BRITANNIA BEACH, B.C.

C. P. BROWNING

GENERAL MANAGER

W. A. MATHESON

SECRETARY-TREASURER

April 10, 1923.

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Mr. C. P. Browning,

Gen. Mgr., B. M. &.S. Co.,

Britannia Beach, B. C.

Dear Mr. Browning:

I am enclosing herewith notes on D. D. and general development for Dr. Schofield, together with Blue Prints showing the deflection of D. D. H. 2-14-2 on 1400 level, and holes 3-22-6 and 3-22-16. Re-survey was made on the two holes on 2200 level and the results obtained check very closely to those previously submitted to you.

Set-up for D. D. H. 3-22-20 has been prepared in the third vein drift West on 2200 level. The D. D. machine now drilling on the 1400 level Bluff will be shortly moved to this set-up.

Respectfully,

Mine Supt.

JIM/IHO.

BRITANNIA BEACH, B.C.

C. P. BROWNING
GENERAL MANAGER

W. A. MATHESON
SECRETARY-TREASURER

Britannia Mines, Nov 30, 1922.

Dr.S. J. Schofield,

Dear Sir.

Please find attached a report of developments during the month of November 19221

Under seperate cover there is being sent the following plans and sections.

The log of D.D. 3-226 from 512' to 906':

Aplan of a section east of Victoria including the Victoria 2000' level, and D. D. bases No's I& 3.

A N.05'E vertical section through No I.D.D. base showing the log 4-17-3, which is now being drilled at that place.

A N.05'E vertical section through No 3, D.D. base showing the log of hole 5-16-I which is now being drilled at that place.

For convenience the legend is being sent on a seperate tracing.

Respectfully,

Mine Geologist.

On the Fairview 2200 Level Hole No No 3226, which had previously been drilled to a depth of 512' has been continued to a depth of 906'.

This hole has been successful in cutting 3½' of ore at a depth of 722½' to 724! This assayed 7.2% Cu-; Au & Ag results have not been returned as yet. With the exception of an odd dike the hole remained in green mottled schirt until about 9000'; at which point massive quartz porphyry was encountered. The hole has been stopped at 906'. P.Hole 3-22--14 will now be deepened.

The cross cut on the 1800' bluff reached the footwall as projected after passing through about 40' of mineralized and silicified ground. Only the last 8' or 10' are commercial ore, then mineralization further out being largely iron, with a smalll amount of zinc and lead.

Drifting along the footwall on the I400' bluff has encountered nothing so far.

On the I200' Empress a cross cut is being driven to the F.W. This went through a narrow band of silver schirt and is now in fairly good looking ground which is probably the No I Vein Empress. Only 3 or 4 rounds have been blasted.

Developments in the Victoria are giving results entirely similar to previous information.

At No I, D.D. base hole 4-1743 is down 757. The first part of the hole is largely in silver sghirt but the last part has been in green schirt. In the green schirt quite a number of small I' or so stringers have been encountered but nothing of commercial grade. A probable projection of the foot wall is shown in plan and section.

At No 3 D. D. base hole 5-16-I is down 901 feet. The first part of this hole encountered some copper mineralization (shown on section)

The last 500 have been been almost barren. A few feet west of the set up in the small tunnel in the creek there is a fairly nice showing of copper which has not been cut by this hole.

FORM NO. 43

BRITANNIA MINING AND SMELTING CO., LIMITED

BRITANNIA BEACH, B.C.

C. P. BROWNING GENERAL MANAGER W. A. MATHESON
SECRETARY-TREASURER

December 11th, 1922.

Dr. S. J. Schofield, Dept. of Geology, University of B.C. Vanccuver.B.C.

Dear Dr. Schofield:-

There has been a delay in sending the plans and sections mentioned in the report of December 1st. The plans of Victoria drilling have been brought up to date. The increased footage has been added as well as noting a series of assay returns.

