MUTUAL 1-7710

BUTTLE LAKE MINING COMPANY LTD.

1121 MARINE BLDG.
355 BURRARD ST.
VANCOUVER 1, B.C.

533

Report on

THE BUTTLE BELL Nos. 1 - 13 inclusive, 15, 17 - 19 inclusive

THE ROSE Nos. 8 - 14 inclusive

THE RICK Nos. 3 - 8 inclusive, 10, 11, 13 - 16 inclusive, 2 Fr, 3 Fr, 9 Fr, 12 Fr, 13 Fr.

THE JAY Nos. 5 - 14 inclusive, 17, 19 - 24 inclusive, 29, 31, 48 Fr.

Situated in the Buttle Lake Area of Strathcona Park

in the

Alberni Mining Division
Province of British Columbia

By: Buttle Lake Mining Co. Ltd. (N.P.L.)

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North-West and South-East Groups

Statement of Qualifications of persons employed during the investigation of the Buttle Bell, Rose, Rick and Jay Groups of Mineral Claims and surrounding area in the vicinity of Buttle Lake in Strathcona Park.

1) Supervised by: P.Eng.

2) Geology by: F. Chilcott, BSc.
University of B.C.

7 years intermittantly with various mining companies including 2 seasons with H. Hill & L. Starck & Associates Ltd., Mining Consultants and 2 seasons with Buttle Lake Mining Co. Ltd. (N.P.L.)

3) Assisting in surveying and mapping:

T. Lisle, BSc.
University of B.C.

8 years intermittantly with the firm of H. Hill & L. Starck & Associates.

6 months with Buttle Lake Mining Co. Ltd. (N.P.L.)

J. Tickner - 2nd year Geology
University of B.C.

R. Knight, B.C.
University of B.C.

No previous field experience.

W. Gautier - Prospector

The Buttle Bell, Rose and Jay Mineral Claims were acquired by Buttle Lake Mining Co. Ltd. at the time of the formation of the company in the spring of 1962. The Rick mineral claims are held by Page Chilcott, under a pending bill of sale to Buttle Lake Mining Co. Ltd.

The claims actually lie in two groups. The South-east group consisting of the Buttle Bell, Rose, and Rick claims, is situate in rugged terrain on the west slope of Flower Ridge between 800 feet and 4600 feet in elevation above sea-level southeast of Western Mines. A total of 180 man-field days were spent on this group, during which time a grid was laid out over the claims and the surface geology picked up.

The North-west group is situate in moderate to rugged terrain on the crest of a hill between Phillips Creek and the northern property boundary of Western Mines, between 4000 feet and 5000 feet above sea-level. A total of 105 man-field days were spent on this group during which time a grid was extended, where topography permitted, over the main part of the claims. This grid, as that on the south-east property, was laid out with a view to later geophysics if preliminary examination warranted it, and to tie in geology and trenches. The north-west grid was extended from that already laid out by Newmont Mining Corp. in the summer of 1962 for Buttle Lake Mining Co. Ltd., in a deal subsequently terminated. This work by Newmont was restricted to the center of the claims on the main shear zones.

On the South-east group, a north-west trending shear strikes diagonally across Canyon Creek and is thought to be associated with, and structurally controlled by two main sets of faults (one group striking

about 360°, the other striking about 100°) passing through the zone. A third set of faults may strike at 070°.

This north-west trending shear is exposed intermittantly over 6000 feet horizontal distance along strike and is 30 feet wide at its widest point. As only part of this zone contains copper mineralization, no economic or encouraging deposits are thought to be in the area. This shear was very well exposed over its entire length, particularly on the ridge top, but the only mineralization found was in a large bulge north of Canyon Creek, showing minor chalcopyrite in quartz sericite schist.

