ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: **Sampling Report on the Pilot Soil / Till and Stream Sediment, Heavy Metal Concentrating Program on the Copper Claim Group for Billiken Gold Ltd.**

TOTAL COST: $26,227.50

AUTHOR(S): Eugene A. Dodd , Willard D.Tompson P.Eng.
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): NA
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S) : 5415610 / 2012/Nov/08

YEAR OF WORK: 2012

PROPERTY NAME: Copper Claim Group

CLAIM NAME(S) (on which work was done): Copper 1 to 5 inclusive

COMMODITIES SOUGHT: Copper, Gold, Molybdenum

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: NA

MINING DIVISION: Vancouver
NTS / BCGS: N.T.S. 082L.022 and 082L.023
LATITUDE: 49 ° 42 ' 45 " N
LONGITUDE: 122 ° 55 ' 12 " W (at centre of work)
UTM Zone: 10U EASTING: 505767 NORTHING: 5506669

OWNER(S): Eugene A. Dodd

MAILING ADDRESS: 561 Glenmary Road, Enderby BC, V0E 1V3

OPERATOR(S) [who paid for the work]: Billiken Gold Ltd.

MAILING ADDRESS: 561 Glenmary Road, Enderby BC, V0E 1V3

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
Quartz diorite, alteration, pendant, copper, molybdenum

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

AR#3294, AR#4467, AR#4916, AR#4918, AR#4917, AR# 7386, AR# 8749, AR#10761, AR#11121, AR#11679, AR#13028

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil	18 HMC Samples		
Silt	16 HMC Samples		
Rock	63 Hard Rock Samples Megascopy	Letter Report by Willard D Tompson P. Eng.	
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other	Letter Report		
		TOTAL COST	$26,227.50

Sampling Report
on the
Pilot Soil / Till and Stream Sediment,
Heavy Metal Concentrating Program
on the
Copper Claim Group
for Billiken Gold Ltd.

Tenure #'s 928859, 928858, 928856, 928851, and 928846

Vancouver Mining Division

British Columbia

N.T.S. 082L.022 and 082L.023

49° 42' 45" N, 122° 55' 12" W

10U 505767 E, 5506669 N

Owner: **Billiken Gold Ltd.**,

561 Glenmary Road, Enderby,

BC, V0E 1V3

Operator: Billiken Gold Ltd.,

Contractor: Billiken Gold Ltd.,

Author: Eugene A. Dodd, Project Manager

Date: January 5, 2013

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Summary

The Copper claims are "underlain by quartz diorite of the coast range batholith within which is a non-plutonic pendant that has been metamorphosed and granitized into a granodiorite. The pendant is the host rock for the widespread copper and molybdenum mineralization that occurs on the property. Faults and fractures strike in four directions (N30W, N75E, N30E and S70E). Within the mineralized zone occur the following types of alteration; pyrite, chlorite, epidote and K - feldspar. The mineralization which seems to be related to the fractures and faults, is in the form of chalcopyrite, malachite, molybdenite, chalcocite and bornite and occurs as disseminations, splashes, and fracture fillings within the granodiorite" (David G. Mark P. Geo) ARIS Report # 4,467.

The property is comprised of 5 mineral tenures covering 1,128 hectares located on the northeast side of the Mamquam River approximately 13 air km east of Squamish, British Columbia. Access to the property is easily gained by two wheel drive vehicle via a series of logging roads.

Exploration on the Mamquam River property began in the early 1970's and has continued intermittently until present. Since the original staking of the Lori claims in 1970 and 1971 several meaningful programs have been conducted on this property, all yielding positive results. Most of the programs were successful in further delineating the copper and molybdenum mineralization and have all culminated in repeated recommendations of diamond drilling.

The purpose of this sampling program was to try and locate the copper / molybdenum mineralization known to exist and to establish target areas worthy of further gold exploration. A total of 18 HMC Soil / Till samples, 16 Stream Sediment HMC samples, 63 Hard Rock Grab samples and 1 Spot HMC sample were gathered from various logging roads and streams transecting the Copper claims belonging to Billiken Gold Ltd. between May 9 and June 26 inclusive, 2012.

The program was successful in delineating two areas of interest to be followed up with further exploration. One of these two preliminary targets is in an area downslope of known gold values that have not been clearly understood on the old Ana Claims. A follow up program will hopefully develop a dispersal plume that can lead to a blind or semi blind copper / gold deposit.

Sampling Report

on the

Pilot Soil / Till and Stream Sediment,

Heavy Metal Concentrating Program

on the

Copper Claims

Vancouver, M.D.

Mamquam River Area, British Columbia

Introduction

This report covers the reconnaissance sampling program conducted during the months of May and June of 2012 by Billiken Gold Ltd on their Mamquam River Copper claims. The claims are situated on the northeast side of the Mamquam River near Squamish, British Columbia.

The current project was designed to delineate roughly, areas of interest worthy of the high cost of further geochemistry, geophysics and or trenching and drilling. An HMC program was carried out in an attempt to add gold value to the property and to further confirm the gold values previously established on the old "Ana" claims.

The soil / till HMC and stream sediment samples were widespread and conducted to try and find some indication of gold on the property and to delineate target areas worthy of further gold exploration. A total of 63 representative hard rock grab samples were gathered to better understand the copper / molybdenum mineralization outlined by previous programs. No attempt was made to selectively gather the hard rock samples, they were taken randomly, where and when they were available. In at least one area of the mineralized zone (between HR01 and HR12) outcrops were harder to locate because of a thin mantle of overburden and therefor samples could not be taken.

Part of our program included the already documented Copper / Molybdenum occurrence on Martin creek where we confirmed the presence of chalcopyrite / molybdenum mineralization.

The bibliography cites the works from which information was gathered for the exploration of this area and the writing of this report. The author has worked on the property and in this area several times over the past 40 years.

Physiography

The Mamquam Property lies at the western edge of the major physiographic region known as the Pacific Ranges which comprise the southern portion of the Coast Mountains. The claim group is steep and rugged at higher elevations with moderate to very steep slopes occurring along the Mamquam River. Elevation on the property varies between 500 m along the Mamquam River to a high of 1440 m on the northeast end. Several good sized creeks transect the property and drain from the north or northeast down to the Mamquam River. Martin creek cuts through the eastern portion of the property and is at this time the main area of the known copper and molybdenum mineralization.

Most of the lower areas of the property can be quite easily traversed on foot but offer up little in the way of useful information as bedrock is completely masked by the overlying soil and till. The upper portions of the property can only be worked during ideal weather conditions as there are some dangerous cliffs and travel on foot can at times be extremely hazardous especially when it is wet. Much of the property was logged and replanted in the early 1970's. The new trees that were planted are now about 50 to 80 cm in diameter at the butt.

The principal water source would likely be the Mamquam River, a major drainage for the area. Crawford creek situated at the south end of the property would also be an adequate source of water. Skookum Creek and Crawford Creek are both excellent year round sources with ample water for mining purposes. Most of the claim block is well drained and is transected by several small creeks which would provide enough water for diamond drilling.

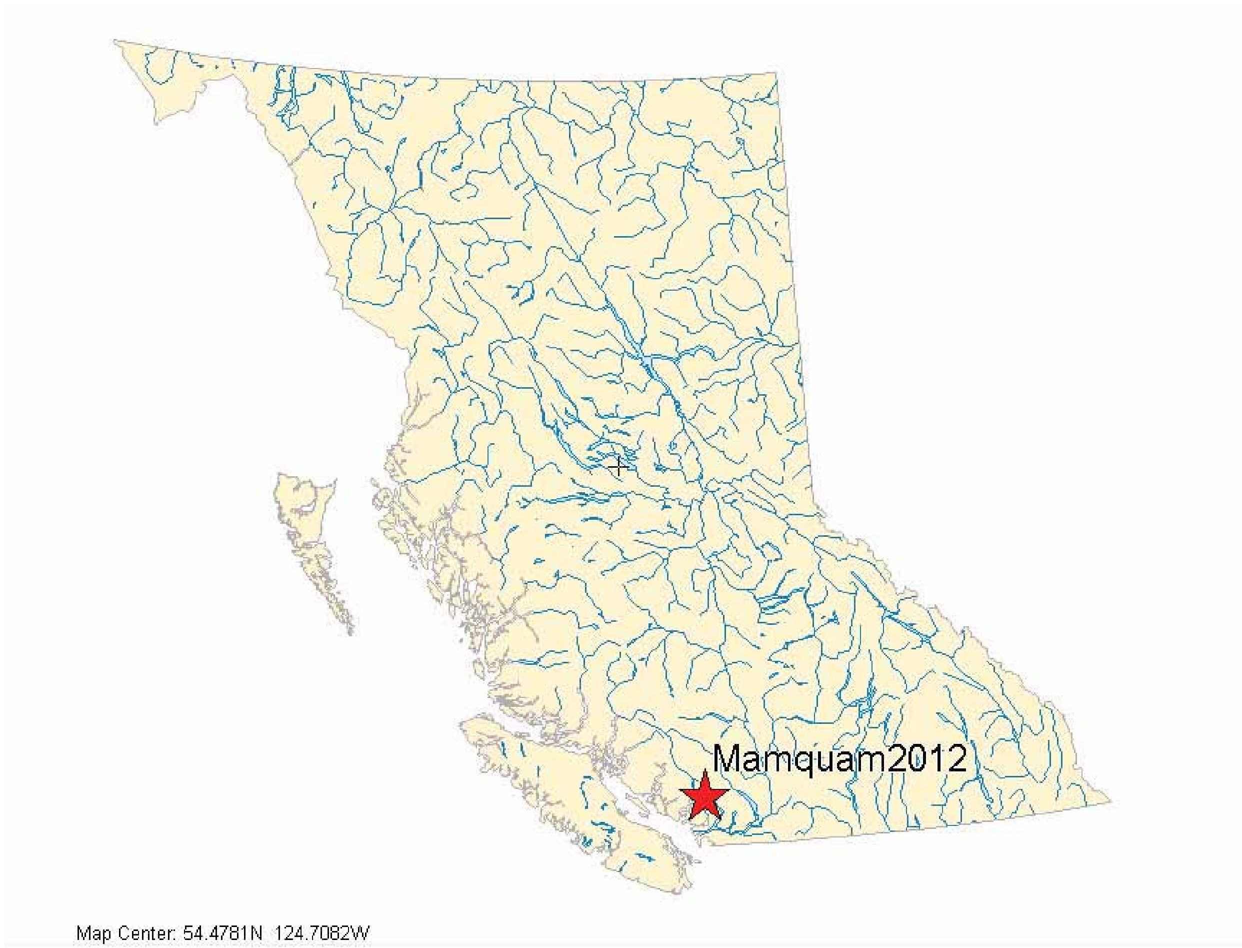
The area in general is quite sensitive environmentally as the Mamquam River drains into Howe Sound in Squamish. Industrial development has been permitted in the past as a run of the river power generation plant has been constructed downstream about 5 km from the property on the Mamquam River and is being expanded at this time.

Location and Access

The property is located on the southwest coast of British Columbia approximately 50 km NNE of Vancouver and about 20 km northeast of the Britannia Mine. The claims are located on the north and east sides of the Mamquam River approximately 13 air km east of Squamish, British Columbia. The property can be easily reached in a two wheel drive vehicle by turning east on the Mamquam Main logging road at the south end of Squamish and proceeding about 19 km up the Mamquam River.

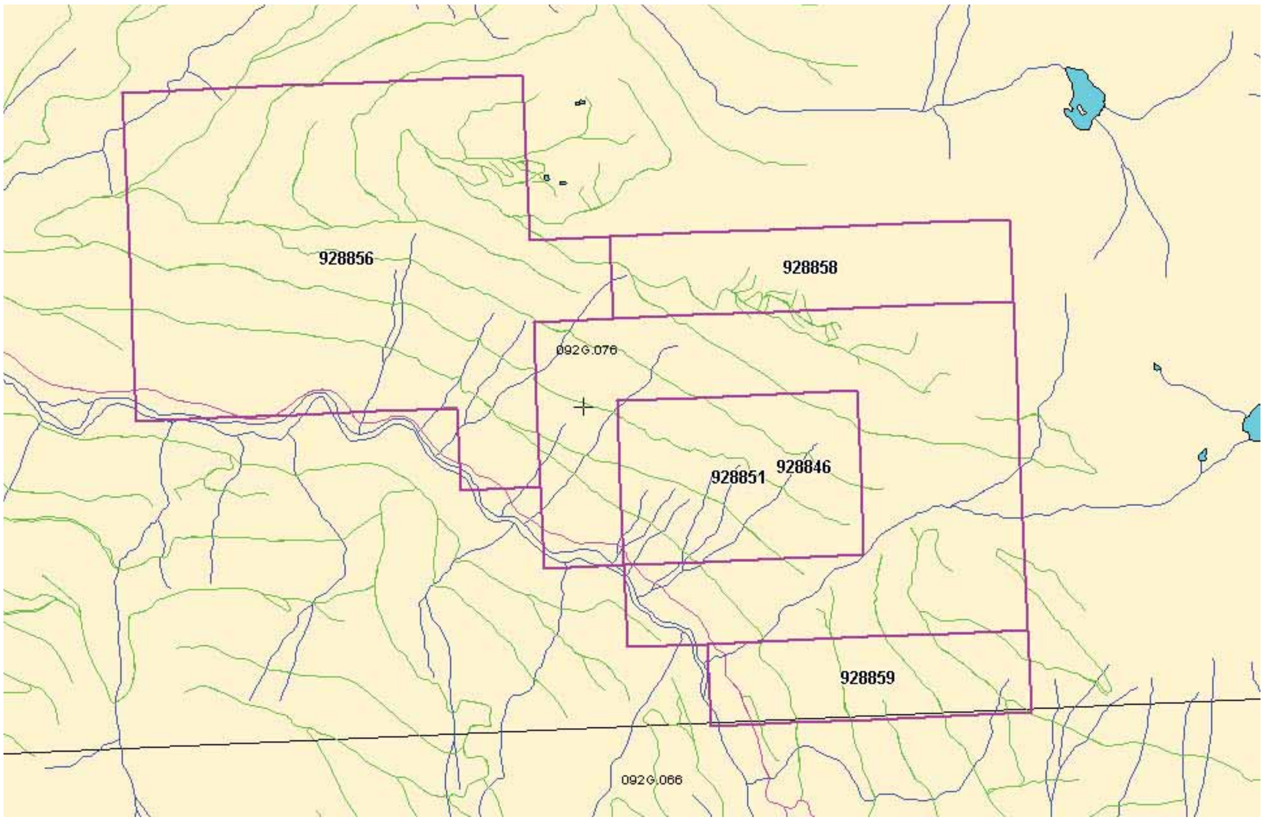
Access to the rest of the property is gained via a series of old logging roads that are rough but otherwise in relatively good condition. The terrain is generally rugged but passable on foot in most places. There are many old logging roads on the property and most of them are overgrown with closely spaced immature Alders. Most of these roads could easily be made passable with a small dozer.

Hillsides can become very steep at higher elevations on the property and extreme caution must be taken coming downhill, in a straight line, because of cliffs hidden by trees and brush. The old logging roads have grown in with young Alders, so thick as to make travel along them on foot very difficult, often you find it easier to travel just above the road than on the road itself. Heavy rainfall at times can render parts of the property unsafe to travel on by foot because of the slippery logs and vegetation. Rubber caulk boots are highly recommended when everything is soaking wet.



Property Location Map

Billiken Gold Ltd. – Copper Claim Group



Claim Location Map

Billiken Gold Ltd. - Copper Claim Group

Date: January 5, 2013

Center of Claim Block: 10U 505767 E, 5506669 N

Figure 1 - Table of Claim Information

Tenure Number	Type	Claim Name	Good Until	Area (ha)
928859	Mineral	COPPER 5	2015/Nov/10	83.5832
928858	Mineral	COPPER 3	2015/Nov/10	104.4348
928856	Mineral	COPPER 4	2015/Nov/10	459.4988
928851	Mineral	COPPER 1	2017/Nov/10	125.3481
928846	Mineral	COPPER 2	2015/Nov/10	355.1509

Total Area: 1128.0158 ha

Claim Information

The above noted expiry dates are dependent on this work program being accepted for assessment credit. The property consists of 5 contiguous claims covering an area of 1128.0158 ha. The claims are situated within the Vancouver Mining Division on NTS Map sheet 92G/10. The center of the property is located at approximately 49º 42’ 45” N, 122º 55’ 12” W or 10U 505767 E, 5506669 N.

The claims are registered to Eugene Dodd and are held in trust for Billiken Gold Ltd. of Enderby British Columbia.

Mining History

Although, the Squamish area is host to a large number of mineral deposits and showings, the largest deposit, known as the Britannia Mine, was of the greatest importance to the economy of British Columbia through most of the last century. Many smaller deposits exist in the area but none have so far proven to be economically viable.

The Britannia Mine located 22 km southwest of the Copper claims was the largest producing copper mine in the British Empire. The mine operated for over 70 years and produced 53.63 million tons of ore grading: 1.15 % copper, 0.65 % zinc, 0.2 oz / ton silver, and 0.02 oz / ton gold.

Total production amounted to: 299 kg of gold, 180,438 kg of silver, 516,743,031 kg of copper (over 1 billion pounds) and 444,806 kg of cadmium.

The Britannia Mine employed 60,000 people representing 50 nationalities.

History of Previous Relevant Work in the Area

Since the original staking of the Lori claims in 1970 and 1971 the following meaningful programs have been conducted on this property, all yeilding positive results.

1971: ARIS Report # 3,294 dated September 30, 1971

Minorex Ltd.

A soil geochemical survey was completed during the late summer of 1971 on the Lori 1-18 claims held under option by Minorex Ltd., from E.B. Peterson of Vancouver, British Columbia. The survey was prompted by the discovery of minor chalcopyrite / molybdenite mineralization exposed in a road cut within intrusive rocks on the Lori claim group. The Lori claim group is now covered by the Copper claims belonging to Billiken Gold Ltd.

