

William C. Martin

3120-25 King St. West
Toronto 1, Ontario
September 12, 1964

The President and Directors

Mount Nansen Mines Limited

Dear Sirs:

I spent August 29 and 30 also September 6 and 7 at the company's property in the Mount Nansen area. I also visited the Ormsby Mine near Carmacks and the United Keno Hill Mines Ltd. at Elsa, also the Rex and Shanghai mines of Peso Silver.

The surface work and sampling at Mount Nansen has not progressed far enough to assess the ore potential. The Atlas Copco drill is working up to expectations and should be the answer to the problem of checking surface sampling results at vertical depths of 25 to 100 feet. Bulldozing in the Webber, Huestis and Brown-McDade areas has shown up additional vein lengths over and above that indicated by work done previously to our taking over these properties.

In my opinion we could now safely count on at least 3500 feet of vein in each of the above areas so that there is in excess of 10,000 feet of total vein length indicated at the present time. I think it would be quite safe to guess that at least 50% more vein

length will be added when these areas are fully explored.

Vein widths vary from a few inches to approximately 25 feet on the Brown-McDade. Close parallel veining is apparent in both the Webber and Huestis areas. I believe that widths up to 30 feet eventually may be proven up in the latter two areas. The average width of the ore bearing sections in the veins will likely exceed 5 feet. Assuming a total vein length on the property is developed of 15,000 to 20,000 feet and 25% of this length makes ore over a width of 5 feet, a substantial ore tonnage potential is indicated provided the ore extends to a minimum depth of say 1000 feet. At the present time we cannot make any predictions as to depth, due to the very incomplete geological picture - it is quite possible that in some sections ore might extend below a depth of 1000 feet below surface and in other places much less. In any case I think it would be not unreasonable to expect an average depth close to 1000 feet which would give us a very substantial tonnage of ore considering the large indicated possible vein length. Much hinges on the depth that these deposits might go to and some consideration should be given to diamond drilling the best sections with 2 or 3 holes at a vertical depth of 500 to 700 feet next winter. I expect that ore shoots will be short and development costs relatively high.

Due to the fact that the new trenching has not been surveyed in and the new veins found tied in and sampled, I cannot give you a detailed description at this time. It is expected that sampling of the Webber zone will be completed and on paper in a few days. It may be three weeks before sampling results on the Huestis and Brown-McDade are complete and recorded on paper for study and analysis.

I expect the Atlas Copco drill will complete 2000 to 2500 feet of drilling per week. A program of drilling ore shoots indicated by surface sampling has been laid out so that two holes will be drilled from one setup of the drill. The two holes will cut the vein at 25 and 50 foot depths and consume about 100 to 120 feet of drilling on each setup spaced 15 feet apart. About 200 setups will be required to trace out and sample all the veins indicated in each of the three areas, that is Webber, Huestis and Brown-McDade. This would require 24,000 feet of drilling in each area or a total of close to 75,000 feet of drilling. Since this would consume months of drilling, it is obvious therefore that only selected high-grade shoots should be drilled first in each of the three areas.

When surface sampling is completed, it is suggested that a meeting of the directors of the company be held to discuss the results

and to consider driving an adit on the Webber vein and possibly into the Huestis area.

Some general remarks and notes are given below on the Webber, Huestis and Brown-McDade zones and also on other places visited.

WEBBER VEIN AREA

An important development here is the opening up for sampling of a strong promising vein in the southerly part of old trench 108 which will be referred to as Webber No.2. This vein lies at sample 19 on the old maps where it carried 0.147 oz. au and 31.0 oz. silver over 4.2 feet. The vein strikes N.60 W. and has been traced for 400 feet eastward where it meets the Webber main or No.1 vein. The relationship of the two veins is not clear at their juncture but apparently No.2 vein ends at No.1. The No.2 vein is a strong vein following a finger of fine grained quartz porphyry.

Three directions of veining are evident in the Webber area which covers an area 700 feet by 1500 feet in extent. The three directions are N.30 W., N.60 W. and N.-S. Dips appear to be steep.