On the North-west group, several north-west trending shears exist, but the one most strongly developed has been trenched and is almost certainly the northern extension of Western Mines mineralized shear. No mineralization occurs in it at this elevation except fine pyrite. Another sheared zone lies at elevation 2100 feet at the junction of Romney Creek and a creek running north off of the Jay #29 M.C. This shear strikes N45W and is nearly vertical. This is in a band of volcanics below an intrusive diorite "sill". The zone contains medium-grained cubes of pyrite unevenly distributed through the sericite schist. This zone lies east of where the Western Mines zone should strike and may be due to a post-mineralization east-west shear at the diorite contact or due to the sericite shear striking N23E above the creek which shows easterly movement.

RECOMMENDATIONS

The zone of mineralization of Western Mines is a wide intensely sheared zone of sericite and chlorite schists striking from N10W to N50W. The zone is near vertical with possible westerly dip and contains dissem-

inated pyrite, chalcopyrite, galena and sphalerite.

South-East Group

A possible North-South fault lies on the east shore of Buttle Lake. If this crosses the southern extension of the 'Western' zone, it may offset the zone causing a shift to the south and west (assuming a right-hand offset as this seems to be characteristic of the area.) The shift may even have been enough to cause the zone to strike to the south of Buttle Lake claims.

However, a zone of intense shearing was found to strike between N40W and N50W and vertical dip over about 6000 feet in the upper Canyon Creek area. This zone, whether it is actually "Western's" shear or not, is almost certainly related. Minor chalcopyrite was found in a zone of quartz-sericite schist. The zone is only about 18 feet wide here and about 20 feet along strike.

The other faults in the area have only minor chloritic schist zones with flecks of pyrite. The pyrite is also found over in the later deposited black, cherty tufts. Other areas show extensive sheeting and jointing but no actual schistosity.

The result of this season's work would seem to indicate that the Western Mines zone has no favourable surface indications of a southern extension on Buttle Lake Mining Co. Ltd. property.

It is recommended that these claims be held at this time in view of the assessment work done. Another look should be taken at this report as further information becomes available from various sources in the area.

North-West Group

The shear zones in the area are all chloritic except for the two sericite shears which were trenched. The sericite shear at 75N-11E is believed to be 'Western's' northern extension and is exposed intermittantly over 6000 feet and up to 100 feet wide. However, the forces and solutions have depleted too much vertically to create any mineralization except occasional pyrite.

If there is any mineralized northern extension of Western Mines, it probably lies well under the diorite intrusive, or over 1500 feet below surface but nothing would seem to substantiate an expensive diamond drill program to prove this.

The sericite shear at Romney Creek shows pyrite but no other mineralization. This is probably 'Western's' shear extension but the favourable mineralization appears to have disappeared over the approximately 15,000 foot distance from the Lynx Zone.

It is recommended that a further look be taken at this report after further information becomes available, either from 'Western' or other sources next year.

This report covers the geological mapping and prospecting carried out on the Buttle Bell, Rose, Rick, and Jay Groups of Mineral Claims situated in the Buttle Lake Area, during May 1 to Sept. 10, 1963.

INTRODUCTION

The South-east group of claims consists of 41 claims, 29 of which are owned outright by the company (Rose and Buttle Bell), the other 17 are held by a pending Bill of Sale from R.P. Chilcott (Rick Mineral Claims).

The North-west group of claims actually consists of 48 claims but some of these have now been prospected over sufficiently to warrant keeping only a group of 20 which are most nearly on strike with the northern extension of Western Mines.

These claims are all located in the Buttle Lake area of Strathcona Park on Vancouver Island in the Alberni Mining Division, and were the basis for the formation of the company.

Little was known about the geology of the area and it was decided to spend this time mapping in an attempt to locate the southern and northern extensions of the mineralized shear of Western Mines. Further work was to follow if preliminary mapping warranted it. Part of the summer of 1962 was spent on limited mapping of the Jay Claims by Newmont but due to the complexity of the area, it was thought more time should be spent mapping, also including some of the surrounding area.

A total of 180 man days were spent on the South-east group with the breakdown as follows:

Field:	Buttle Bell	(17 claims)	67 man-days
	Rose	(7 claims)	31 " "
	Rick	(17 claims)	82 " "
Office:	Buttle Bell		13 man-days
	Rose		5½ " "
	Rick		6½ " "

A total of 105 man-days were spent in the area of the Jay No.'s 5-14 inclusive, 17, 19-24 inclusive, 29, 31, and 48 Fr, and the area to the north of these claims. 17 man-days were spent in the office.