Drill hole 4-17-3 (No.1 set up) is down to a depth of 944 ft. and has been in an unsheared porphyry since about 890 ft. This rock is quite a bit more basic than the quartz porphyry but at the same time it is very similar to the material in the face of the Amy Tunnel. No slates have been encountered, but between 830 and 866 there is a series of apparently crystalline rocks roughly banded. In some of it there is a suggestion of bedding, and another band is amygdaloidal. This series may possibly be an expression of the footwall slates but the hole is being pushed a short distance to definitely determine whether or not the slates are present. If there is no change in the formation the hole will not go beyond the projection of the footwall slates (see section)

From a depth of about 645 ft., to the banded rocks the hole is in dike rock similar to the Victoria dikes. Probably the dike immediately north of the E.drift on the 2000 level (see plan) has widened and may be corelated with this dike in the drill hole. Some of the material below the banded series is apparently the same dike material unsheared. However, the widening does not limit the potential ore zone for the mineralization in the dike as encountered in the drill hole, is just as good or possibly a little better than that in the adjoining green mottled schist. Apparently the controlling factor is the shearing.

One assay return shows 5 ft. of 2.3% cu. This value is undoubtedly high for there is only 3 ft. of core to represent this 5 ft. The barren ground is softer than this rather siliceous type of ore so we must assume that 2 ft. of barren ground must be allowed for in this 5 ft.

The N. 35 degree hole, which will be started very soon will probably be put down at minus 50 degrees as it seems more desirable to get as much backs as possible on these holes.

Hole 5-16-1 will not be continued until Spring on account of mechanical difficulties. In the meantime a short hole has been planned to cut the mineralization immediately under the present set up. The collar of this hole will be in the creek bed a short distance below the present set up, and will go into the hill at minus 15 degrees.

From the information we have at present it would seem that the mineralization is following a N.70° W. course rather than following the footwall, possibly because the shearing does not extend to the footwall. There is not sufficient generalization as yet to permit generalizations being made.

The exact location of No.2 base has not been calculated yet making it impossible to include in the larger plan. However, it is about 1500 ft. East of No.1. If the holes are put in at N. 05° E and N. 35° E there will be only a short distance between the holes where they cut the best band of mineralization, and there will be an interval greater than the length of the Victoria left between the N. 35° E. of No.1 and the N. 05° E. of No.2. It has been suggested that the more westerly hole be changed from N. 05° E. to say N. 15° or 20° W. in order to more equally space the cutting of the mineralized zone. This alteration in the holes will be made if it meets with your approval.

Respectfully,

A. J. James,

Bratannia Mines, January II 1923.

Dr S.J. Schofield.

Dear Sir.

Please find attached a report of development during the month Dec 10th to Jan 10th.

Under separate cover there is being sent the following plans and sections.

Vertical section of D.D.3-22-14 and 3-22-15.

Plan of D.D.3-22-19.

Vertical section of |D.D.3-22-19.

Vertical section of DD.5-16-2. and DD 5-16-1

Plan of 5-16-2.

Respectfully,

Geologist.

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On 2200 level two old holes have been extended and one new one has been drilled.

The two that were extended are 3-22-IA and 3-22-IS, which had previously been drilled out into the bluff country. These were extended in an attempt to pick up the downward extension of the ore cut in 3-22-I3. No ore was found, the hole cutting only slate and a small amount of green mottled Schist. D.D.3-22-I4 was extended from 48I' to 720', and DD 3-22-I5 from 686' to 765'. (See section)

The bit is stuck in D.D.3-22-15. As soon as it

is recovered, holes 3-22-6 and 3-22-16 will be surveyed.

The new pat down is 3-22-19. This started off in line with the tunnel and at an angle of 50° but the schistosity soon indicated that the hole was not going straight. A survey for dip was made showing that the hole had Clattened to 40° at 120', 34° at 460', 34° at 600', and 28° 740'. (Angles not corrected for surface tension) This hole has been discontinued.

on 1800 level bluff, drifting is being done both East and West along the P.W. from 39 X.C.W. Quite low grade natorial is being encountered in both drifts, values running around 0.6% to 0.9%.

on 1400 level bluff, the F.W. drift has been stopped owing to expensive drifting. the grade of the material improved some, roing West. A 3' streak in the last face assayed I.3', the rest of the face running 0.6%. This is sufficiently encouraging to warrant further prospecting of the F.W. with diamond drilling.

