BC Geological Survey Assessment Report 33994



#### ASSESSMENT REPORT

including

Prospecting

on the

### **CROY BLOOM PROPERTY**

Event Number 5444096

OMENICA MINING DIVISION, British Columbia NTS: 94C/05 Latitude 56°28' N, Longitude 126°3' W

Prepared for Operators: SERENGETI RESOURCES INC 1700-1750 West Pender Street Vancouver, BC, Canada V6C 2T8

> By: H. Clarke, B.A., EurGeol 01 July 2013 Vancouver, B.C.

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#### (1) Introduction and Terms of Reference

This report describes in detail the work carried out by Serengeti Resources in the summer of 2012 on four claims (529981, 857168, 514955 and 516035), which form the northwestern part of the Croy Bloom property in Northwestern BC.

The Croy Bloom project is located 240 km northwest of Fort St. James and 90 km southeast of the Kemess Mine in the Omineca Mining province of British Columbia. The property covers an area of 12,404 hectares and is underlain by rocks of the Quesnel Terrane (Fig. 1). The Quesnel Terrane comprises Middle and Upper Triassic volcanic and volcaniclastic rocks of the Takla Group that are cut by economically important Late Triassic to Early Jurassic alkaline and calc-alkaline intrusive bodies. These rocks formed in a system of magmatic arcs that developed along or near the western North American continental margin of the Canadian Cordillera (Schiarizza and Tan, 2005). This setting is host to a number of major mineralised alkalic and calc-alkalic porphyry systems in British Columbia (Afton/Ajax, Copper Mtn/Ingerbelle, Galore Creek, Lorraine, and Mt. Polley).

The project area has many known occurrences of copper and gold mineralisation, most of which are associated with mafic-ultramafic plutons and related diorite dykes (Schiarizza, 2004). These include pyrite-chalcopyrite in shear zones and veins within and peripheral to the mafic-ultramafic plutonic rocks; magnetite-pyrite-chalcopyrite lodes in shear zones peripheral to the plutonic rocks, and magnetite-pyrite chalcopyrite skarn and replacement bodies where calcareous units of the Takla Group are intruded by diorite dykes (Schiarizza, 2004). Extensive zones of epidote, magnetite, sericite, pyrite and biotite alteration on the property underscore the area's potential for large porphyry-style Au-Cu mineralizing systems.

In addition, the Porphyry/Davie Creek area is host to a significant, partially drill defined, likely Cretaceous aged porphyry molybdenum deposit. The deposit area is defined by a large Mo in soil anomaly, in addition to 8 drill holes. Drilling by past operators in this area encountered broad intersects of potentially ore grade molybdenum mineralization, including a reported 0.0702% Mo over 202.9 m in hole DH81-4. Historic soil sampling data has indicated a robust tungsten (W) in soil anomaly at the north end of the Davie Creek mineral system. The W soil anomaly has not been drill tested by Serengeti or any other known operator.

The objective of the 2012 exploration on the Croy Bloom property was to complete a field investigation of the several reported showings and mineral occurrences on and around the property in an area also know, including several anomalous samples taken in the 2011 program. An additional purpose of the field investigation was to gain an understanding of the geological setting of the mineral occurrences that have been observed by Serengeti geologists and reported historically by previous workers. On September 7<sup>th</sup>, 2012, a Serengeti Senior Geologist and two field assistants set up a fly camp on the Northwestern corner of the property in an area known as the 'Saddle Gulley Zone' (56° 28.172'N, 126° 2.327'W) and completed a 4-day work program that included the collection of a total of 19 rock samples. The cost of the site visit, helicopter travel time, and accompanying report totaled \$17,460.

### (2) **Property Description and Location**

The Croy Bloom project is located 200 km northwest of Mackenzie and 90 km southeast of the Kemess Mine in the Omineca Mining province of north-central British Columbia, Canada (Fig. 1). The property is accessible by helicopter, staging from nearby logging roads, off the Omineca Resource Access Road that travels east of the property.

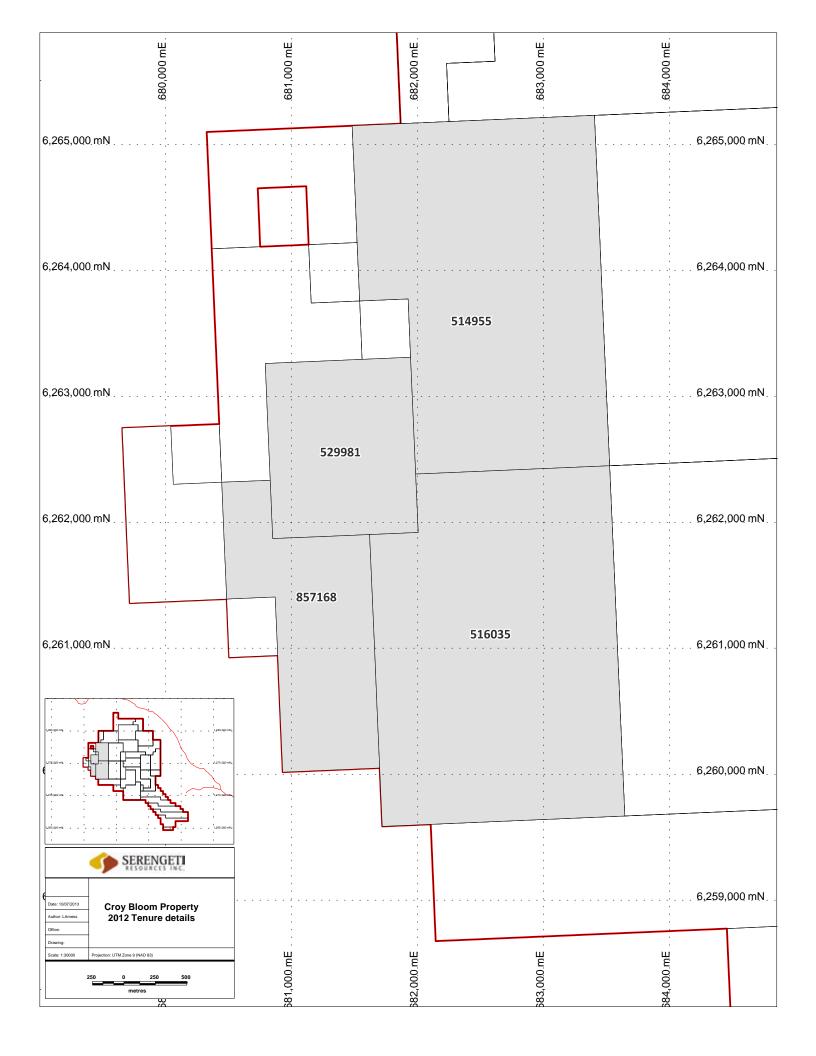
The 'Saddle Gulley Zone' portion of the property covers an area of rugged ridges and steep talus with broad cirque and valley floors. Alpine vegetation covers gentler and higher portions of the valleys. Scrub willow, alder and forests of spruce occupy the lower elevations. Property elevation ranges from 1,600 m to 2,200 m. June to September are the best months for fieldwork.

The project area worked on in 2012 consists of four tenures covering a total area of 1340 hectares. Refer to Figure 2 for tenure location map of the claims worked. These four claims form part of the Croy Bloom property (see figure inset). Claim details are presented in Table 1 and their locations shown in Figure 2.

Project	Tenure #	Claim Name	Hectares	NTS	Record Date	Mining Division	Owner	Cells
CROY- BLOOM	514955		482.3	094D050	11-Jul-2002	OMENICA	SIR	27
CROY-DAVIE	516035		518.4	094D050	11-Jul-2002	OMENICA	SIR	29
CROY- BLOOM	529981		160.8	094D050	13-Mar- 2006	OMENICA	SIR	9
CROY- BLOOM	857168	SOUP	178.7	094D050	18-Jun-2011	OMENICA	SIR	10
	4 Claims		1340.2					

**Table 1: Tenure Details Claims worked** 





### (3) Accessibility, Local Resources, Infrastructure, Climate and Physiography

Access to the property is via the Omineca Mining Road, 235 km northwest of Mackenzie BC. The Omineca road passes within 20 km to the east of the property and continues to the Kemess Mine, 90 km to the northwest. A logging road branches to the west off the Omineca mining road and travels into a valley in the central portion of the Serengeti's neighboring claim block.

Access to the northwestern portion of the property was completed by Helicopter- with a flycamp set up in the Karen Cirque (location 56°28'1.26"N, 126° 2'6.88"W).