THE HUESTIS AREA

Bulldozing in the vicinity of float in old trench 214 which ran .68 oz. gold and 50.6 ozs. silver has shown up a broad zone of strong

alteration and quartz porphyry felsite over 50 feet wide. There could be several veins in this zone. A grab of well mineralized quartz taken by myself here ran 2.08 ozs. gold and 196.3 ozs. silver.

It was not possible to properly assess this new zone or ascertain the true strike of the veins due to incomplete cleaning out of the trench, one or two other veins are indicated in the same trench over a length of 700 feet. These veins when properly followed up and sampled will undoubtedly materially add to the vein length and ore picture in the Huestis area.

BROWN-McDADE

Further bulldozing on this vein has extended its length and shows that it probably crosses Pony Creek and joins with a vein exposed in a trench on the east side of the creek. If so the vein has been extended over 1000 feet. New trenching shows vein widths up to 15 feet of good looking well mineralized quartz which should carry good values in gold when sampled.

A long trench crossing the line between the Senorita and Clarence mining claims shows quartz in half a dozen places. Due to incomplete cleaning out of the trench and no hand digging out of the quartz veins, it is not possible to be sure of the strike and possi-

bilities here but some promising looking mineralization is evident. Close work should result in showing up at least two new important veins here, probably parallel to the Brown McDade main vein.

ORMSBY MINE (Controlled by Rayrock and Discovery Yellowknife)

This property was visited to ascertain whether they planned to continue operations through the winter and to learn from their experience.

On the 4th level 1000 feet of drifting has been on the main vein which is said to have shown up 700 feet of ore averaging 1.4 ozs. gold per ton over 4 feet. At both ends the vein has been cut off by a fault, no ore has been found beyond these faults. On the 2nd level 600 feet out of 1200 feet is said to make ore averaging about 1.4 ozs. gold.

Camps are being assembled using trailers. Eight trailers 10' x 52' make up the bunk house and two trailers will make up the cookery.

It was interesting to learn from Alex Huliss, the geologist, that they have been getting good recovery of core from the vein in diamond drilling. The vein lies within a crushed zone of granite

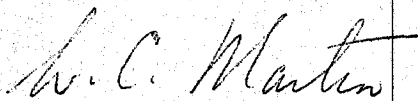
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and porphyry altered largely to clay gouge. This type of ground normally gives very poor core recovery hence I made a note of the technique adopted.

The diamond drilling is being done by Reg. Davis of Whitehorse (Northern Diamond Drilling Co.). Bx core is used and the cost for underground drilling is \$6.25 per foot. A non-revolving core barrel with sealed bearing and face ejection bit is used. Hydraulic feed is advisable but is not being currently used. Using this equipment Huliss maintains they are obtaining 98% recovery in the vein and better than 90% overall in the wallrock. Vein core shown to me consisted of quartz in clay gouge. Huliss also recommended the basket type core catcher bit. These can be obtained from J.K.Smit Canada.

Yours truly,


W. C. Martin, P.Eng.

cc to Messrs C.S.Walker ✓
Paul O. Berliz
B.O. Brynelsen
G.F. Dickson
D.M. Clark
L.G.White

WCM/amm

4. Trenching at 50 foot to 100 foot intervals on strike of the main Webber vein to the southeast uncovered several parallel veins with branches in a zone of 200 feet wide and 800 feet long. Six channel samples taken on some of the veins intersected average out as follows: 9.60 oz/ton au and 19.0 oz/ton ag over 3.7 feet. This sampling indicates that ore potentialities are present for a length of 800 feet southeast of the stripped portion of the Webber vein zone. There is at least 1600 feet of unstripped vein length indicated in the trenching done in the Webber zone and there is possibly several times this amount if complete stripping of the zone is undertaken.

5. The Webber vein zone may be 400 feet wide. Two parallel veins are evident 200 feet and 250 feet north of the main Webber vein. The nearer vein was cut by two trenches 120 feet apart, two channel samples in these trenches average 9.46 oz/ton au and 3.3 oz/ton ag over 2.2 feet, only one channel sample was taken on the more distant vein, this ran 0.84 oz/ton au and 19.7 oz/ton ag over 1.0 feet. These results do not indicate ore but are two veins which if stripped might add appreciably to the ore picture.