LOCATION AND ACCESS

The South-east claims lie on the west slope of Flower Ridge, one mile south of the south end of Buttle Lake between elevations of 850-4650 feet above sea level, and adjacent to Western Mines.

Access is by air (35 miles south-west of Campbell River) or by car along good secondary road (37 miles) and then by speed-boat 21 miles up Buttle Lake to the property.

The North-west claims lie between Phillips Creek and Western Mines between 4000 and 5000 feet.

The claim outlines shown are based on chain and compass surveying and are not intended to be entirely accurate, although control was kept where possible.

HISTORY

The claims were originally staked early in 1962 and were the basis for the formation of the company. One and a half months prospecting was done that year and then an agreement was entered into with Newmont

Mining Corp. of Canada. By this agreement Newmont undertook to spend $25,000 to carry out a program of general prospecting and mapping. However, most of the work was confined to the property north of Western Mines.

This agreement has been subsequently terminated and the company now holds 24 recorded Mineral Claims (Buttle Bell & Rose Groups) and has another 17 recorded Mineral Claims under a pending Bill of Sale in the south-east and 48 recorded claims in the north-west.

Gunning examined the area while mapping the Buttle Lake area for the Geological Survey of Canada in 1930. He concluded that mineralization occurs in steep shear zones obliquely cutting the fold axes of large north-trending open folds in Permian and Pre-Permian volcanics. The shear zones strike approximately parallel to the Mesozoic granodiorite batholith 4 miles west of Buttle Lake.

SURVEYING

South-East - A grid covering the area was surveyed in by chain and compass. The base lines were laid out in an east-west direction and lines run parallel to them every 200 feet, and perpendicular along them every 500 feet. The grid was primarily laid out with a view to possible later geophysics, should the preliminary mapping warrant it. A total of 125,995 feet of line was cut.

North-West - The grid was extended and marked at 100 foot intervals east and west, and at 250 foot intervals on the north-south lines. A total of 14,250 feet of line was cut, extending the 80,350 feet cut by Newmont.

GEOLOGY

South-East Group

The rocks in the area are all relatively acidic pyroclastics of fine to medium grain characterized by (Permian or older) tuffs, breccias, agglomerates and andesitic flows intruded by andesite and diabase dykes.

A layer of limestone was deposited between two periods of Volcanism, the second of which contains pillow structure, indicative of prolonged submergence during this second period.

The structure indicates a series of parallel, or near parallel shears in a N40W to N70W direction. The most northerly of these shears dips in a south direction at -52° while the most southerly shear dips -68° in a north direction. The shears between these two boundaries dip northerly mainly, but the mineralized one in Canyon Creek is vertical.

The vertical shear cutting across Canyon Creek strikes N40W to N50W and contains minor chalcopyrite in a quartz-sericite schist exposed for about 30 feet along strike and a 20 foot width.

It is thought that these N-W trending shears are structurally controlled by a series of N-S striking shears which are post mineralization as are a series of shears striking about 100°-110°. Both the N-S and E-W shears appear to be right-handed causing the mineralized shears to move to the south and west respectively. A third set mainly restricted to the intrusives are left-handed, also shifting the mineralized shears to the west and south.

Should the east shore of Buttle Lake be a fault, as is suspected by the author and others more familiar with the area, the shear extension

from Western Mines may be shifted south right off of Buttle Lake property.

Rocks within the sheared areas are a chloritic and jointed fragmental for the most part with a few north-west shears altered further to a quartz-sericite schist, the latter particularly found near Canyon Creek. The sericite schist areas are grey to grey-green in colour, soft, and have a pearly lustre. The quartz appears to be intruded later or has separated out during shearing. Elsewhere in the area, chloritization is the rule with evidence of the Volcanic fragmental texture still remaining.