In a report authored by J. Bucholz geologist and A. W. Dean, P.Eng., "westerly trending, steeply dipping fault or shear structures were observed locally". Mineralization consisting of pyrite, malachite, chalcopyrite and molybdenite in fractures associated with small quartz veinlets was discovered. Traces of malachite were evident over most of the grid along the M-11 road. Chlorite, epidote and secondary K - feldspar alteration was observed in fractures in areas not obviously mineralized.

Although not clearly stated it appears that 328 soil samples were taken as well as 18 soil profiles. Geochemical results accurately reflected both the mineralized and unmineralized areas. Good correlation between copper and molybdenum analysis coincided with surface mineralization observed in place. Geological mapping, prospecting, sampling, and drilling were considered to be additional and useful work.

1972: ARIS Report # 4,467 dated November 30, 1972

Exeter Mines Ltd.

Under the supervision of David G. Mark P.Geo., linecutting and soil sampling were carried out over part of the property. A total of 24.5 line miles of grid was established and 1273 soil samples were gathered and subsequently analysed for copper and molybdenum. The results of the 1971 soil sampling were plotted with the 1972 results greatly expanding the main anomalous zone to 792 m x 488 m. There were a total of 5 anomalous zones delineated.

Mr. Mark goes on in his report to recommend expanding the soil sampling over the remainder of the property. He also recommends magnetometer and induced polarization be conducted over the mineralized zone. Diamond drilling was recommended with collar locations to be determined by the survey results.

1973: ARIS Report # 4,916 dated November 06, 1973

Noranda Exploration Company, Limited

Under the supervision of P.M. McAndless geologist, geological mapping was completed over the property. Alteration was found to be widespread and somewhat zoned. A large propylitic zone was found to extend across the northern section of the property that is overprinted by a smaller 1066 m x 305 m core of intense potassic - silica alteration. Mineralization was determined to be fracture controlled and includes pyrite, chalcopyrite, molybdenite, bornite, and malachite. Pyrite was determined to be associated with intense propylitic alteration. Copper / molybdenum mineralization occurs and is coincident with the quartz orthoclase alteration zone. Assayed sections within the zone vary from 0.6 % copper and 0.05 % molybdenum to trace. McAndless' conclusions and recommendations included the following:

> "Chalcopyrite, molybdenite, bornite, and malachite occur on fractures within a 1066 m x 305 m zone. Copper / molybdenum mineralization is coincident with pronounced quartz - orthoclase fracture - filling. The potassic – silica / copper / molybdenum zone is haloed by an extensive propylitic / pyrite zone. Copper / molybdenum mineralization appears to have been localized about the intersection of north - east trending potassic - silica fractures and north trending granite aplite and andesite porphyry "dyke" swarms".

Induced polarization and drilling was recommended to test the extensiveness of the known mineralization zone. Mr. McAndless produced a very good map delineating the mineralized zone in his report.

1973: ARIS Report # 4,918 dated December 04, 1973

Noranda Exploration Company Ltd.

Under the supervision of Robert A. Bell Ph.D., P.Geo., and David K. Fontain P.Eng., of McPhar Geophysics Company, a combined induced polarization / resistivity survey was carried out. Weakly anomalous IP effects were measured on every line of the IP / Resistivity survey over the Mamquam property. These anomalies delineate a zone roughly 305 m wide extending for 1951 m and still open in both directions. Drilling was recommended.

1989: ARIS Report # 4,917 dated January 17, 1974

Noranda Exploration Company Ltd.

Noranda completed a small drill program of three short holes for a total of 280 m (see Figure 2 below). The report consists of drill logs only and did not include recommendations.

Figure 2 - Table of Noranda's Drill Hole Results

Hole Number	Complete at (m)	Results
NM - 1	152	Intersected 67 m of copper mineralization followed by 82 m described as mineralized with pyrite but was not assayed.
NM - 2	73	Mineralization was present throughout this hole and is described as pyrite, molybdenite, and chalcopyrite.
NM - 3	56	Mineralization was present throughout this hole and was stopped prematurely due to caving. The mineralization is described as malachite, chalcopyrite, limonite, and molybdenite.

*Note: For greater detail and understanding the actual logs should be reviewed.

1979: ARIS Report # 7,386 dated August 15, 1979

Amark Explorations Ltd.

Under the supervision of Weymark Engineering Ltd. the previous grid was re-established. About 258 soil samples and an electromagnetic survey over what appears to be the main mineralized zone was completed. Recommendations included more geological mapping and drilling to determine the extent and distribution of the copper / molybdenum mineralization. (See Figure 5)

1980: ARIS Report # 8,749 dated November 20, 1980

Amark Explorations Ltd.

Under the supervision of William J. Weymark P.Eng., a seven hole drill program was planned for the field season however, "due to difficult drilling conditions and lack of an experienced drill crew", only one drill hole was partially completed. DDH-80-C-1 was abandoned at a depth of 38 m. The log for this hole indicates quartz diorite with sulphides top to bottom. Mr. Weymark recommends

> "on the basis of the results obtained from this partial test, it is considered that the completion of the previously attempted drill program should be undertaken. The presence of copper and molybdenum in the drilling sludge confirms the distribution of these metallics and that bulk sampling should be carried out at the same time as diamond drilling".

In this 1980 report, Mr. Weymark makes reference to an assessment report dated December 15, 1979 labelled: Geological, Diamond Drill Surveys, Mamquam River area, Vancouver M.D., wherein he shows some assay results in Figure – 4 of his report. These results appear to be on DDH-B and DDH-C. I have not been able to locate a copy of this report dated December 15, 1979, nor have I been able to locate the collar locations for these holes but I have included the assay results as they help to establish the grade of the core (See Figures 6 and 7).

I was in the contract diamond drilling business for more than ten years and I am very familiar with the rocks in the vicinity of the above drill collar locations and I can safely say that the drillers on this job must have been completely incompetent.

1982: ARIS Report # 10,761 dated November 15, 1982

Stackpool Minerals Ltd.

Under the supervision of W.G. Timmins, P.Eng., and W. G. Sivertz geologist a total of 2343 line km of detailed, low level, combined airborne geophysical survey was completed over large areas both north and east of the Britannia mine including the area covered by the Copper claims.

In Mr. Timmins report on the "Skookum Area" survey which covers the Copper claims he noted that "VLF-EM anomalies are widely scattered". Mr. Timmins also stated "The relatively dense concentration of anomalies between upper Martin creek and the Crawford creek valley is in an area of high magnetic contrasts, which may be structurally more complex than other areas to the north and south".

He also brings attention to the "fracture controlled quartz, pyrite, magnetite, and chalcopyrite mineralization occurring on the ridge between Skookum Creek and the Mamquam River". In the same report Mr. Timmins comments on the magnetics in the Martin Creek area,

> "east and southeast striking magnetic linears in the valleys of the southeast Mamquam, and upper Martin Creek are marked by 1600 to1800 gamma magnetic lows flanked in some cases by very high positive magnetic gradients".

<u>1983</u>: <u>ARIS Report # 11,121 dated February 07, 1983</u>

Stackpool Resources Ltd.

Geological, geochemical, and ground geophysical programs were completed under the supervision of W.G. Timmins, P.Eng., and George W. Sivertz geologist. In his discussion on the "Skookum Area" which overlies the Copper claims Mr. Timmins brings attention to an intense northwest-trending coincident magnetic and Anapolis VLF - EM anomaly that traverses the area and is located on the ridge north of the Mamquam River and east of Skookum Creek. Ground follow up work included magnetometer, VLF - EM, and soil sampling lines along some of the many logging roads on the ridge. Mr. Timmins summarized that

> "The quartz diorite and metadiorite rocks contain a number of narrow quartz veins filled with disseminated pyrite and traces of chalcopyrite. The veins are within fracture or shear zones with west northwesterly trends and steep dips. … Although, the Skookum area is not considered a favourable target for "Kuroko" type massive sulphides, considerable fracturing and low grade greenschist facies (chlorite - epidote) alteration is present within the geographically anomalous area. Magnetite, hematite, pyrite and rare chalcopyrite mineralization are widespread enough to give rise to a geochemical survey in the area".

5 Stream Sediment Samples were gathered on creeks draining the Copper claims by Mr. Timmins' crew during the summer of 1982. The assay results are listed in Figure 3 below.

Figure 3 - Table of Timmins' Stream Sediment Results

Stream Sediment Samples				
Sample #	**Cu ppm**	**Zn ppm**	**Pb ppm**	**Ag ppm**
27	62	66	10	0.3
28	275	33	6	0.2
29	198	42	8	0.1
30	58	36	6	0.2
31	92	60	5	0.1

The above sample numbers 28, 29, and 30 are from creeks draining the area of known copper mineralization on the Copper claims.

1984: ARIS Report # 11,679 dated January 16, 1984

Moran Resources Corp.

Approximately 3 km to the southeast of Martin Creek a small road geochemical sampling program was carried out. The program produced four spot anomalies. David G. Mark P.Geo., in his report of January 16, 1984 stated that "all four anomalies contain high copper or gold values with little or no buildup on either side."

1985:

Trans – Arctic Explorations Ltd.

I personally took 3 select samples of pyritic fracture filling on the Ana Claims in the above mentioned area and subsequently assayed them for gold. The original assay sheet for these samples is included in Appendix A.

Figure 4 - Table of Select Samples Ana Claims 1985

Ana Claims 1985	
Sample #	**Au ppb**
42459	8950
42460	6380
42461	160

Property Geology

The following geology was taken from Mr. P.M. McAndless' November 6, 1973 report (ARIS Report # 4,916).

Noranda Exploration Company Ltd.

> "The Mamquam property is underlain by Coast Plutonic rocks including a quartz diorite - diorite complex, enclosed "pendants" and dyke swarms. The quartz diorite - diorite (13-10-6) complex is typically heterogeneous with no uniformity in grain size nor in ratio of feldspathic to dark minerals. Several discontinuous andacite porphyry (4-10-1) and granite aplite (11-10-1) "dykes" occur in isolated swarms in the Plutonic rocks. (J.A. Roddick G.S.C. Memoir 335 – suggests that some of these dikes are possibly pre-batholithic). A few substantial areas of non - granitic rocks including andesite, granulite, and migmatite occur on the south side of the Mamquam River. These possibly represent partially disintegrated pendants. Structural features including dikes, faults and fractures strike in two principal directions. Dyke swarms generally trend north while faults and dominant fractures strike north-east to east. Mineralized fractures range from 050 to 090 and dip moderately to the south.
>
> Alteration is widespread and occurs in a zoned pattern. A large propylitic zone extending across the northern section of the property is overprinted by a 3500 by 1000 foot (1067 m by 325 m) core of intense potassic - silica alteration that occurs adjacent to and north of Martin Creek. Propylitic alteration varies from minor mafic chloritization to wholesale saussuritization and albitization. Chlorite - sericite gouge zones are restricted to fault areas. Quartz and orthoclase occur primarily as fracture - filling constituents.

Mineralization occurs predominantly on fractures and includes pyrite, chalcopyrite, molybdenite, bornite and malachite. Pyrite is ubiquitous although particularly evident in areas of intense propylitic alteration. Copper / molybdenum mineralization is coincident with the quartz - orthoclase alteration zone. Mineralization can be traced for over 200 feet (60 m) in two places within the zone. Assayed sections vary from 0.6% Cu and 0.05% Mo. to trace amounts".

Glaciation

The lower elevations of the Copper claims, including the valley bottom of the Mamquam River, are filled with glacial till. During traverses of the property I observed that there is fairly good soil development lying overtop of this till at lower elevations.

The soil at the bottom of the steeper parts of the south slope covering the Copper claims has obviously been developed by the disintegration of the upslope lithology and has in all probability been responsible for the well developed copper and molybdenum soil anomalies. The soil above these anomalies is very thin to non existent and probably accounts for the lack of anomalous results in the upper parts of the geochemical survey grids.

During a traverse up the west side of Martin Creek, I noticed that as we left the bottom terrace above the main road the rounded boulders got larger and larger the further up the creek I went. Just below the bare rock slope in the upper reaches of the Martin Creek most of the boulders were very large (+10 m). These boulders are overgrown with moss everywhere and I realized that you could possibly break through the moss and fall for 10 m in the void that lies between these huge boulders. This is just one example of some of the dangers peculiar to conducting ground work the Squamish / Harrison Lake areas of British Columbia.

Purpose of Soil / Till and Stream Sediment HMC Program

This HMC program was carried out in an attempt to add gold value to the property for the following reasons;

1. The Ana Claims were staked on the ridge described between Skookum Creek and the Mamquam River described in the above mentioned report,(ARIS Report # 11,121). Three select samples of fracture fillings taken by myself and assayed for gold in the area of the old Ana claims in 1985 yielded gold values of (8950 ppb, 6380 ppb,160 ppb) as shown in Figure 4.

2. A number of narrow quartz veins filled with disseminated pyrite and traces of chalcopyrite are described by Mr. Timmins. "Magnetite, hematite, pyrite and rare chalcopyrite mineralization are widespread in this same area".

3. High copper and gold anomalies occur in a road soil geochem survey (ARIS Report # 11,679) conducted approximately 3 km to the southeast of Martin Creek on the previously existing Crow - 3 Claim.

2012 Program Details

The program was conducted in two phases.

- Phase 1 was conducted from May 9 to May 17, 2012 inclusive.
- Phase 2 was conducted from June 24 to 26, 2012 inclusive.

Quads were used to gain access and transport the samples. A crew of four men on two quads usually formed the sampling crew. A 20' construction trailer was used to transport the quads and the sampling gear to the property. Our 4 man camp was established just east of Martin Creek.

We had some concerns about theft, so our most valuable gear was securely locked in the trailer during the day while we were out sampling. Bear hunting was in season and we talked to several hunters. They all seemed to be very responsible and we did not experience any problems with our camp being tampered with. Bears, cougars, and deer were seen in the area during our stay.

The weather was absolutely perfect during our program but began to deteriorate on the last afternoon of our stay. My experience, working in this area, spans more than 40 years and I have learned that weather plays a significant part in how much work can be accomplished in a day.

Another program was also being conducted concurrently further up the Mamquam River. The program was headed up by Dr. Ken Mackenzie from Squamish, BC.

Our HMC Sampling Method

After becoming familiar with a property, we choose the roads and trails in areas to be tested that will give the best HMC results. Soil type and availability on different sections of roads and trails can be very important. Some properties are more suited than others for this type of sampling program. The ideal soil condition would be undisturbed residual soil, however, it should be kept in mind that soil cover forms the medium or carrier which could contain the traces of metals and or particles of gold being leached out of mineralized zones and spread into soils forming secondary dispersal plumes of gold radiating from a lode deposit. The soil conditions therefore can be less than ideal and the sampling program can still be successful.

Step 1a Taking the Soil / Till HMC Sample

To produce a sample, soil is gathered along roads or skid trails by taking a shovel full of the most promising looking soil every 5 to 10 m or so and placing it into a 30x30x50 cm (38 litres) plastic tote bin. The shovels full are generally taken as close to bedrock as possible and usually from the high side of the road. Some of the till covered areas on the Copper claims have a small amount of residual soil from upslope that has been draped on top of the underlying till (I'm assuming through downhill gravity migration). This residual soil is what makes up the bulk of our sample whenever possible.

When the tote bin is full, (usually after a traverse of 300 m or so depending on soil conditions) both the beginning and the end of a traverse sample interval is marked on the ground with numbered flagging tape and recorded on a tablet with GPS capabilities. To identify the sample bins a piece of flagging is marked with the sample number and dropped into the bottom of the bin before any sample is deposited. When the bin is full another piece of numbered flagging is buried in the top of the sample and as a further precaution the sample number is also written on the outside of the bin with a permanent type felt pen.

Sometimes a full bin of sample, (35 kg) is taken all from one location (at a gossan zone or shear zone for example). This sample type we refer to as a **Spot Sample**. A sample taken along a section of road or trail is simply called a **Traverse Sample**.

Step 1b Taking the Stream Sediment Sample

The Stream sediment sample usually weighs about 10 kg and is taken from the active or recently active part of the stream. The sample is screened to 20 mesh and placed into large doubled heavy duty plastic sample bags and properly packed for careful transport. Care must be taken as there are quite a few ways of damaging the sample after it has been taken. The sample is either returned directly to our HMC processing facility or is sluiced and panned into a "pan con" in the field for lightweight transport. Processing for stream sediment samples follows basically the same flow chart as the Soil / Till HMC samples with few if any variations.

Step 2 Processing the the HMC Sample

A tote bin of **Bulk Sample** usually begins processing with a brief description of the soil forming the sample. The **Sample** is then vibrated through a 12.5 mm (1/2 inch) screen to remove any of the larger stones. This **Plus 12.5 mm** fraction of rocks is discarded after a quick examination for anything of interest (i.e.: mineralization, vein material, alteration etc.). Any rocks of interest are put in a sample bag, labeled with the sample number and set aside for closer examination later. A representative **Soil Sample** is sometimes taken and placed into a wet strength Kraft paper bag, and labeled with the sample number, cataloged and put into storage for further examination or analysis if desired.

The **Minus 12.5 mm** fraction is then weighed and the weight recorded. At this stage the screened sample (**Minus 12.5 mm fraction**) usually weighs about 35 to 40 kg on average. After each sample is screened the screen is removed and pressure washed completely clean to avoid cross contamination between samples.

Step 3 Concentrating

The samples are then transported to the nearest small creek or other water source and put very slowly through a small sluice box. Re-circulation of the water is not possible as cross contamination between samples must not be allowed. The sluice box is 21 cm wide x 10 cm deep and 125 cm long (8" wide x 4" deep x 48" long) and is of wood construction lined with aluminum so that it can be completely cleaned out to eliminate any possibility of cross contamination between samples. The sluice box has been fitted with special rubber matting full of small pockets which are very effective at catching small gold particles. At the head or feed section of the sluice box there is a hopper fitted with a 6.3 mm (1/4 inch) stainless steel screen.