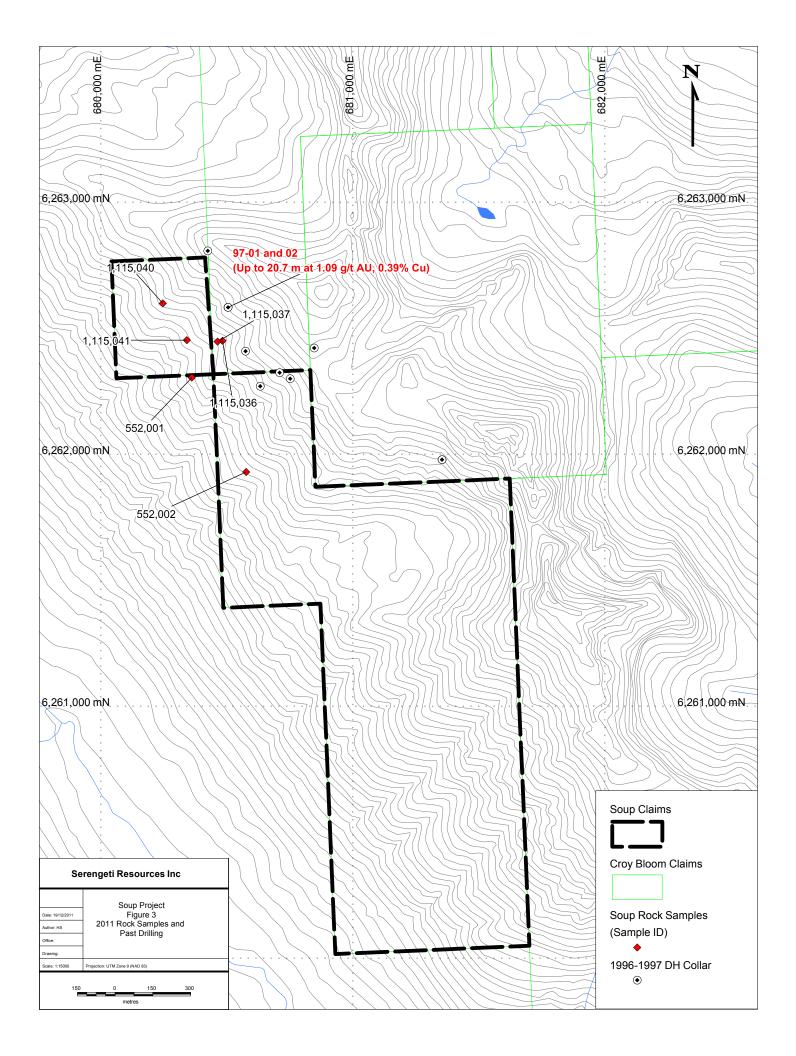
The climate of region is typical of middle to northern latitudes in Canada as the winters are cold (-10 to -35 deg Celsius) and summers are generally moderate (15-20 degrees Celsius). Topography is characterized by steep relief with ice and snow persisting year round on north facing slopes. Vegetation consists of small alpine brush with little to no soil development.

#### (4) History

The Soup 'skarn', southwest of the Shell prospect, was first known to have been staked in 1964. Several operators have completed exploration on the claims from 1964 to present. The 1997 MEMPR Assessment Report #25185, authored Williams, outlines all the surveys known to have been completed at the Soup project – see AR 25185 for reference.

The most pertinent work to current exploration at the property includes work completed by Vital Pacific Resources Ltd. from 1989 to 1997. In 1989, Vital Pacific drilled 7 short holes with the best grade intersection 3.2m @ 49.0 g/t Au and 0.17% Cu from an oxidized quartz-magnetite shear crosscutting the skarn (Grexton and Roberts, 1991). From 1996 to 1997, Vital Pacific Resources Ltd. and Athlone Resources Ltd. drilled an additional 12 holes targeting a northwest trending magnetite-rich auriferous zone with at least three stratiform lenses (Minfile, 2009). The 1997 drilling intersected a particularly interesting, sub-horizontal lens of copper-gold mineralization. Intersections of this horizon include; Hole 97-01 intersected 1.09 g/t Au and 0.39% Cu over 22.07 m (true width ~14.2 m) (Williams, AR 25185). The locations of the known drill collars are shown in Figure 3. This mineralized lens does not appear to be exposed at surface and represents an attractive exploration target.

In 2011, Serengeti collected 6 rock samples on the Soup claims, results ranged between 275 ppm and 5243 ppm Cu. Results of this work can be referred to in the 2011 report submitted for assessment credits.



# (5) Geology

#### **Regional Geology:**

The Croy Bloom project is situated in the northern part of the Quesnel Trough, a volcanic arc terrane that formed during the late Triassic to early Jurassic in the north-westerly trending Intermontane Belt of the Canadian Cordillera (Zhang and Hynes, 1991). The Quesnel Terrane is host to many large alkalic and calc-alkalic porphyry Cu-Au deposits, which formed during Early Mesozoic island-arc magmatism

In north-central British Columbia, the Quesnel Terrane comprises mostly Middle to Upper Triassic volcaniclastic and volcanic rocks of the Takla Group, which have been intruded by the Hogem Batholith and its related intrusions. Older components of the Quesnellia Terrane contain arc volcanic and sedimentary rocks of the Lay Range assemblage. These rocks are restricted to the eastern margin of the Quesnel belt (Ferri, 1997).

Proterozoic and Palaeozoic carbonates and siliciclastics of the Cassiar Terrane bound the Quesnellia Terrane to the east of the Croy Bloom/Davie Ck property. The Cassiar Terrane represents part of the ancestral North American miogeocline (Schiarizza, 2004). To the south, however, the Quesnel Terrine is separated from miogeoclinal rocks by oceanic rocks of the Slide Mountain Terrine, commonly interpreted as the imbricated remnants of a Late Palaeozoic marginal basin (Ferri, 1997). 15 km to the west of the property, the Quesnellia Terrane is juxtaposed against the similar volcanic arc Stikine Terrane, separated by the large northwest trending Finlay-Ingenika fault system.

The structural framework of the region includes the development of east-directed thrust faults that placed the Quesnel Terrane above the Cassiar Terrane in late Early Jurassic time (Schiarizza and Tan, 2005). To the west, early Middle Jurassic eastdipping thrust faults, imbricate the Cache Creek Terrane and juxtapose it above the adjacent Stikine Terrane (Schiarizza and Tan, 2005). This thrusting was broadly coincident with the initiation of the Bowser basin, which formed above the Stikine Terrane and contains detritus that was derived, in part, from the adjacent Cache Creek Terrine (Schiarizza and Tan, 2005).

During the Late Cretaceous to Early Tertiary prominent dextral strike-slip fault systems formed in the region. These structures include the Finlay-Ingenika and Pinchi faults, which cut Takla Group rocks into a number of fault-bounded domains (Schiarizza, 2004).

The Finlay-Ingenika fault is an extension of the north-northwest trending Pinchi fault system situated approximately 20 km to the southeast of the property. These structures are thought to have up to more than 100 km of cumulative displacement (Schiarizza and Tan, 2005).

Structural mapping by Zhang and Haynes (1991) has suggested that fault bounded domains east of the Finlay-Ingenika Fault have rotated clockwise about sub-vertical axes in response to this progressive displacement. Their analysis indicates rotations of up to 590 adjacent to the Finlay-Ingenika Fault, and 350 from the Dortatelle Fault (Schiarizza, 2004).

#### **Property Geology:**

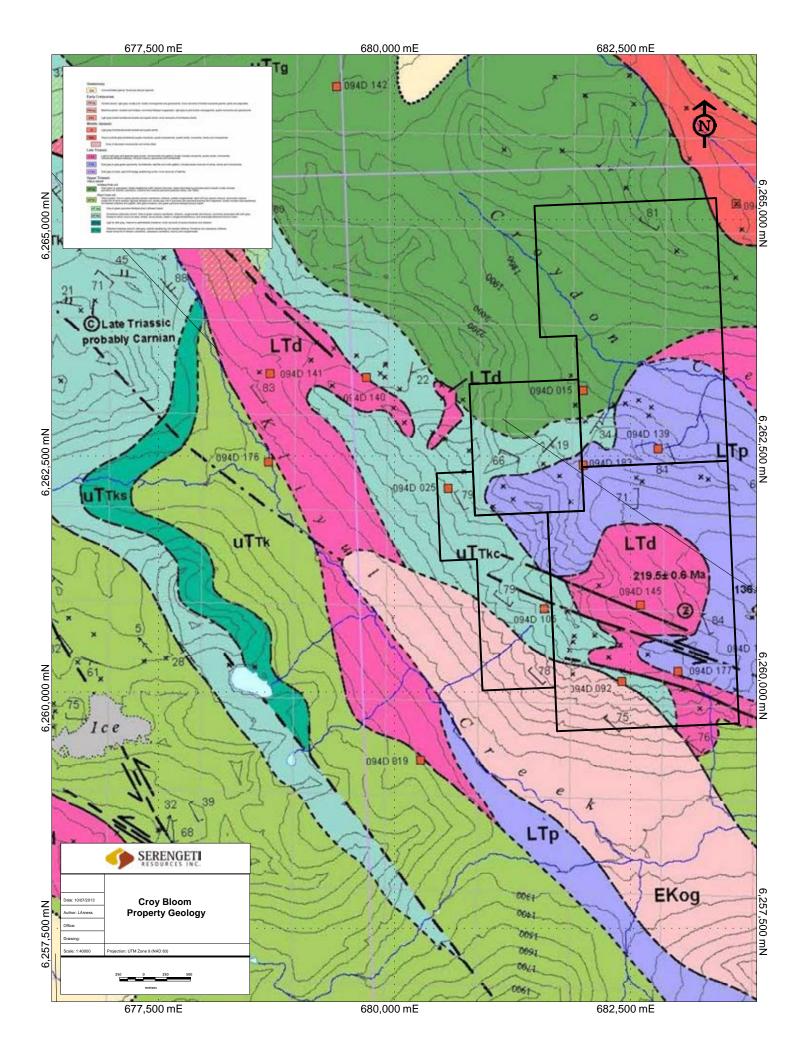
The below description of the property geology is taken for MEMPR Assessment Report #16655 – authored in 1987 by Rebagliati Geological Consulting Ltd on behalf of Lemming Resources Ltd and Vital Pacific Resources Ltd:

(From AR 16665) The SOUP claims are underlain largely by volcanic rocks of the Upper Triassic Takla Group. These have been intruded by diorite stocks sills and dykes, microdiorite and feldspar porphyry dykes and by quartz monzonitic batholithic rocks. A few narrow dykes of augite porphyry and mica lamprophyre also occur. Volcanic units strike north-northwesterly and dip moderately eastward and are offset by northwesterly and north to northeasterly-striking faults. Magnetite-rich, gold-copper bearing skarn beds appear to lie parallel to the volcanic laycring and are traceable for over 2,000 metres. The stratigraphically lowest exposed rocks are grey to greenish feldspar-rich andesitic lavas, These andesites grade upward into, and at first interfinger with, beds of andesitic to basaltic augite porphyry flows and flow breccias. Both the andesite and the augite porphyry flows are intruded by augite porphyry feeder dykes. Recessive, thin calcareous andesitic tuff units, indicative of a period of sedimentation, lie at the base of the augite-bearing units. On the west side of Kliyul Creeks these units correlate with west-dipping thick beds of pyritic ash tuff, interlayered calcareous tuffs, gritty limestone and argillite which occupy the same stratigraphic position between the feldspathic andesite and the augite porphyries, The opposing dips suggest that Klivul Creek occupies an anticlinal valley (Rebagliati, 1987, AR 16655).

#### **GOLD-COPPER MAGNETITE OCCURRENCES**

Massive conformable lenses (or beds) of magnetite-rich skarn occurring near the base of the augite porphyry contain appreciable gold and copper. At least three parallel skarn horizons are recognized, possibly replacing calcareous tuffs. Similar-looking mineralization is present in quartz-magnetite veins occur-ring along cross-cutting faults which offset the skarn units. The skarns occur in a series of intermittently exposed concordant lenses 1 to 5 metres thick, each up to several hundred metres long. Magnetite, ranging from 60 to 100%, is concentrated near the top of the horizon. Peripheral zones of disseminated magnetite 5 to 20 metres thick underlie most massive horizons and contain minor pyrite and chalcopyrite. Lenses of massive pyrite also occur within or adjacent to the zones of disseminated magnetite (Rebagliati, 1987, AR 16655).

Outcrops of skarn tend to be highly oxidized, forming orange-brown stain zones, and are characterized by epidote actinolite and fine-grained garnet. Only minor calc-silicate alteration, typical of many skarn deposits, is present on the **SOUP** claims. The quartz-magnetite veins and replacement bodies occupy subsidiary faults and shear zones branching from or parallel to the main Saddle Gully Fault. These auriferous veins have only been observed to occur near the magnetite-bearing **skarn** units (Rebagliati, 1987, AR 16655).



# (6) **Prospecting and Rock Sampling**

The decision to complete the site visit at the Soup Ridge area of the Croy Bloom Project was based on the following factors; follow-up on the 2011 sampling carried out by Serengeti on the Soup Claims, extend known areas of interest from the Croy Bloom-Davie Creek project to the more recently acquired claims, and to examine previously identified mineral occurrences.

On September  $7^{\text{th}} - 10^{\text{th}}$  2012, a Serengeti Senior Geologist and two field assistants completed a site visit on the aforementioned claims. The field staff collected 19 rock samples from areas that they determined to have potential to contain precious or base metal showings.

The locations and sample numbers of the collected rock samples are shown in Figure 5. Figures 6-8 show sample analytical results for Cu ppm, Au ppb and Zn ppm. The samples were shipped to Acme Labs in Vancouver for analysis. Samples were crushed to a 200 mesh and analysis was completed using Aqua Regia Digestion and ICP-MS Analysis for 32 elements.

## (7) Results and Discussion

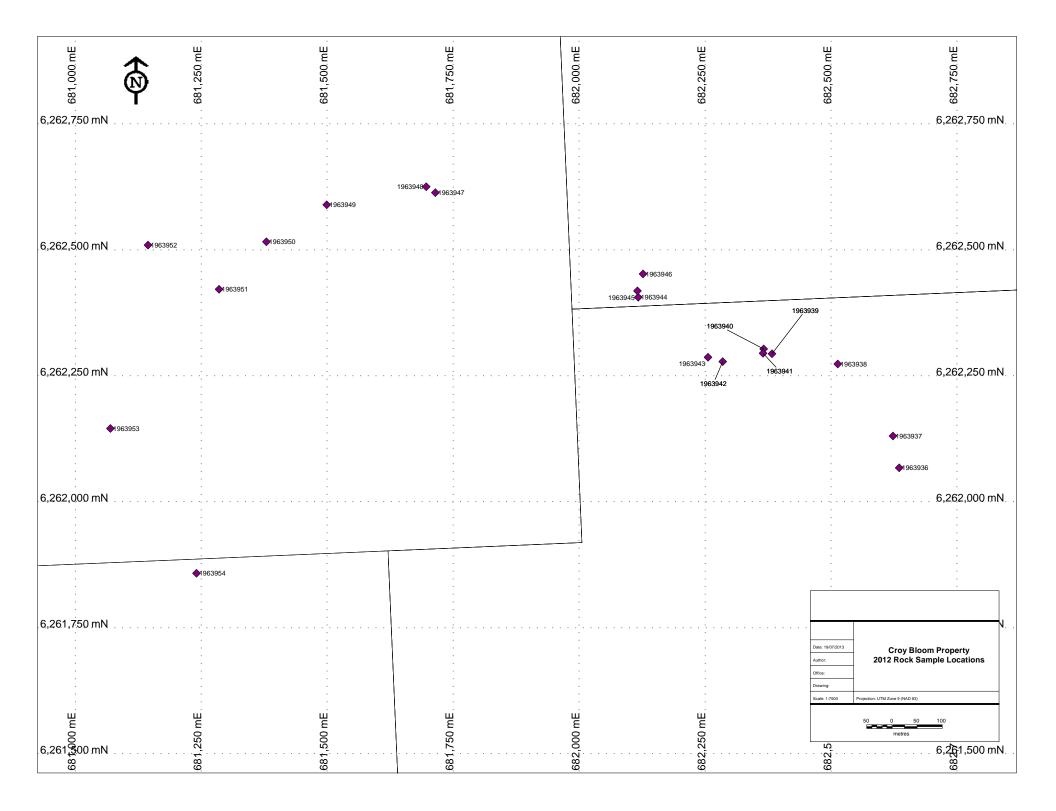
Serengeti collected a small number of rock samples on the September 2012 site visit. A total of 19 rock samples were collected and analyzed using a 32 element ICP scan. The copper and gold assay results as well as the sample descriptions are shown below in Table 2. Plots of the copper, gold and zinc sample results are shown in Figures 6, 7 and 8, respectively. The full 32 element ICP results can be found in Appendix D.

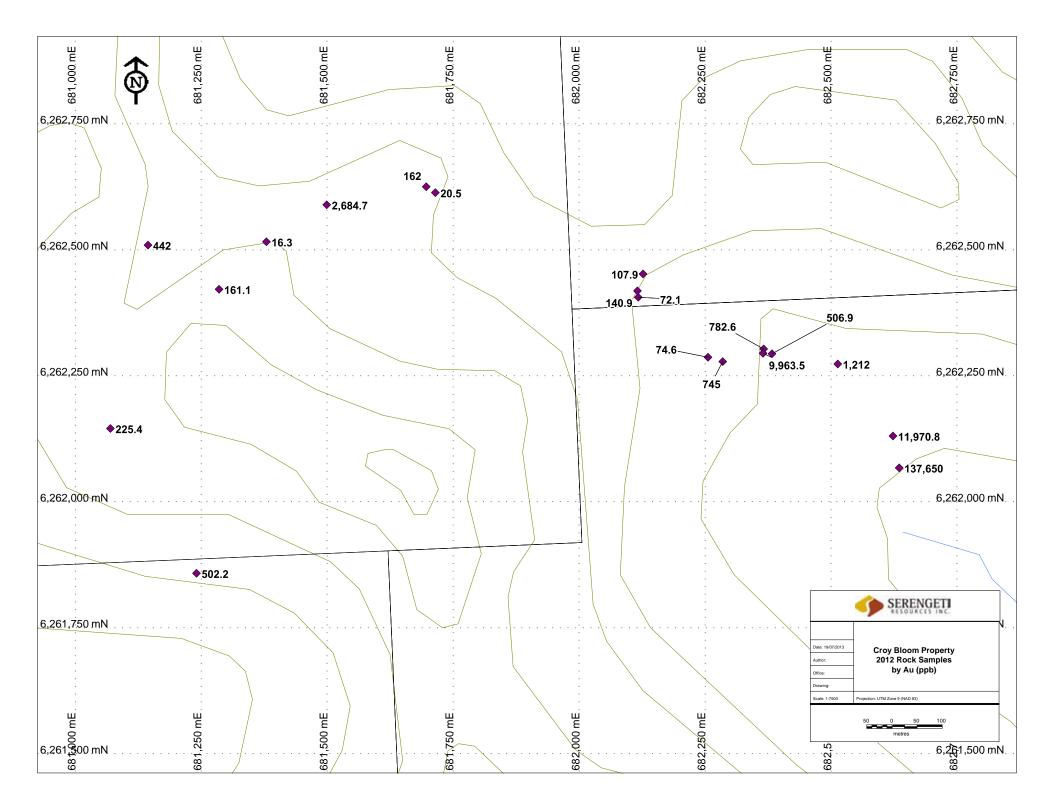
The Serengeti rock sampling, while limited in its extent, demonstrated widespread copper and gold occurrences on the Soup property. The analytical results, indicating strongly anomalous copper and gold values, are consistent with comments of the field staff that indicated widespread but localized occurrences of malachite stained magnetite and fractures within intrusive diorite.

