

# BC Geological Survey Assessment Report 30372

Report on a Soil Geochemical Survey

#### Hat Project

Lat.58°11'38"N and Long. 131°37'53"W

Sheslay Mining District, Atlin Mining Division, British Columbia.

Assessment Report Submitted to:

Mineral Titles Division, Geological Survey Branch, Ministry of Energy and Mines, Victoria, B.C.

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GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT





# HAT PROJECT, ATLIN MINING DIVISION

#### LOCATION MAP

November 2008

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#### **0.0 SUMMARY**

The Hat claims are in the Sheslay district of the Atlin Mining Division in northwest British Columbia. The claims are underlain by Triassic to Jurassic volcanic rocks, and by alkalic intrusive rocks believed to be part of a northerly trending belt of alkalic intrusions in Stikine Terrain that are prospective for copper-gold porphyry deposits. The Sheslay district appears to represent a partly exposed mineralized centre within the belt, and is located about 95 kilometres north of the large copper-gold porphyry deposits at Galore Creek. Firesteel Resources Ltd. recently drill outlined a large zone of porphyry copper gold mineralization on an adjacent property.

The claim owners have worked on several mineral properties in the district since the mid 1970's and have held the Hat claims since 1994. A review of technical data in 2004 identified four areas in the claims that held high potential for the discovery of significant mineralization. During 2005 and 2006, geochemical soil surveys targeted one of the zones to the west and north of the of large Gossan Creek alteration zone. The survey identified a large area with anomalous copper and gold in the soils. Survey extensions in 2008 showed a continuation of the anomaly to the north.

There is little outcrop in this area, and mapping is incomplete, however a limited amount of geological data collected in 2008 showed that the large soil anomaly is related to an intrusive complex of gabbro, diorite, syenite, pyroxenite, pyroxenite breccis, and to porphyry dykes. The size and strength of the anomaly is comparable to those marking other significant mineralized zones in the district, and enhances its potential as representing a porphyry copper-gold deposit.

The large anomaly lies several hundred metres west of a very large carbonate-silica alteration zone in Gossan Creek, however a relationship is uncertain. Work around the creek has shown a scattering of anomalous elements in soils and rocks including Cu., Au., Ba; Co; As; Ni; and locally Sb, and Zn. A select sample in the southern part of this zone assayed 966 ppb Au.; 4951 ppm Cu., 2752 ppm As.; 21 ppm Sb; and 2.8 ppm Ag. Six talus fine samples collected from the upper part of Gossan Creek in 2008 are locally anomalous in copper, gold, arsenic, lead, zinc and silver, antimony and mercury. The characteristics of this zone including mineral assemblages, rock textures, and soil and rock chemistry; have led the owners to suggest that mineralization in and around Gossan Creek represents a late-stage, low sulphidation epithermal gold-copper system.

Survey results from both the Gossan Creek zone and the area west of Gossan Creek are sufficiently encouraging to warrant an aggressive comprehensive exploration program of geotechnical surveys designed to define drill targets.



#### **1.0 INTRODUCTION**

#### 1.1 Introduction.

The Hat property is located in the Sheslay District of northwest British Columbia. The geologic setting here is similar to other areas of the Cordillera that host numerous coppergold and copper-molybdenum porphyry deposits. During the 1970's, porphyry coppergold deposits at Polar Creek, and Dick Creek, and a skarn deposit at Copper Creek in the western part of the district were explored by a variety of geological, geochemical, and geophysical surveys and bulldozer trenching. The mineralized zones at Copper and Polar Creeks, and at the Kid-Grizzley prospect slightly further to the west were also drill tested. During the late 1970's, the area now occupied by the Hat Claims was subjected to similar surveys as above, and by bulldozer trenching. Drilling was not undertaken.

The Hat claims lie about 9 kilometres to the south of an access road between Telegraph Creek and the Golden Bear Mine. The construction of this road\* in the 1980's gave better access to the area, and led to the discovery of a high-grade gold occurrence (Wolverine) a few kilometers south of the Hat claims. Significantly, this occurrence saw renewed exploration in 2004 and; the Dick Creek deposit in the western part of the district, was drill tested in 2004 and 2005 with significant copper-gold intercepts reported.

The Hat Project area is in Map Sheet 104J that was the subject of a provincial regional geochemical survey in 2000. The results of the RG Survey, released in 2001, included a number of samples in the Sheslay district that are clearly anomalous in gold and base metals. (ref. BC RGS 55/GSC Open File 4011).

Lisle and Ostensoe have extensive experience in the Sheslay District, and have held claims in the Hatchau Lake area since 1994. Since that time, they have carried out small exploration programs that at times were supported by grants from the now defunct BC Prospectors Assistance Program. This work identified areas within the claims that were considered prospective for copper-gold mineralization, and which warranted follow-up work.

During 2005 and 2006, partial geochemical surveys were carried out on the western part of the Gossan Creek Zone near Hatchau Lake. The data resulting from this work was filed in assessment reports. Between September 15 and 25, 2008, the geochemical survey in this area was extended mainly to the north of the earlier surveys. The results of the 2008 work are described herein.

#### 1.2 Property

E. Ostensoe and T.E. Lisle are the co-owners of the claims that comprise the Hat Project. Changes to provincial mining regulations allowed for the conversion of Legacy claims to the new cell claim designations and this change has resulted in new tenure numbers and claim size. As presently constituted, the following describe the tenures in the Hat Property.

Name	Tenure#	Issue Date	Cells	GTD	Total Hectares	2006 Assessment	New GTD*
Hat 3	511709	2005/Apr/26		2008/Sep/30	324.014	2,592.11	2010/Sept/30
Bob 2	507814	2005/Feb/24		2008/Sep/30	255.738	2,047.03	2010/Jan/12
Hat	501290	2005/Jan/12		2009/Jan/12	204.528	1,636.22	2010/Jan/12
Hat 4	515549	2005/Jun/29		2008/Sept/30	187.587	1,500.70	2010/Sep/30
Bob 1	515550	2005/Jun/29		2008/Sept/30	715.865	5,726.92	2010/Sep/30
Total					1,687.732		

# HAT CLAIMS, ATLIN MINING DIVISION October, 2008

\* After filing of 2008 Technical work.

#### 1.3 Location and Access

The Hat claims are located in Northwest British Columbia in Map sheet 104J/4E (104J012/104J013/104J022 and 104J023), and are centered approximately on Coordinates 131°37'53"W, and 58°11'38"N. The property is adjacent to Hatchau Lake that is situated 95 km west of Dease Lake and 50 km northwest of Telegraph Creek.

The claims lie mainly north of the Hackett River Lineament that drains Hatchau Lake northwest to the Sheslay River. Elevations in the claim area range from about 625 to 1300 metres above sea level. The slope to the north of the main Hackett River valley is relatively steep to about the 1000 metre elevation, but becomes flatter to the north towards Level Mountain. Some of the creeks are deeply incised into the south escarpment, and the area is thinly forested with poplar and spruce, and locally covered by willow marshes and muskegs.

An all weather road connects Dease Lake to Telegraph Creek, and a limited access mine service road\*\* branches from the main road near Telegraph Creek and passes about 8-10 km. south of the Hat claims. There is a useable gravel airstrip located at the confluence of the Hackett River and the Sheslay River some 13 km west of the Hat claims. For practical purposes, the easiest current access is by float-equipped aircraft to Hatchau Lake, or by helicopter from the Golden-Bear Mine Road. Helicopter access would be preferable and necessary to establish camps on the upper slopes.

\*\* The Golden Bear Mine Road is now locked and special permission has to be obtained from Telegraph Creek for access. \* Note: The Golden Bear Mine Road was reported in September 2008 to be blocked by a slide at Kilometer 22, and by a bridge washout a few kilometers further to the west of Kilometer 22.

1.4 References.

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- 10) Porphyry Deposits of the Canadian Cordillera, CIM Special Volume 15, 1976.
- 11) Miscellaneous Private file notes and reports on the geology and exploration of the Hat claim area assembled from various sources between 1976 and 2008.

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#### 2.0 GEOLOGY

#### 2.1 Regional Setting

Alkalic type copper-gold porphyry deposits form a significant portion of British Columbia's mineral wealth, and for this reason attract increasing attention from the mining and investment communities. The deposits occur in and near alkalic intrusive rocks in island arc assemblages of upper Triassic to Jurassic age, and are mainly in two distinct belts.

- a) The large Quesnellia belt stretching from south of Princeton to north of MacKenzie hosts major deposits at Copper Mountain, Afton, Mount Polly, Lorraine and Mount Milligan. The northerly section between Williams Lake and Mackenzie was the focus of in depth studies in 2007-08 by Geoscience BC and numerous exploration companies.
- b) The northerly trending Stikine belt in northwest BC is less well explored, but hosts the giant Galore Creek copper-gold deposits of Teck-Cominco and Nova Gold Resources. The Hat property is in the Sheslay District of this belt about 100 kilometres north of Galore Creek.

The Sheslay area is near the northern margin of tectonic terrain Stikinia where structural trends are dominantly west-northwest and northerly. The northerly trend partly relates to crustal rifting, marked by northerly trending belt of Miocene to Recent aged volcanoes (TQw) including the Level Mountain volcano. This volcanic trend crosses the Nahlin and King Salmon Faults, regional northwest structures related to terrain boundaries.