The ideal slope of the sluice box is about 10 to 12 degrees and the volume of water should be about 25 Liters per Minute (LPM). Here again consistency must be maintained between all samples to avoid varied results. The sample is slowly fed through the hopper using the water flow and a small garden shovel to create the slurry. Sluicing the sample has to be done very slowly and consistently for each sample. It usually takes a good hour to concentrate a sample. After the sample has been sluiced the plastic bin that held the sample is carefully rinsed into the sluice box in case any particles have worked their way to the bottom of the bin during transport.

The slow and careful completion of this and all steps in the concentrating process is crucial. We must ensure that any very small particles of micron gold are not washed away. If for example, there are only three small particles of "low transport gold" in an entire sample program one always has to be certain not to lose them by accident or sloppiness after they have been gathered in the field.

As the sample is being worked slowly through the screened hopper on the sluice box a careful watch is kept for vein material, mineralization, alteration etc.in the plus fraction. The **Plus 6.3 mm** fraction from the hopper is placed in a new plastic food container with a soft aluminum tag denoting the sample number and is further marked **Sluice Reject**. The lid is then placed on and duct taped in place to avoid accidental spillage. The lid and side of the container is then further marked with the sample number and "**Sluice Reject**". A small **Sluice Reject** sub sample is set aside for megascopy or description at a later date.

After all of the **Minus 12.5 mm** fraction has been put through the sluice box, the sluice concentrate is then rinsed thoroughly and completely out of the box and into a clean container. Pressurized water is used to clean out the sluice box and rubber matting as it must be absolutely clean for the next sample. At this point, the sluice concentrate enters the panning phase and is washed through an 850 micron sieve (No. 20 ASTM). The **Plus 850 Micron** fraction is examined, labeled and set aside as **Pan Reject**.

All fractions are weighed from here on and (weights are accurately determined with a Fischer Scientific torsion balance) then recorded.

The remaining **Minus 850 Micron** fraction is then panned down to roughly 100 to 200 grams. The size of the pan con sample depends on how much heavy fraction is layered in the pan. A course sample fraction of (850 Micron) was chosen as we are looking for short transport gold such as that derived from disintegrated vein material.

This initial panning usually takes 1 to 1.5 hours to complete as it must be done very carefully. The panning is done in a spotlessly clean plastic tote bin using clean water between each sample. A couple of drops of detergent are put in the bin before the water is added as a surfactant.

The pan reject is thoroughly rinsed from the bin and added to the **Pan Reject container**. The **Pan Con** is placed into a clean plastic container labeled as "**Pan Con**" and labeled with the sample number. A careful watch is kept for particles of gold while this initial panning is taking place but closer inspection comes later.

Step 4 Pan Con Fractioning

This initial **Pan Con** sample is then examined wet under a microscope before being dried and weighed. After drying and weighing, the next step is to remove the magnetic fraction carefully using a sheathed magnet. The **Pan Con Magnetic** fraction is then weighed, labeled and set aside. The remainder of the **Pan Con** is then passed through a 300 micron (Tyler 50 mesh) sieve. The plus fraction is labeled weighed and set aside for microscopy as the **Plus 300 Micron** fraction.

The remaining **Minus 300 Micron** fraction is then re **-** panned by an experienced and patient panner down to about 20 to 35 grams (It can take up to and sometimes more than an hour to do this careful panning). The panning is done in a thoroughly clean plastic tote bin using fresh clean water. During the re **-** panning the **Re Pan Reject** is thoroughly rinsed from the bin and then both **Re Pan Reject** and the **Re Pan Con** are thoroughly dried, and set aside. At this time a 0.5 gram sample is often removed from the **Re Pan Con** labeled and placed in inventory for further reference or examination if needed.

The **Re Pan Con** fraction is visually inspected for gold particles during the panning and then dried. One to one and a half hours are spent looking for particles of gold under a Bausch & Lomb microscope. When gold particles are found they are photographed if possible.

Step 5 Analysis

Having reached this point you usually have nine fractions at the forefront namely:

- Soil Sample (representative 200 to 300 grams)
- Sluice Reject
- Sluice Reject Sub Sample that was sent for megascopic analysis or description and returned to inventory
- Pan Reject
- Pan Con Magnetic Fraction
- Plus 300 Micron Fraction (Pan Con Non - magnetic Fraction)
- Re Pan Reject Fraction
- Re Pan Con Fraction
- O.5 grams of Re Pan Con in inventory

All the fractions are now photographed and decisions are made as to what analytical methods, if any, to proceed with. Considering the fact that we are only looking for small but visible particles of low transport gold, if no visible angular gold is present we ordinarily do not waste money on assaying.

Field Observations

One of the great things about our HMC process is that a pretty good evaluation of the sample takes place on the spot, (sometimes in the field) after the first panning (i.e. visible gold or no visible gold). With the aid of a microscope the colors that you find can usually be examined closely to determine whether they are low transport gold (pristine particles) or rounded off and hammered placer products. Survey grids and sample sites can be immediately adjusted in the field according to these results as they become available.

If for example, 15 sample intervals have no visible gold in them but the 16th one obviously has low transport gold then efforts can be concentrated uphill or up ice depending on soil type (i.e. residual or glacial till). Typically, more sampling followed by trenching takes place. If a Geochemical survey is chosen, then the grid and sample locations can at least be more wisely placed in the field.

Analytical Procedures

No assaying was done on either the soil / till or stream sediment HMC samples as it would likely have not added any useful information.

In the case of the 63 Hard Rock grab samples Willard D. Thompson P.Eng., P.Geo., was contracted to conduct a detailed megascopic examination and description in order to further understand the lithology and mineralizing events. Assaying was not done on these samples as preliminary grades had been adequately indicated by the previous programs.

Figure 5 - Table of Grab Sample Results AR # 7,386

ARIS Report # 7,386 dated August 15, 1979. **Amark Explorations Ltd.**

Grab	Cu %	Mo %
A	0.23	0.14
B	0.27	>0.01
C	0.41	>0.01
D	0.4	0.01
E	0.78	0.11
F	0.28	0.03
G	0.05	0.32
H	0.03	>.01

Figure 6 - Table of Drill Hole B Results AR # 8,749

ARIS Report # 8,749 dated November 20, 1980. **Amark Explorations Ltd.**

D.D.H-B	Cu %	Mo %
B-4	0.13	0.01
B-5	0.06	0.01
B-6	0.19	0.01
B-7	0.46	0.01
B-8	0.08	0.01
B-9	0.02	0.01
B-10	0.09	0.01
B-11	0.13	0.01
B-12	0.04	0.01
B-13	0.13	0.03
B-14	0.16	0.02
B-15	0.43	0.01

Figure 7 - Table of Drill Hole C Results AR # 8,749

ARIS Report # 8,749 dated November 20, 1980. **Amark Explorations Ltd.**

D.D.H.-C	Cu %	Mo %
C-1	0.09	0.01
C-2	0.06	0.01
C-3	0.08	0.01
C-4	0.07	0.01
C-5	0.02	0.01
C-6	0.04	0.01
C-7	0.04	0.01
C-8	0.12	0.01

Hard Rock Megascopy

Mr. Tompson, P.Eng., P.Geo., completed the megascopic examination of all of the Hard Rock samples in an effort to confirm / further the understanding of the mineralogy and to add important information about both the composition of the hard rock samples and their genesis.

Prior to any further exploration programs this megascopic information and Mr.Tompson's exploration concepts should be carefully considered.

The entire original document Report of Megascopic Examination of Rocks from the Mamquam Area, British Columbia by Mr. Willard D. Tompson P. Eng. P.Geo has been scanned and is included along with his letter in **Appendix E & F**.

Previous HMC Case Histories

Of relevant interest are two HMC case history signatures of mesothermal / epithermal gold occurrences in the Vernon camp from our previous studies.

Kalamalka Mine Site

ARIS Report # 21,454 dated April 20 1991

The author conducted a test to see if a geochemical signature exists using Soil / Till HMC on the Kalamalka gold deposit east of Vernon BC. Traverse HMC samples were taken immediately down slope from the main occurrence and yielded high gold values. It is important to note that these traverse samples from the Kalamalka were about 75 kg or twice the size of the ones from the Brett and the Copper claims.

Figure 8 - Table of Results Kalamalka Soil HMC 1991

Sample #	Au ppm
1	90 ppm
2	1000 ppm (included some soil from right below the dump likely contaminated by mine muck)
7	32 ppm
8	23 ppm

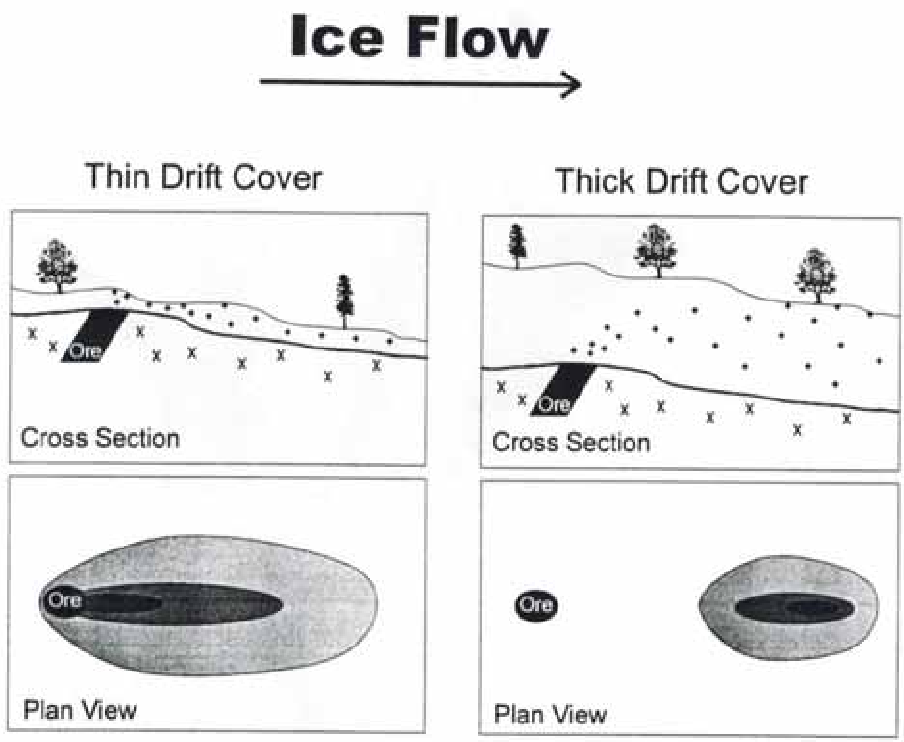
Brett Main Shear Zone

The author conducted a case history test immediately down slope from the main shear zone of the Brett deposit which produced definite signatures. The results are listed below. These traverse samples weighed about 35 kg or half the weight of the ones from the Kalamalka.

Figure 9 - Table of Results Brett Main Shear Zone 2012

Sample #	Type of Sample	Findings
1124	traverse	Some very fine particles of gold were seen in the Re Pan Con. This sample was taken immediately above the main shear zone and assayed 11.15 ppm in a random 30 gram fire assay with a gravimetric finish.
1125	traverse	This sample covered a distance of about 75 m and was taken 50 m downslope from the main shear zone of the Brett deposit. Visible particles of gold could be seen in the Re Pan Con. Total metallic analysis was chosen for this sample which yielded 10.05 ppm in the total metallic plus fraction.
1126	traverse	Taken along the east side (not downslope) of open cut and assayed 4.28 ppm in a random 30 gram fire assay with a gravimetric finish.

Figure 10 – Target Model Diagram



By: R.E. Lett, W. Jackman and A. Yeow
From: Detailed Geochemical Exploration Techniques for Base and Precious Metals in the Kootenay Terrane
Geological Fieldwork 1998, Page 305 Paper 1999 - 1

"The average gold content of most soils is low, but the element is enriched in certain types of soils and in a variety of glacial and weathered products in the vicinity of gold – bearing rocks or auriferous deposits" (Boyle, 1979).

Discussion of Results

Several of the samples examined by Will Tompson BSc., P.Eng., were found to contain chalcopyrite, malachite, possibly bornite and several products of alteration. Mr. Tompson's megascopic examination of the hard rock grab samples and exploration concepts should increase understanding of the nature of the mineralizing events that have taken place.

The HMC program was somewhat of a success as at least one particle of angular low transport gold was positively identified and photographed in HMC18. HMC18 was taken a short distance downslope from the old Ana claims where assays have confirmed the presence of gold in fracture fillings of pyrite and chalcopyrite.

A small particle of gold was also found in HMC14 but could not be retrieved. HMC14 was taken immediately downslope from the gold bearing fracture fillings on the Ana Claims.

Although, several particles of very fine gold were thought to have been seen in some of the other samples, they were so small that they could not be retrieved and photographed. If the particles are so small that they cannot be positively identified and photographed, we have to discount them somewhat.

When compared to other areas we have worked in, the Mamquam property has a distinct scarcity of gold particles in the soils and streams. Having said that, the particle of gold in HMC14 should not be disregarded completely as HMC14 was taken immediately below the gold bearing fissures on the old Ana claims.

Consideration should also be given to the fact that, generally speaking the gold found in copper / molybdenum deposits is often low grade in nature. The very angular particle of low transport gold from HMC18, and the one from HMC14 may be particularly meaningful as no other suspected particles of gold were positively identified or recovered from any of the other soil / till or stream sediment samples on the rest of the property.

Chalcopyrite and possibly some bornite were observed in several of the HMC samples as well as many of the stream sediment samples. See Appendix C for the observations of the Microscopy of **Plus 300 Micron** fraction, and Microscopy of the **Re Pan Con** fraction.

Conclusions

Sample HMC18 and possibly HMC14 could be an indication of a gold occurrence upslope from these sample locations. The low transport gold found in HMC18 and possibly HMC14 may have been the product of weathering of the fracture fillings on the Ana claims.

Mr. Tompson BSc., P.Eng., has found copper and hydrothermal alteration in many of our hard rock grab samples. What I believe to be chalcopyrite and possibly bornite were observed in several stream sediment HMC's.

Useful programs have been conducted in the past by some very competent geoscientists all yielding positive results. Of the seven reports written by geoscientists on the property all recommend diamond drilling or additional diamond drilling and one has recommended bulk sampling take place concurrent with the next phase of follow up diamond drilling.

In my opinion this copper / molybdenum property has the benefit of many thousands of dollars worth of positive results gleaned from previously conducted exploration programs - but has never been properly evaluated by diamond drilling.

It has been my experience, conducting HMC programs in other areas of the province, that many of the gold soil sampling programs conducted over the years have quite possibly yielded misleading results because of the widespread placement of placer gold particles in the soil and or till by glaciation.

Geochemical sampling for gold has never been conducted in the vicinity of the Copper claims to my knowledge, other than the very small road soil sampling program on the Crow claims. The Crow Claims were adjacent immediately east and southeast of the Copper Claim group (Aris Report # 11,679).

The relative scarcity of placer gold particles in our Soil / Till and Stream Sediment HMC program points to a lack of placer gold in the soil and till covering the Copper claims. This would seemingly help to eliminate many of the inherent interpretation problems of gold geochemical anomalies in glaciated environments. Therefore, I feel that a conventional soil geochemical survey for gold in carefully selected areas on the Copper claims could yield some informative and reliable results.

The airborne geophysical survey conducted over the property in 1982 has revealed "a strong and possibly highly fractured lineament trending northeast from the main zone of mineralization on Martin creek. The relatively dense concentration of linear Anapolis VLF EM anomalies - occur in an area of high magnetic contrasts which may be structurally more complex than other areas to the north and south (Timmins ARIS Report # 10,761)".

Recommendations

I would recommend the following:

- Both the Martin Creek and the Skookum Ridge areas should be further explored.
- More HMC sampling should be completed in the area of the old Ana Claims in an attempt to develop a secondary dispersal plume below or in the general area of the known gold occurrence.
- Prospecting and sampling of the higher elevations above the showings on both the east and west sides of the lineament revealed by the airborne survey above Martin creek could reveal some positive results.
- A gold, copper, molybdenum, silver, lead, zinc soil geochemical survey should be conducted over area I on the Base Map of Previous Programs (PDF Map 6) to further delineate and expand the previously established anomalies.
- A reconnaissance rock geochemical survey should be carried out in favorable areas established by geological mapping in areas that do not have soil cover above the known mineralization.
- A conventional soil sampling survey for gold on selected areas of the Copper claims could yield reliable results because of the relative scarcity of placer gold particles in the soil/till on the Copper claims.
- The higher elevations above the Martin creek area have never been prospected to my knowledge and need to be investigated for further possible copper / molybdenum mineralization. A traverse could possibly be made from the end of the highest old logging road to the little lake in the cirque at the headwaters of Martin creek.

After reviewing the results of previous programs on the Copper claims a Professional Geological Engineer should be able to recommend a program to further explore this property.

General Discussion

I first began using Soil / Till HMC about 1981. This process provided a way to explore gold properties when there were little or no funds to pay for assaying. Originally we used to run about 75 kgs of soil sample through a sluice box. Over time we concluded that 75 kg of sample was just too heavy to handle and we gradually (but reluctantly) reduced the size of our sample down to about 35 kgs (the size of our samples today).

Samples sometimes have to be carried a long way out on foot and consequently these samples range from 5 to 10 kgs. They are generally called a "**post - hole**" sample. Post - holing is an Australian method whereby the sampler digs a hole with a shovel about 0.5 to 1 m deep (depending on conditions) and then takes all of the sample from the very bottom of the hole. We usually refer to these samples as Spot HMC's and we try to get a10 kg sample

After sluicing a sample, the sluice con was then carefully panned and visually inspected. If we thought we could see minute gold particles and could afford to assay the sample we would. With some samples it became obvious that there was absolutely no gold in the sample and with other samples you could say for sure you were seeing gold particles. Originally, we didn't realize the importance of determining whether the particles were low transport or placer.