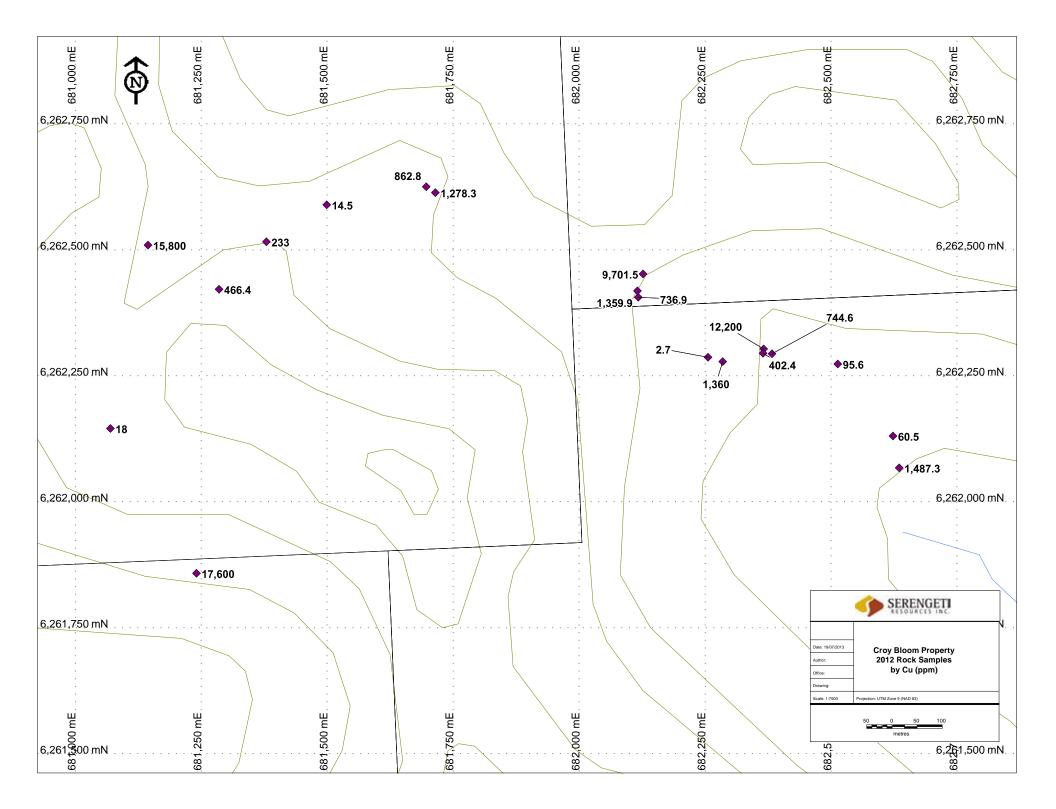
Field observations made by the Geologist confirmed the presence of numerous mineralized fractures throughout the property. Subsequent results from the laboratory analysis confirmed both strongly anomalous copper and gold results in a number of the samples. The rock samples collected and general field observations described from the site visit are encouraging for the potential for the existence of a mineralizing system in the immediate area