6. The trenching on the Huestis vein zone which is an important zone lying 2400 feet southeast of the east end of the Webber zone, the latter is cut off by a fault beyond which its location is uncertain. The veins of the Huestis zone may be better in grade but narrower than those of the Webber zone, its relationship to the Webber zone is uncertain.

7. The Huestis zone has been traced by trenching for 800 feet. There are two parallel veins indicated 200 feet apart. The north vein is probably continuous for 800 feet but disrupted in five places by faulting. Four channel samples taken at unequal intervals along the north vein average out to 1.35 oz/ton au and 56.9 oz/ton ag over an average width of 1.9 feet. The veins of this zone need to be stripped continuously, they appear to be open at both ends.

8. The Cabin vein is near parallel to the Webber vein and 1300 feet south of it. This vein has been traced for 900 feet and stripped continuously and closely sampled for 550 feet. The silver content of this vein is about the same as the Webber but the gold content appreciably less, an ore shoot is indicated, grading as follows: 0.29 oz/ton au and 41.7 oz/ton ag over 3.0 feet for a length of 110 feet; over a width of 6.1 feet this shoot averages 0.23 oz/ton au and 24.5 oz/ton ag.

9. The Brown-McDade vein zone lies only 4500 feet east of the Huostis zone of Mt. Nansen Mines property. Surface trenching in the vein zone indicated, quoting from a report to J.L. Hough, January, 1947: "high gold values and appreciable silver values for a length of 600 feet. After cutting ore assay of 9.4 ozs. plus 1.0 oz, a grade of approximately 0.4 oz. au and 2.5 to 3.0 ozs. ag was indicated across widths of 10 to 25 feet with considerably higher values in some portions".

Underground results were as follows: 365 feet averages approximately 0.40 oz au and 3.0 ag over 5%. Percentage of drifting in ore was 26%. Averages were calculated from back samples taken at 5 foot intervals. According to Hough "The main shoot has a maximum width of 16 to 18 feet at the main crosscut ----- The north H.W. shoot has a maximum width of 20 feet-----".

"Three deep holes were drilled from the west end of the main crosscut ----- No. 101 at 133 feet (115 feet vert.) 6 feet assayed 0.03 oz. au, a stringer of massive pyrite assay 0.24 ozs. at a vert. depth of 40 feet. Hole 102, between footages 140.5 and 151.0 ---for a calculated true width of 7 feet the zone averaged 0.86 ozs au (uncut) and .55 oz au (cut). Mineralization consisted chiefly of pyrite with some sphalerite and galena and no significant silicification or vein quartz. Hole 103 --- the main zone was cut between footages 143 - 150.5 (139 feet vert. below adit level) and assayed 0.20 oz. au for core length of 7.5 feet. "

It is possible that the drifting went off the vein towards both the north and south. Cross-faulting appears to push the vein west going south.

The Brown McDade may be an upfaulted and northward dislocated extension of the Huestis zone.

RECOMMENDATIONS

1. It is recommended strongly that the Syndicate subscribers option or purchase the Mt. Nanson Mines property.
2. Carry on further surface exploration next season as follows:
 - a) Strip by bulldozing all the veins of the Webber zone carrying ore grade values, sample same at 10 foot intervals.
 - b) Strip by bulldozing both the north and south veins of the Huestis zone.
 - c) Investigate the area between the Huestis and Webber vein systems by further cross-trenching.
 - d) Follow up any other veins presently exposed in trenches, if they carry ore grade values.
 - e) Investigate by geochemical prospecting the porphyry plugs towards the north end of the property.
 - f) Investigate geochemical anomalies by bulldozing.
 - g) Investigate by trial dry drilling the veins with angles using percussion drills with extension steel. The main purpose of the experiment is to establish a cheap method of testing and sampling the veins at shallow depth. If this method works, as it probably will, 10,000 feet of shallow sampling drilling should be laid out.

- h) Obtain a sampling option on the Brown McDade, use a percussion drill to thoroughly sample west wall of the main drift and westerly subdrifts.
- i) Allow for 3000 feet of diamond drill core drilling to test the most promising ore sections at 100 feet and 250 foot depth. Use bullnosed bit when possible.