In short, every time we conduct a HMC program changes are being made. We try to reduce the enormous amount of labour involved, speed things up, and continue to derive meaningful data, while trying to keep the process cost effective. Certainly, more improvements can and will be made as we continue to conduct HMC programs. I know that there is more information that we can glean from this process as we spend more time and energy on each fraction.

In the area of the Brett deposit on Whiteman Creek we have established that our **Plus 300 Micron** fraction shows up as a very distinct "Buff" colour. This has also proven to be true throughout the sample area whenever we were near alteration zones. From this I believe we are able to surmise that we can detect some alteration zones even when they are completely masked by overburden. I know of no other tool in use at present that can do this. In all environments locating alteration zones is very useful, especially if the alteration zone proves to be gold bearing.

There are many people who specialize in the science of gold particles, glaciation, heavy minerals, etc. Their understanding of certain aspects of this methodology far surpasses my ability to do so. I welcome any comments, questions or concerns that the reader may have about our HMC process. Any further discussion can only help us to continue to improve our methodology.

This HMC process may change the previous idea that soil samples are just gathered and sent to the lab. By processing the soil sample, and separating out the fractions before assaying a whole new level of information is being revealed. I believe the whole story may be hidden in the soil once we have learnt how to read it.

My official duty on this and past programs is that of a data gatherer. The samples in this program were gathered and carefully processed to the very best of my ability. My conclusions and recommendations come from the experiences gained from each of the many HMC projects completed to date.

Statement of Qualifications

I Eugene Allan Dodd of Enderby, British Columbia do hereby certify that:

1. I am an experienced prospector having commenced prospecting professionally full - time in the North West Territories on February 15 1968.
2. I am both President and Chief Exploration Manager for Billiken Gold Ltd. A position I have held for the past 2 years.
3. I am both President and Chief Exploration Manager for Trans Arctic Explorations Ltd. A position I have held for more than 45 years.
4. I was Chief Instrument Operator and then President of Columbia Airborne Geophysical Services Ltd. for 7 years. Specializing in detailed low level combined airborne geophysical surveys in rugged terrain.
5. I have successfully completed at UBC, a course titled: Geophysics in Mineral Exploration. The course included detailed technical aspects of most types of geophysical surveys including some practical interpretation.
6. I have operated and understand the principles of conducting a wide variety of ground and airborne geophysical surveys. I have experience as both an instrument operator and helper on I.P. and S.P. surveys.
7. I have gained my experience by conducting numerous exploration programs for a wide variety of mining companies, oil and gas companies and consulting geologists and geophysicists.
8. I have supervised projects in the North West Territories, British Columbia, Ontario, Quebec, Labrador, Yukon, Washington, Oregon, Alaska, California, Idaho, Nevada, and Montana.
9. For 10 years I owned and operated a contract drilling division in Matheson Ontario. We operated two medium depth unitized drill rigs for a variety of mining companies.
10. As well as my practical experience I am constantly reading and researching the technical aspects of exploration (geological, geophysical, and geochemical).
11. I am the Author of this report, which is based on my personal observations made while in the field, and from knowledge gained from the works cited in my bibliography.

Dated at Enderby BC.
This 5th day of January 2013

Respectfully submitted
Eugene A. Dodd
President - Billiken Gold Ltd.

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Appendix A

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

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CERTIFICATE OF ANALYSIS

TO : TRANS ARCTIC EXPLORATIONS LTD.
ATTN: RICHARD SIMPSON
815 - 850 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 1E2

** CERT. # : A8518276-00
INVOICE # : I8518276
DATE : 15-NOV-85
P.O. # : NONE
GENE

Sample description	Prep code	Au ppb FA+AA					
ANA 42459 E MAMQ.	205	8950 : :38	--	--	--	--	--
ANA 42460 E MAMQ.	205	6380	--	--	--	--	--
ANA 42461 - E	205	160	--	--	--	--	--
ALDRE-1 70596 E YAHN SHR.	205	25	--	--	--	--	--
ALDRE-1 70597 E - " "	205	5	--	--	--	--	--
" - 70598 E - "	205	5	--	--	--	--	--
" 70599 E SHR NORTH OF FALLS	205	350	--	--	--	--	--
" 70600 E MASS. PYRRH. N. OF FALLS.	205	50	--	--	--	--	--
ANA 42458 SOIL							

V01 rev.

Certified by .... Hart Bichler

Appendix B

Table of Soil / Till UTM's

Sample Number	Start		Finish	
	Easting	**Northing**	**Easting**	**Northing**
HMC01	502642.2	5507362.9	502378.1	5507447.8
HMC02	502378.1	5507447.8	502209.1	5507462.7
HMC03	503982.3	5507315.2	503720.8	5507400.3
HMC04	503720.8	5507400.3	503464.4	5507618.2
HMC05	503464.4	5507618.2	503211.1	5507543.3
HMC06	503211.1	5507543.3	502863.9	5507609.6
HMC07	502863.9	5507609.6	502554.4	5507661.6
HMC08	505393.1	5505624.5	505515.9	5505344.6
HMC09	505398.8	5505673.7	505138.6	5505971.5
HMC10	505138.6	5505971.5	504827.0	5506283.8
HMC11	504827.0	5506283.8	504501.4	5506374.5
HMC12	NO SAMPLE			
HMC13	503686.2	5508516.8	503768.9	5508172.8
HMC14	503768.9	5508172.8	503272.5	5508150.7
HMC15	503949.5	5508116.6	503787.8	5508169.1
HMC16	503466.5	5508635.4	503678.9	5508197.3
HMC17	503156.6	5508274.3	503296.7	5508155.2
HMC18	503296.7	5508155.2	502793.5	5508212.4
SPOT HMC01	503986.0	5507316.0		

Table of Stream Sediment UTM's

Sample Number	Easting	Northing
STR01	506237	5503813
STR02	505503	5504938
STR03	505419	5505660
STR04	505148	5505995
STR05	505067	5506049
STR06	505054	5506119
STR07	504898	5506184
STR08	504807	5506268
STR09	504827	5506284
STR10	504037	5506746
STR11	503847	5506860
STR12	503756	5507037
STR13	503292	5507176
STR14	503234	5507272
STR15	502209	5507463
STR16	503975	5507279

Table of Hard Rock UTM's

Sample Number	Easting	Northing	Sample Number	Easting	Northing
HR01	505706	5506258	HR31	505532	5506395
HR02	505716	5505965	HR32	505436	5506516
HR03	505911	5506027	HR33	505301	5506598
HR04	505924	5506111	HR34	505240	5506615
HR05	505805	5506172	HR35	505163	5506647
HR06	505762	5506179	HR36	505118	5506665
HR07	503971	5507288	HR37	505086	5506671
HR07A	503971	5507288	HR38	504977	5506712
HR08	504065	5507167	HR39	504914	5506743
HR09	505223	5506216	HR40	504814	5506774
HR10	504987	5506411	HR41	504697	5506797
HR11	505074	5506358	HR42	504594	5506841
HR12	504598	5506720	HR43	504537	5506880
HR13	504570	5506743	HR44	504452	5506905
HR14	504542	5506780	HR45	504350	5506955
HR15	504449	5506841	HR46	503572	5508282
HR16	504402	5506883	HR47	503455	5508383
HR17	503995	5507283	HR48	503444	5508702
HR18	503732	5507398	HR49	503798	5508624
HR19	503433	5507523	HR50	503739	5508694
HR20	503269	5507512	HR51	503686	5508517
HR21	502999	5507582	HR52	503686	5508349
HR22	502974	5507593	HR53	503682	5508518
HR23	502876	5507598	HR54	503294	5508161
HR24	502312	5507713	HR55	503588	5508179
HR25	502288	5507738	HR56	503438	5508160
HR26	502227	5507753	HR57	503414	5508152
HR27	505690	5506254	HR58	503308	5508173
HR28	505634	5506298	HR59	503192	5508229
HR29	505601	5506330	HR60	502854	5508210
HR30	505561	5506366	HR60A	502854	5508210
			HR61	502793	5508212

Appendix C

Table of Soil / Till - Megascopic and Microscopic Observations

Sample Number	Megascopic observation of the "Plus 12,500 Micron - Sluice Reject" fraction	Microscopic observation of the "Plus 300 Micron" fraction	Megascopic observation of the "Re Pan Con" while panning	Microscopic observation of the "Re Pan Con" fraction
HMC01	100% angular, quartz diorite and andesite	no visible gold	no visible gold	no visible gold, mostly insolubles some specularite
HMC02	100% angular, classic feldspar porphyry, quartz diorite, decomposed diorite, andesite and epidote	no visible gold	no visible gold	no visible gold
HMC03	100% angular, epidote, mostly decomposed rusty quartz diorite, basalt	no visible gold	1 distinct but very fine particle of gold	no visible gold
HMC04	100% angular, mostly decomposed basalt (iron rich)	no visible gold	no visible gold	no visible gold
HMC05	100% angular, all rusty looking andesite, quartz diorite	no visible gold	no visible gold	no visible gold
HMC06	100% angular, quartz diorite, 1 piece of quartz, some basalt	no visible gold	no visible gold	no visible gold, lots of chalcopyrite
HMC07	100% angular, quartz diorite, rusty basalt	no visible gold - lots of pyrite or chalcopyrite	no visible gold, (bornite Chalcopyrite)	no visible gold, bornite
HMC08	98% angular, quartz diorite, consolidated clay lumps, decomposed basalt	no visible gold	2 very small flecks of very fine gold	no visible gold, bornite and chalcopyrite
HMC09	90% angular, quartz diorite, classic feldspar porphyry, quartz vein, andesite	no visible gold	no visible gold	no visible gold
HMC10	100% angular, andesite, epidote, rusty decomposed granite	no visible gold	no visible gold	no visible gold
HMC11	98% angular, quartz vein in andesite, andesite, quartz diorite and epidote	no visible gold	possibly some very tiny particles of gold	no visible gold, 1 piece of chalcopyrite
HMC12	NO SAMPLE			
HMC13	100% angular, quartz diorite, rusty epidote, decomposed basalt	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
HMC14	100% angular, rusty quartz diorite, mostly decomposed basalt	no visible gold	1 very small particle of gold (could not retrieve it)	no visible gold, (possibly one fleck)
HMC15	100% angular, rusty quartz diorite, mostly decomposed rusty basalt	no visible gold	no visible gold	no visible gold, bornite
HMC16	98% angular, fine grained andesite, diorite with epidote in fracture filling, all are rusty except andesite	no visible gold	no visible gold	no visible gold, one piece bornite and large piece chalcopyrite
HMC17	100% angular, mostly rusty decomposed basalt, some quartz diorite with epidote veins	no visible gold	no visible gold	no visible gold, some chalcopyrite
HMC18	98% angular, all rusty looking, some quartz diorite, some epidote	no visible gold	no visible gold	one small particle of visible gold, bornite and chalcopyrite
SPOT HMC01	100% angular, altered granite, epidote, sample is overall greenish looking	no visible gold, lots of small grey metallics (pyrite)	no visible gold	no visible gold, some chalcopyrite

Table of Stream Sediment - Megascopic and Microscopic Observations

Sample Number	Megascopic observation of the "Plus 12,500 Micron - Sluice Reject" fraction	Microscopic observation of the "Plus 300 Micron" fraction	Megascopic observation of the "Re Pan Con" while panning	Microscopic observation of the "Re Pan Con" fraction
STR01	60% rounded 40% angular, mostly granitic type rocks, some epidote, one feldspar porphyry, one piece quartz vein	no visible gold	possibly one small piece gold	no visible gold
STR02	90% angular, a few pieces quartz, some basalt, several feldspars	no visible gold	no visible gold	no visible gold
STR03	98% angular, mostly quartz diorite, some basalt, some epidot, some quartz biotite, some andesite	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
STR04	95% angular, mostly quartz diorite, some fragments of basalt, some gabr, some feldspars, one cherty piece of sediment (distinct layering)	no visible gold	no visible gold	no visible gold, small bornite and small chalcopyrite
STR05	98% angular, granite, andesite, feldspars, some epidote, some basalt	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
STR06	95% angular, some feldspars, diorite, epidote, quartz, gabro, feldspar porphyry, quartz vein with epidote, with 3 pieces of quartz	possibly four to five particles visible gold	2 specks of visible gold	no visible gold, bornite and chalcopyrite
STR07	98% angular, epidote veins, feldspars, samply is rusty looking, 6 pieces of quartz	no visible gold	no visible gold	no visible gold, bornite
STR08	98% angular, lots of diorite and quartz diorite, rusty quartz diorite, some feldspars, some epidote	no visible gold	no visible gold	no visible gold, bornite
STR09	95% angular, epidote veins, classic feldspar in a fine grained intrusive, some feldspar pophyry, 3 pieces of quartz, lots of quartz diorite some limonite and 1 piece amygdaloidal basalt	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
STR10	95% angular, quartz diorite, gabro, epidote, heavily pyritized epidote, biotite, 1 piece of rusty quartz, some andesite	no visible gold	2 very small very thin flakes visible gold, barely discernible	no visible gold, bornite
STR11	95% angular, rusty looking epidote, generally darker looking rocks, more andesite, diorite with epidote veins, feldspar porphyry	no visible gold	1 very small speck visible gold	no visible gold, bornite and chalcopyrite
STR12	98% angular, mostly granite (some rusty), 3 pieces of quartz vein, feldspar porphyry, feldspars, some andesites, pyritized granite, epidote vein material	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
STR13	98% angular, lots of diorite, some classic feldspars, epidote veining, some feldspar porphyrys, some andesite, rusty looking diorites	no visible gold	no visible gold	no visible gold, bornite and chalcopyrite
STR14	95% angular, lots of basalt, lots of diorite, felodspar porphyrys, epidote veining, limonitic diorite, limonite vein, rusty granite	no visible gold	1 minute speck visible gold	no visible gold
STR15	95% angular, granodiorite, basalt, epidote, andesite, 3 pieces of quartz, feldspar porphyry, generally rusty looking	no visible gold	possibly some very fine specks visible gold	no visible gold
STR16	98% angular, generally rocks are darker, lots of rusty granite, some epidote, no basalt	no visible gold	no visible gold	no visible gold, bornite and lots of chalcopyrite

Appendix D

Table of Weights Soil / Till

Sample Number	Torsion weight of container full of "Pan Con" fraction (grams)	Torsion weight of the container the fraction was in (grams)	Weight of "Pan Con" fraction calculated = "Pan Con" fraction weight) (grams)	Torsion weight of "Pan Con Magnetic" fraction (grams)	Torsion weight of "Plus 300 Micron" fraction (grams)	Torsion weight of "minus 300 micron" fraction (grams)	Torsion weight of "Re Pan Con" fraction (grams)	Torsion weigth of "Re Pan Reject" fraction (grams)
HMC01	96.86	19.82	77.04	13.90	12.25	52.00	19.76	30.90
HMC02	121.68	21.59	100.09	20.47	13.13	67.44	19.86	45.56
HMC03	90.29	19.80	70.49	19.22	10.95	41.38	18.31	23.02
HMC04	101.42	20.87	80.55	11.95	17.05	52.69	16.36	33.65
HMC05	102.69	19.70	82.99	9.34	16.94	58.08	15.67	40.08
HMC06	74.44	19.79	54.65	10.12	6.72	38.93	18.76	18.66
HMC07	76.96	21.54	55.42	12.40	7.75	36.27	18.48	17.49
HMC08	119.16	20.40	98.76	21.45	23.83	54.39	20.52	32.95
HMC09	98.72	21.52	77.20	30.53	4.71	42.96	15.72	28.47
HMC10	116.60	20.47	96.13	15.86	17.49	63.85	30.64	30.47
HMC11	73.64	19.78	53.86	10.43	4.45	40.03	21.28	18.47
HMC12	NO SAMPLE							
HMC13	118.33	20.69	97.64	11.31	24.80	62.96	11.02	49.44
HMC14	80.98	21.59	59.39	6.23	14.95	38.22	3.70	31.69
HMC15	101.00	19.72	81.28	2.30	24.98	54.96	6.75	11.86
HMC16	51.89	19.69	32.20	5.17	5.54	21.62	8.48	44.27
HMC17	58.99	19.33	39.66	3.09	7.78	28.82	9.12	18.44
HMC18	117.88	19.32	98.56	8.42	14.12	76.07	15.10	57.92
SPOT HMC01	63.10	19.70	43.40	0.47	9.98	33.96	18.76	14.54

Table of Weights Stream Sediment

Sample Number	Torsion weight of container full of "Pan Con" fraction (grams)	Torsion weight of the container the fraction was in (grams)	Weight of "Pan Con" fraction calculated = "Pan Con" fraction weight) (grams)	Torsion weight of "Pan Con Magnetic" fraction (grams)	Torsion weight of "Plus 300 Micron" fraction (grams)	Torsion weight of "minus 300 micron" fraction (grams)	Torsion weight of "Re Pan Con" fraction (grams)	Torsion weight of "Re Pan Reject" fraction (grams)
STR01	104.13	21.45	82.68	14.06	35.24	24.46	12.80	11.65
STR02	95.62	19.25	76.36	15.08	25.08	37.07	10.21	24.91
STR03	99.98	19.72	80.26	8.88	53.23	18.81	18.77	0.00
STR04	136.29	20.60	115.69	12.54	28.91	74.72	18.14	52.02
STR05	115.28	20.65	94.63	16.95	27.42	50.57	20.83	27.80
STR06	116.31	21.53	94.78	8.08	37.77	39.64	21.56	18.26
STR07	106.86	19.76	87.10	7.35	35.90	44.80	17.10	27.25
STR08	137.35	20.63	116.72	15.55	65.18	36.74	20.35	26.65
STR09	117.15	20.71	96.44	25.42	36.65	35.05	20.26	14.59
STR10	116.85	19.42	97.43	3.20	75.10	19.92	19.58	0.00
STR11	106.90	17.21	89.69	8.67	39.30	42.85	23.28	19.20
STR12	140.05	21.50	118.55	21.90	16.11	81.54	24.10	56.87
STR13	112.55	17.24	95.31	12.20	15.00	69.14	18.10	49.84
STR14	116.05	17.35	98.70	17.46	13.81	18.45	13.29	52.58
STR15	107.65	21.32	86.33	3.61	37.85	45.92	17.52	28.33
STR16	113.82	19.83	93.94	4.56	39.47	52.39	17.96	33.57

Appendix E

Willard D. Tompson, Ltd.
Consulting Geologist
#10-4210 Alexis Park Drive
Vernon, B.C. V1T 6H3
Ph. 250-549-7180 FAX 250-549-7180
e-mail: willtompson@shaw.ca

August 4, 2012

Mr. Gene Dodd
1561 Glenmary Road
Enderby, B.C. V0E 1V3

Dear Mr. Dodd;

I have read the Assessment Reports which you loaned me regarding the prospects in the Mamquam River area and I searched Geology Exploration and Mining in British Columbia for the appropriate years during which the property work was done at Mamquam River area. I found the Assessment Reports to be useful and informative. I could find no additional information in the GEM reports. However, I do not have the report for the year 1973.