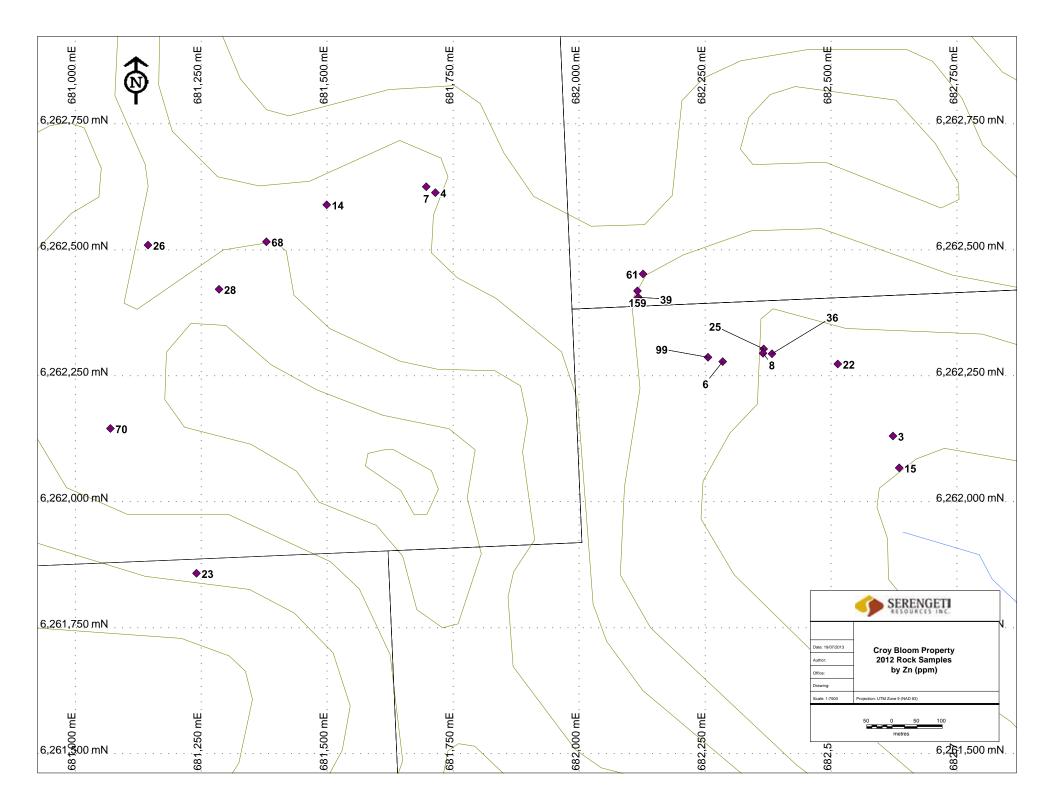
#### Croy Bloom Rock Samples 2012

		Sample										
Sample_#	Sample_ID	Zone	83_Zn9	83_Zn9	(ft)	Lithology	Notes	Туре	ACME_Job_#	Sample#	Au_g/t	Cu %
							10cm boulder feox strong on surface-siliceous qtz vn with 20% py hosted in green					
1000000	0042.004		c02c25 20	6262067 A	5 407 0 40	0.41	chloritic volcanic. Boulders in area mostly intrusive mainly with intrusive bx	<b>F</b> 1	Ch 114 20000270	4052025	407.05	
1963936	CB12-001	9	682635.28	6262067.4	5497.948	QVN	textures-this sample stands out in surroundings.	Float	SMI12000370	1963936	137.65	0.15
							Sample taken w/in boulder field of coarse grained porphyry intrusive, orange					
							strong feoxd qtx vn boulder 15cm across-gossanous with jarosite/limonite, abund					
1963937	CB12-002	9	682622.86	6262130.72	5536.044	QVN	goss boxwork,cavities after sulphide-glassy qtz vn material, rounded boulder	Float	SMI12000370	1963937	11.97	0.01
							Large 1.5m boulder of feisic intrusive with rusty stained Qtz veins up to 10cm					
							wide. Sample with cubic rusty pyrite, some weak gossanous fractures-overall rock					
							has strong foliation fabric (structure?), fractures strongly magnetic! Powdery					
1963938	CB12-003	9	682513.43	6262273.46	5723.813	GRAN?	white colour w	Subcrop	SMI12000370	1963938	1.21	0.01
							Sample small float-white powdery quartz, strongly altered with disseminated					
							clots of moderately Fe-ox'd pyrite with often malachite stain. Low magnetism,					
4062020	0042.004		602202.04	62622222	5700.054	077	hydrothermal looking quartz with malachite, low s.g. of hand sample. Area	<b>F</b> 1	Ch 114 20000270	4052020	0.54	
1963939	CB12-004	9	682382.94	6262293.8	5790.054	QTZ	characterised by variable Malachite stained hydrothermal quartz with azurite, malachite, cpy, bornite. Low	Float	SMI12000370	1963939	0.51	0.07
							s.g. of this rock. Strong Fe-ox- gossanous on fracture surfaces. Disseminated Cy					
1963940	CB12-005	9	682366.3	6262303.33	5816.7	QVN	clots.	Float	SMI12000370	1963940	0.78	1.22
1909910	0012 000		002000.0	0202303.55	5010.7	- Q.1.1	High-sulph looking spongy friable texture with 60-70% bright f.g pyrite. Strong Fe-	liout	511122000570	1505510	0.70	
1963941	CB12-006	9	682365.19	6262294.7	5828.175	PY	ox gossan on surface with quartz. Possible vein material.	Float	SMI12000370	1963941	9.96	0.04
							Composite float sample of strongly gossanous quartz material-locally sourced (?).					
							Sampled to test extent of this type of float if mineralised. Increase in number of					
1963942	CB12-007	9	682285.03	6262278.21	5959.912	QTZ	fe-ox stained boulders, smaller than avge here.	Float	SMI12000370	1963942	0.75	0.14
							Basaltic-looking vesicular rock, noted to be in abundance here. Crystalline grey,					
							non-mag with fine qtz stringers throughout. No sulphides noted. Example of					
1963943	CB12-008	9	682255.73	6262286.75	6025.48	BAS	volcanic rocks noted in this area. Quartz block, 40cm across. Glassy brittle quartz vein material, open crystalline	Float	SMI12000370	1963943	0.07	tr
							growth- strong rusty stain- FeOx, MnOx and Malachite, Cpy observed. Most other					
1963944	CB12-009	9	682117.53	6262405.74	6153.083	OTZ	float here is c.g. rounded boulders of gabbro	Float	SMI12000370	1963944	0.07	0.07
1905944	CB12-009	9	082117.55	0202405.74	0155.065	QIZ		FIUAL	310112000370	1905944	0.07	0.07
							Malachite stained quartz boulder with patchy strong FeOx after sulphides- cpy					
1963945	CB12-010	9	682115.81	6262418.6	6165.73	QVN	observed in FeOx patch glassy brittle quartz vein. Possible bornite noted. FG Volcanic tuff with qtz vein structure running vertical 090 to 120degs ESE in	Float	SMI12000370	1963945	0.14	0.14
							FG Volcanic tuff with qtz vein structure running vertical 090 to 120degs ESE in					
							outcrop. Possible to trace strong FeOx staining downslope into the gulley here-					
							structure is traceable. Malachite-azurite mineralization is strong on fracture					
1963946	CB12-011	9	682126.82	6262452.28	6189.591	QVN	surfaces.	Outcrop	SMI12000370	1963946	0.11	0.97
							Finer grained volcanic, fresh pyrite cubes- light green volcanic, tuff? Quartz vein					
1963947	CB12-012	9	681714.96	6262613.68	6425.801	QVN	sample	Outcrop	SMI12000370	1963947	0.02	0.13
							Outstanding Fe staining in otherwise green epidote veined hornblende porphyry-					
							augite phyric, the 'seam' of f.g. siliceous volcanic with up to 20-30% pyrite, f.g.					
1963948	CB12-013	9	681696.58	6262625.26	6460.376	TUFF	disseminated- non magnetic. Questionable litho sampled- proximal float/subcrop	Float	SMI12000370	1963948	0.16	0.09
1505540	012 015		001050.50	0202025.20	0400.370	1011	Drusy cavity quartz vein with strong FeOx- with cpy, bn, mal, py. Strong gossan	litout	5141122000570	1505540	0.10	0.0.
							with remanant patches of fine grained green volcanic. Non-magnetic, quartz is					
1963949	CB12-014	9	681499.37	6262589.26	6721.645	QVN	open cavity fill. Proximal float on top of ridge.	Float	SMI12000370	1963949	2.68	tr
							Top of knife-edge ridge-sampled fine to med grained volcanic with cpy minz and					
							weak malachite staining in fractures- non magnetic. Sample to highlight vertical					
1963950	CB12-015	9	681379.57	6262515.91	6905.93	TUFF	extent of mineralization (Also possible minz intersected on Soup drill section).	Float	SMI12000370	1963950	0.02	0.02
							Area where previous rock samples taken (x3) by SIR in 2011- strongly limonitic					
4000054	0042.046		C04205 44	6262424.6	7000 700		outcropping mineralization, feox with coarse pyritic veins in medium grained		Ch 114 20000270	4000000	0.46	0.05
1963951	CB12-016	9	681285.41	6262421.6	7060.766	TUFF	green volcanic- possible tuff.	Outcrop	SMI12000370	1963951	0.16	0.05
							Sample taken at bottom of talus slope in gully- drill pad here, check location.					
							Sampled quartz vein block, nice copper mineralization- good fracture fill					1
1963952	CB12-017	9	681144.7	6262509.42	6781.486	QVN	chalcopyrite with malachite-bornite, strong FeOx on fractures.	Float	SMI12000370	1963952	0.44	1.58
1963953	CB12-017	9	681070.03	6262145.45	7131.783	QVN	Outcrop sampled- Strong MnOx in gossanous quartz- after MS? Sulphide?		SMI12000370	1963953		tr
												1
							Sampled composite float/subcrop (all proximal) on descent down steep ridge-					1
							volcanic material sampled, possible tuff with malachite and posible chalcocite.					1
	CB12-019	9	681240.88	6261858.3	6499.759	TUFF	Overall malachite staining in area evident- possible structural.	le 1	SMI12000370	1963954	0.50	1.76









### (8) **Recommendations**

- The site visit completed by Serengeti confirmed the presence of widespread (1.5 km x 1.5 km) mineral occurrences on the Soup Ridge/Saddle Gulley Zone area of the Croy Bloom property.
- 2) The extent of the significant mineralization is not yet fully defined and its source is as of yet unknown.
- 3) Based on indications from these and past exploration results, there is potential for the discovery of significant mineral resources on the property.

Further work should include:

- Detailed mapping of the area of interest- with particular attention to structural detail.
- A short drill program with drilling up to at least 500m depth. Two well positioned holes would be a good initial test of the target area in order to identify a possible source porphyry at depth to mineralization identified on surface.

### (9) References

Rebagliati, C.M., Phase II Summary Report 1987 Kliyul Creek Gold Project Soup Claims, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report #16655.

Schiarizza, P., 2004, Geology and mineral occurrences of Quesnel Terrane, Kliyul Creek to Johanson Lake (94D/8, 9). B.C. Ministry of Energy, Mines and Petroleum Resources Paper 2004 - 1: p. 83-100.

Schiarizza, P., and Tan, S.H., 2005, Geology and mineral occurrences of Quesnel Terrane, between the Mesilinka River and Wrede Creek (NTS 94D/8,9), North-Central British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources Paper 2005 - 1: p. 109-130.

Williams, J.D., Report on Drilling in 1997 on the Soup Gold-Copper Property, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report #25185.

Appendix A – Expenditure Statement

#### Croy Bloom Project Cost Statement 2012 Geochemical Sampling Program

# Dates Worked: September 7th to 10th 2012 Claims Worked: 529981, 857168, 514955, 516035

<b>1) Staff</b> SIR Geologist -5 days at \$450/day plus 2x field assistant @ \$400/day for 5 days	\$2,250.00 \$4,000.00
<b>2) Analysis</b> 19 Rock Samples @ \$25/sample Sample Dispatch and Analysis	\$475.00
<b>3) Travel</b> Helicopter Travel x 4.9hrs (@ \$1.156/hr) Flights	\$6,821.70 \$1,046.66
<b>4) Acommodation &amp; Groceries</b> Accommodation x2 nights (Senior Geologist) Meals/Groceries	\$250.00 \$84.87
<b>5) Equipment Rental and Fuel</b> Fuel Chainsaw Rental	\$345.00 \$150.00
<b>6) Report</b> Asssessment Report - 1 day @ \$450/day	\$450.00
Sub-Total	\$15,873.23
Admin (10%)	\$1,587.32
Total Expenditure	\$17,460.55

Appendix B – Geologist's Certificate

#### **GEOLOGIST`S CERTIFICATE**

I, Hilary C. Clarke of #1331 West Georgia Street, Vancouver, in the province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am Serengeti Resources Inc.'s Senior Project Geologist.

2. THAT I am a 2004 graduate of Trinity College Dublin with an Honours BA.

3. THAT I have practised in the field of Geosciences since my graduation from University.

4. THAT this report is based on fieldwork carried out on July 10<sup>th</sup> to 2<sup>nd</sup> September, 2012, by Hilary Clarke and staff of Serengeti Resources Inc.

5. THAT this report was written by myself under the supervision and direction of David W. Moore, President and CEO of Serengeti Resources Inc. and a Professional Geoscientist (P. Geo) registered and in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (#28163).

DATED at Vancouver, British Columbia this 10<sup>th</sup> day of May, 2013.

Hilary C. Clarke, B.A. (Hons.)

Clink

David W. Moore, P. Geo

Dotone

Appendix C – Analytical Certificates



CERTIFICATE OF ANALYSIS

Client:

Page:

Serengeti Resources 1700 - 750 W. Pender Street Vancouver BC V6C 2T8 CANADA

Submitted By: Hilary Clarke and Dave Moore

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

www.acmelab.com

Acme Analytical Laboratories (Vancouver) Ltd.