In all the shears, and in the fine cherty tuffs found just below the limestone, minor cubes of iron pyrite were found disseminated.

The shear zone containing the chalcopyrite is not necessarily continuous over the whole indicated length on the map, but numerous sheared areas were found along the strike length of about 6000 feet over a maximum width of 30 feet. At the south-east end the shear disappears into N25W shearing running along the crest of Flower Ridge. Excellent exposures here didn't show any mineralization.

Fault Creek is almost certainly a fault (left-hand throw) having offset the limestone and strikes N60W and dips -90°. The fault cuts over the crest of Flower Ridge and then strikes N60E in to Henshaw Creek with a -34° northerly dip. Chloritization is evident along the fault's visible length before disappearing under overburden in the west. The limestone is marbleized at the shear.

Another fault lies 2700 feet south of Fault Creek but is dextral with N60W strike and dipping -68°northerly. This fault bounds a small block which was downdropped about 500 feet vertical distance. The

limestone here dips -45° easterly and shows some marbleisation, probably due to fault action. The southern boundary of this block is a N80E -34° southerly dipping fault.

A block between Canyon Creek and another fault 2600 feet north contains no limestone. This block also contains no pillow lavas on the top of Flower Ridge and probably indicates an uplifted, or tilted block subsequently eroded and removing the limestone. This block is bounded by a N30W striking fault (-56° south dip) in Canyon Creek and by a N60W striking fault (-73° north dip) on the north.

A number of minor faults occur elsewhere but could not be traced for any distance along strike due to ruggedness of terrain and overburden. Most of these strike N30W to N50W and dip steeply to the south or are vertical. Some, however, strike N40E to N60E and dip 80°-90° northerly. These are also thought to be post mineralisation. One fault about 1400 feet south of Canyon Creek may have offset the intrusive about 700 feet sinistrally.

A band of intrusive underlies the volcanics and ranges from a very coarse gabbro containing about 20% magnetite, through a diorite to a quartz monzonite. Canyon Creek has offset this intrusive about 400 feet horizontally.

A short vertical fault striking N65E lies 3500 feet north of Canyon Creek and has shifted the intrusive 200 feet horizontal distance to the left.

The limestone has been marbleised at its base and is white and fine grained trending to softer and coarser limestone at the top. Very

little jointing can be picked out in the limestone but this is due to erosional forces which make joints hard to distinguish.

Extensive parallel jointing surrounds the main shear obliquely cutting Canyon Creek. Other joints are at right angles to the faults. Because of the abundance of weak faults of limited length it appears possible that stress relief is achieved by means of parallel, probably over-lapping faults.

The strata in the area all dip gently up to 70° in an easterly direction. Andesite dykes, most of them probably filling north-west striking faults or joints in the rock, range from a few inches to about 12 feet wide. These are nearly vertical and strike N15W to N40W and are offset by the N-S faults. A few minor dykes run N60E. The andesite is fine grey to grey-black rock and is extremely hard in the small dykes and margins of the large ones due to chilling. A few of the larger dykes tend to diabase.

The N-S faults, since they cut the dykes, appear to be the last phase of jointing after volcanism with the 100° faults.

Most of the area is covered by andesitic pyroclastics mixed with tuffs and agglomerates of considerable thickness. The tuffs vary from a very fine, hard black cherty material near the limestone to the more prominent pale water green, medium grained tuffs. Good bedding structure is particularly evident in the cherty tuffs which also contain cubes of iron pyrite. The agglomerates are well-rounded and contain inclusions of andesite, diorite and agglomerate mostly an inch or so in diameter but do range up to over a foot in diameter.

The medium grained volcanics above the limestone appear to be brecciated in most places and form pillow structure. Much of the intrusive is hard to distinguish between the fragmental and andesite flows in small outcrops, but all appear to be of the same approximate composition. The extrusive and intrusive andesites are particularly hard to distinguish. Quartz and epidote veins and stringers surround most of the pillows.