I examined all of the rock specimens which you provided and prepared a report which provides the pertinent rock identification, alteration and mineralization information on the rocks. I made an exploration suggestion in one instance. All of the rocks were examined under a stereo microscope at magnification 100X. The size of the specimens which you provided was convenient for handling under the microscope and the samples were clean of mud and clay and this also facilitated handling. The 6-page report is included herewith.

Sincerely yours

W.D. Tompson

Willard D. Tompson, P.Geo

Appendix F

Megascopic Examination of Rocks
from the
Mamquam River Area, British Columbia

Specimen No.	Rock Descriptions
HR-1	Rock is gray, crystalline, very siliceous. Probably contains secondary quartz. Was probably originally diorite. There are tiny quartz veins thruout and original minerals are largely sericitized. Chalcopyrite occurs up to about one to two percent with pyrite. Some malachite occurs and small patches of limonite.
HR-2	Rock is whitish colored quartz-biotite granite. Is slightly magnetic.
HR-3	Rock is gray, fine grained to medium grained and very siliceous. Suspect that it is silicified andesite. Has a patch of limonite along one edge.
HR-4	Exterior of rock is limonite stained-looks rusty. Fresh break shows rock similar to HR-3, but contains disseminated pyrite thruout. No chalcopyrite. Rock was probably andesite with secondary pyrite and quartz.
HR-5	Rock is typical fresh granite. Prominent fresh K-spar with minor plagioclase. Quartz is abundant and probably nearly 50 percent of rock.
HR-6	Rock appears to be coarse grained granodiorite. Contains some secondary vein quartz and pyrite and chalcopyrite. Also disseminated splashes of pyrite and chalcopyrite. Malachite occurs sparsely thruout..
HR-7	Rock appears to be an altered, coarse grained rock- perhaps granite- and is slightly argillized and limonite stained and contains up to 5 percent pyrite.
HR-7A	Rock is probably a granodiorite with some vein quartz. A small vein is unidentified-it is not quartz and not carbonate.??
HR-8	This specimen appears to consist of half altered coarse grained diorite and half vein quartz. Plagioclase in the diorite is sausseritized in large crystalline masses, some of which display twinning striations.
HR-9	Two rock specimens. They are different. The first is coarse grained granite with a few mafic minerals, which are mostly biotite. Trace amounts of pyrite and chalcopyrite occur in this rock. The second rock is dark colored, fine grained andesite.
HR-10	This rock is whitish in color and is a biotite granodiorite. It is mostly fresh and unaltered, except that some of the biotites have become greenish-brown in color due to mild chloritization.

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Consulting Geologist

HR-11	Whitish, fresh, fine grained rhyolite. It is unaltered. Trace of disseminated pyrite and a film of sparse pyrite crystals in a veinlet. Some limonite staining on fracture surfaces. The fresh rock is white.
HR-12	There are four rock chips in this sample. All are white rhyolite (same as in Sample HR-11, above). All have minor secondary(?) quartz and two chips have tiny masses of biotite and a trace of pyrite.
HR-13	Two rock specimens. The larger specimen contains about 2/3 of the rock which is coarse grained granodiorite. The balance is bleached and argillized and is coarse grained granodiorite.
HR-14	Coarse grained granodiorite. The rock is fresh. Ferromags, biotite and hornblende only slightly chloritized.
HR-15	Coarse grained, fresh granodiorite. Quartz is sparse. Pyrite and chalcopyrite are scattered thruout, perhaps up to one percent of rock.
HR-16	The rock is grayish to whitish and fine grained. It is not fresh rhyolite. It is soft under the steel point. Perhaps it is altered rhyolite or maybe sericite. Some quartz is present. Maybe worth a thin section.
HR-17	Coarse grained granodiorite with fine grained pyrite along a surface which was a vein. Another surface covered with limonite replacing pyrite. Other surfaces have limonite.
HR-18	Coarse grained granodiorite. A fracture surface has fine grained scattered pyrite. Rock appears to be fresh and unaltered.
HR-19	Coarse grained granodiorite. May contain secondary scattered pink K-spar masses. Contains ±2 percent fine grained pyrite disseminated thruout. Mafic minerals are slightly chloritized.
HR-20	Coarse grained granodiorite. A fracture surface is mineralized with fine grained pyrite and lesser chalcopyrite. Also, pyrite is disseminated thruout the rock. Minor malachite occurs on fracture surfaces. Sulfide content is ± 2 percent. Mafic minerals are chloritized.
HR-21	Coarse grained granodiorite, contains minor very fine grained pyrite. Two fracture surfaces were veins and contain very fine grained pyrite and some limonite.

HR-22 Coarse grained granodiorite with fine grained pyrite disseminated thruout and vein-like fine grained pyrite on a fracture. Pyrite amounts to ±2 percent. Ferromags are chloritized.

HR-23 Coarse grained granodiorite with slight sericitic alteration. Fine grained pyrite is disseminated thruout with vein-like fine grained pyrite on two fracture faces. Pyrite volumes are ± one percent.

HR-24 Coarse grained granodiorite. K-spars look slightly sericitized and ferromags are chloritized. A patch of plagioclase is sausseritized. Fine grained pyrite occurs throughout the rock in amounts approximating one percent.

HR-25 Dark colored, fresh, unaltered, fine grained crystalline andesite.

HR-26 Coarse grained granodiorite. Strongly hydrothermally altered, , sericitized with secondary K-spar which is pink and vein-like. Pyrite volumes are > 5 percent.

HR-27 Dark colored, fine grained crystalline diorite which is mostly fresh and unaltered. May be a dike or contact phase of the diorite. Slight bleaching on one surface due to alteration.

HR-28 This is a strongly hydrothermally altered rock. It is gray in color, fine grained with traces of fine grained pyrite thruout and a trace of malachite on one surface. It contains a few phenocrysts of chloritized biotite and a few grains of chalcopyrite and some secondary, very pink K-spar. It will be interesting to see how many more of this type of rock occur in the 61 samples.

HR-29 Strongly altered rock, as in Specimen HR-28. It is fine grained, grayish in color and scratches readily under the steel point. It is probably largely sericite(?), a product of hydrothermal alteration. Fine grained pyrite in volumes of ± one percent occurs thruout. A fracture surface (vein) was fine grained pyrite, minor chalcopyrite and some malachite.

HR-30 Granodiorite, fresh and unaltered. A trace of pyrite on fracture surfaces and a trace of malachite staining on same surface. *Consider this exploration concept. The previous two samples, 28 and 29 were taken 50 meters apart and may have been taken on a hydrothermally altered structure which strikes northeasterly. I would want to know.*

HR-31 Granodiorite, fresh and unaltered. Scattered fine grained pyrite along a fracture surface with quartz.

HR-32 Granodiorite. Scattered f.g pyrite, <one percent. Trace malachite and some sausseritization in one locality.

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Consulting Geologist

HR-33	Quartz vein plus K-spar, but couldn't find cleavages(?). H=5. Looks like a hydrothermal product.
HR-34	Two rock samples in bag. They are slightly different, but they look like sericitized granodiorite. Minor fine grained pyrite occurs and a quartz vein occurs on one of the rock chips.
HR 35	Two rock specimens in bag. Both are white vein quartz; one is vuggy. Minor scattered pyrite and a small mass of specular hematite.
HR-36	Fresh gray granodiorite contains a few scattered grains of pyrite with slight surface alteration (oxidation) to limonite-goethite.
HR-37	Two rock specimens in bag. One is fresh granodiorite with questionable secondary K-spar. The second is fresh, unaltered andesite.
HR-38	Siliceous, altered rock; sericitized and silicified. It was probably originally granodiorite. It is strongly hydrothermally altered to sericitic facies.
HR-39	Rock appears to be an intermediate, fine grained intrusive dike. It is very fresh and unaltered and is probably a dacite porphyry.
HR-40	Rock is granodiorite and is slightly sericitized. Epidote replaces some plagioclase and the rock contains a trace of pyrite.
HR-41	This rock is intermediate and is fine to medium grained and may be a contact phase of the granodiorite or perhaps a dacite dike, something like HR-39, above.
HR-42	This rock appears to have been a granodiorite which has been largely sericitized. It would make an interesting and useful petrographic study.
HR-43	Rock appears to be a fine grained, dark colored, slightly greenish diorite or dacite. The mafic minerals are chloritized and plagioclase is epidotized. Tiny specks that look like bornite (but which probably are not) occur and are noted and circled.
HR-44	Coarse grained, fresh biotite granite. Abundant biotite phenocrysts are fresh and unaltered. Are they secondary, e.g., hydrothermal? Petrographic problem.
HR-45	Coarse grained, fresh granodiorite. Disseminated pyrite occurs thruout in volumes up to ± one percent. Many euhedral pyrite cubes are <1/2 mm.

HR-46	Coarse grained biotite granodiorite. Mostly fresh, except that ferromags are chloritized.
HR-47	Coarse grained, fresh granodiorite. Ferromags are also fresh and unaltered. A tiny green epidote vein traverses one corner of the rock and is < 1/2 mm.
HR-48	Coarse grained biotite granodiorite. Rock is fresh and unaltered and ferromags appear to be unaltered too. No pyrite.
HR-49	Coarse grained granodiorite. Fresh and unaltered. The biotites are slightly chloritized, but hornblendes are fresh and glossy. No pyrite.
HR-50	Coarse grained granodiorite. Silicates are fresh except for sericite with limonite on a fracture surface. No sulfides.
HR-51	Coarse grained, fresh biotite granodiorite. There are slight lineations , possibly due to flow movement during/subsequent to emplacement. No sulfides.
HR-52	Coarse grained biotite granodiorite. Rock id fresh and unaltered except for slight sericite on a fracture surface. No sulfides.
HR-53	Two rock chips, both marked, "3". The first is fresh, coarse grained granodiorite. It has a small patch of pyrite on a limonitic surface. The larger is granodiorite and contains enough pyrite to affect the specific gravity of the rock; probably ± 3 percent or more.
HR-54	Two rock chips. One is fresh granodiorite with a limonite-stained fracture surface that contains small masses of pyrite. The second is granodiorite, which appears to have been "sheared" and the mineral grains along that zone appear as if they were aligned along a plane. The rock has limonite stained surfaces which contain pyrite.
HR-55	Coarse grained, fresh granodiorite. No sulfides. Silicate minerals all appear to be fresh and unaltered.
HR-56	Two rock chips. Both are slightly rusty on their exterior surfaces. The first is coarse grained granodiorite. It is mostly fresh and unaltered except for slight limonite staining. It contains patches of pyrite containing many cubic crystals which are < 1/2 mm. The second chip is same as the first. No difference.

HR-57	Two rock chips. The first is granodiorite which is mostly fresh except for slight chloritization of the biotites. Minor v.f.g pyrite is scattered in a few spots. The second chip is same as the first, but has a trace of limonite on fractures.
HR-58	This is the largest of the rock specimens;± 1 1/2 cu. in. It is altered, sericitized granodiorite. Biotite is chloritized. Patches of pyrite occur on broken surfaces with limonite. Pyrolusite(?) stains one surface.
HR-59	Two rock chips. Rocks are similar. They are white fresh, unaltered rhyolite containing minor scattered fine grained pyrite. Minor limonite staining occurs on fracture surfaces.
HR-60	White fine grained rhyolite. Contains scattered pyrite and pyrite with limonite stain on an exterior surface.
HR-60A	Coarse grained granodiorite. The rock is fresh and ferromags are fresh and unaltered. There are no sulfides.
HR-61	Whitish to grayish, crystalline rhyolite porphyry or porphyritic rhyolite. Mineral grains are visible and identifiable, but are tiny, something on the order of < 1/2mm. Rock contains minor , scattered pyrite.

Respectfully submitted

PROFESSIONAL W. D. TOMPSON BRITISH COLUMBIA GEOSCIENTIST

Willard D. Tompson, P.Geo

Appendix G

Detailed Cost Breakdown
Mamquam River Project

Soil / Till, Stream Sediment, Heavy Metal Concentrating Program
Mamquam River area Vancouver, M.D.

Labour for Phase - 1

E. Dodd (Supervisor) May 09 - 17 incl. = 9 Days @ $325	$2,925.00
Darcy Goossen (Crew Chief) May 12 - 16 incl. = 5 Days @ $300	$1,500.00
Brad Mainprize (Sampler) May 10 - 17 incl. = 8 Days @ $250	$2,000.00
Dillon Wade (Sampler) May 12 - 17 incl. = 6 Days@ $250	$1,500.00
Sub Total	$7,925.00

Equipment for Phase - 1

3/4 Ton 4x4 May 09 - 17 incl. 9 Days @ $100	$900.00
3/4 Ton 4x4 May 10 - 17 incl. 8 Days @ $100	$800.00
3/4 Ton 4x4 May 12 - 17 incl. 6 Days @ $100	$600.00
3/4 Ton 4x4 May 12 - 16 incl. 5 Days @ $100	$500.00
Camp (including meals) 28 Man Days @ $40 per day per man	$1,120.00
1 x 20’ construction trailer May 12 - 16 incl. 5 Days @ $50	$250.00
1 Quad May 9 - 17 incl. 9 Days @ $100	$900.00
1 Quad May 12 - 16 incl. 5 Days @ $125	$625.00
Miscellaneous camp supplies	$33.75
Sub Total	$5,728.75

Labour for Phase - 2

Darcy Goossen (Crew Chief) June 24 - 26 incl. = 3 Days @ $300	$900.00
John Cross (Sampler) June 23 - 26 incl. = 3.5 Days @ $250	$875.00
Sub Total	$1,775.00

Equipment for Phase - 2

3/4 Ton 4x4 June 24 - 26 incl. 3 Days @ $100	$300.00
1 Ton 4x4 June 23 - 26 incl. 3.5 Days @ $125	$437.50
Camp (including meals) = 4.5 Man Days @ 40 per day per man	$180.00
12’ camper June 23 - 26 incl. 3.5 Days @ $95.00	$332.50
1 Quad June 24 - 26 incl. 3 Days @ $100	$300.00
1 Quad June 23 - 26incl. 3.5 Days @ $125.00	$437.50
Sub Total	$1,987.50

HMC Processing

Processing 18 – 35 kg HMC samples 162 hours @ 20.00 per hour	$3,240.00
18 Sluice Reject sample descriptions @ $10.00	$180.00
63 Megascopic sample descriptions @ $18.00, including 6 page report dated August 4, 2012 by Willard D. Tompson P.Geo., P. Eng.,	$1,071.00
Processing 16 HMC Stream Sediment samples 108hours @ 20.00	$2,160.00
Tote bins, containers and consumeables	$433.50
Report	$1,000.00
Data retrieval, plotting, map production By John Cross July 2 - 4 incl. 2 Days @ $250	$500.00
Printing	$48.00
Sample bags, flagging tape, safety equipment	$178.75
Sub Total	$8,811.25