Near the claim area, Level Mountain basalts intrude and overlie sections of the Stuhini Group (TrJt), an island arc assemblage of andesitic to basaltic volcanic and related sedimentary rocks of upper Triassic age. The Hat property is located in a central area where a north-south trending section of the Stuhini formation abuts the Nahlin-King Salmon faults, and where the formational trend swings northwest-southeast sub parallel to these faults. A major structural trend, sub parallel to the regional faults, passes west northwest along the Hackett River Valley near the south margin of Level Mountain. Stocks and dykes of diorite, gabbro, syenite-monzonite, and pyroxenite? are evident along trend. An age date from the Kaketsa Stock showed 218+- 8 MA. The large Moosehorn Batholith, mainly diorite to granodiorite in composition, lies several kilometers to the south of this area,

A surprisingly large number of mineral occurrences are present in the Sheslay District over an area about 10 by 18 km. Many are spatially related to the Kaketsa Stock, and other smaller intrusions including the Hat Stock. Mineralization occurs in porphyry, skarn and vein-type deposits; and exhalative sulphide zones have been noted locally. Zones of interest occur within or proximal to small alkalic intrusions located at or near major regional faults, or at the intersections of regional faults. Six of these occurrences, including the Hat, have received exploration since about 1970, and four have been drill tested. Firesteel Resources Ltd. recently outlined a mineralized zone on the adjacent Dick Creek property that reportedly graded > 0.30% Cu (Equiv) in a zone about 250x250x300M. (See Firesteel Website). The evidence appears to suggest that the Sheslay district may represent an exposed section of a mineralized centre within a northerly trending assemblage of Stuhini volcanic and alkalic intrusive rocks as shown on page 360 in CIM Special Volume 15, "Porphyry Deposits of the Canadian Cordillera".

#### 2.2 Geology of the Hat Claims

The Hat claim area is underlain by a large composite gabbro-diorite stock with a long axis between five and six kilometers west northwest, consistent with the regional structural trend. The irregular outline and strong lineaments suggest post emplacement deformation into a large (3x3 km) western section, and a smaller  $3 \times 1.0$  km eastern segment. A small intrusion of diorite to monzonite of uncertain relationship to the main stock is present a short distance to the south east, and a smaller mass of hornblende diorite, similar to the large Kaketsa stock to the west at Sheslay, is present to the northwest of the main stock. The stock intrudes an assemblage of upper Triassic andesitic to basic volcanic flows and related sedimentary rocks of the Stuhini formation. Both the stock and Stuhini volcanic rocks are overlain by basalt flow and fragmental units of the Miocene to Recent Level Mountain formation.

Mapping and regional magnetic data indicates that a large western section of the intrusion is a magnetite-rich, medium to coarse-grained gabbro and diorite that is cut by a swarm of northwesterly porphyritic dykes. The dykes are reported to be of similar gabbro to diorite composition as the stock and many weather orange. However, some of the dykes appear to contain potash feldspar and, as they contain significantly higher concentrations of copper and gold, a relationship may exist between some of the dykes and other lithologies as syenite or monzonite. The dykes and adjacent host are commonly weakly altered by chlorite, epidote-prehnite and carbonate, while some of the pale green weathered types have strong epidote, sericite, carbonate, and chlorite alteration. The chloritic alteration tends to occur as fracture fillings in all rock types but is also pervasive near the dykes.

Of interest is the fact that much of the mineralization of economic interest has been noted in the central to eastern sections of the stock. Mineralization commonly includes weak disseminations and fracture fillings of chalcopyrite and pyrite. Magnetite is common in fracture fillings and disseminations, and hematite is locally present as, coatings, thin fracture fillings to strong veins.

Large areas of calc-silicate (diopside-plagioclase) alteration, veined by diopside, sphene, pumpellyite, carbonate and actinolite, are recorded along the western margin of the stock. A second smaller calc-silicate alteration zone with an intense apatite-diopside-magnetite-sphene stockwork is located more centrally where the large western segment of the stock abuts the smaller eastern segment. Other alteration minerals noted in the area include scapolite, albite, garnet, malachite and rare quartz.

A third area of alteration is described as a biotite hornfels with very fine-grained 'felty greenish biotite', and is reported around the southeast contact area of the western section of the stock. A preliminary interpretation\* from the work during the 2008 field program is that this area is also underlain by pyroxenite, syenite, and an intrusion breccia with angular clasts to >0.20m of pyroxenite in a syenite matrix. The anomalous soil chemistry found in the geochemical surveys is proximal to these occurrences.

This latter area is of particular interest in that it is only a few hundred metres from a very large, conspicuous bright orange carbonate-silica alteration zone along the course of Gossan Creek and sections of the Hackett River valley. The characteristics of this alteration zone (described in previous reports) indicate a late stage epithermal event. Much of the intervening area from Gossan Creek to the intrusive contact is largely drift covered, hence, interpretation is difficult.

\* Petrographic work incomplete.

Most of the Cordilleran copper-gold porphyry deposits occur in discrete belts? of small, +- 200ma old alkalic intrusions either of the pyroxenite-syenite suite or the dioritemonzonite suite. The intrusions and ore zones are spatially related to regional fault, fracture and rift zones, and mineralization mainly occurs as disseminations, in stockworks or in breccia zones. Typically, a number of mineralized zones are present. Chalcopyrite is the dominant sulphide, although bornite and native copper are locally important, and up to a few percent magnetite is also present. Potassic alteration consisting of potash feldspar and biotite are the dominant alteration assemblage associated with the sulphide, but propylitic assemblages of chlorite, carbonate, epidote, albite, garnet, anhydrite, scapolite and tourmaline are common.

Except for a defined resource, the characteristics of the section of the Hat claims that is the focus of the current study fit comfortably into the above framework. They offer a compelling argument to undertake detailed geological, and further geophysical-geochemical exploration surveys.

#### **3.0 WORK PROGRAM**

#### 3.1 Introduction.

The owners drove to Dease Lake with camp, groceries and exploration equipment and chartered a helicopter to the property near Hatchau Lake. Camp was established at an old campsite on a small lake near the headwaters of Gossan Creek, and about 1.5 km. to the north of Hatchau Lake. A radiotelephone was set up at the camp for communication with Dease Lake. Travel and fieldwork occupied 10 days, from September 15 through September 25, 2008. Prior to leaving Dease Lake for the property, the owners met with representatives of the Tahltan First Nation at the band office in Dease Lake. The purpose of the meeting was to advise them of our claims and to apprise them of our work plans.

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Previous work at the property by the present owners had been directed to the main Gossan Creek area with a few long traverse lines extended to the west section of the property (Formerly HAT 4 claim before conversion to cell claims). The soil chemistry from samples on the westerly lines had shown a few sites with anomalous levels of copper, gold etc. The 2005 and 2006 survey work, and the work carried out during 2008 was directed expanding the data in this area.

The 2005 sampling program was referenced to earlier reconnaissance grid lines extended to the west about a kilometer from Gossan Creek. Station 19+00W on line 8+00S on the 1995 grid was located and a line run easterly for 185 metres then northerly for 100 metres to establish a reference point at 7+00N and 17+00W. From this point, a grid was established by running a sub baseline northerly on 17+00W between 7+00s to 4+00S in 2005; 4+00S and 2+00S in 2006, and 2+00S to 1+00S in 2008. The sample grid was completed with belt chain and compass and lines were commonly tied off at both ends. GPS readings were collected at a number of grid points on the survey, and these points are noted on Figure 3 to this report. Currently the grid covers an area approximately 600M north-south by 1000 metres east-west.( 1+00S to 7+00S and 11+00W to 21+00W on 50 metre centres).

#### 3.2 Sampling Procedure, Grid Area.

A total of 95 soil samples were collected in 2005. A further 91 soil samples were collected in 2006 from grid extensions to the north and to the east. During 2008, 58 samples were collected from northerly grid extensions on lines 1+00S to 2+50S.

The Sheslay area has been glaciated, and bedrock is partly obscured by a thin veneer, to local small blankets of glacial till that may be up to a few or several metres thick. Outcropping and talus was noted scattered over a limited area mainly between 15+50W and 18+00W, from lines 1+00S to 2+50S and may continue to about 4+00S, but the areas to the east and west are largely Poplar slopes devoid of outcrop. Drainages in the eastern section of the grid are locally greater that 10 metres deep without outcrop, suggesting relatively deep cover. The grid area has not been mapped; however, a general distribution would indicate highly altered (carbonate-silica) to the south, minor scattered volcanic rocks in the centre, and an assemblage of intrusive units on the northern part of the grid. During the 2008 work, geological observations were made on the distribution and nature of the underlying rocks on the northern grid lines and these are described elsewhere in this report.,

A typical soil profile in the grid area includes a few centimeters of dark organic material that is commonly underlain by a brown clayey soil that varies to dark brown, or to red brown and in some areas yellow brown. Locally, the soils are gravelly indicating washing. Experience in the area has shown that the clay-rich tills can significantly mask bedrock and subcrop mineralization, therefore when sampling, there is a need to deeply penetrate the surficial cover. All 2008 samples were dug with a shovel

or a soil-sampling pick. Samples were taken mainly at depths of 15 to 30 cm. and details on location, colour, content etc.were recorded on data sheets that form Appendix 3 to this report. The samples were air dried for several days then packed in boxes and delivered to Acme Analytical Laboratory in Vancouver on September 25, 2008.

3.3 Sampling Procedure, Upper Gossan Creek.

Due to better access from the camp, time was spent in the upper Gossan Creek drainage to east of the grid, and 6 additional samples were collected. (See section on Geology). The valley of the creek is steep and very rugged, and in many places choked with fallen trees making travel difficult. Hence, the scope of the work was limited. Much of the alteration in the creek area reflects multiple generations of carbonate emplacement with or without silica, and this material weathers to a bright tan-orange colour. The collected samples of talus fines were taken from zones that stood out from background and displayed either silica enrichment or a deeper, more limonitic alteration.

#### 3.4 Laboratory Procedure.

On delivery to the laboratory, the samples were further dried at 60°C and screened to obtain the -80mesh fraction. 15gram splits were then leached in hot (95° C) Aqua Regia solution then analyzed by ICP-MS for 36 elements. The analytic data from the laboratory are included as Appendix 2 to this report.