Intrusive gabbros seem to predominate in the area surrounding the tear fault (south of Canyon Creek) and also 3500 feet north of Canyon Creek. This grades into diorite and quartz monzonite. The larger percentage of mafic material seems to be in the fragmental-intrusive contact zone in both rocks. The diorite is medium grained and grades into the coarse well crystallized gabbro. Only the main intrusive areas are shown on the map.

North-West Group

The rocks of this area are fine to medium grained andesitic pyroclastics characterized by tuffs, breccias, agglomerates and andesite flows with narrow veins of quartz and epidote scattered throughout. The two main dykes which intrude the area are fine grained andesitic rock, while the smaller minor dykes appear to be grey-white monzonite containing less than 5% mafic material.

The tuffs of the area are pale watery green ranging from medium grained to fine cherty material with conchoidal fracture. Very little pyrite was found in the tuffs as was found on Flower Ridge but they are very well bedded and dip easterly generally 15°-45°. The agglomerates range from medium grained to very coarse rounded inclusions of tuffs and

diorite up to a foot in diameter.

The dykes (and the diorite inclusions in the agglomerate) resist weathering much more than do the volcanics and are much harder, probably due to chilling.

The intrusive of the area ranges from a medium grained diorite (50% mafic) to a very coarse, well crystallized gabbro containing about 10% magnetite. Near the volcanic-intrusive contact it is extremely hard to distinguish between the two rock types as the mafic content tends to increase at the margins of the volcanics while the intrusives become finer and decrease in mafic content. The difference between andesite flows and andesite intrusions is also hard to distinguish in the small outcrops where no bedding is visible.

The intrusives appear to form a thick sill, being always below 4100 feet and above 3000 feet elevation and apparently dipping slightly to the north and east. On the north end of the property, particularly in the north-east corner towards Phillips Creek, the diorite probably marks the boundary between the Palaeozoic and Mesozoic volcanics.

Numerous shears run through the area striking from N30W to N50W and dipping steeply in an easterly direction. This appears to be the mineralized direction of shearing but by the time this shearing reaches this elevation, the favourable mineralization has disappeared. The main shear striking north-west and running through 70N -12E, is about 75 to 100 feet wide before dipping under overburden. This shear extends northward off of the property into overburden and diminishes into intense jointing when it reaches the intrusive. There is too much overburden beyond the intrusive to follow the shear until Romney Creek. In the volcanics, it

is much the same as that of Western Mines - a well altered sericite schist about 120 feet wide. No copper mineralization was found, just medium grained pyrite.

The north-west trending shears have been offset by two sets of faults trending approximately 100° (right-hand throw) and 360° (left-hand throw). A possible third set (left-hand throw) strikes 060°. The shear which is likely the 'Western' extension but has changed strike somewhere, lies at the junction of Romney Creek and the creek running off the north end of the Jay Claim #29. This vertical shear strikes N65W to N45W and is quartz sericite schist containing medium to coarse cubes of iron pyrite for a width of 100 to 120 feet before disappearing under overburden and into intense parallel jointing. This shear can be followed for about 1000 feet up slope to about 2600 feet in elevation. The shear then terminates abruptly at a shear striking approximately N15E and dips -40° easterly. This second shear can be seen for 1200 feet easterly before dipping under overburden. Recumbant folds in volcanics underneath this shear indicate right-hand throw. The sericite shear was not found along strike above this point, but intense parallel jointing striking N35W and -90° was found in the tuffs at about 2900 feet in elevation. From here up to 3700 feet elevation too much overburden inhibited any good observations. Above this area are vertical bluffs which may be another east-west fault to account for further offset of the 'Western' shear.

The pyritized shear at Romney Creek is believed to be the basis for staking done by Mastodon-Highland Bell in the fall of 1962.

The shearing in the upper block of volcanics on our own property,

though sericitic in a few areas, appears to have diminished with increase in elevation to a chloritic shear with residual volcanic fragments remaining. The intrusive bands show very little north-west shearing and appear to have caused most of the vertical force depletion. The vertical distance from the termination of the pyritized shear represents some 2400 feet, while between our property and 'Western' is about 2500 feet elevation. A flat shear runs for about 100 feet above the Lynx zone between the andesitic intrusives and pyroclastics altered by quartz and sericite (about 1600 feet elevation) and may cut off the top of 'Western's' shear at this end.