ESTIMATED COST OF PROGRAM RECOMMENDED

The cost of the proposed program is roughly estimated as follows:

a) Webber vein zone stripping	\$ 7,500
b) Huestis zone stripping	2,500
c) Cross trenching	2,500
d) Follow up stripping	2,500
e) Geochemical survey	10,000
f) Follow up prospecting and bulldozing	5,000
g) Long hole percussion drilling	10,000
h) Brown McDade	5,000
i) 3000 feet diamond drilling	35,000
j) Engineering, assaying, etc	10,000
k) Camp, incidentals, etc.	10,000
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	\$ 100,000
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W. C. Martin

Toronto, Ontario

March 10, 1964

REGISTERED PROFESSIONAL ENGINEER
BRITISH COLUMBIA AND ONTARIO

PHONES: BUS. 684-6411
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L. G. WHITE, B.Sc.
MINING ENGINEER

401 - 1033 DAVIE STREET
VANCOUVER, B.C.

704 PARKSIDE ROAD
WEST VANCOUVER, B.C.

September 28, 1964

Mt. Nansen Mines Limited,
420 - 475 Howe Street,
Vancouver 1, B.C.

Attention: Mr. Paul Berliz

Dear Sirs:

Re: Drill Programme
Webber Vein - Mansen Creek Area

The following results from the dry drilling programme being conducted on your property were relayed by 'phone from Gordon Dickson today.

Assays have been received from four holes. Two of the holes were drilled down-dip on the plane of the Webber vein as spotted by Dr. Campbell during his recent examination of the property. The other two holes reported; namely, 6A and 7A were angle holes drilled in two sections approximately 15.0 feet apart and directed to intersect the vein about 75.0 feet vertically below the surface outcrop.

The continuity of vein structure and the consistency of values are very encouraging considering our drill programme to date has been essentially on an experimental basis.

Assay results from the 4 holes are listed below:

Hole 1 - Drilled down-dip on vein

<u>From - To</u>	<u>Assays</u> <u>Au/ozs/T</u>	<u>Ag/ozs/T</u>
50' - 52'	0.68	71.5
94' - 96'	0.06	1.5
100' - 102'	0.32	9.1
102' - 104'	0.30	19.6
104' - 106'	0.50	29.2
106' - 108'	0.80	40.0
108' - 112'	0.84	36.3
112' - 114'	0.90	23.8
114' - 116'	0.62	15.6
116' - 118'	0.60	15.0
118' - 120'	0.56	16.6
120' - 122'	0.50	20.0
122' - 124'	0.42	24.2

0.58

22.7

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Hole 2 - Drilled down-dip on vein - 15' from Hole 1

<u>From - To</u>	<u>Assays</u>	
	<u>Au/ozs/t</u>	<u>Ag/ozs/T</u>
6 - 8	0.04	2.9
8 - 10	1.10	86.4
10 - 12	1.3	88.
12 - 14	0.60	44.
14 - 16	0.10	9.
16 - 18	0.02	2.
18 - 20	0.06	6.1
20 - 22	0.04	2.3
22 - 24	0.08	4.6
24 - 26	0.04	2.2
26 - 28	0.16	22.8
28 - 30	1.84	56.8
30 - 32	1.50	55.
32 - 34	0.96	31.
34 - 36	1.26	38.

0.65

37.0

Hole 6 A - Vein intersection from 71' - 77'

71 - 72	0.20	13.
72 - 73	0.90	83.
74 - 75	0.16	64.
76 - 77	0.30	34.

0.39

48.5

Hole 7 A - Vein intersection from 66' - 79'

66 - 67	2.34	142.
67 - 68	0.90	61.
68 - 69	0.56	37.
69 - b70	0.24	20.
70 - 71	0.30	30.
71 - 72	0.34	32.
72 - 73	2.70	299.
73 - 74	2.80	308.
74 - 75	2.94	205.
75 - 76	0.90	47.
76 - 77	0.82	45.
77 - 78	0.32	18.
78 - 79	0.28	17.

1.18

112.4

Until further details are available on the above intersections such as the angle of intersection on Holes 6A and 7A to calculate true vein width no accurate weighted averages can be given.

However, it is gratifying to note that good values persist to these depths and also that the sampling procedure appears to be working quite satisfactorily.

Yours very truly,

L. G. White, P. Eng.
Consulting Mining Engineer

LGW/sg