There are three large cuts as shown on the accompanying Map No. 2. These differ from most of the other showings in that the sulphide minerals and particularly the chalcopyrite are confined mainly to a number of small sharply defined fractures as shown in the drawing. The showings are quite impressive and the sampling shows good values over large

widths as follows:

NO.	WIDTH	AU.	AG.	PB.	ZN.	CU.
M 12	10'	Tr.	0.50	-	0.70	1.15
M 13	12'	Tr.	0.60	-	-	3.15
M 14	-	.005	0.60	-	-	3.00

This area was tested by geophysical methods and then drilled by the Britannia company. The results of these tests are not available.

About 400 feet north of these showings a small vein carrying good copper values has been opened up and two samples taken as follows:

NO.	WIDTH	AU.	AG.	ZN.	CU.	PB.
M 5	2	0.16	0.80	4.4	3.15	
M 6	2	0.005	1.85	2.3	3.69	

This small comparatively high grade vein resembles in size, strike and content the small north-south vein on the Lily-Rose showings. It is thought that such veins are extensions from the larger lower grade adjacent shears.

Harding North. Area 4

On the northern boundary of the Harding claim where it is crossed by the deep canyon of the south fork of McVicar creek, as shown on the accompanying Map No. 4, a large showing of heavy sulphide ore was found during the season of 1925. On the east side of the canyon an old and partly caved cut extends up the face of the canyon wall for about 20 feet. The first 10 feet of this consists of nearly solid pyrite with a little quartz and a few small grains and streaks of chalcopyrite. East of this there is 10 feet of ground less heavily mineralized, east of which is a foot of nearly solid pyrite. A sample across 9 feet of pyrite and quartz taken by O'Grady assayed: Gold, trace; silver, 0.60 ounces per ton and copper 1.6%.

North of this cut 20 feet another one exposes about 8 feet of disseminated pyrite in quartz and 1 foot of solid pyrite with a little chalcopyrite. South of first mentioned cut 50 feet, a third cut exposes the same 10 feet or more of heavy sulphides and quartz. A two foot lamprophyric dyke lies just west of these three showings striking due north parallel to the shearing and sulphide banding.

In 1925 the Britannia company drilled a hole under this showing pointing it due east as shown on the accompanying Map No. 4. This hole starts in the ore zone and in a distance of 32 or 50 feet it would have passed through it at a depth of only a few feet below the outcrop. It could not therefore give much new information concerning this showing.

About 300 feet east of this showing and 150 feet higher but not shown on the map, are several other promising cuts in a wide shear striking north and south. Samples 33, 40 and 41 were taken from one big silicified shear between 50 and 100 feet wide. Sample 42 represents a narrow sulphide vein about 100 feet west of sample 41. This vein may be an extension or branch from the large shear. These samples assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	FE. %	ZN. %	CU. %
M33	3.0'	0.04	0.10	Tr.	Tr.	1.80
M 40	5.5	0.003	Tr.	0.1	Tr.	0.25
M 41	8.0	Tr.	0.25	Tr.	Tr.	0.05
M 42	4.5	Tr.	0.48	0.15	2.6	1.05

The above samples, although lower than average grade, represent a very wide and strong shear which might, in other places, carry better values.

It is not known whether the above mentioned hole was drilled far enough to reach this big shear.

Rainstorm Showings, Area 3

There are two groups of showings on the Rainstorm claim, one of which is the most promising on the property and is usually referred to as the "copper showing". It is shown on the accompany-

ing Map No. 8. It is the more southerly of the two groups and is situated in the southeastern part of the claim. It consists of a wide shear zone in greenstone which has been largely replaced by quartz and sericite. The copper occurs as blebs and irregular masses of nearly pure chalcopyrite.

It has been traced by open cutting for 300 feet and at both ends it extends under overburden too deep to remove by hand methods. However, in the most northerly exposures there was a noticeable narrowing in width and decrease in mineralization. Samples taken from the various cuts showed the following widths and values:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M2	6.0'	0.005	1.50	-	1.0	7.90
M 3	4.5	0.005	1.85	-	Tr.	9.23
M 4	10.0	Tr.	1.50	-	0.30	9.10
M 48	6.0	Tr.	2.0	Tr.	Tr.	2.45
M 49	8.0	0.01	2.0	1.4	Tr.	2.90
M 50	3.0	Tr.	1.4	0.1	Tr.	3.10
M 51	7.0	0.01	0.75	0.05	Tr.	9.30

The above samples were taken along the strike of one definite and continuous structure. However, 80 feet southwest of sample M4 another mineral fracture was found striking northeast, dipping vertically and carrying a considerable amount of chalcopyrite, and a little galena. Its strike would cause it to join the main copper vein a short distance north of the cut at sample M 4. Two samples from this vein assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 43	4'	Tr.	0.32	1.4	2.4	0.85
D 1	4	0.03	1.40	1.1	7.3	-

Two holes were drilled under these showings by the Britannia company.

On the Rainstorm claim 600 feet north of the above showings is a wide shear intensely silicified and impregnated with pyrite and chalcopyrite. In this locality four samples were taken as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 19	1.25	Tr.	0.10	-	-	0.10
M 20	4.0	0.005	0.15	-	-	0.10
M 21	3.0	Tr.	0.20	-	-	0.40
M 22	4.0	Tr.	0.30	-	-	0.35

At sample M 20 there is 6 feet of completely silicified country rock. At sample M 21 there is a similarly silicified shear at least 10 and probably more feet wide and at sample M 22 there is an equal width of shear but less silicification. Altogether this shear is 60 feet wide. Sample 10 is taken from a smaller structure not on strike with the large shear.