The intrusive band on the north end appears to be a nearly flat lying sill dipping north-east slightly.

The long sericite shear which has been trenched in three places, is offset to the right about 500 feet along the East-West fault (at 55N -13E) (striking about 100°) which cuts through the area. The rock here is more broken and fractured into little blocks, rather than sheared. Pyrite flecks are scattered through the fragmental. Movement can also be seen along the East-West fault in a horizontal direction by slickensides at 50N-20E.

No movement can be seen along a northerly strike but it is thought that the two main northerly trending dykes probably represent planes of weakness in this direction.

The north-west fault at 70N-2W becomes weaker to the north, disappearing into intense jointing as does the shear at 67N-7W.

The fact that most of these northerly trending faults are nearly

vertical (or dip steeply to the east) would seem to indicate tension in the area. None of these faults have a shallow enough dip to tie in with the shear at Romney Creek without considerable sub-surface movement along a plane, to the east (such as at the shear at 2600 feet elevation above Romney Creek). The main shear on our property has been offset about 1500 feet to the east, either due to a strike change or because of movement along east-west faults.

The main dyke through the centre of the property appears to be the last stage of volcanic activity. The other dykes appear to fill the fissures and joints of all the dominant fault directions (N40E, N70E, N20W) and are offset by later faults at N40E and N40W.

The intrusive is cut by vertical faults striking N30E and N30W but these appear to be short with little movement and are well jointed at right angles to the faults due to tension or vertical uplift.

Signed: 

Page Chilcott

For: Buttle Lake Mining Co. Ltd.

Expenses Incurred During Investigation Of Buttle Bell Mineral Claims In May, June and July of 1963

Field Work:			
P. Chilcott	26 days @	$19.75/day	513.50
R. Knight	19 days @	13.75/day	261.25
W. Gautier	12 days @	16.67/day	200.04
J. Tickner	7 days @	13.75/day	96.25
T. Lisle	3 days @	24.00/day	72.00
Office Work:			
P. Chilcott	12 days @	$19.75/day	237.00
R. Knight	1 day @	13.75/day	13.75
Camp Costs:			
$5.50/man/day	67 man-days		368.50
			$1,762.29

Expenses Incurred During Investigation Of Rose Mineral Claims In May, June and July of 1963

Field Work:				
	P. Chilcott	9 days	@ $19.75/day	177.75
	R. Knight	11 days	@ 13.75/day	151.25
	J. Tickner	11 days	@ 13.75/day	151.25
Office Work:				
	P. Chilcott	5 days	@ $19.75/day	98.75
	R. Knight	½ day	@ 13.75/day	6.87
Camp Costs:				
	$5.50/man/day	31 man-days		170.50
				$756.37

Expenses Incurred
During Investigation Of
Rick Mineral Claim Nos. 13-16 incl. and #13 Fr
In June and July of 1963

Field Work:			
P. Chilcott	5 days @ $19.75/day		98.75
R. Knight	9 days @ 13.75/day		123.75
W. Gautier	3 days @ 16.67/day		50.01
J. Tickner	6 days @ 13.75/day		82.50
Office Work:			
P. Chilcott	3 days @ $19.75/day		59.25
Camp Costs:			
$5.50/man/day	23 man-days		126.50
			$540.76

Expenses Incurred
During Investigation Of
Rick Mineral Claim Nos. 3-8 incl., 10, 11, 2 Fr
3 Fr, 9 Fr, 12 Fr, In
May, June and July of 1963

Field Work:				
P. Chilcott	14 days	@	$19.75/day	276.50
R. Knight	22 days	@	13.75/day	297.00
T. Lisle	1 day	@	24.00/day	24.00
J. Tickner	12 days	@	13.75/day	164.50
W. Gautier	10 days	@	16.67/day	166.70
Office Work:				
P. Chilcott	2 days	@	$19.75/day	39.50
R. Knight	1 day	@	13.75/day	13.75
T. Lisle	½ day	@	24.00/day	12.00
Camp Costs:				
$5.50/man/day	59 man-days			324.50
				$1,318.45