Receiving Lab: Canada-Smithers Received: September 19, 2012 Report Date: October 19, 2012 1 of 2

# SMI12000370.1

#### **CLIENT JOB INFORMATION**

SOUP (CB) Project: Shipment ID: 2012-11 P.O. Number 20

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	20	Crush, split and pulverize 250 g rock to 200 mesh			SMI
1DX2	20	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

#### SAMPLE DISPOSAL

RTRN-PLP Return DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Serengeti Resources Invoice To: 1700 - 750 W. Pender Street Vancouver BC V6C 2T8 CANADA

CLARENCE LEONG GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. "\*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

CC:

Number of Samples:

#### **ADDITIONAL COMMENTS**



Page:

#### Serengeti Resources

1700 - 750 W. Pender Street

Vancouver BC V6C 2T8 CANADA

Project: SOUP (CB)

2 of 2

Report Date:

October 19, 2012

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Part: 1 of 1

SMI12000370.1

# CERTIFICATE OF ANALYSIS

AcmeLabs

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
G1-SMI	Prep Blank	<0.01	0.1	6.8	2.8	45	<0.1	2.7	4.2	555	1.90	0.5	2.7	5.5	60	<0.1	<0.1	<0.1	37	0.49	0.068
G1-SMI	Prep Blank	<0.01	<0.1	1.9	2.7	47	<0.1	2.9	4.2	577	1.89	<0.5	1.9	6.3	53	<0.1	<0.1	<0.1	37	0.48	0.075
1963283	Rock	1.77	20.1	382.4	1.6	14	0.2	1.4	3.8	342	1.45	3.4	5.5	5.7	60	<0.1	<0.1	<0.1	37	2.40	0.047
1963936	Rock	0.42	8.2	1487	8.3	15	>100	12.4	66.3	455	10.70	<0.5>	100000	0.3	12	0.3	<0.1	8.6	44	2.33	0.039
1963937	Rock	1.27	231.4	60.5	5.6	3	23.6	0.8	11.9	62	5.68	<0.5	11971	0.3	37	<0.1	0.1	2.6	43	0.03	0.054
1963938	Rock	1.25	3.7	95.6	4.7	22	3.0	4.3	11.0	369	2.74	1.4	1212	2.1	23	<0.1	<0.1	0.4	58	0.94	0.080
1963939	Rock	0.65	20.1	744.6	12.0	36	1.1	2.6	4.3	830	0.74	<0.5	506.9	<0.1	46	0.6	<0.1	<0.1	7	1.31	0.009
1963940	Rock	0.92	20.6	>10000	1.7	25	10.5	47.0	9.0	376	3.55	<0.5	782.6	3.8	21	2.1	<0.1	0.1	41	1.64	0.028
1963941	Rock	0.33	89.2	402.4	10.6	8	3.8	20.5	49.5	38	12.12	15.1	9964	<0.1	2	<0.1	0.4	1.9	17	0.03	0.011
1963942	Rock	0.51	662.7	1360	4.0	6	4.1	6.8	13.8	46	9.06	107.6	745.0	0.2	22	0.2	0.9	0.5	59	0.27	0.036
1963943	Rock	0.83	1.1	2.7	1.5	99	<0.1	323.8	34.6	1077	7.05	0.9	74.6	0.3	124	0.2	<0.1	<0.1	245	6.12	0.077
1963944	Rock	1.26	1.2	736.9	8.4	39	3.5	7.3	3.7	195	1.30	5.7	72.1	<0.1	1	0.3	0.2	<0.1	7	0.07	0.004
1963945	Rock	1.11	2.3	1360	19.3	159	4.7	8.7	3.7	251	1.25	1.8	140.9	<0.1	4	1.7	0.4	<0.1	6	0.28	0.003
1963946	Rock	1.00	19.3	9701	0.4	61	1.3	126.8	36.9	506	3.23	1.1	107.9	0.4	20	1.0	0.1	<0.1	101	0.46	0.071
1963947	Rock	0.33	0.5	1278	0.5	4	1.4	1.7	1.8	83	0.56	<0.5	20.5	<0.1	5	0.2	<0.1	<0.1	4	0.34	<0.001
1963948	Rock	0.99	5.5	862.8	4.5	7	0.7	205.8	112.6	87	10.19	173.0	162.0	0.2	6	<0.1	0.3	0.4	46	0.21	0.054
1963949	Rock	1.09	7.7	14.5	2.0	14	4.0	24.6	195.8	199	11.36	1.9	2685	<0.1	2	<0.1	0.2	0.9	46	0.03	0.011
1963950	Rock	0.93	0.1	233.0	1.3	68	0.2	27.9	32.4	1266	5.83	1.3	16.3	0.4	127	0.2	<0.1	<0.1	244	6.03	0.107
1963951	Rock	0.80	5.0	466.4	1.2	28	0.9	73.4	42.2	330	6.08	2.3	161.1	0.2	17	<0.1	0.1	<0.1	58	0.42	0.022
1963952	Rock	1.54	1.0	>10000	3.2	26	15.4	5.7	9.2	302	2.87	<0.5	442.0	<0.1	32	1.9	<0.1	<0.1	43	1.51	0.013
1963953	Rock	0.72	4.9	18.0	2.2	70	0.7	311.2	42.4	1667	7.26	2.5	225.4	<0.1	130	0.5	<0.1	0.1	285	9.83	0.056
1963954	Rock	0.96	1.2	>10000	0.4	23	2.0	24.0	68.7	280	1.79	1.4	502.2	0.3	84	0.3	<0.1	<0.1	34	0.54	0.086





Project:

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# CERTIFICATE OF ANALYSIS

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	La	Cr	Mg	Ва	Ті	в	AI	Na	κ	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
G1-SMI Prep E	Blank	12	8	0.50	175	0.104	2	0.90	0.079	0.46	0.1	<0.01	2.2	0.3	<0.05	5	<0.5	<0.2
G1-SMI Prep E	Blank	14	10	0.53	183	0.109	2	0.91	0.077	0.45	0.2	<0.01	2.5	0.3	<0.05	5	<0.5	<0.2
1963283 Rock		13	2	0.26	658	0.002	10	0.41	0.032	0.08	<0.1	<0.01	2.5	<0.1	0.06	3	<0.5	<0.2
1963936 Rock		<1	13	0.67	17	0.069	1	0.80	0.033	0.05	1.6	3.61	3.8	<0.1	7.59	3	4.6	197.8
1963937 Rock		<1	7	0.03	53	0.003	1	0.14	0.114	0.03	0.8	0.20	1.3	<0.1	0.32	2	1.6	30.0
1963938 Rock		6	5	0.35	185	0.007	<1	0.55	0.096	0.05	<0.1	0.02	3.6	<0.1	0.42	3	<0.5	3.0
1963939 Rock		<1	8	0.07	1022	<0.001	<1	0.10	0.003	<0.01	<0.1	<0.01	0.3	<0.1	0.07	<1	<0.5	<0.2
1963940 Rock		<1	4	0.89	12	0.046	<1	0.96	0.121	0.03	0.2	<0.01	2.1	<0.1	0.86	5	4.2	<0.2
1963941 Rock		<1	13	0.04	5	0.003	<1	0.09	0.002	0.05	<0.1	0.04	0.6	<0.1	7.27	1	6.5	0.8
1963942 Rock		<1	24	0.08	5	0.104	<1	0.32	0.011	0.05	<0.1	0.03	1.2	<0.1	0.21	3	5.0	0.6
1963943 Rock		1	607	5.38	82	0.214	<1	4.21	0.069	1.47	<0.1	<0.01	25.9	0.4	<0.05	13	<0.5	<0.2
1963944 Rock		<1	26	0.25	12	0.002	1	0.27	0.004	0.10	<0.1	0.02	0.5	<0.1	0.12	<1	1.0	0.2
1963945 Rock		<1	29	0.40	12	0.002	<1	0.38	0.009	0.09	<0.1	0.04	0.5	<0.1	0.07	<1	1.6	0.2
1963946 Rock		1	152	2.32	11	0.174	<1	2.17	0.084	0.07	0.2	<0.01	2.7	<0.1	0.32	9	2.2	<0.2
1963947 Rock		<1	15	0.13	2	0.003	<1	0.12	0.007	<0.01	<0.1	<0.01	0.7	<0.1	0.13	<1	<0.5	<0.2
1963948 Rock		<1	142	0.48	21	0.109	1	0.81	0.025	0.25	0.1	<0.01	5.1	<0.1	6.50	3	13.6	1.3
1963949 Rock		<1	47	0.49	12	0.020	3	0.63	0.007	0.02	0.1	0.05	5.3	<0.1	1.45	2	1.7	4.7
1963950 Rock		2	79	3.12	236	0.060	<1	3.04	0.039	0.37	<0.1	<0.01	21.1	<0.1	0.06	11	<0.5	<0.2
1963951 Rock		<1	52	1.54	16	0.164	<1	1.41	0.056	0.05	0.2	0.02	2.5	<0.1	4.42	4	4.9	0.3
1963952 Rock		<1	18	0.69	5	0.012	<1	0.64	0.011	0.02	0.1	0.03	4.5	<0.1	1.18	2	5.4	0.9
1963953 Rock		1	376	6.39	30	0.007	2	4.65	0.004	0.05	<0.1	0.01	30.1	<0.1	0.12	14	<0.5	0.5
1963954 Rock		4	13	0.91	116	0.060	<1	1.50	0.061	0.15	0.6	<0.01	2.1	<0.1	0.06	4	<0.5	0.3