#### 4.0 PROGRAM RESULTS.

#### 4.1) Grid Geochemistry.

Data resulting from the 2008 geochemical work are compiled into field sheets, assay reports, and survey maps appended to this report. Correlation with the earlier survey work has not been completed, however, results of the 2005 and 2006 survey work are recorded in assessment reports filed with the Ministry, and the reader is directed to those sources for background. Data plots for the same six elements, Cu., Au., As., Ba., Co., and Ni. are included, as figures 3a to 3f. The data has not been statistically analyzed, however, areas of possible interest for these elements are highlighted by simple contours.

Previous work on the major prospects in the Sheslay District, by the owners and by others, noted that areas of potential economic interest were partly marked by anomalous copper soil anomalies in the range of 300 to 400 ppm Cu. with coincident but less well defined gold assays. The 2005-06 soil surveys partly outlined a large irregular zone of anomalous copper and gold soil assays in this range with assays up to 1325 ppm Cu. The 2008 work resulted in extending the zone to the north with assays up to 2309 ppm Cu.

Assay data from the 2005-06 surveys showed a wide scattering of anomalous assays, up to 179 ppb Au, throughout the grid. A number of the higher assays form one or two sample sites anomalies, however, one of the larger ones anomalies with smaller flanking

anomalies is centrally located and roughly coincident with the large copper anomaly. The 2008 work extended this anomaly to the north with assays to 180.2 ppb Au.

Cobalt mineralization has been noted elsewhere on the property, and has been shown to be associated with elevated levels of copper and gold. Though not exceptionally high in the soils, assays > 50 ppm Co. show a direct correlation with the large centrally located copper anomaly. Assays from the 2008 work ranged up to 160.3 ppm.

A plot of Nickel assays from the 2005-06 work showed elevated levels of Ni. over an area generally coincident with the large copper anomaly. The higher nickel assays generally follow the higher Cobalt assays, however 2008 work revealed only 2 sites with > 120 ppm Ni in the northern grid area.

High arsenic assays had locally been encountered in soils and rock mainly associated with the large carbonate-silica alteration zone in Gossan Creek, and along the south part of the 2005 grid. The survey work revealed a few sites scattered around the large copper anomaly, but only one site with assays >50 ppm As. was found during the 2008 work.

A plot of Barium data shows little coincidence with the copper anomaly, but generally shows numerous small anomalous zones in a crude annular ring?

A cursory examination of the Potassium data (not included in plots) indicates that higher K% assays partly overlie, and flank the large geochemical anomainly down slope to the southwest.

Limited geological work in the 2008 grid area indicates a strong spatial relationship between the large soil anomalies, and an intrusive complex of pyroxenite, syenite, pyroxenite breccia, gabbro, diorite and porphyry dykes.

Note: Crushed fines of a small limonitic zone at 1+90S at 15+20W yielded anomalous assays of Mo.; Cu., Pb.; Ag., Co.;Fe.; As.; Au.; Sb.; Bi.; W.; Hg.; Tl.; S.; and Se. The sample assay reveals depleted or lower than normal amounts of Ni.; Mn.; Th.; Sr.; Ca.; Mg.; Ba.; Ti.; Al. and Na.;

4.2) Upper Gossan Creek Area.

Assay results for the six elements of six talus fines from the upper Gossan Creek valley are shown on figure 5 to this report. The samples are locally anomalous in copper, gold, arsenic, lead, zinc and silver, antimony and mercury. The higher mercury content along precious metals, arsenic and antimony, taken with other geological characteristics, support an argument for epithermal style mineralization as has been proposed in the past.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

Mineral deposits in the Sheslay area contain anomalous concentrations of copper and gold mineralization, and significantly large occurrences of porphyry, skarn and vein-type mineralization have been outlined by geotechnical surveys, trenching and drilling. Copper and gold mineralization on the Hat property is widespread, and four areas have been identified as having high potential for the discovery of significant mineralized zones. Two of these areas are in the current study area; and the focus of much of the current effort is a large Cu.+Au soil anomaly in an area of limited outcrop located to the west of Gossan Creek. Preliminary evidence indicates that this zone relates to a complex of intrusive rocks including gabbro, diorite, pyroxenite, syenite, porphyry dykes and related breccias. The work has not fully defined the anomaly, however, the size and strength of the zone makes it a prime porphyry copper-gold target for further detailed exploration.

The above geochemical anomaly is located several hundred metres to the west of Gossan Creek. Previous work around the creek area has shown a scattering of anomalous elements in the rocks and soils including Cu., Au., Ba; Co; As; Ni; and locally Sb, and Zn. The creek cuts a very large intensely faulted and fractured, orange coloured, carbonate-silica alteration zone marked by breccias, and multigenerational veining mainly in volcanic and volcanic sedimentary rocks. The relationship to the large soil anomaly to the west is uncertain, however, the characteristics of the zone including mineral assemblages, rock textures, and soil and rock chemistry; have led the owners to suggest that mineralization in and around Gossan Creek represents a late-stage, low sulphidation epithermal gold-copper system. This interpretation requires careful further evaluation.

The results of the current and previous surveys in the Gossan Creek and west Gossan Creek area justify continued evaluation, and an aggressive exploration program is recommended. Initially, geological mapping should provide better perspective to both areas, but, as soil anomalies remain open to the north; and as much of the grid area and the area between the grid and Gossan Creek is drift covered, further soil surveys should be completed, and consideration be given to Induced Polarization surveys.











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2005 Survey + + + + + + + + + + + + + + + + + + +	+ + + + + + 6+005-
	+ + + + + + + 6+505
	* '
+ + + + + + + + + + + + + + + + + + + +	≥ + 7+00S
221+00V	
0 50 100 150 200 250M	HAT PROJECT, ATLIN MINING DIVISION Geochemical Survey, West Gossan Creek Area
Scale	NICKEL (ppm) Figure 3f September, 2008





### **APPENDIX** 1

#### CERTIFICATION

This report was prepared by T.E. Lisle, P. Eng., and E.A. Ostensoe, P.Geo., and is based in part on the work carried out by the authors in 1995, 1996, 2001, 2005, 2006, and 2008in part on background data as described in the section of References.

#### Thomas E. Lisle, P. Eng. certifies that:

- 1) He is a qualified consulting geologist with residence in North Vancouver, British Columbia.
- 2) He is a graduate in geology of the University of British Columbia, and is a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- 3) He has worked in the mineral exploration sector of the mining industry for more than forty years in western and northern Canada, the United States and Mexico.
- 4) He, in cooperation with Erik Ostensoe, P. Geo., completed the field work that is the basis for the accompanying report, and he is the principal author of that report.

#### Erik A. Ostensoe, P. Geo. certifies that:

- 1) He is qualified consulting geologist with residence in the city of Vancouver, British Columbia,
- He is a graduate in Honours Geology of the University of British Columbia, and has studied at Queens University, Kingston, Ontario and is a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
- 3) He has worked in the mineral exploration sector of the mining industry for more than thirty-five years.
- 4) He, in cooperation with T.E. Lisle, P. Eng. completed the field work that is the basis of the accompanying report and collaborated in the preparation of the report.

### **APPENDIX 2**

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### SOIL GEOCHEMISTRY ANALYTIC DATA

# AcmeLabs AcmeLabs 1020 Cordova St. East. Vancouver BC V6A 4A3 Canada

ACME ANALYTICAL LABORATORIES LTD.

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1020 Cordova St. East Vancouver BC V6A 4A3 Canada Phone (604) 253-3158 Fax (604) 253-1716 Client:

#### Ostensoe, Erik

4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

VAN08010551.1

Submitted By:
Receiving Lab:
Received:
Report Date:
Page:

Erik Ostensoe Canada-Vancouver October 28, 2008 November 13, 2008 1 of 4

# CERTIFICATE OF ANALYSIS

None Given

CLIENT JOB INFORMATION

65

#### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method	Number of	Code Description	Test	Report	
Code	Samples		Wgt (g)	Status	
SS80	65	Dry at 60C sieve 100g to -80 mesh			
Dry at 60C	65	Dry at 60C			
1DX15	65	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	

ADDITIONAL COMMENTS

DISP-RJT-SOIL

**RTRN-PLP** 

SAMPLE DISPOSAL

Project: Shipment ID: P.O. Number Number of Samples:

> Return Immediate Disposal of Soil Reject

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

	_
Invoinc	10'
IIIVUILE	

Ostensoe, Erik 4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

CC:

Tom Lisle



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Ostensoe, Erik

4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

Part 2

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Project: Report Date:

Page:

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2 of 4

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Phone (604) 253-3158 Fax (604) 253-1716