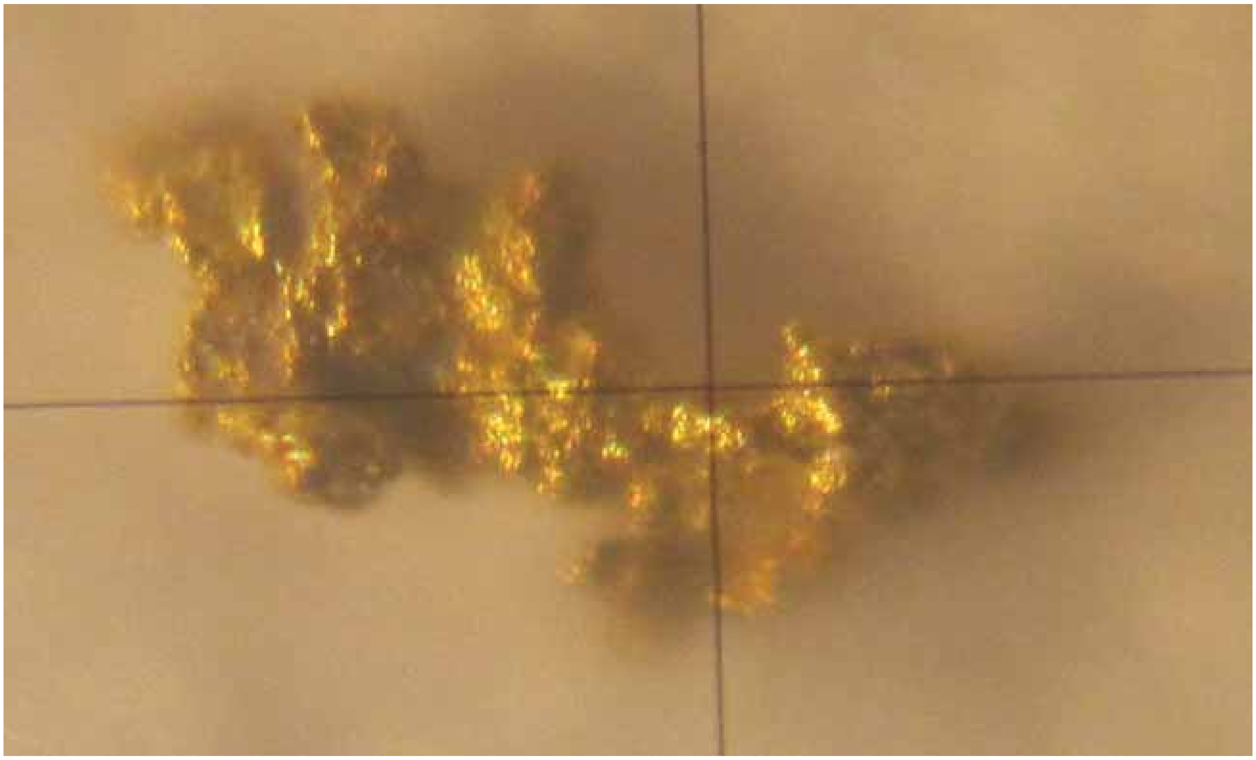
Labour for Phase - 1 Sub Total	$7,925.00
Equipment for Phase - 1 Sub Total	$5,728.75
Labour for Phase - 2 Sub Total	$1,775.00
Equipment for Phase - 2 Sub Total	$1,987.50
HMC Processing Sub Total	$8,811.25
Grand Total	$26,227.50

(Taxes are not included in this total)

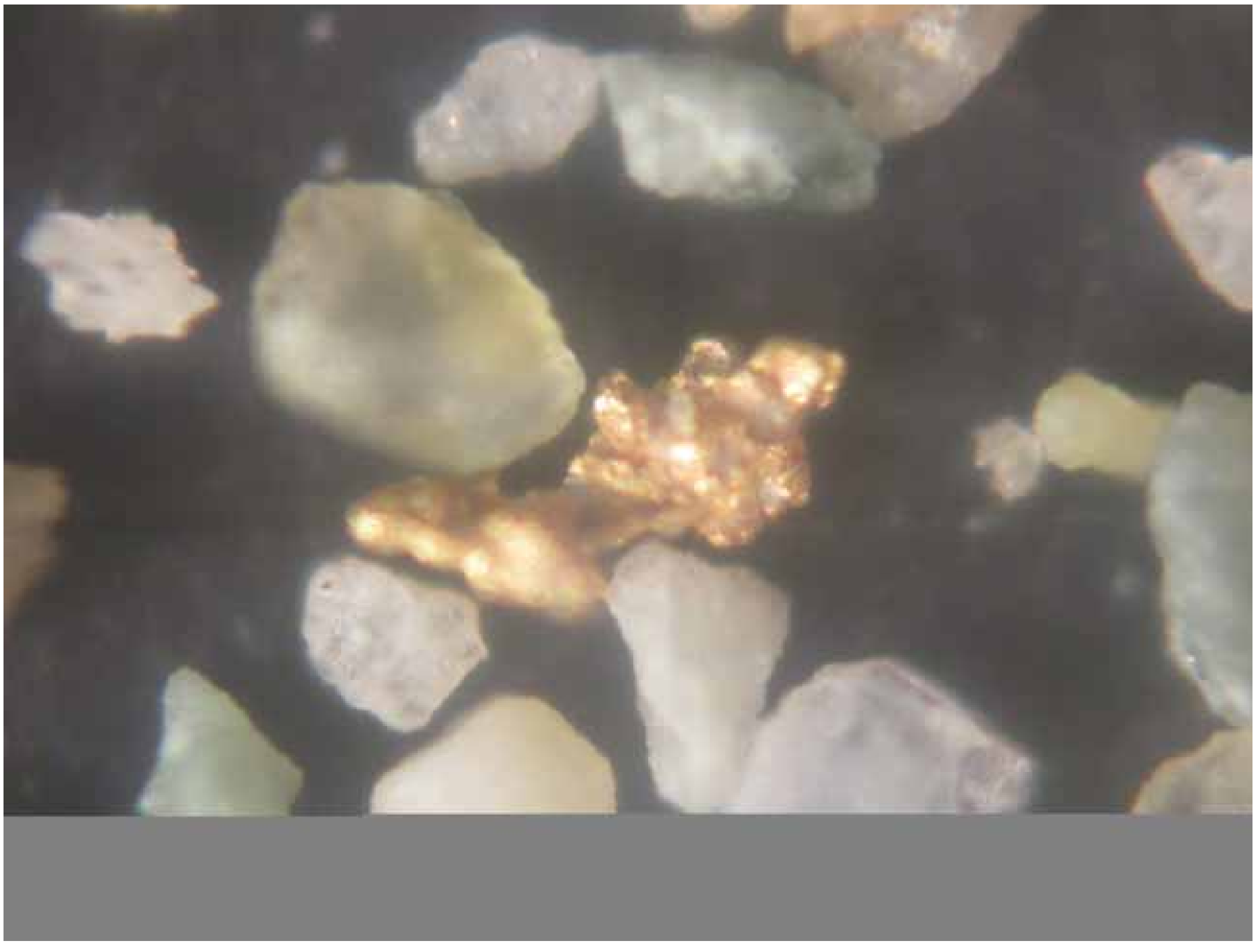
Respectfully submitted
Eugene A. Dodd, President
Billiken Gold Ltd.

Appendix H

Pristine nugget from HMC18 anterior view



Pristine nugget from HMC18 posterior view with insolubles (most of the insolubles were formed from the major constituents of granites)

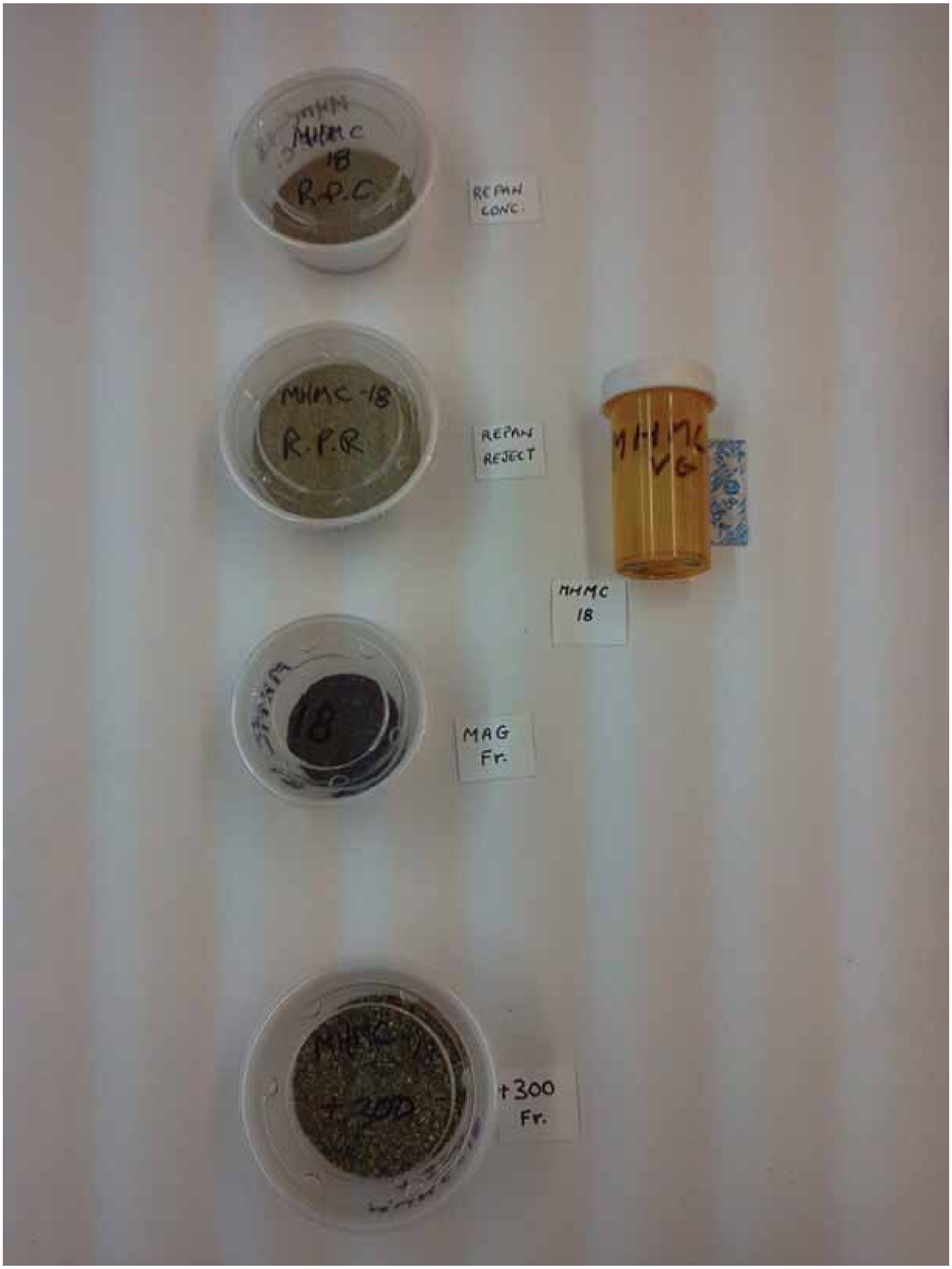


Hard rock grab samples

Taking a stream sediment sample (first screening)

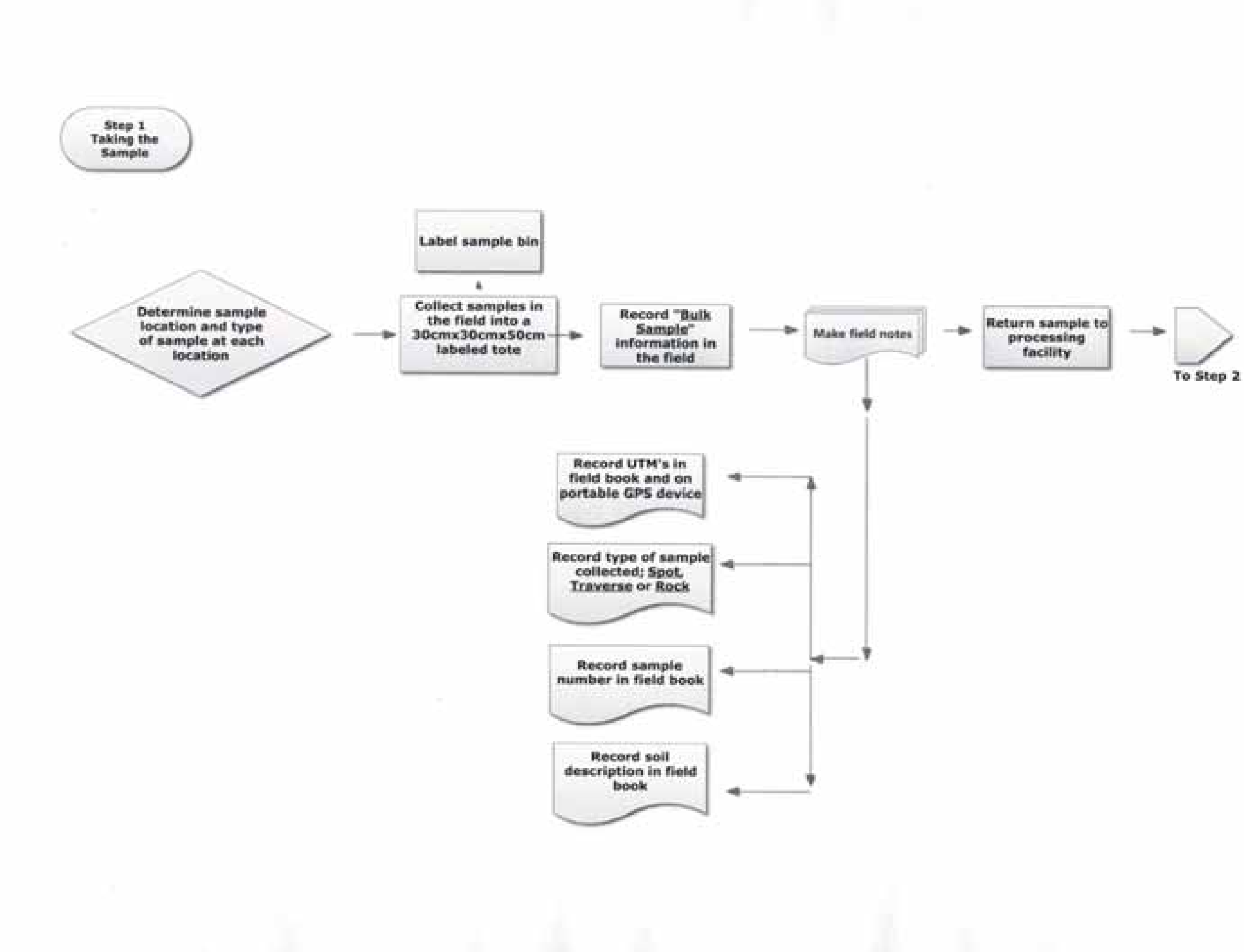
HMC “**Pan Con**” fractions before re - panning

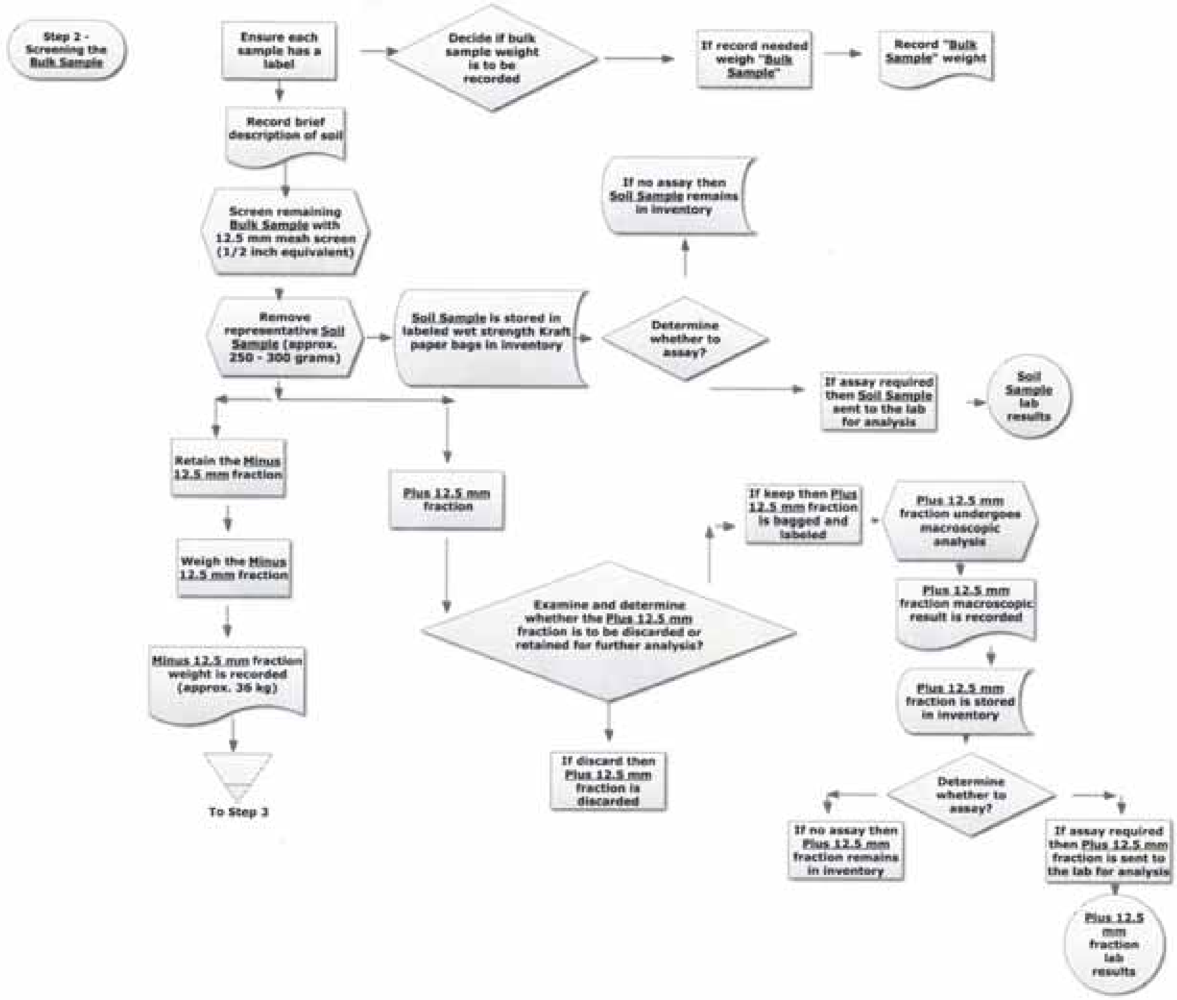
HMC18 “**Re Pan Con**” fractions – vial contains the nugget shown in the above photos