Part: 2 of 1

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SMI12000370.1

# QUALITY CONTROL REPORT

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
1963954	Rock	0.96	1.2	>10000	0.4	23	2.0	24.0	68.7	280	1.79	1.4	502.2	0.3	84	0.3	<0.1	<0.1	34	0.54	0.086
REP 1963954	QC		1.2	>10000	0.4	23	1.9	23.9	70.7	283	1.80	1.6	527.2	0.3	82	0.3	<0.1	<0.1	34	0.56	0.084
Reference Materials																					
STD DS9	Standard		14.0	113.7	125.1	323	2.0	40.6	8.0	603	2.41	27.6	118.3	6.9	71	2.7	5.3	6.8	42	0.76	0.082
STD DS9	Standard		14.2	101.4	118.4	293	1.9	40.0	7.6	603	2.33	24.2	154.2	6.4	67	2.1	4.7	6.2	40	0.74	0.084
STD DS9	Standard		12.9	108.0	128.5	322	1.9	40.0	7.9	609	2.46	27.1	120.8	7.2	79	2.5	5.2	7.4	43	0.77	0.085
STD DS9 Expected			12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1-SMI	Prep Blank	<0.01	0.1	6.8	2.8	45	<0.1	2.7	4.2	555	1.90	0.5	2.7	5.5	60	<0.1	<0.1	<0.1	37	0.49	0.068
G1-SMI	Prep Blank	<0.01	<0.1	1.9	2.7	47	<0.1	2.9	4.2	577	1.89	<0.5	1.9	6.3	53	<0.1	<0.1	<0.1	37	0.48	0.075



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Part: 2 of 1

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# QUALITY CONTROL REPORT

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	κ	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
1963954	Rock	4	13	0.91	116	0.060	<1	1.50	0.061	0.15	0.6	<0.01	2.1	<0.1	0.06	4	<0.5	0.3
REP 1963954	QC	4	14	0.92	117	0.060	<1	1.51	0.067	0.15	0.6	0.02	2.2	<0.1	0.06	3	<0.5	0.3
Reference Materials																		
STD DS9	Standard	14	124	0.64	322	0.117	3	1.00	0.089	0.41	3.1	0.20	2.5	5.6	0.17	5	5.6	5.5
STD DS9	Standard	13	120	0.62	289	0.115	2	0.98	0.088	0.41	3.1	0.21	2.5	5.6	0.16	5	5.7	5.1
STD DS9	Standard	15	124	0.64	320	0.118	4	1.00	0.086	0.41	3.4	0.23	2.6	5.6	0.17	5	6.2	5.9
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1-SMI	Prep Blank	12	8	0.50	175	0.104	2	0.90	0.079	0.46	0.1	<0.01	2.2	0.3	<0.05	5	<0.5	<0.2
G1-SMI	Prep Blank	14	10	0.53	183	0.109	2	0.91	0.077	0.45	0.2	<0.01	2.5	0.3	<0.05	5	<0.5	<0.2

Appendix D – Field Notes and Results

Property	Sample #	Sample_ID	GPS waypoint	Zone	Easting (NAD83)	Northing (NAD83)	Elevation	Date	Lithology	Sampler	Notes	Type of Sample (Outcrop, subcrop, float, talus)	Width	Sample - Sample	ACME Job #	Sample#	Wgt (KG)	Mo (ppm)	Cu (ppm)	Pb (ppm) Zr	n (ppm) Ag	(ppm)	Ni (ppm)	Co (ppm)	Mn (ppm)	Fe (%)
											10cm boulder feox strong on surface-siliceous qtz vn with 20% py hosted in green chloritic volcanic. Boulders in area mostly intrusive															
Croy Bloom	1963936	CB12-001	CB12001	9	682635	6262067	5498	08/09/201	2 01/11	нс	mainly with intrusive bx textures-this sample stands out in surroundings.	Float	10		0 SMI12000370	1062026	0.42	8.2	1487.3	8.3	15	139.0	12.4	66.3	455	5 10.70
croy bloom	1903930	0012 001	COILOOI		002055	0202007	5450	00/03/201	2 0,00	e	Sample taken w/in boulder field of coarse grained porphyry intrusive		10		0 511112000570	1909990	0.42	0.2	1407.5	0.5	13	155.0	12.4	00.5	400	10.70
											orange strong feoxd qtx vn boulder 15cm across-gossanous with jarosite/limonite, abund goss boxwork,cavities after sulphide-glassy															
Croy Bloom	1963937	CB12-002	CB12 002	9	682623	6262131	5536	08/09/201	2 QVN	HC	qtz vn material, rounded boulder	Float	15	(	0 SMI12000370	1963937	1.27	231.4	60.5	5.6	3	23.6	0.8	11.9	62	2 5.68
											Large 1.5m boulder of felsic intrusive with rusty stained Qtz veins up to 10cm wide. Sample with cubic rusty pyrite, some weak gossanous fractures-overall rock has strong foliation fabric (structure?),															
Croy Bloom	1963938	CB12-003	6	9	682513	6262273	5724	08/09/201	2 GRAN?	HC	fractures strongly magnetic! Powdery white colour with Fe staining. Sample small float-white powdery quartz, strongly altered with	Subcrop	150	(	0 SMI12000370	1963938	1.25	3.7	95.6	4.7	22	3.0	4.3	11.0	365	9 2.74
											disseminated clots of moderately Fe-ox'd pyrite with often malachite stain. Low magnetism, hydrothermal looking quartz with malachite, low s.g. of hand sample. Area characterised by variable composition of float. This sample taken to test extent of spread of mineralized															
Croy Bloom	1963939	CB12-004	7	9	682383	6262294	5790	08/09/201	2 Q12	HC	float. Malachite stained hydrothermal quartz with azurite, malachite, cpy,	Float			0 SMI12000370	1963939	0.65	20.1	744.6	12.0	36	1.1	2.6	4.3	830	0 0.74
Croy Bloom	1963940	CB12-005	9	9	682366	6262303	5817	08/09/201	2 QVN	нс	bornite. Low s.g. of this rock. Strong Fe-ox- gossanous on fracture surfaces. Disseminated Cy clots.	Float		(	0 SMI12000370	1963940	0.92	20.6	12200.0	1.7	25	10.5	47.0	9.0	376	6 3.55
											High-sulph looking spongy friable texture with 60-70% bright f.g pyrite. Strong Fe-ox gossan on surface with quartz. Possible vein															
Croy Bloom	1963941	CB12-006	10	9	682365	6262295	5828	08/09/201	2 PY	нс	material. Composite float sample of strongly gossanous quartz material-locally	Float		(	0 SMI12000370	1963941	0.33	89.2	402.4	10.6	8	3.8	20.5	49.5	38	8 12.12
											sourced (?). Sampled to test extent of this type of float if mineralised. Increase in number of fe-ox stained boulders, smaller															
Croy Bloom	1963942	CB12-007	12	9	682285	6262278	5960	08/09/201	2 QTZ	HC	than avge here.	Float		(	0 SMI12000370	1963942	0.51	662.7	1360.0	4.0	6	4.1	6.8	13.8	46	6 9.06
Croy Bloom	1963943	CB12-008	13	9	682256	6262287	6025	08/09/201	2 BAS	нс	Quartz block, 40cm across. Glassy brittle quartz vein material, open	Float			0 SMI12000370	1963943	0.83	1.1	2.7	1.5	99	0.1	323.8	34.6	1077	7 7.05
Croy Bloom	1963944	CB12-009	17	9	682118	6262406	6153	08/09/201	2 QTZ	нс	crystalline growth- strong rusty stain- FeOx, MnOx and Malachite, Cpy observed. Most other float here is c.g. rounded boulders of gabbro	Float			0 SMI12000370	1963944	1.26	1.2	736.9	8.4	39	3.5	7.3	3.7	195	5 1.30
Croy Bloom	1963945	CB12-010	21	9	682116	6262419	6166	08/09/201	2 QVN	нс	Malachite stained quartz boulder with patchy strong FeOx after sulphides- cpy observed in FeOx patch glassy brittle quartz vein. Possible bornite noted.	Float			0 SMI12000370	1963945	1.11	2.3	1359.9	19.3	159	4.7	8.7	3.7	251	1 1.25
Croy Bloom	1963946	CB12-011	22	9	682127	6262452	6190	08/09/201	2 QVN	нс	FG Volcanic tuff with qtz vein structure running vertical 090 to 120degs ESE in outcrop. Possible to trace strong FeOx staining downslope into the gulley here-structure is traceable. Malachite- aurite mineralization is strong on fracture surfaces.	Outcrop			0 SMI12000370	1963946	1.00	19.3	9701.5	0.4	61	1.3	126.8	36.9	506	6 3.23
Croy Bloom	1963947	CB12-012	32	9	681715	6262614	6426	09/09/201	2 OVN	нс	Finer grained volcanic, fresh pyrite cubes- light green volcanic, tuff? Quartz vein sample	Outcrop			0 SMI12000370	1963947	0.33	0.5	1278.3	0.5	4	1.4	1.7	1.8	83	3 0.56
Croy Bloom	1963948		34	9	681697	6262625	6460	09/09/201		нс	Outstanding Fe staining in otherwise green epidote veined hornblende porphyry- augite phyric, the 'seam' of f.g. siliceous volcanic with up to 20-30% pyrite, f.g. disseminated- non magnetic. Questionable litho sampled-proximal float/subcrop	Float			0 SMI12000370		0.99				7	0.7	205.8	112.6		7 10.19
Croy Bloom	1963949	CB12-014	35	9	681499	6262589	6722	09/09/201	2 OVN	нс	Drusy cavity quartz vein with strong FeOx- with cpy, bn, mal, py. Strong gossan with remanant patches of fine grained green volcanic. Non-magnetic, quartz is open cavity fill. Proximal float on top of	Float			0 SMI12000370	1962949	1.09	7.7	14.5	2.0	14	4.0	24.6	195.8	100	9 11.36
	1963950		37	9	681380		6906			нс	ridge. Top of knife-edge ridge-sampled fine to med grained volcanic with cyp minz and weak malachite staining in fractures- non magnetic. Sample to highlight vertical extent of mineralization (Also possible within its mean days for additive ration)	Float			0 SMI12000370		0.93				68	0.2	24.0			
Croy Bloom	1303320	CB12-015	3/	а	001380	6262516	0906	09/09/201	LIUFF	nu	minz intersected on Soup drill section). Area where previous rock samples taken (x3) by SIR in 2011- strongly	,			0 3IVIT2000370	1302320	0.93	0.1	233.0	1.5	08	0.2	27.9	32.4	1266	5.83
Croy Bloom	1963951	CB12-016	39	9	681285	6262422	7061	09/09/201	2 TUFF	нс	Sample taken at bottom of talus slope in gully- drill pad here, check	Outcrop			0 SMI12000370	1963951	0.80	5.0	466.4	1.2	28	0.9	73.4	42.2	330	0 6.08
											location. Sampled quartz vein block, nice copper mineralization- good fracture fill chalcopyrite with malachite-bornite, strong FeOx or															
Croy Bloom	1963952	CB12-017	42	9	681145	6262509	6781	09/09/201	2 QVN	HC	fractures. Outcrop sampled- Strong MnOx in gossanous quartz- after MS?	Float		(	0 SMI12000370	1963952	1.54	1.0	15800.0	3.2	26	15.4	5.7	9.2	302	2 2.87
Croy Bloom	1963953	CB12-018	46	9	681070	6262145	7132	09/09/201	2 QVN	нс	Sulphide? Sampled composite float/subcrop (all proximal) on descent down steep ridge- volcanic material sampled, possible tuff with malachite	Outcrop			0 SMI12000370	1963953	0.72	4.9	18.0	2.2	70	0.7	311.2	42.4	1667	7 7.26
Croy Bloom	1963954	CB12-019	50	9	681241	6261858	6500	09/09/201	2 TUFF	нс	and posible chalcocite. Overall malachite staining in area evident- possible structural.	Subcrop			0 SMI12000370	1963954	0.96	1.2	17600.0	0.4	23	2.0	24.0	68.7	280	0 1.79