	Method	1DX15															
	Analyte	La	Cr	Mg	Ba	Ti	B	AI	Na	к	w	Hg	Sc	TI	S	Ga	Se
	Unit	ppm	ppm	%	քքա	%	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
L 0+79S 11+00W Soil		2	114	2.03	28	0.179	3	2,27	0.012	0.04	0.1	0.02	1.7	<0.1	<0.05	7	<0.5
L 1+00S 21+00W Soil		10	108	1.16	98	0.134	5	2.51	0.018	0.46	<0.1	0.03	13.1	0.1	<0.05	8	0.7
L 1+00S 20+50W Soil		10	95	1.08	133	0.143	6	2.53	0.018	0.40	0.1	0.02	11.0	0.1	<0.05	8	0.5
L 1+00S 20+00W Soil		8	85	0.97	107	0.144	6	2.47	0.017	0.46	<0.1	0.01	9.3	<0.1	<0.05	8	<0.5
L 1+005 19+50W Soil		10	85	0.95	225	0.151	5	2.52	0.020	0.35	<0.1	0.02	10,3	<0.1	<0.05	8	<0.5
L 1+00S 19+00W Soil		12	98	1.10	148	0.155	6	2.56	0.020	0.44	<0.1	0.02	12.0	0.1	<0.05	8	0.7
L 1+00S 18+50W Soil		9	84	1.02	125	0.145	5	2.48	0.019	0.29	<0.1	0.01	9.7	<0.1	<0.05	8	<0.5
L 1+00S 18+00W Soil		9	102	1.13	113	0.108	6	2.35	0.018	0.21	<0.1	0.02	9.8	<0.1	<0.05	8	0.8
L 1+00S 17+50W Soil		10	88	1.28	176	0.156	4	3.82	0.013	0.29	<0,1	0.01	9.0	<0.1	<0.05	12	<0.5
L 1+00S 17+00W Soil		7	52	1.06	116	0.075	5	3.76	0.015	0.28	<0.1	0.03	10.9	<0.1	<0.05	12	1.0
L 1+00S 16+50W Soil		6	106	1.11	177	0.162	4	2.90	0.014	0.24	<0.1	0.02	7.2	<0.1	<0.05	10	<0.5
L 1+00S 16+00W Soil		9	112	1.19	146	0.137	2	3.02	0.014	0.08	<0.1	0.01	10.1	<0.1	<0.05	10	<0.5
L 1+00S 15+50W Soil		11	150	1.45	91	0.158	3	3.42	0.013	0.10	<0.1	0.02	15.7	<0.1	<0,05	11	0.5
L 1+00S 15+00W Soil		6	104	1.21	153	0.120	3	3,33	0,016	0.06	<0.1	0.02	8.2	<0.1	<0.05	9	<0,5
L 1+00S 14+50W Soil		10	55	0.65	105	0.394	2	2.83	0.040	0.04	<0.1	<0.01	3.7	<0.1	<0.05	12	<0.5
L 1+00S 14+00W Soil		13	85	1.14	97	0.160	5	2.39	0.033	0.05	<0.1	0.06	9.1	<0.1	<0.05	8	0.7
L 1+00S 13+50W Soil		7	87	1.12	175	0.237	2	3.01	0.025	0.06	<0.1	0.02	5.8	<0.1	<0.05	10	<0.5
L 1+00S 13+00W Soi		8	78	1,41	98	0,258	1	2.81	0.022	0.49	<0.1	<0.01	8.3	<0.1	<0,05	12	<0.5
L 1+00S 12+50W Soi		5	123	1.48	159	0.178	3	3.04	0.018	0.16	<0.1	0.01	7.8	<0.1	<0.05	9	<0.5
L 1+00S 12+00W Soi		4	121	1.52	114	0.139	3	3.06	0.018	0.06	<0.1	0.01	7.7	<0.1	<0.05	9	0.6
L 1+00S 11+50W Soi		4	124	1.46	57	0.149	3	3.28	0.015	0.07	<0.1	0.01	6.6	<0.1	<0.05	11	0.7
L 1+50S 21+00W Soi		10	96	1.23	78	0.143	6	2,42	0.027	0.43	<0.1	0.03	11.2	0,1	<0.05	7	<0.5
L 1+50S 20+50W Soi		10	125	1.29	125	0.131	6	2.55	0.025	0.45	<0.1	0.03	13,1	0.1	<0.05	8	0.7
L 1+50S 20+00W Soi		10	89	0.94	101	0.144	6	2.44	0.019	0.35	0.1	0.02	10.4	<0.1	<0.05	8	<0.5
L 1+50S 19+50W Soi		9	97	1.07	128	0.152	6	2.59	0.020	0.36	<0.1	0.02	11.0	<0.1	<0.05	8	0.5
L 1+50S 19+00W Soi		9	84	0.98	121	0.131	7	2.28	0.019	0.43	<0.1	0.01	10,2	<0.1	<0.05	7	<0.5
L 1+50S 18+50W Soi		16	71	0.96	164	0.378	- 4	3.04	0.039	0.20	0.1	0.01	7.7	<0.1	<0.05	12	<0.5
L 1+50S 18+00W Soi	l	5	176	2.17	120	0.193	5	2.58	0.021	0.48	<0.1	<0.01	5.2	<0.1	<0.05	8	<0.5
L 1+50S 17+50W Soi	1	5	169	2.40	101	0.143	2	3.49	0.031	0.16	<0.1	0.02	6.9	<0.1	<0.05	9	<0.5
L 1+50S 17+00W Soi		9	121	1.24	102	0.160	4	3.06	0.013	0.35	<0.1	0.02	10.0	<0.1	<0.05	9	0.5

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Ostensoe, Erik

4306 West 3rd Ave Vancouver 8C V6R 1M7 Canada

VAN08010551.1

Project: Report Date:

November 13, 2008

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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	1DX15	1DX15	1DX15
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	v	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0. <del>5</del>	0.1	_ 1	0,1	0.1	0.1	2	0.01	0.001
L 0+79S 11+00W S	oil	1.0	, 86.6	1.7	30	<0.1	119.2	28.8	324	3,30	6.8	0.2	4.2	0.3	26	<0.1	<0.1	<0.1	95	0.44	0.034
L 1+00S 21+00W S	oil	0.9	, 166.1	4.9	76	0.1	81.8	34.6	822	5.57	25.3	0.5	8.4	1.4	31	0.2	0.4	0.1	138	0.94	0.153
L 1+00S 20+50W S	oil	0.9	, 134.6	5.2	114	0.2	75.0	35.6	1041	5.41	19.2	0.4	13.2	1.4	32	0.3	0.4	0.1	126	0.86	0.199
L 1+00S 20+00W 5	oil	0.8	. 109.1	5.6	138	0.2	61.6	28.8	873	4.61	10.0	0,4	14.0	1.2	32	0.3	0.3	<0.1	109	0.78	0.192
L 1+00S 19+50W S	oil	1.0	, 92.7	6.0	137	0.2	59.7	28.8	1158	4.86	10.1	0.5	4.4	1.5	40	0.4	0,3	<0.1	116	0.83	0.166
£ 1+00S 19+00W S	oil	1.2	• 149.5	5.6	90	0.1	72.1	35.3	927	5.38	21.8	0.5	5.7	1.5	36	0.3	0.4	0.1	124	0.90	0.174
L 1+00S 18+50W S	oil	1.0	- 118.6	7.2	99	0.3	61.5	30.7	1096	5.04	11.0	0.5	10.7	1.4	34	0.4	0.3	<0.1	114	0.82	0.161
L 1+00S 18+00W S	oil	1.2	· 289.6	10.2	86	0.2	89.0	41.2	962	5.81	18.5	0.4	13.3	1.1	44	0.2	0.4	0.1	139	1.19	0.216
L 1+00S 17+50W S	oil	1.0	,519.0	13.8	314	0.5	76.4	59.9	1776	6.55	30.4	0.5	10.8	1.2	45	0.6	0.3	0.2	140	0.77	0.261
L 1+00S 17+00W S	oil	0.6	. 1166	6.2	134	0.3	39.0	56.6	2362	7.28	25.7	0.4	50.4	0.6	83	0.5	0.3	<0.1	173	1.29	0.233
L 1+00S 16+50W S	oil	1.0	111.4	13.4	190	0.5	75.9	38.1	1717	5.66	13.3	0.4	6.2	1.3	30	0.5	0.3	0.1	131	0.72	0.142
L 1+00S 16+00W S	oil	0.8	. 129.9	12.7	93	0.2	83.1	31.8	1098	5.81	17.9	0.5	5.3	1.3	37	0.1	0.3	<0.1	137	0.79	0.093
L 1+00S 15+50W S	oil	0,7	162.3	14.9	78	0.2	102.1	33.6	729	6.02	21.6	0.7	31.1	1.6	38	0,1	0.4	<0.1	162	0.86	0.088
L 1+00S 15+00W S	oil	0.7	103.8	11.8	74	0,1	69.3	27.5	519	5.25	17.0	0.4	12,7	0,9	36	0.2	0.3	<0.1	140	0.78	0.088
L 1+00S 14+50W S	oil	1.1	25.4	6.8	101	0.2	53.8	23.6	884	5.38	3.9	0.4	0.7	1.9	30	0.3	0.1	0.1	103	0.54	0.079
L 1+00S 14+00W S	oil	1.0	306.4	9.1	72	0.2	75.1	20.9	523	4.74	13.0	0.6	7.5	1.4	45	0.8	0.4	<0.1	111	1.46	0.054
L 1+00S 13+50W S	oil	0.9	61.2	6.9	118	0.2	77.6	25.6	819	5.06	9.5	0,4	3.4	1.5	37	0.3	0.2	<0.1	126	0.68	0.121
L 1+00S 13+00W S	oil	0.6	177.4	3.8	47	0.1	60.6	24.8	504	6.26	9.6	0.4	12,8	1,3	25	<0.1	0.2	<0.1	194	0.60	0.108
L 1+00S 12+50W S	oit	0.7	105.7	6.4	76	0.2	100.1	35.7	7,37	5.40	15.1	0.4	12.5	1.2	33	0.1	0.3	<0.1	131	0.64	0.130
L 1+00S 12+00W S	oil	1.2	244.1	9.2	81	0.2	94.5	56.7	891	6.48	24.2	0.3	20.1	0.9	33	0.2	0.4	0.2	142	0.66	0.044
L 1+00S 11+50W S	oil	1.5	161.5	9.5	48	0.1	90.5	39.0	396	5.93	20.5	0.3	7.3	0.9	19	0.1	0.3	<0.1	144	0.48	0.033
L 1+50S 21+00W S	oil	0.8	× 246.0	5.6	58	0.1	74.6	27.8	671	4.80	26,1	0.4	15.7	1,6	37	0.1	0.4	<0.1	131	0.93	0.094
L 1+50S 20+50W S	oil	0.9	, 275.5	6,3	72	0.2	89.6	42.8	962	5.65	32.8	0.6	9.4	1.3	36	0.2	0.5	0.1	137	1.01	0.150
L 1+50S 20+00W S	oil	0.9	, 121.0	7.0	70	<0.1	57.8	27.3	758	4.93	16.1	0.4	21.1	1.5	37	0.2	0.4	<0.1	131	0.94	0.154
L 1+50S 19+50W S	ioil	0.9	/ 117.1	5.6	102	0.2	72.3	33.5	973	5.11	15.0	0.3	4.3	1.3	36	0.4	0.3	<0.1	121	0.94	0.157
L 1+50S 19+00W S	ioil	0.8	/ 143.6	5,8	91	0.2	64.1	29.8	953	4.79	13.2	0.4	6.3	1.1	41	0.3	0.3	<0.1	113	1.08	0.142
L 1+50S 18+50W S	ioil	1.5	142.5	7.4	164	0.3	101.1	34.6	1302	5,93	10.5	0.7	6.8	2.8	31	0.5	0.2	0,1	108	0.52	0.289
L 1+50S 18+00W	ioil	0.4	, 276.7	3.5	81	0.1	158.6	44.5	869	4.69	5.6	0.3	12.4	0.8	38	0.2	0.1	<0.1	129	0.82	0.165
L 1+50S 17+50W S	ioil	0.2	- 391.3	3.3	71	0.1	111.0	29.7	694	4.39	4.6	0.2	10.8	0.6	58	0.1	0.1	<0.1	101	0.87	0.116
L 1+50S 17+00W S	oil	0.8	/ 174.0	11.6	106	0.2	98.2	37.7	1185	5.25	17.7	0.6	11.0	1.1	32	0.4	0.3	<0.1	129	0.82	0.150