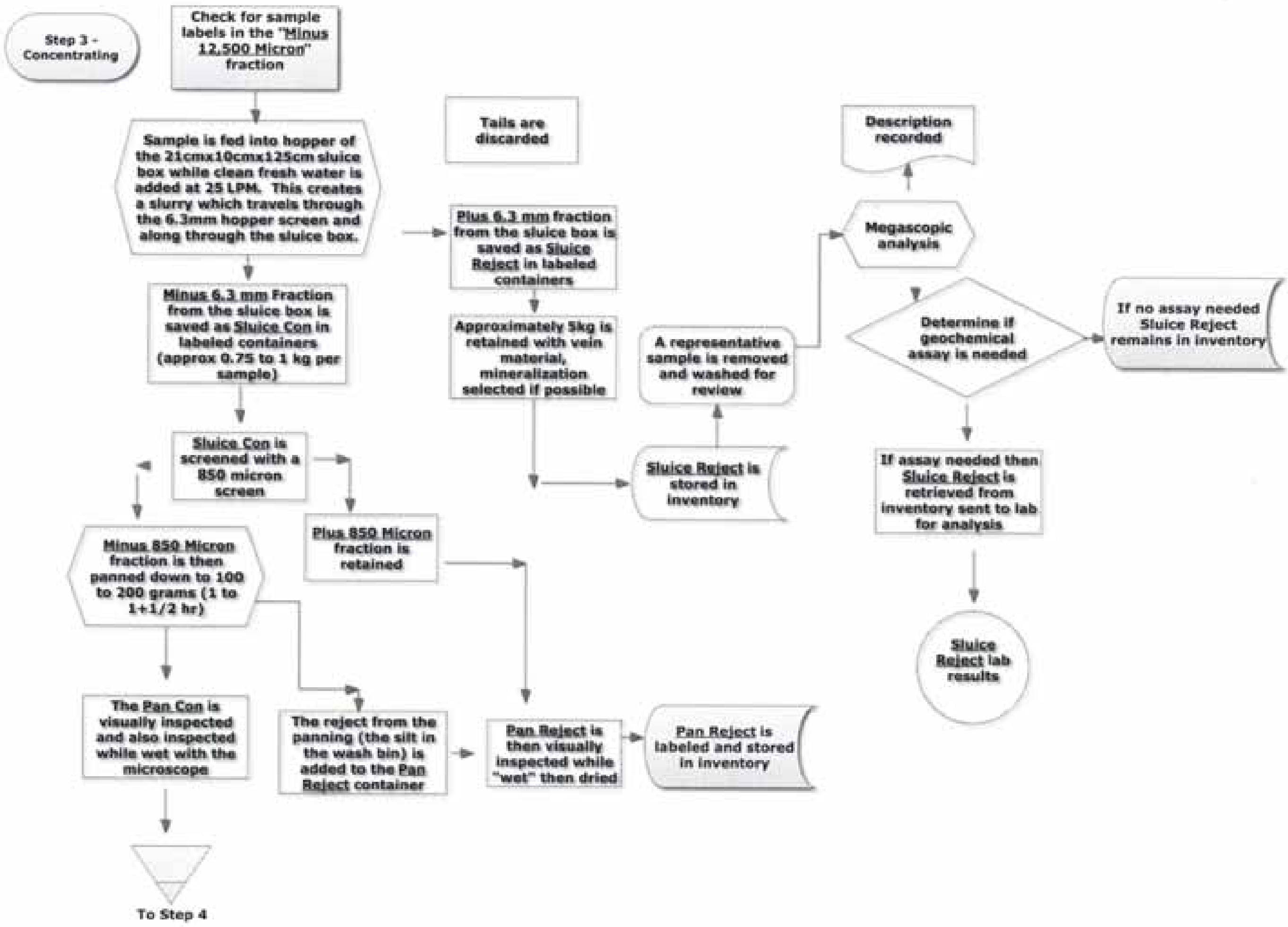


Appendix I

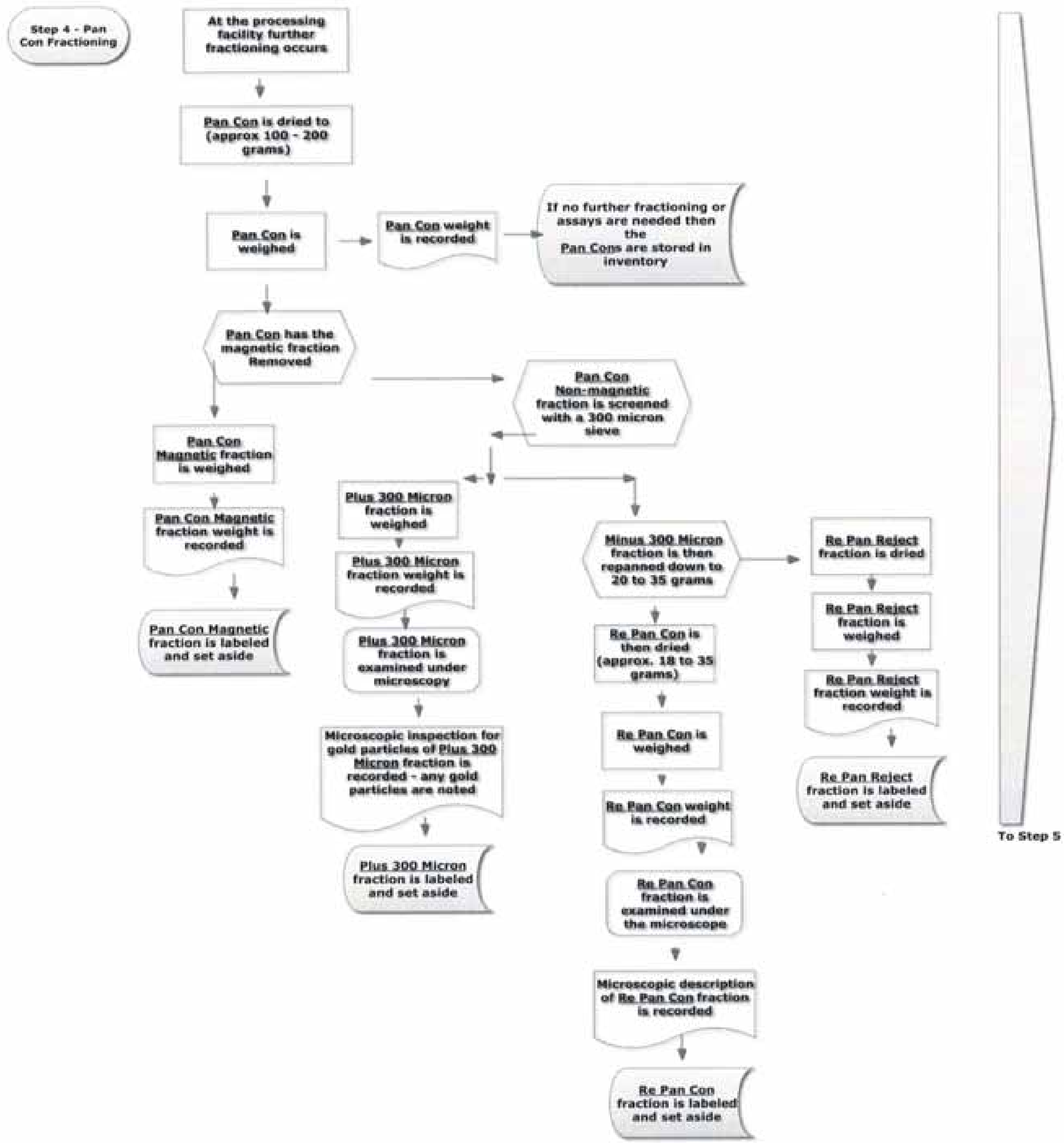
Flow chart of Billiken Gold Ltd.'s HMC Process (steps 1 to 5 inclusive)

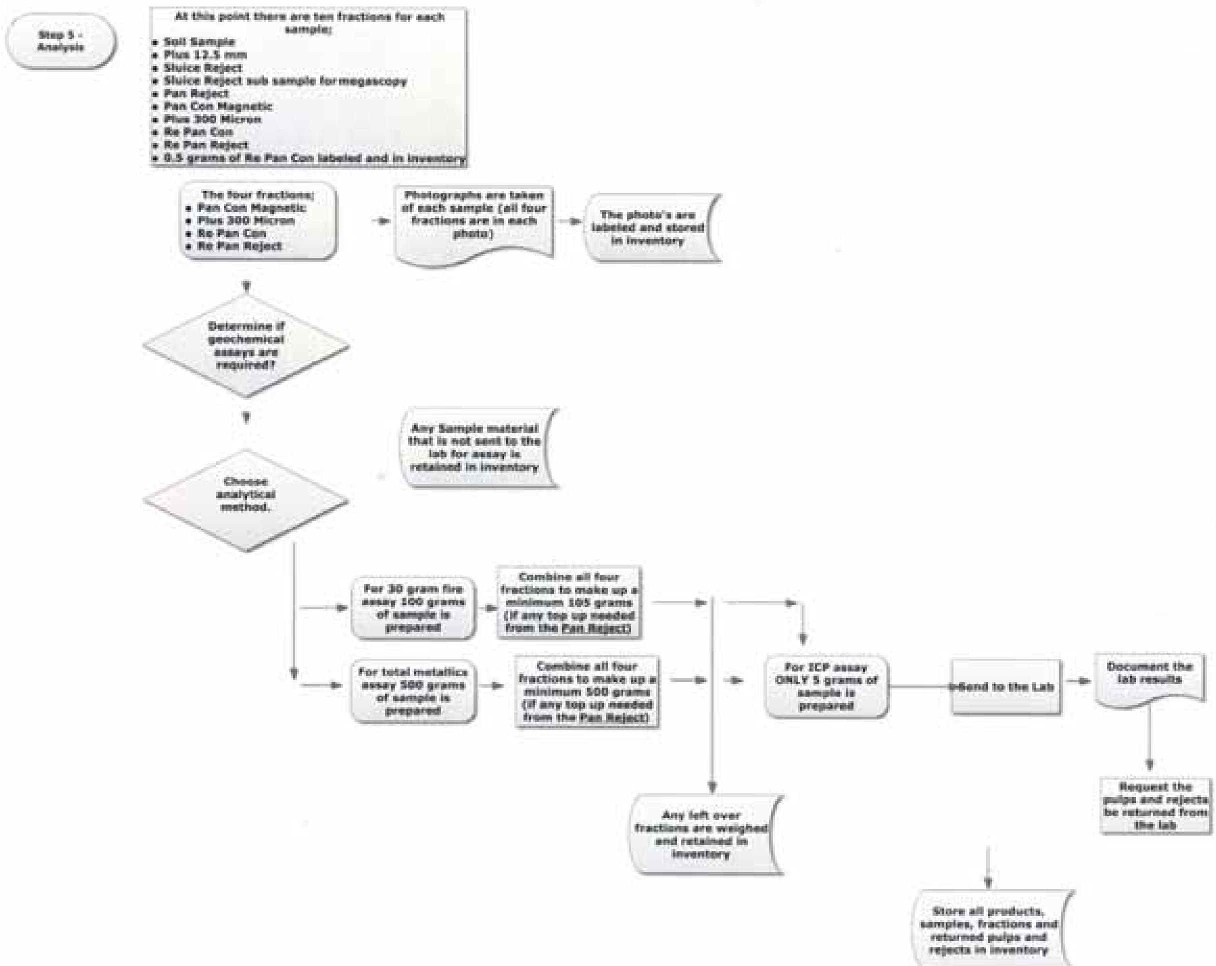


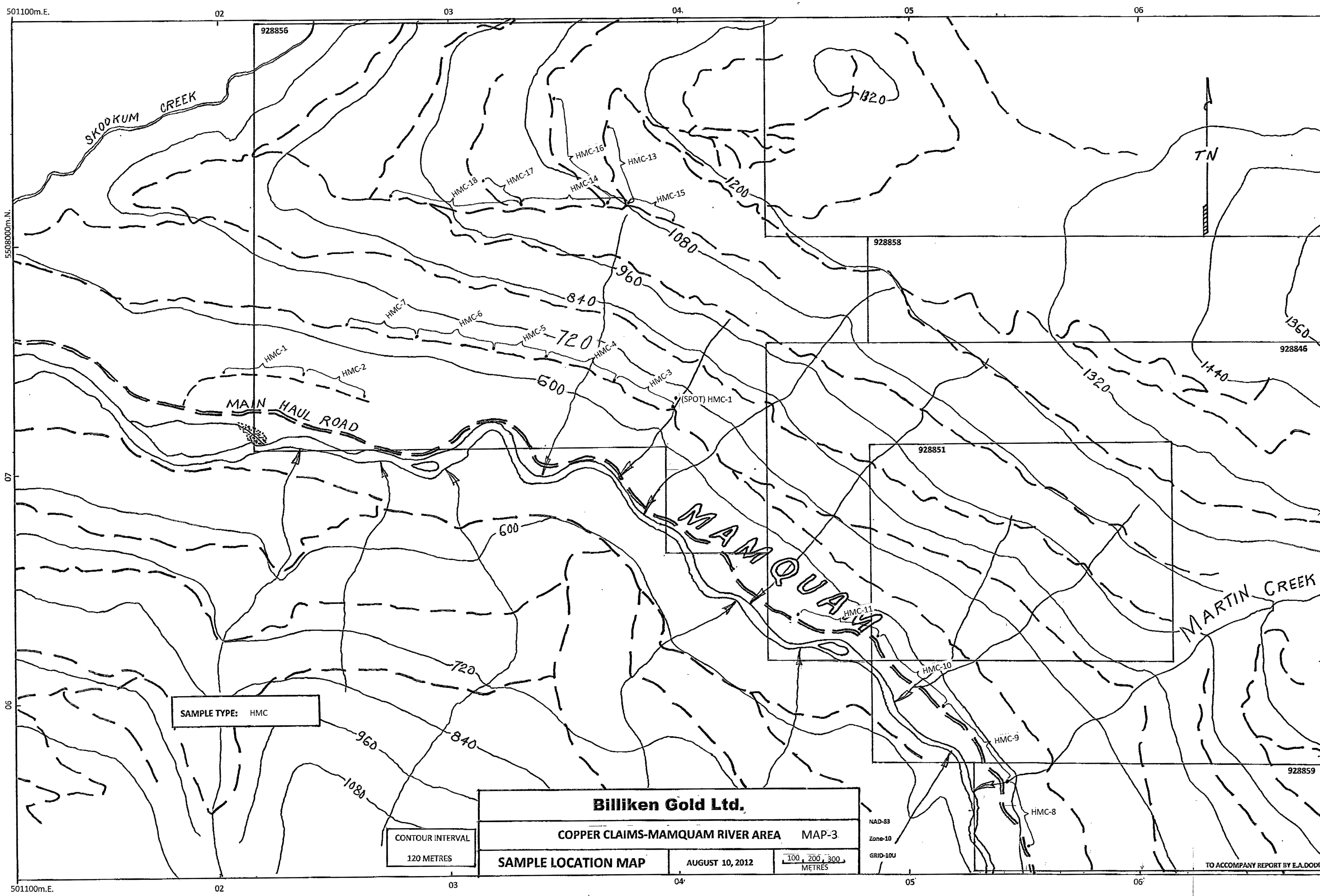

Step 2 - Screening the Bulk Sample
Ensure each sample has a label
Decide if bulk sample weight is to be recorded
If record needed weigh "Bulk Sample"
Record "Bulk Sample" weight
Record brief description of soil
If no assay then Soil Sample remains in inventory
Screen remaining Bulk Sample with 12.5 mm mesh screen (1/2 inch equivalent)
Remove representative Soil Sample (approx. 250 - 300 grams)
Soil Sample is stored in labeled wet strength Kraft paper bags in inventory
Determine whether to assay?
If assay required then Soil Sample sent to the lab for analysis
Soil Sample lab results
Retain the Minus 12.5 mm fraction
Plus 12.5 mm fraction
If keep then Plus 12.5 mm fraction is bagged and labeled
Plus 12.5 mm fraction undergoes macroscopic analysis
Weigh the Minus 12.5 mm fraction
Examine and determine whether the Plus 12.5 mm fraction is to be discarded or retained for further analysis?
Plus 12.5 mm fraction macroscopic result is recorded
Minus 12.5 mm fraction weight is recorded (approx. 36 kg)
Plus 12.5 mm fraction is stored in inventory
If discard then Plus 12.5 mm fraction is discarded
Determine whether to assay?
To Step 3
If no assay then Plus 12.5 mm fraction remains in inventory
If assay required then Plus 12.5 mm fraction is sent to the lab for analysis
Plus 12.5 mm fraction lab results