#### Croy Bloom Prospecting Rock Samples 2012

	As (ppm)	Au (ppb)	Th (ppm)	Sr (ppm)	Cd (ppm)	Sb (ppm)	Bi (ppm)	V (ppm)	Ca (%)	P (%)	La (ppm)	Cr (ppm)	Mg (%)	Ba (ppm)	Ti (%)	B (ppm)	AI (%)	Na (%)	K (%)	W (ppm)	Hg (ppm)	Sc (ppm)	TI (ppm)	S (%)	Ga (ppm)	Se (ppm)	Te (ppm)	Ag (GM/T)	Au (GM/T)	Cu%
Sample #																														
1963936	0.0	141800.0	0.3	12	0.3	0.1	1 8.6	i 44	2.33	0.039	0.5	13	0.67	17	0.069	1	0.80	0.033	0.05	1.6	3.61	3.8	0.1	7.59	3	4.6	197.8	139	141.8	0
1963937	0.0	11970.8	0.3	37	0.1	. 0.1	1 2.6	43	0.03	0.054	0.5	7	0.03	53	0.003	: 1	0.14	0.114	0.03	0.8	0.20	1.3	0.1	0.32	2	1.6	30.0	0	0	0
1963938	1.4	1212.0	2.1	23	0.1	. 0.1	1 0.4	58	0.94	0.080	6.0	5	0.35	185	0.007	1	0.55	0.096	0.05	0.1	0.02	3.6	0.1	0.42	3	0.3	3.0	0	0	0
1963939	0.0	506.9	0.1	46	0.6	0.1	1 0.1	. 7	1.31	0.009	0.5	8	0.07	1022	0.001	. 1	0.10	0.003	0.01	0.1	0.01	0.3	0.1	0.07	1	0.3	0.1	0	0	0
1963940	0.0	782.6	3.8	21	2.1	0.1	1 0.1	. 41	1.64	0.028	0.5	4	0.89	12	0.046	; 1	0.96	0.121	0.03	0.2	0.01	2.1	0.1	0.86	5	4.2	0.1	0	0	1.217
1963941	15.1	9963.5	0.1	2	0.1	. 0.4	1 1.9	17	0.03	0.011	0.5	13	0.04		0.003	: 1	0.09	0.002	0.05	0.1	0.04	0.6	0.1	7.27	1	6.5	0.8	0	0	0
1963942	107.6	745.0	0.2	22	0.2	0.9	9 0.5	59	0.27	0.036	0.5	24	0.08		0.104	. 1	0.32	0.011	0.05	0.1	0.03	1.2	0.1	0.21	3	5.0	0.6	0	0	0
1963943	0.9	74.6	0.3	124	0.2	0.1	1 0.1	245	6.12	0.077	1.0	607	5.38	82	0.214	1	4.21	0.069	1.47	0.1	0.01	25.9	0.4	<0.05	13	0.3	0.1	0	0	0
1963944	5.7	72.1	0.1	1	0.3	0.2	2 0.1	. 7	0.07	0.004	0.5	26	0.25	12	0.002	: 1	0.27	0.004	0.10	0.1	0.02	0.5	0.1	0.12	1	1.0	0.2	0	0	0
1963945	1.8	140.9	0.1	4	1.7	0.4	4 0.1	. 6	0.28	0.003	0.5	29	0.40	12	0.002	: 1	0.38	0.009	0.09	0.1	0.04	0.5	0.1	0.07	1	1.6	0.2	0	0	0
1963946	1.1	107.9	0.4	20	1.0	0.1	1 0.1	. 101	0.46	0.071	1.0	152	2.32	11	0.174	. 1	2.17	0.084	0.07	0.2	0.01	2.7	0.1	0.32	9	2.2	0.1	0	0	0
1963947	0.0	20.5	0.1	5	0.2	0.1	1 0.1	. 4	0.34	0.001	0.5	15	0.13	2	0.003	: 1	0.12	0.007	0.01	0.1	0.01	0.7	0.1	0.13	1	0.3	0.1	0	0	0
1963948	173.0	162.0	0.2	6	0.1	0.3	3 0.4	46	0.21	0.054	0.5	142	0.48	21	0.109	1	0.81	0.025	0.25	0.1	0.01	5.1	0.1	6.50	3	13.6	1.3	0	0	0
1963949	1.9	2684.7	0.1	2	0.1	0.2	2 0.9	46	0.03		0.5	47	0.49		0.020			0.007		0.1	0.05				2	1.7	4.7	0	0	0
1905949	1.9	2004.7	0.1		0.1	. 0.2	2 0.3	40	0.03	0.011	0.5	47	0.45	12	0.020		0.05	0.007	0.02	0.1	0.03	5.3	0.1	1.45	2	1.7	4.7	0	0	0
1963950	1.3	16.3	0.4	127	0.2	0.1	1 0.1	. 244	6.03	0.107	2.0	79	3.12	236	0.060	1	3.04	0.039	0.37	0.1	0.01	21.1	0.1	0.06	11	0.3	0.1	0	0	0
1963951	2.3	161.1	0.2	17	0.1	0.1	1 0.1	. 58	0.42	0.022	0.5	52	1.54	16	0.164	1	1.41	0.056	0.05	0.2	0.02	2.5	0.1	4.42	4	4.9	0.3	0	0	0
1963952	0.0	442.0	0.1	32	1.9	0.1	1 0.1	. 43	1.51	0.013	0.5	18	0.69		0.012	. 1	0.64	0.011	0.02	0.1	0.03	4.5	0.1	1.18	2	5.4	0.9	0	0	1.578
1963953	2.5	225.4	0.1	130	0.5	0.1	1 0.1	285	9.83	0.056	1.0	376	6.39	30	0.007	2	4.65	0.004	0.05	0.1	0.01	30.1	0.1	0.12	14	0.3	0.5	0	0	0
1963954	1.4	502.2	0.3	84	0.3	0.1	1 0.1	. 34	0.54	0.086	4.0	13	0.91	116	0.060	1	1.50	0.061	0.15	0.6	0.01	2.1	0.1	0.06	4	0.3	0.3	0	0	1.762