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Ostensoe, Erik

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· · · · · · · · · · · · · · · · · · ·		Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		Analyte	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	v	Ca	P
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
L 1+50S 16+50W	Soil		1.2	, 2309	11,3	165	1.0	43.7	82.4	2112	8,72	18,2	0.7	180.2	1.0	61	0.4	0.4	0.3	149	0.95	0.128
L1+50S 16+00W	Soil		1.4	764.7	4.6	63	0.3	17.4	36.8	1750	7,57	26.4	1.0	41.4	1.7	28	0.2	D.5	<0.1	140	1.36	0.169
L 1+50S 15+50W	Soil		0.6	, 147.7	11,1	123	0.2	74.2	29.3	982	5.73	16.2	0.6	11.3	1.5	36	0.2	0.3	0.1	135	0.71	0.103
L 1+50S 15+00W	Soil		0.B	, 173.2	10.4	84	0.2	83.7	29.7	773	5.84	18.1	0.6	7.8	1.6	38	0.2	0.4	0,1	135	0,74	0.065
L 1+50S 14+50W	Soil		0.6	- 135.3	10.4	94	0.2	88.6	32.4	837	5.57	15.6	0.5	4.8	1,4	39	0.2	0.3	<0,1	137	0,71	0.096
L 1+50S 14+00W	Soil		1.1	234.7	7.6	66	0.2	71.9	20.1	589	4.76	13.8	1.0	4.7	1.2	52	0.2	D.4	<0.1	125	1.40	0.046
L 1+50S 13+50W	Soil		0.8	, 57.1	6.4	125	0.2	45.4	22.7	1294	4.24	5.3	0.3	1.3	1.3	32	0,4	0.2	0.1	102	0.63	0.091
L 1+50S 13+00W	Soil		1.2	, 49.8	10.0	180	0.4	63.9	32.0	1967	5.13	3.8	0.3	<0,5	1.3	34	0.5	0.2	0,2	101	0.62	0,129
L 1+50S 12+50W	Soil		1.5	66.0	16.0	149	0.5	80.6	41.0	1051	5.49	6.3	0,3	2.9	1.0	30	0,5	0.3	0.1	116	0.79	0.100
L 1+50S 12+00W	Soil		1.0	75.1	9.5	144	0.6	77.9	45.0	1753	5.37	7.5	0.3	3.8	1.0	32	0.4	0.2	0.1	115	0.81	0.162
L 1+50S 11+50W	Soil		1.0	, 191.1	7.7	92	0.4	111.7	45.1	737	6.04	13.7	0.6	5.2	1.6	26	0.2	0.3	0.1	128	0.68	0.046
L 1+50S 11+00W	Soil		1.9	, 711.2	12.4	74	0.4	77.4	25.0	526	5.51	19.7	1.4	44.6	1,6	40	0.1	0.4	0.1	118	1.05	0.042
L 1+90S 15+20W	Soil		364.8	3801	34.0	186	27.9	38.5	151.2	277	>40	3254	0.6	55261	0.4	7	0,4	4.4	19.5	120	0.09	0.049
L 2+00S 21+00W	Soil		1.4	/ 181.2	6.2	104	0.3	78.8	41.1	1104	5.18	26.1	0.3	38.1	1.4	29	0.3	0,3	0.2	113	0.79	0.127
L 2+00S 20+50W	Soil		1.3	, 157.7	6.8	119	0.2	70.5	35.8	1079	5.44	19.7	0.4	18.3	1.5	35	0.3	0.3	0.1	116	0.89	0.134
L 2+00S 20+00W	Soil		1.1	193.3	6.1	100	0.2	73.6	38.1	1101	5.62	23.2	0.6	6.7	1.4	38	0.2	0.3	0.1	124	0.89	0.174
L 2+00S 19+50W	Soil		1.0	, 216.5	4.9	76	0.2	85.1	39,6	888	6.01	33,1	0.6	16.8	1.5	35	0.2	0.4	0.1	144	0.92	0.147
L 2+00S 19+00W	Soil		0.9	, 173.8	4.8	90	0.1	76.8	31.8	885	5.48	17.7	0.4	12.7	1.2	38	0,2	0.4	<0.1	128	1.00	0.119
L 2+00S 18+50W	Soil		1.0	- 176.6	7.4	208	0.3	90.1	41.2	1419	5.70	10.4	0.3	15.5	1.4	42	0.7	0.3	0.1	114	1.00	0.235
L 2+00S 18+00W	Soil		8.9	, 589.7	7.1	210	0.5	137.0	160.3	2370	9.68	209.8	1.0	9.1	0.5	61	2.9	0.6	0.3	155	1.48	0.219
L 2+00S 17+50W	Soil		0.6	, 502.7	13.7	145	0.2	119.6	59.5	1347	5.42	14.7	0.5	19.5	1.1	46	1.1	0.3	0.1	115	1.28	0.182
L 2+50S 21+00W	Soil		1.2	, 198.6	5,2	79	0.2	76.9	41.9	1086	5.73	29.3	0.4	11.2	1.5	33	0.2	0.4	0.2	127	0.88	0.164
L 2+50S 20+50W	Soil		0.9	. 160.3	5,8	118	0.3	75.6	37.2	1182	5.43	18.1	0.4	6,2	1.3	31	0.3	0.3	0.1	118	0.87	0.177
L 2+50S 20+00W	Soil		1.0	, 132.3	6.0	131	0.4	69.3	31.6	964	5.02	19.0	0.4	6.3	1.7	49	0.5	0.4	0.1	112	1.21	0.222
L 2+50S 19+50W	Soil		0.8	, 209.1	6.3	103	0.2	75.3	34.2	1021	5.50	24.8	0.4	10.9	1.5	37	0.3	0.4	0.1	134	1.06	0.115
L 2+50S 19+00W	Soil		1.2	. 134.1	7.6	162	0.3	81.0	43.3	1279	5.85	13.8	0.4	3.6	1.4	32	0.4	0.3	0.1	119	0.85	0.185
L 2+50S 18+50W	Soil		0.9	· 153.3	9,4	233	0.4	87.7	41.5	1423	6.02	12.6	0.4	11.1	1.4	37	0.6	0.3	0.1	120	0.94	0.187
L 2+50S 18+00W	Soil	- · · ·	0.9	, 197.6	13.4	197	0.3	110.1	52.3	1226	6.42	18.0	0.3	6.5	1.4	32	1.5	0.3	0.1	138	1.09	0.185
L 2+50S 17+50W	Soil		0.9	, 164.8	11.0	217	0.3	101.6	40.8	1422	5.73	12.1	0.4	3.5	1.6	32	0.8	0.3	<0.1	124	0.87	0.178
TF-1	Soil		1.6	189.6	4.5	49	0.1	36.1	35.5	1061	5.97	935.4	0.6	11.4	0.9	41	<0.1	1.4	<0.1	75	1.60	0.393