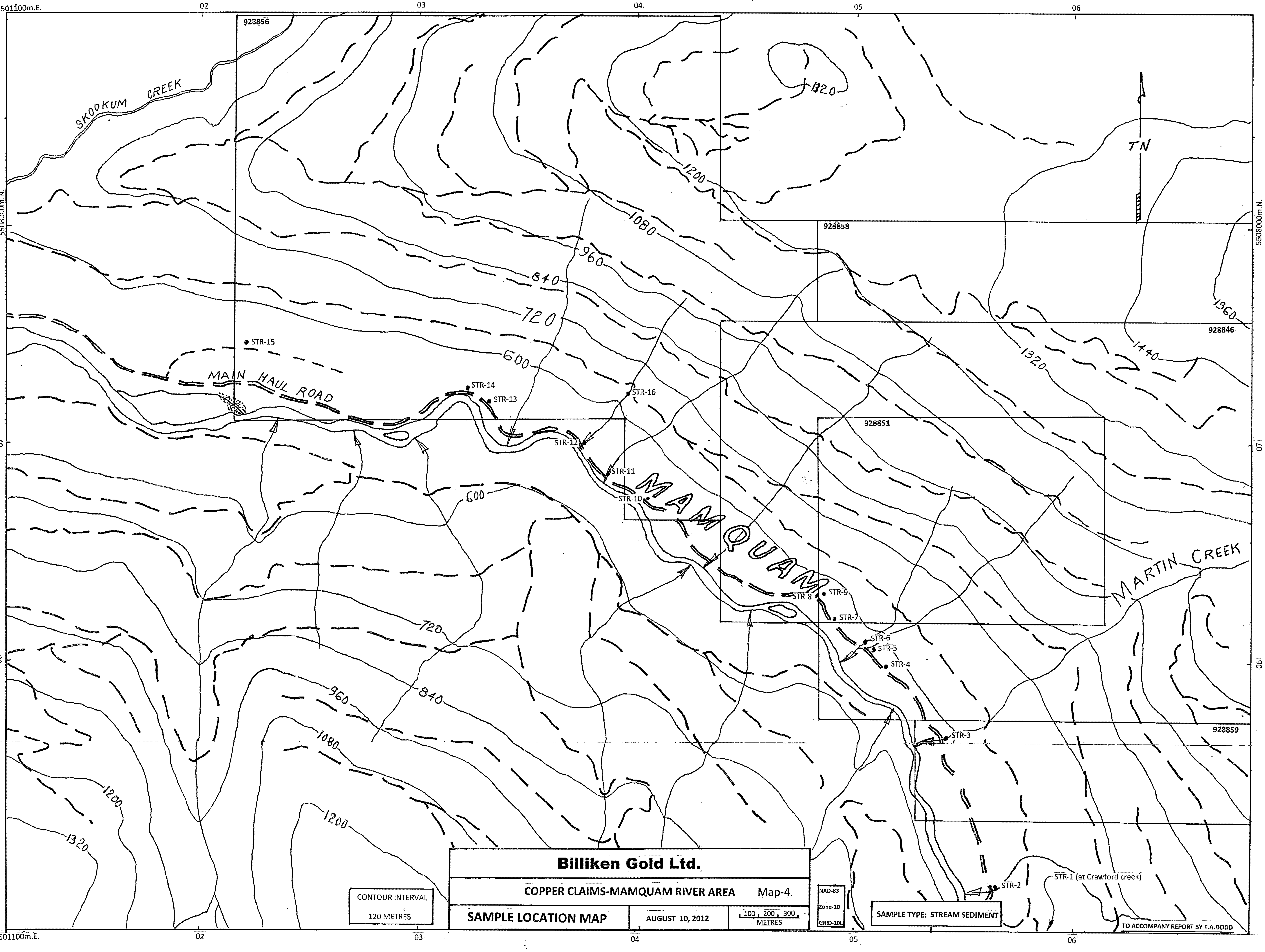


Step 3 - Concentrating
Check for sample labels in the "Minus 12,500 Micron" fraction
Sample is fed into hopper of the 21cmx10cmx125cm sluice box while clean fresh water is added at 25 LPM. This creates a slurry which travels through the 6.3mm hopper screen and along through the sluice box.
Tails are discarded
Plus 6.3 mm fraction from the sluice box is saved as Sluice Reject in labeled containers
Approximately 5kg is retained with vein material, mineralization selected if possible
Minus 6.3 mm Fraction from the sluice box is saved as Sluice Con in labeled containers (approx 0.75 to 1 kg per sample)
Sluice Con is screened with a 850 micron screen
Minus 850 Micron fraction is then panned down to 100 to 200 grams (1 to 1+1/2 hr)
Plus 850 Micron fraction is retained
The Pan Con is visually inspected and also inspected while wet with the microscope
The reject from the panning (the silt in the wash bin) is added to the Pan Reject container
Pan Reject is then visually inspected while "wet" then dried
Pan Reject is labeled and stored in inventory
To Step 4
Sluice Reject is stored in inventory
A representative sample is removed and washed for review
Megascopic analysis
Description recorded
Determine if geochemical assay is needed
If no assay needed Sluice Reject remains in inventory
If assay needed then Sluice Reject is retrieved from inventory sent to lab for analysis
Sluice Reject lab results

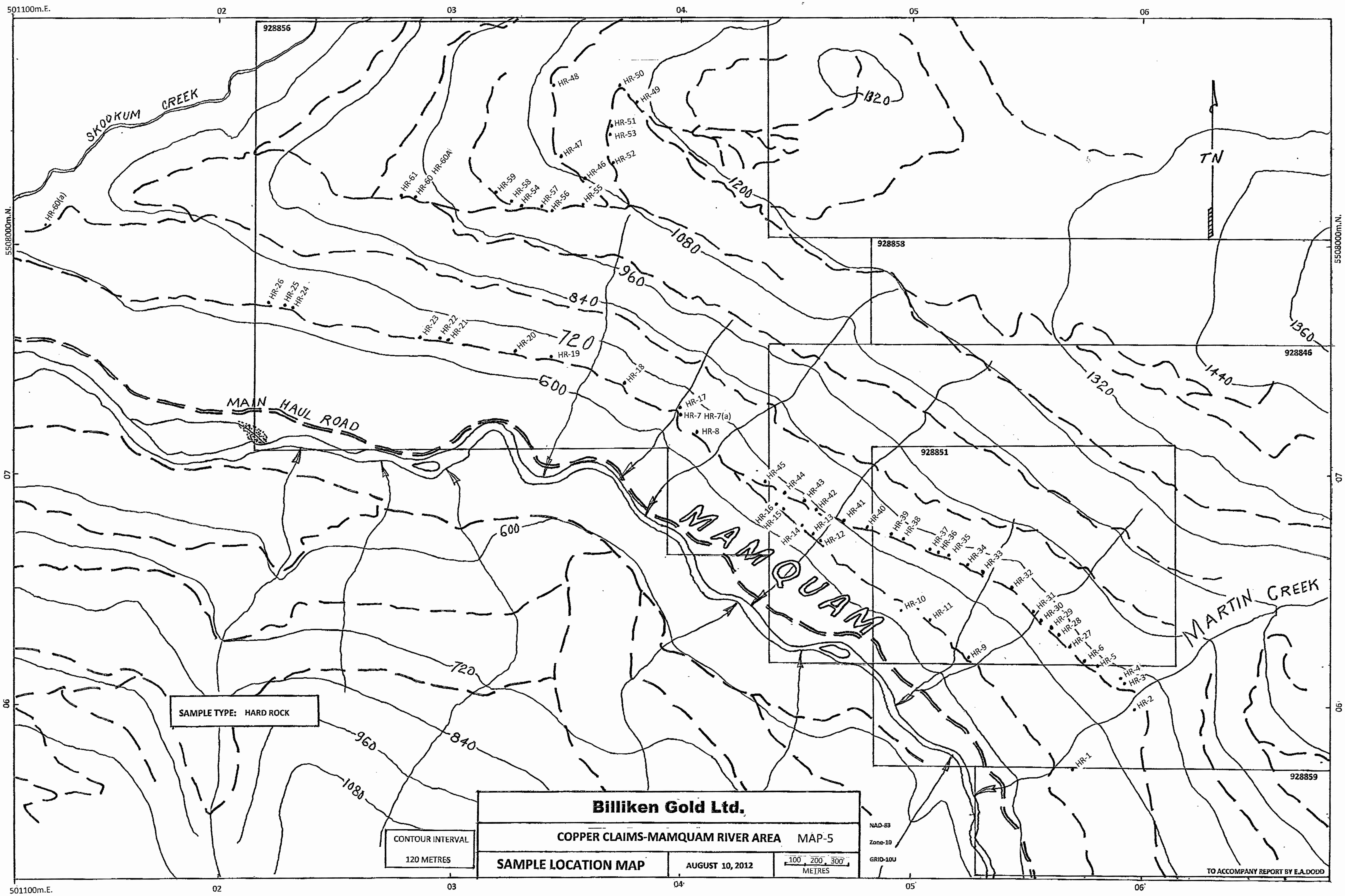

Step 4 - Pan Con Fractioning
At the processing facility further fractioning occurs
Pan Con is dried to (approx 100 - 200 grams)
Pan Con is weighed
Pan Con weight is recorded
If no further fractioning or assays are needed then the Pan Cons are stored in inventory
Pan Con has the magnetic fraction Removed
Pan Con Non-magnetic fraction is screened with a 300 micron sieve
Pan Con Magnetic fraction is weighed
Pan Con Magnetic fraction weight is recorded
Pan Con Magnetic fraction is labeled and set aside
Plus 300 Micron fraction is weighed
Plus 300 Micron fraction weight is recorded
Plus 300 Micron fraction is examined under microscopy
Microscopic inspection for gold particles of Plus 300 Micron fraction is recorded - any gold particles are noted
Plus 300 Micron fraction is labeled and set aside
Minus 300 Micron fraction is then repanned down to 20 to 35 grams
Re Pan Con is then dried (approx. 18 to 35 grams)
Re Pan Con is weighed
Re Pan Con weight is recorded
Re Pan Con fraction is examined under the microscope
Microscopic description of Re Pan Con fraction is recorded
Re Pan Con fraction is labeled and set aside
Re Pan Reject fraction is dried
Re Pan Reject fraction is weighed
Re Pan Reject fraction weight is recorded
Re Pan Reject fraction is labeled and set aside
To Step 5


Step 5 - Analysis
At this point there are ten fractions for each sample;
• Soil Sample
• Plus 12.5 mm
• Sluice Reject
• Sluice Reject sub sample for megascopy
• Pan Reject
• Pan Con Magnetic
• Plus 300 Micron
• Re Pan Con
• Re Pan Reject
• 0.5 grams of Re Pan Con labeled and in inventory
The four fractions;
• Pan Con Magnetic
• Plus 300 Micron
• Re Pan Con
• Re Pan Reject
Photographs are taken of each sample (all four fractions are in each photo)
The photo's are labeled and stored in inventory
Determine if geochemical assays are required?
Any Sample material that is not sent to the lab for assay is retained in inventory
Choose analytical method.
For 30 gram fire assay 100 grams of sample is prepared
Combine all four fractions to make up a minimum 105 grams (if any top up needed from the Pan Reject)
For total metallics assay 500 grams of sample is prepared
Combine all four fractions to make up a minimum 500 grams (if any top up needed from the Pan Reject)
For ICP assay ONLY 5 grams of sample is prepared
Send to the Lab
Document the lab results
Request the pulps and rejects be returned from the lab
Any left over fractions are weighed and retained in inventory
Store all products, samples, fractions and returned pulps and rejects in inventory


501100m.E.
02
03
04
05
06
5508000m.N.
07
06
928856
928858
928846
928851
928859
SKOOKUM CREEK
MAIN HAUL ROAD
MAMQUAM
MARTIN CREEK
TN
1320
1200
1080
960
840
720
600
1360
1440
HMC-1
HMC-2
HMC-3
HMC-4
HMC-5
HMC-6
HMC-7
HMC-8
HMC-9
HMC-10
HMC-11
HMC-13
HMC-14
HMC-15
HMC-16
HMC-17
HMC-18
(SPOT) HMC-1
SAMPLE TYPE: HMC
CONTOUR INTERVAL
120 METRES
Billiken Gold Ltd.
COPPER CLAIMS-MAMQUAM RIVER AREA
MAP-3
SAMPLE LOCATION MAP
AUGUST 10, 2012
100 200 300
METRES
NAD-83
Zone-10
GRID-10U
TO ACCOMPANY REPORT BY E.A.DODD



501100m.E.
02
03
04
05
06
5508000m.N.
07
06
928856
928858
928846
928851
928859
SKOOKUM CREEK
MAIN HAUL ROAD
MAMQUAM
MARTIN CREEK
TN
1320
1200
1080
960
840
720
600
1360
1440
STR-1 (at Crawford creek)
STR-2
STR-3
STR-4
STR-5
STR-6
STR-7
STR-8
STR-9
STR-10
STR-11
STR-12
STR-13
STR-14
STR-15
STR-16
Billiken Gold Ltd.
COPPER CLAIMS-MAMQUAM RIVER AREA
Map-4
SAMPLE LOCATION MAP
AUGUST 10, 2012
100 200 300
METRES
NAD-83
Zone-10
GRID-10
CONTOUR INTERVAL
120 METRES
SAMPLE TYPE: STREAM SEDIMENT
TO ACCOMPANY REPORT BY E.A.DODD


Billiken Gold Ltd.
COPPER CLAIMS-MAMQUAM RIVER AREA
MAP-5
SAMPLE LOCATION MAP
AUGUST 10, 2012
100 200 300
METRES
CONTOUR INTERVAL
120 METRES
SAMPLE TYPE: HARD ROCK
NAD-83
Zone-10
GRID-10U
TO ACCOMPANY REPORT BY E.A.DODD
501100m.E.
02
03
04
05
06
5508000m.N.
07
06
SKOOKUM CREEK
MAIN HAUL ROAD
MAMQUAM
MARTIN CREEK
TN
928856
928858
928846
928851
928859
1320
1200
1080
960
840
720
600
1360
1440
HR-1
HR-2
HR-3
HR-4
HR-5
HR-6
HR-7
HR-7(a)
HR-8
HR-9
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HR-16
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HR-18
HR-19
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HR-51
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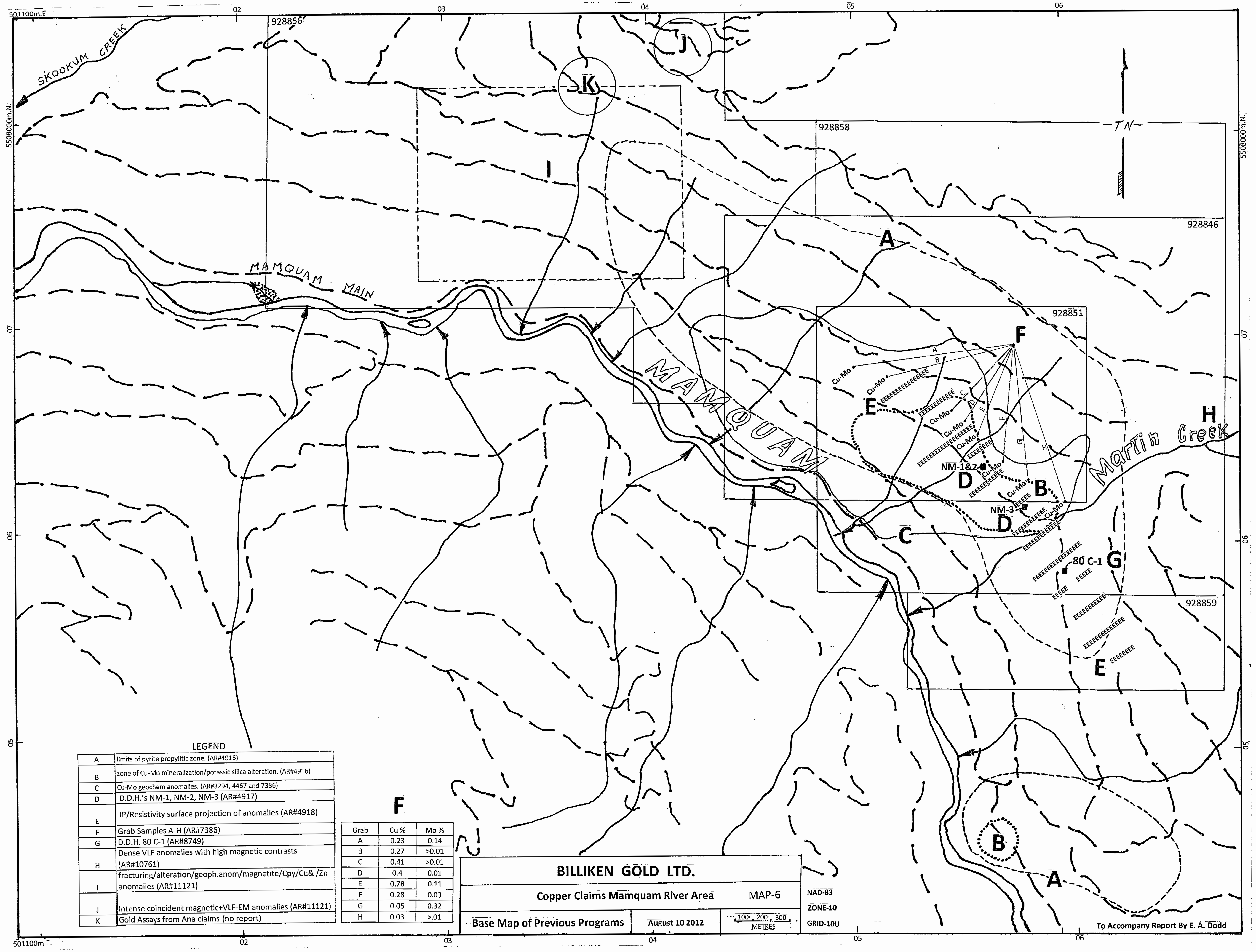
HR-60A
HR-60(a)
HR-61



LEGEND

A	limits of pyrite propylitic zone. (AR#4916)
B	zone of Cu-Mo mineralization/potassic silica alteration. (AR#4916)
C	Cu-Mo geochem anomalies. (AR#3294, 4467 and 7386)
D	D.D.H.'s NM-1, NM-2, NM-3 (AR#4917)
E	IP/Resistivity surface projection of anomalies (AR#4918)
F	Grab Samples A-H (AR#7386)
G	D.D.H. 80 C-1 (AR#8749)
H	Dense VLF anomalies with high magnetic contrasts (AR#10761)
I	fracturing/alteration/geoph.anom/magnetite/Cpy/Cu& /Zn anomalies (AR#11121)
J	Intense coincident magnetic+VLF-EM anomalies (AR#11121)
K	Gold Assays from Ana claims-(no report)

F

Grab	Cu %	Mo %
A	0.23	0.14
B	0.27	>0.01
C	0.41	>0.01
D	0.4	0.01
E	0.78	0.11
F	0.28	0.03
G	0.05	0.32
H	0.03	>.01

BILLIKEN GOLD LTD.

Copper Claims Mamquam River Area — MAP-6

Base Map of Previous Programs — August 10 2012 — 100 200 300 METRES

NAD-83
ZONE-10
GRID-10U

To Accompany Report By E. A. Dodd