ELIPRESS MINE.

on 1200 Empress the 146 X.C., has been pdriven to the F.W. encountering a fair grade of ore. Immediately below this X.C., at 1300 level another X.C. has been driven to the F.W. but encountered only a very small amount of mineralization. This F.W. on 1000, 1200 and 1300 levelsis apparently the grabbo dike shown on 1600 level at 147 X.C. On 1000 level the slate crowd of in immediately as shown by D.D. and nature of F.W. immediately East of the point, but on 1600 level there is quite a band of green mottled shist to the foot of the dike. In view of this the 146 X.C. on 1300 level will be driven through the dike. A very flat foult Barellelling F.W. and dipping 200 or so to South makes correlation a little difficult.

VICTORIA HIME.

The nose has been reached on the West drift 2000 level. (See plans

taken down by S.R.Say)

on the 2100 level the development work is finding the veins to be very similar to those above. The A and E drifts east are possibly a little better then they were at similar points on 2000. They both we lean a few rounds back but at present are improving. D.D.4-17-3 has been drilled from 944 to 976 a distance of 32 through very hard rock, apparently volcanic.

D.D.4-17-4 has been drifted at this set up and is down 142'. From the first 130' a very small percentage of core has been recovered but the ground is now stiffening up. The bearing is N 35° E and dip 50°. the angle was steepened to 50° to overcome drilling difficulties. It was felt that this steepening would overcome some of the caving encountered in the first 400' of 4-17-3, and so ensure against delay.

D.D.5-16-2 (For location, see fly sheet.)
This hole was started in the creek bed bearing 8 20°W at 15°, for purpose of cutting mineralization immediately at the W.W. of the dike shown on the plan. The hole has not reached the objective on account of snow slides but it will be continued in the spring. The programme for the immediate future is as follows.

One machine will be left at No I set up to finish

all drilling at this point.

Two machines will be underground. One will be set up on 1600 level drilling to the F.W., while the other will go to 850 bluff as soon as the surveying is completed on 2200 level.

Britannia Mines, February I3 1923.

Dr S.J.Schofield, Dept of Geology, University of B.G. Vancouver.B.C.

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Dear Sir,

Please find attached a report of development during month
January IOth - February IOth and also plan of part of 2200 level
showing the approximate positions of the three surveyed holes,
D.D.H.3-22-6,3-2213,3-22-16 and 3-22-12.

Respectfully,

Geologist.

Fairview and Bluff

On 2200 level the three holes, 3-22-6,3-22-13 and 3-22-16 have been surveyed for bearing and dip. The resultsof the surveys checked fairly well with observations on the cleavage in the core. Hole 3-22-13 has not deflected to any extent but 3-22-6 and 3-22-16 have turned very strongly to the South.

The surveys would indicate that holes 3-22-6 and 3-22-16 crossed one another. If this is the case it is difficult to explain the absence of ore in 3-22-16. However it is possible that the lamprophyr dike (see plan) has cut the vein just where the drill hole encountered it. If the lamprophyr dikes are later then the ore, the presence of the of the dike will have no significanse as to the extension of the vein in either direction. In looking for a possible extension of the ore to the East, it is found that there are a couple of feet of mineralized ground at 107'-109' in D.D.H.3-22-12. This is a long projection but it is the only mineral encountered in the South end of the cross cut tunnel or in the South drill hole, so it may possibly be the East end of the vein. Developments in the I800 Bluff country have not proved much commercial ore, but the ground is well mineralized, especially in the present faces. On I600 level D.D.3-I6-4, lat, 28550, dep, 33000, bearing N.-horizontal, has been driven 3521 without encountering more than an odd stringer of mineral. The hole ended in dike material beyond the footwall. D.D.H.3-16-3, lat 28960, dep. 32500, bearing N., horizontal, is now being drilled, and is in I3I'. Some Cu mineralization was encountered in the first 40'. On 850' level D.D.H.3-08-7, lat, 29580, dep, 31570, bearing 320°West, dip45, is down 373'. The first 330' are in Bluff ground, the rest is getting more schirtose. Ore was encountered in the first 18' but the rest has been considerably below grade.

Empress.