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#### Ostensoe, Erik

4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

VAN08010551.1

Project: Report Date: None Given November 13, 2008

1020 Cordova St. East Vancouver BC V6A 4A3 Canada Phone (604) 253-3158 Fax (604) 253-1716

3 of 4 Part 2

# CERTIFICATE OF ANALYSIS

	Method	1DX15															
	Analyte	La	Cr	Mg	Ba	Ti	в	AI	Na	к	w	Hg	Sc	TI	S	Ga	Se
	Unit	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
L 1+50S 16+50W Sc	il	11	66	0.75	114	0.064	5	2,50	0.008	0.20	<0.1	0,04	13.9	<0.1	<0.05	9	1.2
L 1+50S 16+00W Sc	il	13	20	0.74	45	0.027	5	2.21	0.006	0.11	<0.1	0.04	11.8	<0.1	<0.05	10	0.9
L 1+50S 15+50W So	il	9	114	1.06	204	0.112	1	3.21	0.013	0.08	<0.1	0.03	11.8	<0.1	<0.05	10	0.5
L 1+50S 15+00W Sc	il	11	121	1.32	124	0.152	2	2.97	0.015	0.08	<0.1	0,03	15.3	<0.1	<0.05	9	0,8
L 1+50S 14+50W Sc	il		127	1.33	135	0.178	2	2.94	0.014	0,15	<0.1	0.02	11.2	<0.1	<0.05	9	0.9
L 1+505 14+00W So	bil	10	88	1,20	116	0.171	5	2.55	0.030	0.05	<0.1	0.07	8.4	<0.1	<0.05	8	1.1
L 1+50S 13+50W So	oil	5	60	0.87	194	0.139	1	2.21	0.014	0.06	<0.1	0.01	4.9	<0.1	<0.05	8	0.5
L 1+50S 13+00W So	ið	6	77	0.81	194	0,198	3	2.47	0.017	0.13	<0.1	0.02	5.1	<0.1	<0.05	10	0.6
L 1+50S 12+50W So	il	5	86	1,07	169	0.183	4	2.78	0.018	0.17	<0.1	0.02	5.4	<0.1	<0.05	10	0.8
L 1+50S 12+00W So	it	6	105	1.13	204	0.159	5	2.82	0.016	0.20	<0.1	0.02	6.9	<0.1	<0.05	9	0.7
L 1+50S 11+50W So	il	10	113	1.41	79	0.213	2	3.12	0.019	0.08	<0.1	0.02	9.3	<0.1	<0.05	11	1.0
L1+50S 11+00W So	ull	12	81	1.41	54	0.252	5	2.37	0.031	0.05	<0.1	0.05	11.2	<0.1	<0.05	9	1.1
L 1+90S 15+20W So	il	17	98	0.10	9	0.080	3	0,66	0.002	0.02	0.7	1,19	2.6	0.9	0.20	7	22.7
L 2+00S 21+00W So	ail	9	98	1.00	154	0.133	4	2,30	0,018	0.38	<0.1	0,02	10,4	0,1	<0.05	7	0.8
L 2+00S 20+50W Se	pil	10	105	1.05	230	0.138	5	2.43	0.018	0.40	<0.1	0.02	12.3	<0.1	<0.05	8	0.6
L 2+00S 20+00W Sc	pił	11	109	1.12	141	0.140	4	2.56	0.019	0.38	<0.1	0.02	12.4	0.1	<0.05	8	0.7
1 2+00S 19+50W So	oit	10	113	1.30	86	0.137	5	2.71	0.019	0,37	<0.1	0.03	15.2	0.1	<0.05	9	0.6
L 2+00S 19+00W Sc	ы́I	10	101	1.20	99	0,153	6	2.50	0.018	0.43	<0.1	0.02	12.6	0.1	<0.05	9	1.0
L 2+00S 18+50W S	pil	10	101	1,19	199	0,160	8	2.65	0.019	0.50	<0.1	0.01	11.2	<0.1	<0.05	9	0.9
L 2+00S 18+00W S	oil	11	230	3.12	- 48	0.138	6	3.38	0.008	0.29	0.3	0.03	17.0	<0.1	<0.05	11	1.2
L 2+00S 17+50W S	bil	8	126	1.51	134	0.112	7	2.80	0.012	0.43	<0.1	0.03	10.1	<0.1	<0.05	9	1.0
L 2+50S 21+00W S	ля M	11	108	1,03	137	0,150	6	2.33	0.020	0,43	0.1	0.03	12.5	0.1	<0.05	8	0.9
L 2+50S 20+50W Se	sil	10	100	1.11	186	0.150	5	2.57	0.020	0.36	<0.1	0.02	10.6	<0.1	<0.05	8	0.7
L 2+50\$ 20+00W S	pil	11	88	1.01	198	0,166	7	2.43	0.019	0.32	<0.1	0.03	9.9	<0.1	<0.05	8	0.6
L 2+50S 19+50W S	pil	10	93	1.15	107	0.167	6	2.47	0.024	0.40	<0.1	0.03	12.0	0.1	<0.05	9	1.0
L 2+50S 19+00W S	pil	11	108	1.17	159	0,191	6	2.79	0.022	0.38	<0.1	0.01	10.2	0.1	<0.05	9	0.7
L 2+50S 18+50W S	pil	9	104	1.14	178	0.173	8	2.80	0.019	0.45	<0.1	0.01	10,0	<0.1	<0.05	10	0.7
L 2+50S 18+00W S	pit	9	146	1.34	131	0.164	7	2.93	0.019	0.61	<0.1	0.02	12.6	0.1	<0.05	10	1.1
L 2+50S 17+50W S	bil	9	121	1.20	159	0.176	7	2.94	0.020	0.49	<0.1	0.01	12.1	0.1	<0.05	10	0.6
TF-1 S	lic	12	8	0.69	18	0.007	4	0.69	0.013	0.04	<0.1	0.88	8.3	1.5	0.45	3	4.9

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Ostensoe, Erik

4306 West 3rd Ave Vancouver 8C V6R 1M7 Canada

VAN08010551.1

Project: Report Date: None Given November 13, 2008

1020 Cordova St. East Vancouver BC V6A 4A3 Canad Phone (604) 253-3158 Fax (604) 253-1716

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# **CERTIFICATE OF ANALYSIS**

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	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Mo	Cu	۶b	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	ppm.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
TF-2 S	lioi	0.3	106.1	0.5	68	<0.1	152.4	57.0	2247	10.08	14.2	0.3	1.9	0,7	80	<0.1	0.2	<0.1	103	8.84	0.065
TF-3 S	Soil	1.5	454.4	1.2	60	0.3	62.0	53.2	1881	10.34	71.6	0.5	112.5	1.1	84	<0.1	0.3	<0.1	124	3.67	0.118
TF-4 S	ioil	0.4	361.1	3.3	59	0.3	50.6	78.0	1169	5.71	59.8	0.4	44.5	0.8	83	<0.1	0.3	0.1	76	3.21	0.127
TF-5 S	Soil	0.7	2950	1625	1194	18.1	101,6	449.6	2758	17.70	189.2	0.5	185,2	8.0	85	28.4	11.7	1.4	99	2.39	0.150
TF-6 S	Soil	1.2	325.3	5.0	60	0.3	102.8	154.9	2021	6,48	29.9	0,6	18.7	1.3	75	0.2	0,6	0.2	96	3.94	0.091

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Ostensoe, Erik

4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

Part 2

VAN08010551.1

Project: Report Date:

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November 13, 2008

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#### **IFICATE OF ANALYSIS** CER

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		Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15								
		Analyte	La	Cr	Mg	Ba	Ti	В	AI	Na	к	w	Hg	Sc	TI	S	Ga	Se
		Unit	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
TF-2	Soil		7	200	3.34	56	0.007	3	0.62	0.016	0.07	<0.1	0,03	31.8	<0,1	<0,05	2	1.4
TF-3	Soil		11	40	1.02	64	0.002	5	0.37	0.012	0.03	<0.1	0.05	15.6	<0.1	<0.05	3	1.7
TF-4	Soil		7	37	1.38	21	0.015	3	0.90	0.010	0.05	<0.1	0.14	11.8	<0.1	0,13	5	0.6
TF-5	Soil		13	39	1,15	31	0.009	6	1.04	0.013	0.02	<0.1	0.64	11.3	0.2	5.25	8	62.2
TF-6	Soil		10	60	1.44	50	0.006	3	1.22	0.013	0.09	<0.1	0.16	16,4	0.4	0.20	4	8.1

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Ostensoe, Erik 4306 West 3rd Ave

Vancouver BC V6R 1M7 Canada

VAN08010551

Project: Report Date:

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November 13, 2008

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1020 Cordova St. East Vancouver BC V6A 4A3 Canada Phone (604) 253-3158 Fax (604) 253-1716

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# QUALITY CONTROL REPORT

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	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15												
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	v	Ca	P
	Unit	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%							
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
L 1+00S 16+50W	Soil	1.0	111,4	13.4	190	0.5	75.9	38.1	1717	5,66	13,3	0,4	6,2	1.3	30	0.5	0,3	0.1	131	0.72	0.142
REP L 1+00\$ 16+50W	QC	0.9	108.3	13.3	183	0.5	72,3	38,9	1832	5.77	12.9	0.4	3.7	1.2	30	0.6	0.3	0.1	133	0.74	0,136
L 1+005 15+50W	Soil	0.7	162.3	14.9	78	0.2	102.1	33.6	729	6.02	21.6	0.7	31.1	1.6	38	0.1	0.4	<0.1	162	0.86	0.088
REP L 1+00S 15+50W	QC	0.7	154.8	15.0	76	0.2	97.0	32.7	703	5.93	21.0	0.7	7.6	1.5	38	0.1	0.4	<0.1	161	0.85	0.090
L 1+50S 16+50W	Soil	1.2	2309	11.3	165	1.0	43.7	82.4	2112	8,72	18.2	0.7	180.2	1.0	61	0,4	0.4	0,3	149	0,95	0.126
REP L 1+50S 16+50W	QC	1.2	2363	11.0	163	1.0	45,9	82.7	2115	8,89	18.1	0,8	151,9	0.9	59	0.5	0.4	0.2	144	0,97	0,126
L 2+50S 20+00W	Soil	1.0	132.3	6.0	131	0.4	69.3	31.6	964	5.02	19.0	0.4	6.3	1.7	49	0.5	0.4	0.1	112	1.21	0.222
REP L 2+50S 20+00W	QC	1,1	132.8	5.8	134	0.4	71.3	33.6	1017	5.26	18.6	0.4	6.4	1.7	51	0.5	0.3	0.1	117	1.22	0.220
Reference Materials																					
STD DS7	Standard	20,7	111.4	65.2	390	0.8	57.1	10,1	645	2.43	54.8	5.0	58.4	4.6	78	6.7	6.1	4.7	89	0,99	0.091
STD DS7	Standard	20.7	117.2	74.9	427	0,9	60.1	10.3	688	2,65	54.0	5.1	61.7	4.8	77	7,0	6,4	5,0	88	1.00	0.085
STD DS7 Expected		20.9	109	70.6	411	0.9	56	9.7	627	2.39	48.2	4.9	70	4.4	69	6.4	5.9	4.5	86	0.93	0.08
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.1	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank	<0,1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.1	<0.5	<0.1	<1	<0.1	<0,1	<0.1	<2	<0.01	<0.001