Expenses Incurred
During Investigation Of
Jay Mineral Claims In
July, August and September of 1963

Field Work:			
P. Chilcott	29 days @ $19.75/day		572.75
R. Knight	35 days @ 13.75/day		480.25
J. Tickner	41 days @ 13.75/day		563.75
Office Work:			
P. Chilcott	11 days @ $19.75/day		217.25
J. Tickner	6 days @ 13.75/day		82.50
Camp Costs:			
$4.65/man/day	105 man-days		488.25
			$2,404.75

M1

125° 30'

124° 30'

50° 00'

49° 00'

Road to Campbell River

BUTTLE LAKE

PHILLIPS C

Nutt-west claim Group

MYRA C

HELEN C

South-East Claim Group

Price Creek

LIEVENWATH C

COMOX LAKE

COURTENAY

COMOX

STRAIT OF GEORGIA

DENMAN ISLAND

HORNBY ISLAND

QUALICUM BEACH

True North

GREAT CENTRAL LAKE

SPROAT LAKE

ALBERNI

PORT ALBERNI

ALBERNI INLET

MEARES ISLAND

KENNEDY LAKE

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 533 MAP 1

BUTTLE LAKE MINING COMPANY LTD. (N.P.L.)
VANCOUVER, BRITISH COLUMBIA

Location Map - Island Properties

DATE Sept 30/63	SCALE 1" = 4 miles
SURVEYED BY	CHECKED BY Roger Abbott
DRAWN BY Traced J. Tickner	DRG. No. 1

M 2

TRUE NORTH

3000'
3500'
4000'
4500'
5000'
4500
1000
1000
1000
1000
1000

WESTERN MINES PROPERTY

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 533 MAP 2 nw

Report 533

BUTTLE LAKE MINING COMPANY LTD. (N.P.L.)
VANCOUVER, BRITISH COLUMBIA
JAY CLAIMS NORTH WEST GROUP
DATE SEPTEMBER 13 1963 | SCALE 1 INCH = 500 FEET
SURVEYED BY | CHECKED BY
TRACED BY J TICKNER | DRG. No. 2-NW

M3

TRUE NORTH

BLM #5 MC

BLM #6 MC

HELD IN ABAYENCE

BLM #8 MC

BLM #10 MC

FURTHER DEVELOPMENT

BLM #7 MC PENDING

BLM #9 MC

BLM #11 MC

F L O W E R

Rose #13 MC

Rose #11 MC

Rose #12 MC

Rose #14 MC

Rose #10 MC

Rose #8 MC

R I D G E

Rick #15 MC

Rick #16 MC

Rick #14 MC

BIN #2 MC

BIN #1 MC

Rick #13 MC

Rick #12 Fraction

Rick #13 Fraction

Rick #11 MC

Rick #10 MC

Rick #3 Fraction

Rick #9 Fraction

Rick #13 MC

Rick #7 MC

Rick #8 MC

Rick #5 MC

Rick #6 MC

Buttles Bell #19 MC

Buttles Bell #

Buttles Bell #15 MC

Buttles Bell #13 MC

Buttles Bell #8 MC

Buttles Bell #6 MC

Buttles Bell #4 MC

Buttles Bell #2 MC

Buttles Bell #10 MC

Buttles Bell #12 MC

Buttles Bell #11 MC

Buttles Bell #7 MC

Buttles Bell #5 MC

Buttles Bell #3 MC

Buttles Bell #1 MC

Buttles Bell #9 MC

Rick #4 MC

CANYON CREEK

GAULT CREEK

W #7 MC

W #5 MC

W #3 MC

W #8 MC

W #6 MC

W #16 MC

W #15 MC

W #17 MC

W #18 MC

W #76 MC

W #75 MC

W #74 MC

Al #5 MC

Al #6 MC

Al #4 MC

Al #3 MC

Al #2 MC

Al #1 MC

BUTTLE LAKE

POLE CREEK

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 533 MAP 2E

Report 533

BUTTLE LAKE MINING COMPANY LTD. (N.P.L.)
VANCOUVER, BRITISH COLUMBIA

SOUTH-EAST CLAIM GROUP

DATE SEPTEMBER 12 1963. | SCALE 1 INCH = 500 FEET
SURVEYED BY J. TICKNER, R. KNIGHT | CHECKED BY
DRAWN BY J. TICKNER | DRG. No. 2-SE