On I200'level Empress the I46 Raise has encountered fair ore. The drifts East and West along the footwall from I46 X.C., are not encountering very good mineral, but this is not discouraging, for the ore, as shown by I46 X.C. is not immediately on the footwall. In preference to, continuing the drift East the easterly extension is being prospected by a cross cut IOO' East of I46 X.C.. On the 850' level the connection to I39 Raise is being driven in footwall slates.

Victoria.

The 219 X.C.S. on 2200' level has crossed three mineralized streaks, but has not yet encountered the East vein.
The hole South from No I set up is in 437' without encountering mineralization.

BRITANNIA BEACH, B.C.

C. P. BROWNING GENERAL MANAGER

W. A. MATHESON
SECRETARY-TREASURER

Britannia Mines, March 12, 1923.

Mr. C. P. Browning, Gen. Mgr., B. M. & S. Co., Britannia Beach, B. C.

Dear Mr. Browning: -

The following general notes on mine development have been submitted by Geologist James for forwarding to Dr. S. J. Schofield, covering the month Feb. 10th to Mar. 10th, together with sketch plans of diamond drill holes on 850 level and 1600 level, and S 20° W section through DDH 3-08-7:

Fa irview and Bluff:

The last twenty feet of the foot-wall drift east off 39 X.C.S. has been developing good ore, as well as the last round or so in the drift west.

The immediate D.D. program on 1600 level has been completed. D.D. 3-16-3 cut 5 feet of 1.8% ore between 10 and 15 feet, apparently a foot-wall streak of the 3rd Vein. D.D. 3-16-2 cut 5 feet of 1.4% material between 294 and 299 which cannot be correlated with any vein. All these 1600 level holes ended in slate, and I think the same band of slate, although it may not appear just that way on the plan. On the 1000 level the foot-wall takes a big swing to the south at a similar point. The outline of the 1000 level foot-wall is shown in pencil on the attached plan. It is very probable that the 1600 foot-wall tax will be similar to the 1000.

Empress:

On the 1200 level, the 146 Raise is in fair ground, and 149 X.C.N. has reached the mineralized zone. The foot-wall Dr. West is developing ore, while the F.W.Dr.E is encountering irregular values. This development, as well as all bld mine development has been stopped for the present.

Victoria:

The E Vein has been cut on the 2200 lewel, and is about as strong as it was on the 2100 level. The 2200 level is being opened up the same as the 2100 level. Already the east and west drifts on E Vein have been started, as well as the main east

C.P.B. #2

and west drifts.

The south drill hole from No. 1 Set-up has been stopped at 824 feet without having cut more than a small amount of iron. The hole cut through one band of quattz porphyry and back into sheared ground, and then into unsheared ground again. This will finish drilling east of Victoria until spring.

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Respectfully,

James Imassed.

Mine Superintendent.

BRITANNIA BEACH, B.C.

C. P. BROWNING

GENERAL MANAGER

W. A. MATHESON

SECRETARY-TREASURER

April 10, 1923.

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Smood.

Mr. C. P. Browning,

Gen. Mgr., B. M. &.S. Co.,

Britannia Beach, B. C.

Dear Mr. Browning:

I am enclosing herewith notes on D. D. and general development for Dr. Schofield, together with Blue Prints showing the deflection of D. D. H. 2-14-2 on 1400 level, and holes 3-22-6 and 3-22-16. Re-survey was made on the two holes on 2200 level and the results obtained check very closely to those previously submitted to you.

Set-up for D. D. H. 3-22-20 has been prepared in the third vein drift West on 2200 level. The D. D. machine now drilling on the 1400 level Bluff will be shortly moved to this set-up.

Respectfully,

JIM/IHO.

Mine Supt.

Bluff Frv. & Emp.

Little or no development work has been done this menth.

On the 1400 level, two holes have been put into the foot
wall, from near the south end 38 cross cut. D. D. 2-14-1,
North 43 West, has been put into the foot wall slates and
encountered very little ore, with the exception of a narrow
streak right on the foot wall. D. D. 2-14-2, started North
70 West, was surveyed when in 480 feet and found deflecting
considerably to the south, so could not reach the foot wall.

(See Blue Print) This hole has been discontinued. The Drill
on this level will be taken to the 2200, where a flat hole,
bearing Bouth 20 West will be put in from near the face of
the West Drift, to pick up the hanging wall vein at this
horizon.