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#### Ostensoe, Erik

4306 West 3rd Ave Vancouver BC V6R 1M7 Canada

VAN08010551.1

Project:

Report Date:

None Given November 13, 2008

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1 of 1 Part 2

# QUALITY CONTROL REPORT

Phone (604) 253-3158 Fax (604) 253-1716

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	La	Cr	Mg	Ba	Ti	8	A}	Na	к	w	Hg	Sc	ті	s	Ga	Se
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	քքո	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
Pulp Duplicates																	
L 1+00S 16+50W	Soil	6	106	1.11	177	0.162	4	2.90	0.014	0,24	<0.1	0.02	7.2	<0.1	<0.05	10	<0.5
REP L 1+00S 16+50W	QC	6	108	1.10	176	0,157	3	2.79	0.013	0.24	<0.1	0.02	7.6	<0.1	<0.05	10	<0.5
L 1+00S 15+50W	Soil	11	150	1.45	91	0.158	33	3.42	0.013	0,10	<0.1	0.02	15.7	<0.1	<0.05	11	0.5
REP L 1+00S 15+50W	ac	11	148	1.49	90	0,168	3	3,48	0.017	0.10	<0.1	0.02	16.3	<0.1	<0.05	10	<0.5
L 1+50S 16+50W	Soil	11	66	0.75	114	0.064	5	2.50	0.008	0,20	<0.1	0.04	13.9	<0.1	<0,05	9	1.2
REP L 1+50S 16+50W	QC	12	67	0.74	120	0.065	5	2.54	0.007	0,20	<0.1	0.04	14.2	0,1	<0.05	9	1.3
L 2+50S 20+00W	Soil	11	88	1.01	198	0.166	7	2.43	0.019	0.32	<0.1	0.03	9.9	<0.1	<0.05	В	0.6
REP L 2+50S 20+00W	QC	11	94	1.01	210	0,168	7	2.41	0.021	0.32	0.1	0.01	10.0	<0.1	<0.05	8	0.6
Reference Materials																	
STD DS7	Standard	13	223	1.05	423	0.133	40	1.07	D.105	0.50	3,9	0.19	3.2	4,1	0,17	5	3,5
STD DS7	Standard	13	210	1.13	441	0,139	40	1.05	0.095	0.49	4.1	0.20	3.0	4.2	0,19	5	3.8
STD DS7 Expected		13	163	1.05	370	0.124	39	0.959	0.073	0.44	3.8	0.2	2.5	4.2	0.21	5	3.5
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
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

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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.

# **APPENDIX 3**

### SOIL DATA FORMS.

GEO	CHE	MICAL	DATA
	~		MACK LAN

Hat PROJECT GENERAL LOCATION

Sheslay

September 18/08 104J 012 NT'S MAP SHEET

SAMPLER

DATE

E Ostensoe/T.Lisle

LOCATION NTS UTM

			•	GRID												
_			 NORTH SOUTH	EAST WEST	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Remarks
,			1+50S	11.05W	soil	0.20	В	Mud Brn	Till	5	<5	40	40	10	No	Clay Till by Boggy area
2			1+50S	11+58W	soil	0.25	В	Dk Brr	Till	10		30	45	15	No	Taken on edge of bog.
J_			1+50S	12+00W	soil	0.15	В	Dk Brr	Till	15	10	10	35	30	?	Poplar Slope on bedrock?
			1+50S*	12+50W	soil	0.12	В	Dk Brn	Till	15		15	50	20	?	As above.
6			1+50S	13+00W	soil	0.20	В	Dk Brr	Till	20	5-10	15	40	20	?	Close to bedrock.
6	-		1+50S	13.50W	soil	0.25	В	Brn.	Till	25		10	50	15	?	Poplar-Spruce slope.
,			1+50S	14+00W	soil	0.35	В	Brn	Till	15	15	50	15	5	No	Edge of bog.
]ء			1+50S	14+50W	soil	0.20	в	Brn.	Till	10	10	20	35	25	No	Poplar slpe
9			1+50S	15+00W	soil	0.20	В	Brn	Till	5		25	50	20	No	Poplar Slope.
0			1+50S	15+50 W	soil	0.20	в	Brn	Till	15		40	25	20	No	Poplar Slope.

SURVEY TYPE: S=Soll; SS=Sill; R=Rock Chip

DEPTH: Measured in meters.

HORIZON: Marked A.B. or C

COLOUR: Br. Brown, Bl. Black, R. Red. G. Grey, O, Orange, Dk. Dark, LL Light.

MATERIAL: T Till; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Giaciofluvial. O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments,

CLAY-SILT-SAND: Low to moderate to high estimates.

\* Waypoint 3

GEOCHEMICAL DATA

T. Lisle/E. Ostensoe

Sept. 19/08

104J012

PROJECT	
GENERAL	LOCATION

LOCATION

-<del>Sheslay, NW BC</del>

HAT

NTS

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G	8	un	

		NORTH SOUTH	EAST WEST	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Remarks
ſ	1	1+50S	16+00W	Soil	0.20	B	Brn	Talus F+Soil	20-25	10	20	30	20	No	Steep stope below outcrop.
2	-	1+50S	16+50W	Soil	0.1	B+A	Dk Bn	n Talus	30	15	10	25	20	NO	Steep poplar slope
3		1+50S	17+00W	Soil	0.3	5 C	Pale Brn	Till/Subcrop	30	10	15	15	30	Subcrop	? Guliy at 17+13W. Poplar Slope.
4		1+00W	17+00W	Soil	0.3	С	Brn	Talus Fin	e 50	10	10	20	10	Yes	M to CG gabbro?
б		1+00S	<u>16+50W</u>	Soil	0.30	) A	Dk Brr	) Talus Fine/Till	10	30	15	30	15	No	Foot of Talus w MG diorire.
6		1+00S	16+00W	Soil	0.30	) <u>B</u>	Brn	Till	15		25	40	20	No	15 M above steep slope.
7		1+00S	15+50W	Soil	0.2	5 B	Brn	Till	15		35	35	15	No	Gentle treed slope.
•		1+00S	15+00W	Soil	0.20	B	Brn	Till	20	5	35	25	15	No/Nea	r Diorite oc at 15+25W.
\$		1+00S	_14+50W	Soil	0.20	В	Brick Re	d Till?	5	10	20	40	25	No	Edge of Willow Swamp
10		1+00S	14+00W	Soil	0.3	рВ	Pale Gr	Br Modified Till	10	5	45	30	10	No	East side of Willow Swamp

**SAMPLER** 

NTS MAP SHEET

DATE

SURVEY TYPE: S=Soll; SS=Sill; R=Rock Chip

DEPTH: Measured in molers.

HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, LL Light.

MATERIAL: T TH; Co. Colluvium. A. Alluvium. F. Fluvial. GF. Glacio@uvial. O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

-Outcrop on 1+50S between 15+50W and 15+90W is andesit? with intrusive stringers.

			GENERAL LOCATION	Sheslay, NWB	C				DATE NTS MAP SHEET	Sept 1 104J0	9-20, 2008 12			•		
			LOCATION	NTS UTM GRID EAST_WEST	Survey-type	Depth	Horizon	Colour	Malorial	% Gravel	% Organic_	Clay	SIN	Sand	Bedrock	Remarks
1			1+00S	13+50W	Soil	0.30	В	Brn	Till	30	5	30	25	10	No	Cobble(basal)? till
2			1+00S	13+00W	Soil	0.35	с	Yel-Brn	Till	20	5	20	35	20	No	Flat Spruce-Poplar Area
]			1+00S	12+50W	Soil	0.40	В	Yel-Brn	Cobble Till	15	5	20	40	20	No	Popiar Slope.
4			1+00S	12+00W	Soil	0.30	В?	Yel-Brn	Till	20	5	20	35	20	No	Willow Swamp at 11+85W
5			1+00S	11+50W	Soil	0.30	В	Yel-Brn	Till	20	5	20	30	25	No	Dry Ck at 11+75W
۰.			0+79S	11+00W	Soil	0.20	С	Brn	Rocky Till	30	5	15	40	10	Subcrop	? Swamp Edge-Rocky Slope
,		Π	2+50S	17+50W	Soil	0.30	В	Brn	Talus/Till	10	10	50	25	5	No	BelowOC. Some Brick Red Frags
			2+50S	18+00W	Soil	0.30	В	Brn	Till	10	5	20	40	25	No	SI. red cast to soil.
,			2+50S	18+50W	Soil	0.30	В	Brn	Till	10	5	20	40	25	No	Poplar Slope
10			2+50S	19+00W	Soil	0.30	В	Brn	Till	10	5	20	40	25	No	Poplar Slope.

SAMPLER

E. Ostensoe/T. Lisle

SURVEY TYPE: S=Sol; SS=Silt; R=Rock Chip DEPTH: Measured in meters.

PROJECT

HAT

HORIZON: Marked A, B, or C

COLOUR: Br. Brown, Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, LL Light.

MATERIAL: T Till; Co, Colluvium, A. Alluvium, F. Fluvial, GF. Gladofluvial, O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized tragments,

CLAY-SILT-SAND: Low to moderate to high estimates.