M4

True North

JAY 31.
JAY 29.
JAY 30
JAY 42.
JAY 14.
JAY 12
JAY 10
JAY 8
JAY 6.
JAY 4
JAY 1.
JAY 41
JAY 13.
JAY 11.
JAY 9
JAY 7
JAY 5.
JAY 45
JAY 47
JAY 43
JAY 33
JAY 16
JAY 17
JAY 19
JAY 21
JAY 23
JAY 3.
JAY 2
JAY 35
JAY 34
JAY 32
JAY 15.
JAY 18
JAY 20
JAY 22.
JAY 24
JAY 25
JAY 27
JAY 26
JAY 28
JAY 36
JAY 39
JAY 38
JAY 40
JAY 37

Legend

- chloritic tuffs
- Joint
- weak shear
- strong shear or fracture
- Trench
- intrusive areas - diorite + gabbro
- Dykes
- volcanics dacitic & agglomeratic
- contact - approximate
- Base Line Stations

BUTTLE LAKE MINING COMPANY LTD. (N.P.L.)
VANCOUVER, BRITISH COLUMBIA

North-West Claim Group - Geology

DATE Sept 26/63 | SCALE 1" = 300'
Geology ~~SURVEY~~ BY P. Chilcott | CHECKED BY
DRAWN BY P. Chilcott | DRG. No. 3-NW

WESTERN MINES

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 533 MAP 3a

Report 532

M5

B.L.M. No. 5

B.L.M. No. 6

B.L.M. No. 8

B.L.M. No. 10

B.L.M. No. 7.

B.L.M. 9

B.L.M. No 11.

RICK No 7.

RICK No. 8

RICK No. 5

RICK No. 6.

BUTTLES BELL No. 19

BUTTLES BELL No. 17

BUTTLES BELL No. 18

BUTTLES BELL No. 15.

BUTTLES BELL No 13.

RICK No. 2. FR.

ROSE No 9

ROSE No. 11

ROSE No. 13

ROSE No. 12

ROSE No 14.

ROSE No 10

Rose No. 8

RICK No. 15

RICK No. 16

RICK No. 13.

RICK No. 14.

RICK No. 12 FR.

RICK No. 13. FR.

RICK No. 3

RICK No. 3 FR.

RICK No. 10. M.C.

RICK No. 11.

RICK No. 9 FR.

RICK No. 4.

BUTTLES BELL No. 8.

BUTTLES BELL No. 6.

BUTTLES BELL No. 4.

BUTTLES BELL No. 7.

BUTTLES BELL No. 5.

BUTTLES BELL No. 3

BUTTLES BELL No. 1

BUTTLES BELL No. 2.

BUTTLES BELL No. 10.

BUTTLES BELL No. 12

Buttles Bell No. 11

BUTTLES BELL No. 9

Cadillac Creek

Cadillac Fault

Buttle Lake

Legend

- Diorite-Gabbro intrusive
- strong shear or fault
- Joint
- Lineation
- Approximate Contact
- Dyke - Andesite
- Volcanic Agglomerate and/or breccia weak shear
- epoxy fault
- Base Line Stations

Department of Mines and Petroleum Resources
Assessment Report
NO. 533 MAP 36

Report 533

CUTTLE LAKE MINING COMPANY LTD.
VANCOUVER, BRITISH COLUMBIA

Geology - South East Group

Sept 24/63.	SCALE 1" = 500'
DRAWN BY P Chikoff	CHECKED BY
TRACED BY P Chikoff	FIELD No. 3-SE