On the 1200 Empress, drilling is being done to the hanging wall. One hole is now in about 500 feet from near the west end of the first vein drift. Prectically no mineralization has been cut so far.

A re-survey has been made of D. D. 3-22-16 and 3-22-6. In making this survey every precaution was observed, and in the case of D. D. 3-22-6 check readings were taken at each point. The mesult of this survey checked the old survey wery closely. (See accompanying plans)

2. - J. I. M. for Dr. S. J. S.

Victoria.

2100 level. The 219 E. Drift East went through a very lean 2000 level. Beyond this another ore shoot was picked up, and they are still drifting on good ore. This drift will be continued on the level above. On the 2200 level routine development is in progress.

April 13th, 1923.

Dr. S. J. Schofield, 1118 Arbutus Street, Vancouver, B. C.

Dear Doctor.

Enclosed herewith please find Mr. James' notes on the re-survey of the Holes #3-22-16 and #3-22-6 in the 3rd Vein Drift West on the 2200 Level; also other notes in regard to drilling on 1400 Level and development work in the Victoria and Empress.

Yours sincerely.

CPB/M

BRITANNIA BEACH, B.C.

C. P. BROWNING
GENERAL MANAGER

W. A. MATHESON
SECRETARY-TREASURER

May 14. 1923.

Mr. C. P. Browning, Gen. Mgr., B. M. & S. Co., ltd., Britannia Beach, B. C.

Dear Sir:

I wish to submit herewith the following notes of development for the period April 10 to May 10, for Dr. S. J. Schofield.

Diamond drilling is the only development in progress.

On the 2200 level Frv. a hole has been put in from near the W. end of the 3d V. Dr. W., bearing S. 20 W. horizontal. This hole was put in to pick up a westerly extension of the H. W. Vein. The vein does not come this far west. Only a very small amount of mineral was encountered at 440 in gneissic py. Quite a wide band of unsheared py. was encountered (see accompanying plan.)

Another attempt is being made to prospect the Frv. at depth from the 2200 level. D. D. 3-22-17 was started near sta. 04, bearing N. 20 E. and at an angle of -80 degrees but it had flattened out to 60 degrees at 150' so it was stopped at 210'. The drillers feel confident that they can put a hole down straight, so have started another hole at the same set-up, with the same bearing and dip. The No. of the hole is 3-22-21 and it is not to be paid for unless it had gone straight for the first 150'.

The drilling on the 1200 Emp. failed to find ore. One of the holes (D. D. 4-12-1) is directly below ore in a hole on the 1000 level and a surface outcrop of ore. For location, bearing, etc. of the two holes see accompanying plan and section.

As soon as the snow condition will permit, drilling will be started in South Valley.

Respectfully,

J. Moore, fr.:

ser INO.

JIM/IHO.

May 17th, 1923.

Dr. S. J. Schofield; 1118 Arbutus Street, Vancouver, B.C.

Dear Dr. Schofield: -

The following D.D.Notes from the mine staff are forwarded to you with the accompanying prints: D.D. Fly Sheets 15, 17 & 18.

Diamond Drilling is the only development in progress.

On the 2200 L.Frv. a hole has been put in from near the W.end of the 3rd.V.Dr.W., bearing S. 20 W.horizontal. This hole was put in to pick up a westerly extension of the H.W.Vein. The vein does not come this far West. Only a very small amount of mineral was encountered at 440' in gneissic py. Quite a wide band of unsheared py.was encountered see accompanying plan.)

Another attempt is being made to prospect the Frv. at depth from the 2200 L. D.D. 3-22-17 was started near sta. 04, bearing N.20 E. and at an angle of 80 deg. but it had flattened out to 60 deg. at 150 so it was stopped at 210. The drillers feel confident that they can put a hole down straight, so have started another hole at the same set-up, with the same bearing and dip. The No. of the hole is 3-22-21 and it is not to be paid for unless it has gone straight for the first 150.

The drilling on the 1200 Empress failed to find ore. One of the holes (D.D. 4-12-1) is directly below ore in a hole on the 1000 L. and a surface outcrop of ore. For location, bearing, etc., of the two holes see accompanying plan and section..