Violet Showings, Area 6

Situated 500 feet southwest of the more southerly Kalmatorm showings there are several exposures of copper ore on the face of a steep rocky cliff. These are in the southeasterly part of the Violet claim, and are shown on the accompanying Map No. 6. Very little work has been done but there are several good showings. Two samples one from each of two small cuts assayed as follows:

NO.	WIDTH	AU. Oz/Ton.	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 55	2.5'	Tr.	1.60	Tr.	Tr.	6.30
M 56	3.0'	Tr.	0.40	Tr.	Tr.	1.20

These showings are in strongly sheared and silicified greenstone striking northwest and dipping westerly. Besides the two showings sampled there are other natural exposures of sheared greenstone carrying chalcopyrite.

These showings are nearly as far west and as near the contact of the quartz diorite of the Coast Range batholith as are the Cabin showings described below.

Cabin Fraction or McVicar Creek Showings, Area 7

On the Cabin fraction about 1000 feet west and 800 feet higher than the old McVicar cabin a new large showing was discovered and partly prospected last summer. This showing appears on the accompanying Map No. 7. It is the largest and

strongest ore structure yet found on the property but as yet no mineralisation of commercial grade has been discovered.

It consists of a very pronounced shear striking north-west parallel to the hillside and dipping westerly or into the hill about 45°. The slope of the hill is therefore nearly at right angles to the dip of the shear and so exposes its true width. Where discovered and opened up by trenching it is 200 feet wide. Little attempt has been made to trace it lengthwise but similar shearing is exposed at places in McVicar creek 600 feet to the south, and on strike with the above showings. In this latter showing there appears to be better copper values.

Over its entire width it consists of quartz and sericite and an abundance of pyrite and smaller amounts of chalcopyrite and sinoblende. The latter minerals, though sparse are widely and fairly uniformly disseminated. Altogether it is an impressive showing. Two samples from open cuts in the central part of the shear gave the following assay.

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 51	9'	Tr.	0.4	-	-	0.1
M 52	7	0.03	0.4	-	-	0.35

This showing is about 1500 feet east of the main contact of quartz diorite of the Coast Range batholith and dips towards it. It is the nearest showing on the property to this contact which fact may possibly account for its greater size and more intense mineralisation. This area should receive much further investigation at depth and towards the contact.

Rock Creek

On Rock Creek which enters McVicar creek 1000 feet below the old McVicar cabin, some interesting showings were found. Twelve hundred feet up from this junction a strong well mineralized shear crosses Rock creek in a north-south direction. It has

been opened up by six cuts for a distance of 200 feet. It is strongly silicified and pyritized and carries some chalcopyrite.

This showing is in greenstone just below a contact between this rock and a large bed or lens of coarse agglomerate. It is thought probable that this contact between two rocks of widely different strength may form a zone of weakness in which shearing would be concentrated and intensified. Further work along the contact is recommended. A sample taken from this showing by the writer across 4 feet assayed: Gold, Tr. Silver Tr., Copper 0.7%.

Six hundred feet farther up and on the north fork of Rock creek two interesting showings carrying lead and zinc were found at the end of the 1947 season. Samples from each of these assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 48	Grab	0.04	1.4	0.2	4.5	0.45
M 47	3.0'	0.01	2.0	2.9	11.8	0.8

In this locality the overburden is exceedingly heavy and only small sections of these showings could be uncovered in the time and with the facilities available. Further work should be done.

Mamquam Claim

On the Mamquam claim and on a small tributary of McVicar creek, entering from the southeast a few feet below Rock Creek some good copper ore was found and opened up by two large cuts. The main cut exposes a mineralized shear 1½ to 1¾ feet wide. Three samples taken across the shear from northeast to southwest assayed as follows:

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
D 4	3'	Tr.	Tr.	-	-	0.4%
D 5	6	0.005	0.40	-	-	2.5%
D 3	5.8'	0.01	Tr.	-	-	0.9%

This shear strikes northwest and dips steeply to the

southwest. It is the farthest east showing on the property, but may be in the same zone of shearing as that on Camp creek described below.

Camp Creek

On the Giant No. 1 claim and about 500 feet up Camp creek from the new camp a small tunnel was driven by the Surf Inlet Consolidated Gold Mines Limited into the south side of the valley following a pronounced shear in the greenstone. Several streaks of sulphide extend the full length of the tunnel. Pyrite and chalcopyrite are abundant and galena and sinchlende present in small amounts. Three samples taken from this locality indicate the tenor of the ore.

NO.	WIDTH	AU. Oz/Ton	AG. Oz/Ton	PB. %	ZN. %	CU. %
M 37	3'	Tr.	0.10	Tr.	Tr.	1.35
M 38	4'	0.01	0.32	Tr.	0.80	1.20
M 39	Dump	0.02	0.48	.05	Tr.	1.60
D 8		Tr.	Tr.	-	-	0.60

After the above samples were taken a small amount of further drifting was done but lower grade material was encountered.

Giant No. 3 claim

On the west side of the Giant No. 3 claim about 3000 feet south of the new camp and 1200 feet up Slide creek from the trail crossing, an interesting showing was found late in the 1947 season. The ore here occurs in two intersecting faults and near the contacts of a lamprophyre dyke which has been displaced a few feet on both faults. The country rock is greenstone which, within a distance of 20 feet of the veins, is altered to sericite and impregnated with pyrite. Unlike the other showings on this property the greenstone is not noticeably sheared. The veins though narrow contain considerable

chalcopyrite. Sample M 36 was taken from the best section of the vein across a width of 3'. It assayed: Gold, trace; silver 0.10 ounces per ton; and copper 1.2%; lead, trace; zinc, trace.

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