Note: Line 1+00S is mainly willow bog from 11+00W-12+00W. 1+00S at 11+00W is 61M north of 1+50S/11+00W and is in bog. Sample taken at 0+79S-11+00W

**GEOCHEMICAL DATA** 

				P. G	ROJECT ENERAL LOCATION	HAT Sheslay, NWI	BC				SAMPLER DATE NTS MAP SHEET	E. Ostenso Sept. 20, 2 104J012	oe/T. Lisle 2008					
				L N	OCATION	NTS UTM GRID EAST WEST	Survey-type	Depth	Horizon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Remarks
,	T	Π			2+50S	19+50W	Soil	0.30	В	Brn	Till	<10	10	20	40	25	No	Bedrock at 19+15W
					2+50S	20+00W	Soil	0.25	В	Brn	Till	20	10	15	30	25	N0	Poplar Slope.
,			1		2+50S	20+50W	Soil	0.25	В	Brn	Till	10	10	20	40	20	No	Poplar Slope.
4					2+50S	21+00W	Soil	0.25	В	Brn	Till	15	10	20	45	10	No	As Above.
5					2+00S	21+00W	Soil	0.20	В	Brn	Till	15	10	20	45	10	No	Popiar Slope
•	•		T		2+00S	20+50W	Soil	0.30	в	Brn	Till	15	10	20	45	10	No	Poplar Slope
,					2+00S	20+00W	Soil	0.25	В	Brn	Till	15	10	20	45	10	No	Poplar Slope. GPS WP #9
					2+00S	19+50W	Soil	0.40	В	Brn	Till	15	10	25	40	10	N0	As Above-Sm. South Gulley
9			-		2+00S	19+00W	Soil	0.35	в	Brn	Till	20	10	20	40	10	Near?	Frags of Diorite w weak Py.
10					2+00S	18+50W	Soil	0.25	В	Brn	Till	10	10	25	40	15	No	Poplar Slope.

**GEOCHEMICAL DATA** 

SURVEY TYPE: S=Solt; SS=Silt; R=Rock Chip

DEPTH: Measured in meters.

HORIZON: Marked A.B. or C

COLOUR: Br. Brown, Bl. Black, R. Red, G. Grey, O. Orange, Dk. Dark, LL Light.

MATERIAL: T Till; Co. Colluvium. A. Alkuvium. F. Fluvial. GF. Gladofluvial. O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

Tills mainly of uniform colour.

		PROJECT GENERAL LOCATIO		HAT אאזא Sheslay. NWBC		-			SAMPLER DATE NTS WAP SHEET	E. Ostensoe/T.Lisle Sept. 20-21/08 104J012						
			LOCATION	NTS UTM GRID EAST_WEST	Survey-type	Depih	Horizon	Colour	Material	% Gravel	% Organic	Clay	Silt	Sand	Bedrock	Remarks
1			2+00S	18+00W	Soil	0.20	C?	Dk Brn	Talus Fines	65	10	5	10	10	Subcro	p? Angular Frags. Probably s⊔bcrop
2			2+00S	17+50W	Soil	0.10	А	Black	Soil	30	10	10	35	15	Yes	Pyroxenite/Gabbro +fine sulphides on Fr. + dyke
t			1+00S	17+50W	Soil	0.25	В	Brn	Till	10	10	20	40	20	Yes	Sm. Diorite oc.
4			1+00S	18+00W	Soil	0.30	В	Brn	GF	40	10	10	10	30	No	Sm. diorite OC 15 M North
5	$\prod$		1+00S	18+50W	Soil	0.25	В	Brn	GF-Till	25	10	15	25	25	No	Diorite Outcrop 30M north
			1+00S	19+00W	Soil	0.30	В	Brn	Washed Till	20	10	15	30	25	No	Limonitic Mafic cobbles.
,			1+00S	19+50W	Soil	0.25	В	Brn	Till	15	10	15	40	20	No	Poplar Slope. GPS WP 11
			1+00S	20+00W	Soil	0.30	В	Brn	Washed Til	20	10	15	40	15	No	Poplar Slope
•			1+00S	20+50W	Soil	0.35	В	Brn	Till	20	10	15	40	15	No	Few Cobbles+ Sm. brick- red frags.
10			1+00S	21+00W	Soil	0.35	В	Brn	??	15	10	25	30	20	No	As Above.at 1+00S-20+50W

GEOCHEMICAL DATA

SURVEY TYPE: S=Soli; SS=Sill; R=Rock Chip

DEPTH: Messured in meters.

HORIZON: Marked A, B, or C

.

Т

COLOUR: Br. Brown, Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, Ll. Light.

MATERIAL: T TH; Co. Colluvium, A. Alluvium, F. Fluvial, GF, Glaciofluvial, O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

		PROJECT GENERAL LOCATION	HAT Sheslay, NWE	3C				SAMPLER DATE	E.Oste	nsoe/T.Lisl 0-21/08	e				
		LOCATION	NTS UTM GRID EAST WEST	Survey-type	Depth	Horlzon	Colour	NTS MAP SHEET Material	104J01	% Organic	Ciay	SIK	Sand	Bedrock	Remarks
		1+50\$	21+00W	Soil	0.35	В	Brn	Till	20	5	30	30	15	No	Poplar slope
2		1+50S	20+50W	Soil	0.35	В	Brn	GF/Till	20	5	30	30	15	No	Rounded to sub angular frags. Local limonitic frags.
3		1+50S	20.00W	Soil	0.25	в	Brn	Till	20	5	30	30	15	No	FG Volc. Frags in hole
4		1+50S	19+50W	Soil	0.30	В	Brn	Till	15	5	25	40	15	No	Few cobbles-Poplar Slope
5		1+50S	19+00W	Soil	0.30	В	Brn	Till	10	5	35	35	15	No	Poplar Slope
۰ ه		1+50S	18+50W	Soil	0.25	В	Red-Brr	Till	5	5	20	50	20	No	Poplar Slope.
,		1+50S	18+00W	Soil	0.25	В	Dk Brn	Till	5	5	40	35	15	Yes	Pyrox+ Gabbro OC
		1+505	17+50W	Soil	0.25	В	Dk Brn	Till ?	20	5	25	30	20	Yes	On Outcrop.
					ļ				 				ļ		
10															

E.Ostensoe/T.Lisle

GEOCHEMICAL DATA

SURVEY TYPE: S=Soll; SS=Sill; R=Rock Chip

DEPTH: Measured in melers,

.

HORIZON: Marked A, B, or C

COLOUR; Br. Brown, Bl. Black, R. Red. G. Grey, O. Orange, Dk. Dark, LL Light,

MATERIAL: T TIII; Co. Colluvium, A. Alluvium, F. Fluvial, GF. Gladofluvial, O. Organic.

ORGANICS: Visual estimate of organic content.

GRAVEL: Estimate of Gravel sized fragments.

CLAY-SILT-SAND: Low to moderate to high estimates.

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### APPENDIX 4 EXPLORATION EXPENDITURES.

### Hat Claims, Geochemical Survey, September 15 to 25, 2008

wages, 2 (0, 5400.00/day x 100ays 50,00	0.00
Analyses: 65 soil samples: Acme laboratory. \$1,40	5.00
Aircraft. Dease Lake-Hatchau Lake. Two x Return trip \$2,44	7.24
Camp Costs. 2@ \$70.00/day x 10 \$1,40	0.00
Vehicle Rental. \$ 31	4.14
Gasoline \$40	0.54
Radiotelephone: \$ 10	0.00
Report: \$80	<u>0.00</u>

Total:

\$14, 866.38

T.E. Lisle, P.Eng.

E.O Ostensoe, P. Geo.

### APPENDIX 5 GPS Observations,

Hat Project, 2008 Assessment Report, GPS Recordings.

Note: Readings taken with a Garmin E Trex GPS device, and are not corrected. T.E. Lisle data.

Waypoint.	Location.	Elev.	Easting	Northing.
1	Camp	1,005M	0346630	6,453,999
2	2+00S/11+00W	969M	0345914	6,453,452
3	1+50S/12+50W	970M	0345764	6,453,493
4	1+50S/16+50W	932M	0345384	6,453,460
5	Same as WP 4?	925M	0345385	6,453,465
6	1+00S/14+25W	980M	0345584	6,453,508
7	1+00S/11+00W	949M	0345915	6,453,550
8	2+00S/20+00W	787M	0345080	6,453,325
9	2+00S/20+00W	787M	0345053	6,453,379
10	2+00S/17+00W	865M	0345341	6,453,388
11	1+00S/19+50W	846M	0345092	6,453,518*
12	1+00S/19+50W	846M	0345092	6,453,518*
13	1+50S/21+00W	796M	0344944	6,453,459
14	Gossan Ck**	854M	0346309	6,453,550

### E.A. Ostensoe data.

024	Camp.	1,006M	0346633	6,454,003
025	2+00S/11+00W	948M	0345923	6,453,575
026	1+50S/13+50W	955M	0345679	6,453,484
027	0+79S/11+00W	948M	0345923	6,453,575
028	Furthest S on Gossan Ck	794M	034626?	6,453,165

Gossan Creek Sample Locations.(Talus Fines)

TF1	Gossan Creek, East side.	. Talus F	ines from East sid	le of Creek across
	approx 0.25M on shear t	rending	024°. Location is s	outh of WP 29 (+- 30M)?.
029(TF2)	Limonitic Shear-1.5M	898M	0346325	6,453,302
030(TF3)	W.Side Ck.340° lim. Sh.(0.30M)	881M	0346329	6,453,334
031(TF4)	E. side 1.4M Clayey Lim Colluvium	873M	0346349	6,453,437
032(TF5)	W. Side. 0.40M, (345° shear?)	939M	0346339	6,453,453
033(TF6)	E.side. Limy chalcedonic tuff. 1.5M	945 M	0346344	6,453,468
ote:	Due to steen annuan slaner	and con	onv cover in Costa	Crock GPS readings

Note: Due to steep canyon slopes and canopy cover in Gossan Creek, GPS readings may be suspect.