As soon as the snow condition will permit, drilling will be started in South Valley."

Yours sincerely,

CPB/AIM.

BRITANNIA MINING AND SMELTING CO., LIMITED BRITANNIA BEACH, B.C.

FOR INTER-DEPARTMENTAL USE ONLY

DATE June 12. 1923.

Mr. C. P. Browning,

Gen. Mgr., B. M. & S. Co., Ltd., Britannia Beach, B. G.

Dear Mr. Browning:

I wish to submit herewith notes on development for the period May 10 to June 10, from Geologist James for Dr. S. J. Schofield.

Diamond drilling is the only development in progress.

In drilling for the Fairview in depth from the 2200 level it has been found impossible to keep the holes any way near the desired angle. Since May 1st, three attempts have been made to get down to the desired area but they have all been failures, in spite of the fact that the diamond drill contractors exercised all their ingenuity to keep the holes straight. The original suggestion called for a -60 deg. hole; these holes were steepened to over 80 deg. but they soon flattened and would have cut the -60 deg. line in less than 500 feet vertical, and at that point would be much flatter than 60 deg. The greatest depth reached was 306 feet in D.D. 3-22-21. This set-up has been abandoned for the time being at least.

BRITANNIA MINING AND SMELTING CO., LIMITED BRITANNIA BEACH, B.C.

FOR INTER-DEPARTMENTAL USE ONLY

2. Mr. C. P. B.

DATE

On the 1600 level a hole is being drilled into the H. W. from the face of 37 X. C. (co-ords. of collar Lat. 29102.0; Dept. 30986.0; Elev. 2703.7; bearing S.20W. horizontal). The hole is in 486 feet and has reached a schist highly replaced by gypsum, and there is possibly a little bit of the F. W. series. A small amount of iron mineralization was cut between 350-450 feet.

East of Victoria at No. 3 set-up work will be started immediately on D. D. 5-16-1. The bit will be recovered and the hole extended to the F. W.

As soon as the hole on the 1600 level is completed two machines will be putned work in South Valley.

The second machine will be started at No. 4 set-up. The
plan of this set-up, showing its position with respect to
the Fair West tunnel, out-crops, etc., will be sent at a
later date.

Yours respectfully,

Mine Supt.

JIM/IHO.

BRITANNIA MINING AND SMELTING CO., LIMITED BRITANNIA BEACH, B. C.

C. P. BROWNING GENERAL MANAGER W. A. MATHESON
SECRETARY-TREASURER

June 12th, 1923.

Dr. S. J. Schofield, % El Potosi Mining Company, Apartado 13, Chihuahua, Mexico.

Dear Dr. Schofield,

Following are development notes submitted by Gerald S. James for the period May 10th to June 10th. As you will see it embraces diamond drilling only.

"In drilling for the Fairview in depth from the 2200 Level it has been found impossible to keep the holes any way near the desired angle. Since May 1st, three attempts have been made to get down to the desired area but they have all been failures, in spite of the fact that the diamond drill contractors exercised all their ingenuity to keep the holes straight. The original suggestion called for a minus 60° hole; these holes were steepened to over 80° but they soon flattened and would have cut the minus 60° line in less than 500 feet vertical, and at that point would be much flatter than 60°. The greatest depth reached was 306 feet in D.D.Hole 3-22-21. This set-up has been abandoned for the time being at least.

On the 1600 Level a hole is being drilled into the H. W. from the face of 37 X.C. (Co-ords. of collar Lat. 29102.0; Dept. 30986.0; Elev. 2703.7; bearing S.20 W. horizontal). The hole is in 486 feet and has reached a schist highly replaced by gypsum, and there is possibly a little bit of the F. W. series. A small amount of iron mineralization was cut between 350-450 feet.

East of Victoria at No. 3 set-up work will be started immediately on D. D. Hole 5-16-1. The bit will be recovered and the hole extended to the F. W.

As soon as the hole on the 1600 Level is completed two machines will be put to work in South Valley. The second machine will be started at No. 4 set-up. The plan of this set-up showing its position with respect to the Fair West Tunnel, outcrops, etc., will be sent at a later date."

Yours sincerely,